Canon

imageRUNNER ADVANCE 6275 / 6265 / 6255 Series

Service Manual

REVISION 0

1 Product Overview
2 Technology
3 Periodic Service
4 Parts Replacement and Clearning
5 Adjustment
6 Troubleshooting
7 Error Code
8 Service Mode
9 Installation
Appendix

Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

Corrections

This manual may contain technical inaccuracies or typographical errors due to improvements or changes in products. When changes occur in applicable products or in the contents of this manual, Canon will release technical information as the need arises. In the event of major changes in the contents of this manual over a long or short period, Canon will issue a new edition of this manual.

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Caution

Use of this manual should be strictly supervised to avoid disclosure of confidential information.

Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Explanation
	Check.
	Check visually.
	Check the noise.
	Disconnect the connector.
	Connect the connector.
	Remove the cable/wire from the cable guide or wire saddle.
	Set the cable/wire to the cable guide or wire saddle.
	Remove the screw.
	Tighten the screw.

Symbols	Explanation
	Remove the claw.
	Insert the claw.
	Use the bundled part.
	Push the part.
	Plug the power cable.
	Turn on the power.

The following rules apply throughout this Service Manual:

1. Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.

   In the diagrams, ▮▮▮▮ represents the path of mechanical drive; where a signal name accompanies the symbol, the arrow ⟶ indicates the direction of the electric signal.
   The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.

2. In the digital circuits, '1' is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low". (The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when '0'.

   In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.
All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine.

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Safety Precautions

- CDRH Act
- Laser Safety
- Handling of Laser System
- Turn power switch ON
- Safety of Toner
- Notes When Handling a Lithium Battery
- Notes Before it Works Serving
- Points to Note at Cleaning

imageRUNNER ADVANCE

6075/6065/6055 Series

CDRH Act

The Center for Devices and Radiological Health of the US Food and Drum Administration put into force regulations concerning laser products on August 2, 1976. These regulations apply to laser products manufactured on and after August 1, 1976, and the sale of laser products not certified under the regulations is banned within the Untied States. The label shown here indicates compliance with the CDRH regulations, and its attachment is required on all laser products that are soled in the United States.

CANON INC.
30-2,SHIMOMARUKO,3-CHOME,OHTA-KU,TOKYO,
146.JAPAN

MANUFACTURED :

THIS PRODUCT CONFORMS WITH DHHS RADIATION
PERFORMANCE STANDARD 21CFR CHAPTER1
SUBCHAPTER J.

F-0-1

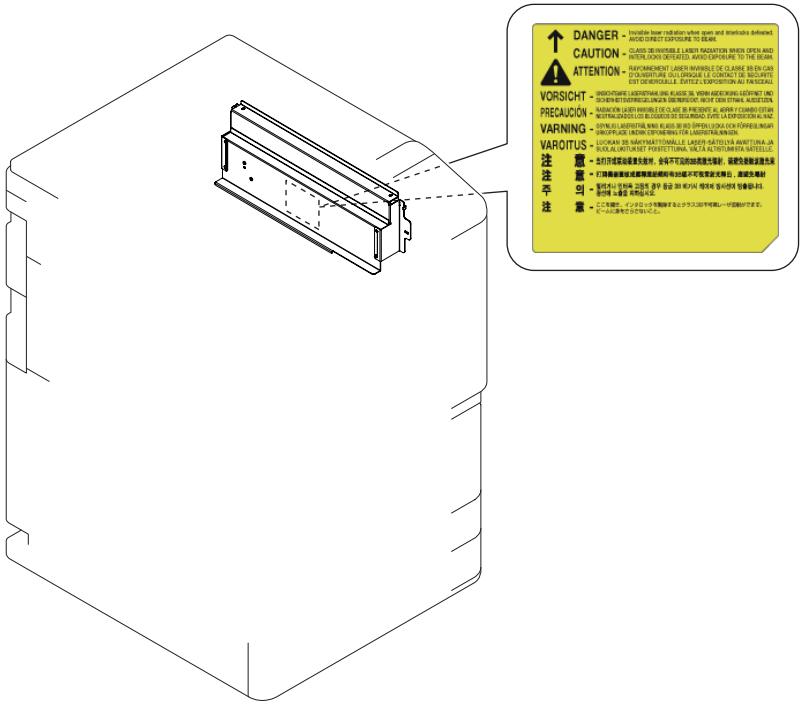
A different description may be used for a different product.

Laser Safety

Laser beam radiation may pose a danger to the human body. A laser scanner mounted on the machine is sealed with the protection housing and external cover to prevent the laser beam from leaking to the outside. The laser beam never leaks out of the scanner as far as users operate the machine normally.
This product is certificated as a Class 1 laser product under IEC60825-1:2007.

Handling of Laser System

When servicing the area around the laser assembly, be sure to turn off the main power.
The machine's covers that can reflect laser light are identified by means of a warning label (Figure). If you must detach a cover showing the label, be sure to take extra caution during the work.



F-0-2

Turn power switch ON

The machine is equipped with 2 power switches: main power switch and control panel power switch.
The machine goes on when the main power switch is turned on (i.e., other than in low power mode, sleep mode).

Do not turn off the main power switch while the progress bar is indicated, during which access is made to the HDD. If deprived of power, the HDD can suffer a fault (E602).

F-0-3

Safety of Toner

About Toner

The machine's toner is a non-toxic material made of plastic, iron, and small amounts of dye.

Do not throw toner into fire. It may cause explosion.

Toner on Clothing or Skin

- If your clothing or skin has come into contact with toner, wipe it off with tissue; then, wash it off with water.
- Do not use warm water, which will cause the toner to jell and fuse permanently with the fibers of the cloth.
- Tonner is easy to react with plastic material, avoid contact with plastic.

Notes When Handling a Lithium Battery

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Notes Before it Works Serving

At servicing, be sure to turn OFF the power source according to the specified steps and disconnect the power plug.

Points to Note at Cleaning

When performing cleaning using organic solvent such as alcohol, be sure to check that the component of solvent is vaporized completely before assembling.

1 Product Overview

- Product Lineup
- Features
- Specifications
- External View/Internal View
- Operation

Product Lineup

Main Body

imageRUNNER ADVANCE 6275 / 6265 / 6255

F-1-1

The underlined numerical value indicates the print speed (ppm: print per minute).

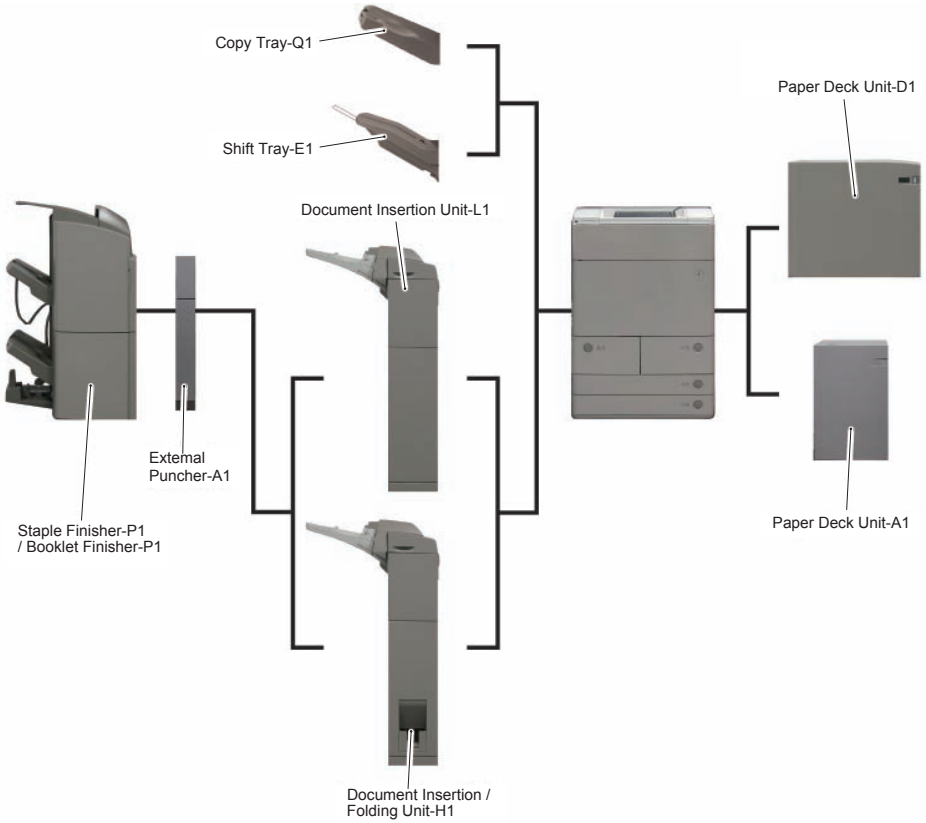
	imageRUNNER ADVANCE 6275	imageRUNNER ADVANCE 6265	iimageRUNNER ADVANCE 6255
Print speed	75 ppm	65 ppm	55 ppm
Positioning	Target machine: iR5075		
Control Panel	Flat Control Panel * Option: Upright Control Panel		
HDD	Standard: 160 GB, Maximum: 1 TB		
Communication method with pickup/delivery option Pickup/delivery option	IPC (Inter Process Communication)		

T-1-1

Pickup/Delivery System Option

Applicable Option for Each Model

Combination



F-1-2

Required Options/Conditions

Pickup System Options

Product name	Required options, conditions, etc.
Paper Deck Unit-A1	Pickup method: retard method Pickup capacity: 3,500 sheets (80 g/m^2) Paper type: thin paper, plain paper, heavy paper, color paper, recycled paper, pre-punched paper Paper size: A4, B5, LTR Paper weight: 52 to 220 g/m^2 Double feed detection: not available
Paper Deck Unit-D1	Pickup method: retard method Pickup capacity: 3,500 sheets (80 g/m^2) Paper type: thin paper, plain paper, heavy paper, color paper, recycled paper, pre-punched paper Paper size: A4, B5, LTR Paper weight: 52 to 220 g/m^2 Double feed detection: not available
Cassette Heater Unit-38	For cassette of main body CLA, CAUS, CSPL, CHK, CCN, CKBS, TAIWAN only
Paper Deck Heater Unit-A1	Option for Paper Deck Unit-A1/D1 CMJ, CLA, CSPL, CHK, CCN, CKBS, TAIWAN only In the 230V areas other than the areas above, this is set as a service part.

T-1-2

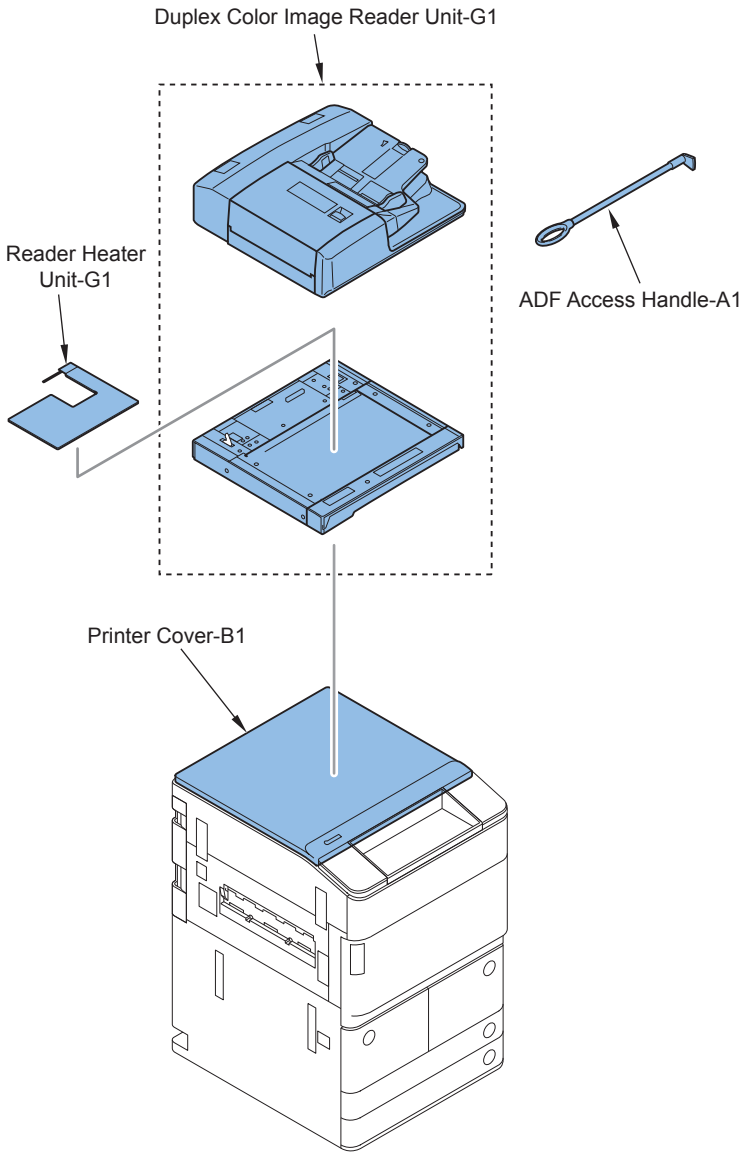
Delivery System Options

Product name (Japan)	Required options, conditions, etc.
Shift Tray-E1	Using with delivery-related options is not available. Paper size: A3 to A5R, postcard Paper weight: 52 to 256 g/m^2 Tray capacity: 500 sheets (80 g/m^2) Other than CUSA, CCI, CLA
Copy Tray-Q1	Using with delivery-related options is not available. Paper weight: 52 to 256 g/m^2 Tray capacity: 250 sheets (80 g/m^2)
Document Insertion Unit-L1	Staple Finisher/Booklet Finisher is required at the downstream side. Pickup capacity: 100 sheets x 1 bin Paper type: plain paper/recycled paper/color paper/heavy paper/coated paper Paper size: B5 to 13” x 19.2” Paper weight: 60 to 256 g/m^2 Other than CMJ, CCN, CKBS, TAIWAN
Paper Folding Insertion Unit-H1	Folding Unit + Insertion Unit Staple Finisher/Booklet Finisher is required at the downstream side. <Folding Unit> Folding type: Z-Fold, C-Fold, Half Fold, Accordion Z-Fold, Double Parallel Fold Paper type: thin paper, plain paper, color paper, recycled paper Paper size: A4R to 11” x 17” (at folding), B5 to 13” x 19.2” (at through pass) Paper weight: 60 to 105g/m^2 (Double Parallel Fold: 52 to 90g/m^2) <Insertion Unit> Pickup capacity: 100 sheets x 1 bin Paper type: thin paper, plain paper, heaby paper, color paper, recycled paper, index paper, coated paper Paper size: A3 to B5 Paper weight: 60 to 256 g/m^2
Staple Finisher-P1	Paper weight: 52 to 256 g/m^2 Maximum stacking capacity: 4000 sheets Staple: Type: 100 sheets (A4, B5, LTR)
Booklet Finisher-P1	Paper weight: 52 to 256 g/m^2 Maximum stacking capacity: 4000 sheets Saddle: 16-sheet saddle stitching Staple: 100 sheets
External 2-hole Puncher-A1	Option for Staple Finisher-P1/Booklet Finisher-P1. 2 holes / 3 holes (Inch) Paper size: A3 to B5 Paper weight: 52 to 256 g/m^2 Other than CUSA, CCI
External 2/3-hole Puncher-A1	Option for Staple Finisher-P1/Booklet Finisher-P1. 2 holes (AB) Paper size: 11" x 17" to LTR, A3 to B5 Paper weight: 52 to 256 g/m^2 CUSA, CCI, CLA, CSPL, CKBS, CAUS only
External 2/4-hole Puncher-A1	Option for Staple Finisher-P1/Booklet Finisher-P1. FRN, 2 holes / 4 holes Paper size: A3, A4 Paper weight: 52 to 256 g/m^2 CEL only
External 4-hole Puncher-A1	Option for Staple Finisher-P1/Booklet Finisher-P1. SWE, 4 holes Paper size: A3, A4 Paper weight: 52 to 256 g/m^2 CEL only
Staple-D2	Saddle Staple Cartridge. Option for Booklet Finisher-P1.
Staple-D3	Saddle Staple Cartridge. Option for Booklet Finisher-P1.
Staple-J1	Plain Staple Cartridge. Option for Staple Finisher-E1/Booklet Finisher-P1.

T-1-3

Scanning System Options

Required Options and Conditions



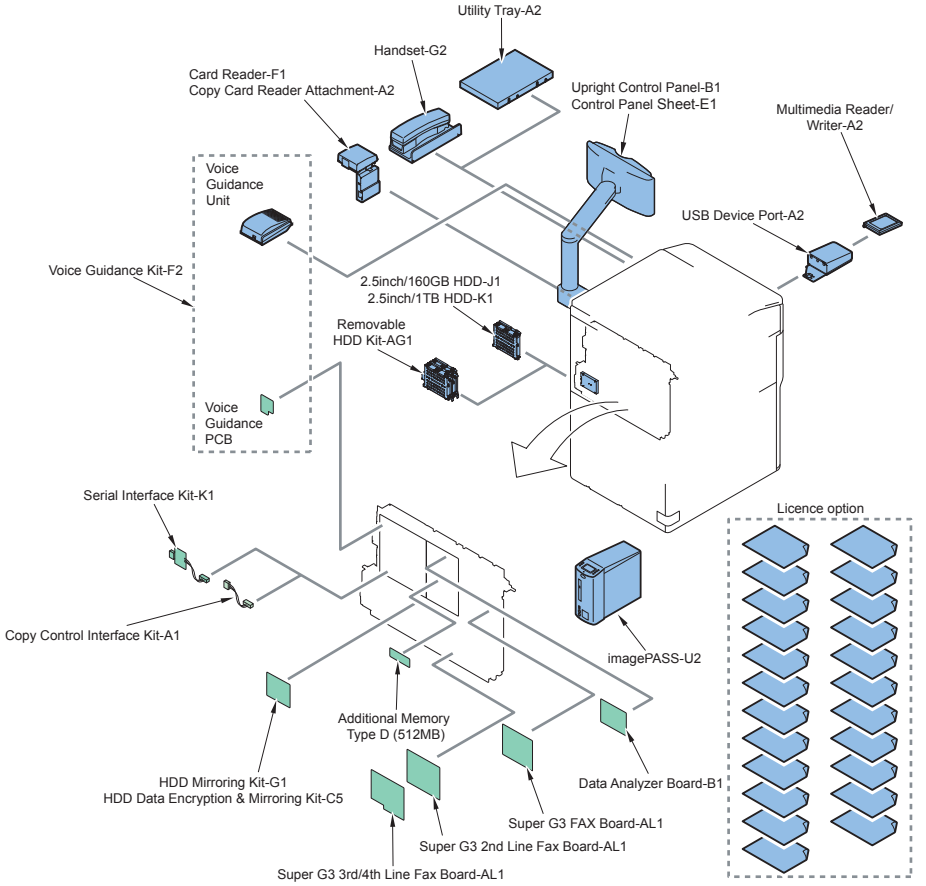
F-1-3

Product name	Required options, conditions, etc.
Duplex Color Image Reader Unit-G1	Simultaneous 2-sided scanning B/W (1-sided/2-sided): 600 dpi=120/120 ipm, 300 dpi: 120/200 ipm Color (1-sided/2-sided): 600 dpi=51/51 ipm, 300 dpi:85/100 ipm Paper weight: <1-sided> AB configuration: 38 to 220 g/m^2, Inch configuration: 50 to 220 g/m^2 <2-sided> 50 to 220 g/m^2 Color original, or color-mixed original: 64 to 220 g/m^2 Stacking capacity: Max. 300 sheets
Reader Heater Unit-G1	Option for Color Image Reader Unit-C1/Duplex Color Image Reader Unit-C1 CMJ, CLA, CSPL, CHK, CCN, CKBS, TAIWAN only In the 230V areas other than the areas above, this is set as a service part.
ADF Access Handle-A1	It is the cover to be installed at the top of the host machine when using this equipment as a printer model.
Printer Cover-C1	It is the handle to support opening and closing the Feeder.

T-1-4

Function Expansion System Options

Required Options and Conditions



F-1-4

Hardware Products

Product name	Required options, conditions, etc.
Utility Tray-A2	Using with Handset-G2 is not available. No particular options and conditions are required.
Card Reader-F1	Copy Card Reader Installation Kit-A2 is required. Using with Serial Interface Kit-K1 and Control Interface Kit-A1 is not available.
Copy Card Reader Installation Kit-A2	Required when Card Reader-F1 is installed.
Upright Control Panel-B1	Control Panel Sheet-E1 is required.
Control Panel Sheet-E1	Required when Upright Control Panel-B1 is installed.
Super G3 FAX Board-AL1	No particular options and conditions are required.
Super G3 2nd Line Fax Board-AL1	Super G3 FAX Board-AL1 is required.
Super G3 3rd/4th Line Fax Board-AL1	Super G3 FAX Board-AL1 is required. Other than CEL, CCN
Handset-G2	Super G3 FAX Board-AL1 and Super G3 2nd Line Fax Board-AL1 is required. Using with Utility Tray-A2 is not available. CMJ only
imagePASS-U2	No particular options and conditions are required. Other than CMJ, CCN
Voice Guidance Kit-F2	Product configuration consists of Voice Guidance PCB and Voice Guidance Unit. No particular options and conditions are required. Other than CMJ, CCN, CKBS
USB Device Port-A2	The product consists of USB 2 Port HUB PCB only. No particular options and conditions are required. CEL is standard
Expansion Memory Type D (512 MB)	Required when 600 dpi color scanning (mode) is used.
Option HDD (2.5 inch/160 GB)-J1	This is used when the mirroring function is used with HDD Mirroring Kit-G1 or HDD Data Encryption & Mirroring Kit-C5. No particular options and conditions are required.
Option HDD (2.5 inch/1 TB)-K1	This is used when the mirroring function is used with HDD Mirroring Kit-G1 or HDD Data Encryption & Mirroring Kit-C5. No particular options and conditions are required.
HDD Mirroring Kit-G1	Option HDD (2.5 inch/160 GB)-J1 or Option HDD (2.5 inch/1 TB)-K1 are required.
HDD Data Encryption/Mirroring Kit-C5	When performing mirroring, either the Option HDD (160 GB) or the Option HDD (1 TB) is required. Other than CCN
Removable HDD Kit-AG1	No particular options and conditions are required.
Document Scan Lock Kit-B1	No particular options and conditions are required. CMJ only
Multimedia Reader/Writer-A2	USB Device Port-A2 is required. To support the CF, the SD memory and the memory stick.
SC Kit	CMJ only

Product name	Required options, conditions, etc.
Serial Interface Kit-K1	Required when the coin manager is connected. Using with Card Reader-C1 and Control Interface Kit-A1 is not available.
Control Interface Kit-A1	Required when the coin manager is connected. Using with Card Reader-C1 and Serial Interface Kit-K1 is not available.

T-1-5

License Products

At the time of installation, obtain the license number according to the license certificate included. Then, enter the obtained license number from the Control Panel of the machine, so that the applicable functions are enabled.

There is no physical installation work at the time of installation.

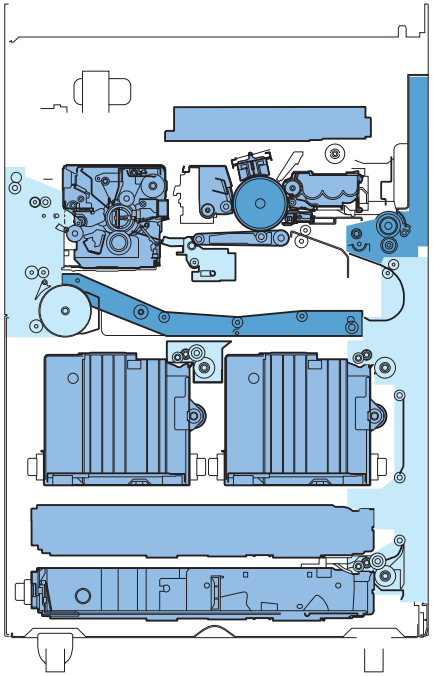
Product name	Required options, conditions, etc.
PCL Printer Kit-AV1	No particular options and conditions are required. Other than CMJ
PS Printer Kit-AV1	No particular options and conditions are required.
Scan Solution Function Expansion Kit-B1	No particular options and conditions are required. CMJ only
Universal Send Advanced Feature Set-D1	No particular options and conditions are required. Other than CMJ
Universal Send Advanced Feature Set-E1	No particular options and conditions are required. CEL only
Universal Send Advanced Feature Set-F1	No particular options and conditions are required. CUSA only
Universal Send Security Feature Set-D1	No particular options and conditions are required. Other than CMJ, CCN
Direct Print Kit (for PDF/XPS)-H1	No particular options and conditions are required. CMJ, CUSA, CLA, CCI, CEL, CAUS only
Direct Print Kit (for PDF)-H1	No particular options and conditions are required. CLA, CSPL, CHK, CCN, CKBS, TAIWAN, CAUS only
Direct Print Kit (for XPS)-H1	No particular options and conditions are required. CLA, CSPL, CHK, CCN, CKBS, TAIWAN, CAUS only
Universal Send Digital User Signature Kit-C1	No particular options and conditions are required. Other than CMJ
Remote Operation Kit-B1	No particular options and conditions are required.
Data Erase Kit-C1	No particular options and conditions are required.
Encrypted Secure Print Software-D1	No particular options and conditions are required. CUSA, CLA, CCI only
Encrypted Printing Software-D1	No particular options and conditions are required. CEL, CAUS, CSPL, TAIWAN only
Barcode Printing Kit-D1	Other than CMJ
Secure Watermark-B1	No particular options and conditions are required.
Document Scan Lock Kit-B1	No particular options and conditions are required.

Product name	Required options, conditions, etc.
ACCESS MANAGEMENT SYSTEM KIT-B1	No particular options and conditions are required. Other than CKBS, TAIWAN
Web Access Software-H1	No particular options and conditions are required. Other than CKBS
iR-ADV Security Kit-G1 for IEEE 2600.1 Common Criteria Certification	-
Remote Fax Kit-A1	No particular options and conditions are required.

T-1-6

Features

Product Features

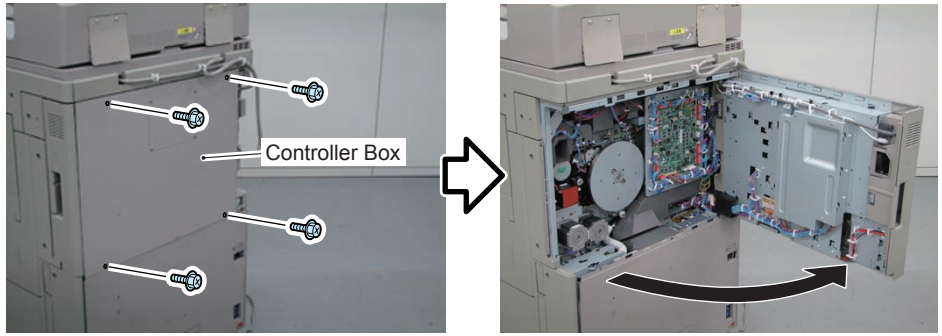


● Easy access to the parts at rear side.

Since the Rear Cover Unit becomes a retractable unit, access to the parts at rear side becomes easy.

<Procedure>

1) Remove the Reader Communication Cable.
2) Remove the 4 screws, and open the Controller Box in the direction of the arrow.



F-1-7

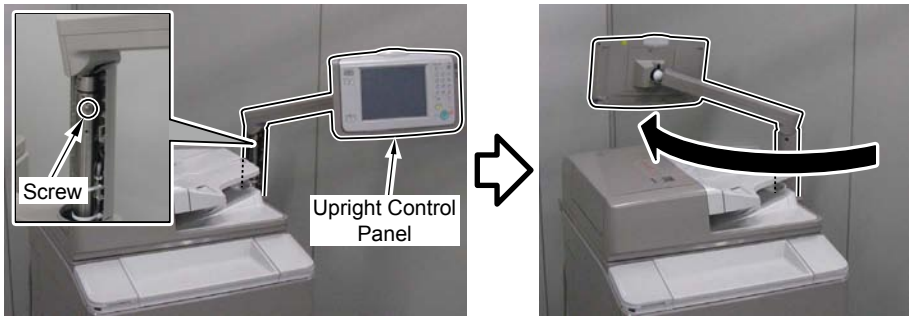
● Performing the rear side work while checking the Control Panel is possible.

By removing the Rotation Control Screw, the Upright Control Panel can be turned to face the rear side.

As a result, service modes can be executed even when working at rear side of the host machine.

<Procedure>

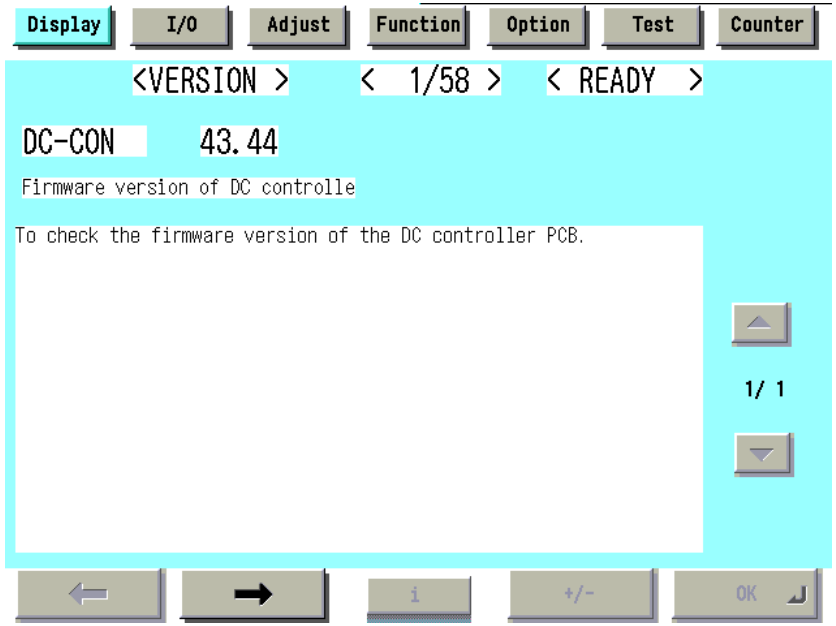
1) Remove the Shaft Support Cover Left.
2) Remove the screw on the arm, and turn the Upright Control Panel.



F-1-8

■ New Service Mode

The description of each service mode item is displayed as well.



F-1-9

● Features

- Display in natural language
- Items in the following are newly classified: COPIER > OPTION > BODY
- Enhanced I/O information
- The description of error code/alarm code is displayed.
- Easy switching of screens between Level 1 and Level 2

■ Improved Upgrading Operability

Almost all of the options (*) can be upgraded through the host machine.

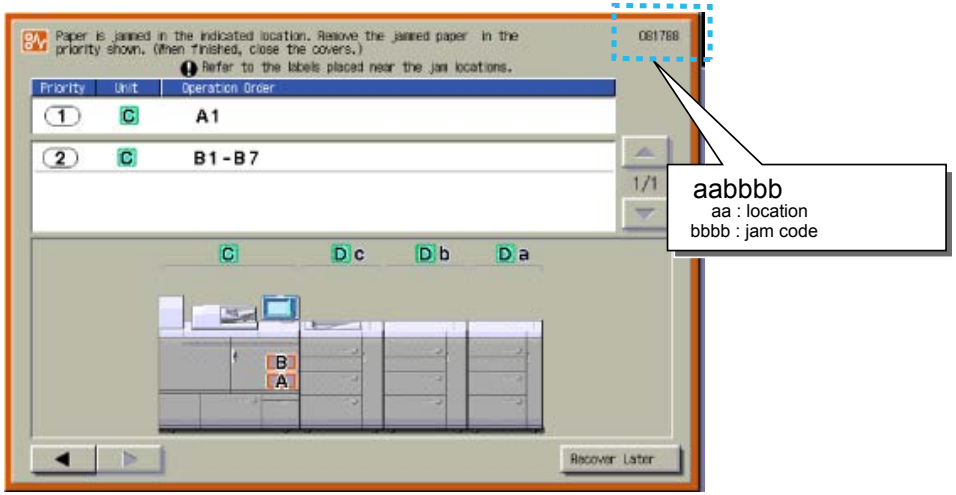
SST (Service Support Tool) is used for upgrading as usual.

* Excluding Paper Folding Insertion Unit-H1, Document Insertion Unit-L1 and External Puncher-A1.

Jam/Error Code Display Specifications

Jam code:

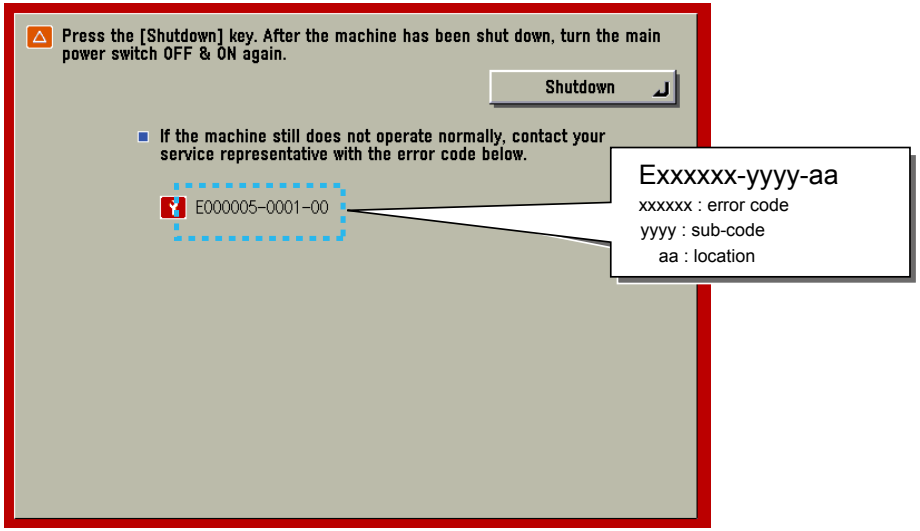
"Jam Code" and "Location Code" are displayed on the screen (*) when a paper jam occurs.



F-1-10

Error Code

In addition to "Error Code", "Location Code" is displayed on the screen when an error occurs.



F-1-11

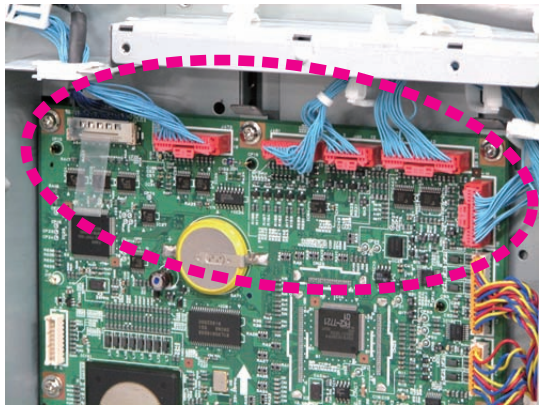
Service Advantage

When a paper jam/error is reported from the user:

- The location (device) causing the paper jam/error can be recognized before the service technician is sent to the user site.
- The cause of trouble and the remedy can be assumed before the service technician is sent to the user site.
- Depending on the cause of the paper jam (e.g.: paper jam caused by wrong operation by the user), support can be completed by the phone or e-mail. (Visiting to the user site is not necessary.)

Applying New Connectors

Newly-configured connectors are used as some connectors on each controller PCB.



F-1-12

Purpose

To prevent the communication error caused by the following:

- Loose/removed connector due to vibration during transportation
- Half-inserted connector at the time of servicing

Features

- Easy to hold because the overall height of the housing is high
- Connector can be inserted with less force.
- Lever lock mechanism is available. Proper insertion can be determined by the sound (“snap”) or clicky feeling

Points to Caution when Inserting/Removing the Connector:

Be sure to keep the following in mind during work:

- While releasing the lever lock of the housing, hold the housing to remove. Do not hold and pull the harness.
- Be sure to insert the connector while the housing is positioned straight to the socket. Do not tilt the housing to insert the connector.

Specifications

Product Specifications

Installation type of main body		Console type
Photoreceptor		84 diameter amorphous silicon drum
Exposure method		Laser exposure method
Charging method		Corona + Grid charging method
Developing method		Dry, 1-component toner projection
Transfer method		Transfer Roller method
Separation method		Transfer Belt
Pickup method	Right/Left Deck	Separation retard method
	Upper/Lower Cassette	Separation retard method
	Multi-purpose Tray	Simple retard method
Cleaning method	Drum	Cleaning Blade
	ETB	Cleaning Blade + Brush Roller
Fixing method		Heat Roller method
Delivery method		Face-up/face-down
Type of toner		Magnetic negative toner
Toner supplying method		Set-on
Toner level detection function		Yes
Leading edge image margin		2.5 mm +/- 1.5 mm
Left image margin		2.5 mm +/- 1.5 mm
Warm-up time	At power-on	30 sec. or less
	At sleep recovery	30 sec. or less
First copy time		iR ADV 6075: 3.1 sec. or less
		iR ADV 6065/6055: 3.3 sec. or less
Image gradations		256 gradations
Print resolution		Max. 1,200 dpi x 1,200 dpi
Maximum image guaranteed area		292 x 426.8mm
Maximum printable area		292 x 625mm
Paper Type	Deck	52 to 220 g/m^2 thin paper, plain paper, heavy paper, color paper, recycled paper, pre-punched paper, letterhead bond paper
	Cassette	52 to 220 g/m^2 Deck feedable type, index paper, tab paper
	Multi-purpose Tray	52 to 256 g/m^2 Deck feedable type, transparency, labels, tracing paper, postcard

Installation type of main body		Console type
Paper size	Deck	A4, B5, LTR
	Cassette	A3, B4, A4, A4R, B5, B5R, A5R, 8K, 16K, LDR, LGL, LTR, LTRR, STMTR, EXE
	Multi-purpose Tray	Cassette feedable size
		Postcard, Reply Postcard, 4 on 1 Postcard
		Custom paper size (100 x 139.7 mm to 297.4 x 431.8 mm)
		Long length paper (297 mm to 630 mm)
Pickup capacity	Right/Left Deck	1,500 sheets each (80 g/m^2)
	Upper/Lower Cassette	550 sheets each (80g/m^2)
	Multi-purpose Tray	100 sheets (80 g/m^2)
Duplex method		Through pass
Memory capacity		For Main Controller 1: 1GB (standard)
		For Main Controller 2: Max. 1GB (standard: 512MB, option: 512MB)
HDD capacity		Standard: 160GB, Maximum: 1 TB
Environment temperature range		2.5 to 37.5 deg C
Environment humidity range		5 to 80 %RH
Environment atmosphere range		610 to 1013 hpa (0.6 to 1.0 atmospheric pressure)
Noise	At the time of printing	75 dB or less
Rated power supply		See “Power Supply Specifications”.
Maximum power consumption	At the time of printing	2.0 kW or less (100 V) 1.92 kW or less (120-127 V) 2.2 kW or less (220-240 V)
	At the time of sleep	1.0 W or less (100 V, 120-127 V) 1.5 W or less (220-240 V)
	At the time of save mode	240 Wh or less
Dimension		645 (W) x 770 (D) x 1,220 (H) mm (including ADF)
Weight		237 kg (including Reader + ADF)

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Power Supply Specifications:

Product name	Power supply source (number of cables)	Japan		North America		Europe		Asia		Australia	
		V (V)	I (A)	V (V)	I (A)	V (V)	I (A)	V (V)	I (A)	V (V)	I (A)
imageRUNNER ADVANCE 6275 / 6265/ 6255	Power outlet (1)	100	15	120 -127	16	220 -240	10	220 -240	10	220 -240	10
Paper Deck Unit-A1	Main body	-	-	-	-	-	-	-	-	-	-
Paper Deck Unit-D1	Main body	-	-	-	-	-	-	-	-	-	-
Document Insertion Unit-L1	Power outlet (1)	-	-	100 -240	5	100 -240	5	100 -240	5	100 -240	5
Paper Folding Insertion Unit-H1	Power outlet (1)	100 -240	5	100 -240	5	100 -240	5	100 -240	5	100 -240	5
Shift Tray-E1	Main body	-	-	-	-	-	-	-	-	-	-
Staple Finisher-P1	Main body	-	-	-	-	-	-	-	-	-	-
Saddle Finisher-P1	Main body	-	-	-	-	-	-	-	-	-	-
External Puncher-A1	Finisher	-	-	-	-	-	-	-	-	-	-
Duplex Color Image Reader Unit-G1	Main body	-	-	-	-	-	-	-	-	-	-
Color Image Reader Unit-G1	Main body	-	-	-	-	-	-	-	-	-	-

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Weight and Size

Product name	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
imageRUNNER ADVANCE 6275 / 6265/ 6255	645	770	1220	235
Paper Deck Unit-A1	323	583	570	37
Paper Deck Unit-D1	601	621	570	57
Document Insertion Unit-L1	746	793	1407	61
Paper Folding Insertion Unit-H1	662	679	1242	76
Copy Tray-Q1	420	382	175	1.1
Shift Tray-E1	366	547	256	4.2
Staple Finisher-P1	649	656	1121	48
Booklet Finisher-P1	756	656	1121	70.5
External Puncher-A1	107	615	367	7.7
Duplex Color Image Reader Unit-G1	635	605	253	39.4
Color Image Reader Unit-G1	635	605	253	37.4

T-1-9

Productivity (Print Speed)

Unit: sheets / minute

Paper type	Size	Feeding direction (mm)	Width direction (mm)	imageRUNNER ADVANCE 6275				imageRUNNER ADVANCE 6265				imageRUNNER ADVANCE 6255			
				Deck / Cassette		Multi-purpose Tray		Deck / Cassette		Multi-purpose Tray		Deck / Cassette		Multi-purpose Tray	
				1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided
Plain paper (64 to 90 g/m^2) Thin paper (52 to 63 g/m^2)	A5R	210.0	148.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5
	STMTR	215.9	139.7	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5
	B5	182.0	257.0	75.0	37.5	53.0	26.5	65.0	32.5	46.0	23.0	55.0	27.5	46.0	23.0
	A4	210.0	297.0	75.0	37.5	53.0	26.5	65.0	32.5	46.0	23.0	55.0	27.5	46.0	23.0
	LTR	215.9	279.4	75.0	37.5	53.0	26.5	65.0	32.5	46.0	23.0	55.0	27.5	46.0	23.0
	B5R	257.0	182.0	63.0	31.5	47.0	23.5	55.0	27.5	41.0	20.5	46.0	23.0	41.0	20.5
	LTRR	279.4	215.9	58.0	29.0	45.0	22.5	50.0	25.0	39.0	19.5	43.0	21.5	39.0	19.5
	A4R	297.0	210.0	54.0	27.0	44.0	22.0	47.0	23.5	38.0	19.0	40.0	20.0	38.0	19.0
	LGLR	355.6	215.9	45.0	22.5	38.0	19.0	39.0	19.5	33.0	16.5	39.0	19.5	33.0	16.5
	B4R	364.0	257.0	45.0	22.5	38.0	19.0	39.0	19.5	33.0	16.5	39.0	19.5	33.0	16.5
	K8R	390.0	270.0	37.0	18.5	33.0	16.5	32.0	16.0	29.0	14.5	32.0	16.0	29.0	14.5
	A3R	420.0	297.0	37.0	18.5	33.0	16.5	32.0	16.0	29.0	14.5	32.0	16.0	29.0	14.5
	LDRR	431.8	279.4	37.0	18.5	33.0	16.5	32.0	16.0	29.0	14.5	32.0	16.0	29.0	14.5
Heavy 1 (91 to 180 g/m^2) Heavy 2 (181 to 220 g/m^2) Heavy 3 (221 to 256 g/m^2)	A5R	210.0	148.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5
	STMTR	215.9	139.7	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5	35.0	17.5
	B5	182.0	257.0	65.0	32.5	53.0	26.5	56.0	28.0	46.0	23.0	55.0	27.5	46.0	23.0
	A4	210.0	297.0	65.0	32.5	53.0	26.5	56.0	28.0	46.0	23.0	55.0	27.5	46.0	23.0
	LTR	215.9	279.4	65.0	32.5	53.0	26.5	56.0	28.0	46.0	23.0	55.0	27.5	46.0	23.0
	B5R	257.0	182.0	54.0	27.0	47.0	23.5	47.0	23.5	41.0	20.5	46.0	23.0	41.0	20.5
	LTRR	279.4	215.9	50.0	25.0	45.0	22.5	43.0	21.5	39.0	19.5	43.0	21.5	39.0	19.5
	A4R	297.0	210.0	46.0	23.0	44.0	22.0	40.0	20.0	38.0	19.0	40.0	20.0	38.0	19.0
	LGLR	355.6	215.9	39.0	19.5	39.0	19.5	33.0	16.5	33.0	16.5	33.0	16.5	33.0	16.5
	B4R	364.0	257.0	39.0	19.5	39.0	19.5	33.0	16.5	33.0	16.5	33.0	16.5	33.0	16.5
	K8R	390.0	270.0	32.0	16.0	32.0	16.0	27.0	13.5	27.0	13.5	27.0	13.5	27.0	13.5
	A3R	420.0	297.0	32.0	16.0	32.0	16.0	27.0	13.5	27.0	13.5	27.0	13.5	27.0	13.5
	LDRR	431.8	279.4	32.0	16.0	32.0	16.0	27.0	13.5	27.0	13.5	27.0	13.5	27.0	13.5
Bond	LTR	215.9	279.4	35.0	17.5	35.0	17.5	30.0	15.0	30.0	15.0	30.0	15.0	30.0	15.0
	LTRR	279.4	215.9	24.0	12.0	24.0	12.0	21.0	10.5	21.0	10.5	21.0	10.5	21.0	10.5
Tab	A4	222.7	297.0	59.0	-	-	-	51.0	-	-	-	51.0	-	-	-
	LTR	228.6	279.4	59.0	-	-	-	51.0	-	-	-	51.0	-	-	-
Transparency	A4	210.0	297.0	-	-	-	-	-	-	80.0	-	-	-	80.0	-
	LTR	215.9	279.4	-	-	53.0	-	-	-	46.0	-	-	-	46.0	-

T-1-10

Paper Type

Following shows the types of usable papers.
See the table below for the custom paper size.

Type	Feeding direction (mm)	Width direction (mm)
Custom paper size 0-1	148.0 to 487.7	100 to 139.6
Custom paper size 0-2	148.0 to 181.9	139.7 to 330.2
Custom paper size 1-1	182.0 to 209.9	139.7 to 181.9
Custom paper size 1-2	210.0 to 279.2	
Custom paper size 1-3	279.3 to 432.0	
Custom paper size 1-4	432.1 to 487.7	
Custom paper size 2-1	182.0 to 209.9	182.0 to 210.0
Custom paper size 2-2	210.0 to 279.2	
Custom paper size 2-3	279.3 to 432.0	
Custom paper size 2-4	432.1 to 487.7	
Custom paper size 3-1	182.0 to 209.9	210.1 to 297.0
Custom paper size 3-2	210.0 to 279.2	
Custom paper size 3-3	279.3 to 432.0	
Custom paper size 3-4	432.1 to 487.7	
Custom paper size 5 (long length)	487.8 to 630.0	139.7 to 330.2

T-1-11

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Thin paper (52 to 63 g/m^2)	A3	420	297	Yes	-	-	Yes	Yes	-	Yes	Yes
	B4	364	257	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4R	297	210	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257	182	Yes	-	-	Yes	Yes	-	-	Yes
	B5	182	257	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210	148	Yes	-	-	Yes	Yes	-	-	-
	11x17	431.8	279.4	Yes	-	-	Yes	Yes	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	Yes	Yes	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	Yes	Yes	-	-	-
	E-OFFICIO	320	220	Yes	-	-	Yes	Yes	-	-	-
	B-OFFICIO	355	216	Yes	-	-	Yes	Yes	-	-	-
	M-OFFICIO	341	216	Yes	-	-	Yes	Yes	-	-	-
	A-OFFICIO	340	220	Yes	-	-	Yes	Yes	-	-	-
	A-LTR	220	280	Yes	-	-	Yes	Yes	-	-	-
	A-LTRR	280	220	Yes	-	-	Yes	Yes	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	Yes	Yes	-	-	-
	GLTR	203.2	266.7	Yes	-	-	Yes	Yes	-	-	-
	GLGL	330.2	203.2	Yes	-	-	Yes	Yes	-	-	-
	AFLS	337	206	Yes	-	-	Yes	Yes	-	-	-
	FLS	330.2	215.9	Yes	-	-	Yes	Yes	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	Yes	-	-	Yes	Yes	-	-	-
	K16	195	270	Yes	-	-	Yes	Yes	-	-	-
	K16R	270	195	-	-	-	Yes	Yes	-	-	-
	F4A	342.9	215.9	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-
	Custom paper size 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3	-	-	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	Yes	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	Yes	-	-	-	-	-	-	-

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Plain paper 1 (64 to 90 g/m^2) Recycled paper 1 (64 to 90 g/m^2) Color paper (64 to 90 g/m^2)	A3	420	297	Yes	-	-	Yes	Yes	-	Yes	Yes
	B4	364	257	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4R	297	210	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257	182	Yes	-	-	Yes	Yes	-	-	Yes
	B5	182	257	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210	148	Yes	-	-	Yes	Yes	-	-	-
	11x17	431.8	279.4	Yes	-	-	Yes	Yes	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	Yes	Yes	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	Yes	Yes	-	-	-
	E-OFFICIO	320	220	Yes	-	-	Yes	Yes	-	-	-
	B-OFFICIO	355	216	Yes	-	-	Yes	Yes	-	-	-
	M-OFFICIO	341	216	Yes	-	-	Yes	Yes	-	-	-
	A-OFFICIO	340	220	Yes	-	-	Yes	Yes	-	-	-
	A-LTR	220	280	Yes	-	-	Yes	Yes	-	-	-
	A-LTRR	280	220	Yes	-	-	Yes	Yes	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	Yes	Yes	-	-	-
	GLTR	203.2	266.7	Yes	-	-	Yes	Yes	-	-	-
	GLGL	330.2	203.2	Yes	-	-	Yes	Yes	-	-	-
	AFLS	337	206	Yes	-	-	Yes	Yes	-	-	-
	FLS	330.2	215.9	Yes	-	-	Yes	Yes	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	Yes	-	-	Yes	Yes	-	-	-
	K16	195	270	Yes	-	-	Yes	Yes	-	-	-
	K16R	270	195	-	-	-	Yes	Yes	-	-	-
	F4A	342.9	215.9	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-
	Custom paper size 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3	-	-	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	Yes	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	Yes	-	-	-	-	-	-	-

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Heavy paper 1 (91 to 180 g/m^2) Letterhead	A3	420	297	Yes	-	-	Yes	Yes	-	Yes	Yes
	B4	364	257	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4R	297	210	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257	182	Yes	-	-	Yes	Yes	-	-	Yes
	B5	182	257	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210	148	Yes	-	-	Yes	Yes	-	-	-
	11x17	431.8	279.4	Yes	-	-	Yes	Yes	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	Yes	Yes	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	Yes	Yes	-	-	-
	E-OFFICIO	320	220	Yes	-	-	Yes	Yes	-	-	-
	B-OFFICIO	355	216	Yes	-	-	Yes	Yes	-	-	-
	M-OFFICIO	341	216	Yes	-	-	Yes	Yes	-	-	-
	A-OFFICIO	340	220	Yes	-	-	Yes	Yes	-	-	-
	A-LTR	220	280	Yes	-	-	Yes	Yes	-	-	-
	A-LTRR	280	220	Yes	-	-	Yes	Yes	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	Yes	Yes	-	-	-
	GLTR	203.2	266.7	Yes	-	-	Yes	Yes	-	-	-
	GLGL	330.2	203.2	Yes	-	-	Yes	Yes	-	-	-
	AFLS	337	206	Yes	-	-	Yes	Yes	-	-	-
	FLS	330.2	215.9	Yes	-	-	Yes	Yes	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	Yes	-	-	Yes	Yes	-	-	-
	K16	195	270	Yes	-	-	Yes	Yes	-	-	-
	K16R	270	195	-	-	-	Yes	Yes	-	-	-
	F4A	342.9	215.9	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-
	Custom paper size 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3	-	-	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	Yes	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	Yes	-	-	-	-	-	-	-

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Heavy paper 2 (181 to 220 g/m^2)	A3	420	297	Yes	-	-	Yes	Yes	-	Yes	Yes
	B4	364	257	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4R	297	210	Yes	-	-	Yes	Yes	-	Yes	Yes
	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257	182	Yes	-	-	Yes	Yes	-	-	Yes
	B5	182	257	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	A5R	210	148	Yes	-	-	Yes	Yes	-	-	-
	11x17	431.8	279.4	Yes	-	-	Yes	Yes	-	Yes	Yes
	LGL	355.6	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	Yes	-	-	Yes	Yes	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	Yes	Yes	-	-	-
	E-OFFICIO	320	220	Yes	-	-	Yes	Yes	-	-	-
	B-OFFICIO	355	216	Yes	-	-	Yes	Yes	-	-	-
	M-OFFICIO	341	216	Yes	-	-	Yes	Yes	-	-	-
	A-OFFICIO	340	220	Yes	-	-	Yes	Yes	-	-	-
	A-LTR	220	280	Yes	-	-	Yes	Yes	-	-	-
	A-LTRR	280	220	Yes	-	-	Yes	Yes	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	Yes	Yes	-	-	-
	GLTR	203.2	266.7	Yes	-	-	Yes	Yes	-	-	-
	GLGL	330.2	203.2	Yes	-	-	Yes	Yes	-	-	-
	AFLS	337	206	Yes	-	-	Yes	Yes	-	-	-
	FLS	330.2	215.9	Yes	-	-	Yes	Yes	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	Yes	-	-	Yes	Yes	-	-	-
	K16	195	270	Yes	-	-	Yes	Yes	-	-	-
	K16R	270	195	-	-	-	Yes	Yes	-	-	-
	F4A	342.9	215.9	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 0-1, 0-2	-	-	Yes	-	-	-	-	-	-	-
	Custom paper size 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3	-	-	Yes	-	-	Yes	Yes	-	-	-
	Custom paper size 5 (long length)	-	-	Yes	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	Yes	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	Yes	-	-	-	-	-	-	-

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Heavy paper 3 (221 to 256 g/m^2)	A3	420	297	Yes	-	-	-	-	-	-	Yes
	B4	364	257	Yes	-	-	-	-	-	-	Yes
	A4R	297	210	Yes	-	-	-	-	-	-	Yes
	A4	210	297	Yes	-	-	-	-	-	-	Yes
	B5R	257	182	Yes	-	-	-	-	-	-	Yes
	B5	182	257	Yes	-	-	-	-	-	-	Yes
	A5R	210	148	Yes	-	-	-	-	-	-	-
	11x17	431.8	279.4	Yes	-	-	-	-	-	-	Yes
	LGL	355.6	215.9	Yes	-	-	-	-	-	-	Yes
	LTR	215.9	279.4	Yes	-	-	-	-	-	-	Yes
	LTRR	279.4	215.9	Yes	-	-	-	-	-	-	Yes
	STMTR	215.9	139.7	Yes	-	-	-	-	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	-	-	-	-	Yes
	OFFICIO	317.5	215.9	Yes	-	-	-	-	-	-	-
	E-OFFICIO	320	220	Yes	-	-	-	-	-	-	-
	B-OFFICIO	355	216	Yes	-	-	-	-	-	-	-
	M-OFFICIO	341	216	Yes	-	-	-	-	-	-	-
	A-OFFICIO	340	220	Yes	-	-	-	-	-	-	-
	A-LTR	220	280	Yes	-	-	-	-	-	-	-
	A-LTRR	280	220	Yes	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	-	-	-	-	-
	GLTR	203.2	266.7	Yes	-	-	-	-	-	-	-
	GLGL	330.2	203.2	Yes	-	-	-	-	-	-	-
	AFLS	337	206	Yes	-	-	-	-	-	-	-
	FLS	330.2	215.9	Yes	-	-	-	-	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	Yes	-	-	-	-	-	-	-
	K16	195	270	Yes	-	-	-	-	-	-	-
	K16R	270	195	-	-	-	-	-	-	-	-
	F4A	342.9	215.9	Yes	-	-	-	-	-	-	-
	Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3, 5 (long length)	-	-	Yes	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	Yes	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	Yes	-	-	-	-	-	-	-

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Transparency	A3	420	297	-	-	-	-	-	-	-	-
	B4	364	257	-	-	-	-	-	-	-	-
	A4R	297	210	Yes	-	-	-	-	-	-	-
	A4	210	297	Yes	-	-	-	-	-	-	-
	B5R	257	182	-	-	-	-	-	-	-	-
	B5	182	257	-	-	-	-	-	-	-	-
	A5R	210	148	-	-	-	-	-	-	-	-
	11x17	431.8	279.4	-	-	-	-	-	-	-	-
	LGL	355.6	215.9	-	-	-	-	-	-	-	-
	LTR	215.9	279.4	Yes	-	-	-	-	-	-	-
	LTRR	279.4	215.9	Yes	-	-	-	-	-	-	-
	STMTR	215.9	139.7	-	-	-	-	-	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	-	-	-	-	-	-	-	-
	OFFICIO	317.5	215.9	-	-	-	-	-	-	-	-
	E-OFFICIO	320	220	-	-	-	-	-	-	-	-
	B-OFFICIO	355	216	-	-	-	-	-	-	-	-
	M-OFFICIO	341	216	-	-	-	-	-	-	-	-
	A-OFFICIO	340	220	-	-	-	-	-	-	-	-
	A-LTR	220	280	-	-	-	-	-	-	-	-
	A-LTRR	280	220	-	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	-	-	-	-	-	-	-	-
	GLTR	203.2	266.7	-	-	-	-	-	-	-	-
	GLGL	330.2	203.2	-	-	-	-	-	-	-	-
	AFLS	337	206	-	-	-	-	-	-	-	-
	FLS	330.2	215.9	-	-	-	-	-	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	-	-	-	-	-	-	-	-
	K16	195	270	-	-	-	-	-	-	-	-
	K16R	270	195	-	-	-	-	-	-	-	-
	F4A	342.9	215.9	-	-	-	-	-	-	-	-
	Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3, 5 (long length)	-	-	-	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	-	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	-	-	-	-	-	-	-	-

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Labels	A3	420	297	Yes	-	-	-	-	-	-	-
	B4	364	257	Yes	-	-	-	-	-	-	-
	A4R	297	210	Yes	-	-	-	-	-	-	-
	A4	210	297	Yes	-	-	-	-	-	-	-
	B5R	257	182	Yes	-	-	-	-	-	-	-
	B5	182	257	Yes	-	-	-	-	-	-	-
	A5R	210	148	Yes	-	-	-	-	-	-	-
	11x17	431.8	279.4	Yes	-	-	-	-	-	-	-
	LGL	355.6	215.9	Yes	-	-	-	-	-	-	-
	LTR	215.9	279.4	Yes	-	-	-	-	-	-	-
	LTRR	279.4	215.9	Yes	-	-	-	-	-	-	-
	STMTR	215.9	139.7	Yes	-	-	-	-	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	-	-	-	-	-
	OFFICIO	317.5	215.9	Yes	-	-	-	-	-	-	-
	E-OFFICIO	320	220	Yes	-	-	-	-	-	-	-
	B-OFFICIO	355	216	Yes	-	-	-	-	-	-	-
	M-OFFICIO	341	216	Yes	-	-	-	-	-	-	-
	A-OFFICIO	340	220	Yes	-	-	-	-	-	-	-
	A-LTR	220	280	Yes	-	-	-	-	-	-	-
	A-LTRR	280	220	Yes	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	-	-	-	-	-
	GLTR	203.2	266.7	Yes	-	-	-	-	-	-	-
	GLGL	330.2	203.2	Yes	-	-	-	-	-	-	-
	AFLS	337	206	Yes	-	-	-	-	-	-	-
	FLS	330.2	215.9	Yes	-	-	-	-	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	Yes	-	-	-	-	-	-	-
	K16	195	270	Yes	-	-	-	-	-	-	-
	K16R	270	195	-	-	-	-	-	-	-	-
	F4A	342.9	215.9	Yes	-	-	-	-	-	-	-
	Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3, 5 (long length)	-	-	-	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	-	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	-	-	-	-	-	-	-	-

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Tracing	A3	420	297	Yes	-	-	-	-	-	-	-
	B4	364	257	Yes	-	-	-	-	-	-	-
	A4R	297	210	Yes	-	-	-	-	-	-	-
	A4	210	297	Yes	-	-	-	-	-	-	-
	B5R	257	182	Yes	-	-	-	-	-	-	-
	B5	182	257	Yes	-	-	-	-	-	-	-
	A5R	210	148	Yes	-	-	-	-	-	-	-
	11x17	431.8	279.4	Yes	-	-	-	-	-	-	-
	LGL	355.6	215.9	Yes	-	-	-	-	-	-	-
	LTR	215.9	279.4	Yes	-	-	-	-	-	-	-
	LTRR	279.4	215.9	Yes	-	-	-	-	-	-	-
	STMTR	215.9	139.7	Yes	-	-	-	-	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	-	-	-	-	-
	OFFICIO	317.5	215.9	Yes	-	-	-	-	-	-	-
	E-OFFICIO	320	220	Yes	-	-	-	-	-	-	-
	B-OFFICIO	355	216	Yes	-	-	-	-	-	-	-
	M-OFFICIO	341	216	Yes	-	-	-	-	-	-	-
	A-OFFICIO	340	220	Yes	-	-	-	-	-	-	-
	A-LTR	220	280	Yes	-	-	-	-	-	-	-
	A-LTRR	280	220	Yes	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	Yes	-	-	-	-	-	-	-
	GLTR	203.2	266.7	Yes	-	-	-	-	-	-	-
	GLGL	330.2	203.2	Yes	-	-	-	-	-	-	-
	AFLS	337	206	Yes	-	-	-	-	-	-	-
	FLS	330.2	215.9	Yes	-	-	-	-	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	Yes	-	-	-	-	-	-	-
	K16	195	270	Yes	-	-	-	-	-	-	-
	K16R	270	195	-	-	-	-	-	-	-	-
	F4A	342.9	215.9	Yes	-	-	-	-	-	-	-
	Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3, 5 (long length)	-	-	Yes	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	Yes	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	Yes	-	-	-	-	-	-	-

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Cotton (Bond)	A3	420	297	-	-	-	-	-	-	-	-
	B4	364	257	-	-	-	-	-	-	-	-
	A4R	297	210	-	-	-	-	-	-	-	-
	A4	210	297	-	-	-	-	-	-	-	-
	B5R	257	182	-	-	-	-	-	-	-	-
	B5	182	257	-	-	-	-	-	-	-	-
	A5R	210	148	-	-	-	-	-	-	-	-
	11x17	431.8	279.4	-	-	-	-	-	-	-	-
	LGL	355.6	215.9	-	-	-	-	-	-	-	-
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	-	-	Yes	Yes	-	Yes	Yes
	STMTR	215.9	139.7	-	-	-	-	-	-	-	-
	SRA3	450	320	-	-	-	-	-	-	-	-
	12x18	457.2	304.8	-	-	-	-	-	-	-	-
	EXEC	184.1	266.7	Yes	-	-	Yes	Yes	-	-	Yes
	OFFICIO	317.5	215.9	-	-	-	-	-	-	-	-
	E-OFFICIO	320	220	-	-	-	-	-	-	-	-
	B-OFFICIO	355	216	-	-	-	-	-	-	-	-
	M-OFFICIO	341	216	-	-	-	-	-	-	-	-
	A-OFFICIO	340	220	-	-	-	-	-	-	-	-
	A-LTR	220	280	-	-	-	-	-	-	-	-
	A-LTRR	280	220	-	-	-	-	-	-	-	-
	GLTR-R	266.7	203.2	-	-	-	-	-	-	-	-
	GLTR	203.2	266.7	-	-	-	-	-	-	-	-
	GLGL	330.2	203.2	-	-	-	-	-	-	-	-
	AFLS	337	206	-	-	-	-	-	-	-	-
	FLS	330.2	215.9	-	-	-	-	-	-	-	-
	13x19	482.6	330.2	-	-	-	-	-	-	-	-
	K8	390	270	-	-	-	-	-	-	-	-
	K16	195	270	-	-	-	-	-	-	-	-
	K16R	270	195	-	-	-	-	-	-	-	-
	F4A	342.9	215.9	-	-	-	-	-	-	-	-
	Custom paper size 0-1, 0-2, 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3, 5 (long length)	-	-	-	-	-	-	-	-	-	-
	Free size	182.2 to 487.7	100 to 297.0	-	-	-	-	-	-	-	-
	Free size (long length)	487.8 to 630.0	100 to 297.0	-	-	-	-	-	-	-	-
Tab paper	A4	210	297	-	-	-	Yes	Yes	-	-	Yes
	LTR	215.9	279.4	-	-	-	Yes	Yes	-	-	Yes

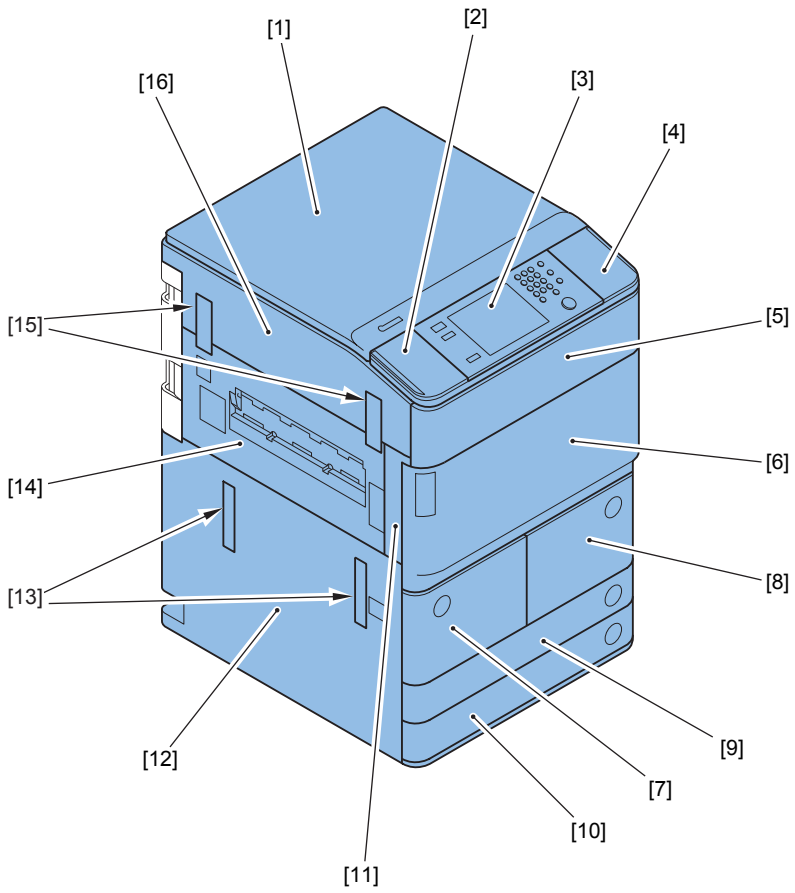
Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position							
				Multi-purpose Tray	Right Deck	Left Deck	Cassette 3	Cassette 4	Paper Deck-A1	Paper Deck-D1	Insertion Unit
Pre-Punched paper	A4	210	297	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
Postcard	Postcard	148	100	Yes	-	-	-	-	-	-	-
	Reply Postcard	200	148	Yes	-	-	-	-	-	-	-
	4 on 1 Postcard	200	296	Yes	-	-	-	-	-	-	-

T-1-12

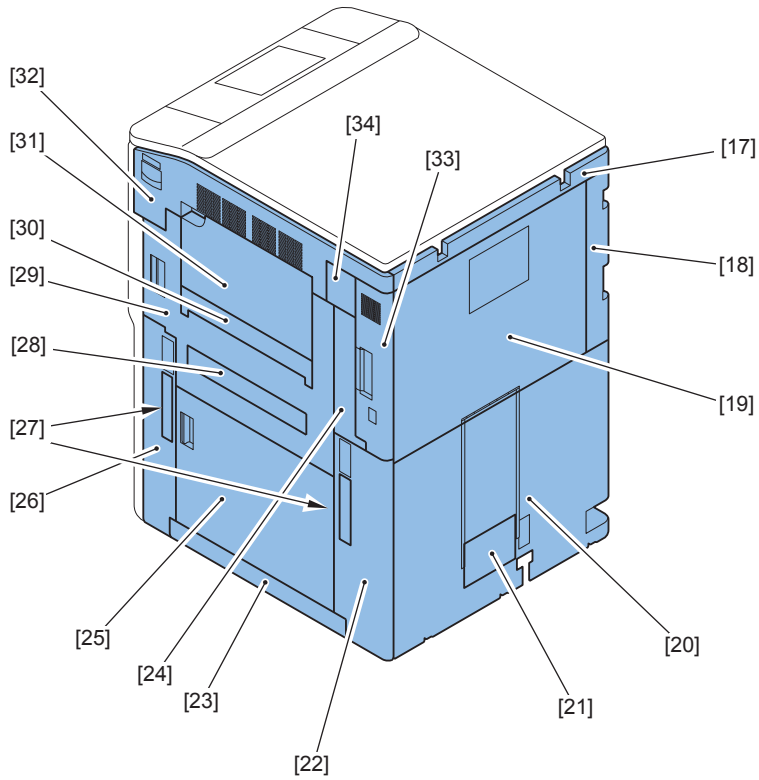
External View/Internal View

External View

External Cover



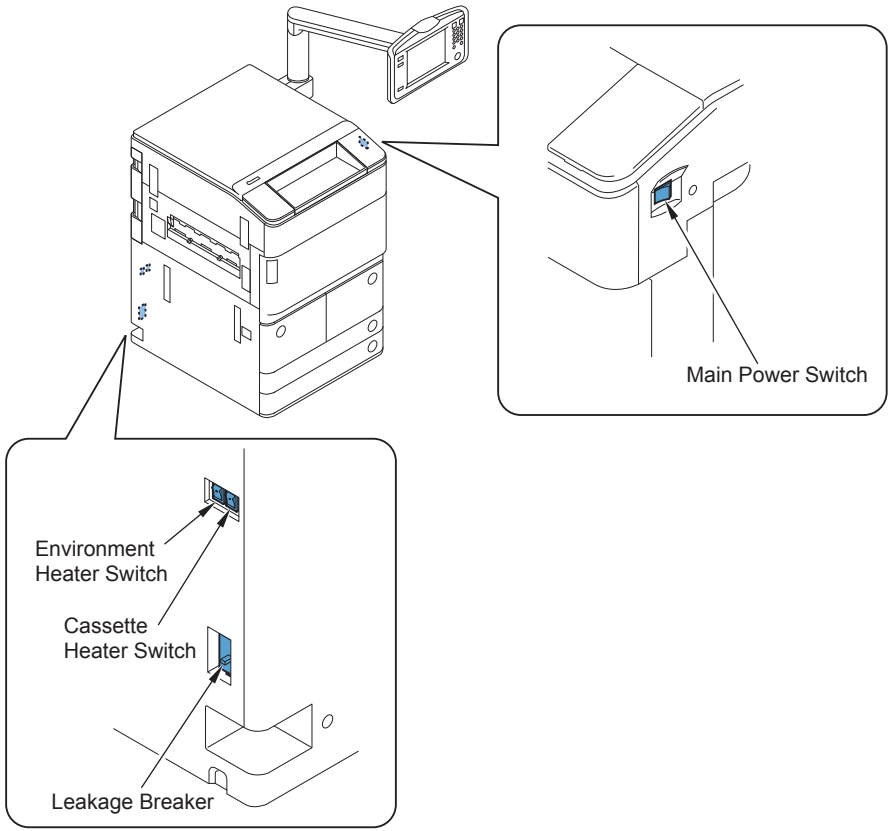
F-1-13



F-1-14

[1]	Upper Cover	[2]	Upper Left Cover
[3]	Control Panel	[4]	Upper Right Cover
[5]	Toner Exchange Cover	[6]	Front Cover
[7]	Deck Left Cover	[8]	Deck Right Cover
[9]	Cassette Front Cover	[10]	Cassette Front Cover
[11]	Left Front Cover	[12]	Left Lower Cover
[13]	Left Handle Cover	[14]	Delivery Cover
[15]	Finisher Connector Cover	[16]	Left Upper Cover
[17]	Upper Rear Cover	[18]	Left Rear Cover
[19]	Rear Upper Cover	[20]	Rear Lower Cover
[21]	Filter Cover	[22]	Waste Toner Container Cover
[23]	Right Lower Cover	[24]	Right Rear Cover 2
[25]	Vertical Path Cover	[26]	Right Front Cover
[27]	Right Handle Cover	[28]	Inner Cove
[29]	Right Cover	[30]	MP Pickup Tray Sub Cover
[31]	MP Pickup Tray	[32]	Right Upper Cover
[33]	Right Rear Cover 1	[34]	Right Rear Cover 2

Switches, I/F, Others

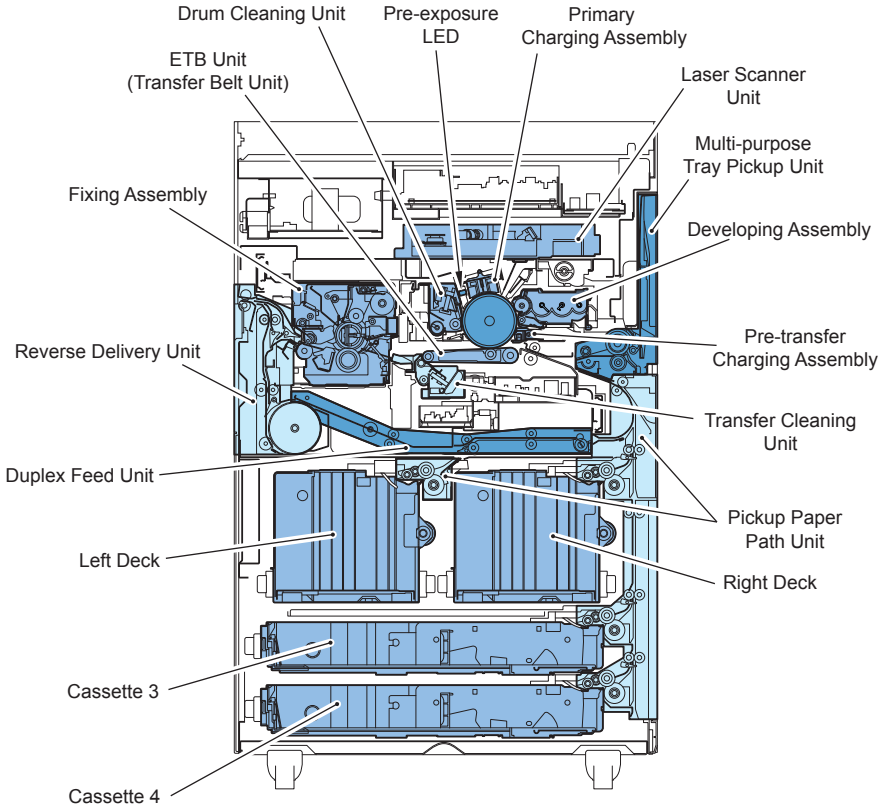


F-1-15

Be sure to perform the following procedure for checking the Leakage Breaker.

1) Turn OFF the main power switch and check that the Control Panel LED is off.
2) Using a pen point, press the test button of the breaker on the rear side of the machine.
3) Check that the breaker switch is OFF (O side).
4) Return the breaker switch to ON (I side).
5) Turn ON the main power switch.

Cross-Section View



F-1-16

Operation

Power Switch

Types of Power Switches

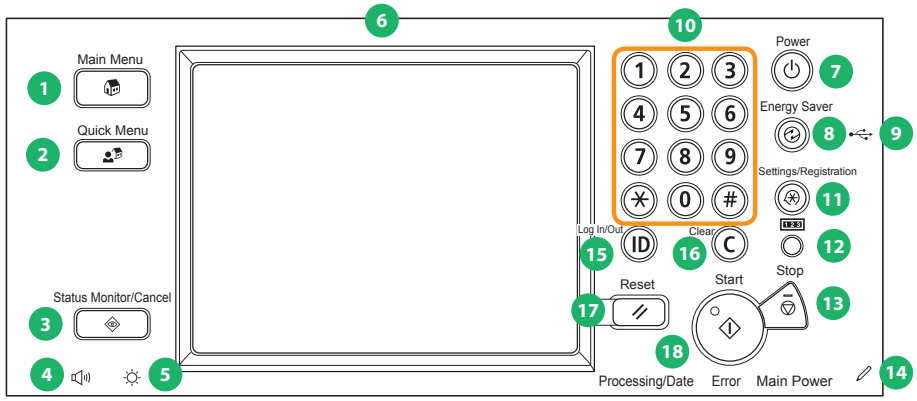
This machine has the Main Power Switch, the Control Panel Power Switch and the Environment Heater Switch.
Turning ON the Main Power Switch supplies the power in the usual case (except when the machine is in sleep mode).
The Environment Switch supplies or blocks the power to the Drum Heater, the Cassette Heater and the Reader Heater.

Points to Note on Turning ON/OFF the Power Switch

- Do not turn OFF the Main Power Switch while the progress bar (to be displayed when the power is turned ON) is displayed, which indicates access to the HDD.
- Be sure to turn OFF the Main Power Switch to cut the power (there is no need to perform the shutdown sequence which has been performed with the conventional machines).
- After turning OFF the power (after turning OFF the Main Power Switch), do not turn ON the Main Power Switch unless the screen disappears.
  Do not turn OFF the power during downloading.

Control Panel

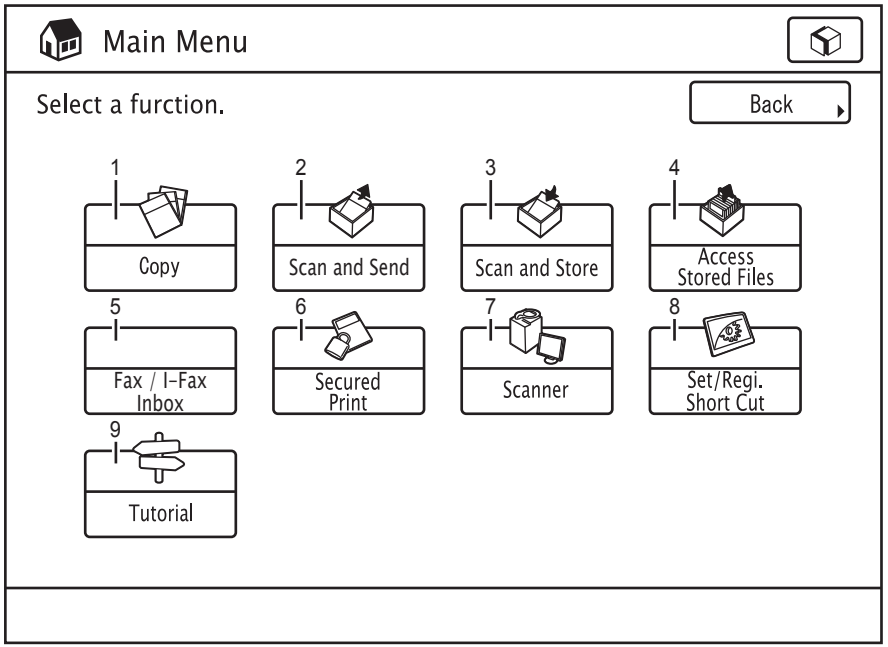
Control Panel



F-1-17

[1]	Main Menu Key	[10]	Numeric Key
[2]	Custom Menu Key	[11]	Settings/registration Key
[3]	Check/Stop Status Key	[12]	Check Counter Key
[4]	Volume Adjustment Key	[13]	Stop Key
[5]	Brightness Adjustment Key	[14]	Operation Pen
[6]	Touch Panel Display	[15]	ID Key
[7]	Control Panel Power Switch (Sub-power)	[16]	Clear Key
[8]	Energy Saver Key	[17]	Reset Key
[9]	USB Slot	[18]	Start Key

Main Menu



F-1-18

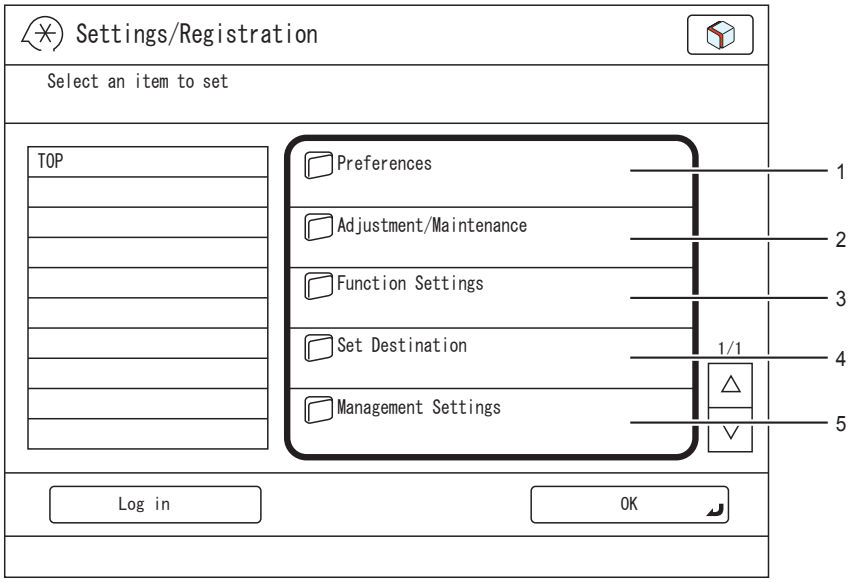
[1] Copy
[2] Scan and Send
[3] Scan and Save
[4] Access Stored Files
[5] Fax/I-Fax Inbox
[6] Secured Print
[7] Remote Scanner
[8] Shortcut to Settings/Registration
[9] Introduction to Useful Features

Differences in Main Menu

iR 7105/iR 5075 Series	iR ADVANCE 8105 / iR ADVANCE 6075 Series
Copy	Copy
Send/Fax	Scan and Send
Mail Box	Scan and Save (New)
	Access Stored Files (New)
	Fax/I-Fax Inbox
Menu Switch Key	-----
Print	Secured Print
Remote Scanner	Remote Scanner
-----	Shortcut to Settings/Registration (New)
(Easy NAVI)	Introduction to Useful Features
Web Browser	-----

T-1-13

Settings/Registration Menu



F-1-19

[1] Preferences
[2] Adjustment/Maintenance
[3] Function Settings
[4] Set Destination
[5] Management Settings

Differences in Settings/Registration Menu

iR 5075/5065/5055 Series	iR ADVANCE 6075/6065/6055 Series
Common Settings	Preferences
Timer Setting	
Adjustment/Cleaning	Adjustment/Maintenance
System Settings	Management Settings
Output Report	Function Settings
Copy Settings	
Send/Receive Settings	
Mail Box Settings	
Printer Settings	
Address Book Settings	Set Destination

T-1-14

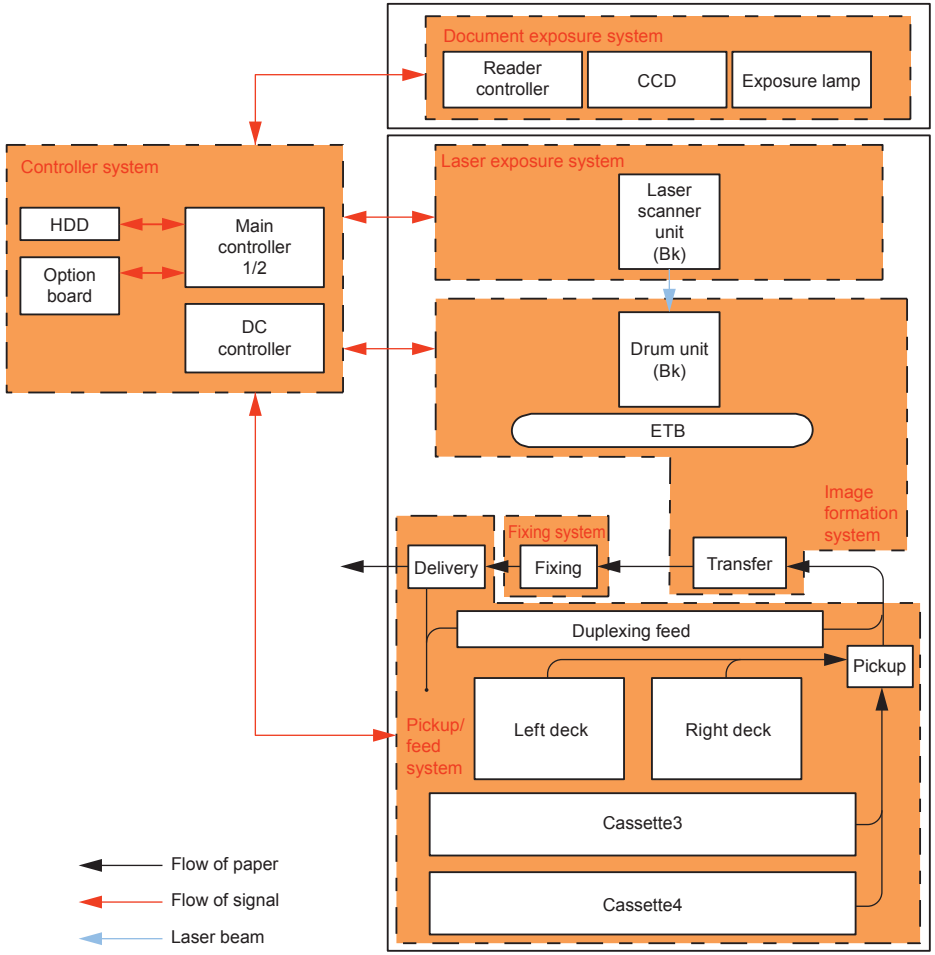
2 Technology

- Basic Configuration
- Main Controller
- Laser Exposure System
- Image Formation System
- Fixing
- Pickup / Feed System
- External Auxiliary System
- MEAP
- Embedded RDS
- Updater
- System Management Operations

Basic Configuration

Functional Configuration

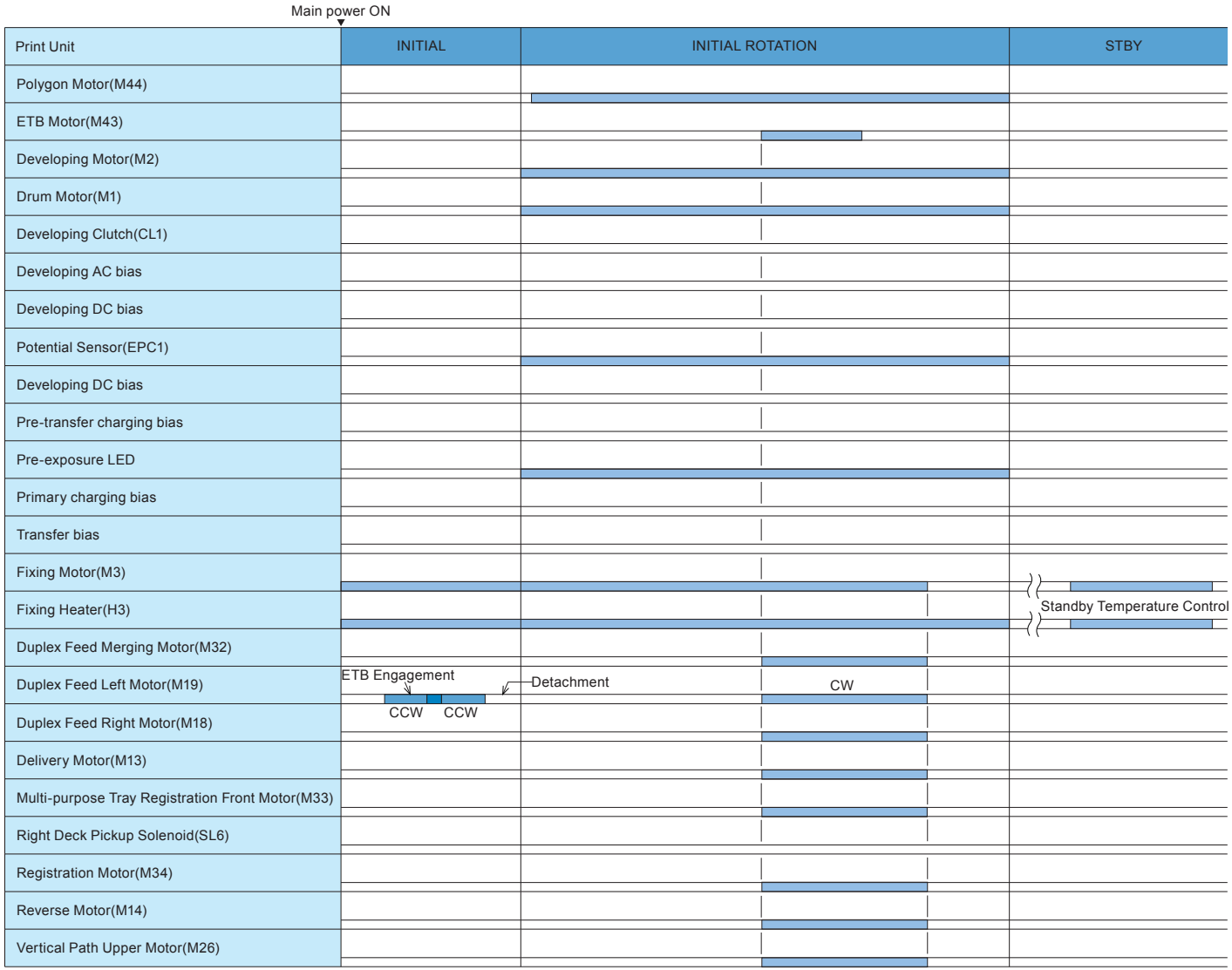
The machine may broadly be divided into the following functional system blocks; document exposure system block, controller system block, laser exposure system block, image formation system block, fixing system block and pickup/feed system block.



F-2-1

Basic Sequence

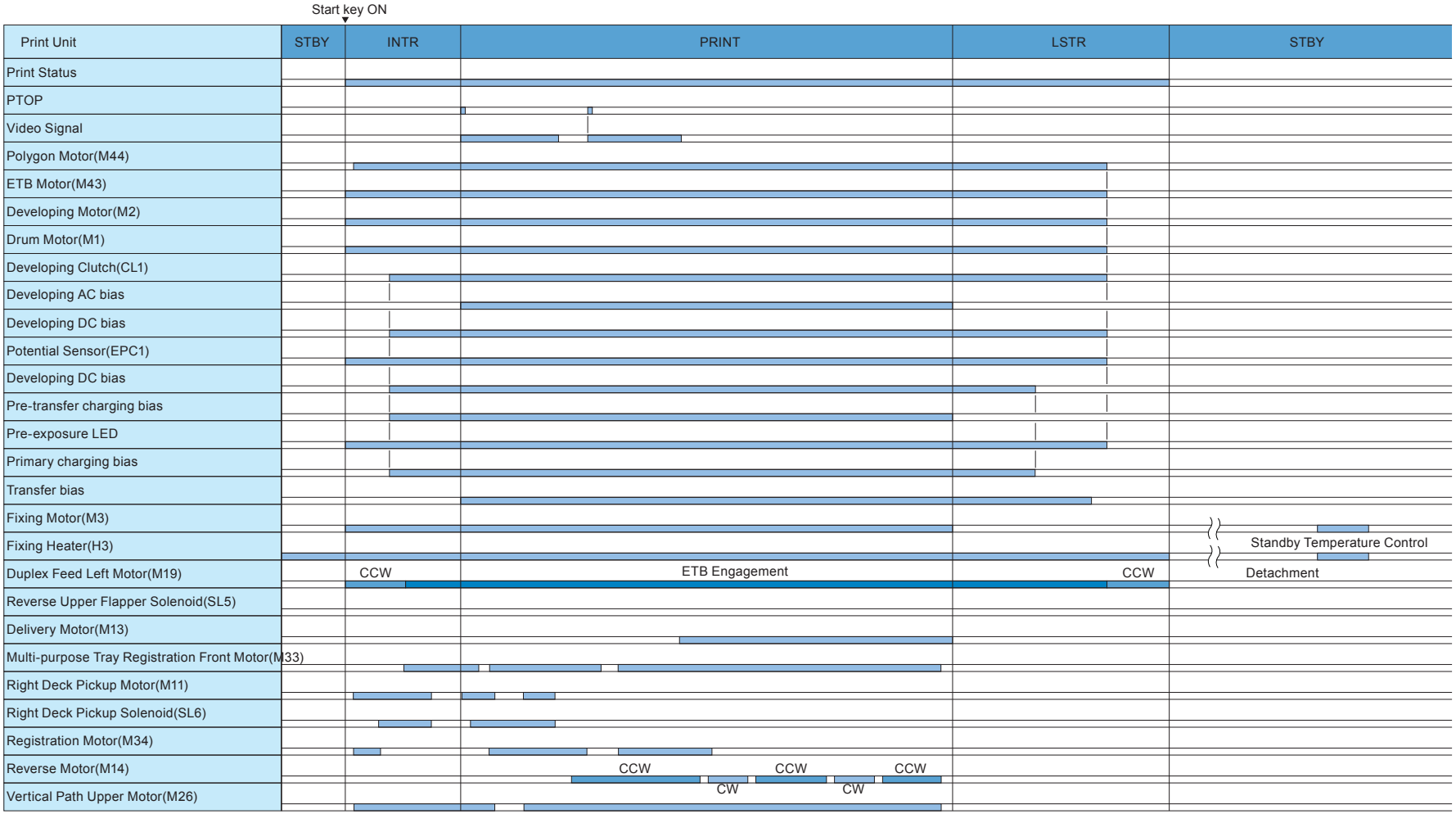
Basic sequence at power ON



* CW=Positive Rotation,CCW=Negative Rotation

F-2-2

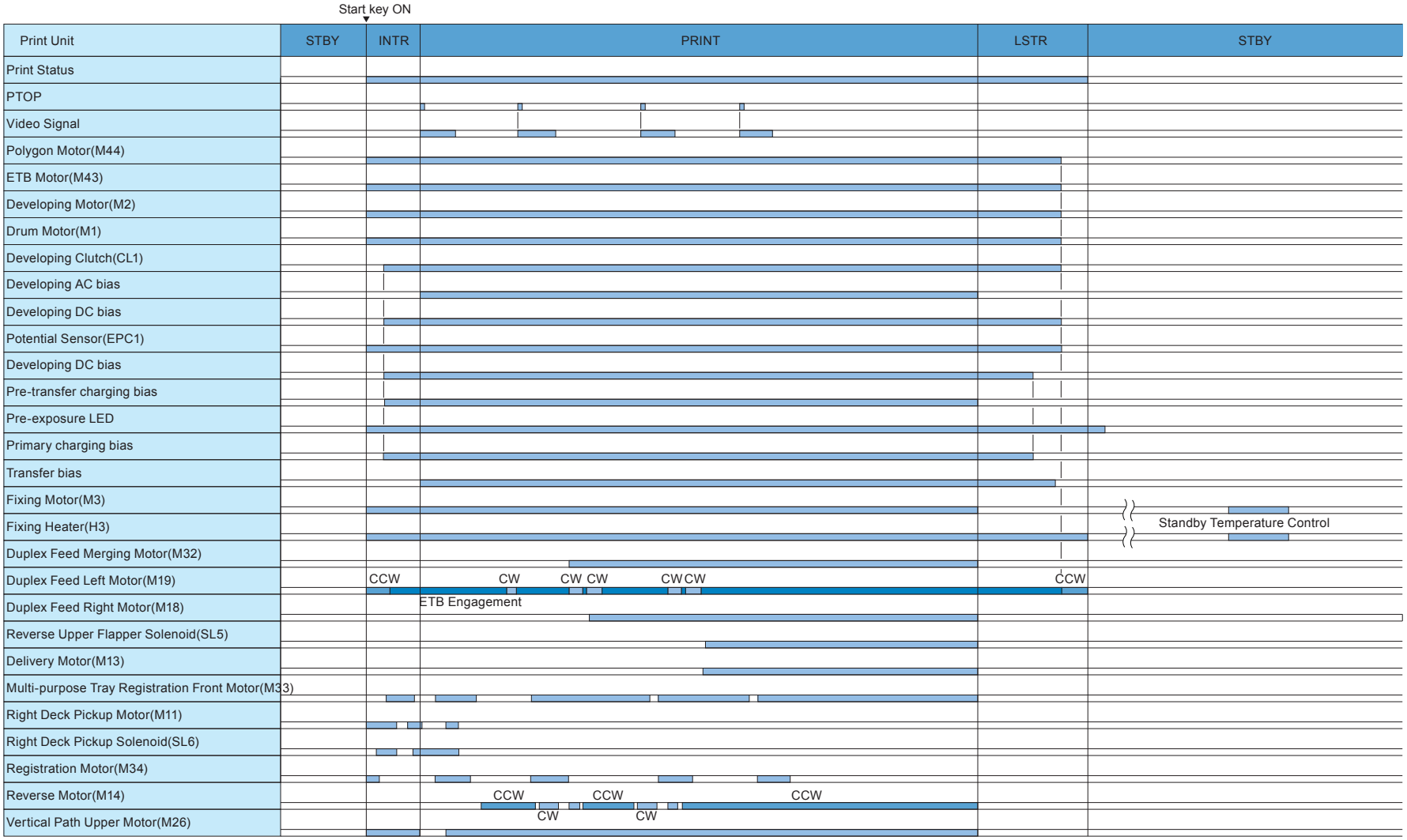
Basic sequence at printing <Condition: A4 1-sided (2 sheets), Right deck, Reverse delivery>



* CW=Positive Rotation,CCW=Negative Rotation

F-2-3

Basic sequence at printing <Condition: A4 2-sided (2 sheets), Right deck, Reverse delivery>



* CW=Positive Rotation,CCW=Negative Rotation

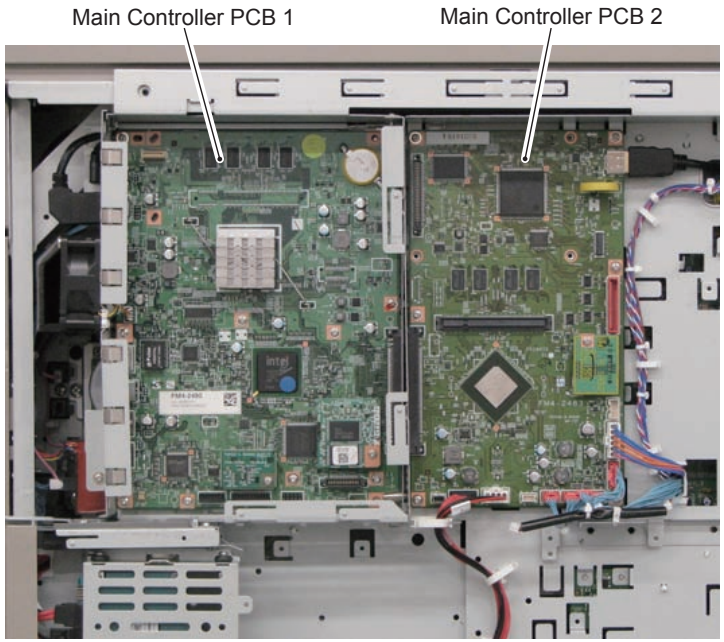
F-2-4

Main Controller

Overview

Features

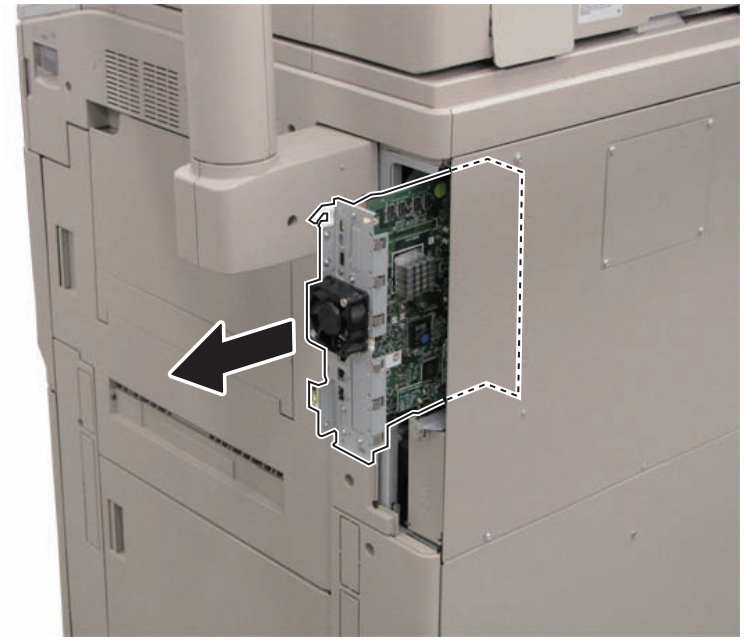
Using a new controller enables high speed PDL processing, high image quality and high functionality.



F-2-5

Main Controller PCB 1 controls the entire system while Main Controller PCB 2 mainly controls image processing.

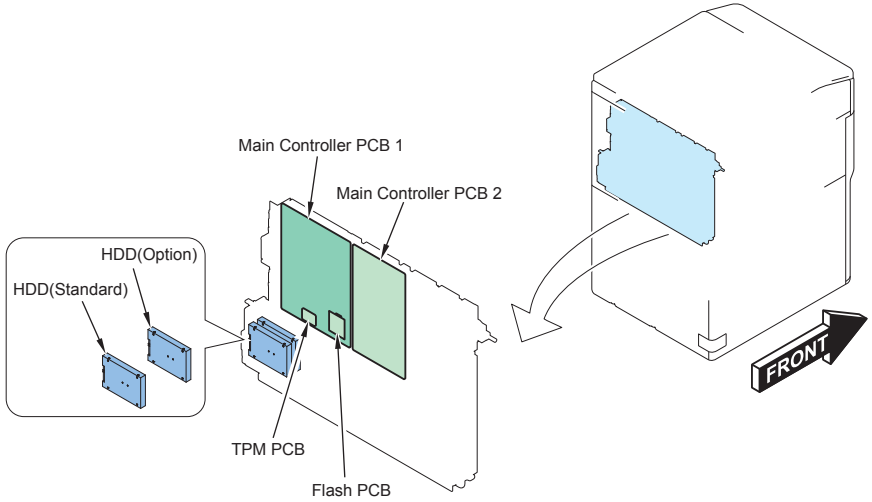
Main Controller PCBs 1 and 2 are connected through the Riser (connector for interface). Removability/installability of Main Controller PCB 1 has been improved by introducing this configuration (Slot-in/out)



F-2-6

Specifications/configuration

PCBs



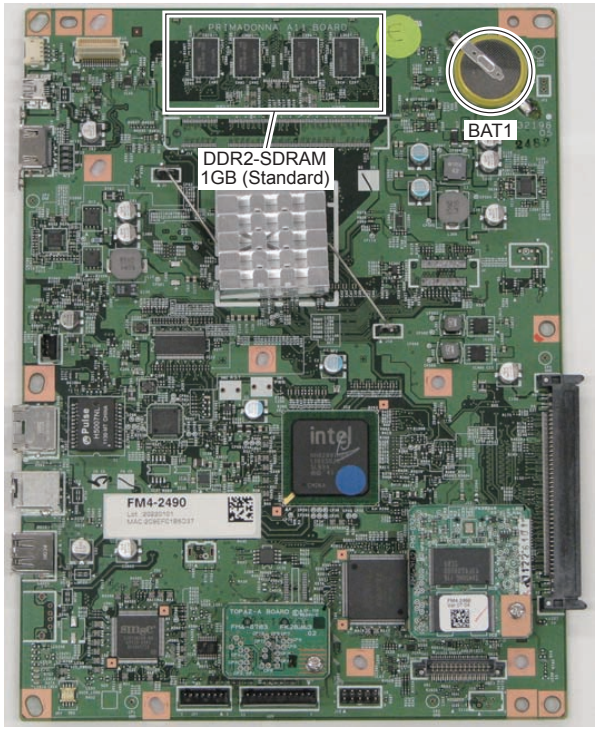
F-2-7

Parts name	Function, specifications, features
Main controller PCB 1	CPU: 1.8 GHz, Control of the entire system Various controls (HDD control,memory, control panel, electric power, voice), I/Fs (PCI, USB(host),USB(devise),LAN), RTC
Flash PCB	Boot program
TPM PCB	To generate and save encryption key Available only when TPM settings is ON: Management Settings > Data Management > TPM Settings (default: OFF) Not available with China models
Main controller PCB 2	CPU: 400 MHz, Image control Image processing (resolution conversion, image rotation, halftone process, scanner image process, printer image process, compression/decompression, decoding, direct mapping, image area determination, generation of histogram,Trimming,Masking) , USB(devise) control,I/F (Reader, Printer,FAX,HDD,Power supply)
HDD	2.5 inch SATA I/F Standard: 160 GB (Area of use: 160 GB) Up to 2 HDDs can be mounted in the case of mirroring configuration. BOX data, Address book, security information (password, certificate) Op.: (2.5 inch / 160 GB) HDD-J1, (2.5 inch / 1 TB) HDD-K1

T-2-1

Memory

Main controller PCB 1

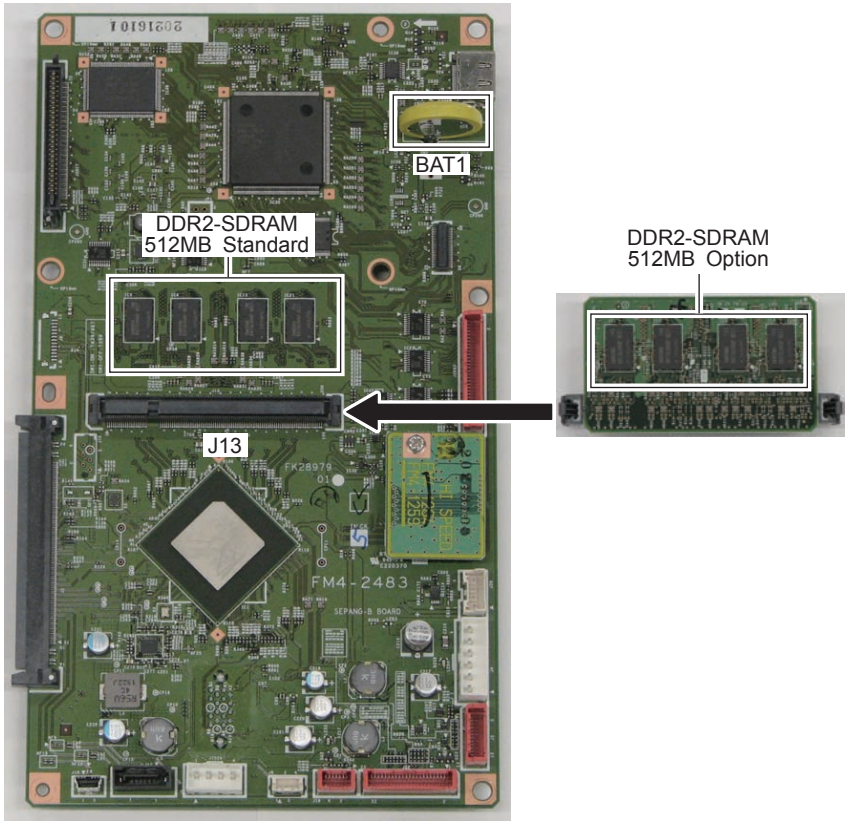


F-2-8

Parts name	Function, specifications, features
DDR2-SDRAM	1GB (standard) Clock frequency: 667 MHz Used for saving image, program data
Lithium battery (BAT1)	For RTC Life: approx. 10 years

T-2-2

Main controller PCB 2



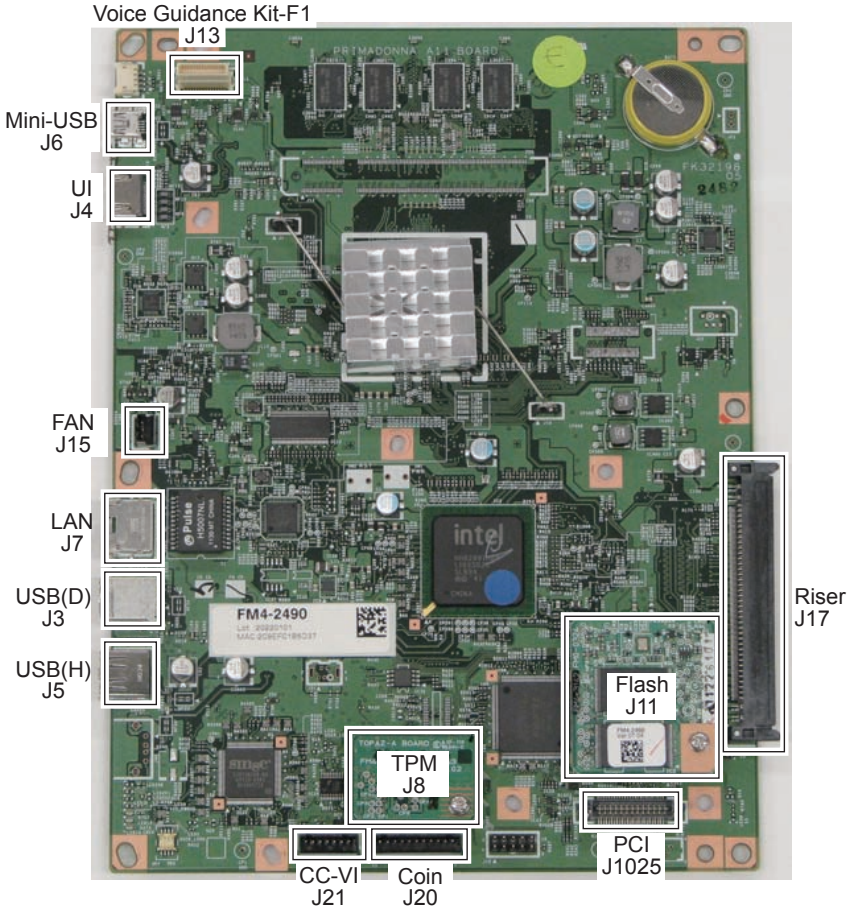
F-2-9

Parts name	Function, specifications, features
DDR2-SDRAM	512 MB (standard) / clock frequency: 400 MHz Scanner image process, printer image process, resolution conversion, compression/ decompression, coding/decoding
DDR2-SDRAM	512 MB (Op) / clock frequency: 400 MHz Product name: Additional Memory Type B (512MB) Rasterizing, rendering, resolution conversion, coding/decoding Required when 600dpi color scanning (mode) is used
SRAM	16 Mbit To save data in Settings/Registration Mode/ Service Mode and image data management information in HDD
Lithium battery (BAT1)	For SRAM backup, Life: approx. 10 years

T-2-3

I/F, connector

Main controller PCB 1

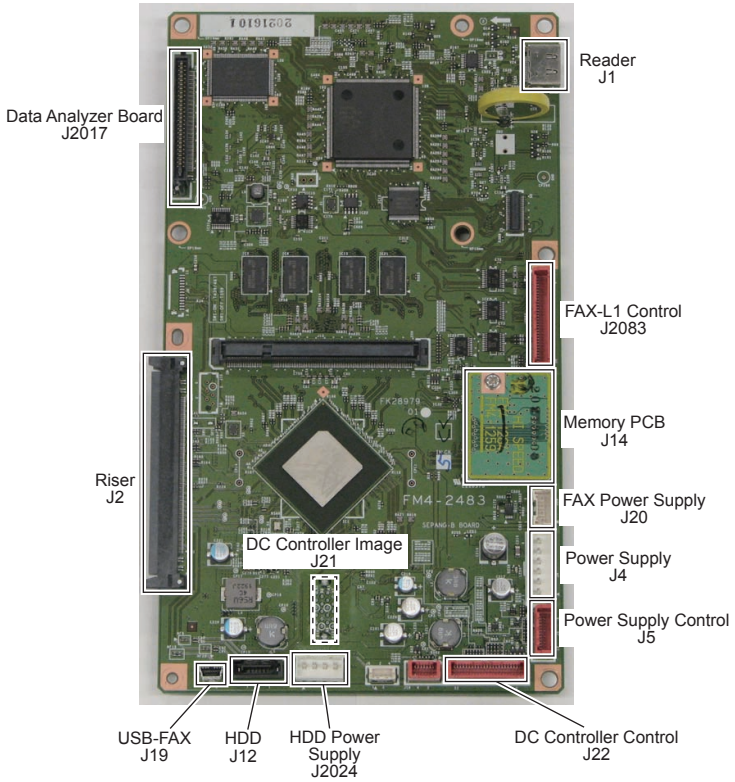


F-2-10

No.	Function, specifications	No.	Function, specifications
J3	USB I/F (Device)	J13	Voice I/F (Op.)
J4	UI:Control panel I/F	J15	FAN:Fan I/F
J5	USB I/F (Host) For MEAP, For USB keyboard (Op.)	J17	Raiser I/F To connect Main Controller PCB 2
J6	Mini-USB I/F Connect USB Device Port-A2 (Op.)	J20	Coin:I/F for card reader, I/F for serial interface kit, I/F for coin manager (all Op.)
J7	LAN I/F 1000BASE-T/100BASE-TX/10BASE-T	J21	CC-VI:I/F for control interface kit (Op.)
J8	TPM PCB I/F	J1025	Not used
J11	Flash PCB I/F		

T-2-4

Main controller PCB 2



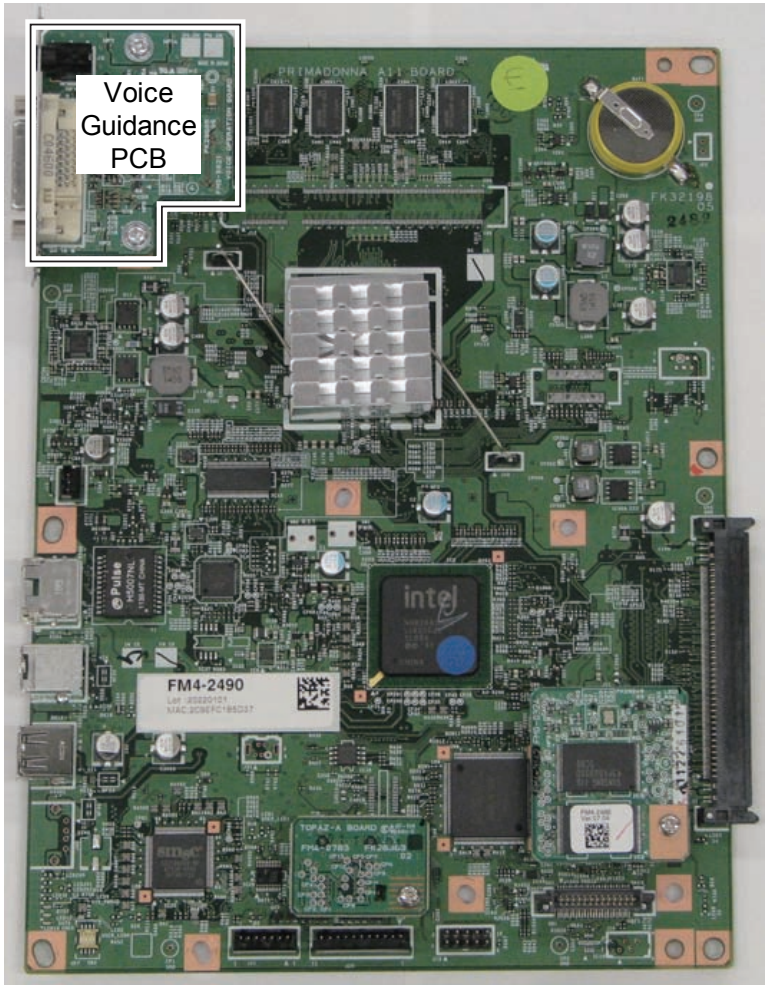
F-2-11

Jack No.	Function, specifications	Jack No.	Function, specifications
J1	Reader I/F	J20	FAX Power Supply I/F
J2	Riser I/F To connect Main Controller PCB 1	J21	DC Controller image data I/F To connect from the back of Main Controller PCB 2
J4	Power Supply I/F	J22	DC Controller Control data I/F
J5	Power Supply Control I/F	J2017	Image analysis PCB I/F Product name: Data Analyzer Board-B1
J12	HDD I/F	J2024	HDD Power Supply I/F
J14	Memory PCB I/F	J2083	FAX I/F for 1-line FAX Product name: Advanced G3 FAX Board-AL1
J19	USB-FAX I/F for 2 to 4-lines FAX Product name: Advanced G3 2nd Line Fax Board-AL1, Advanced G3 3rd/4th Line Fax Board-AL1		

T-2-5

Function expansion options

Main controller PCB1

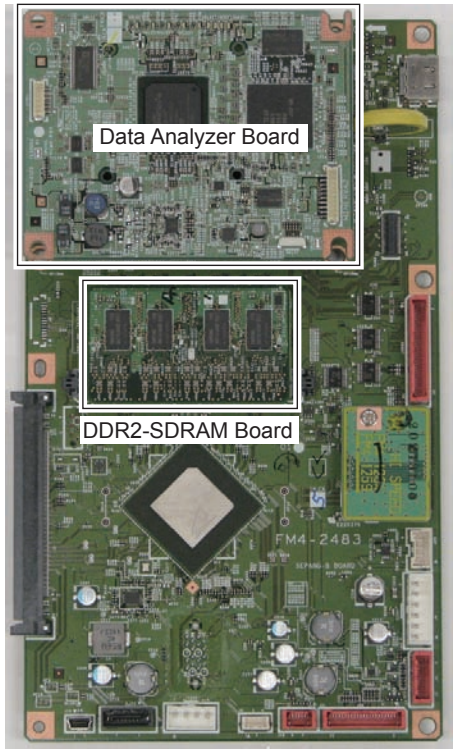


F-2-12

Name	Function, specifications, features
Voice Guidance PCB	Product name: Voice Guidance Kit-F2

T-2-6

Main controller PCB 2



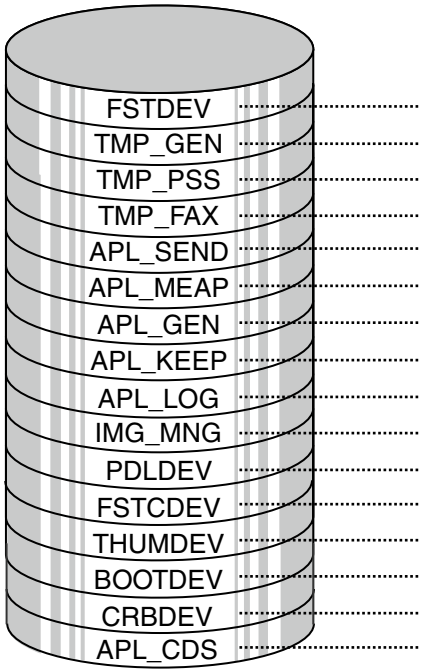
F-2-13

Name	Function, specifications, features
Image analysis PCB	Product name: Data Analyzer Board-B1 Scan protection for output original (Copy/SEND/BOX)

T-2-7

HDD

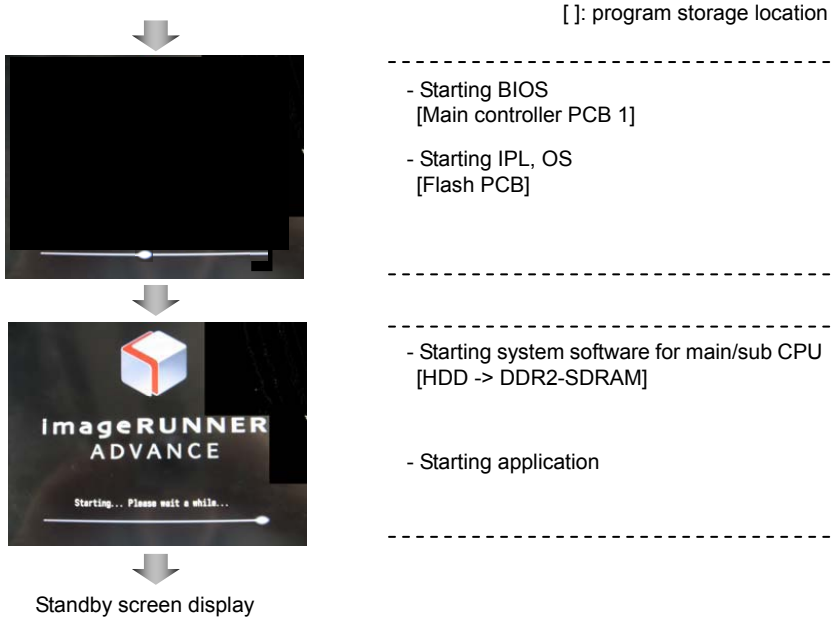
The partitions for Advanced Box and the distribution server are added.
User Box (same as the existing machine) area is 50 GB and Advanced Box area is 15 GB.
Advanced Box area can be increased by installing the high-capacity HDD option.



F-2-14

Boot/Shutdown sequence

Boot sequence



F-2-15

NOTE:
Due to the high speed startup, the progress bar and the activating PCB are not synchronized.
For this reason, the progress bar cannot be utilized for troubleshooting.
See the following error code list for the troubleshooting.

Related error codes (major error codes):

Error code		Error description
E602		HDD error
	0001	HDD failed to be recognizedStartup partition (BOOTDEV) is not found at startup
	0002	No system software for the main CPU
	0006	No system software for the sub CPU
	4000	Startup failure of OS
	4001	OS startup file is not found
E604		Insufficient memory

T-2-8

NOTE:
When the following errors occur, the system of the host machine has not been started normally.
Therefore the error code is not recorded in the log.
E602-
0001
0002
0006
4000
4001

Shutdown sequence

Before turning OFF the main power switch, it is necessary to perform HDD completion processing (to preventdamage on the HDD), cooling of the internal printer (to prevent fixed toner due to high temperature) and exhaust (to prevent smeared image due to chemical reaction of ozone in the machine and photosensitive drum). This sequential processing is called “shutdown sequence” and was executed on the legacy models manually (by holding down the power supply switch on the Control Panel for a specific duration).
When the main power switch is turned OFF on the main body, Main Controller PCB 1 detects this operation and then the shutdown sequence starts/executes automatically.

NOTE:
On the assumption that the shutdown sequence was not completed normally, the host machine is shut down by the Relay PCB in approx. 120 seconds.

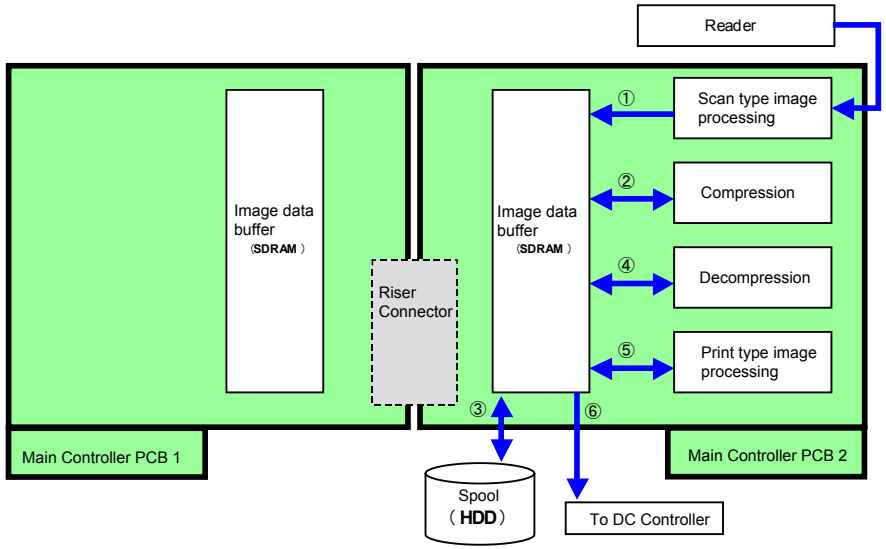
Controls

Flow of Image Data

Following shows major image data flow.

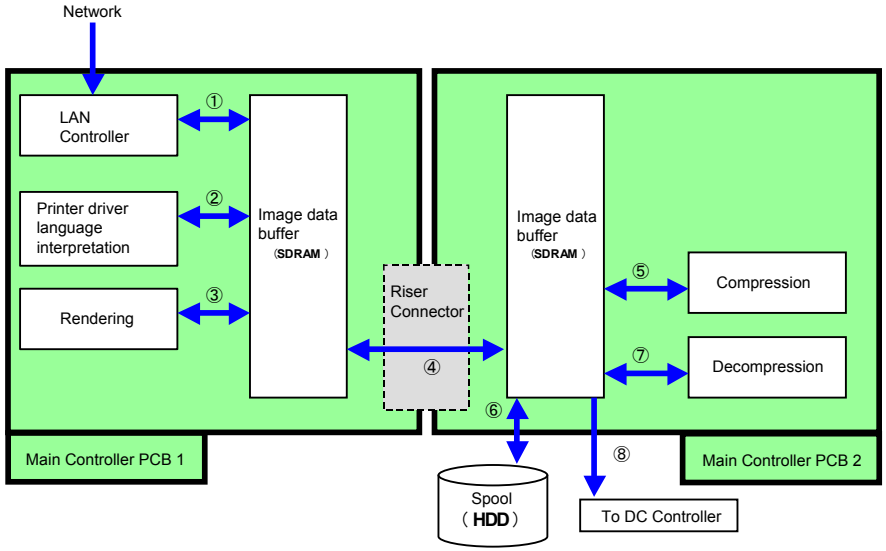
- The arrow mark indicates the flow of image data.
- Numbers (1, 2, etc.) indicate processing order.

Copy



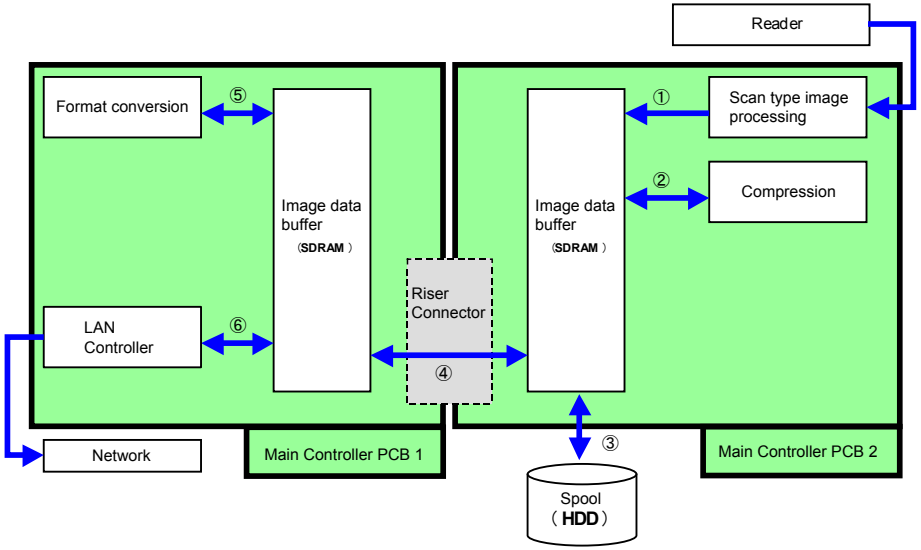
F-2-16

Print



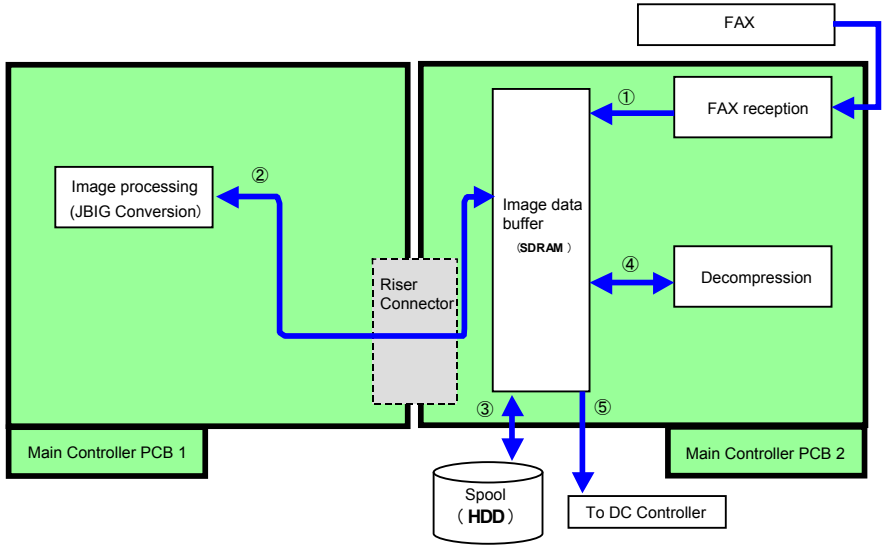
F-2-17

● SEND



F-2-18

● FAX

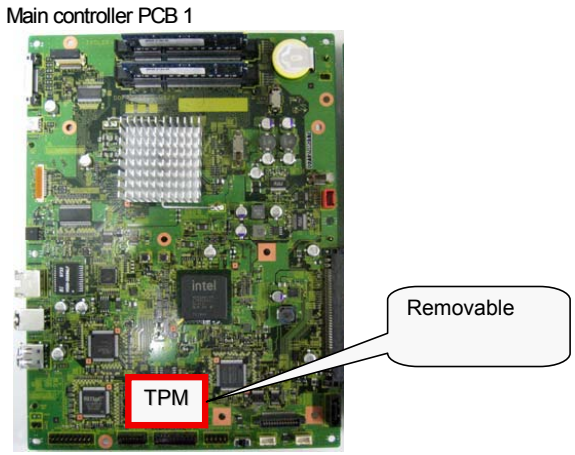


F-2-19

■ Security features (encryption key and certificate, password protection)

● Overview

The main controller PCB 1 of the host machine holds a new PCB named “TPM PCB”. “TPM” stands for “Trusted Platform Module”, which collectively refers to the chip set for generating and storing encryption keys and computing public key encryption.



F-2-20

The TPM PCB protects security information (passwords, certificates, and encryption keys) stored in the HDD and SRAM. Note that this PCB does not protect set, registered or stored data other than security information.

The TPM key embedded in the chip is used to encrypt / decrypt security information. The TPM key is protected from illegal access in a virtually perfect manner, thus the security information of the host machine is securely protected even in the following conditions.

- When the HDD and / or the main controller PCB is taken out from the host machine and installed in the MFP with the different serial number (the model information held in the TPM PCB is specific to the machine originally enabled the TPM setting)
- When the system of the host machine is hacked via the network

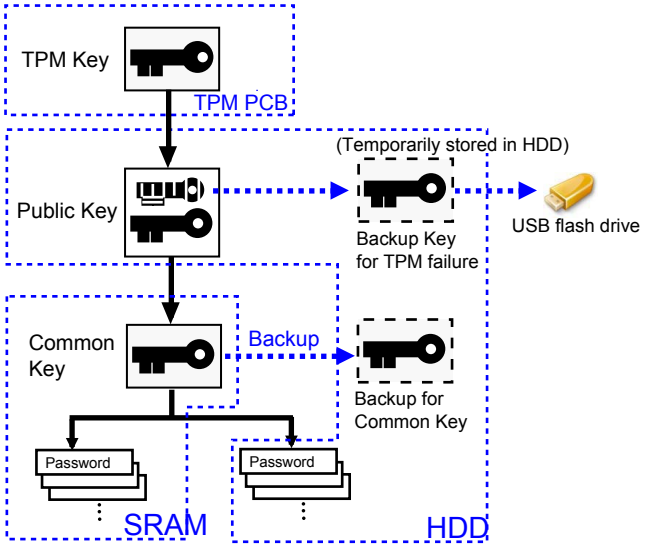
Enable this function in Setting / Registration mode.

Management Setting > Data Management > TPM Setting -> ON (OFF by default)

Configuration of Security Information

The security functionality behaves differently depending on the TPM setting on the UI.
This machine provides the two types of TPM settings. See the figure below for the security information flow in each setting.

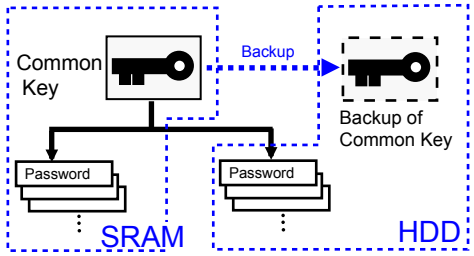
- When the TPM setting is ON



F-2-21

When the TPM setting is ON, the TPM key is enabled to secure information with the three keys. Therefore, the security information held in each machine is safely protected.
The security information in this setting can be accessed by the three keys and multiple passwords stored in the SRAM and HDD.
Each data is stored in the specified location (enclosed with blue dots in the figure above).
Since the data in the upper layer are linked to those in the lower layer, security information is activated only when data in all the layers are linked.
For the backup purpose, the backup key is temporarily stored also in the HDD to be prepared for a TPM failure (only for the initial failure after the TPM setting is ON).
This key can be backed up using the USB flash drive. Once backed up, the backup key is deleted from the HDD.
The common key information is stored in the HDD as well as the SRAM. The common key stored in the SRAM is cleared when the main controller PCB 2 (SRAM) is replaced or after MN-CON clear. However, the common key stored in the HDD automatically restores that in the SRAM so that the security information is decodable even after servicing. Note that the security information is not decodable correctly in case the HDD is failed or formatted because the public key information stored in the HDD is cleared. If this occurs, execute “Initialize All Data / Settings” in user mode to set the TPM setting to OFF. This will maintain the password information in the SRAM even after the password information is initialized.

- When the TPM setting is OFF:



F-2-22

When the TPM setting is OFF, the TPM key is disabled. Thus, the security information is protected only by the common key.
Under this setting, the security information held in this machine is protected at the level equivalent to the conventional machines.
The security functionality in this setting is configured by the common key and multiple passwords stored in the SRAM and HDD.
When the TPM setting is set to OFF, the security information is protected by the common key and multiple passwords stored in SRAM and HDD.
The common key information is stored in the HDD as well as the SRAM. The common key stored in the SRAM is cleared when the main controller PCB 2 (SRAM) is replaced or after MN-CON clear. Since the common key stored in the HDD will automatically restore the common key in the SRAM, the security information is decodable correctly even after servicing. Unlike the case that the TPM setting is set to ON, the password information stored in the HDD is initialized when the HDD is replaced or formatted. However, the password information is maintained in the SRAM.

TPM Setting for Security Information

The security information can be protected with or without TPM by switching between TPM settings in Setting / Registration mode.

- When the TPM setting is ON
  The security functionality is enabled in 4 levels (TPM key, public key, common key and password).
- When the TPM setting is OFF
  The security functionality is enabled in 2 levels (common key and password).

Preparation before Installing TPM

Before installing TPM, ask the user to back up data.
Follow the steps below to back up data.

1) From Remote UI, execute Setting / Registration > Management Setting > Data Management > Import / Export. The following data types should be backed up.

- Address book (see *1)
- Device settings (transfer settings, address book, frequently-used Send functions) (see *2)
- Setting / Registration
- Printer settings can be exported
- Favorites stored in the web browser (only when the web browser is enabled) (see *3)

*1 Each of address books can be exported. If the address book is seen as a part of device settings, this step can be disregarded.
*2 Among settings in the main menu, only “Frequently-used Setting” under “Scan and Send” can be backed up.
*3 These are available only in the specific models or configurations.

2) Select “Export” from Custom Menu of the Remote UI to back up “Custom Menu Setting Information”.

3) Log in to the system as Administrator from User Management of Advanced Box on Remote UI. Then, execute “Export” to back up “User Information of Advanced Box”.

Works before / after introduction

Execute the following in Setting / Registration mode (“TPM setting” is OFF by default).

1. Enable the feature
2. Backup the TPM key
3. Restore the TPM key
4. Disable the feature

The works above are basically done by users.

CAUTION:

When the TPM setting is set to “ON”, advice users on the following:

Back up the TPM key swiftly after the setting is ON

Keep the password used at backup securely

Never lose the USB flash drive with the backup TPM key file saved

The TPM key should be restored after the TPM PCB is replaced due to failures or the like.

(TPM key restoration is enabled only at TPM PCB replacement.)

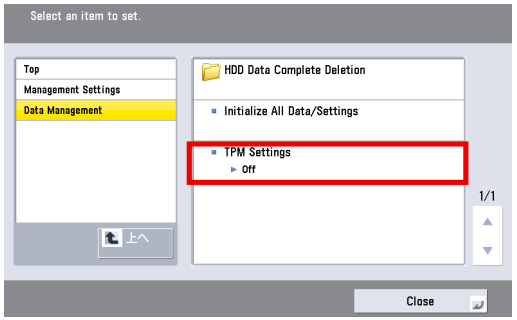
Unless the key is restored, the security information (passwords, encryption key, and certificates) cannot be used.

When the key restoration is failed due to the USB flash drive lost or others, “Initialize All Data / Settings” should be executed to reactivate TPM functionality. The security may be undermined if the old Setting / Registration data are maintained as it is.

1. Enable Functionality

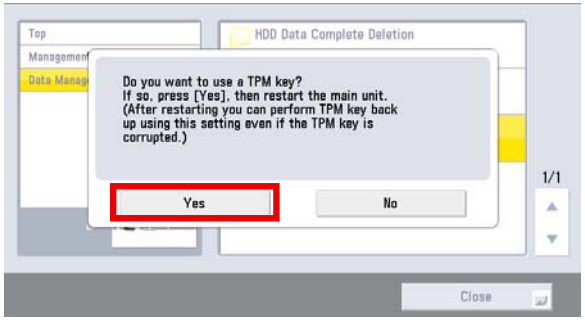
NOTE:Setup of “System Management PIN”
It is recommended for users (administrators) to set the system management PIN before installing TPM. The TPM key is backed up after the TPM setting is set to “ON”. However, the key backup is permitted only once. Unless the key is properly backed up, users other than administrators may illegally obtain the backup file. To avoid such risks effectively, the system management PIN should be set.

1)Set Management Setting > Data Management > TPM Setting to “ON”.
Setting / Registration



F-2-23

2)Click “Yes”, and restart the machine.



F-2-24

This setting is enabled after the machine is restarted.

2.TPM Key Backup

The TPM key backup file can be stored only in USB flash drive (supported file system: FAT32).
Note that this file requires the memory free space of several MBs.

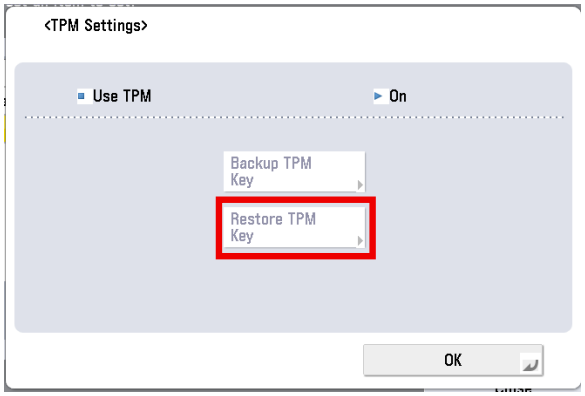
F-2-25

1)Insert the USB flash drive to the machine.
The USB I/F (host) is found at the side of the control panel as well as the main controller PCB.

CAUTION:
Ensure to insert only one USB flash drive.
If the backup job is started with 2 or more USB flash drives connected, the message is shown to notify that the backup is failed.

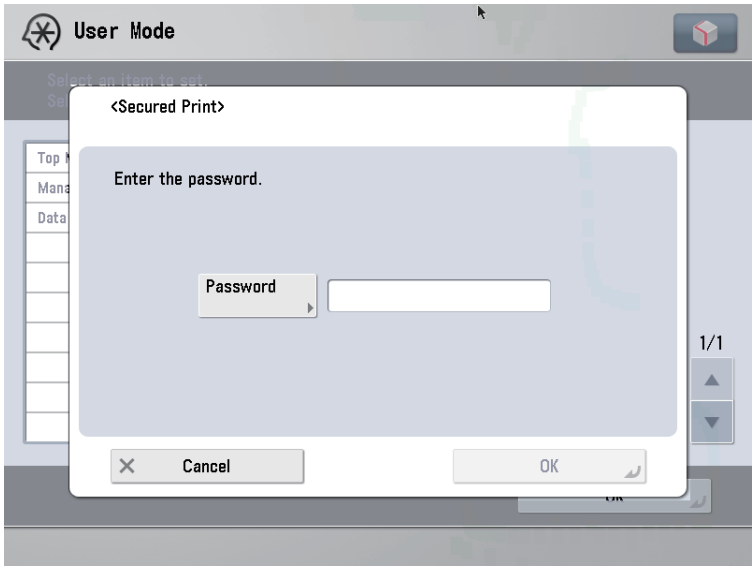
NOTE:
The USB flash drive holds the TPM key backup files by serial number. Thus, backup files for multiple machines can be saved in a USB flash drive.

2)Click [Back up TPM Key] in Management Setting > Data Management > TPM Setting.



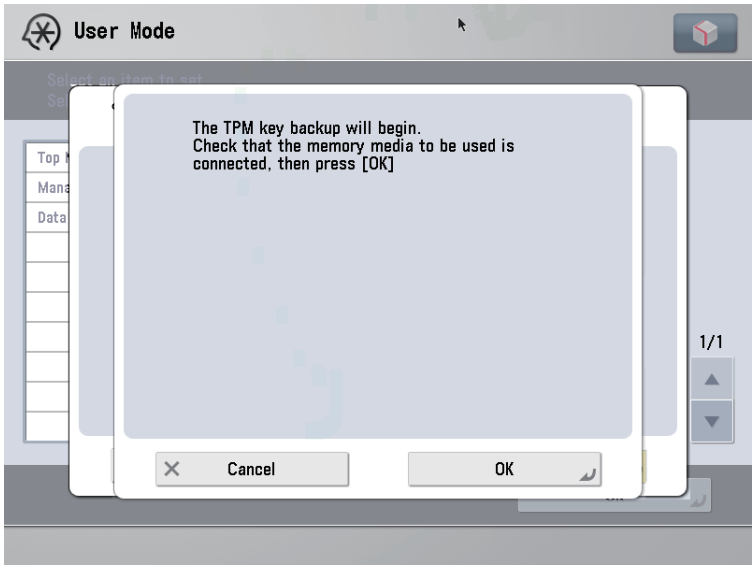
F-2-26

3) Click [Password] to enter the password (4-12 digits). Then, enter the password for confirmation.



F-2-27

4) Click [OK] to initiate TPM key backup.



F-2-28

5) Click [OK] on Backup Completion Screen and remove the USB flash drive.

CAUTION: The following may cause failures in backup.

If any of the following is detected, the backup process is aborted and the message and the cause for the failure are shown on the screen. Take an appropriate measure to recover this.

- The USB flash drive is not inserted to the machine
- 2 or more USB flash drives are inserted to the machine
- The USB flash drive has insufficient free memory space
- The USB flash drive is write-protected
- No key is found

CAUTION: The USB flash drive should be securely stored.

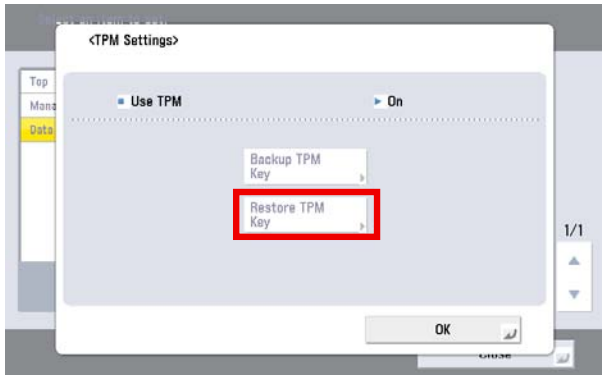
Give advice users on the following points.

- The USB flash drive should be securely stored
- Once the TPM key backup file is saved in the USB flash drive, never save the backup file on a server or the like accessible to unanimous users.

NOTE:Name of TPM key backup file
The serial number for the machine is automatically assigned as the backup file name.

3. Restore of TPM key
   Procedure is about the same as the backup work.
   Difference between restore work and backup work:
   Rebooting is necessary (turn OFF and then ON the main power) after completion of restore work.

   1) Connect the USB memory that saves TPM key.
   2) Select the following: Management setting > Data management > TPM setting; and click [Restore TPM key].



F-2-29

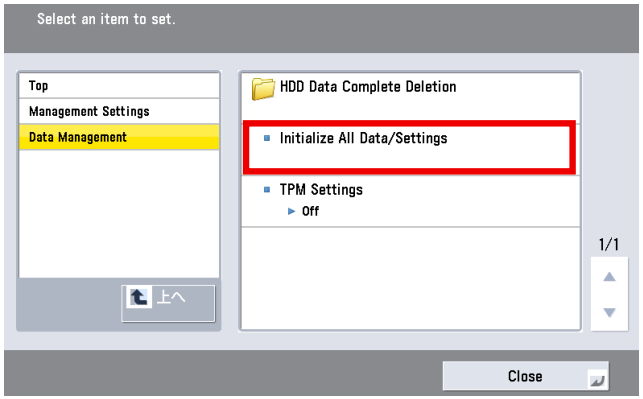
   3) Enter the password set in the backup process.
   4) Click [OK] on Start Restoration Screen. The restoration process is started.
   5) Click [OK] on Restoration Completion Screen. Remove the USB flash drive and turn OFF/ ON the main power switch.

CAUTION: The following may cause failures in restoration.

If any of the following is detected, the restoration process is aborted and the message and the cause for the failure are shown on the screen. Take an appropriate measure for recovery.

- The USB flash drive is not inserted to the machine
- 2 or more USB flash drives are inserted to the machine
- The USB flash drive is security-protected
- No TPM key is saved in the USB flash drive
- The TPM key saved in the USB flash drive is not for the machine
- The wrong password is entered
- After the TPM key was backed up, [Initialize All Systems/ Settings] was executed
- SRAM (the main controller PCB 1) or HDD is crashed

4. Disable the feature
   To set “OFF” for the TPM setting, execute [Initialize All Data / Settings].



F-2-30

CAUTION: Points to caution when disabling functionality

To disable the use of TPM, all data and settings should be initialized. If this is executed, user information saved in the HDD/ SRAM is totally cleared. Ensure to back up the data before disabling TPM settings.

List of data to be cleared

- Data saved in BOX/ Advanced Box
- Data saved in Inbox (Fax Box/ System Box)
- Destination data registered in Address Book
- Read mode registered using Send function
- Mode memory registered using Copy/ Box function
- MEAP applications and their license files
- Data saved using MEAP applications
- Password for MEAP SMS (Service Management Service)
  (The password is returned to default if any change is made.)
- User authentication information registered by local device authentication via SSO-H (Single Sign-On H)
- Unsent documents (documents for scheduled transmission and reserved transmission)
- Job logs
- Contents set in Setting / Registration
- Image-composite registration form
- Registered transfer settings

Key pair and server certificate registered in Management Setting (Setting/ Registration) > [Device Management] > [Certificate Settings]

Steps of data restoration after recovery

The restoration process triggers Setting/ Registration > Management Setting > Data Management > Import/ Export > Import/ Export Setting/ Registration on the UI.
The data listed below cannot be restored, thus should be set again.

Environment Settings

- Paper settings
- Display settings in the destination to save
- Time fine-adjustment for timer/ power settings
- Date/ time settings (excluding time zone and daylight-saving settings)
- User settings for SNMPv3
- Context settings
- Firewall settings (excluding MAC address filter)

Function Settings

- Image-composite form for the common print operation
- Printer settings
- Transfer settings for the common receipt/ transfer settings
- Inbox settings
- Frequently-used Copy settings
- Registered short-cuts in “Other Functions”
- Frequently-used Send settings
- Frequently-used settings for saving/ using files

Address Settings

- Address Book

Management Settings

- Sheet counts in Department ID Management
- Settings for device information distribution
- Certificate settings
- License registration
- Remote operation settings
- Box backup/ restoration
- TPM Settings

Overview of Actions taken against Troubles

Location with failure	TPM Setting = ON	TPM Setting = OFF	Relevant Error Code
TPM PCB	1. Check the TPM PCB connection 2. Replace the TPM PCBs 3. Turn OFF/ ON the power 4. See the section of “Restoring TPM Key” to restore the TPM key. 5. Turn OFF/ ON the main power for recovery	N/A (TPM PCB is not in use when the TPM setting is set to OFF.)	Initially E746-0031 is shown on the screen. When the power is turned OFF/ON after the TPM PCB is replaced, E746-0032 is shown (only when the TPM setting is set to ON).
HDD	1.Replace the HDDs. 2.Format the HDD. 3.Download the system software. 4.See the section of “Disabling Functionality” to execute “Initialize All Data/ Settings”. 5.Turn OFF/ON the power. The TPM setting is automatically set to OFF. 6.Set the TPM setting to ON (the public key and the common key are automatically set).	1. Replace the HDDs. 2. Format the HDD. 3. Download the system software. 4. Restore the password information stored in the HDD.	Initially E602-xxxx is shown (the different extension is shown depends on cases). After the system software is reinstalled, E746-0033 is shown.
Main Controller PCB 2 (SRAM)	1. Replace the main controller PCB 2. 2. The common key backed up in the HDD will be automatically restored in the SRAM. 3. The TPM setting on the control panel is reset to OFF. Manually set the TPM setting to ON (the machine is operated in the TPM setting ON). 4. Restore the password information stored in the SRAM (see *1).	1. Replace the main controller PCB 2. 2. The common key backed up in the HDD will be automatically restored in the SRAM. 3. Restore the password information stored in the SRAM (see *1).	E747-xxxx (the different extension is shown depends on cases).

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*1 If “No” is indicated in the field of Backup Column in the table of “Security Information Storage Location”, the relevant information should be set manually again.

Related Error Code

Error Code		Error description, Assumed cause, remedy	
E746		Error in encryption	
	0031	Error in hardware	
		Assumed cause	The TPM PCB is not mounted; the TPM PCB for the other machine is mounted; the TPM chip is crashed.
		Remedy	Mount the TPM PCB for the machine; replace with the new TPM PCB
	0032	Error in engine ID of SoftID	
		Assumed cause	Mismatched data in TPM
		Remedy	Format the system. Format the HDD using SST or USB memory, and download the system software. For details, see "Chapter 6: Upgrading". For your reference, the method using USB memory is described below. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. 3. Insert the USB memory to the equipment. 4. Execute [4]: Format HDD in the main menu. After formatting is completed, the machine reboots automatically and starts with the download mode. 5. Execute [1]: Upgrade (Auto) in the main menu. System software is downloaded and the machine restarts automatically.

Error Code		Error description, Assumed cause, remedy	
E746		Error in encryption	
	0033	Error in engine ID of SoftID	
		Assumed cause	Error that can be recovered
		Remedy	When the TPM key was backed up, it can be restored. 1. Connect the USB memory which stores the TPM key. 2. Go to Management Settings > Data Management > TPM Settings, and then click "Restore TPM Key". 3. Enter the password set at backup operation. 4. When the restoration completion screen is displayed, click "OK". Remove the USB memory, and turn OFF and then ON the main power. When the TPM key was not backed up, formatting the system is required. Format the HDD using SST or USB memory, and download the system software. For details, see "Chapter 6: Upgrading". For your reference, the method using USB memory is described below. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. 3. Insert the USB memory to the equipment. 4. Execute [4]: Format HDD in the main menu. After formatting is completed, the machine reboots automatically and starts with the download mode. 5. Execute [1]: Upgrade (Auto) in the main menu. System software is downloaded and the machine restarts automatically.

T-2-10

Security Information Storage Location

Storage Location	Data Type	Function	Name of Data	Backup Availability
HDD	Password/ PIN	BOX	BOX Password	Yes
HDD	Password/ PIN	BOX	Password for Fax BOX	Yes
HDD	Password/ PIN	SEND	Password for a file destination of Address Book	Yes
HDD	Password/ PIN	MEAP	Authentication information registered by local device authentication via SSO-H	Yes
HDD	Certificate/ Secret Key	SSL,AMS	Device key pair (SSL, AMS)	No
HDD	Certificate/ Secret Key	Signature SEND	User key pair	No
HDD	Others	User setting information	Key information linked to user (password)	No
SRAM	Password/ PIN	BOX	Password for encryption at BOX backup	No
SRAM	Password/ PIN	BOX	Password for SMS server at BOX backup	No
SRAM	Password/ PIN	Advanced BOX	Password for Advanced BOX backup	No
SRAM	Password/ PIN	Advanced BOX	Password for SMS server at Advanced BOX backup	No
SRAM	Password/ PIN	SEND	Password for LDAP server	Yes
SRAM	Password/ PIN	SEND	Password for POP3 server	Yes
SRAM	Password/ PIN	SEND	Password for time-stamped PDF	Yes
SRAM	Password/ PIN	SEND	Password for Adobe ES Rights Management Server	Yes
SRAM	Password/ PIN	SEND	PIN for destination list (in destination setting)	Yes
SRAM	Password/ PIN	UI	Password for service mode	No
SRAM	Password/ PIN	Network	Password for IPP authentication	Yes
SRAM	Password/ PIN	Network	Password for FTP authentication	Yes
SRAM	Password/ PIN	Network	User name and password for client in Proxy authentication	Yes
SRAM	Password/ PIN	Network	Login password for Netware print server	Yes

Storage Location	Data Type	Function	Name of Data	Backup Availability
SRAM	Password/ PIN	Network	Policy common key for IPSec	Yes
SRAM	Password/ PIN	Network	User name and password for PEAP/TTLS authentication	Yes
SRAM	Password/ PIN	Others	Password for FAX receipt	Yes
SRAM	Password/ PIN	Others	Department management data (including System Manager password)	Yes
SRAM	Encryption key	MIB	Authentication and encryption keys for SNMPv3	No
SRAM	Password/ PIN	MEAP	SMS login password	Yes

T-2-11

● Security Information Storage Location (data managed under the mechanism other than TPM management)

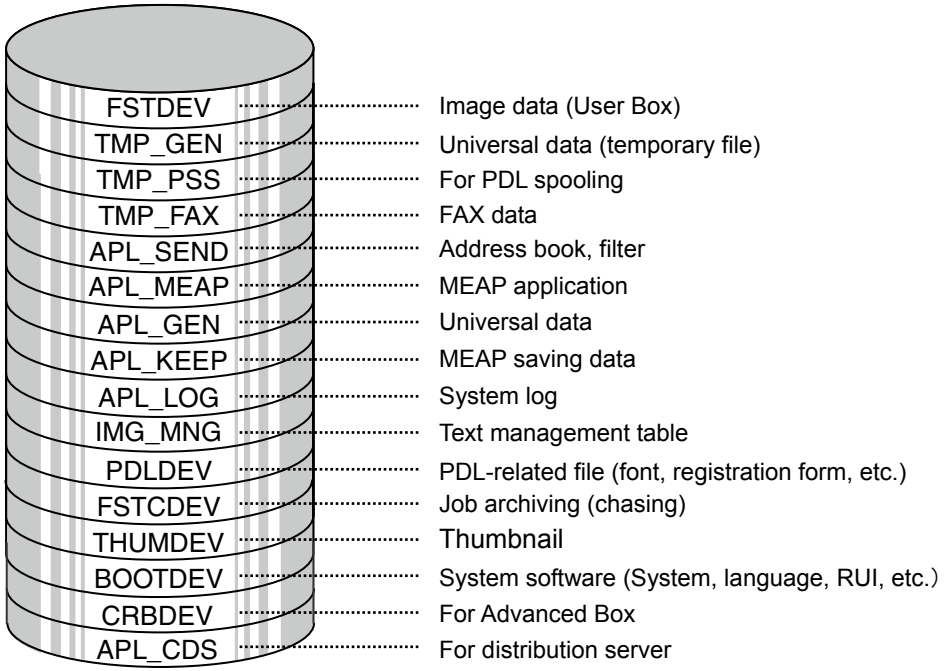
Storage Location	Data Type	Function	Name of Data	Backup Availability
HDD	Password/ PIN	Advanced BOX	User information in Advanced BOX	Yes

T-2-12

■ Option HDD

The HDD capacity mounted on this machine is 160GB as standard. Mounting a 2.5 inch/1TB HDD-K1 (option) makes 1TB in HDD capacity. High capacity is required in the case of saving large amounts of data with “Advanced Box”
Mounting this option increases capacity for Advanced Box.

15GB(Approximately): in the case of 160GB HDD capacity
629GB(Approximately): in the case of 1TB HDD capacity



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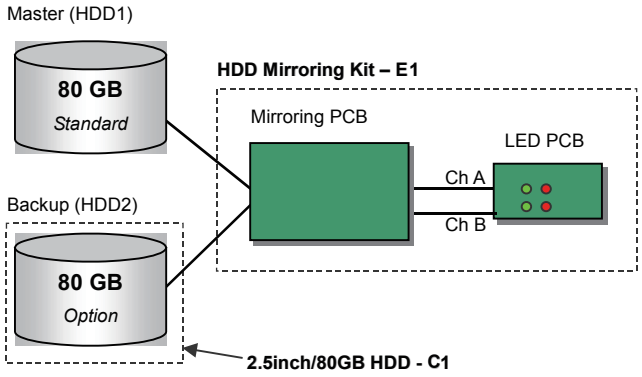
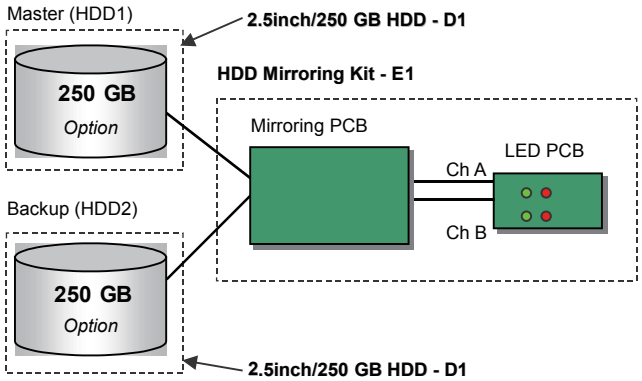
Out of 1TB capacity, 629GB(Approximately) is allocated to Advanced Box (CRBDEV). After deducting 20% snapshot area and area used for the file system, the capacity that can be actually used as document storage area is 503GB(Approximately).

HDD mirroring feature (option)

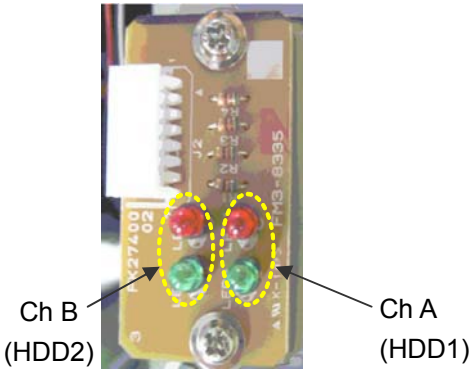
This option enables mirroring of HDD data (RAID1).
In the case of failure in one HDD, the operation is performed with the other HDD. This feature minimizes downtime as well as improves reliability as the document server.
There are 2 types of mirroring configurations according to the HDD capacity (160GB / 1TB):





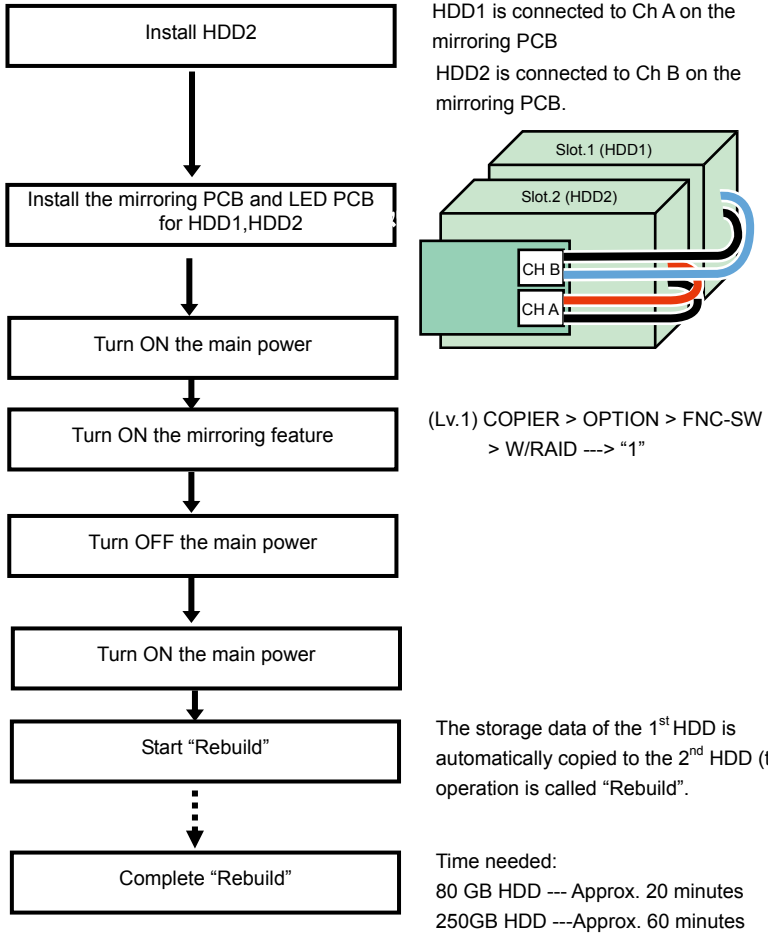
F-2-32

Mirroring PCB controls reading/writing timing of HDD data.
LED PCB makes the LED show operation status of the HDDs.



F-2-33

To start using this feature (installation)



F-2-34

“Rebuild” progress is shown in a massage at the status line on the control panel.
“Copying hard disk data... xx%“

NOTE:
- This machine can be used even during “rebuild” process (operation is performed with HDD1)
- The HDD will not be damaged even if turning OFF the power during “rebuild” process. “Rebuild” is resumed once the power is turned ON the next time. This does not apply in the case of blackout or disconnecting the power code during “rebuild” process

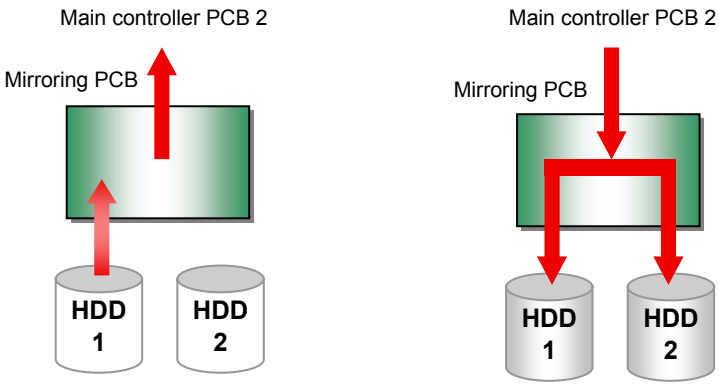
HDD reading/writing operation

At reading:

Data is read by HDD1 (master HDD) only

At writing:

The same data is written to each HDD at the same timing



F-2-35

The ACT LED (green) on the LED PCB is lighted up/blinking if reading/writing to each HDD is performed properly.

In the case of failure:

- The LED (red) on the LED PCB is blinking. If only one HDD is faulty, the operation is continued by the other HDD.
- If both two HDDs are faulty, E602 error is shown on the control panel to stop the operation.

List of operation status (LED)

---: Light-out A: lighting-up B: blinking

Status	HDD 1 (Ch A)		HDD 2 (Ch B)	
	Green LED	Red LED	Green LED	Red LED
At normal operation	---	---	---	---
During access with HDD1	A	---	---	---
During access with HDD2	---	---	A	---
HDD1 is faulty	---	A	---	---
HDD2 is faulty	---	---	---	A
During data copy to HDD1 (rebuild)	---/A	B	---/A	---
During data copy to HDD1 (rebuild)	---/A	---	---/A	B

T-2-13

Description of Modes

The mirroring system of this machine consists of 4 modes.

The modes in parentheses show the mirroring system statuses.

The status flows among the modes below during operation.

The table below lists descriptions of modes and operational overview.

Name of Mode	Description	Master HDD Status	Backup HDD Status
Mirror Mode	Both HDDs are normally operated	In normal operation	In normal operation
Degrade Mode	Any trouble occurred in the backup HDD suspends mirroring operation. The machine can be used under this condition, however, the backup HDD should be replaced at the earliest convenience.	In normal operation	With troubles (HDD not installed/ HDD in trouble)
Rebuild mode	The data of the master HDD is copied (rebuilt) to the backup HDD. The machine can be used under this condition.	In normal operation	In recovery from the trouble (Copying data of Master HDD)
Halt mode	Both HDDs are in trouble (see *1)	In trouble (HDD not installed/ HDD installed not registered/ HDD disconnected while the mirroring board is in operation)	With troubles (HDD not installed/ HDD installed not registered/ HDD disconnected while the mirroring board is in operation)

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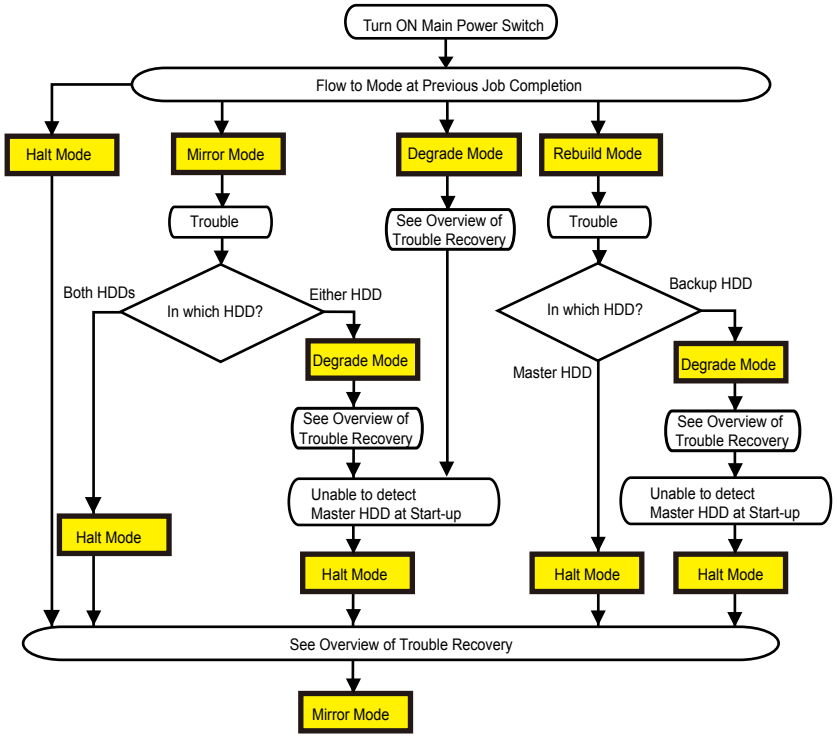
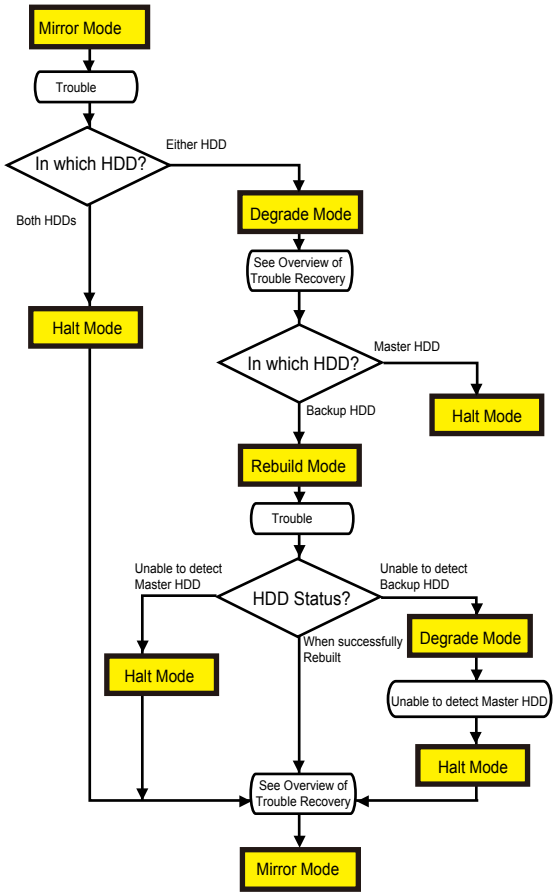
*1: Turn OFF/ ON the power in this mode, the mode returns to the previous mode.

Mode Flow at Start-up



F-2-36

Mode Flow during Operation



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Overview of Trouble Recovery

When any trouble occurs in the mirroring system, take the action for recovery appropriate to each mode.
The HDD in trouble can be located by the red LED on the LED PCB.
In case the master HDD cannot be located, turn OFF/ ON the power to check whether the green LED is lit on the LED PCB.
The firstly blinked green LED (ChA or ChB) in a high speed tells the Master HDD, which is accessed firstly.
The green LED not lit on a channel tells the location of Backup HDD.

Name of Mode	Status	Action for Recovery	HDD1 (ChA) Red LED	HDD2 (ChB) Red LED
Mirror Mode	Normal (at standby)	Under normal operation	---	---
Degrade Mode (see*1)	HDD1 in trouble	1. Check the connection between HDD1 and Mirroring Board or Main Controller PCB 2. 2. When the trouble is not recovered, replace the HDD1.	A	---
	HDD2 in trouble	1. Check the connection between HDD2 and Mirroring Board or Main Controller PCB 2. 2. When the trouble is not recovered, replace HDD2.	---	A
Rebuild mode	Copying data to HDD1 (Rebuild)	Copying (under Rebuild)	B	---
	Copying Data to HDD2 (Rebuild)	Copying (under Rebuild)	---	B
Halt mode	Both HDDs in trouble	1. Check Master HDD and Backup HDD (see *2) 2. When the trouble is not recovered, replace the two HDDs (format the replaced HDD and download the system software).	A	A

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---: Not lit A: Lit B: Blinking at an interval of 0.5 seconds
*1: This mode shows the message, “Need to replace hard disks (contact your service engineer)”, on the control panel. In addition, “310006” is indicated in CODE field of Alarm Log in service mode (COPIER > DISPLAY > ALARM-2).
*2: Never install the HDD used in the other model. The used HDD holds the ID specific to the firstly-installed machine, thus this machine is unable to recognize it. If done, you need to reinstall the HDD recognized in this machine.

Points to Note in Servicing concerning Mirroring Functionality

1. The modes other than Mirror Mode indicate troubles, which require swift recovery.
   The power can be turned OFF even during Rebuild process. However, it is recommended not to turn off the power and wait until the mode flows to Mirror Mode. In addition, HDD removal after power-OFF is guaranteed only in Mirror Mode.

2. The mirroring board controls Master HDD and Backup HDD. This control is performed based on the HDD serial number and the model serial number instead of slot locations.
   If HDDs are replaced in a careless manner during servicing in the field, the Master and Backup HDDs may be switched.
   Ex) When the master HDD is in trouble, the mirroring board automatically recognizes the backup HDD as the master. Thus, the master and backup HDDs are switched even without changing the slot locations.
   If the Master HDD cannot be located, turn OFF/ ON the power to check on which channel the green LED is lit on the LED PCB.
   The firstly-blinked LED (ChA or ChB) shows the Master HDD, which is accessed firstly after power-on.

3. For users who intend to use the removable and mirroring functionality concurrently, instruct them not to change the removable HDD location in advance.
   Change of HDD locations after power-OFF is allowed as specifications only in Mirror Mode. Otherwise, HDD removal or change of location is not guaranteed.

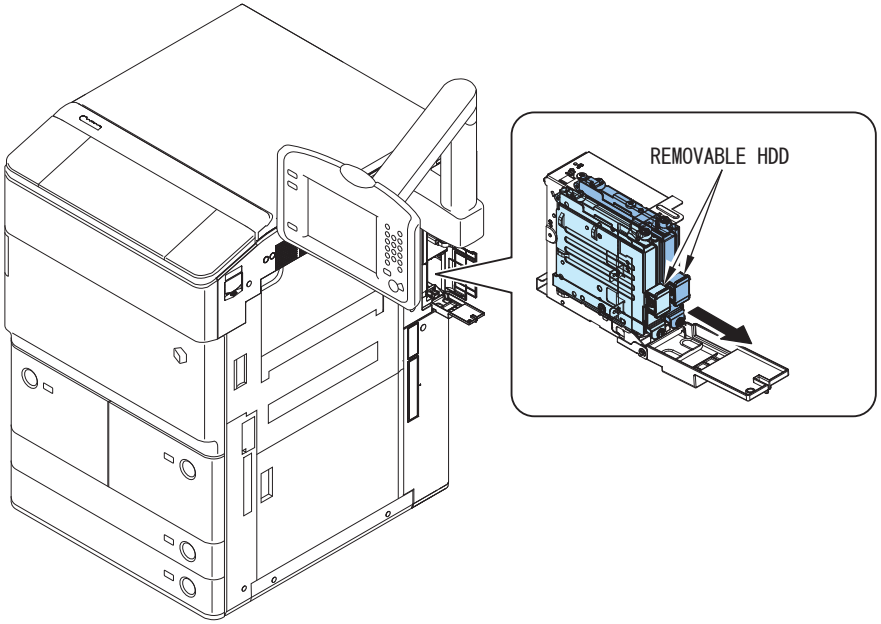
4. The following conditions are required to replace HDDs at power-ON.
   - Removable HDD is extended
   - Either HDD is in trouble

5. Upgrading should be done only in Mirror Mode while mirroring in ongoing. Upgrading in Degrade or Rebuild mode is basically prohibited. Always prioritize Mirror Mode when you take any actions.

Removable HDD (option)

With this option, users can easily install or remove the HDD (slot-in/out).
This option is assumed to be used for: enhancing information security at government/public offices or private

- With this option, users can easily install or remove the HDD (slot-in/out).
- This option is assumed to be used for: enhancing information security at government/ public offices or private companies.



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NOTE:
- To use this option, no setting is required with the software.
- The user needs to prepare a key because there is no key with this kit.

HDD Encryption/ Mirroring Kit (optional)

This option enables to generate the encryption key inside the encryption board and to encrypt the whole HDD including the system software. Encryption allows leaks of confidential data, even when the HDD is stolen, including image data (temporarily generated at Copy or Print jobs) and user data stored in BOX/ Advanced BOX. In addition, the data written into the two hard disks are also encrypted when the HDD mirroring functionality is enabled. The following descriptions focus on the HDD encryption function. See the previous section for the mirroring functionality.

HDD Encryption Functionality

The HDD of the host machine holds temporary image data including scanned images or PDL data as well as user data in BOX and Advanced BOX. Such images or user file information are saved in the HDD only with system information cleared. Under this condition, the data or images can be restored by accessing directly to the stolen HDD using the access editor and the like. To counter such threats against securities, data written to the disk should be always encrypted to protect them from illegal restoration of image data or others. This product employs an unconventional approach to achieve HDD encryption and mirroring functionality with the dedicated chipset on a board (Canon MFP Security Chip Version 2.00). Since the two functions are operated in a HDD, the encryption functionality can be independently enabled.

Data Encryption Mechanism

The encryption board receives signals transmitted from the controller board, and encrypts and saves them in the HDD.
The encryption board receives the encrypted data saved in the HDD to decode and send them to the controller.
The encryption board can be configured with a HDD and an encryption/ mirroring board, or with 2 HDDs and an encryption/ mirroring board.

Conditions for Encryption Board Operation

The encryption board has the function to recognize and authenticate the host machine. An error is triggered if a second-hand HDD encryption/ mirroring board is installed to the other machine.

Compatibility among Device, Encryption Board and HDD

E602-2000 error may occur if the unmatched authentication information is found between the controller and the HDD encryption board and the encryption board is mounted.
The device, the encryption board and HDD can be connected in 4 use cases.

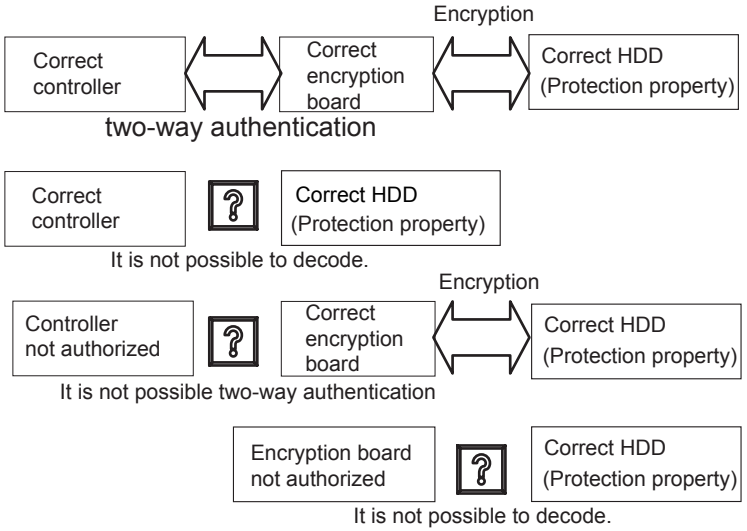
The following shows the statuses for each use case.

Case 1: Normally operated

Case 2: HDD-related error occurs because the system on the HDD cannot be read (other than E602-2000 error)

Case 3: E602-2000 is triggered by failure in mutual authentication

Case 4: Unable to decode properly due to unmatched key for the encryption board



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Actions against Troubles – Overview

Servicing	User data	Recovery	Action
HDD replacement	cleared	Replace HDDs	1) Format the HDD
			2) Install the system software
Encryption board replacement	cleared	Install HDD encryption Kit	1) Replace encryption board
			2) Initialize Encryption Board (see *1)
			3) Format the HDD
			4) Install the system
Main controller 2 replacement (SRAM)	cleared	Clear the key for HDD data encryption kit	1) Initialize the encryption board (see *1)
			2) Format the HDD
			3) Install the system
Main controller 1 replacement	not cleared	N/A	N/A
Main controller clear	Information held in SRAM cleared	After MN-CON clear process is done	MN-CON clear does not clear authentication information; no work is required specifically for HDD encryption kit

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*1: How to Initialize Encryption Board

1. Initialize the encryption board via SST.

This step makes the disk unformatted (E602-0001 is triggered if the unformatted disk is started).

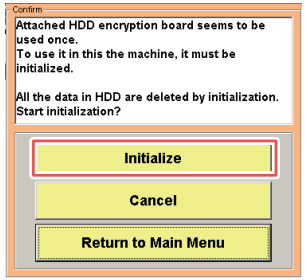
2. Format the HDD and reinstall SYSTEM via SST.

When you start the HDD formatting, the message is automatically shown to confirm whether to initialize the encryption board (Key Clear).

Key Clear will disable accesses to HDD data permanently. Cautions should be taken in Key Clear execution.

<Points to Note in Initialization via SST>

The screen below is shown when you gain access to SST in safe mode due to E602-2000. Poor board connection also causes this error. Check the board connection to seek error recovery. Initialization of the encryption board will disable accesses to HDD data permanently. Cautions should be taken in initialization.



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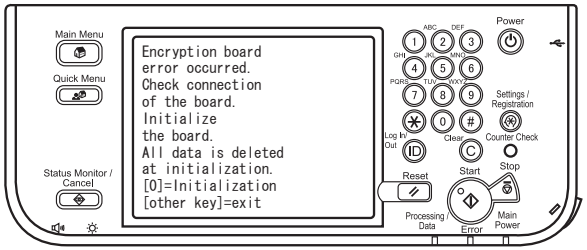
<Points to Note in Initialization using USB>

The screen below is shown on the control panel when E602-2000 occurred and the machine is started in safe mode using the USB flash memory with system data stored.

The message as shown in the figure below is displayed.

Select “0” when you are ready to initialize the encryption board.



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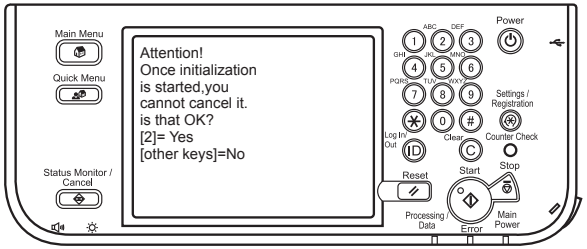
The figure below shows the final screen in initializing the encryption board.
The message as shown in the figure below is shown on the screen.
Select “2” when you initialize the encryption board.
We recommend checking the board connection before starting initialization



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Relevant Error Codes

E602 and detailed codes

E code	Description	Cause	Detection Timing	Actions
E602 -2000	Authentication Error	Error in authentication between the host machine and the encryption board	Start-up	Check connections between the encryption board and the HDD and between the encryption board and the main controller 2. This error may be triggered after replacement of the encryption board or the main controller 2. At any rate, this error disables accesses to HDD data. When no problem is found in connections, use SST to execute Key Clear > Format > Install System.
	Failure in Encryption Board	Error in recognition of the encryption board		
	Device Error	Failure in the encryption board		

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E610 and detailed codes

E code	Detailed Code	Cause (Detected Error)	Actions
E610		Failure in the HDD encryption key	
	0001	Failure in the HDD encryption key (Error in hardware configuration). No encryption board is installed.	Ask the user to check the hardware configuration.
	0002	Failure in the HDD encryption key (Error in hardware configuration). The memory space is insufficient for encryption operation.	Ask the user to check the hardware configuration.
	0101	Failure in the HDD encryption key (Error in initialization). Failed to initialize the memory space where the key is stored.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0102	Failure in the HDD encryption key (Error in initialization). Failed to initialize the encryption processing unit.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0201	Failure in the HDD encryption key. Error in the encryption processing unit.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0202	Failure in the HDD encryption key. Error in the encryption processing unit.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0301	Failure in the HDD encryption key (Error in the encryption key). Failed to create the encryption key.	Turn OFF/ON the power. If the error is not recovered, this may be caused by hardware-related factors.
	0302	Failure in the HDD encryption key (Error in the encryption key). Detected the failure in the encryption key.	Turn OFF/ON the power. If the error is not recovered, this may be caused by a hardware-related factor (SRAM). Note that this error initializes the HDD.
	0303	Failure in the HDD encryption key (Error in the encryption key). Detected the failure in the encryption key.	Turn OFF/ON the power. If the error is not recovered, this may be caused by a hardware-related factor (SRAM). Note that this error initializes the HDD.
	0401	Failure in the HDD encryption key (Error in the encryption processing). Error is detected during the encryption process.	Turn OFF/ON the power. If the error is not recovered, this may be caused by a hardware-related factor (the encryption board).
	0402	Failure in the HDD encryption key (Error in the encryption processing). Error is detected during the decoding process.	Turn OFF/ON the power. If the error is not recovered, this may be caused by a hardware-related factor (the encryption board).

T-2-18

Service Operations

HDD

<Procedure of parts replacement>

Refer to Removing HDD

<Procedure of adjustment>

1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

2) Printing the set/registered data

Use the service mode.

(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

2. After Replacing

1) HDD format

1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main powerswitch.)

1-2) Use SST to format all partitions.

2) Downloading system software

2-1) Use SST to download the system software (System, LANG, RUI and others).

3) Initializing the key, certificate and CA certificate

(Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY

4) Turning OFF and ON the main power switch

5) Restoring the backup data

Use the Remote UI.

Management Settings > Data Management > Import/Export

6) Resetting/registering the data

While referring to the list of set/registered data which was printed before replacement, reset/register the data.

7) When the user generates and adds the encryption key, certificate and/or CA ertificate, request the user to generate them again.

8) Executing “Auto Adjust Gradation (Full Adjust)”

Settings/Registration mode: Adjustment/Maintenance > Adjust Image Quality > Auto Adjust Gradation

When using the Card Reader and imageWARE Accounting Manager

Card ID used for imageWARE Accounting Manager is stored in the HDD, so NSA collection control is not enabledafter the HDD replacement. After the HDD is replaced, reinstall the card ID from imageWARE Accounting Manager using the following procedures.

1) Go to COPIER > FUNCTION> INSTALL > CARD and enter the numerical value of the leading card which is used for Department ID. Then, press “OK” button.(e.g.: If No.1 to No.1000 cards are used for Department ID, enter “1” of the leading card.)
2) After turning OFF and ON the main power switch, perform the following operations from Settings/Registration mode.
   In Management Settings > User Management > Department ID Management > Page Totals, be sure that “ID00000001” to “ID00001000” are created.
   Set the following: Preferences > Network > TCP / IP Settings > IPv4 Settings> IP Address Settings > IP Address, Gateway Address, Subnet Mask
   In Management Settings > User Management> System Manager Information Settings> System Manager ID and System PIN, register any number for them. Then, turn OFF and ON the main power switch.
   If “System Manager ID” and “System PIN” are not registered, “card registration to device” cannot be executed for the imageWARE Accounting Manager setting operation.
3) Download the card ID from imageWARE Accounting Manager to the Main Body again.
4) After downloading is completed, go to Management Settings > User Management > Department ID Management > Page Totals. Be sure that only the downloaded card ID is displayed.
5) Print using the user card registered from imageWARE Accounting Manager. Be sure that the card information used for the target devices of imageWARE Accounting Manager is collected.

CAUTION:Points to Caution when Using the System Software-installed HDD

When using the HDD which was installed the system software of the other achine (different serial number), be sure to format the HDD after the installation. If the HDD is not formatted, the operation cannot be guaranteed.

Main Controller PCB 1

<Procedure of parts replacement>

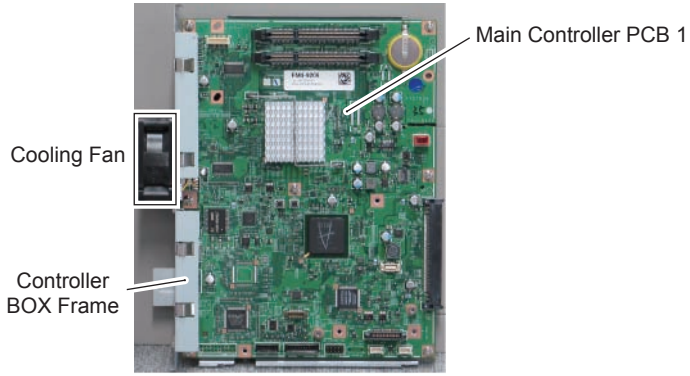
see "Removing Main Controller PCB 1," on p. 4-80.

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 1 + Controller Box Frame + Cooling Fan

Parts number differs on a model basis (speed basis).



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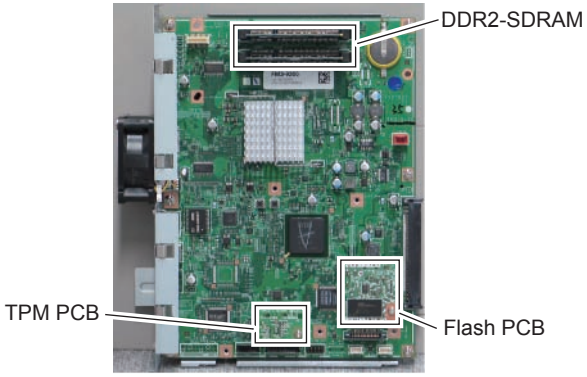
In order to secure the accuracy of connector connection when slotting in, this service part is provided with the PCB being installed to the frame.

1) Transferring the parts from old PCB to new PCB
   - DDR2-SDRAM (2 pc.)
   - Flash PCB
   - TPM PCB



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NOTE:
Resetting/registering the data is not necessary after Main Controller PCB 1 is replaced.

Main Controller PCB 2

<Procedure of parts replacement>

see "Removing Main Controller PCB 2," on p. 4-82.

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 2 + Controller Box Frame

F-2-45

1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

2) Printing the set/registered data Use the service mode.

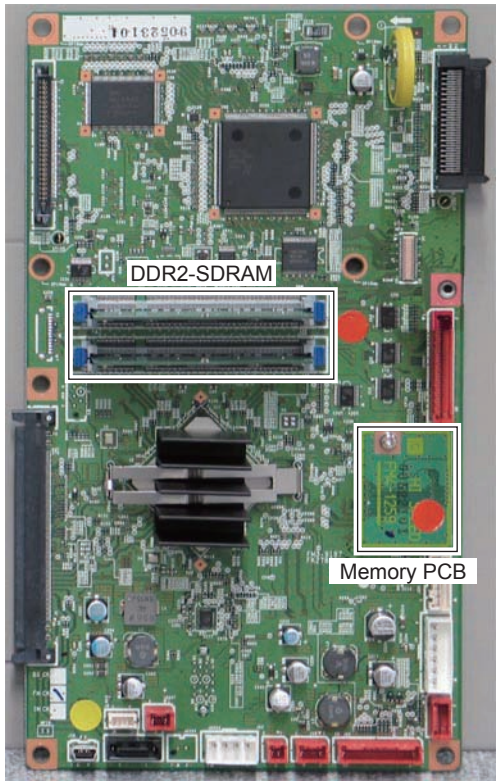
(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

2. When Replacing

1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (1 pc.) (When option DDR2-SDRAM is installed: 2 pc.)
- Memory PCB



F-2-46

Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number).If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)
- Memory PCB

3. After Replacing
   1) After installing the parts, turn ON the main power switch.
   2) Restoring the backup data
      Use the Remote UI.
      Management Settings > Data Management > Import/Export
   3) Resetting/registering the data
      While referring to the list of set/registered data which was printed out before replacement, reset/register the data.
   4) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again

■ TPM PCB

<Procedure of parts replacement>

see "Removing Main Controller PCB 1," on p. 4-80.

<Procedure of adjustment>

When TPM setting is “OFF”

Any operation is not necessary at replacement.

When TPM setting is “ON”

It is necessary to restore the TPM key which was backed up after changing the setting to “ON”.

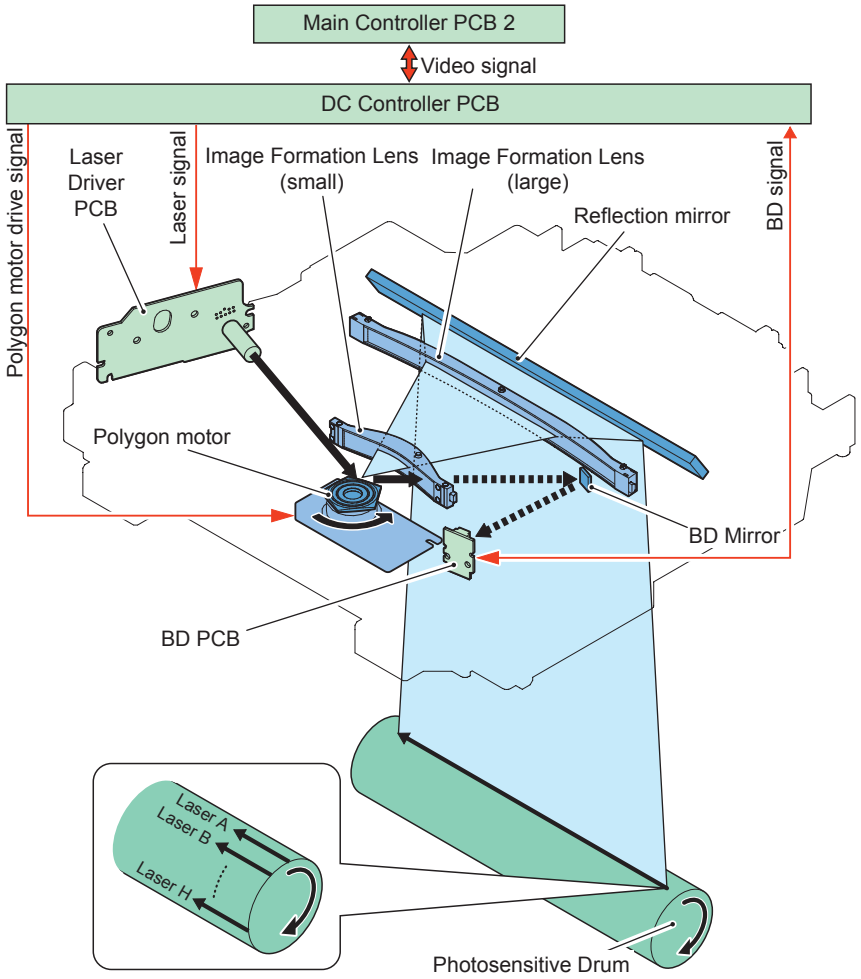
1) Removing the network cable
   Until the TPM key is restored, information might be leaked due to the inappropriate access via network, so be sure to perform this operation appropriately.
2) Connecting the USB Memory after turning ON the main power switch
3) Restoring the TPM key
   Management Settings > Data Management >TPM Settings> Restore of TPM Key
4) Turning OFF and ON the main power switch

Laser Exposure System

Overview

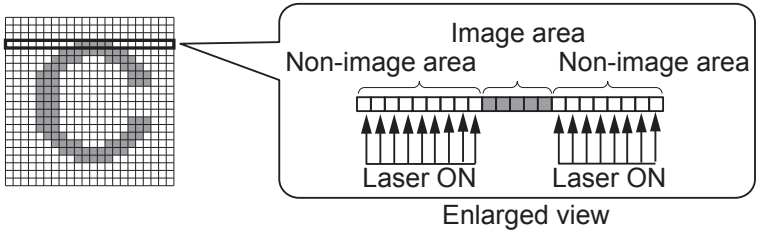
Overview

This machine uses an 8-beam method that enables exposure of 8 beams per scanning direction for high productivity.



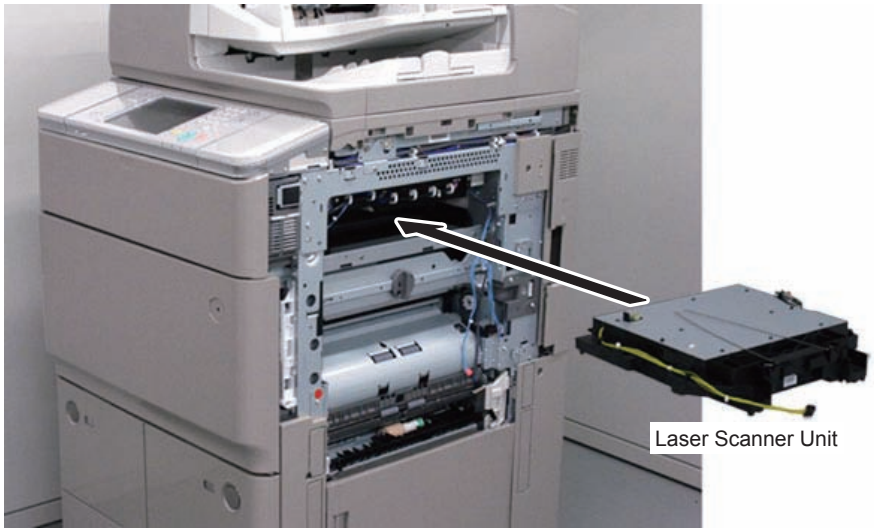
F-2-47

Laser is applied to the Nom-image image on the positively-charged drum with this machine.



F-2-48

Laser Scanner Unit can be removed from the side of the main body.



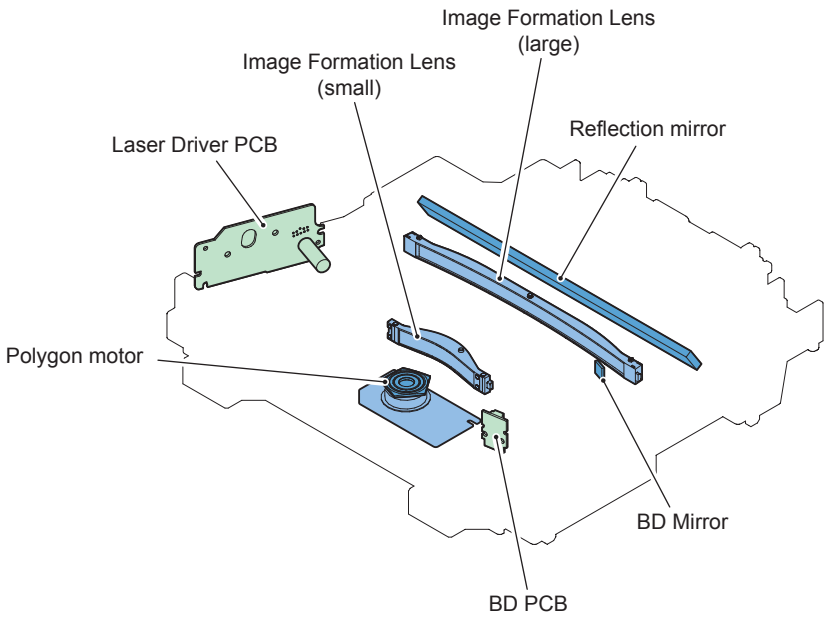
F-2-49

Specifications

Item		Description
Laser team	Wave length	670nm
	Laser type	Red color laser
	Laser output	7mW(Max)
	Number of laser beams	8 beams
Resolution		1200dpi
Scanner motor	Type	Brushless motor
	Number of rotations	24,800rpm(Process speed 350mm/sec) 20,500rpm(Process speed 290mm/sec)
Number of scanner mirror (polygon) surfaces		5
Controls	Laser ON timing control	Laser ON/OFF control
		Main scanning synchronization control
		Sub scanning synchronization control
	Laser beam intensity control	APC control
	Others	Laser scanner motor control
		Laser shutter control

T-2-19

Parts Configuration



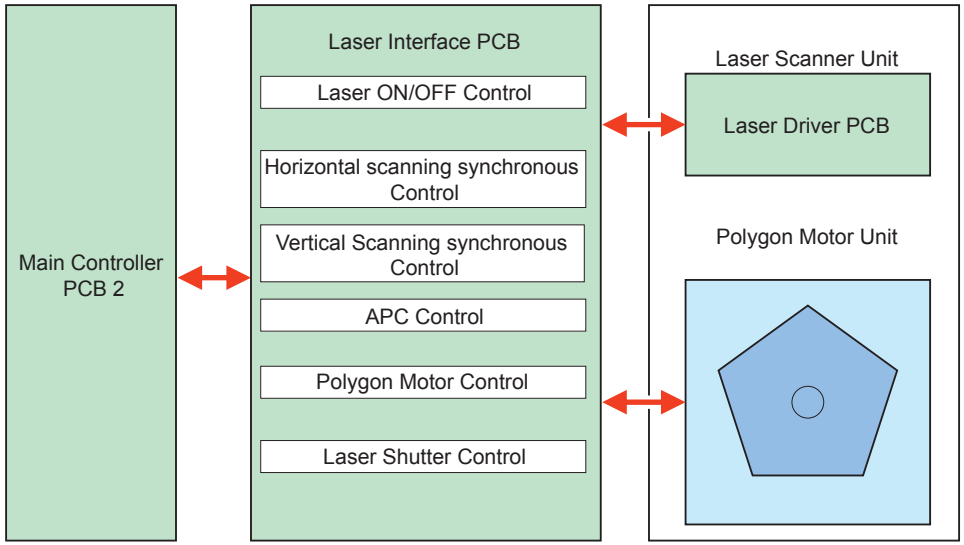
F-2-50

Name	Role
Laser driver	Laser driver
Polygonal mirror	Perform scanning with a laser beam in the main scanning direction.
Reflection mirror	Reflect a laser team to the drum.
Correction lens	Correct a main-scanning tilt of the laser beam coming from the folding mirror.
Tilt correction motor	Correct a main-scanning tilt by moving the correction lens.
Image Formation Lens (small)	To connect focuses on the Drum to provide an image
Image Formation Lens (Large)	To connect focuses on the Drum to provide an image

T-2-20

Controls

Overview



F-2-51

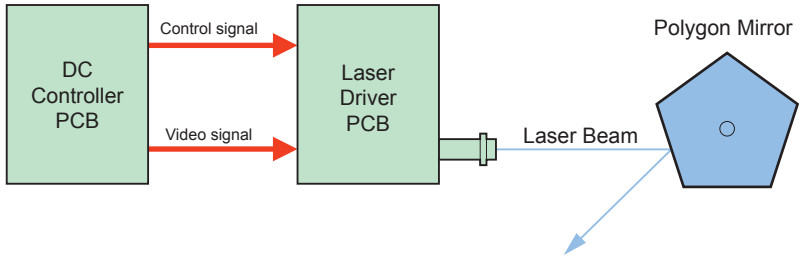
tem		Purpose/Description
Laser ON timing control	Laser ON/OFF control	Turn ON/OFF a laser beam according to the combination of laser control signals.
	Main scanning synchronization control	Performed to adjust the writing position in the main scanning direction.
	Sub scanning synchronization control	Performed to adjust the writing position in the sub scanning direction.
Laser beam intensity control	APC control	1Performed to keep a specified level of laser beam for each line.
Laser polygon motor control		To be executed to rotate the Polygon Mirror at the specified speed.
Laser shutter control		To prevent exposure of laser light in the machine when the Cover is open.

T-2-21

Laser ON Timing Control

Laser ON/OFF Control

This control is performed to turn ON/OFF a laser beam according to the combination of laser control signals.



F-2-52

<Timing of Execution>
After the power is turned ON

<Details of the Control>
The DC controller switches the mode among four modes (Forcible OFF mode, APC mode, Print mode, Standby mode) according to the laser control signal.

Mode	Laser status	Remarks
Forcible OFF	OFF	Clear the laser beam intensity setting determined by APC.
APC	ON	Adjust the laser beam intensity.
Print mode	OFF/ON	Irradiate a laser beam according to the video signal.
Standby mode	OFF	The main unit is placed in the standby status.

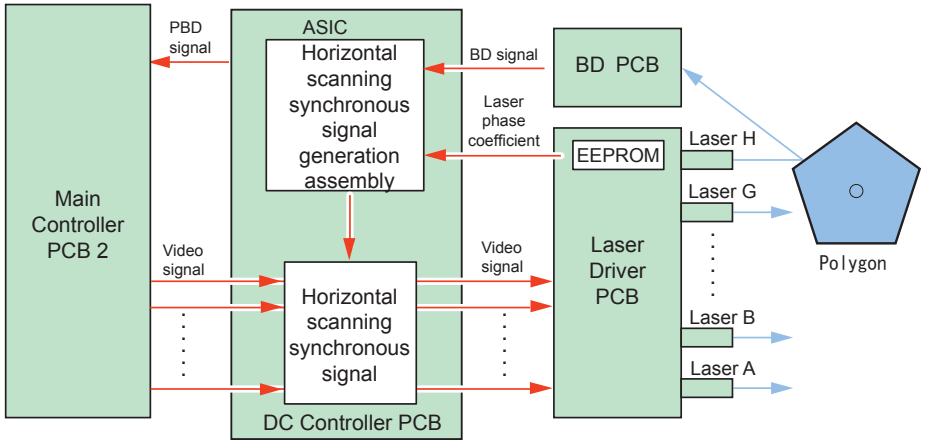
T-2-22

Main Scanning Synchronization Control

This control is performed to adjust the writing position in the main scanning direction.

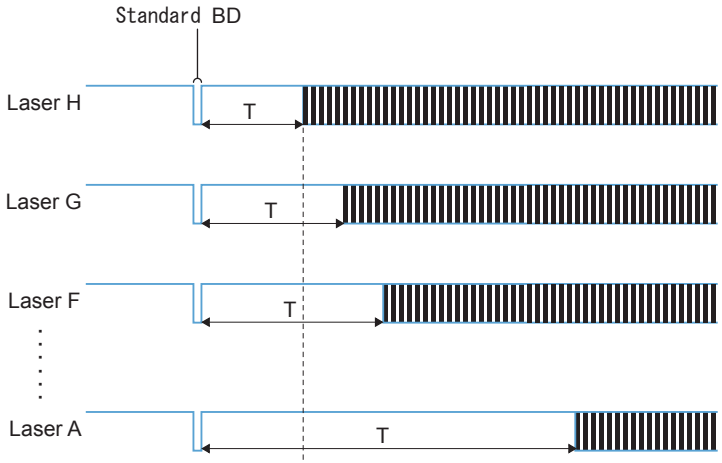
<Timing of Execution>
For every eight lines

<Details of the Control>
1) The synchronization control in horizontal scanning direction is executed with reference to Laser A.
2) The BD PCB is located on the light path of Laser A laser beam and the laser beam is emitted to the BD PCB.
3) The BD PCB detects laser beam of Laser A and generates BD signal to be sent to the DC Controller PCB.
4) The DC Controller sends the PBD signal to Main Controller PCB 2 according to BD signal.
5) Based on the laser phase coefficient and the BD signal, the DC Controller PCB generates synchronization signal in horizontal scanning direction on an 8 lines basis at the generation area of synchronization signal in horizontal scanning direction.
6) Once the PBD signal is received, Main Controller PCB 2 sends video signal to the DC Controller PCB.
7) The video signal sent from Main Controller PCB 2 is output to the Laser Driver PCB according to the synchronization signal in horizontal scanning direction.



F-2-53

NOTE:
EEPROM on the Laser Driver PCB stores the 8-beam phase displacement coefficient (laser phase coefficient), which is unique to the Laser Scanner Unit, and corrects 8-beam phase difference based on the stored coefficient. When a Laser Scanner Unit is replaced, the DC Controller PCB automatically retrieves the laser phase coefficient of EEPROM.



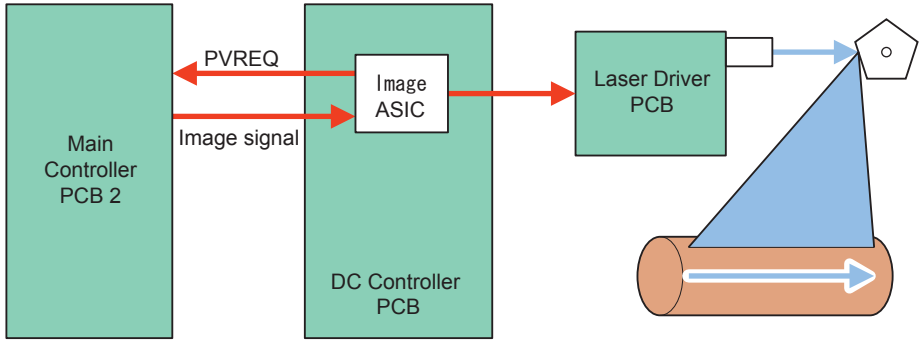
F-2-54

Sub Scanning Synchronization Control

This control is performed to adjust the writing position in the sub scanning direction.

<Execution timing>
When printing is started

<Control Description>
1) The DC Controller PCB generates synchronization signal in vertical scanning direction (PVREQ) and sends to Main Controller PCB 2.
2) Main Controller PCB 2 receives PVREQ (synchronization signal in vertical scanning direction) and sends the video signal to the DC Controller PCB.
3) The DC Controller PCB sends drive signal to the Laser Driver PCB to turn on the laser.



F-2-55

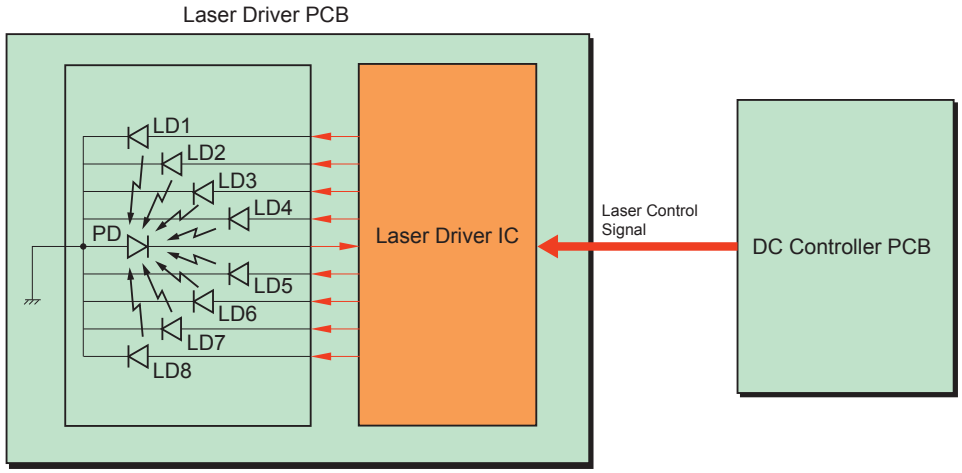
Laser Beam Intensity Control

APC (Auto Power Control) Control

To keep constant laser light intensity per 8 beams (1BD basis)

<Execution timing>
When the laser is scanned (per line)

<Control Description>
1) The DC Controller PCB outputs laser control signal to the Laser Driver IC in the Laser Driver PCB to set in APC mode.
2) The Laser Driver IC is set in APC mode and makes laser diodes (LD1 to LD8) to forcibly emit in series.
3) The Laser Driver IC monitors laser diodes (LD1 to LD8) with the Photo Diode (PD) and adjusts output of laser diode until the laser light intensity reaches a specified level.



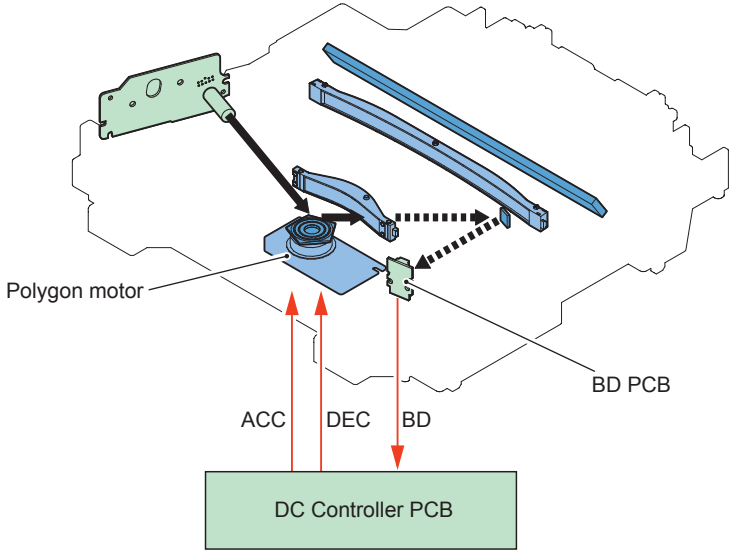
F-2-56

Polygon Motor Control

This control is performed to rotate the polygon mirror at a specified speed.

<Execution timing>
When the Polygon Motor is started

<Control description>
1) The DC Controller PCB outputs acceleration signal (ACC) to forcibly rotate the Polygon Motor.
2) The speed detection signals (FG, BD) are detected to be compared with the reference signal generated in the reference signal generation area, so that the acceleration signal (ACC) and the deceleration signal (DEC) are controlled to keep the specified speed.



F-2-57

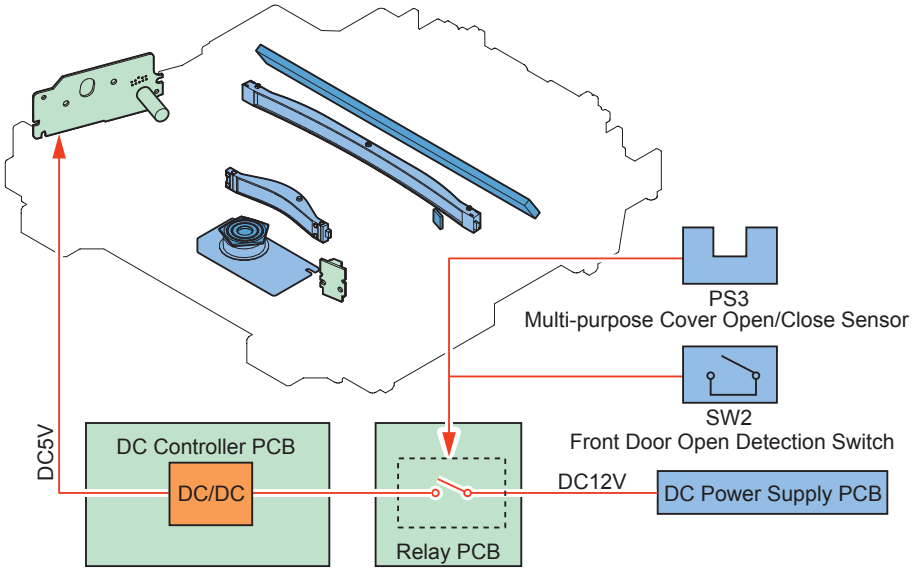
Related Error Code
E100: Failure to detect PLOCK signal during BD rotation
E110: Failure to detect VLOCK signal during FG rotation

Laser Shutter Control

To prevent laser exposure in the machine when the Cover is open

<Execution timing>
When the Front Door or Multi tray Cover opens/closes

<Control description>
When the Front Door or Multi tray Cover opens, the DC Controller PCB stops power supply (DC5V) of the Laser Driver to prevent laser exposure.



F-2-58

NOTE:
This control is executed by the software only and there is no shutter to prevent laser exposure.

Servicing

Periodically Replaced Parts

None

Consumable Parts

None

Periodical Servicing List

Parts name	Qty	Cleaning interval	Remarks
Dust-proof glass	1	-	Clean when black lines or the like occurs due to soil on the Dustproof Glass.

T-2-23

When Replacing Parts

No.	Parts Name	When replacing parts
1	Laser Scanner Unit	1) Execution of potential control (COPIER>FUNCTION>DPC>DPC) 2) Write down the write start position adjustment value of laser in the following service mode on the service label. COPIER > ADJUST > LASER > PVE-OFST

T-2-24

Major Adjustments

None

Image Formation System

Overview

Overview

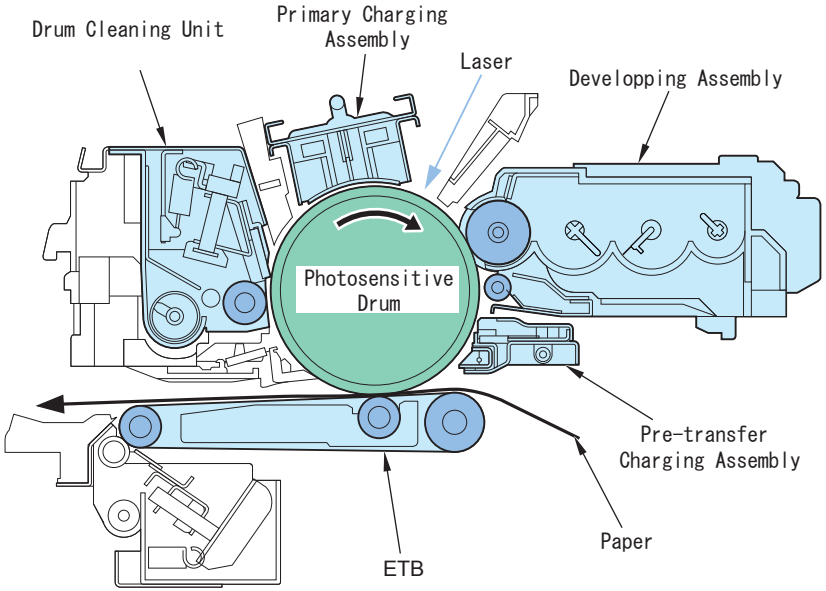
Toner image is formed by the magnetic, 1-component toner projection developing method in image formation system.

To ensure high quality print, this machine introduces the following new technologies:

- Small-diameter toner
  High resolution by fine-grained toner
- Belt transfer method

Improved transfer/feeding performance by the belt feeding

- The shutter mechanism is added to the Primary Charging Assembly and the Pre-transfer Charging Assembly.
  This prevents discharge products from attaching on the Drum, thus prevents image failure just after startup.
- Improved accessibility to the periodically replaced / durable parts provides increased serviceability.



F-2-59

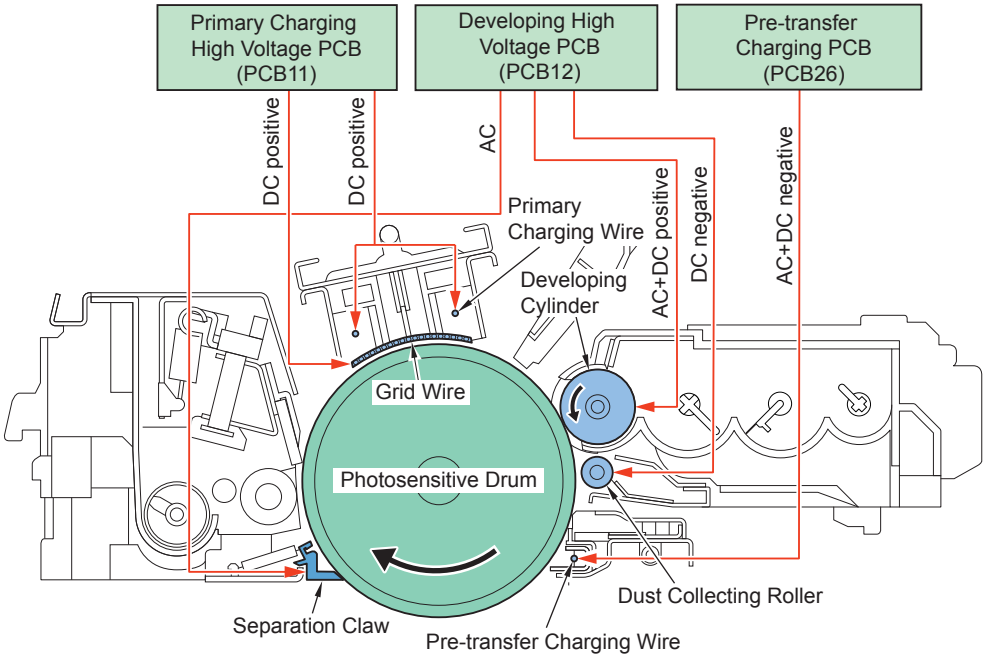
Specifications

Basic Specifications

Item		Function/Method
Photosensitive Drum	Material	A-Si
	Drum diameter	84 mm diameter
	Cleaning	Cleaning Blade
	Process speed	iR-ADV 6075: 350 mm/sec iR-ADV 6065/6055: 290 mm/sec
	Separation method	Curvature separation + separation claw
	Drum Heater	Yes (42 +/- 2 deg C)
	Drum HP detection	Yes
Developing Assembly	Developing method	Dry, 1-component toner projection method
	Developing Cylinder	iR-ADV 6075/6065/6055 series 1 cylinder (single-developing method) 24.5 mm diameter
	Toner	Magnetic negative toner
	Toner level detection	Yes (magnetic sensor)
Primary charging	Charging method	Corona charging (2 charging wires + grind wire)
	Cleaning	Cleaning Pad (charging wire)
	Shutter	Yes
Pre-transfer charging	Charging method	Corona charging (1 charging wire)
	Cleaning	Cleaning Pad (charging wire)
	Shutter	Yes
Transfer method		Direct transfer (ETB: Electrostatic Transfer Belt)
ETB Unit	Material	CR rubber + urethane resin
	Circumferential length	298.5 mm
	Cleaning	Brush Roller + Cleaning Blade
	Transfer method	Transfer Roller (sponge roller)
	Separation method	Curvature separation + static eliminator
	Disengagement mechanism	Yes
Waste Toner Container	Capacity	Equivalent to 1 million sheets
	Full-level detection	Yes
	Presence/absence detection	No
Toner Container	Method	Set-on (manual)
Patch Sensor		No

T-2-25

Charging Specifications



F-2-60

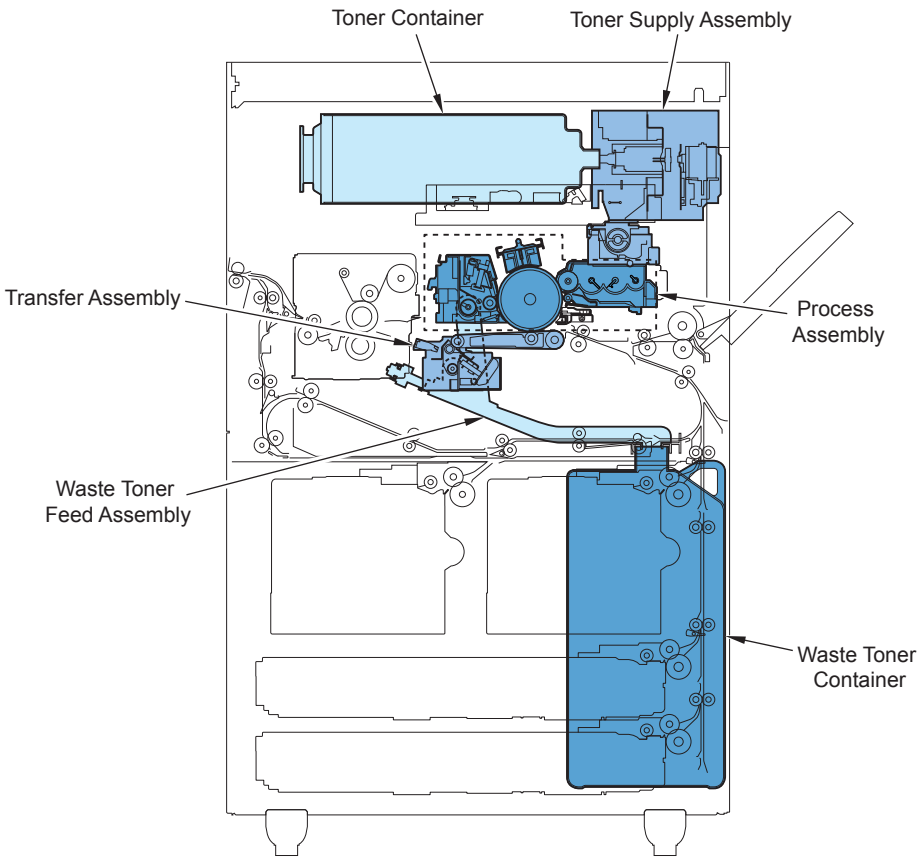
Item		Bias value	Remarks
Primary charging bias	DC bias	6000 to 9000 V	To be specified by the potential control
Grid bias	DC bias	530 to 800 V	To be specified by the estimated life and environment*
Developing bias	AC bias	1200 V	Fixed value (ON/OFF only)
	DC bias	200 to 300 V	To be specified by the estimated life and environment*
Dust-collection bias	DC bias	-800 V	Constant voltage control
Pre-transfer charging bias	AC bias	8300 V	Fixed value (ON/OFF only)
	DC bias	0 to 6000 V	Constant current control (to be specified by the environment*)
Transfer bias	DC bias	0 to 6500 V	Constant current control (to be specified by the environment*, paper type and print mode)
Separation claw bias	AC bias	690 V	Fixed value (ON/OFF only)

T-2-26

* Detected by the Environment Sensor (THU1)

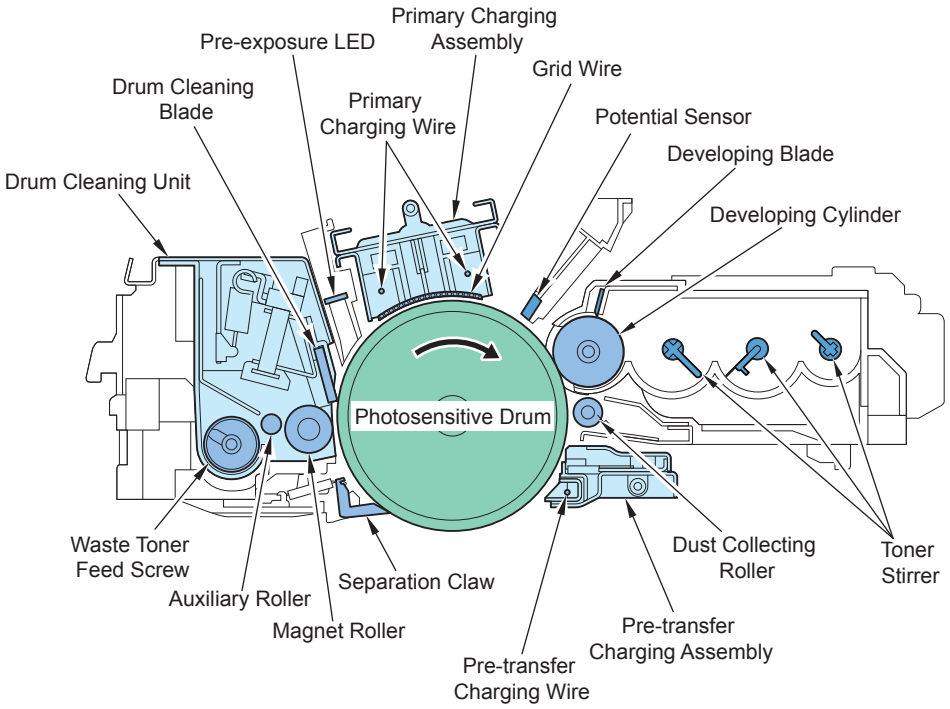
Parts Configuration

Entire Configuration



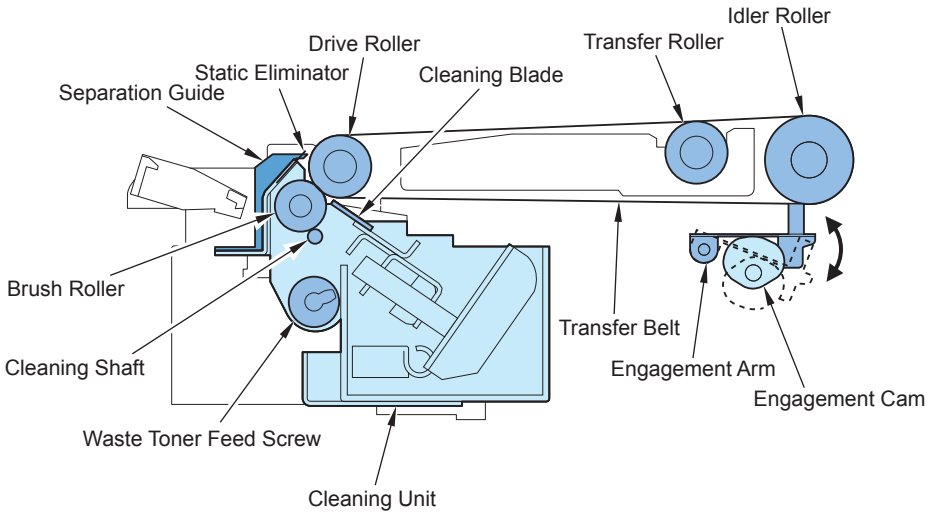
F-2-61

Process Area



F-2-62

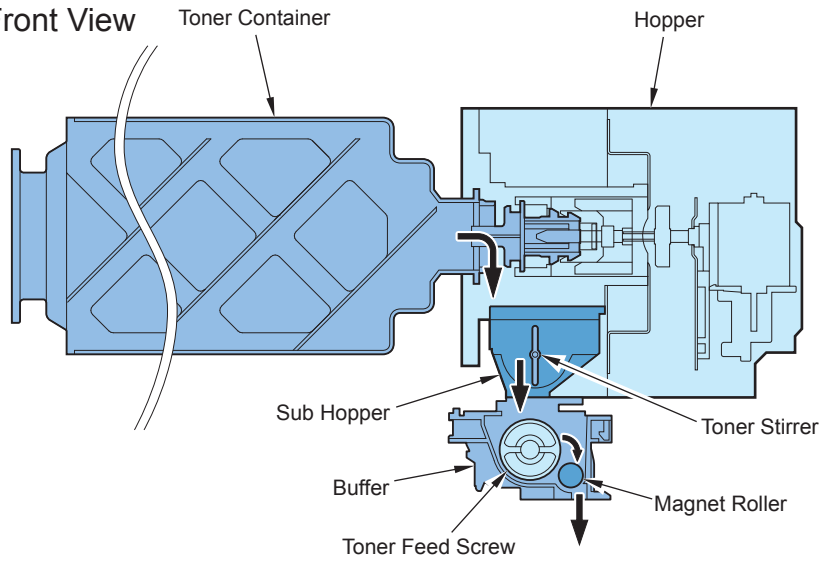
Transfer Area



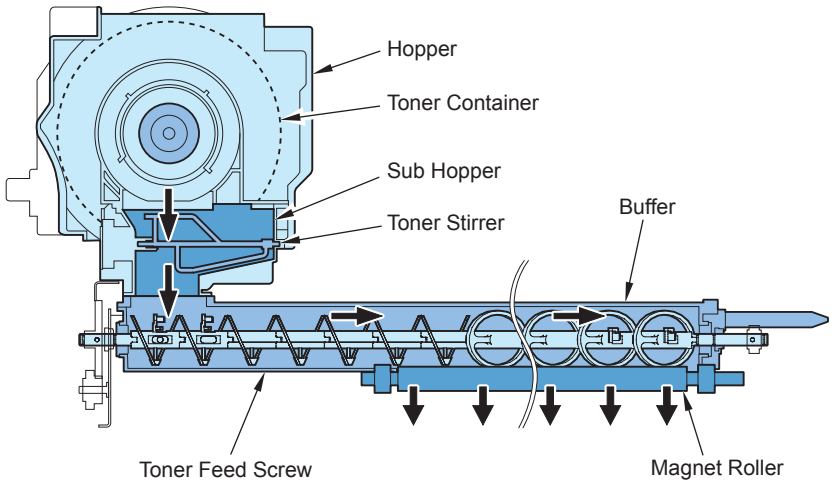
F-2-63

Toner Supply Area

Front View

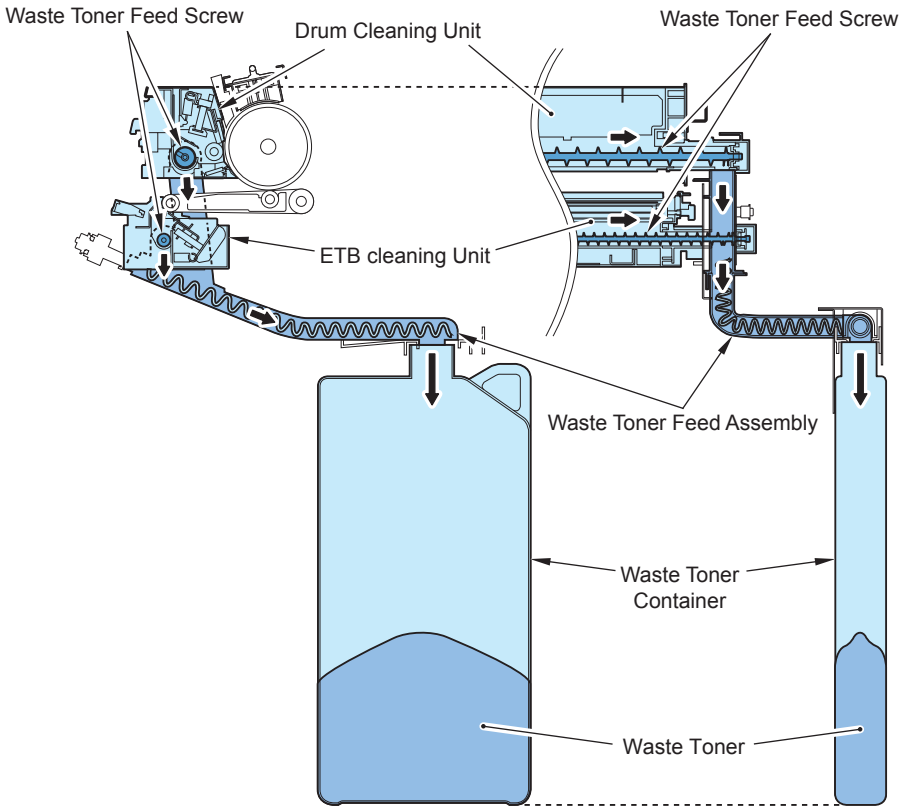


Right Side View



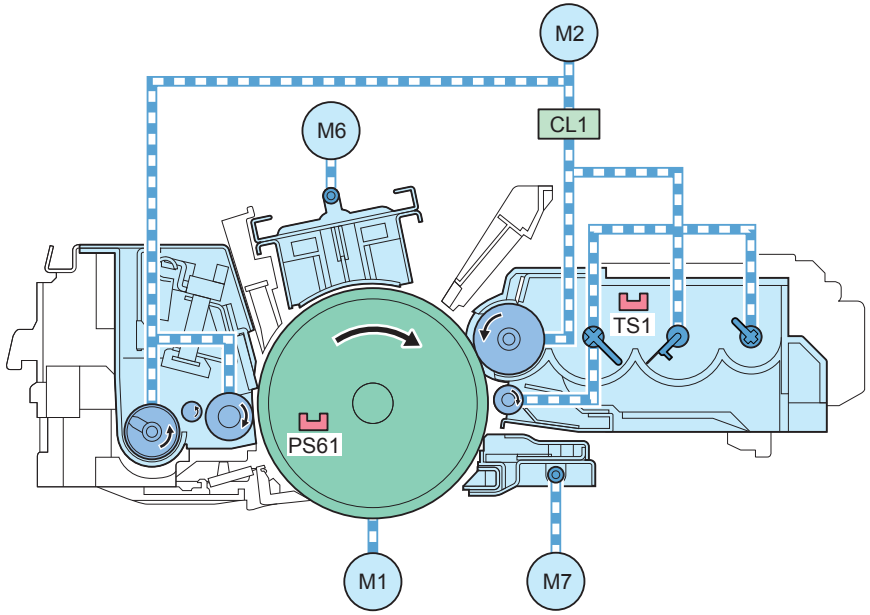
F-2-64

Waste Toner Feeding Area



F-2-65

Drive Configuration

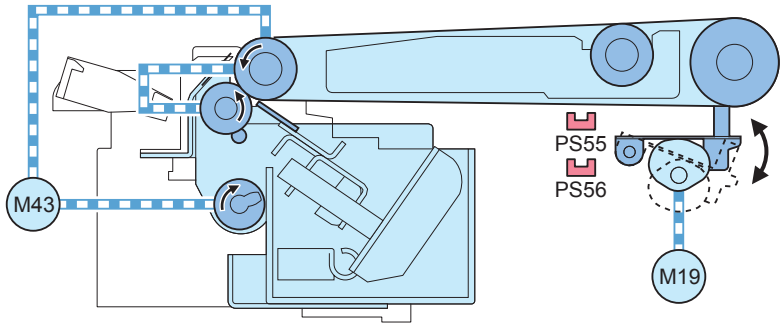


F-2-66

Code	Name	Function
M1	Drum Motor	To drive the Photosensitive Drum and the Dust-collection Roller
M2	Developing Motor	To drive the Developing Cylinder, the Toner Stirring Plate, the Magnet Roller and the Waste Toner Feed Screw
M6	Primary Charging Wire Cleaning Motor	To drive the Primary Charging Wire Cleaning Pad and the Primary Charging Shutter
M7	Pre-transfer Charging Wire Cleaning Motor	To drive the Pre-transfer Charging Wire Cleaning Pad and the Pre-transfer Charging Shutter
CL1	Developing Clutch	To drive the Developing Cylinder and the Toner Stirring Plate
TS1	Developing Toner Sensor	To detect toner level in the Developing Assembly
PS61	Drum Home Position Sensor	To detect home position of the Photosensitive Drum

T-2-27

Transfer Area

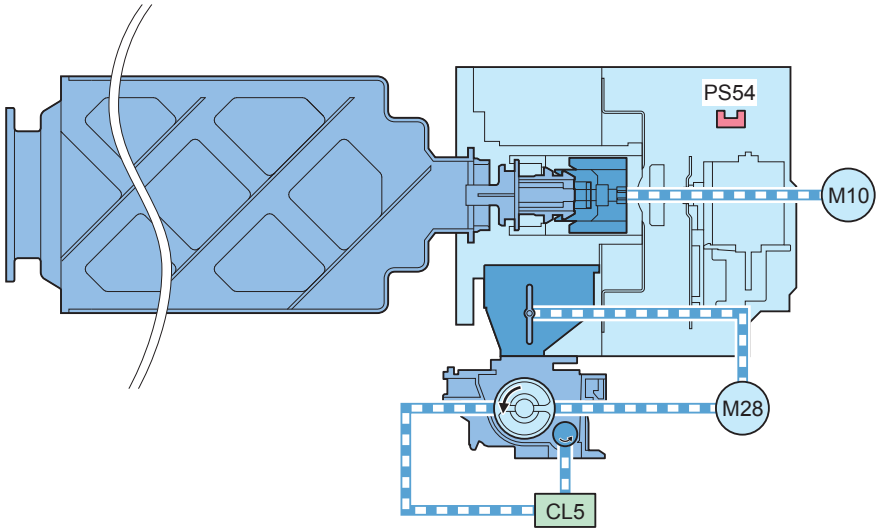


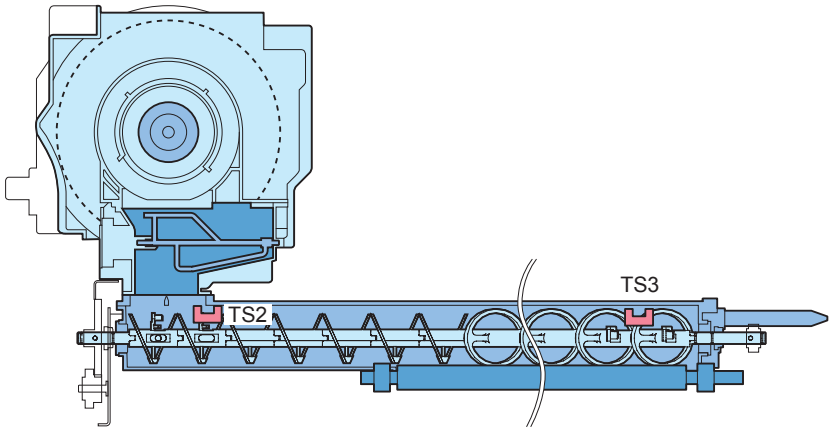
F-2-67

Code	Parts name	Function
M19	Duplex Feed Left Motor	To make the ETB Unit (ETB) engaged/disengaged
M43	ETB Motor	To drive the ETB Drive Roller, the Brush Roller and the Waste Toner Feed Screw.
PS55	ETB Engage Sensor	To detect engagement of the.
PS56	ETB Disengage Sensor	To detect disengagement of the ETB (home position).

T-2-28

Toner Supply Area





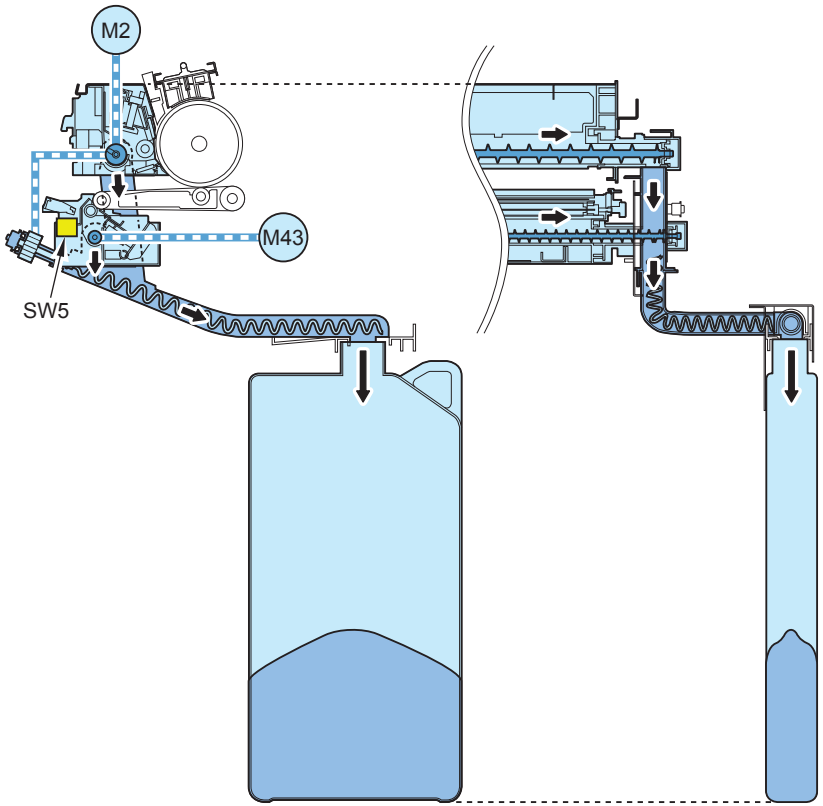
F-2-68

Code	Parts name	Function
M10	Hopper Toner Supply Motor	To drive the Toner Stirring Plate (to supply toner to the Buffer)
M28	Buffer Toner Feed Motor	To drive the Toner Feed Screw and the Toner Stirring Plate (to feed toner)
CL5	Developing Assembly Toner Supply Clutch	To drive the Magnet Roller (to supply toner to the Developing Assembly)

Code	Parts name	Function
TS2	Buffer Toner Sensor 1	To detect toner level in the Buffer(To avoid oversupply to the Buffer)
TS3	Buffer Toner Sensor 2	To detect toner level in the Buffer (to detect absence of toner in the Buffer)
PS54	Toner Replacement Cover Sensor	To detect whether the Toner Replacement Cover is opened/closed.

T-2-29

Waste Toner Feeding Area



F-2-69

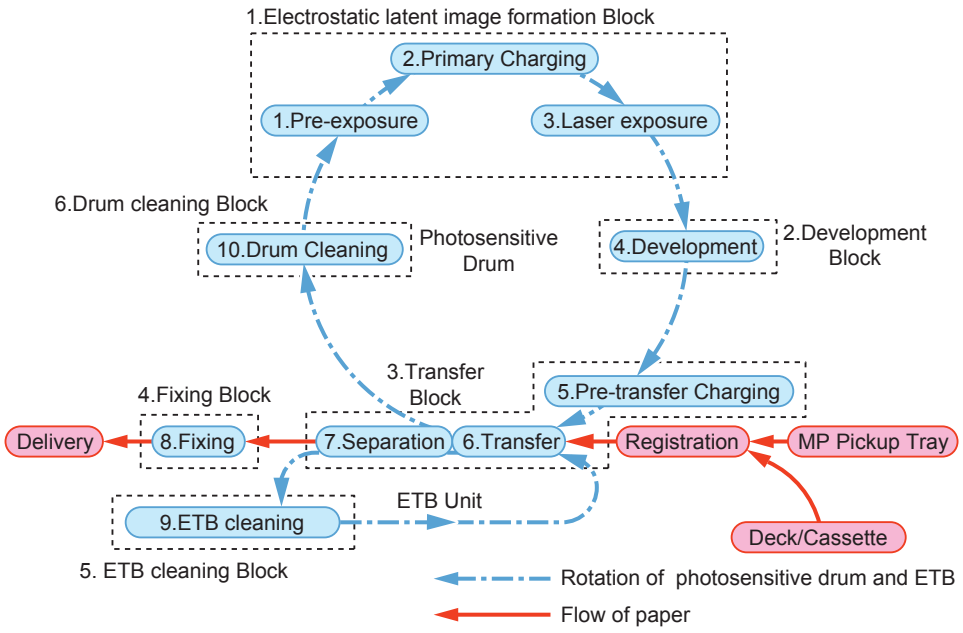
Code	Parts name	Function
M2	Developing Motor	To drive the Waste Toner Feed Screw(Drum Cleaning Unit)
M43	ETB Motor	To drive the Waste Toner Feed Screw(ETB Cleaning Unit)
SW5	Waste Toner Lock Detection Switch	To detect lock of the Waste Toner Feed Screw

T-2-30

Print Process

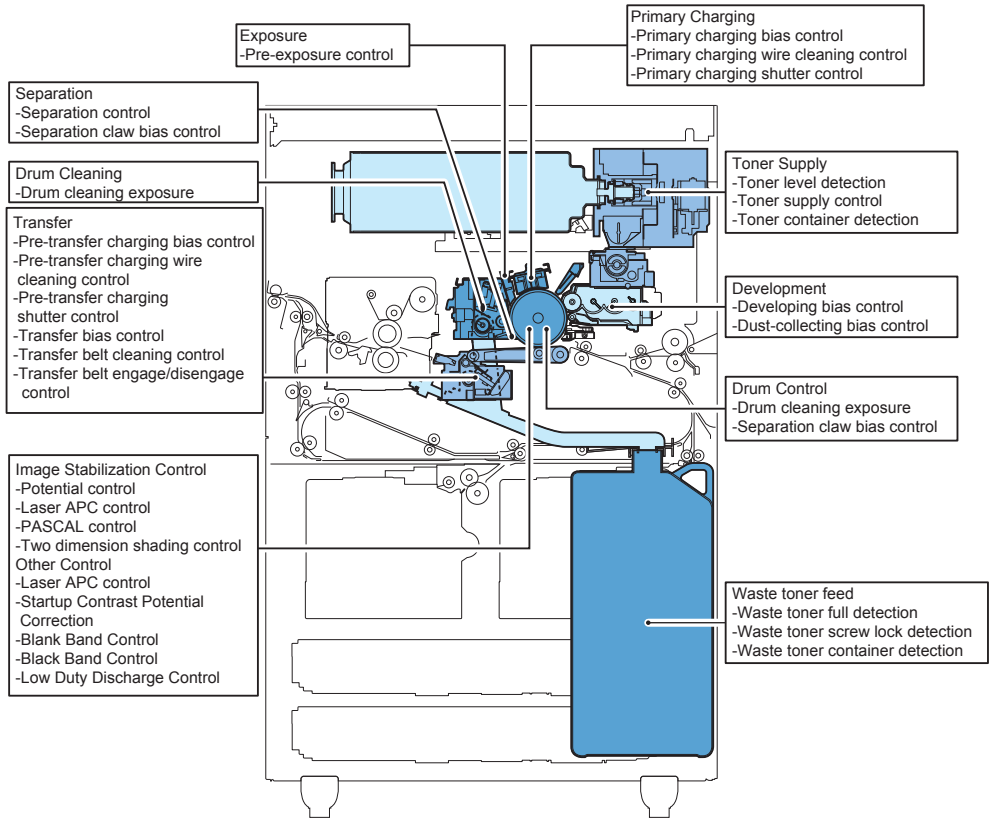
Block	Step		Overview
Static formation block	1	Exposure	Light emission from the Pre-exposure LED removes residual potential on the surface of the Photosensitive Drum to prevent density unevenness.
	2	Primary charging	The surface of the Photosensitive Drum is charged to make a uniform positive potential. This machine uses the Primary Charging Assembly which indirectly gives potential from the Charging Wire to the Photosensitive Drum.
	3	Laser exposure	Emission of the laser beam forms a static latent image on the surface of the Photosensitive Drum. When the laser beam is applied on the surface of the positively charged Photosensitive Drum, the potential at the emitted part is reduced.
Developing block Transfer block	4	Developing	With the magnetic, 1-component toner projection developing method, toner that has been negatively charged by the Developing Cylinder is attached to the latent image on the surface of the Photosensitive Drum to make it visible.
	5	Pre-transfer charging	Toner on the Photosensitive Drum is made to be a uniform potential.
	6	Transfer	Positive potential is applied to the Transfer Roller so that the toner on the Photosensitive Drum is transferred on a paper.
	7	Separation	With the curvature separation method and the static eliminator, the paper is separated from the Photosensitive Drum and the ETB.
Fixing block	8	Fixing	The toner on the paper is fused on the paper by heat and pressure.
ETB cleaning block	9	ETB cleaning	The Cleaning Blade removes the residual toner attached on the ETB.
Drum cleaning block	10	Drum cleaning	The Cleaning Blade removes the residual toner attached on the Photosensitive Drum.

T-2-31


1.Electrostatic latent image formation Block
2.Primary Charging
1.Pre-exposure
3.Laser exposure
6.Drum cleaning Block
10.Drum Cleaning
Photosensitive Drum
4.Development
2.Development Block
3.Transfer Block
5.Pre-transfer Charging
4.Fixing Block
Delivery
8.Fixing
7.Separation
6.Transfer
Registration
MP Pickup Tray
ETB Unit
9.ETB cleaning
Deck/Cassette
5. ETB cleaning Block
Rotation of photosensitive drum and ETB
Flow of paper

F-2-70

Controls



F-2-71

Control name		Description
Exposure		
	Pre-exposure control	To apply the light of the Pre-exposure LED on the surface of the Photosensitive Drum.
Primary charging		
	Primary charging wire bias control	To apply the positive potential to the Primary Charging Wire and the Primary Grid Plate.
	Primary charging wire cleaning control	To clean the Primary Charging Wire.
	Primary charging shutter control	To prevent image failure caused by ozone generated from the Primary Charging Wire.
Developing		
	Developing bias control	To apply positive potential to the Developing Cylinder so that the toner on the Developing Cylinder is attached on the surface of the Photosensitive Drum.
	Dust-collection bias control	To collect the scattered toner to prevent toner that scatters during developing process from being attached to the Photosensitive Drum.
	Toner collection sheet bias control	To apply negative potential to the Toner Collection Sheet.
Transfer		
	Pre-transfer charging bias control	To charge toner negatively and evenly to ensure stability of transfer performance.
	Pre-transfer charging wire cleaning control	To clean the Pre-transfer Charging Wire to prevent the Charging Wire failure that is caused by soil of the Pre-transfer Charging Wire.
	Pre-transfer charging shutter control	To prevent image failure caused by ozone generated from the Pre-transfer Charging Wire.
	Transfer bias control	To apply positive potential to the Transfer Roller so that the toner on the Photosensitive Drum is transferred on the paper.
	Transfer belt cleaning control	To remove the residual toner on the Transfer Belt to prevent image failure that is caused by toner soil on the belt.
	Transfer belt engagement/ disengagement control	To engage/disengage the Transfer Belt with the Photosensitive Drum.
Separation		
	Separation control	To separate paper from the Photosensitive Drum and the Transfer Belt.
	Separation bias control	To remove toner attached to the Drum Separation Claw.
Drum cleaning		
	Drum cleaning control	To remove residual toner on the Photosensitive Drum.
Drum control		
	Drum home position detection	To detect home position of the Photosensitive Drum.
	Drum heater control	To keep constant temperature of the Photosensitive Drum.

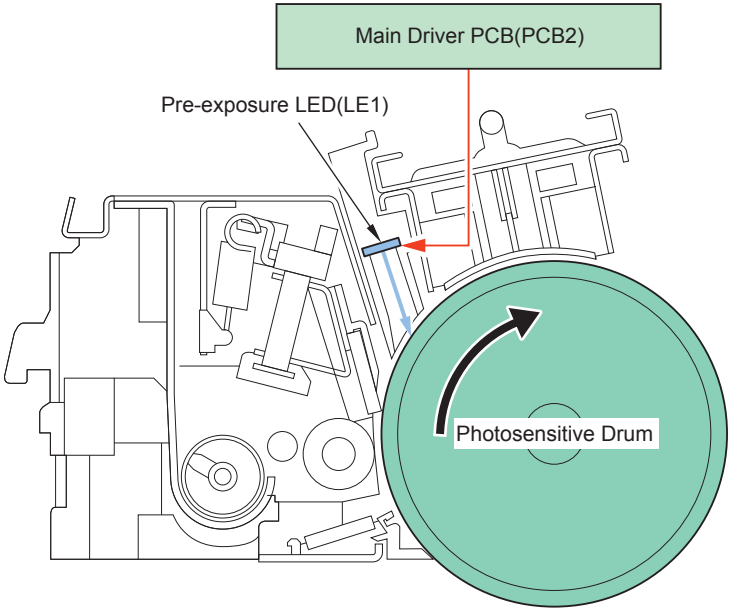
Control name		Description
Toner supply		
	Toner level detection	To detect toner level in the Developing Unit and the Buffer Unit.
	Toner supply control	To supply toner from the Toner Container to the Developing Assembly.
	Toner container detection	To detect whether the Toner Container is attached to the host machine.
Waste toner feeding		
	Waste toner full level detection	To detect whether the Waste Toner Container is full.
	Waste toner screw lock detection	To detect whether the Waste Toner Screw is locked.
	Waste toner container detection	To detect whether the Waste Toner Container is attached to the host machine.
Image stabilization control		
	Potential control	To determine primary current (VD), laser power (VL) and developing bias (Vdc) according to the deterioration level of the Photosensitive Drum and the environmental change.
	PASCAL control	To determine gradation adjustment value based on the image density scanned by the Reader.
	2D shading control	To correct uneven potential on the Photosensitive Drum by laser exposure.
Other Control		
	Startup Contrast Potential	To adjust the contrast potential (Vcont) at startup in order to maintain the density consistently.
	Laser APC control	To correct the laser output control value to prevent changes in surface potential by the laser output.
	Blank Band Control	To blow off the reversely-charged toner on the Developing Sleeve forcibly to the Drum surface in order to collect the toner into the Drum Cleaning Unit.
	Black Band Control	To supply toner thoroughly to the ends of the Cleaning Blade and prevent the blade from everting by forming the toner band at the Drum ends.
	Low Duty Discharge Control	To forcibly eject toner by forming the toner band at the Drum ends in order to avoid toner deterioration in case low duty images are continuously output.

T-2-32

Exposure

Pre-exposure Control

To prevent uneven density with the print image, residual potential on the Photosensitive Drum is removed before the primary charging.
With the command by the DC Controller PCB, the Pre-exposure LED (LED 1) is emitted. By emitting the LED on the Photosensitive Drum, remove residual potential on the drum.



F-2-72

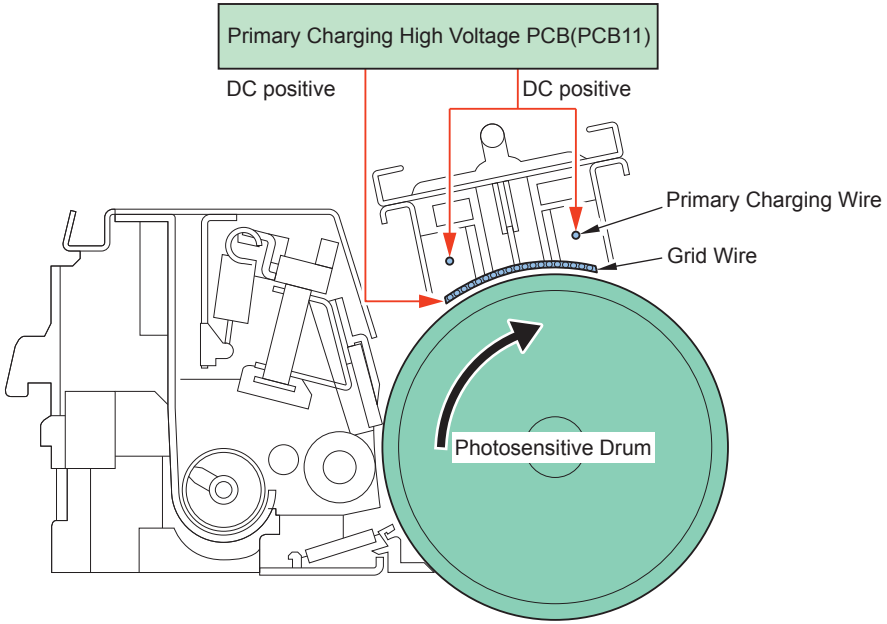
Primary Charging

Primary Charging Bias Control

To make the surface of the Photosensitive Drum evenly and positively charged.
The primary charging bias (DC positive), which has been generated by the Primary Charging High Voltage PCB (PCB11), is applied to the Primary Charging Wire and the Grid Plate.

- Primary charging DC bias: the bias to be applied to the Primary Charging Wire
- Grid DC bias: the bias to be applied to the Grid Plate

The primary charging bias value is specified by the potential control.
The grid bias is specified based on the estimated life and the environment.



F-2-73

Primary Charging Wire Cleaning Control

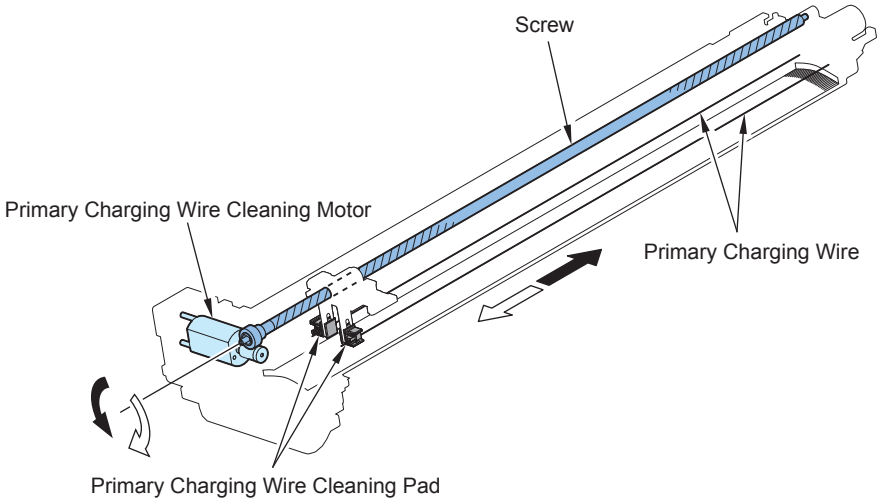
To prevent charging failure caused by soil of the Primary Charging Wire.

<Execution timing>

- Interruption at every 2000 sheets of continuous print (the value can be changed in service mode: 100 to 2000 sheets)
- After last rotation which is performed on the 1500th sheet and later since the last cleaning (1-roundtrip)
- In the case of executing “Clean Wire” in user mode (1-roundtrip)
- In the case of executing the wire cleaning in service mode (1-roundtrip or 3-roundtrip)

<Control description>

The drive of the Primary Charging Wire Cleaning Motor (M6) makes the Cleaner Screw rotate clockwise/counterclockwise, which moves the Cleaning Pad back and forth to clean the Primary Charging Wire.
Position detection of the Cleaning Pad is not performed.



F-2-74

<Related service modes>

To clean the Charging Wire (3-roundtrip)
COPIER > FUNCTION > CLEANING > WIRE-CLN
To check operation of the Charging Wire Cleaning (1-roundtrip)
COPIER > FUNCTION > CLEANING > WIRE-EX
To specify cleaning interval of the Last Rotation Charging Wire ((Default: every 2000 sheets (the interval can be changed within the range between 1000 and 5000 sheets))COPIER > OPTION > CLEANING > W-CLN-P

Primary Charging Shutter Control

To prevent uneven potential on the Photosensitive Drum caused by discharge products (nitrogen oxide) accumulated on the Primary Charging Assembly.

NOTE:
In the environment which moisture content is lower than the one in power saving environment (temperature: 22 deg C, humidity: 75%, moisture content: 12.41g), set the Drum Heater to OFF in the sleep mode after a specified time passes. Discharge product (nitrogen compound) which is generated at the Charging Assembly when image is formed is deposited on the Drum when the time passes. When the Drum Heater is OFF, the discharge product (nitrogen compound) has a chemical reaction with the moisture in the air and generates nitric acid. This nitric acid deteriorates the surface of the Drum and causes the image failure.

<Execution timing>

- When the Drum Heater is turned OFF
- During sleep mode

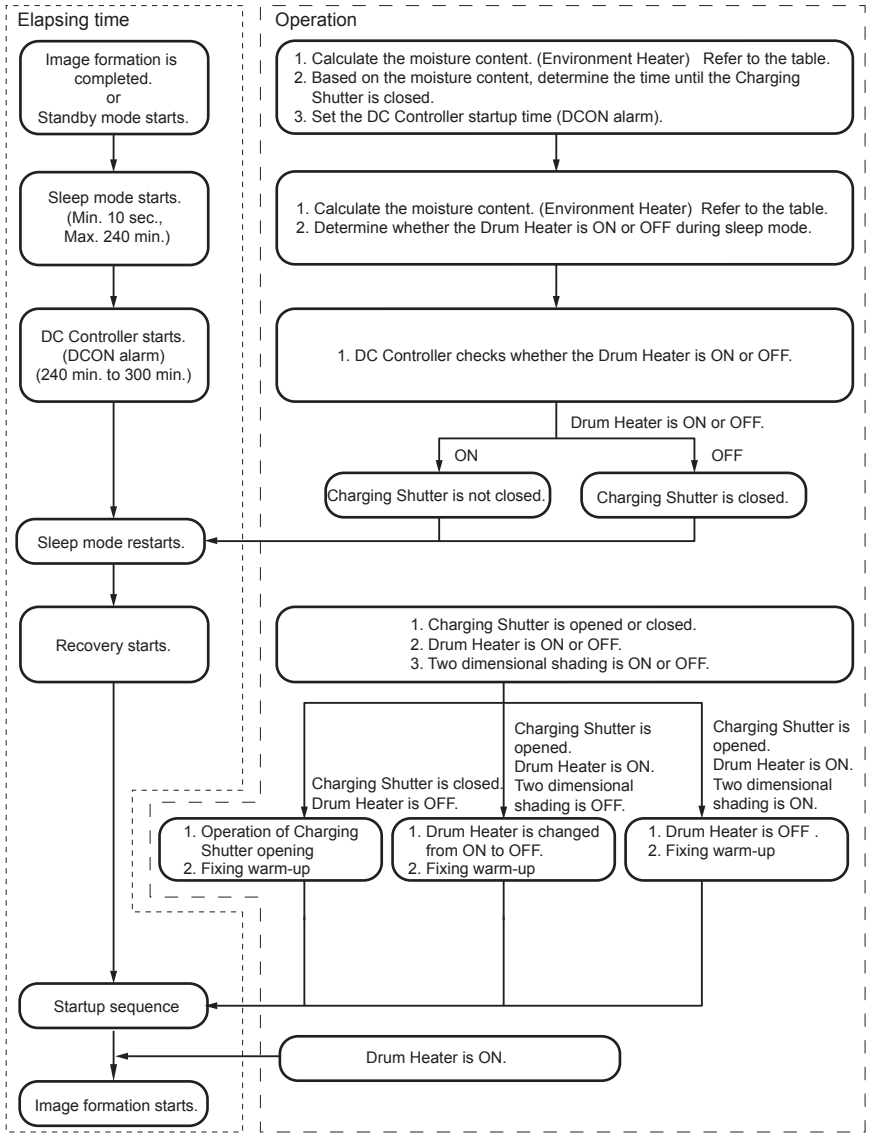
<Execution timing>

- After 4 or 5 hours since the drum was stopped*
  *The time is determined by the environment (moisture content) when the drum operation was stopped

Environment	Moisture content	Temperature/Humidity	Drum Heater	Time
1	to 0.86	23 deg C 5%	OFF	300 min.
2	to 1.73	23 deg C 10%	OFF	285 min.
3	to 5.8	23 deg C 30%	OFF	270 min.
4	to 8.9	23 deg C 50%	OFF	255 min.
Energy save	to 12.41	22 deg C 75%	OFF	240 min.
5	to 15	23 deg C 70%	ON	Not close
6	to 18	27 deg C 80%	ON	Not close
7	to 12.41	30 deg C 80%	ON	Not close

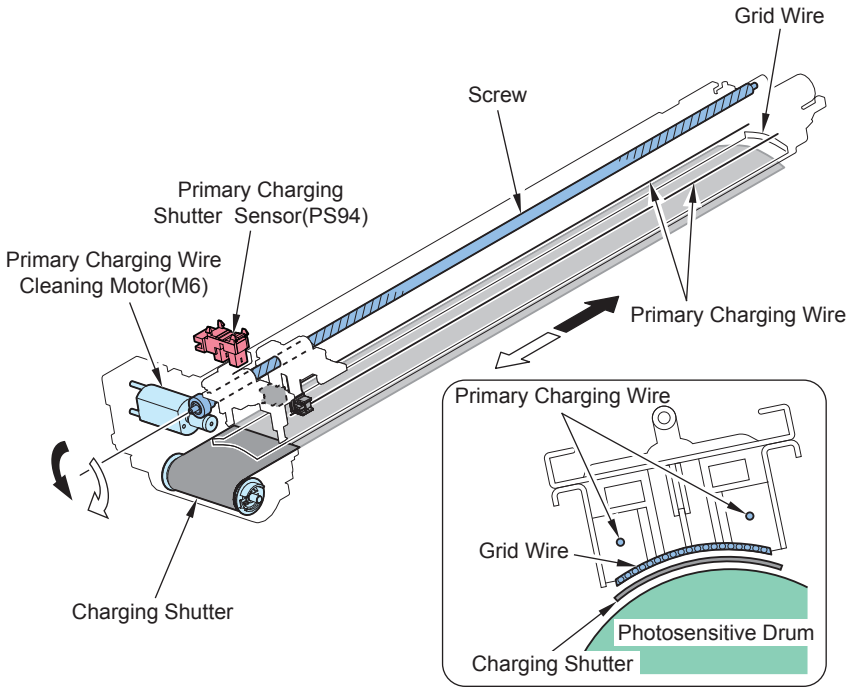
T-2-33

Shutter Open/Close Operation Sequence



F-2-75

<Control description>
The shutter is open or closed by the cleaning mechanism of the Primary Charging Wire.
The Primary Charging Shutter is made of fiber and usually taken up by the bobbin.
The drive of the Primary Charging Wire Cleaning Motor (M6) moves the Cleaning Pad to the rear and the shutter taken up by the bobbin becomes extended to make the Shutter closed.
Because the Shutter comes between the Grid Wire and the Photosensitive Drum, discharge products from the Primary Charging Assembly do not reach the Photosensitive Drum.
The Primary Charging Shutter Position Sensor (PS94) detects opening/close of the shutter.



F-2-76

<Related error code>
E060-0001 Primary Charging Shutter HP open error
E060-0002 Primary Charging Shutter HP close error

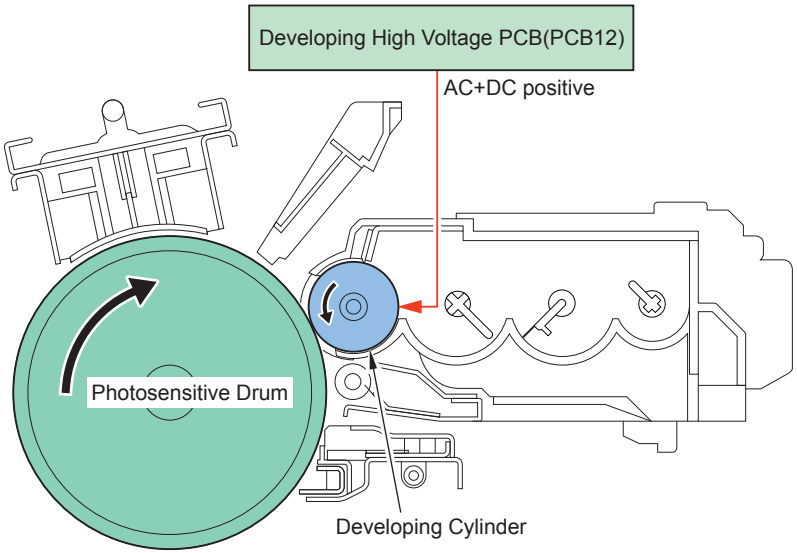
Developing

Developing Bias Control

To form a toner image on the Photosensitive Drum by charging toner on the Developing Cylinder.

<Control description>
The developing bias (AC, DC positive), which has been generated on the Develop High Voltage PCB (PCB12), is applied to the Developing Cylinder.

- Developing DC bias
- The bias to generate potential difference with the Photosensitive Drum.
- The bias value is determined based on the environment and the estimated life.
- Developing AC bias
- The bias to improve image quality.
- The bias value is fixed.

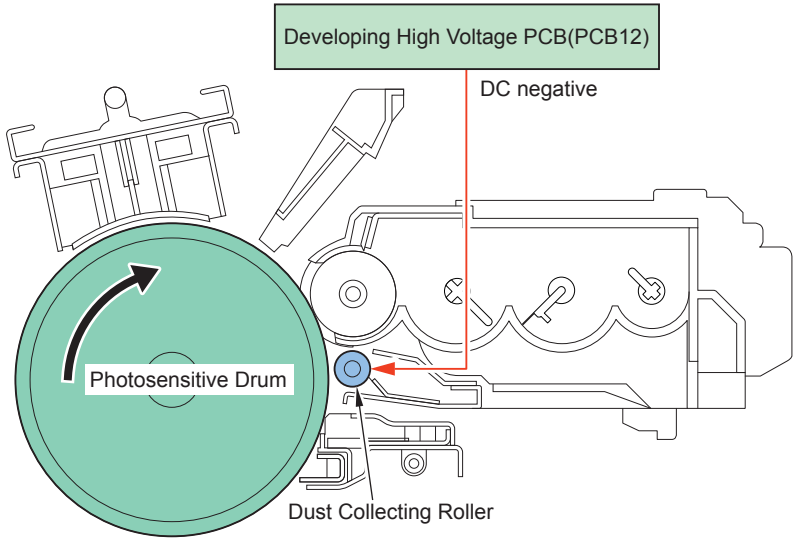


F-2-77

Dust-collection Bias Control

To collect toner which floats over the Photosensitive Drum during developing process.

<Control description>
The dust-collection bias (DC negative), which has been generated on the Develop High Voltage PCB (PCB12), is applied to the Dust-collection Roller.
The bias value is fixed.

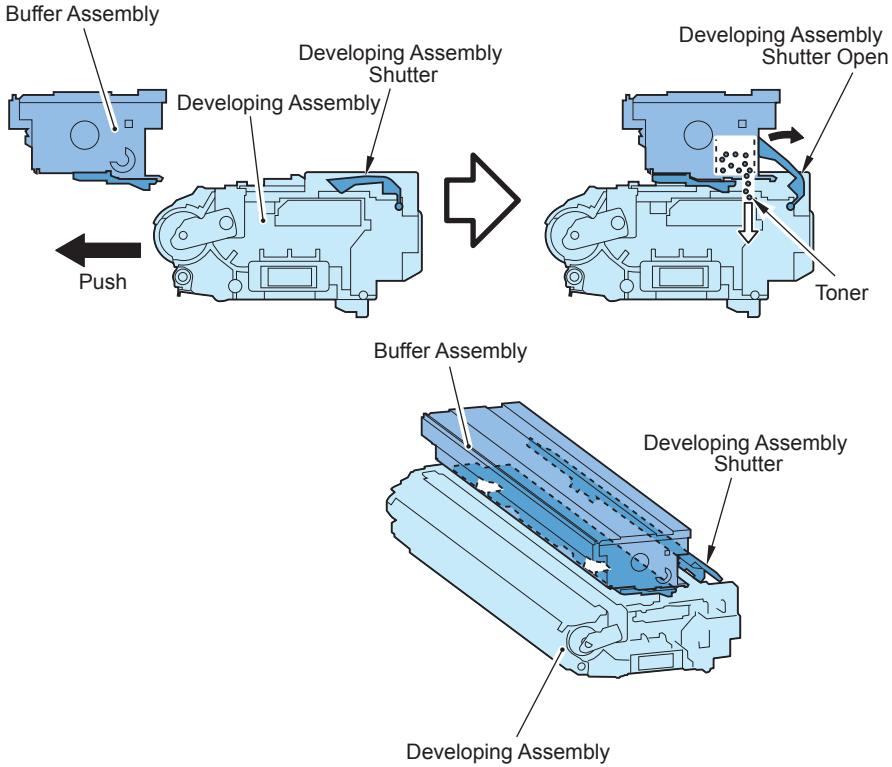


F-2-78

Developing Supply Shutter Opening/Closing Mechanism

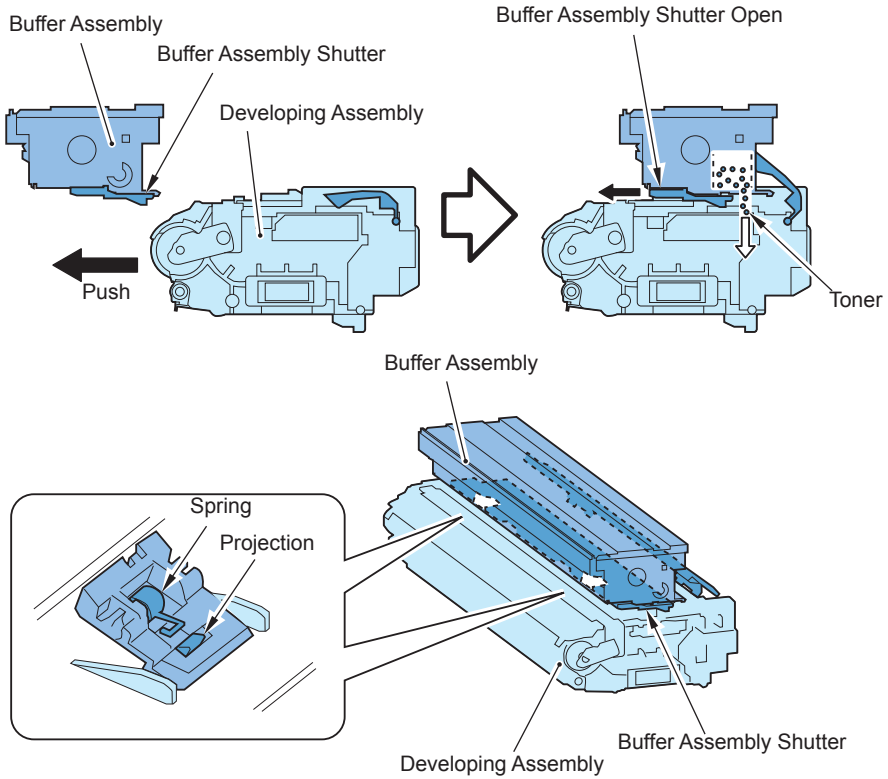
There are shutters at the Supply Mouths of the Developing Assembly and the Buffer Unit to prevent toner scattering.
The Developing Shutter and Buffer Shutter is opened/closed in conjunction with push-in and pull-out of the Developing Assembly.

<Opening and Closing Operations of the Developing Shutter>
By pushing the Developing Assembly in the main body, the Developing Shutter comes in contact with the Buffer Unit.
By pushing the assembly in farther, the Developing Shutter opens along the side of the Buffer Unit. By pulling the Developing Assembly out from the main body, the Developing Shutter closes by its own weight so the Supply Mouth is closed



F-2-79

<Opening and Closing Operations of the Buffer Shutter>
By pushing the Developing Assembly in the main body, edge of the Supply Mouth on the assembly hits to leading edge of the Buffer Shutter.
By pushing the assembly in farther, the Buffer Shutter moves to the rear so the Supply Mouth is opened.
The Shutter Arm goes down by spring pressure, and it interlocks with the protrusion on the Developing Shutter.
By pulling the Developing Assembly out, the Shutter Arm is pushed by the protrusion on the Developing Shutter, so the Buffer Shutter is closed followed by the Supply Mouth. The Shutter Arm lifts up by hitting to the bottom of the Hopper.

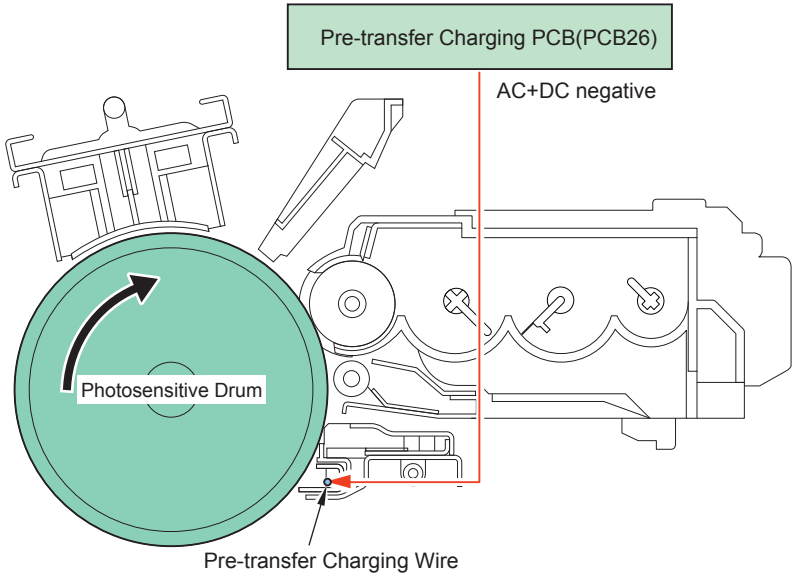


F-2-80

Transfer

Pre-transfer Charging Bias Control

To make the charging amount of toner on the Photosensitive Drum appropriate to improve transfer performance.
The pre-transfer charging bias (AC + DC negative), which has been generated on the Pre-transfer Charging PCB (PCB26), is applied to the Pre-transfer Charging Wire.



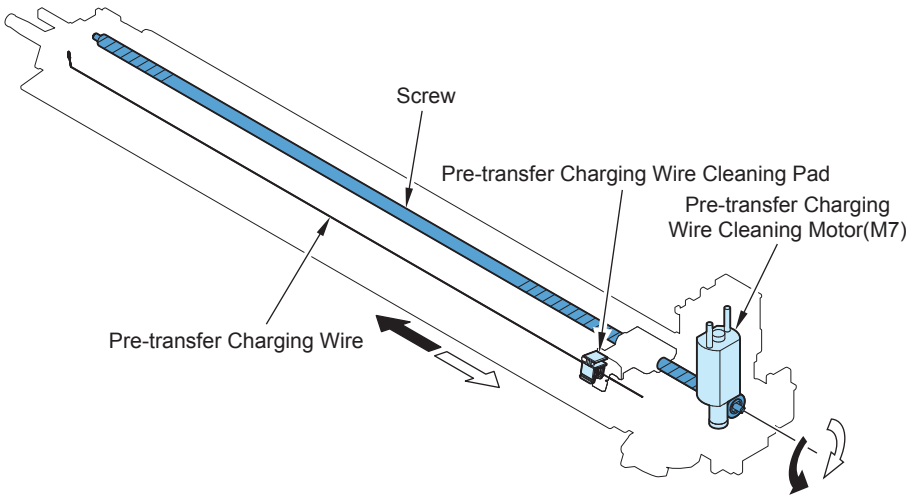
F-2-81

Pre-transfer Charging Wire Cleaning Control

To prevent charging failure caused by soil of the Pre-transfer Charging Wire.

<Execution timing>
To be executed together with the primary charging wire cleaning control at the same time.

<Control description>
The drive of the Pre-Transfer Charging Wire Cleaning Motor (M7) makes the Cleaner Screw rotate clockwise/counterclockwise, which moves the Cleaning Pad back and forth to clean the Pre-transfer Charging Wire.
The Pre-transfer Charging Shutter Position Sensor ( ) detects position of the Cleaning Pad.



F-2-82

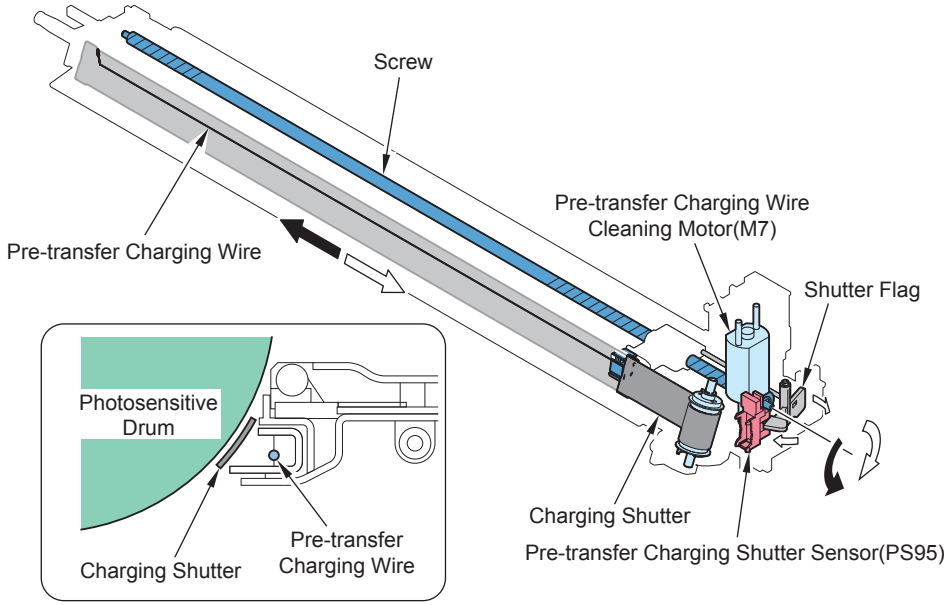
<Related service modes>
- To clean the Charging Wire (5-roundtrip)
  COPIER > FUNCTION > CLEANING > WIRE-CLN
- To check operation of the charging wire cleaning (1-roundtrip)
  COPIER > FUNCTION > CLEANING > WIRE-EX
- To specify cleaning interval of the last rotation charging wire (Default: every 2000 sheets (the interval can be changed within the range between 1000 and 5000 sheets))
  COPIER > OPTION > CLEANING > W-CLN-P

Pre-transfer Charging Shutter Control

To prevent uneven potential on the Photosensitive Drum caused by discharge products (nitrogen oxide) accumulated on the Pre-transfer Charging Assembly.

<Execution timing>
To be executed together with the Pre-transfer charging wire cleaning control at the same time.

<Control description>
The shutter is opened or closed by the cleaning mechanism of the Pre-transfer Charging Wire.
The Pre-transfer Charging Shutter is made of fiber and usually taken up by the bobbin.
The drive of the Pre-transfer Charging Wire Cleaning Motor (M7) moves the Cleaning Pad to the rear and the shutter taken up by the bobbin becomes extended to make the Shutter closed.
Because the Shutter comes between the Pre-transfer Charging Wire and the Photosensitive Drum, discharge products from the Primary Charging Assembly do not reach the Photosensitive Drum.
The Pre-transfer Charging Shutter Position Sensor (PS95) detects opening/close of the shutter.



F-2-83

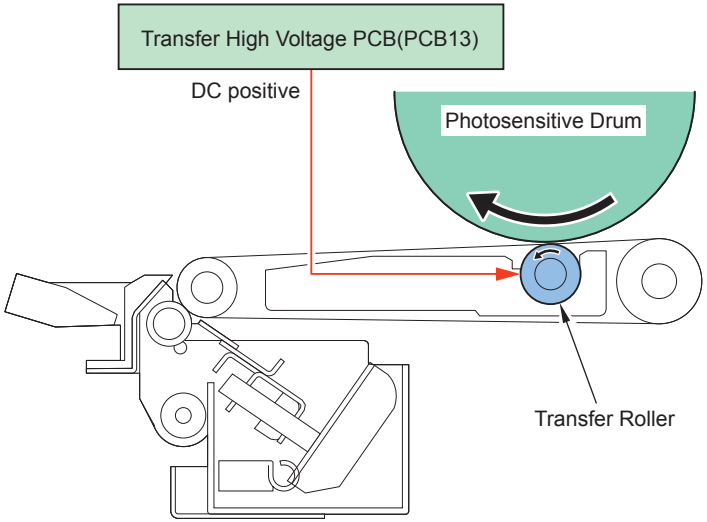
Transfer Bias Control

To transfer toner on the Photosensitive Drum to a paper.

The transfer bias (DC positive), which has been generated on the Transfer High Voltage PCB (PCB13), is applied to the Transfer Roller.

Following shows the 3 types of transfer bias:

- Print bias: the bias to be applied during printing
- Paper leading edge weak bias: the bias to be applied to the leading edge of the paper (to prevent failure in paper separation)
- Paper interval bias: the bias to be applied between sheets
  The bias value is determined by the environment, the paper type and the mode table.



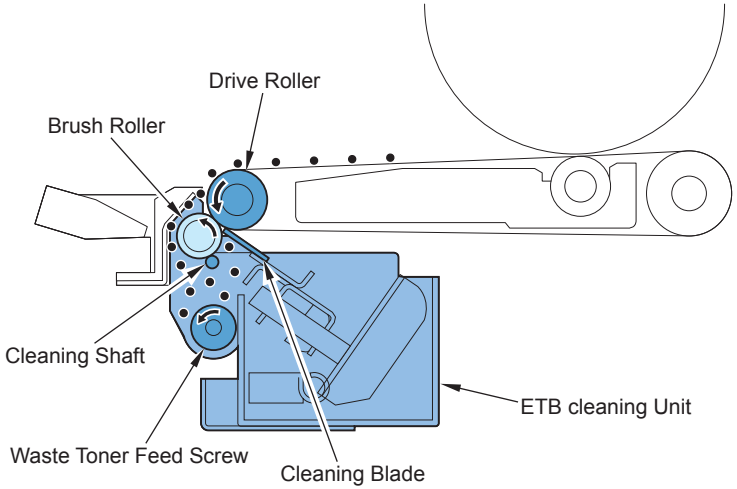
F-2-84

ETB Cleaning Control

To prevent image failure caused by toner soil on the ETB, the residual toner on the Transfer Belt is removed.

<Control description>

1) The ETB Cleaning Blade scrapes toner on the ETB.
2) The scraped toner is fed to the Waste Toner Container.



F-2-85

<Related service mode>

- To clean the ETB (3-round idle rotation of the ETB)
  COPIER > FUNCTION > CLEANING > TBLT-CLN

ETB Engagement/Disengagement Control

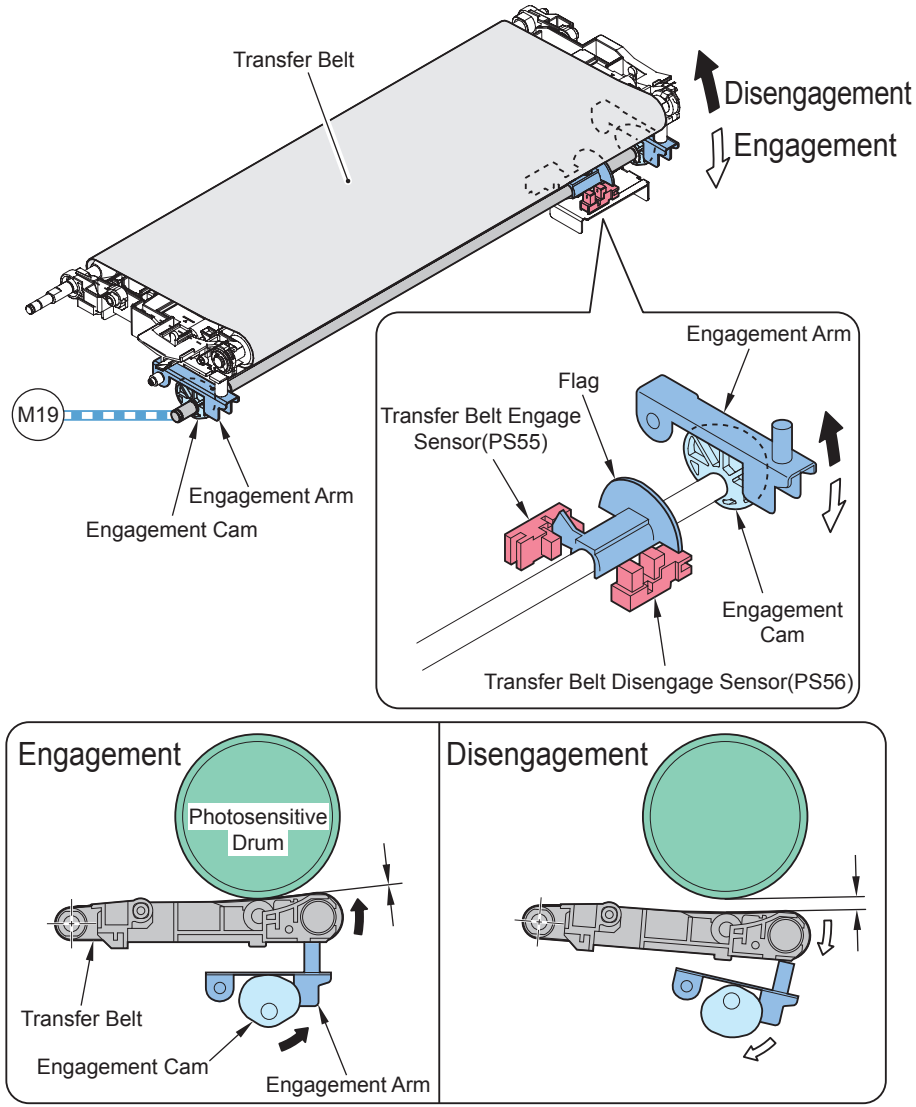
To prevent image failure caused by toner soil on the ETB, the ETB is engaged or disengaged with the Photosensitive Drum.

<Execution timing>

- To make the belt engaged: during printing
- To make the belt disengaged: any timing other than the above

<Control description>

1) Reverse rotation of the Duplex Feed Left Motor (M19) makes the Disengagement Cam rotate.
2) Rotation of the Disengagement Cam moves the Disengagement Arm up and down to make the Transfer Belt engaged/disengaged with the Photosensitive Drum.
3) Following 2 sensors detect position of the Transfer Belt.
   - Transfer Belt Engage Sensor (PS55): to detect engagement of the Transfer Belt
   - Transfer Belt Disengage Sensor (PS56): to detect disengagement (home position) of the Transfer Belt.



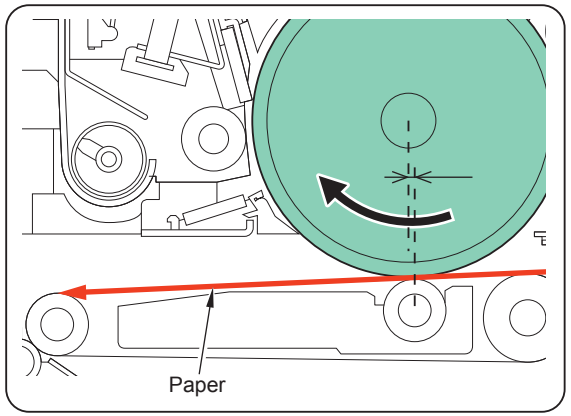
F-2-86

Separation

Separation Control

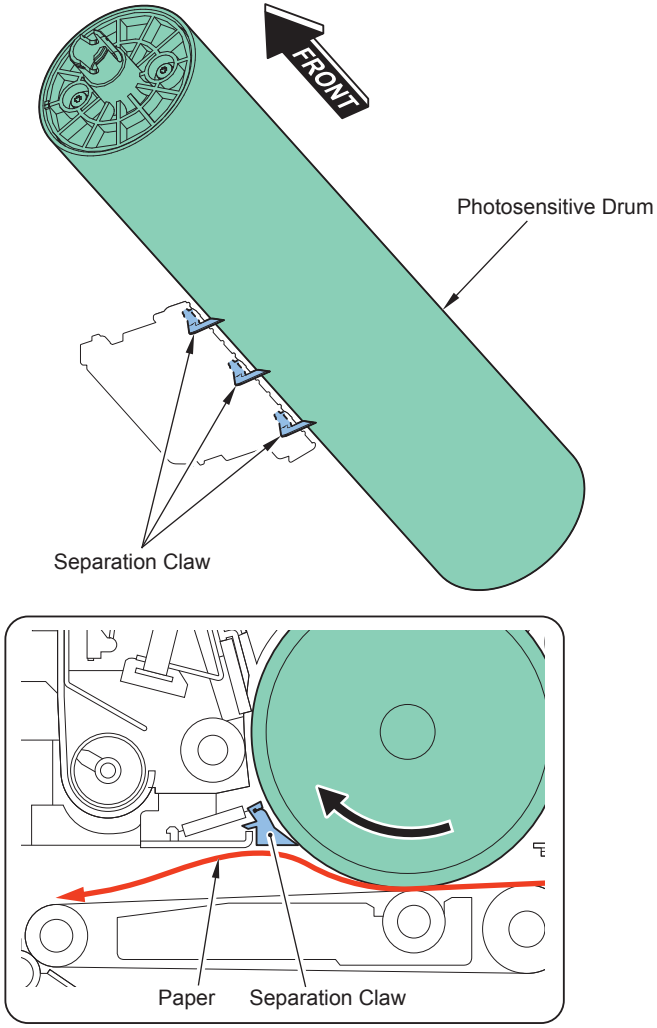
<Separation from the Drum>

Separation is performed using the curvature separation method.



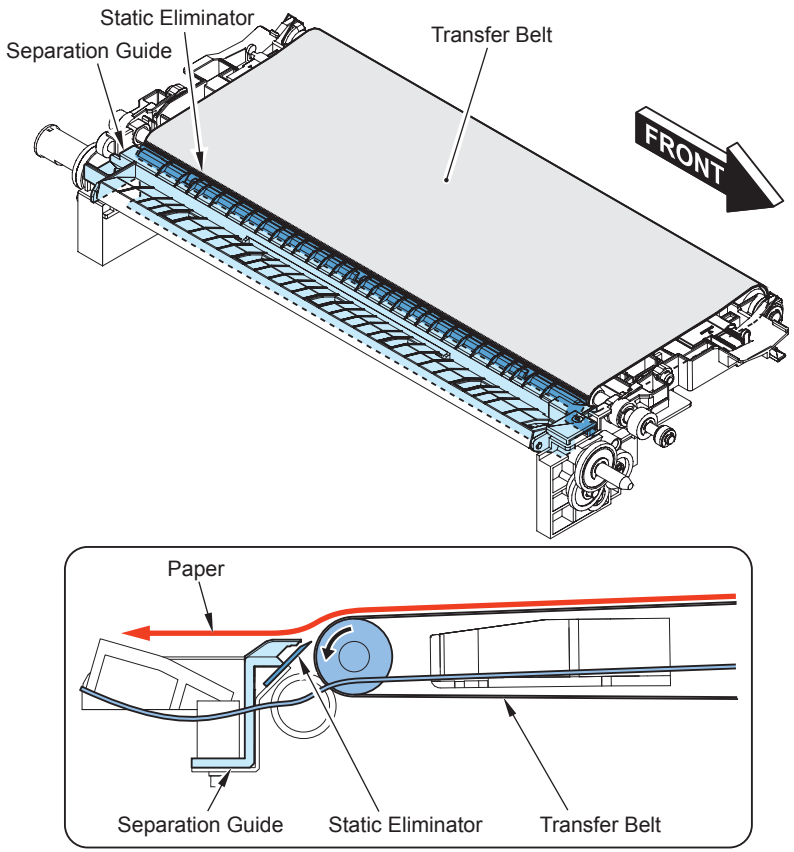
F-2-87

NOTE:
The Separation Claw separates sheets before entering the Drum Cleaning Unit.
This effectively avoids failure in paper feed (double feed, etc.)



F-2-88

<Separation from the ETB>
Separation is performed using the curvature separation method and the Static Eliminator.
There is no bias for separation.



F-2-89

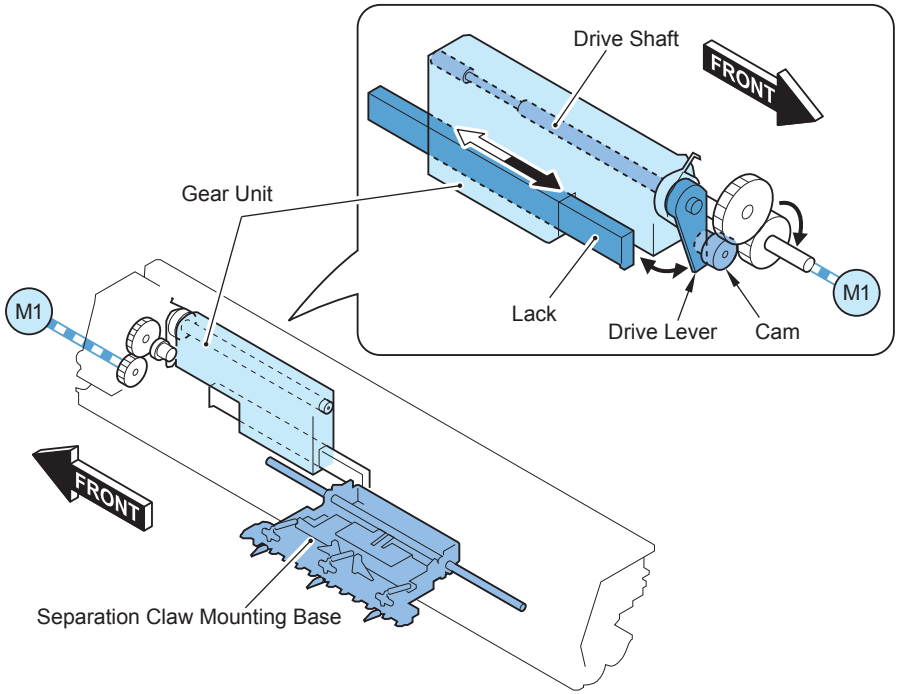
Separation Claw Reciprocation Control

By moving the Separation Claw back and forth (reciprocation), scar on the drum caused by the Separation Claw can be prevented.

<Execution Timing>
During printing (while the Developing Motor is driving)
<Control Description>
Making the Separation Claw move back and forth by transmitting the rotation force of the Developing Motor Drive via the cam and Gear Unit.

Reciprocation width: +/-25mm

1) The drive of the Developing Drive Motor makes the cam rotate.
2) The Drive Lever moves in a pendulum motion by the rotation of the cam, which make the Drive Shaft rotates. (With the one-way bearing, the Drive Shaft rotates in only one direction.)
3) Making the Lack move back and forth by transmitting the rotating motion of the Drive Shaft via the Gear Unit. The Separation Mounting Base linked with the Lack moves back and forth.



F-2-90

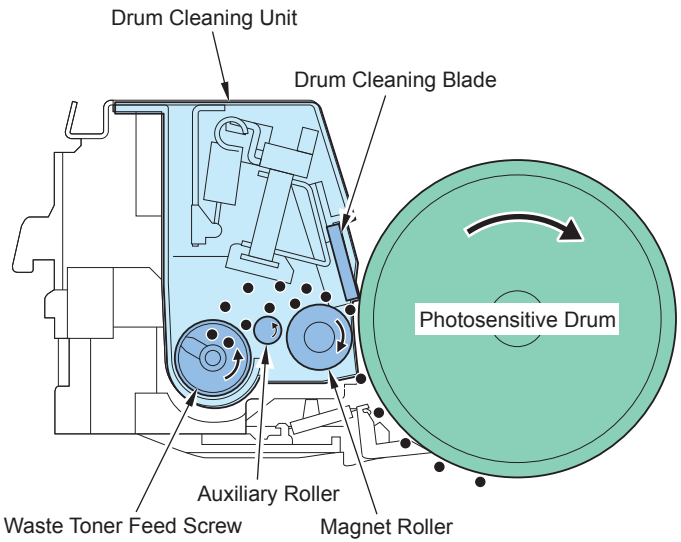
Drum Cleaning

Drum Cleaning Control

The blade, which is in contact with the Drum, removes residual toner and paper dust on the Photosensitive Drum.

<Control description>

1) The drive of the Main Motor (M2) makes the Magnet Roller rotate.
2) The Magnet Roller forms a thin toner coating layer on the surface of the Photosensitive Drum.
3) The Drum Cleaning Blade scrapes residual toner on the surface of the Drum.
4) The Toner Collection Feeding Screw feeds the scraped waste toner to the Waste Toner Container.



F-2-91

Separation Bias Control

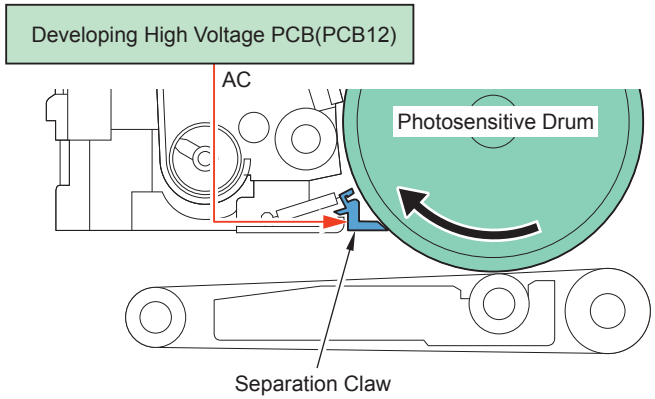
To prevent image soil caused by toner accumulated on the Drum Separation Claw, this control prevents attachment of toner on the Photosensitive Drum with the Drum Separation Claw.

<Execution timing>

When the developing bias is applied

The separation claw bias (AC), which has been generated on the Develop High Voltage PCB (PCB12), is applied to the Separation Claw so that vibration is given to the Separation Claw to prevent toner attachment.

The bias value is fixed.

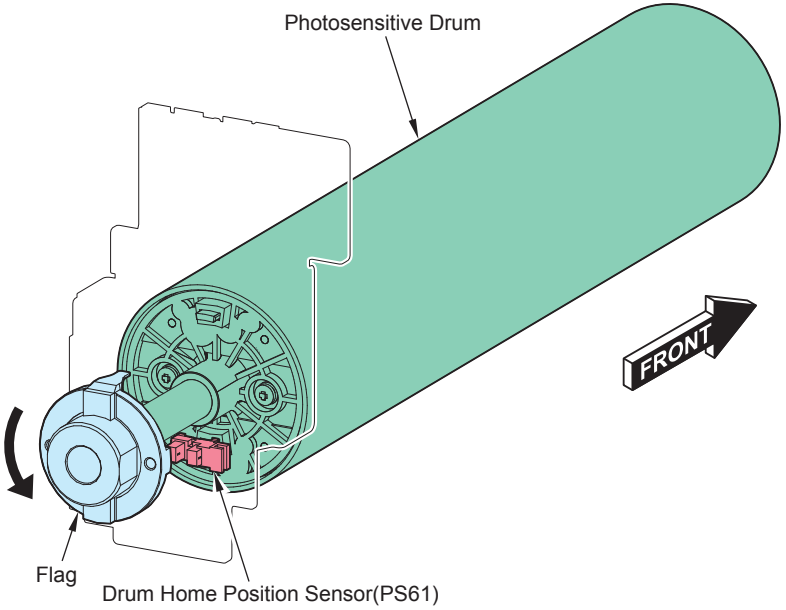


F-2-92

Drum-related Issues

Drum HP Detection

To detect home position of the Photosensitive Drum.
There is a flag for HP detection on the shaft of the Photosensitive Drum. Once the Photosensitive Drum starts rotating, the flag passes through the Drum HP Sensor (PS61) and the home position of the Photosensitive Drum is detected.
This control is used during the 2D shading control.

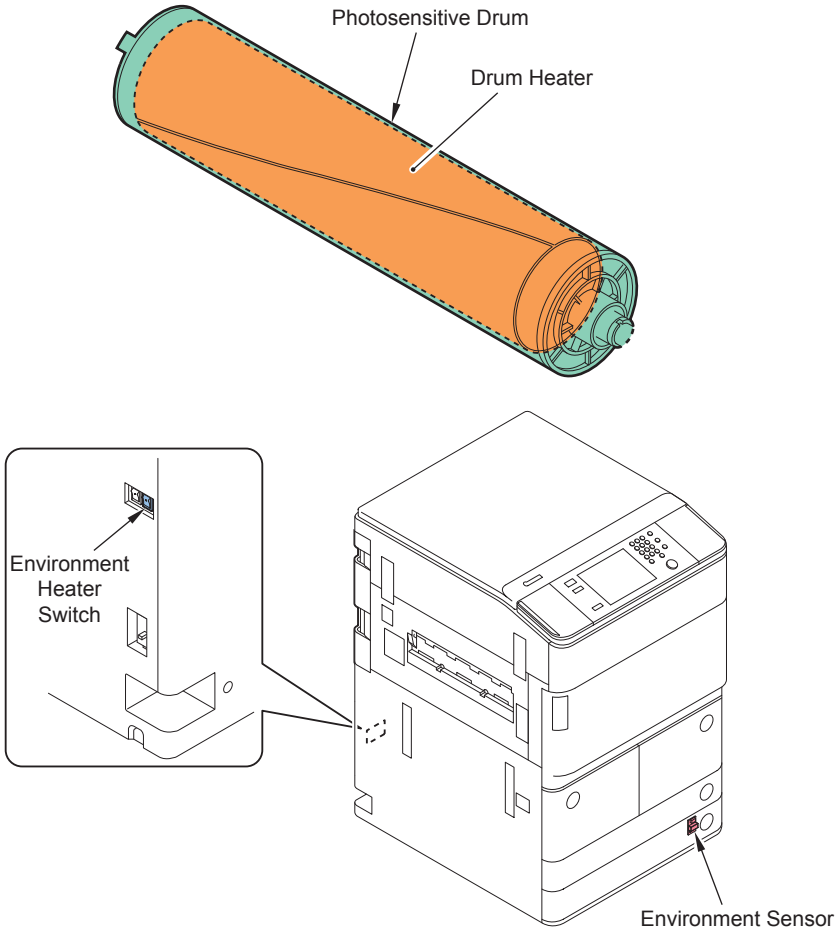


F-2-93

Drum Heater Control

To make potential characteristic for charging or exposure stable by keeping the specified temperature of the Photosensitive Drum.
The Drum Heater is the flat heater located inside the Photosensitive Drum to keep moisture content on the surface of the Photosensitive Drum constant by turning ON the heater.

NOTE:
Temperature of the drum is detected by the Thermistor in the Drum Control PCB, and is controlled by turning ON/OFF the Drum Heater to make it 42 degC



F-2-94

<Operating condition>

Operating condition of the heater differs according to the status of the Environment Switch and the host machine.

A.2-dimensional shading OFF(defolt*1)

<Environment Switch: OFF>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Environment control *1	Environment control *1	ON	ON
	Cassette	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

T-2-34

<Environment Switch: ON>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	Environment control *1	Environment control *1	Environment control *1*2	Environment control *1*2	Environment control *1*2	Environment control *1*2	OFF	OFF	Environment control *1	Environment control *1	ON	ON
	Cassette	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

T-2-35

B.2-dimensional shading ON *1]

<Environment Switch: OFF>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON *1	ON *1	ON	ON
	Cassette	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

T-2-36

<Environment Switch: ON>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	ON *1	ON *1	ON *1	ON *1	ON *1	ON *1	OFF	OFF	ON *1	ON *1	ON	ON
	Cassette	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

T-2-37

*1 It can be switched by COPIR > OPTION > IMG-MCON > 2D-SHADE..

*2 It can be switched by COPIR > OPTION > IMG-MCON > DRM-H-SW.

*3 When sleep mode (high energy consumption) is set, the Cassette Heater/Reader Heater cannot be turned ON although the Environment Switch and the Cassette Heater Switch are ON. When using the Cassette Heater and the Reader Heater at sleep state, set the sleep mode (low energy consumption). Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Energy Use > High/Low

<Environment Control>

Environment control 1: The condition of the heater at the time of turning OFF the main power continues.

Environment control 2: Whether to turn ON or OFF the heater is determined by the environment (moisture content) right before moving to sleep state, and the condition continues while the power is OFF or the machine is at sleep state.

Environment	Moisture content	Temperature/Humidity	Drum Heater
1	0.86	23 deg C 5%	OFF
2	1.73	23deg C 10%	
3	5.8	23 deg C 30%	
4	8.9	23 deg C 50%	
5	15	23 deg C 70%	ON
6	18	27 deg C 80%	
7	12.41	30 deg C 80%	

T-2-38

Environment control 3: Basically the heater is ON. ON or OFF of the heater can be switched depending on the moisture contents when the duration time of standby mode/ energy saving mode is long (4 hours at minimum).

<Related service modes>

COPIER > OPTION > IMG-MCON > DRM-H-SW: To set ON/OFF of the Drum Heater.

0: Normal mode (ON/OFF of the Drum Heater is determined when moving to sleep 1.) (Default)

1: Drum Heater ON mode *(The Drum Heater must be turned ON when moving to sleep 1 while the 2-dimensional shading-related control is OFF.)

2: Energy saving mode (The Drum Heater is OFF when moving to sleep 1.)

* The mode differs from 2-dimensional shading ON (image priority mode). This mode is for users who just want to turn ON the Drum Heater when startup time is delayed because of the increase of controls due to 2-dimensional shading ON.

COPIER > OPTION > IMG-LSR > 2D-SHADE: Image priority mode (2-dimensional shading).

ON/OFF

0: 2-dimensional shading OFF (Default)

1: 2-dimensional shading ON (The Drum Heater is turned ON at first time for the day, sleep, standby/energy saving, potential control, and 2-dimensional shading.)

Toner Supply Area

Toner Container Detection

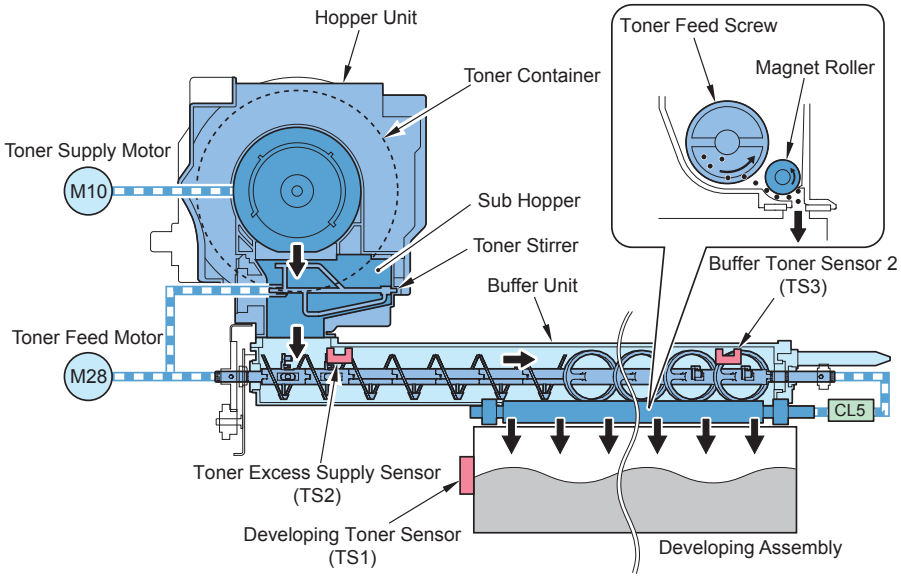
Toner Container detection is not performed with this machine.

Toner Level Detection/Toner Supply Control

Toner Supply Control

To supply toner in the Toner Container to the Developing Assembly.

The Magnet Roller helps toner supplied to the Developing Assembly uniformly in the longitudinal direction to form an even toner layer in the Developing Cylinder



F-2-95

Title	Description	Supply timing	Operation of the host machine
Supply to the Hopper	Toner in the Toner Container is supplied to the Buffer Unit.	When the Buffer Toner Sensor (TS3) detects absence of toner	To drive the Toner Supply Motor (M10).
			To be executed until TS3 detects presence of toner.
Supply to the Developing Assembly	Developer in the Buffer Unit is supplied to the Developing Assembly.	When the Developing Toner Sensor (TS1) detects absence of toner	To drive the Toner Feed Motor (M28).
			To be executed until TS1 detects presence of toner.

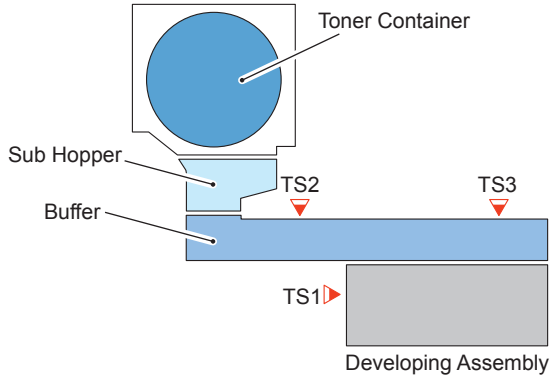
T-2-39

NOTE:
The Toner Excess Supply Sensor (TS2) detects amount of toner around the Buffer Inlet. If toner is supplied excessively from the Sub Hopper to the Buffer Unit (if there are toner clusters), toner in the Buffer may overflow.
If TS2 detects presence of toner, regardless of presence/absence detection of toner by TS3, the Toner Supply Motor (M10) is stopped so that toner supply to the Buffer is stopped to prevent toner leak

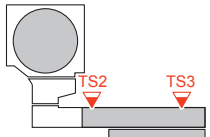
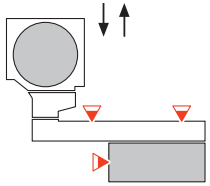
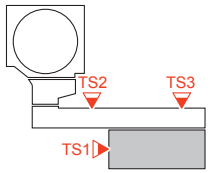
<Related error code>

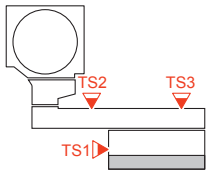
E020-0000 : Developing Assembly toner absent error
E020-0001 : Error in Developing Toner Sensor connection detection
E020-0002 : Error in Buffer Toner Sensor connection detection
E020-0003 : Error in the Toner Excess Supply Sensor connection detection
E020-0004 : Error in Magnet Roller Clutch connection detection
E020-0020 : Error in Developing Assembly Toner Sensor Cleaning Scraper displacement (toner absence)
E020-0021 : Error in Developing Assembly Toner Sensor Cleaning Scraper displacement (toner presence)

Toner Level Detection:



F-2-96

Toner level	Status	Message	Operation
100 to 25%		No	When TS3 detects absence of toner, the Toner Supply Motor (M10) is driven. Once TS3 detects presence of toner, M10 is stopped (to prevent toner leak).
25 to 10%		No	When TS3 detects absence of toner, the Toner Supply Motor (M10) is driven. Once TS3 detects presence of toner, M10 is stopped (to prevent toner leak).
10 to 5%		Replace the toner cartridge. (Continuous printing is enabled.)	In the case that toner presence failed to be detected 90 sec after the drive of M10 has been started, a message is displayed in the bottom of Control Panel because the system determines that there is no toner in the Toner Container. This state continues during printing and the Toner Container can be replaced during printing. After the Toner Container is replaced, the toner level returns to 100%.

Toner level	Status	Message	Operation
5% or less		Replace the toner cartridge. (Job is stopped.)	After "Replace the toner cartridge." message is displayed, and approx. 900 sheets *) are printed, toner stops to be supplied to the Developing Assembly and the message prompting to replace the Toner Container is displayed on the whole screen of Control Panel. After the Toner Container is replaced, the toner level returns to 100%.

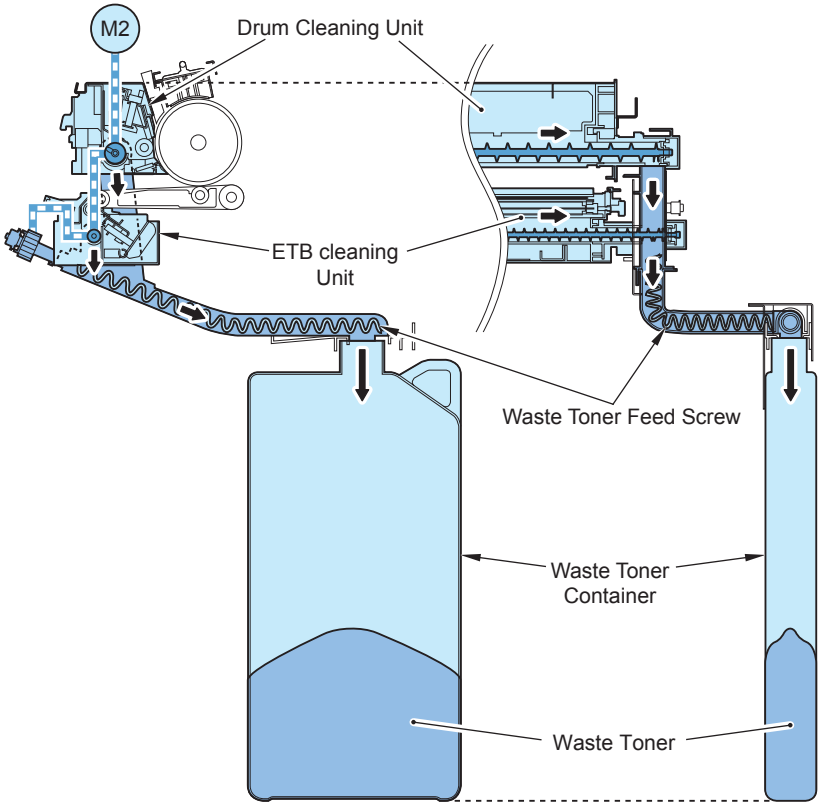
T-2-40

*) The number 900 sheets is a logical value derived from calculation; thus, it varies approx. 30%. In addition, with Service Mode > COPIER > OPTION > FNC-SW > T-RUN-LV, approx. 140 sheets can be printed (with 30% of variation).

Waste Toner Feeding Area

Waste Toner Full Level Detection

The waste toner of the Drum Cleaning Unit and the ETB Unit is fed to the Waste Toner Container. There is no sensor to detect toner level in the Waste Toner Container and the toner level is detected by the video count (1-count per 1 sheet with 6% image).



F-2-97

This machine performs black band control in order to maintain the drum cleaning performance.
Therefore the criterion of the full Waste Toner Container varies according to the environment and the image duty as shown in the following table.

Temperature/ Humidity	Moisture content	Image duty (%)					
		0 to less than 1.0	1.0 to less than 2.0	2.0 to less than 3.0	3.0 to less than 4.0	4.0 to less than 5.0	5.0 to 6.0
23 deg C / 5%	0.86	1,000,000 pages			800,000 pages	700,000 pages	600,000 pages
23 deg C / 10%	1.73						
23 deg C / 30%	5.8						
23 deg C / 50%	8.9						
27 deg C / 70%	15	750,000 pages	700,000 pages	600,000 pages	500,000 to 550,000 pages		
28 deg C / 75%	18						
30 deg C / 80%	21.6						

T-2-41

Status	Waste toner level	Operation
Warning for full level of waste toner	Approx. 83% of the full criterion	Printing can be continued
Full level of waste toner	Full criterion	Host machine is stopped(error display)

T-2-42

The Drive Gear escapes when a certain load is applied to the Waste Toner Feeding Screw and an error is displayed after the Host Machine has been stopped.

Waste Toner Feed Screw Lock Detection

To detect lock state of the Waste Toner Feed Screw.
The drive by the Developing Motor (M2) is transmitted to the Screw Gear, which makes the Waste Toner Screw rotate. When this Screw Gear becomes unable to rotate, it slides sideways by the transmitted drive force.
The Screw Gear fails to rotate once the Waste Toner Screw is locked; therefore, the transmitted drive force makes the Screw Gear slide sideways. The Waste Toner Lock Detection Switch (SW5) is placed by the side of the Screw Gear and SW5 is pressed when the Screw Gear is moved. With this mechanism, it is detected that the Waste Toner Screw is locked.

<Related error code>
E013-0001 Error in Waste Toner Lock Detection Connector disconnection
E013-0002 Error in Waste Toner Feed Screw Lock detection

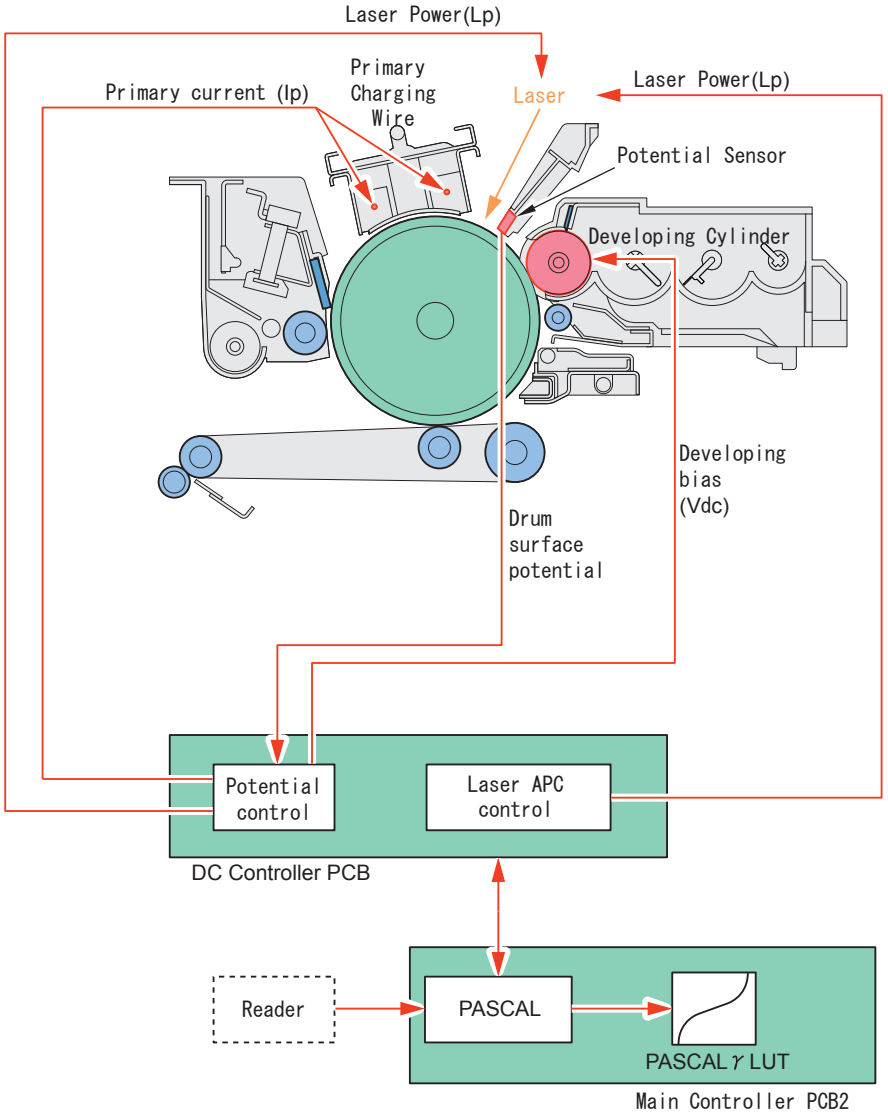
Waste Toner Container Detection

The Waste Toner Container detection is not performed with this machine.

Image Stabilization Control

Overview

This control prevents image failure due to change of the environment or deterioration of the Photosensitive Drum to ensure stabilized print.



F-2-98

Execution Timing

Execution items for image stabilization control differ according to the environment and condition of image formation parts. Following shows the control items at each sequence.
Illustration.*70 deg C or lower in the fixing temperature,** 30 sec.70 deg C or lower in the fixing temperature,***Fixing temperature remaining high at power OFF/ON

Control	Standard duration (second) Approx.	Timing												Remarks
		Warm-up rotation					Initial rotation	Paper interval	Interruption		Last rotation	Arbitrary		
		At startup*	Normal startup **	power OFF/ ON***	Door open	Jam recovery			Forcible interruption at 2,000 sheets	Low duty ejection	Normal	PASCAL (Full correction)	PASCAL (Quick correction)	
Full Potential Control	8	○	×	×	×	×	(○)	×	×	×	(○)*1	○	○	*1 Operation Criteria • Last rotation after the first job right after startup first time for the day takes 10 minutes or longer • Last rotation after processing 1,500 sheets or more following the last potential control execution • Last rotation after the first job following 90 minutes or more elapsed from the last potential control executio
APC Correction at Paper Interval	0.2	×	×	×	×	×	×	○ *5	×	×	×	×	×	*5 At every 20-sheet interval
APC Control at Warm-up Rotation	2	×	×	×	×	×	(○)*6	×	×	×	×	×	×	*6 Operation Criteria • Initial rotation after the first job following 60 minutes or more elapsed from the last job completion
APC Correction at Last Rotation	2	×	×	×	×	×	×	×	×	×	(○)*7	×	×	*7 Operation Criteria • Last rotation after the first job following 30 minutes or more elapsed from the last job completion
Drum Idle Rotation at First in the Day	60.0	○	×	×	×	×	×	×	×	×	×	×	×	
Charging Wire Cleaning	30	×	×	×	×	×	×	×	(○)*8	×	(○)*8	×	×	*8 Operation Criteria • Last rotation after 1,500 sheets or more processed following the last Charging Wire cleaning execution • Forcibly interruption at 2,000 sheets or more processed following the last Charging Wire cleaning execution
LED Intensity Correction / Belt Background Correction	3.5	○	○	×	○	○	×	×	×	×	×	×	×	
Idle Rotation at First in the Day	15 to 30	○	○	○	○	○	×	×	×	×	×	×	×	To stabilize toner toribology after long idle time
Low Duty Ejection	-	×	×	×	×	×	×	×	×	○	○	×	×	- To prevent toner deterioration during continuous Low DUTY image printing
Blank Band Control	*11	×	×	×	×	×	×	×	×	○	○	×	×	*11 When the predefined sheets were printed

Control	Standard duration (second) Approx.	Timing												Remarks
		Warm-up rotation					Initial rotation	Paper interval	Interruption		Last rotation	Arbitrary		
		At startup*	Normal startup **	power OFF/ ON***	Door open	Jam recovery			Forcible interruption at 2,000 sheets	Low duty ejection	Normal	PASCAL (Full correction)	PASCAL (Quick correction)	
Idle Rotation at First in the Day (H/H environment)	15(30)	(○)*12	○	×	×	×	×	×	×	×	×	×	×	*12 Only when the environment is in high temperature / humidity
Contrast Potential Correction at Startup	1	×	○	×	×	×	×	×	×	×	×	×	×	
Disengagement of Transfer Unit	1	○	○	○	○	○	○	×	○	○	○	○	○	At jam recovery / after patch generation / at job completion
Weak Bias Control at Leading Edge		×	×	×	×	×	○	○	×	×	×	×	×	
Black Band Control	10	×	×	×	×	×	×	×	×*13	*14	×	×	×	*13 At last rotation after the predefined sheets processed following the last black band control execution (2,000 sheets in default) *14 If the operation criteria are met during low duty ejection control, the control is synchronized to also perform this control.

T-2-43

Potential Control

Perform the following controls according to the deterioration level of the Photosensitive Drum and the environmental change.

1. VD control
   The primary current value (Ip) is determined to become the target dark area potential (VD).
2. VL control
   The laser power (LP) is determined to become the target bright area potential (VL).
3. Vdc control
   Developing bias is determined by adding the "fogging removal potential (Vback)" (based on the environment) to the bright area potential (VL).

Execution timing

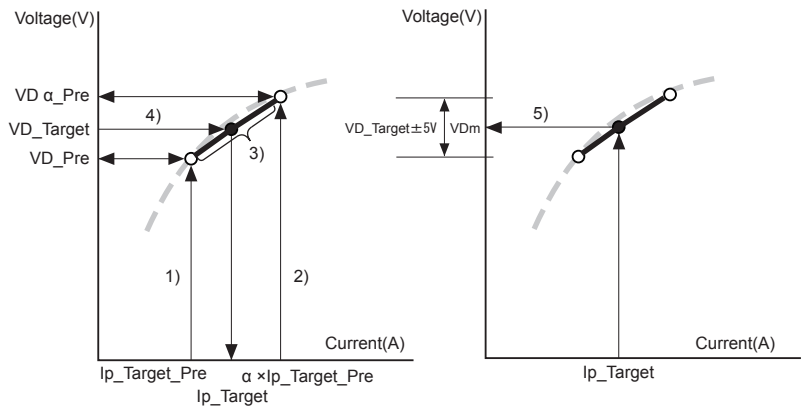
- Last rotation after the first job right after startup first time for the day takes 10 minutes or longer
- Last rotation after processing 1,500 sheets or more following the last potential control execution
- Last rotation after the first job following 90 minutes or more elapsed from the last potential control execution

NOTE:
At normal startup mode (30 sec. startup), simple potential control is executed to shorten the startup time (see Auxiliary Control > Simple Potential Control)

<Control description>

1. VD control

1) The primary current (Ip_Target_Pre), which has been determined in the last potential control*1, is applied and the Potential Sensor measures drum surface potential (VD_Pre).
   *1: At the time of installation, the primary current adjusted in the factory is applied.
2) The drum surface potential (VD_Pre) and the target potential (VD_Target) are compared to apply the primary current (α x Ip_Target_Pre), which makes the target potential (VD_Target) to be in range between the drum surface potential (VD_Pre) and the drum surface potential (VDα_Pre), and then the drum surface potential (VDα_Pre) at that moment is read.
3) The 2 points of measured dark area potentials are connected with a straight line to calculate dark area potential characteristics.
4) Based on the obtained dark area potential characteristics, the primary current (Ip_Target) is calculated, which can obtain the target potential (VD_Target).
5) The calculated primary current is applied and this operation is repeated until the drum surface potential (VDm) is within the range of the target potential +/- 5V. Potential measurement is executed up to 8 times and correction is executed up to 8 times.

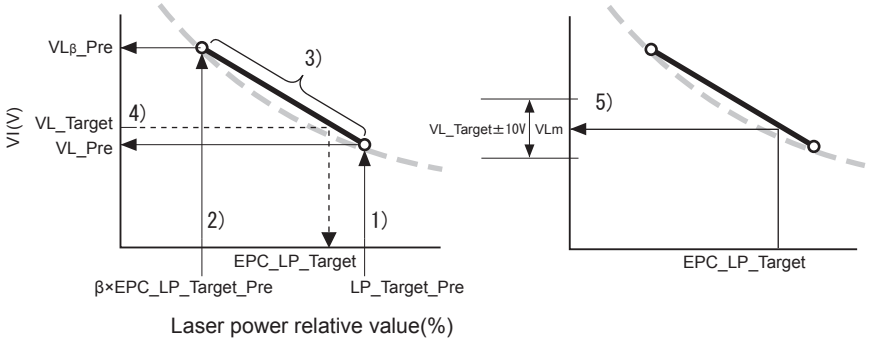


F-2-99

[When the drum surface potential (VDm) is not as follows: -5V <= target potential <= +5V]
Potential control error (VD) "E061-0101" occurs.

2. VL control

1) The laser power (LP_Target_Pre), which has been determined in the last bright area potential control[*1], is applied and the Potential Sensor measures the drum surface potential (VL_Pre).
   *1: At the time of installation, the primary current adjusted in the factory is applied.
2) The drum surface potential (VL_Pre) and the target potential (VL_Target) are compared to apply the primary current (β x EPC_LP_Target_Pre), which makes the target potential (VL_Target) to be in range between the drum surface potential (VL_Pre) and the drum surface potential (VLβ_Pre), and then the drum surface potential (VLβ_Pre) at that moment is read.
3) The 2 points of measured bright area potentials are connected with a straight line to calculate the bright area potential characteristics.
4) Based on the obtained bright area potential characteristics, the laser power (EPC_LP_Target) is calculated, which can obtain the target potential (VL_Target).
5) The Drum is exposed with the calculated laser power and this operation is repeated until the drum surface potential (VLm) is within the range of the target potential +/- 10V. Potential measurement is executed up to 8 times and correction is executed up to 8 times.



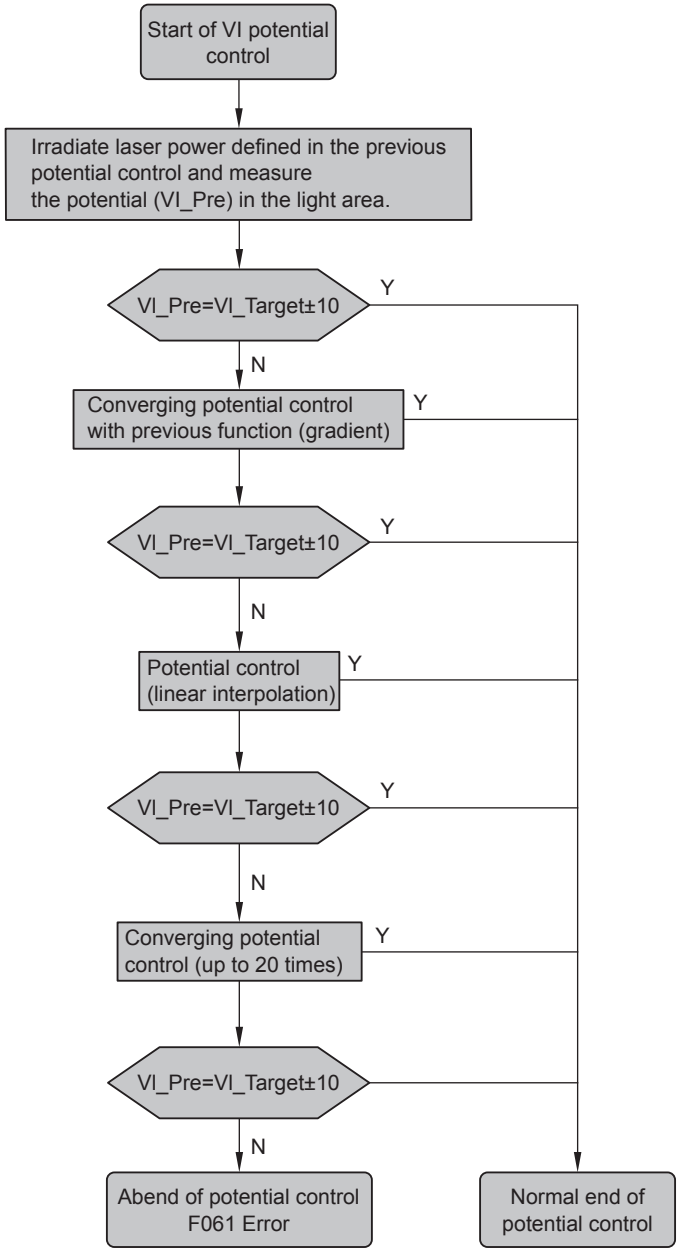
F-2-100

[When the drum surface potential is not as follows: -10V <= target potential <= +10V]

- When the drum surface potential is as follows: -10V > target potential > -30V or +10V < target potential < +30V
  The laser power (LP) when the previous potential control was succeeded (within +/- 10V target potential) is applied. Refer to the alarm code "32-0002" for the processing when the image is influenced.
- When the target potential is as follows: target potential <= -30V or target potential >= +30V
  Potential control error (VL) "E061-0001" occurs.

NOTE:
With this machine, laser APC control is executed to correct the bright area potential between sheets and jobs (see Auxiliary Control > Laser APC Control)

Lp is actually calculated by the laser power (LP) and the bright area potential characteristics that were obtained in the last VL control because executing VL control each time takes time. When the bright area potential measured value fails to be within the range of the target potential +/- 10V, follow the workflow as described below to obtain bright area potential characteristics by the foregoing VL control to calculate LP.



F-2-101

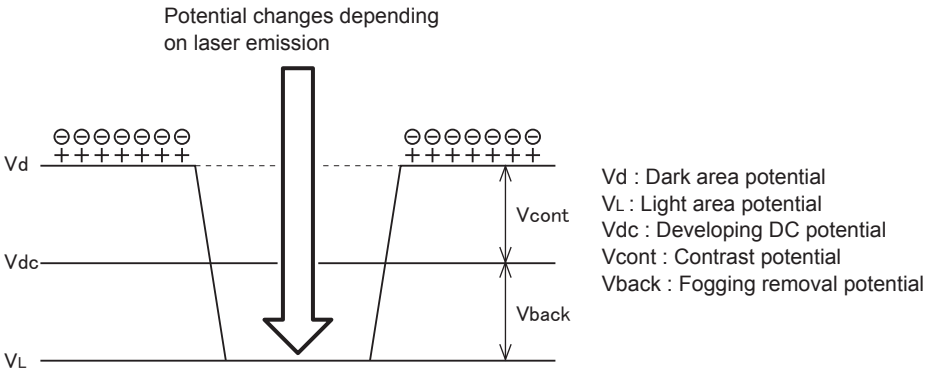
3. Determination of developing bias (Vdc)

Developing bias is determined by adding the Vback value (based on the environment table) to VL (bright area potential) determined in the foregoing control.

Developing bias (Vdc) = VL+Vback

VL: measured bright area potential determined by the potential control

Vback: the potential to remove foggy image that was determined in the environment table



F-2-102

Related error codes

E061: error in potential control

PASCAL Control

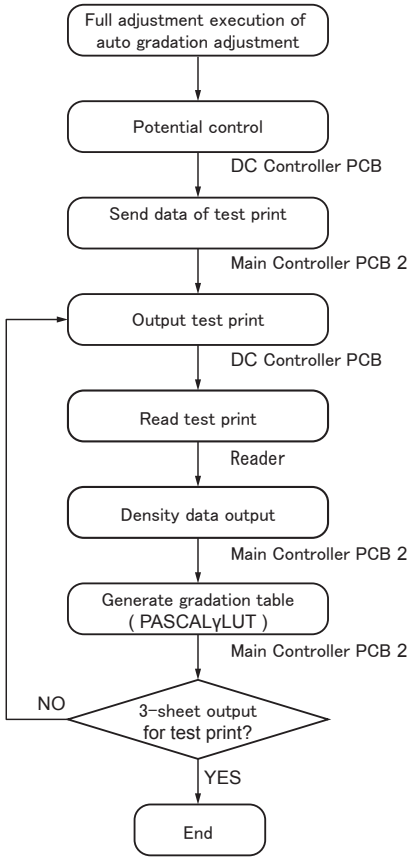
This control stabilizes gradation density characteristics on the image.

This control is executed when the following is selected in user mode: Auto Adjust Gradation > Full Adjust

Patch pattern on the test print is scanned by the Reader to create a gradation table (PASCALγLUT).

Execution timing

During execution of Full Adjust: User mode > Settings/Registration > Adjustment/Maintenance > Adjust Image Quality > Image Stabilization Control > Full Adjust



F-2-103

NOTE:
Since Inbox images are binary, gradation adjustment cannot be performed after being stored in Inbox. Gradation adjustment is performed on the rasterized data before they are stored in Inbox.
When the stored image is output after a long time, gradation adjustment is not performed on the basis of the environment at the time of output, so appropriate printing results may not be able to be obtained.
If the environment changes with time, it is advisable to store the data into Inbox just before output.

Auxiliary Control

Startup Contrast Potential (Vcont) Correction

Contrast potential (Vcont) is corrected to keep a constant density and prevent light image caused by reduced toner charging amount in an energy-saving environment.

> NOTE:
> Temperature in the Developing Assembly is reduced because the Drum Heater is turned OFF at sleep state in an energy-saving environment. This operation increases moisture content in the Developing Assembly and reduces toner charging amount.

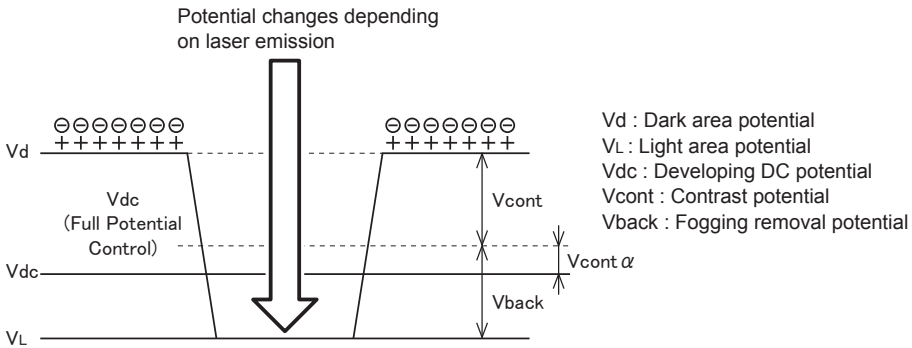
Execution timing

At the time of the normal startup mode (in the case that the two dimension shading control is OFF)

> NOTE:
> This control is not executed when the two dimension shading control is ON because the Drum Heater is turned ON.

Control description

1) At the time of normal image formation, contrast potential (Vcontα) based on the environment table is added to the developing bias (Vdc (full potential control value)) determined by the full potential control to correct developing bias.
   Vdc=Vdc (potential control value) –Vcontα
2) The corrected contrast potential (Vcont) is reset (making Vcontα 0) when the next full potential correction is executed.



F-2-104

Laser APC Control

This control corrects laser output control value to prevent change of surface potential by laser output.

Correction type

A. Between-sheet APC control: to keep constant bright area potential (VL) without reducing productivity during continuous jobs.
B. Initial rotation APC to determine VL according to the laser and drum temperature characteristics.
C. Last rotation APC control: to determine VL according to the laser and drum temperature characteristics.

Execution timing

A. Between-sheet APC control: at every paper interval of a job.
B. Initial rotation APC control: to be executed during initial rotation of the first job after the machine has been left unattached for 60 minutes or more since execution of the last job.
C. Last rotation APC control: to be executed during last rotation of the first job after the machine has been left unattached for 30 minutes or more since execution of the last job.

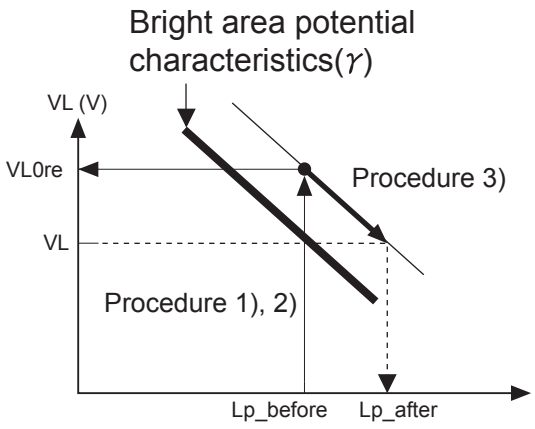
Control description

A. Between-sheet APC control

1) Bright area potential is measured at every sheet interval by the Potential Sensor.
2) Average sheet interval VL_ave of the measured paper interval VL potential (for 20 sheet intervals) is calculated.
3) Laser power correction value is determined by the difference between the measured potential VL (measured at the time of potential control) and the average paper interval VL_ave in addition to the last bright area potential characteristics (gradient (γ)).

Correction formula

LP_after=LP_before- (VL-Vl_ave) × γ
LP_after: laser power after correction
LP_before: laser power before correction
VL: measured VL determined at the time of potential control
VL_ave: average paper interval VL_ave
γ: gradient (control coefficient): gradient reciprocal of LP_Vl straight line in the range including VL target



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B. Initial rotation APC control

1) Bright area potential VL is measured during initial rotation to correct laser power. The primary current value and developing bias value are fi
2) Correction is executed by following the same way as between-sheet APC control.

C. Last rotation APC control

This correction follows the same way as initial rotation APC control

Two Dimension Shading Control

Uneven potential on the Photosensitive Drum is corrected by laser exposure.

Execution timing

At the time of laser exposure (only when the two dimension shading control is ON. Default: OFF)

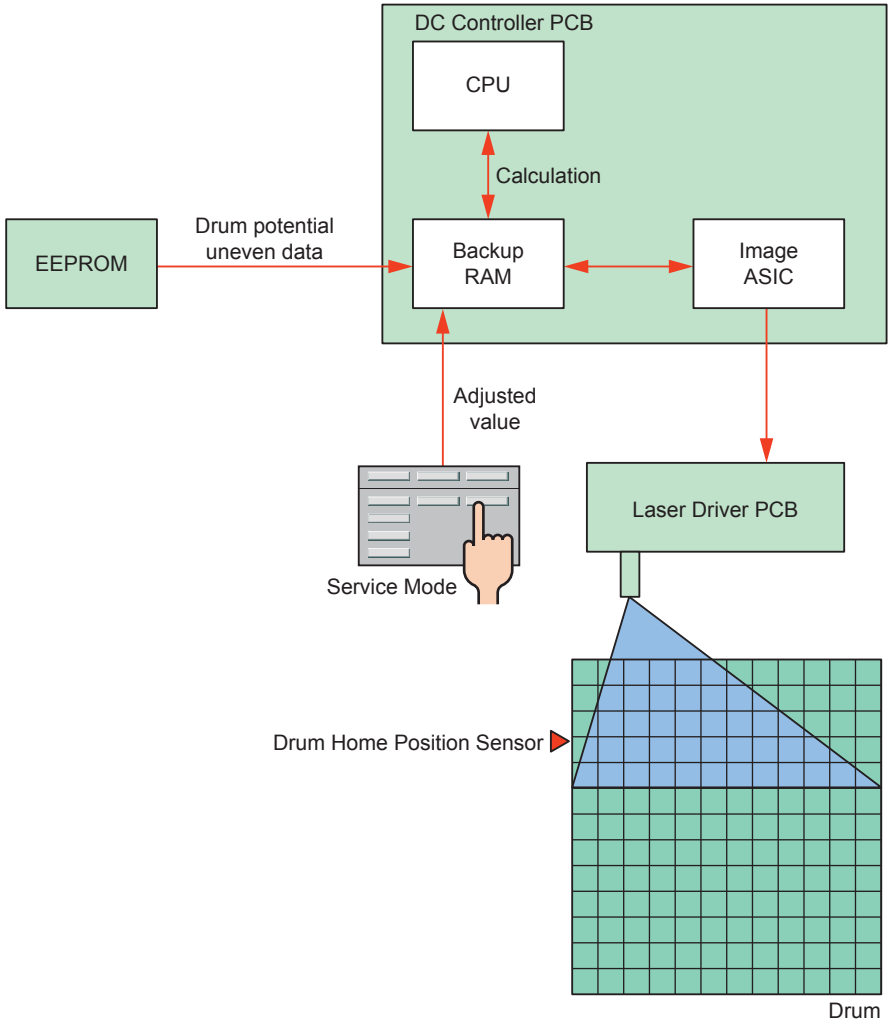
Control description

1) Potential data on the Drum surface is saved in EEPROM on the DC Controller PCB in the format supporting two-dimension coordinate (measured when the Drum was manufactured).
2) When the power is turned ON, EEPROM data is compared to RAM data. If there is any difference in the data, the EEPROM data is stored in the backup RAM.

NOTE:
Whether the control is enabled can be checked with COPIER>DISPLAY>2D-SHD>2D-STS.
If 0 is displayed, check DRM-LOT number. When 0 is displayed, it means that the drum has not been registered; thus, execute FUNCTION/2D-SHADE/2D-READ to register the drum.

3) Potential data on the Drum surface is sent to the image ASIC and the image data is synchronized with the Drum home position, and then the uneven potential data is converted into light intensity to be sent to the Laser Driver PCB.
4) The Laser Driver PCB is exposed to remove uneven potential on the Drum.

NOTE:
For Drum provided as a service part, EEPROM which stores potential unevenness data is included. Therefore, the EEPROM needs to be replaced when the Drum is replaced. As the life of the Drum advances, uneven density can occur when the halftone image is output despite correction of the drum uneven potential. In such a case, uneven density can be corrected by specifying a particular position in service mode. See Troubleshooting for procedure.
FCOT (First Copy Time) is reduced to detect home position of the Drum by turning ON the two dimension shading.



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Related service modes
COPIER>DISPLAY>2D-SHD>2D-STS : Display of 2D shading ON/OFF
COPIER>DISPLAY>2D-SHD>DRM-LOT : Display of Drum Lot number
COPIER>DISPLAY>2D-SHD>CHK-SUM : Display of checksum calculation result
COPIER>FUNCTION>2D-SHADE>M-LINE1/LINE2 : 2D shading horizontal scan correction
COPIER>FUNCTION>2D-SHADE>S-LINE1-4 : 2D shading vertical scan correction
COPIER>FUNCTION>2D-SHADE>SHD-P1-3 : 2D shading pattern output
COPIER>OPTION>IMG-LSR>2D-SW : Read 2D shading ROM

White Band Control

Oppositely-charged toner on the Developing Sleeve is forcibly applied on the Drum and collected by the Cleaning Unit.

NOTE:
Large-grained toner is less likely to be charged compared to small-grained toner and can be positively charged (opposite charging) in rare cases. Such oppositely-charged toner fails to be developed but remains on the Developing Sleeve, which causes image failure.

Execution timing
Last rotation after every job

Control description
Developing bias Vdc is increased once the image trailing edge passes through the developing position.
Vback is increased and the oppositely-charged toner on the Developing Cylinder is moved onto the Drum.

Related service modes
COPIER>FUNCTION>MISC-P>WB : Reverse toner forcible eject: blank band
COPIER>ADJUST>MISC>TBSIS-WB : Setting of blank band ejection time

Black Band Control

This control maintains the cleaning performance by providing sufficient amount of toner to the edge of the Cleaning Blade.

NOTE:
Friction coefficient between the Blade and the Drum is increased unless sufficient amount of toner is applied on the Drum Cleaning Blade, which causes ride-up of the Blade. Although toner is properly applied to the center of the Blade by normal cleaning operation, toner is supplied insufficiently to the edge of the Blade.

Execution timing

- Last rotation after the specified number of sheets*1 has been fed since execution of the last black band control.
- When low duty discharge control is executed.

*1: This value can be changed in service mode.

Moisture content	Interval (sheets)
12g or more	2,000

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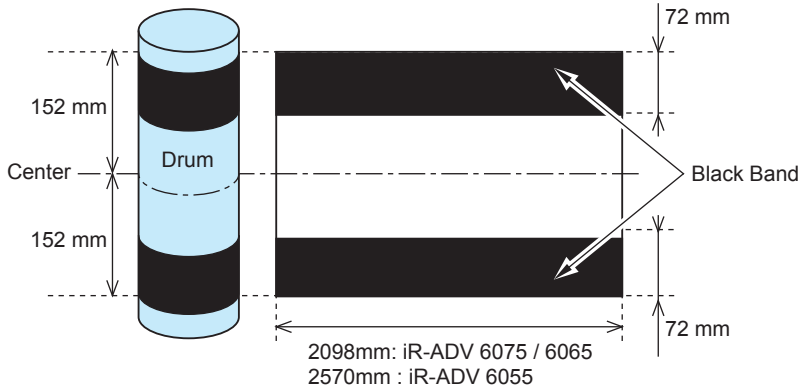
Control description

1) Black band described below is created on the Drum.
2) Black band is scraped by the Drum Cleaning Blade and toner is properly applied on the Cleaning Blade at that moment.
3) This control turns off the transfer high voltage and makes the Transfer Belt disengaged so that image is not applied on the Transfer Belt.



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Related service modes

COPIER>OPTION>IMG-DEV>BB-CNT:Set Bk band output intvl: Cleaning Blade
COPIER>OPTION>CLEANING>CLN-ADJ:ON/OFF of cleaning black band sequence
COPIER>OPTION>CLEANING>CLN-SW:ON/OFF of cleaning black band sequencel
COPIER>FUNCTION>MISC-P>BB : Toner forcible eject (black band)

Low Duty Discharge Control

In the case of continuous output of low duty image, this control consumes toner at non-image area to maintain the density stability.

Execution timing

While the video count for every page is accumulated, in the case that the average image duty is less than the threshold*1, the ongoing job is interrupted at the time of last rotation of a job or the ongoing job is interrupting in the middle of the job to discharge the toner according to the average image duty.

*1: Threshold is determined by the following environment table. The value can be changed in service mode

Moisture content	Temperature/Humidity	Threshold
0.86	23deg C/5%	1%
1.73	23deg C/10%	1%
5.8	23deg C/30%	1%
8.9	23deg C/50%	1%
15	23deg C/70%	2%
18	28deg C/80%	2.5%
21.6	30deg C/80%	3%

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Control description

1) Video count on every page is retrieved.
2) The obtained video count is converted into A4 size and the value is accumulated.
3) Once the accumulated value reaches the threshold, the following patch is created on the Drum to discharge deteriorated toner.

Related service modes

COPIER>OPTION>IMG-DEV>LWDTY-SW ON/OFF of low duty ejection Default OFF
COPIER>OPTION>IMG-DEV>LWDTYADJ Set low duty ejection threshold value

Servicing

Periodically Replaced Parts

Parts Name	Parts Nunber	Piece	Expected life*	COUNTER (PRDC-1)	Remarks
Primary Charging Wire	FB4-3687	2	50**	PRM-WIRE	With spring FL3-4558
Primary Charging Wire cleaner	FL2-0462	2	50**	PRM-CLN	
Primary Charging Wire cleaner holder	FL2-2720	2	50**	PRM-CLN	
Grid Wire	FY1-0883	AR	50	PRM-GRID	
Pre-transfer Charging Wire	FB4-3687	1	50**	PO-WIRE	With spring FL3-4559
Pre-transfer Charging Wire cleaner	FL2-0462	1	50**	PO-CLN	
Pre-transfer Charging Wire cleaner holder	FL2-2720	1	50**	PO-CLN	

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*Unit: 10,000 sheets

**: In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets

Consumable Parts

Parts Name	Parts Nunber	Piece	Expected life	COUNTER (DRBL-1)	Remarks
Primary Charging Assembly	FM3-7288	1	150	PRM-UNIT	
Pre-transfer Charging Assembly	FM3-7297	1	150	PO-UNIT	
Pre-exposure Scraper	FC9-9153	2	50	EXP-SCRP	
Drum Cleaning Blade	FL3-5187	1	60	CLN-BLD	Use by reversing at every 300 thousand sheets
Drum Front Side Seal/Drum Rear Side Seal	FC8-7086	1each	50	BS-SL-F BS-SL-R	
Drum Separation Claw	FB4-8018	3	50	SP-CLAW	
Developing Cylinder	FM4-5438	1	100**	DVG-CYL	
Developing Roller	FB6-6559	2	100	DVG-ROLL	
ETB	FC8-7160	1	50	TR-BLT	
Transfer Roller	FC8-7159	1	50	TR-ROLL	
Brush Roller	FC6-1647	1	50	T-CN-BRU	
ETB Cleaning Blade	FC8-7175	1	50	T-CLN-BD	

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*Unit: 10,000 sheets

**: In a high temperature/humidity environment (30 deg C/80%), it is 500000 sheets

Periodical Servicing List

Parts/Area Name	Expected life*	Remarks
Toner Receptacle Tray	As needed	Remove toner on the tray.
Primary Charging Assembly Grid Wire	50	Clean with lint-free paper moistened with water.
Primary Charging Assembly Shield Plate	50	Clean with lint-free paper moistened with water.
Pre-transfer Charging Assembly Shield Plate	50	Clean with lint-free paper moistened with water.
Drum Cleaning Unit Plate	50	Clean with lint-free paper moistened with alcohol.
Pre-exposure Scraper	As needed	Clean with lint-free paper moistened with alcohol.
Drum Cleaning Unit Toner collection area	50	Crumb toner clusters.
Drum	As needed	Apply lubricant at the Drum Sliding Assembly when abnormal sound is heard at the time of operation.
Drum Surface	As needed	Using lint-free paper, clean the drum with the drum cleaning powder (FY9-6024).
Drum Edge	As needed	Clean with lint-free paper moistened
Separation Claw Mounting Base	50	Clean with lint-free paper moistened with alcohol.
Process Unit Rear Guide	50	Clean with lint-free paper moistened with alcohol.
Developing Roller	50	Clean with lint-free paper moistened with alcohol.
Lower side of Cylinder.	50	Clean with lint-free paper moistened with alcohol.
The host machine surface below the Developing Assembly	As needed	Remove toner which was scattered at removal of Developing Assembly.
ETB Drive Roller	50	Clean with lint-free paper moistened with alcohol.
ETB Idler Roller	50	Clean with lint-free paper moistened with alcohol.
Waste Toner Container	50	Clean when the message is displayed.

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*Unit: 10,000 sheets

When Replacing Parts

When replacing the Periodically Replaced Parts and Consumable Parts, be sure to clear the Parts Counter (COPIER > COUNTER > PRDC-1/DRBL-1)

Primary Charging Wire

<Procedure of parts replacement>

see "Replacing the Primary Charging Wire," on p. 4-103.

<Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PRM-WIRE)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)
3) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
4) Execute the potential control (COPIER>FUNCTION>DPC>DPC). Turn OFF and then ON the main power. (The potential control is executed at startup.)
5) Execute the potential control. (COPIER>FUNCTION>DPC>DPC)
6) Turn OFF and then ON the main power switch.

Primary Charging Assembly

<Procedure of parts replacement>

see "Removing the Primary Charging Assembly," on p. 4-96.

<Procedure of adjustment>

1) Output a halftone image using the service mode.
   - TEST > PG > TYPE : 5
2) Execute the following procedure according to the density difference on the front and rear sides of the test print image.
   - When the front side test print image is dark, execute step 3.
   - When the rear side test print image is dark, execute step 4.
   - When there is no uneven density, execute step 5 and the following.

When the front side test print image is dark

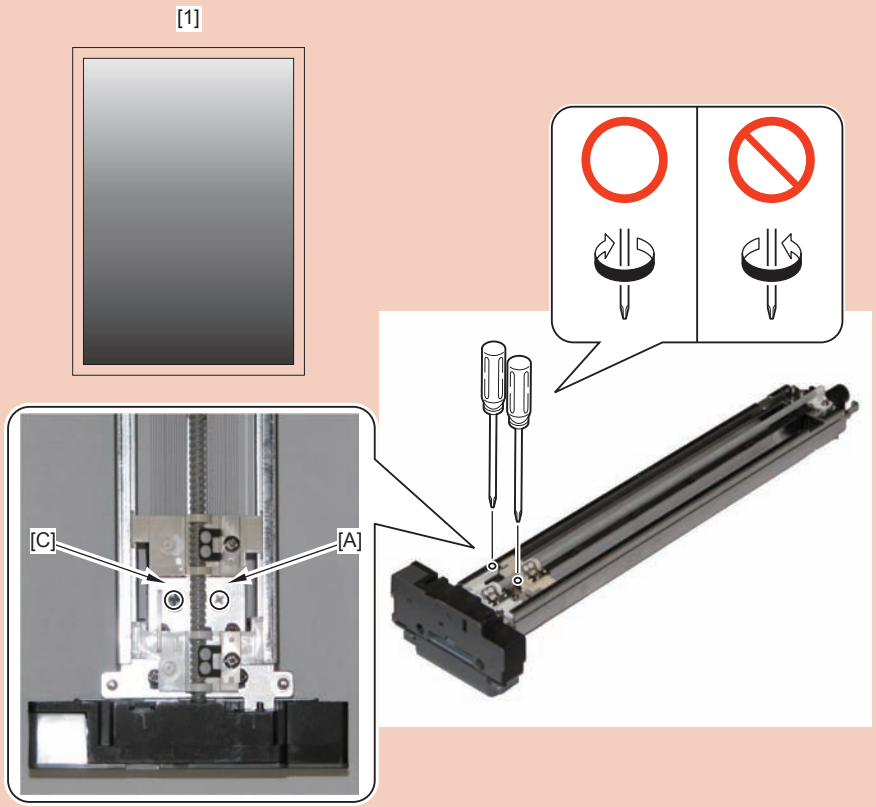
NOTE:
- When the front side test print image is dark [1], execute step 3 until the density becomes even. When the density becomes even, execute step 5 and the following.
- When the adjustment screw is turned clockwise, the Charging Wire goes down and up (gap between grid and Charging Wire becomes narrow and wide). As a result, the density of output image becomes light.

CAUTION:
Be sure to adjust the dark side (density of the test print image) to be the light side.

3) Make the resin screws [A] and [C] a full turn clockwise. While referring to the replacement procedure of the Primary Charging Assembly, install it to the main body, output a test print and check the image.

CAUTION:

Since uneven density might occur, be sure to adjust by turning the 2 adjustment screws with the same amount.



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When the rear side test print image is dark

NOTE:

- When the rear side test print image is dark [2], execute step 4 until the density becomes even. When the density becomes even, execute step 5 and the following.
- When the adjustment screw is turned clockwise, the Charging Wire goes down and up (gap between grid and Charging Wire becomes narrow and wide). As a result, the density of output image becomes light.

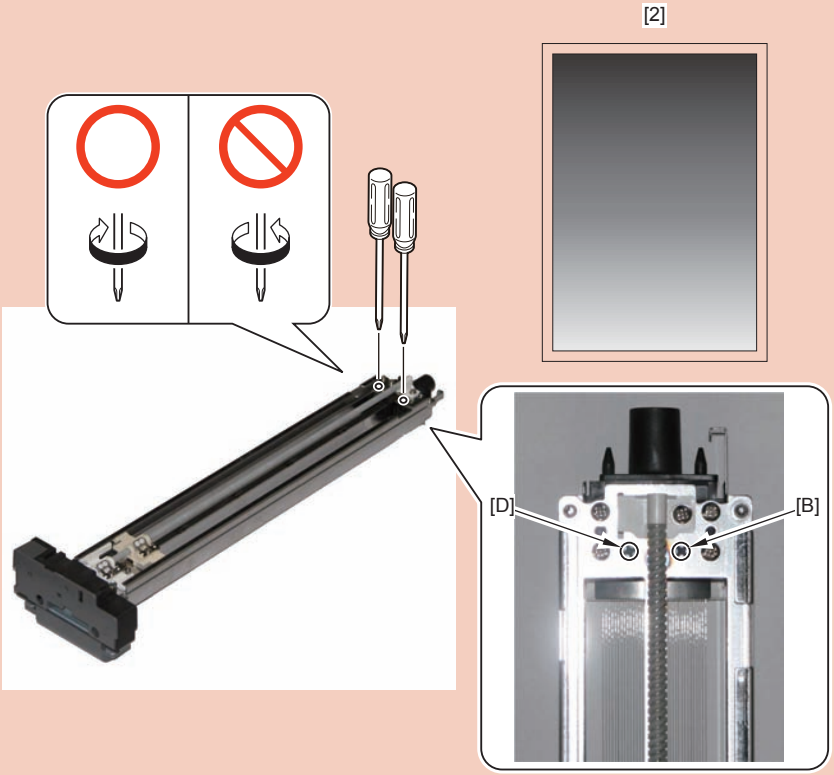
CAUTION:

Be sure to adjust the dark side (density of the test print image) to be the light side.

4) Make the resin screws [B] and [D] a full turn clockwise. While referring to the replacement procedure of the Primary Charging Assembly, install it to the main body, output a test print and check the image.

CAUTION:

Since uneven density might occur, be sure to adjust by turning the 2 adjustment screws with the same amount.



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5) Clean the Charging Wire using the service mode.
(FUNCTION > CLAENING > WIRE-CLN) Time required: Approx. 30 sec.
6) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
7) Execute the potential control. (COPIER>FUNCTION>DPC>DPC
8) Execute the density correction using the user mode.
("Settings/Registration" > "Adjustment/Maintenance" > "Adjust Image Quality" > "Correct Density")

Pre-transfer Charging Assembly

<Procedure of parts replacement>

see "Removing the Pre-transfer Charging Assembly," on p. 4-107.

<Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>PO-UNIT)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)

Pre-transfer Charging Wire

<Procedure of parts replacement>

see "Replacing the Pre-transfer Charging Wire," on p. 4-111.

<Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PO-WIRE)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)

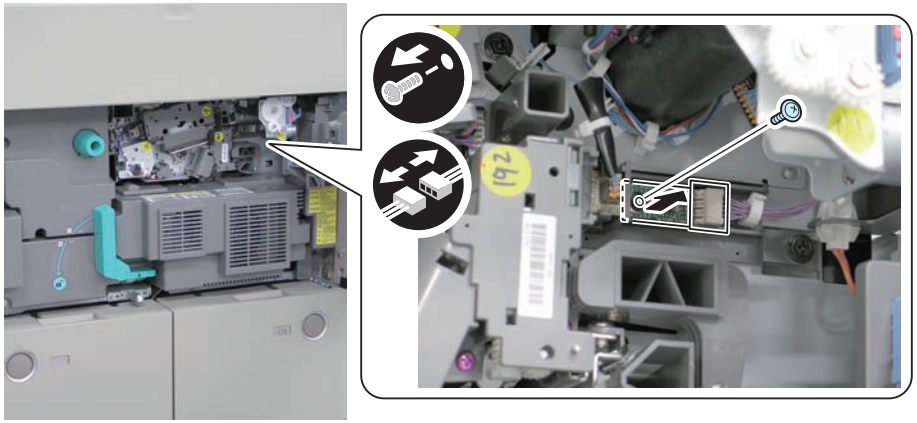
Drum

<Procedure of parts replacement>

see "Removing the Photosensitive Drum," on p. 4-122.

<Procedure of adjustment>

1) Remove the EEROM.
   - 1 Screw
   - 1 Connector



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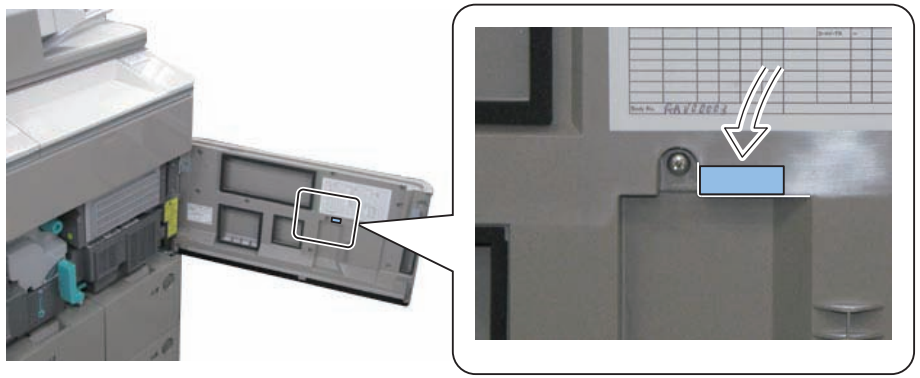
3) Replace the ROM connected to the host machine with the drum ROM included in the drum.

CAUTION:

If the ROM is not replaced, the replaced drum and the drum-unique data stored in the ROM are not matched. As a result, the 2D shading is not functioned normally.

4) Affix the ID Label included in the drum to the inside of the Front Cover.



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5) Activate the drum replacement mode. (COPIER>FUNCTION>INSTALL>DRM-INIT)
6) Check the 2-dimensional shading ROM. (COPIER>FUNCTION>2D-SHADE>2D-READ)
6) Execute Auto Adjust Gradation.

Drum Side Seals(Front and Rear)

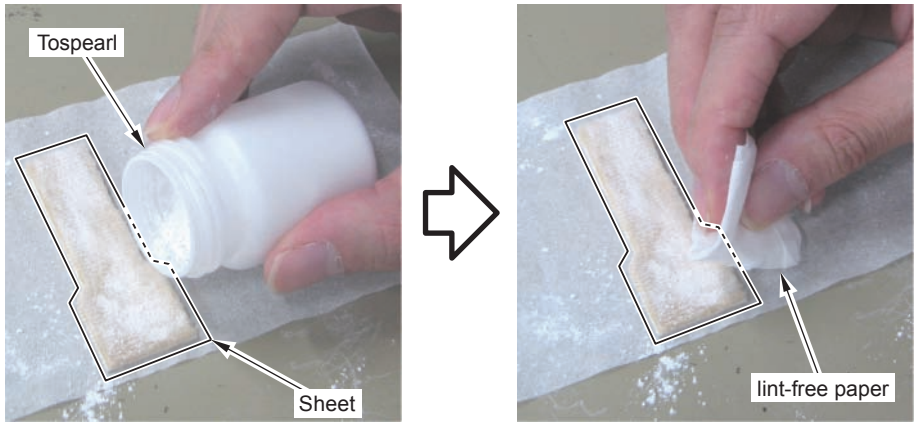
<Procedure of parts replacement>

see "Removing the Side Seal," on p. 4-127.

<Procedure of adjustment>

1) Applying Tospearl

Apply Tospearl on the surfaces of the Drum Side Seals (Front and Rear) and adhere it uniformly with lint-free paper. In order to reduce adhesion of toner at both ends of the Photosensitive Drum



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Developing Assembly, Developing Cylinder

<Procedure of parts replacement>

- see "Removing the Developing Assembly," on p. 4-128.

<Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>DVG-CYL)
2) Supplying Developing Assembly toner. (COPIER>FUNCTION>INSTALL>TONER-S)

Potential Control PCB Unit

<Procedure of parts replacement>

see "Removing the Potential Control PCB Unit," on p. 4-166.

<Procedure of adjustment>

1) Adjust the Potential Sensor offset. (COPIER > FUNCTION > DPC > OFST)

ETB

<Procedure of parts replacement>

- see "Removing the ETB Unit," on p. 4-137.
- see "Removing the ETB," on p. 4-139.

<Procedure of adjustment>

1) Clear the ETB control counter. (COPIER>FUNCTION>CLEAR>TR-BLT)
Parts counter (COPIER>COUNTER>DRBL-1>TR-BLT) is also cleared coincidentally.

Waste Toner Container

<Procedure of parts replacement>

see "Removing the Waste Toner Container," on p. 4-145.

<Procedure of adjustment>

1) Set the new Waste Toner Container.
2) Clear the waste toner counter. (COPIER>COUNTER>MISC>WST-TNR)

Major Adjustments

None

Troubleshooting

Trailing Edge Shock Imaget

[Location]
ETB

[Cause]
Lines occur on the image due to shock when distortion on the belt is released while rotation speed between the ETB and drum differs

[Condition]
When replacing the ETB

[Field Remedy]
1) Output a halftone image with the following conditions and check the output image
COPIER>TEST>PG>TYPE 6
Select the cassette which the following paper is set: COPIER>TEST>PG>PG-PICK A3 (LDR) or larger.

With shock image: go to step 2
Without shock image: End

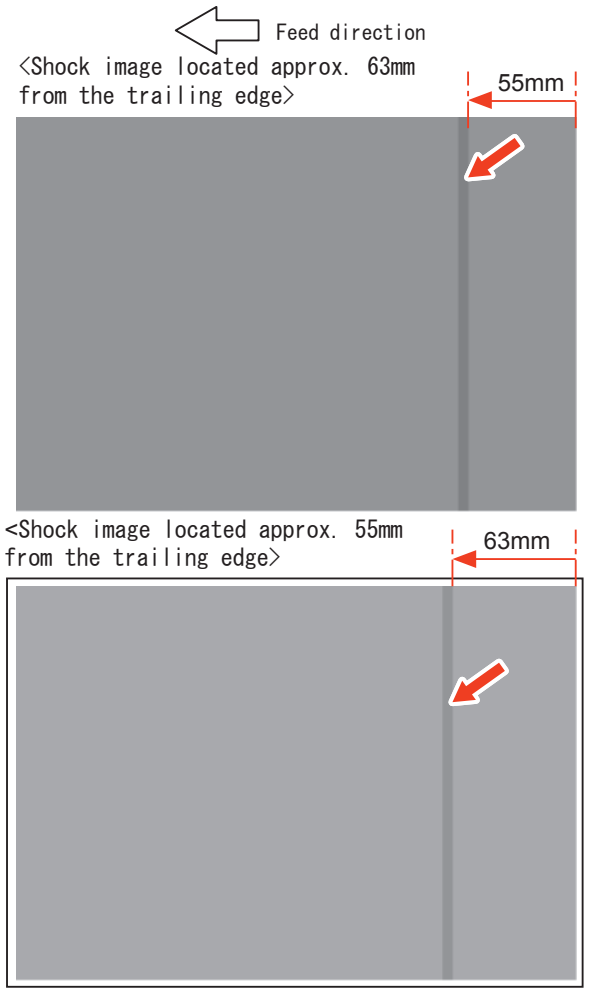
2) Measure a distance from the trailing edge of the shock image.

3) Adjust using the following service mode. COPIER > ADJUST > FEED-ADJ > TBLT-SPD: Adjust the Transfer Belt speed

Shock image is located approx. 55mm from the trailing edge: Adjust the value by +10 gradually.
Shock image is located approx. 63mm from the trailing edge: Adjust the value by -10 gradually

4) Output a halftone image with the condition described in step 1 again and check the image.
With shock image: go to step 3.
Without shock image: End

[Image Sample]



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Uneven density correction by 2D shading

To correct uneven image density caused by uneven potential on the surface of the Drum.

NOTE:
This machine performs two dimensional shading which replaces uneven potential of the Photosensitive Drum to the exposure amount to correct. (Default: two dimensional shading is disabled.) As the data of Drum's uneven potential, the data measured at the shipment of the Drum is used.

CAUTION:

This adjustment is executed when the preferred image is not output even if the Primary Charging Wire height adjustment and secure watermark adjustment * are performed.

* Secure watermark adjustment: Function Settings>Common>Print Settings>Secure Watermark Settings>Adjust Background/Character Contrast

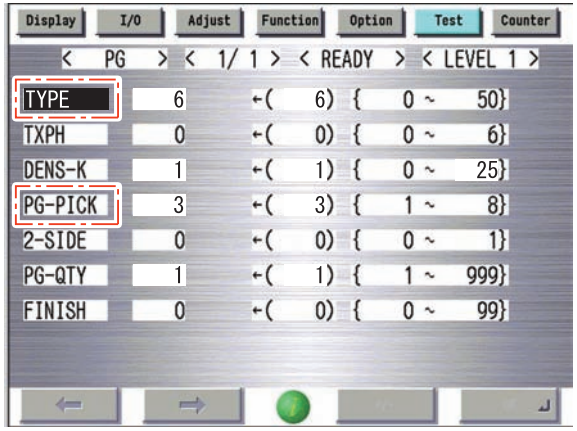
1) Check that the two dimensional shading is enabled.
COPIER>OPTION>IMG-LSR>2D-SHADE 1: Enabled

2) Turn OFF and then ON the main power switch.

CAUTION:

Be sure to turn OFF and then ON the main power switch after step 1. Uneven density may be reduced by the two dimensional shading correction at the startup.

3) Output a halftone image with the following conditions and check if uneven density occurs.
COPIER>TEST>PG>TYPE 6
Select the cassette which the following paper is set: COPIER>TEST>PG>PG-PICK A3 (LDR) or larger.
When uneven density is seen: Go to step 4.
When uneven density is not seen: Procedure is ended.



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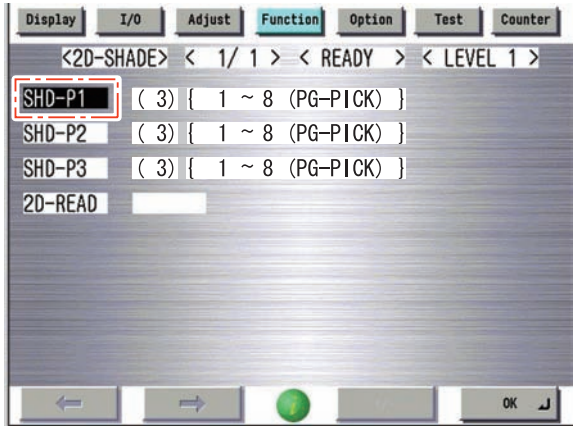
4) Output a test pattern for two dimensional shading.
COPIER>FUNCTION>2D-SHADE>SHD-P1
4-1) Set the cassette.Select the cassette which A3 (LDR) or larger paper is set. Select "SHD-P1" and cassette using "numeric keypad".
4-2) Output 3 sheets of the test pattern.



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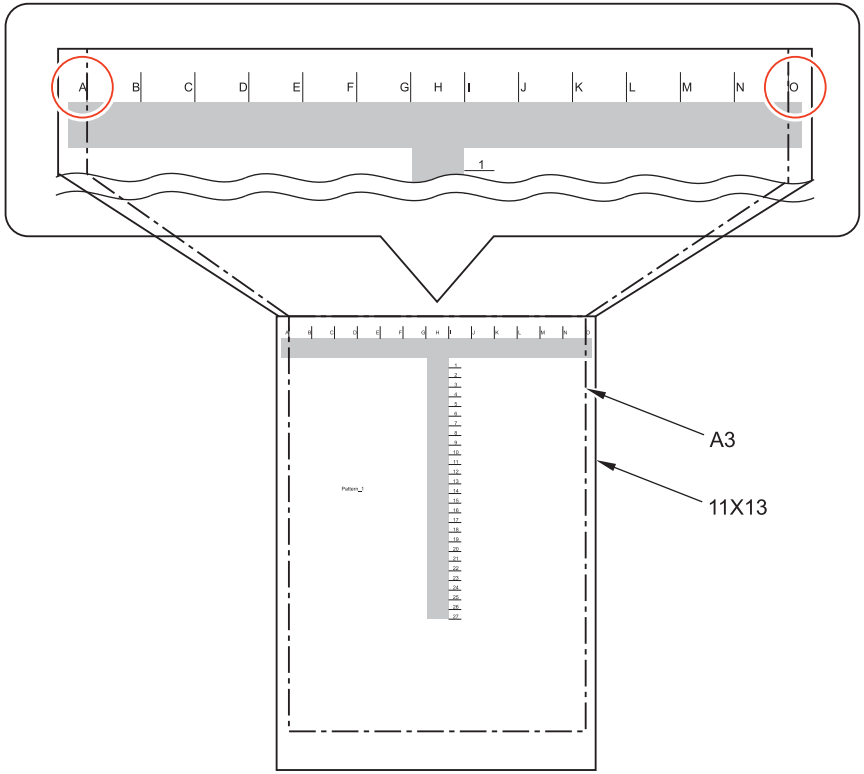
CAUTION:

It is difficult to judge whether uneven potential of the Photosensitive Drum causes uneven density of the output image, so output 3 sheets of the test print and adjust the area where all 3 sheets have the same symptom.

(If the same symptom is seen on the same spot of all 3 sheets, it is possibly caused from the Drum.)

<Test pattern>



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NOTE:
For the test print, the following 3 types can be output, but basically set SHD-P1 to output. The following shows the use case of each test print.
COPIER>FUNCTION>2D-SHADE>SHD-P1
: When the image which uneven density occurs is the halftone image with light density
COPIER>FUNCTION>2D-SHADE>SHD-P2
: When the image which uneven density occurs is the halftone image with dark density
COPIER>FUNCTION>2D-SHADE>SHD-P3
: In case of the secure watermark image with uneven density

5) Check (T-shaped) halftone area of the output test print visually and adjust the area of uneven density.

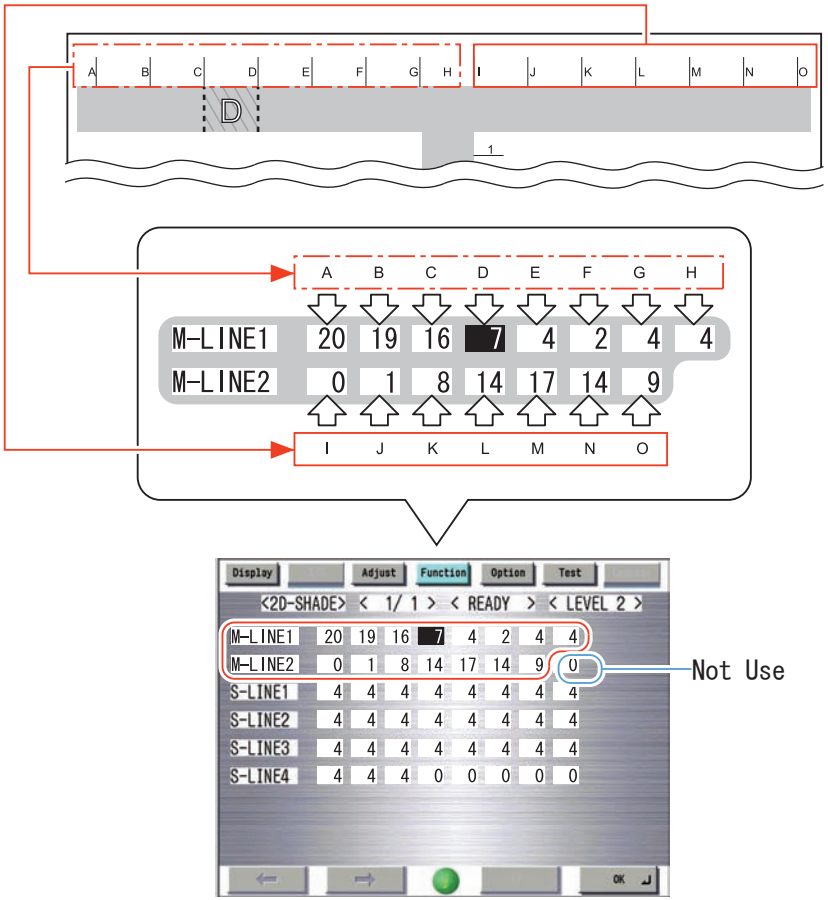
5-1) Take a note to write down the values of the following service mode.
When the adjustment cannot be performed appropriately, these values are required to return to the initial values.
COPIER>FUNCTION>2D-SHADE>M-LINE1 (Level 2)
COPIER>FUNCTION>2D-SHADE>M-LINE2 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE1 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE2 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE3 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE4 (Level 2)

5-2) Adjust the target horizontal scanning direction (A to O) which uneven density is seen.
After selecting "M-LINE1/M-LINE2", select the target horizontal scanning window (A to O), and enter the numerical value using "numerical keypad".
COPIER>FUNCTION>2D-SHADE>M-LINE1 (Level 2) Horizontal scanning direction A to H
COPIER>FUNCTION>2D-SHADE>M-LINE2 (Level 2) Horizontal scanning direction I to O

CAUTION:

- Be sure to switch the screen after entering the value. Unless the screen is switched, the numerical value is not reflected. (Actually, the value is not reflected on the screen, but it is retained internally.)
- When the horizontal scanning direction (H line) is adjusted, the adjustment value of the vertical scanning direction (1 to 27) is also changed.
- As the value is larger, the density becomes lighter. As the value is smaller, the density becomes darker.
- Enter the adjustment value in a unit of +/- 30 gradually, output the test pattern and make adjustment while checking the test pattern. If the value is changed dramatically, the image error (while line) may occur.
- Be sure to make adjustment in order of horizontal and vertical scanning directions. If the adjustment is executed in the inverse order, it may not be executed correctly.
- Entering 96 or larger value can generate an error in potential control (E061).
In the case of an error, adjust the setting value between 0 and 95

5-3) After the adjustment, output a test print and check the image.
When uneven density is seen: Go to 5-3).
When uneven density is not seen: Procedure is ended.



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5-4) Adjust the target vertical scanning direction (1 to 27) which uneven density is seen.
After selecting "S-LINE1 to 4", select the target vertical scanning window (1 to 27), and enter the numerical value using "numerical keypad".
COPIER>FUNCTION>2D-SHADE>S-LINE1 (Level 2) Vertical scanning direction 1 to 8
COPIER>FUNCTION>2D-SHADE>S-LINE2 (Level 2) Vertical scanning direction 9 to 16
COPIER>FUNCTION>2D-SHADE>S-LINE3 (Level 2) Vertical scanning direction 17 to 24
COPIER>FUNCTION>2D-SHADE>S-LINE4 (Level 2) Vertical scanning direction 25 to 32

CAUTION:

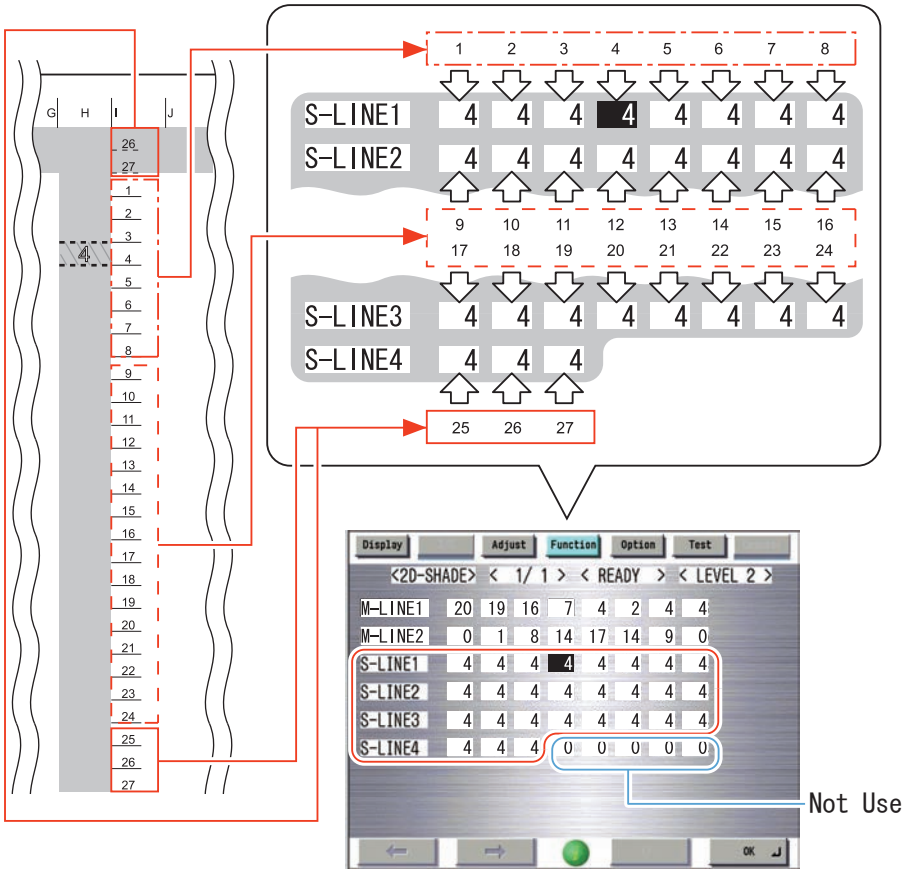
- Be sure to switch the screen after entering the value. Unless the screen is switched, the numerical value is not reflected. (Actually, the value is not reflected on the screen, but it is retained internally.)
- When the vertical scanning direction (25 and 26 lines) is adjusted, the adjustment value of the horizontal scanning direction (A to P) is also changed.

As the value is larger, the density becomes lighter. As the value is smaller, the density becomes darker.
Enter the adjustment value in a unit of +/- 30 gradually, output the test pattern and make adjustment while checking the test pattern. If the value is changed dramatically, the image error (while line) may occur.

5-5) After the adjustment, output a test print and check the image to complete the procedure.

CAUTION:

If the image cannot be adjusted correctly even with this adjustment procedure, reenter the values written in step 5-1.



F-2-118

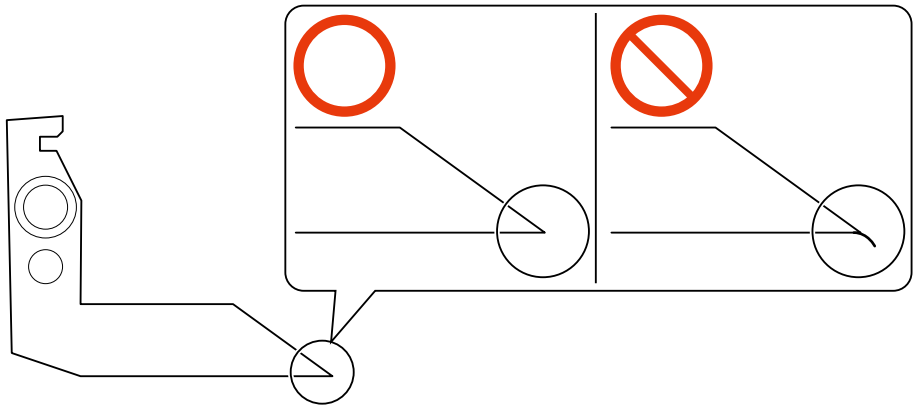
Separation Failure Jam due to Deformation of Separation Claw

[Location]

Drum Separation Claw

[Cause]

When the paper enters to the drum at separation failure, the Separation Claw may be deformed. When the Separation Claw is deformed, the paper is easily caught by the leading edge of the Separation Claw when the paper (especially curled paper) is fed, and a jam (Jam Code: 0205) is likely to occur.



F-2-119

[Condition]

Job after a jam which occurs when the paper enters to the drum

When using curled paper (when using backside of printed paper, etc.)

[Field Remedy]

Replace the Separation Claw.

NOTE:

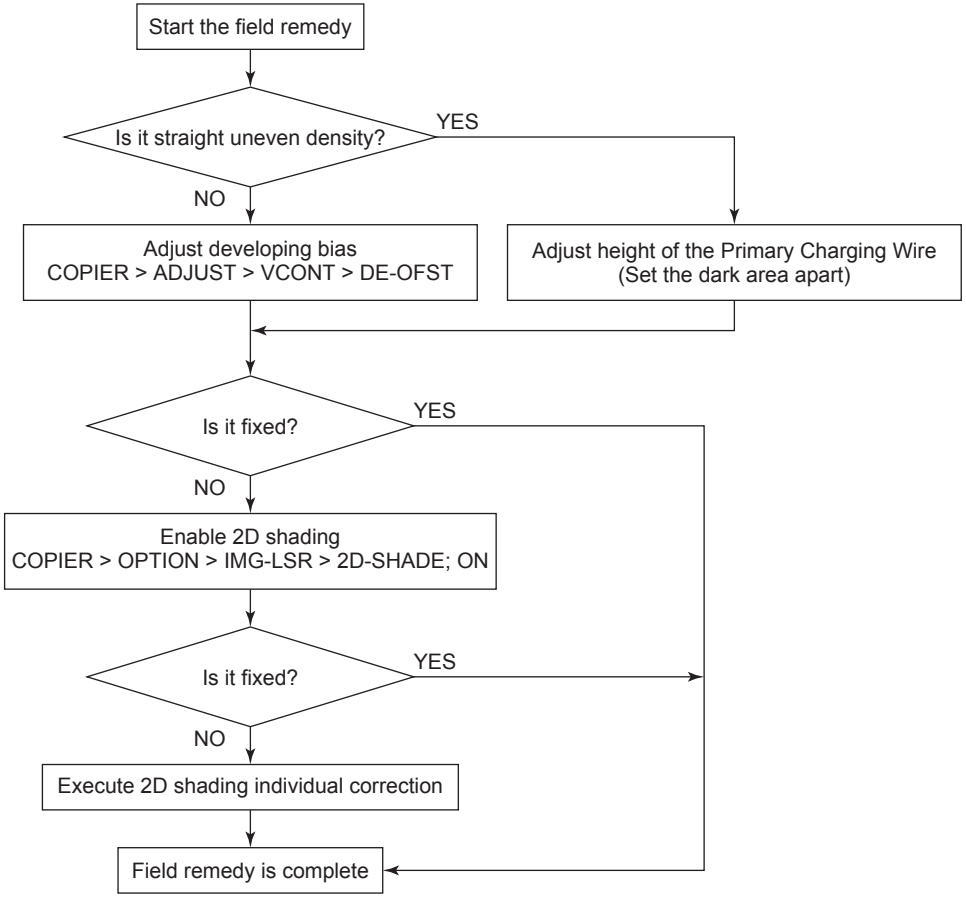
Replace the Separation Claw when a separation failure jam occurs even once..

Uneven density

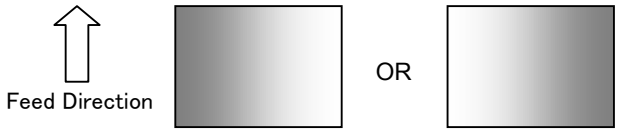
[Cause]

Uneven density occurs on the image because of uneven developing performance or change in drum characteristics due to wear.

[Field Remedy]

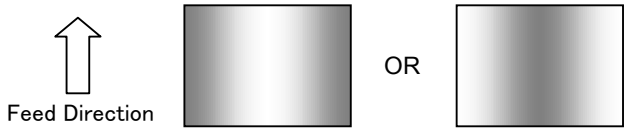


F-2-120



F-2-121

In the case of dark/light image at either the left or right side on the image in horizontal direction, adjust height of the Primary Charging Wire and check the output result. When making adjustment, execute the work while keeping the wire at dark area apart.



F-2-122

If it is not a straight uneven density, change the value of the following service mode in decrement of -10 and check the output result.

COPIER > ADJUST > VCONT > DE-OFST

(Setting value: default 0, -10, -20, …-50)

CAUTION :

Executing the above setting can generate smeared image or foggy image.

After switching the mode to enable 2D shading in the following service mode, turn OFF/ON the main power and check the output result.

(For detailed procedure, see “Troubleshooting > Uneven density correction by 2D shading > Step 1) to 3) (Refer to page 6-7)

COPIER > OPTION > IMG-LSR > 2D-SHADE Setting value: 1 (ON)

Output the test pattern for 2D shading and adjust the uneven density area individually.

(For detailed procedure, see “Troubleshooting > Uneven density correction by 2D shading > Step 4) to 5) (Refer to page 6-7)

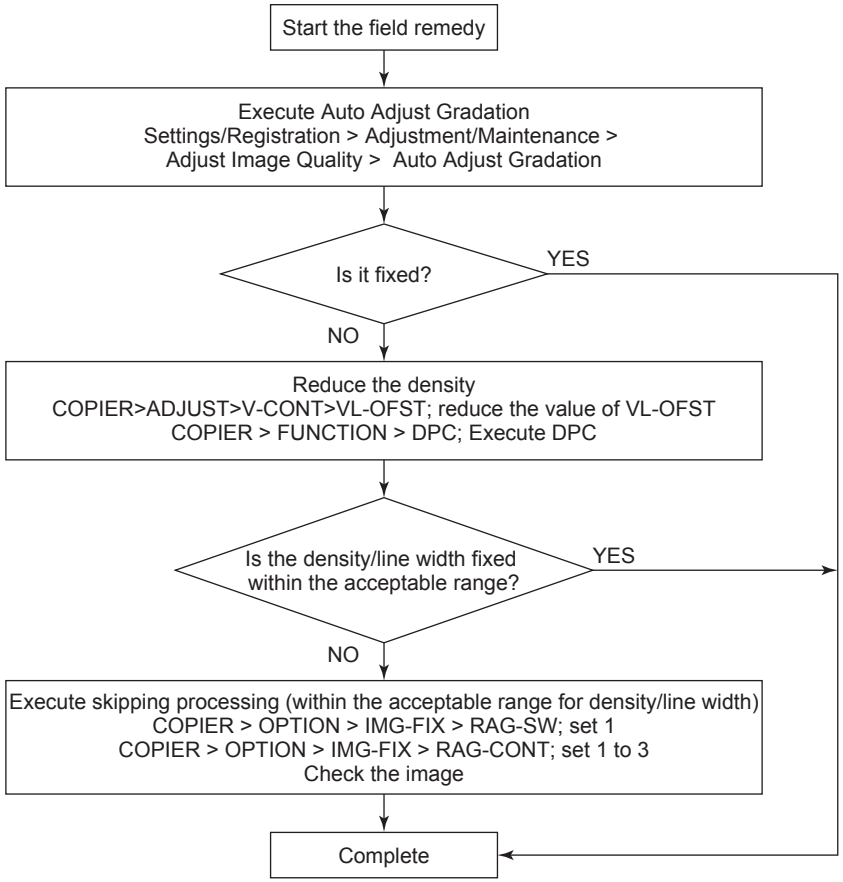
Smeared image

[Cause]

Excess toner is transferred on the paper that causes toner collapse at the time of fixing, which can generate smeared image on the image. The following are assumed causes of smeared image:

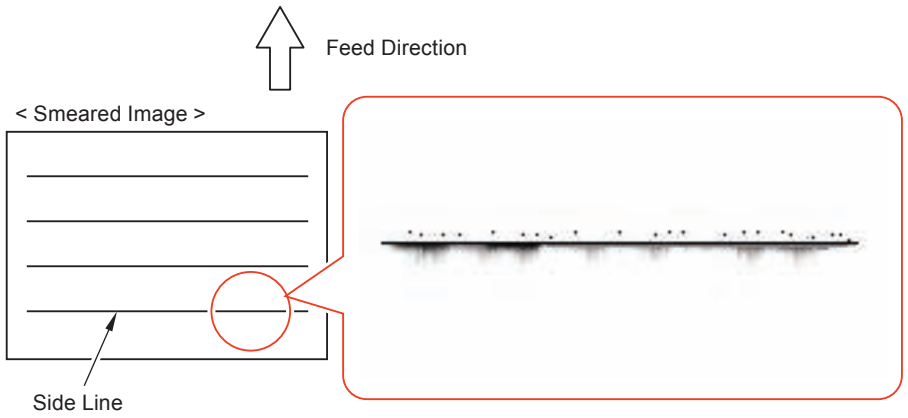
- When the paper type is changed
- Toner deterioration
- Rapid change in environment (High temperature <- -> Low temperature)

[Field Remedy]



F-2-123

[Image]



F-2-124

Select the following: “Settings/Registration > Adjustment Maintenance > Adjust Image > Auto Adjust Gradation; and check the output result.

1) COPIER > ADJUST > V-CONT > VL-OFST; set the value of VL-OFST to 10
2) Select the following: COPIER > FUNCTION > DPC; execute DPC and then check the output result.
3) If the symptom is not improved, further increase the value in step 1) to 20, 30…and then execute step 2).

CAUTION :
Changing the above setting can cause reduced density or thinner line

If the smeared image is not improved within the acceptable range for density and line width, execute skipping process in the following procedure:

1) COPIER > OPTION > IMG-FIX > RAG-SW; change the value to 1
2) COPIER > OPTION > IMG-FIX > RAG-CONT; change to 1 and check the output result.
3) If the symptom is not improved, change the value in step 2) to 2, 3…and check the output result.

CAUTION :
Changing the above setting can cause minor skipping in the text part.

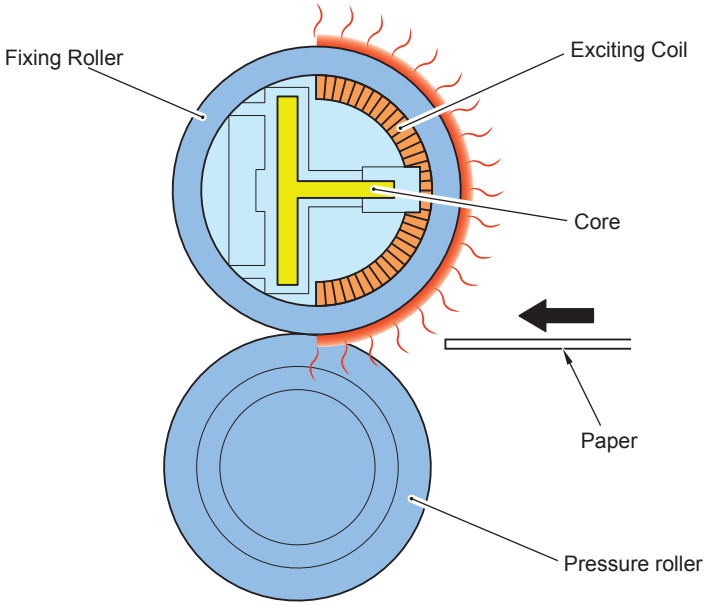
Fixing

Overview

Characteristics

1) IH heating method

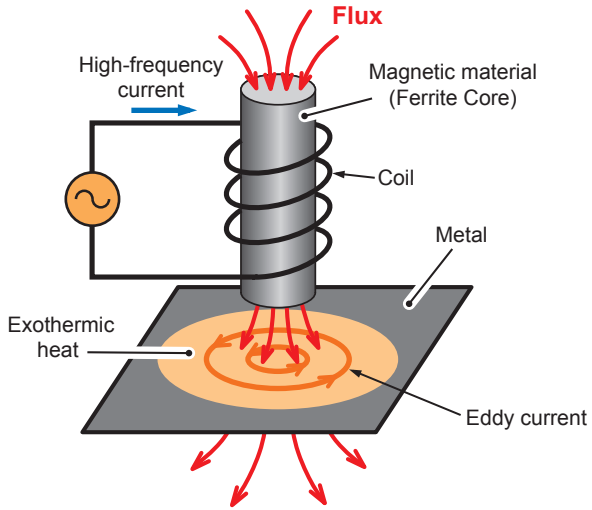
This machine uses the IH heating method. This method enables to shorten the warm-up time and high-speed printing.



F-2-125

<IH (Induction Heating) method>

Supplying high frequency current to the coil inside the Heater Unit generates a high frequency magnetic field around the coil. By this magnetic field, an eddy current (induction current) runs through the Fixing Roller and the Fixing Roller generates electricity by itself.



F-2-126

2) Making the Fixing Assembly as a unitt

Maintenance performance has been improved by separating the Fixing Unit from the Host Machine to be assigned as a unit.

3) Saving energy

Improved toner allows reduction of fixing temperature that enables less energy consumption.

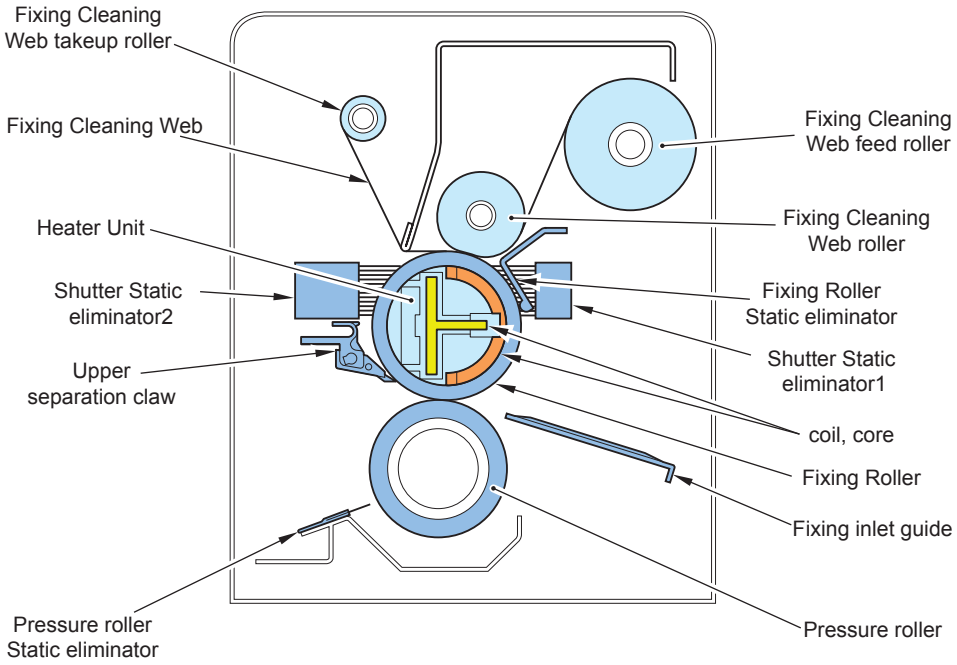
Specifications

Item	Function/method
Fixing method	IH fixing method
Fixing Heater	IH heater
Fixing Roller	O/D: 40mm
Pressure Roller	O/D: 38mm
Control temperature	(Japanese model) • imageRUNNER ADVANCE 6075/6065: To be reduced accordingly from 185 deg C (17 deg or more of environment temperature at standby) To be reduced accordingly from 190 deg C (less than 17 deg C of environment temperature at standby) • imageRUNNER ADVANCE 6055: To be reduced accordingly from 180 deg C (17 deg or more of environment temperature at standby) To be reduced accordingly from 190 deg C (less than 17 deg C of environment temperature at standby) (Non-Japanese model) • To be reduced accordingly from 190 deg C (17 deg or more of environment temperature at standby) • To be reduced accordingly from 195 deg C (less than 17 deg C of environment temperature at standby)
Fixing drive control	Switching the print speed and warm-up speed (low speed)
Thermistor	Main Thermistor (contact type) The center of the Fixing Roller, Reciprocating width: 12mm Temperature control, Failure detection
	Sub Thermistor (contact type)The rear of the Fixing Roller, No reciprocation Failure detection
	Shutter Thermistor(contact type) The rear of the Fixing Roller, No reciprocation Failure detection,Shutter Control
Thermal Switch	1 pc. (non-contact type)
Protective function	Yes (detection by the Thermistor and the Thermal Switch)
Separation mechanism	Upper Separation Claw: contact type, Reciprocating width: 3mm
Static Eliminator	Fixing Roller/ Pressure Roller/Shutter
Cleaning mechanism	Fixing Cleaning Web
Inlet guide height control	No
Bias application	No
Control to prevent temperature rise at the edge	control of heating area by flux blocking plate (shutter)
Disengagement mechanism	No
idle rotation during standby	Yes
Other controls	See “Controls” described later.

T-2-49

Parts configuration

Cross-section view

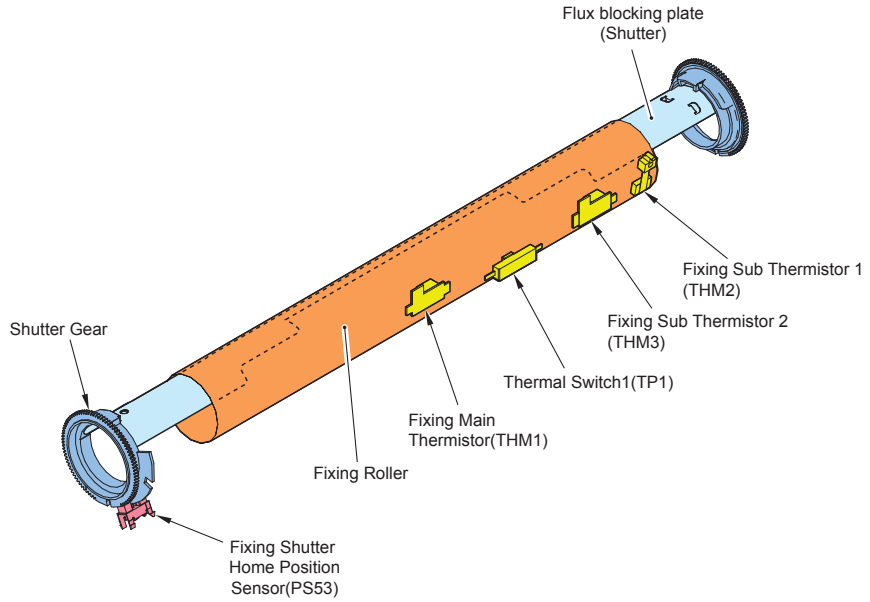


F-2-127

Parts name	Function/method
Fixing Roller	Heating toner and paper
Pressure Roller	Pressing and feeding paper
Heater Unit	IH Heater To heat the Fixing Roller
Coil Core	
Fixing Cleaning Web	To remove residual toner on the surface of the Fixing Roller
Fixing Cleaning Web Roller	
Fixing Cleaning Web Take-up Roller	
Fixing Cleaning Web Feed Roller	
Upper Separation Claw	To separate paper from the Fixing Roller (to prevent paper-wrapping) Reciprocating width: 3mm
Fixing Inlet Guide	Paper Feed Guide to the Fixing Assembly
Fixing Roller Static Eliminator	To prevent leak, static offset and noise
Pressure Roller Static Eliminator	
Shutter Static Eliminator	

T-2-50

Thermistor, Thermal Switch

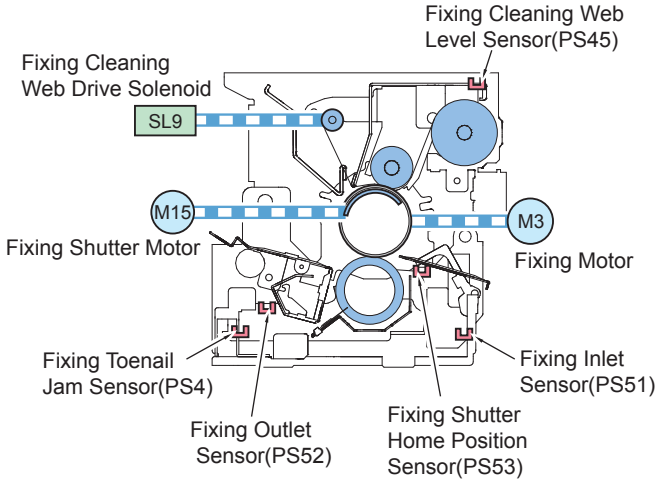


F-2-128

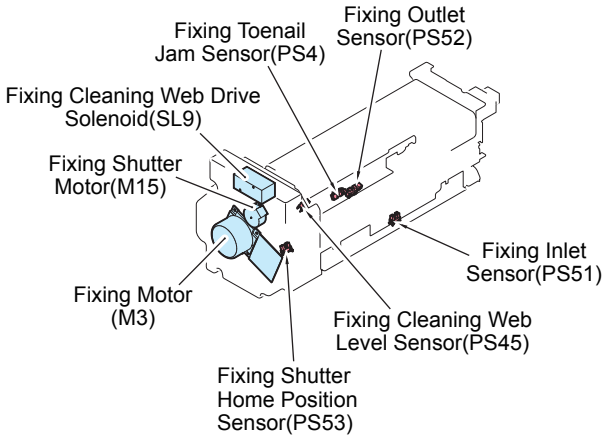
Code	Parts name	Function/method
THM1	Fixing Main Thermistor	Contact type temperature control, failure detection
THM2	Fixing Sub Thermistor 1	Contact type failure detection,Shutter operation temperature detection
THM03	Fixing Sub Thermistor 2	Contact type failure detection,Shutter operation temperature detection
TP1	Thermal Switch1	Non-Contact type (200 -/+ 5 deg C) To prevent abnormal temperature rise
PS53	Fixing Shutter Home Position Sensor	to detect shutter position

T-2-51

Drive configuration



F-2-129



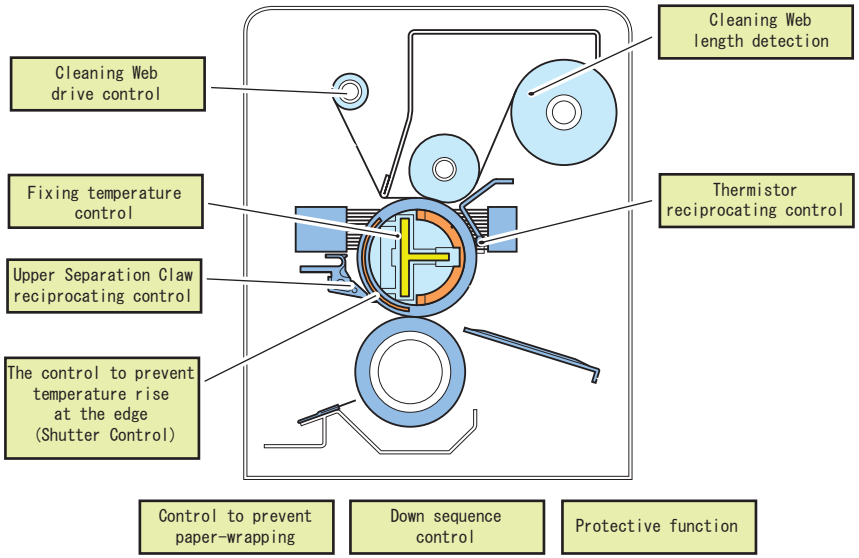
F-2-130

Code	Parts name	Function/method
M3	Fixing Motor	To control drive of the Fixing Motor
M15	Fixing Shutter Motor	To control drive of the Shutter
SL9	Fixing Cleaning Web Drive Solenoid	To control drive of the Cleaning Web
PS4	Fixing Toenail Jam Sensor	To prevent scratches on Fixing Roller due to jam
PS45	Fixing Cleaning Web Level Sensor	To detect length of the Cleaning Web
PS51	Fixing Inlet Sensor	To detect paper wrapping and stationary
PS52	Fixing Outlet Sensor	
PS53	Fixing Shutter Home Position Sensor	to detect shutter position

T-2-52

Controls

Overview



F-2-131

NO	Control/Function	Overview
1	Fixing temperature control	To control temperature of the Fixing Roller to prevent fixing failure
2	Down sequence control	In the case of large difference between the target temperature and the detected temperature, this control drops productivity to prevent fixing failure and image failure.
3	Paper anti-wrapping control	To prevent failure of the Fixing Assembly caused by wrapping of paper around the Fixing Roller and the Pressure Roller.
4	Shutter Control	To control the shutter position in order to prevent the temperature rising at the edge.
5	Thermistor reciprocating control	To prevent scar on the Fixing Roller by the Main Thermistor, this control moves the Main Thermistor back and forth.
6	Upper Separation Claw reciprocating control	To prevent scar on the Fixing Roller by the Upper Separation Claw, this control moves the Upper Separation Claw back and forth.
7	Cleaning Web drive control	To prevent fixing offset, this control removes residual toner on the surface of the Fixing Roller.
8	Cleaning Web level detection	To detect level of the Cleaning Web.
9	Protective function	To detect error by Thermistor. To detect error by Thermoswitch.

T-2-53

Fixing temperature control

Overview

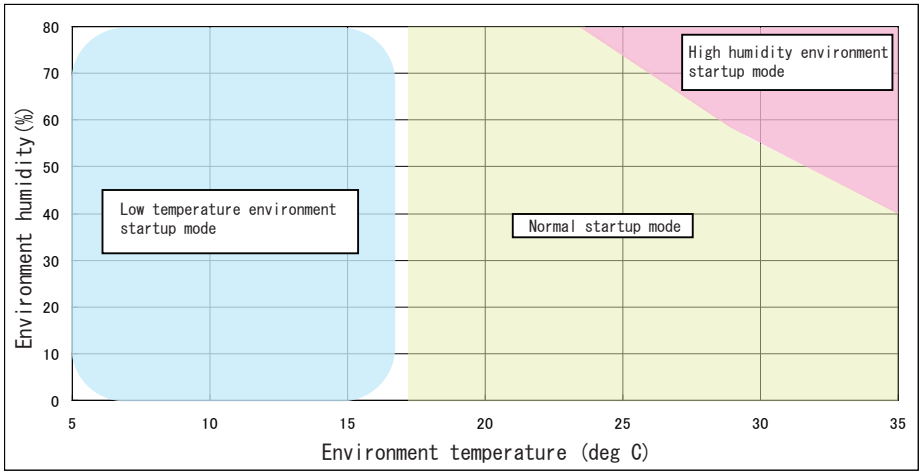
To prevent fixing failure, temperature control of the Fixing Roller is executed with the following timing.

NO	Temperature control	Overview
1	Temperature control during startup	To control temperature to reach the standby temperature. To be switched from the following 4 modes according to the environment temperature/ humidity and the temperature of the Fixing Roller: • Normal startup mode • Low temperature environment startup mode • High humidity environment startup mode • Recovery mode
2	Temperature control during standby	To control temperature so that printing can be performed immediately after receiving the print request signal
3	Temperature control during printing	To control temperature by the temperature table according to the paper type and the paper basis weight.
4	Other temperature adjustments	Following shows other temperature adjustments • To control temperature for reducing power consumption.

T-2-54

Temperature control during startup

Temperature is controlled to reach the standby temperature.



F-2-132

<Normal startup mode>

In the case of reaching the target temperature within 30 seconds due to quick temperature rise of the Fixing Roller, the target temperature is maintained to be shifted to the ready state once the potential control is completed.

Conditions			Target temperature	Target temperature reaching time
Environment temperature	Environment humidity	Fixing Roller temperature		
17 deg C or more	Low humidity environment(within 13g of absolute moisture content)	70 deg C or less	Japanese model imageRUNNER ADVANCE 6055: 180 deg C	30 sec

T-2-55

NOTE:
In the case of selecting the fixing improvement mode in the following service mode, the machine does not enter the startup state for 30 seconds and waits until the specified time.
COPIER> OPTION> BODY> FSPD-S1 :Selection of fixing improvement mode

<Low temperature environment startup mode>

After it reaches the target temperature, the target temperature is maintained until completion of the potential control, and then the machine enters ready state.

Conditions			Target temperature	Target temperature reaching time
Environment temperature	Environment humidity	Fixing Roller temperature		
Less than 17 deg C	-	70 deg C or less	195 deg C	75 sec (reference value)

T-2-56

<High humidity environment startup mode>

After it reaches the target temperature, the target temperature is maintained until completion of developing idle rotation as well as completion of the potential control, and then the machine enters ready state.

Conditions			Target temperature	Target temperature reaching time
Environment temperature	Environment humidity	Fixing Roller temperature		
-	High humidity environment(13g or more of absolute moisture content)	70 deg C or less	185 deg C <imageRUNNER ADVANCE 6055 Japanese model:180 deg C>	75sec (reference value)

T-2-57

<Recovery mode>

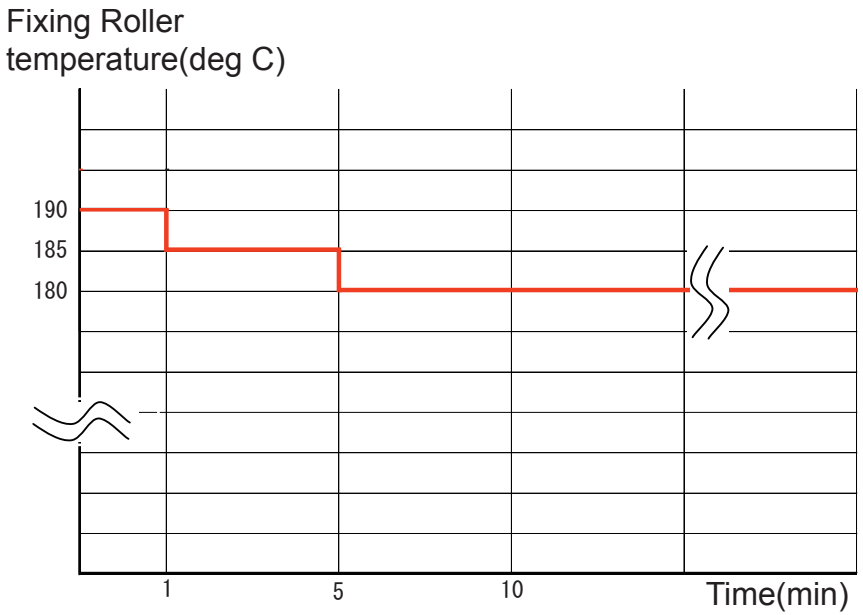
The machine enters ready state once it reaches the target temperature.

Conditions			Target temperature	Target temperature reaching time
Environment temperature	Environment humidity	Fixing Roller temperature		
-	-	70 deg C or more	Environment Temperature: 17 deg C or more Japanese: 180 deg C (imageRUNNER ADVANCE 6055: 175 deg C) Non Japanese: 185 deg C Environment Temperature: less than 17 deg C Japanese: 190 deg C Non Japanese: 195 deg C	30 sec or less

T-2-58

Temperature Control for Standby

To provide measures against temperature rise of the coil/Main Body and save energy consumption, the target temperature is reduced step by step on a specified time basis until it reaches a certain temperature.



F-2-133

The control temperature depends on the environment temperature/country. The details on the control temperature are shown below.

- Normal environment 17 degC or higher

Destination	Model	Time (minute)			
		0 to 1	1 to 5	5 to 10	10 and longer
Japanese	imageRUNNER ADVANCE 6075	185	180	175	170
	mageRUNNER ADVANCE 6065	185	180	175	170
	imageRUNNER ADVANCE 6055	180	175	170	170
Non Japanese	imageRUNNER ADVANCE 6075/6065/6055	190	185	180	175

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- Low temperature environment Lower than 17 degC

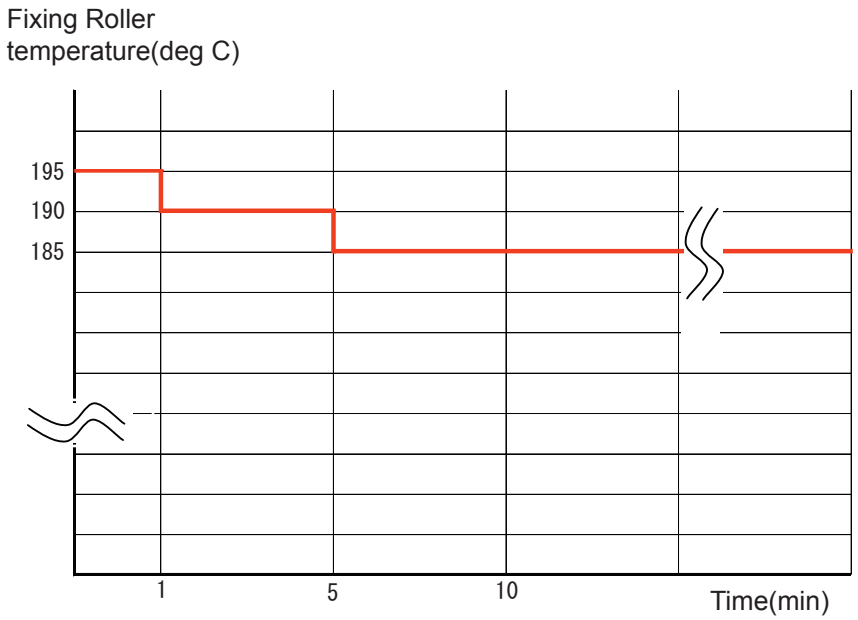
Destination	Model	Time (minute)			
		0 to 5	5 to 10	10 to 20	20 and longer
Japanese	imageRUNNER ADVANCE 6075/6065/6055	190	185	180	175
Non Japanese	imageRUNNER ADVANCE 6075/6065/6055	195	190	185	180

T-2-60

NOTE:
When restoring from the recovery mode, temperature control is conducted from the 2nd line of temperature control table.

Temperature control during printing

The target temperature is reduced step by step on a specified time basis until it reaches a certain temperature.
This control reduces energy consumption to prevent temperature rise of the Fixing Roller.



F-2-134

The control temperature depends on the environment temperature/country/paper type. The details on the control temperature are shown below.

NOTE:
The following is the details of paper types shown in the following tables.

Paper type	Detail	Paper weight (g/m^2)
A	Plain paper, recycled paper, color paper, pre-punched paper	64 to 90
B	Heavy paper (plain paper, recycled paper, color paper, pre-punched paper)	91 to 256
	Transparency, label paper, tracing paper, tab paper, postcard	All paper weight
C	Bond paper	All paper weight
D	Thin paper (plain paper, recycled paper, color paper, pre-punched paper)	52 to 63

T-2-61

- Normal environment 17 degC or higher

Destination	Model	Paper Type	Time (minute)			
			0 to 1	1 to 5	5 to 10	10 and longer
Japanese	imageRUNNER ADVANCE 6075/6065	Plain paper	190	185	180	175
		Heavy paper	195	195	195	195
		Bond paper	205	205	205	205
		Thin paper	160	160	160	160
	imageRUNNER ADVANCE 6055	Plain paper	185	180	175	175
		Heavy paper	190	190	190	190
		Bond paper	205	205	205	205
		Thin paper	160	160	160	160
Non Japanese	imageRUNNER ADVANCE 6075	Plain paper	198	193	188	183
		Heavy paper	198	198	198	193
		Bond paper	208	208	208	208
		Thin paper	163	163	163	163
Non Japanese	imageRUNNER ADVANCE 6065/6055	Plain paper	198	193	188	183
		Heavy paper	193	193	193	193
		Bond paper	208	208	208	208
		Thin paper	163	163	163	163

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- Low temperature environment Lower than 17 degC

Destination	Model	Paper Type	Time (minute)			
			0 to 5	5 to 10	10 to 20	20 and longer
Japanese	imageRUNNER ADVANCE 6075	Plain paper	195	190	185	180
		Heavy paper	200	200	200	195
		Bond pape	210	210	210	210
		Thin paper	170	170	170	170
	imageRUNNER ADVANCE 6065/6055	Plain paper	195	190	185	180
		Heavy paper	195	195	195	195
		Bond paper	210	210	210	210
		Thin paper	170	170	170	170
Non Japanese	imageRUNNER ADVANCE 6075	Plain paper	203	198	193	188
		Heavy paper	203	203	203	198
		Bond pape	213	213	213	213
		Thin paper	173	173	173	173
	imageRUNNER ADVANCE 6065/6055	Plain paper	203	198	193	188
		Heavy paper	198	198	198	198
		Bond paper	213	213	213	213
		Thin paper	173	173	173	173

T-2-63

Other temperature adjustments

<Energy Saver mode>

By pressing the energy saver key on the Control Panel, energy consumption is reduced by reducing the control temperature when the Fixing Unit is at standby state according to the energy saving rate.

NOTE:
To be recovered to the normal mode according to the recovery mode.

NOTE:
The energy saving rate can be changed from "Settings/Registration > Preferences > Timer/Energy Settings > Change Energy Saver Mode".
(Default: -10%)

<Low power mode>

To save energy, in the case that no operation has been executed for a certain period of time, this machine is automatically to be in Low Energy Mode. Power distribution to the Fixing Unit is turned OFF in Low Energy Mode.

NOTE:
To be recovered to the normal mode according to the temperature control at warm-up.

NOTE:
The time to change to the low power mode can be changed from "Settings/Registration > Preferences > Timer/Energy Settings > Auto Sleep Time".
(Default: 1 min.)

Related Error Code

E000: Fixing Assembly low temperature error
E001: Fixing Assembly high temperature error
E002: Fixing Assembly temperature rise error
E003: Fixing Assembly temperature decrease error
E004: Fixing Power Supply error

CAUTION:

When any of the above Error Codes, E000 to E0004, is displayed, the error code display will not be cleared even though the Main Power Switch is turned OFF. In such a case, cancel the error by the following service mode and turn OFF and then ON the power.

COPIER>FUNCTION>CLEAR>ERR:Clear of error code

Related Service Mode

Selection of fixing improvement mode
COPIER> OPTION> IMG-FX> FSPD-S1

Setting of paper wrinkle prevention mode
COPIER> OPTION> IMG-FIX> FX-WNKL

Down sequence control

Overview

In the case of great difference between the target temperature and the detected temperature at the start of printing or during printing, productivity is dropped to prevent fixing failure or image failure.

Execution timing

- During printing
- At the start of printing and when the paper type is switched

Control description

This control has the 3 types of down sequences according to the execution timing.

1) In the case of decrease in fixing temperature (during printing)
   When the fixing temperature drops during the job, the productivity is dropped or the job is stopped to prevent fixing failure.

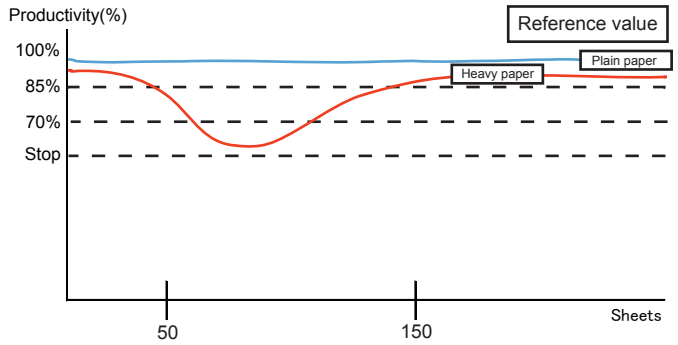
<Plain Paper>

When the environment temperature is 17 deg C or higher, the fixing temperature of 100% productivity remains, so the down sequence does not start. When the environment temperature is lower than 17 deg C, it may start down sequence.

> NOTE:
> When the print temperature is reduced by the service mode although the environment temperature is 17 deg C or higher, the down sequence may be started.

<Heavy paper>

Right after the startup (including restoration from the sleep mode), a whole Fixing Assembly is not warm enough, so the down sequence may be started. However, as printing continues sequentially, the temperature of the Fixing Assembly is increased and reaches to the temperature of the 100% productivity



F-2-135

2) When printing is started and the paper type is switched

Because fixing temperature differs according to the paper type, switching the paper type causes downtime.

Up to 60 seconds downtime is expected with this machine (switching from heavy paper to thin paper). The following shows estimated downtime.

pattern of paper type switching	downtime (reference value)	Remarks
Plain paper -> Heavy paper	5 sec	-
Thin paper -> Heavy paper	10 sec	-
Heavy paper -> Plain paper	-	Switching the temperature control is conducted, but print operation continues, so downtime does not occur.
Heavy paper -> Thin paper	60 sec	-
Bond paper -> Heavy paper	-	Switching the temperature control is conducted, but print operation continues, so downtime does not occur.
Bond paper -> Plain paper	-	
Bond paper -> Thin paper	60 sec	-
Thin paper -> Bond paper	80 sec	-
Plain paper -> Bond paper	30 sec	-
Heavy paper -> Bond paper	10 sec	-

T-2-64

Related Service Mode

- To change temperature threshold of down sequence with special paper
  COPIER> OPTION> IMG-FX> FIX-TEMP
  0 : Fixing priority, 1: Normal, 2: Productivity priority
- Set fixing/productivity: Plain paper A3+
  COPIER> OPTION> IMG-FX>FIX-TMP2
- Set fixing/productivity: Spcl ppr A3+
  COPIER> OPTION> IMG-FX>FIX-TMP3
- Curl reduction modes
  COPIER> OPTION> IMG-FX> TEMP-TBL2: to change control temperature for thin paper
  COPIER> OPTION> IMG-FX> TEMP-TBL: to change control temperature for plain paper
  COPIER> OPTION> IMG-FX> TEMP-TBL3: to change control temperature for heavy paper
  COPIER> OPTION> IMG-FX> TEMP-TBL4: to change control temperature for bond paper

Shutter Control

Overview

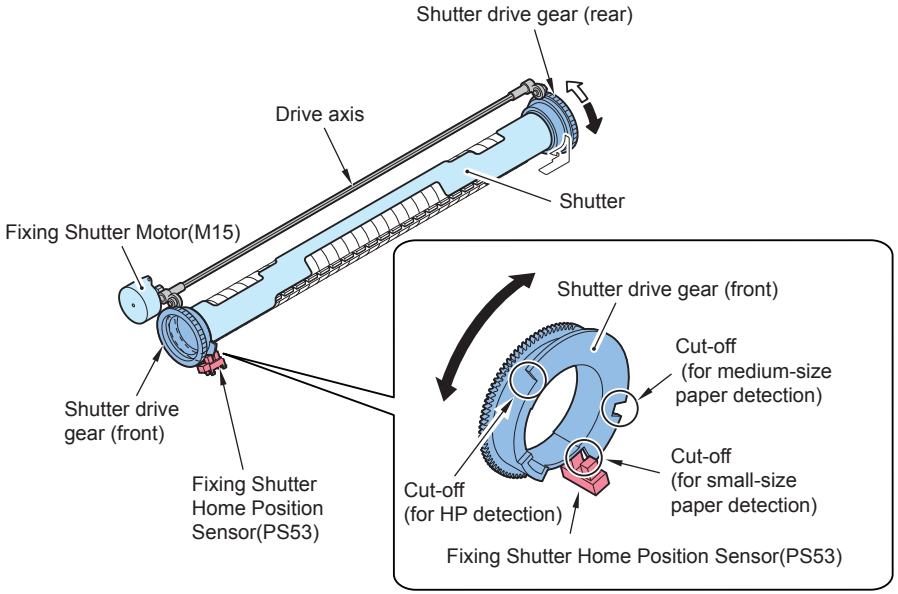
To prevent image failure and reduction in productivity caused by temperature rise at the edge, this machine introduces the Shutter (to shield magnetic flux; nonmagnetic substance), so that position of the Shutter is controlled according to the detected temperature of the edge.

Execution timing

- When reaching the detection temperature of Sub Thermistor (THM2) and Shutter Thermistor (THM3) to the Shutter operation temperature
- When printing is completed

Control description

By rotating the Shutter Motor (M15) for the specified amount, the Shutter is set in the specified position. There are cut-offs on the circumference of the Shutter Drive Gear (front) which is engaged with the Shutter. Detection of this cut-offs by the Shutter HP Sensor (PS53) determines whether the Shutter is set in the specified position.

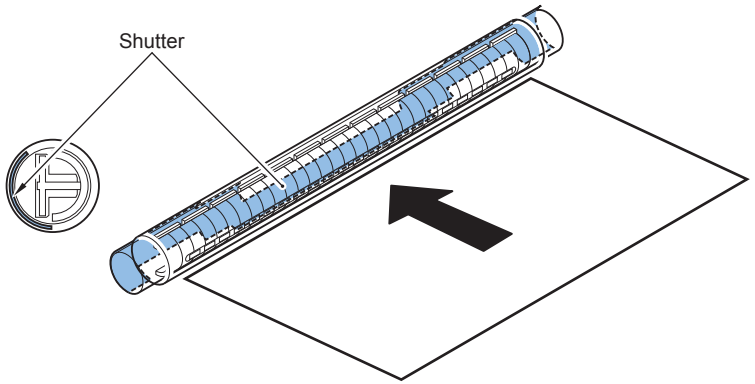


F-2-136

The shutter is set in any of the specified positions during printing according to the paper size and detected temperature of the Thermistor.

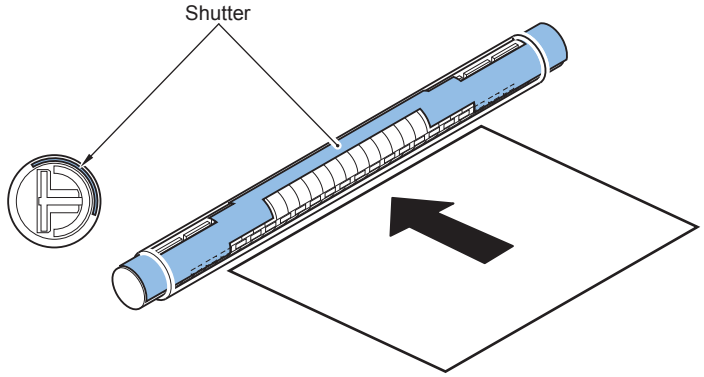
The shutter is set in the home position when printing is completed.

< Home Position (HP)>



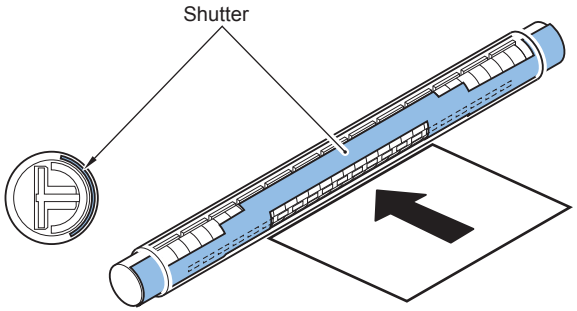
F-2-137

< Position for middle paper size>



F-2-138

<Position for small paper size>



F-2-139

Related Error Code

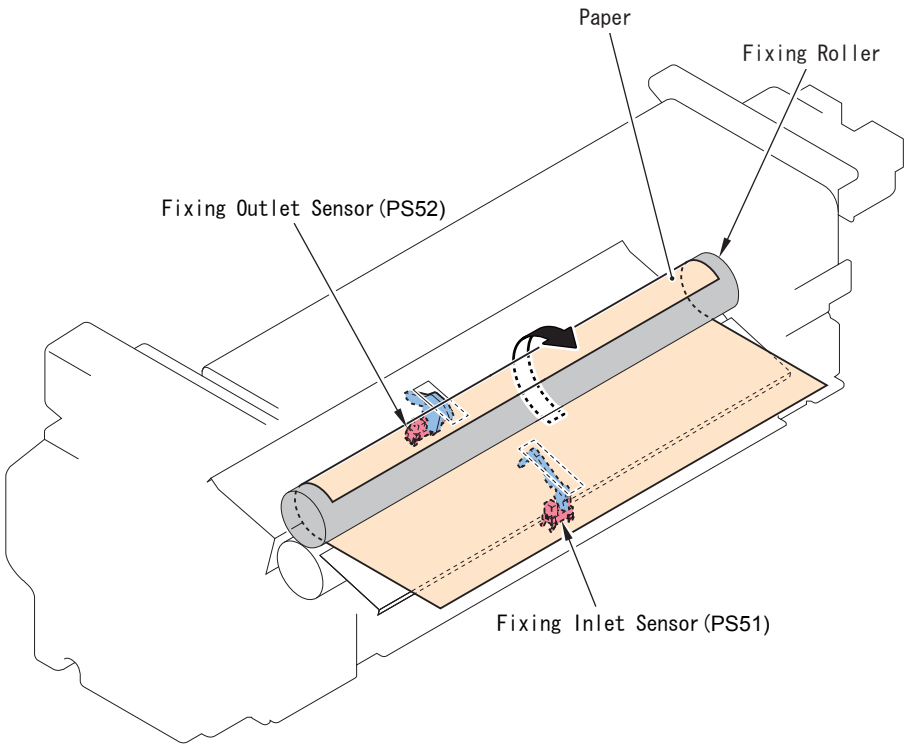
IH Shutter Motor error

E840-0001: When the Shutter failed to be moved to the specified position (failed to be at normal state) despite 3-times retry operation

Paper Anti-wrapping Control

Overview

With this control, failure of the Fixing Assembly caused by paper wrapping around the Fixing Roller and the Pressure Roller is prevented.



F-2-140

Control description

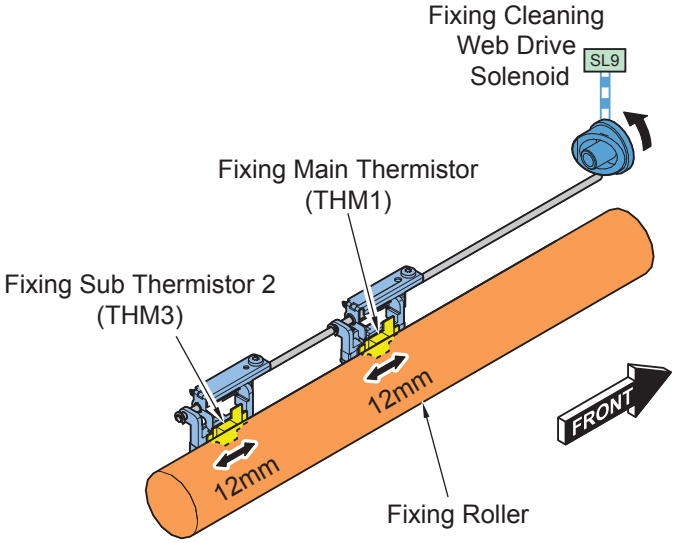
In the case of delay jam at the fixing outlet, the DC Controller determines paper wrapping if the paper remains in the Fixing Assembly and executes the following.

- The brake is applied to the Fixing Motor to immediately stop operation of the Fixing Motor (to minimize the paper wrapping level)
- Power distribution to the coil is stopped (to ensure safety).
- A jam is displayed.(Jam Code:0111)
- Cleaning of the Fixing Roller is executed (5 times of web cleaning)

NOTE:
Paper presence in the Fixing Assembly is determined by the paper detection log with the Fixing Inlet Sensor (to see whether the paper passes through the Sensor).

Thermistor reciprocating control

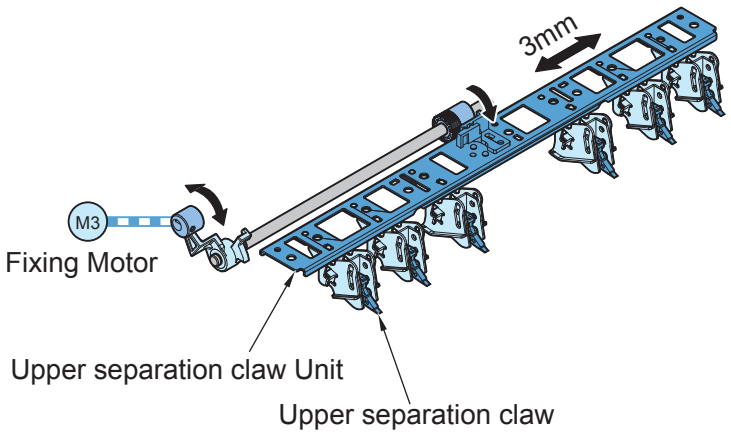
To prevent scar on the Fixing Roller detected by the Fixing Main Thermistor (THM01) and Fixing Sub Thermistror2 (THM3),
the Fixing Main Thermistor and Fixing Sub Thermistror2 are moved back and forth by 12mm in the shaft direction of the Fixing Roller.
The drive of the Fixing Cleaning Web Drive Solenoid (SL09) is transmitted to the Reciprocating Cam.



F-2-141

Upper separation claw reciprocating control

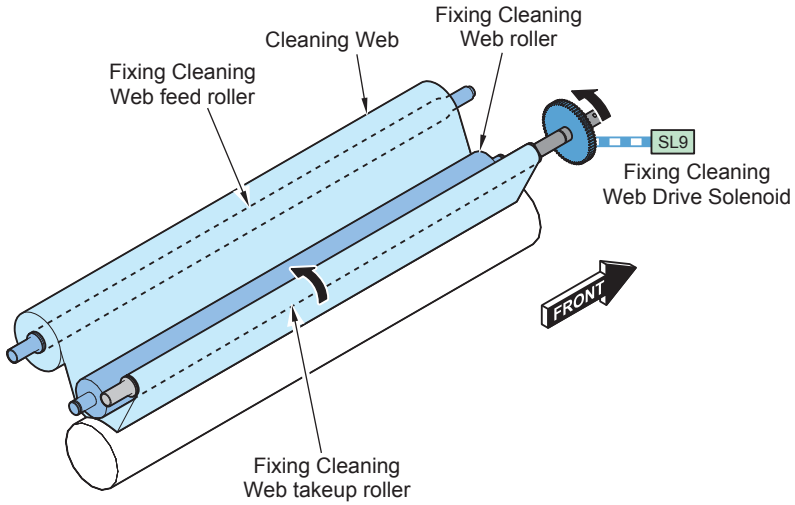
To prevent scar on the Fixing Roller by the Upper Separation Claw, the Upper Separation Claw is moved back and forth by 3mm in the direction of the Fixing Roller.



F-2-142

Cleaning web drive control

To prevent fixing offset, the residual toner on the surface of the Fixing Roller is removed with the Cleaning Web.



F-2-143

The take-up length of the Cleaning Web is determined by the paper size and the number of sheets (in 1 job).

Paper size	1st sheet	2nd sheet	3rd sheet	4th sheet or later
Small The size with less than 220mm length in feeding direction (LTR or less)	1-time	1-time	0-time	Repeat wrapping amount of the 1st to the 3rd sheet
Middle The size between 237mm and 364mm in feeding direction (B5R to LGL/B4)	1-time	1-time	1-time	
Large The size with 220mm or more length in feeding direction (B5R or more)	2-time	1-time	1-time	

T-2-65

When the paper is stationed in the Fixing Unit due to a jam or an error, the Fixing Web Drive Solenoid is turned ON for 5 times at the time of recovery.

Related Error Code

Error in connection of the Fixing Web Solenoid

005-0001

Related Service Mode

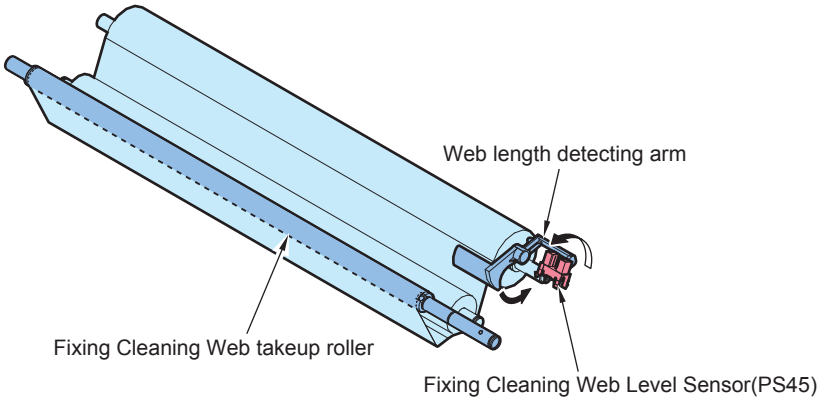
To switch the number of times to turn ON the Fixing Web Drive Solenoid

COPIER > OPTION > BODY > CBLTINVL

0: Normal [default]
1: 1.5 times of the normal mode
2: 0.5 times of the normal mode
3: 0.75 times of the normal mode

Cleaning web length detection

When the length of the Cleaning Web is reduced, the Web Level Detection Arm is moved in the direction of the arrow to block the light path of the Fixing Cleaning Web Level Detection Sensor (PS45). When the Fixing Web Drive Solenoid has been turned ON for 4 times after the detection by this sensor, a fixing web length warning message is displayed on the Control Panel.



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After the display of the fixing web length warning message, the number of turning ON the Fixing Cleaning Web Drive Solenoid is to be counted.
The Error Code “E005-0000” is displayed once the counter value reaches 2000 (3000 sheets of copy/print in A4 size)

In the case of replacing the Fixing Cleaning Web, be sure to clear the Fixing Web Counter by the following Service Mode

Fixing Cleaning Web take-up counter after the level warning
COPIER >COUNTER >MISC >FIX-WEB
Fixing Cleaning Web take-up counter
COPIER >COUNTER >DRBL-1>FX-WEB

Related Error Code

Error in absence of the Fixing Web

E005-0000:After the advance notice detection for the absence of the Fixing Web, the web has continued to be pulled for 2000 times.

Protective function

Detecting an Error Using the Thermistor

In the event of the following, the machine will set the DC power (12 V) used to drive the AC relay (found on the fixing heater power supply PCB), thereby stopping the AC power to the fixing heater.

- the main thermistor (THM1)/sub thermistor2 (THM3) has detected overheating.
- the difference between temperature of each thermistors has deviated from a specific value.

Detecting an Error Using the Thermal Switch

In response to a deviation in temperature (200 +/-5 deg C), bimetal contact of the thermal switch (TP1; non-contact type) will open to cut the power supply line (12 V) used to drive the AC relay on the fixing heater power supply PCB, thereby stopping the AC power to the fixing heater.

Servicing

Periodically Replaced Parts

No	Parts name	Parts Number	Piece	Expected life	Remarks
1	Main Thermistor Unit	FK2-7692-000	1	500,000 sheets	Main Thermistor + Sub Thermistor2
2	Sub Thermistor	FK2-7693-000	1	500,000 sheets	

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Consumable Parts

No	Parts name	Parts Number	Piece	Expected life	Remarks
1	Fixing Cleaning Web	FY1-1157-000	1	500,000 sheets	
2	Fixing Roller	FC9-9163-000	1	500,000 sheets	
3	Fixing Roller Insulating Bush	FC9-8069-000	2	500,000 sheets	
4	Pressure Roller	FM4-3160	1	500,000 sheets	
5	Pressure Roller Static Eliminator	FC7-4287-000	1	500,000 sheets	
6	Fixing Roller Thurust Retainer	FC6-3501-000	2	500,000 sheets	When the fixing roller thrust retainer replaced, the fixing roller must be replaced, as well.
7	Upper separation claw	FB5-3625-000	6	500,000 sheets	

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Periodical Servicing List

Parts/Area Name	Piece	Operation Interval	Remarks
Fixing inlet guide	1	500,000 sheets	Clean with lint-free paper moistened with alcohol.
Fixing Right Stay	1		Clean with lint-free paper moistened with alcohol.
Dowel	4		Clean with lint-free paper moistened with alcohol.
Dowel Holder	4		Clean with lint-free paper moistened with alcohol.
Fixing oil pan	1		Dry wipe
Fixing Cleaning Web guide	1		Dry wipe
Upper separation claw	6		Clean with lint-free paper moistened with alcohol.
Fixing inlet Sensor Flag	1		Clean with lint-free paper moistened with alcohol.
Inner Delivery Roller	4		Clean with lint-free paper moistened with alcohol.

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When Replacing Parts

Fixing Roller

<Procedure of parts replacement>

see "Removing the Fixing Roller, Insulating Bush and Thrust Stopper," on p. 4-186.

<Procedure of adjustment>

1) Grease Application
   Apply approx. 20mg of grease (MOLYKOTE HP-300; CK-8012) to inner circumference and outer circumference of the Bushing so that all circumferences are covered with white film; otherwise, abnormal noise can occur (squeaking).
2) Clear the counter
   COPIER >COUNTER > DRBL-1 > FX-UP-RL

Main Thermistor, Sub Thermistor2

- Clear the counter
  COPIER >COUNTER > PRDC-1 >FIX-TH1

Sub Thermistor1

- Clear the counter
  COPIER >COUNTER > PRDC-1 >FIX-TH2

Troubleshooting

Paper wrinkle

<Location>

Fixing Roller, Pressure Roller

<Cause>

Right after the startup, temperature is different between the center and the edge of the Fixing Roller (temperature: center > edge).

Because a slippery solid black image does not match to the nip shape when it is fed, the center of paper is pulled toward the feeding direction, causing paper wrinkle.

<Condition>

Timing: Approx. 20 sheets immediately after the startup first time for the day

Paper size: Paper size larger than B4

<Field Remedy>

If 2 is set, control temperature is increased by performing idle rotation when printing to A3/LDR or larger size paper at the start of printing in a normal humidity/high humidity environment. Paper wrinkle which occurs at this time can be decreased, but first copy time becomes longer. In other cases, idle rotation is not performed.

If paper wrinkle occurs on paper larger than B4, increase the setting value from 2 in increments of 1 until paper wrinkle is alleviated.

If paper wrinkle occurs on B4 size paper, increase the setting value from 4 in increments of 1 until paper wrinkle is alleviated.

COPIER>OPTION>BODY>FX-WNKL

[Setting values]

0: OFF

1: OFF (Default)

2: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 10 seconds.

3: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 20 seconds.

4: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 10 seconds.

5: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 20 seconds.

6: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 30 seconds.

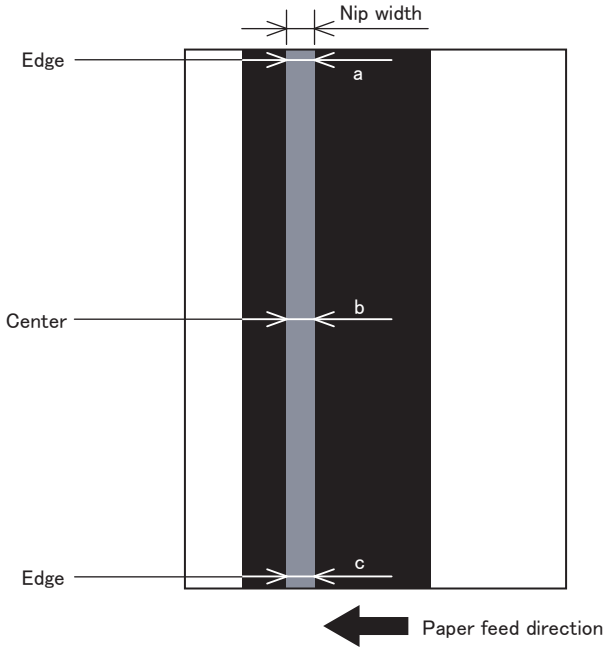
Checking nip width

In the case of paper wrinkle or fixing failure, check that the fixing nip width is within the specified range. Note that the fixing nip width of this equipment cannot be adjusted in the field.

1) Print approx. 20 sheets of A4 size paper.
2) Set A4 size plain paper/recycled paper on the Multi-purpose Tray.
3) COPIER > Function > FIXING > NIP-CHK
   A sheet is stopped once in a state held by the Fixing Nip area, and is delivered approx. 20 seconds later.
4) Measure the nip width of delivered sheet.
   If the nip widths are as follow it is judged as normal: 5.0 to 6.0 mm at the center (b), and difference between front (a) and rear (b) is within 0.5 mm.

In the case of failure, check if there are any damaged parts (*), and replace the damaged parts (if any).

* Gear, Bearing, Fixing Roller, Pressure Roller and Fixing Assembly



F-2-145

Pickup / Feed System

Overview

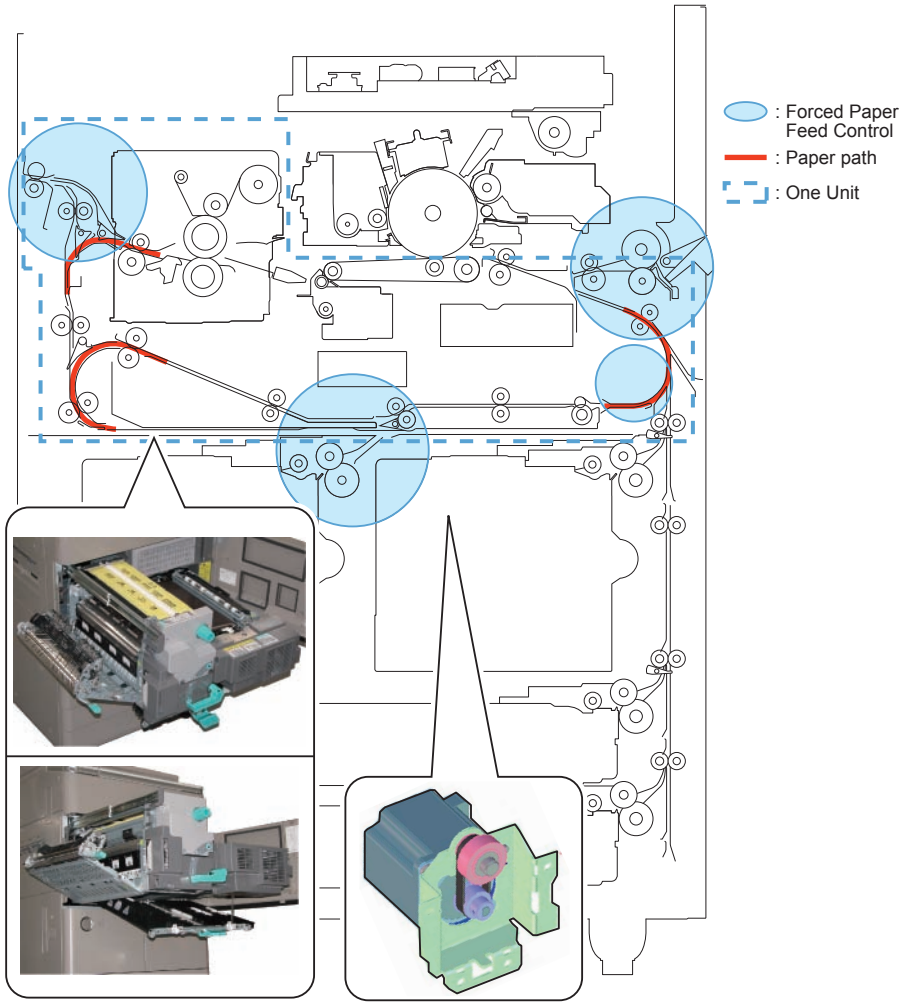
Overview

- Supported media (heavy paper) (52g/m2 -> 256g/m2)
  This feature is enabled by making gentler curve of the pre-registration path, reverse path and duplex merging path.

- Improved jam processing performance
  This feature is enabled by making the Fixing/Feed Assembly and the Duplex Assembly as one unit as well as making the Delivery Unit and the Door of the Fixing Assembly as one unit.
  This feature is enabled by using forcible paper feed control that feeds paper to the position where the jammed paper is easily removed in the case of paper jam.

- Increased pickup capacity of the Multi-purpose Tray (50 sheets -> 100 sheets)
  Simple retard method is used for pickup.
  Stacking capacity has increased from 50 sheets to 100 sheets thanks to the pickup tray that moves up and down.

- Reduced noise
  This feature is enabled by using a belt-type motor.



F-2-146

Specifications

Item	Function/Method	
Paper Storage Method	Front Loading Method	
Pickup Method	Separation Retard Method	
Paper Feed Standard	Center	
Paper Loading Capacity	Left/Right Deck	1500 sheets (80 g/m2)
	Cassette 3/4	550 sheets (80 g/m2)
	Multi-purpose Tray	100 sheets (80 g/m2)
Paper Size	Left/Right Deck	A4,B5,LTR
	Cassette 3/4	A3,B4,A4,A4R,B5,B5R,A5R,8K(270.0 x 390.0mm),16K(270.0 x 195.0mm),LDR(279.4 x 431.8mm),LGL(215.9 x 355.6mm),LTR(279.4 x 215.9mm),LTRR(215.9 x 279.4mm),STMTR(139.7 x 215.9mm),EXE(267.0 x 184.0mm)
	Multi-purpose Tray	Size that can be loaded to cassette, Postcard, Reply Postcard, 4 On 1 Postcard, Envelope, Irregular size (100 x 148 mm to 330.2 x 431.8 mm)
Paper Grammage	Left/Right Deck	52g/m2-220g/m2
	Cassette 3/4	52g/m2-220g/m2
	Multi-purpose Tray	52g/m2-256g/m2 (Duplex printing 52g/m2-220g/m2)
Paper Size Switching	Left/Right Deck	Service Switching
	Cassette 3/4	Auto size detection
	Multi-purpose Tray	Depends on user
Paper Size Switching	Through path	
Transparency detection	Available	

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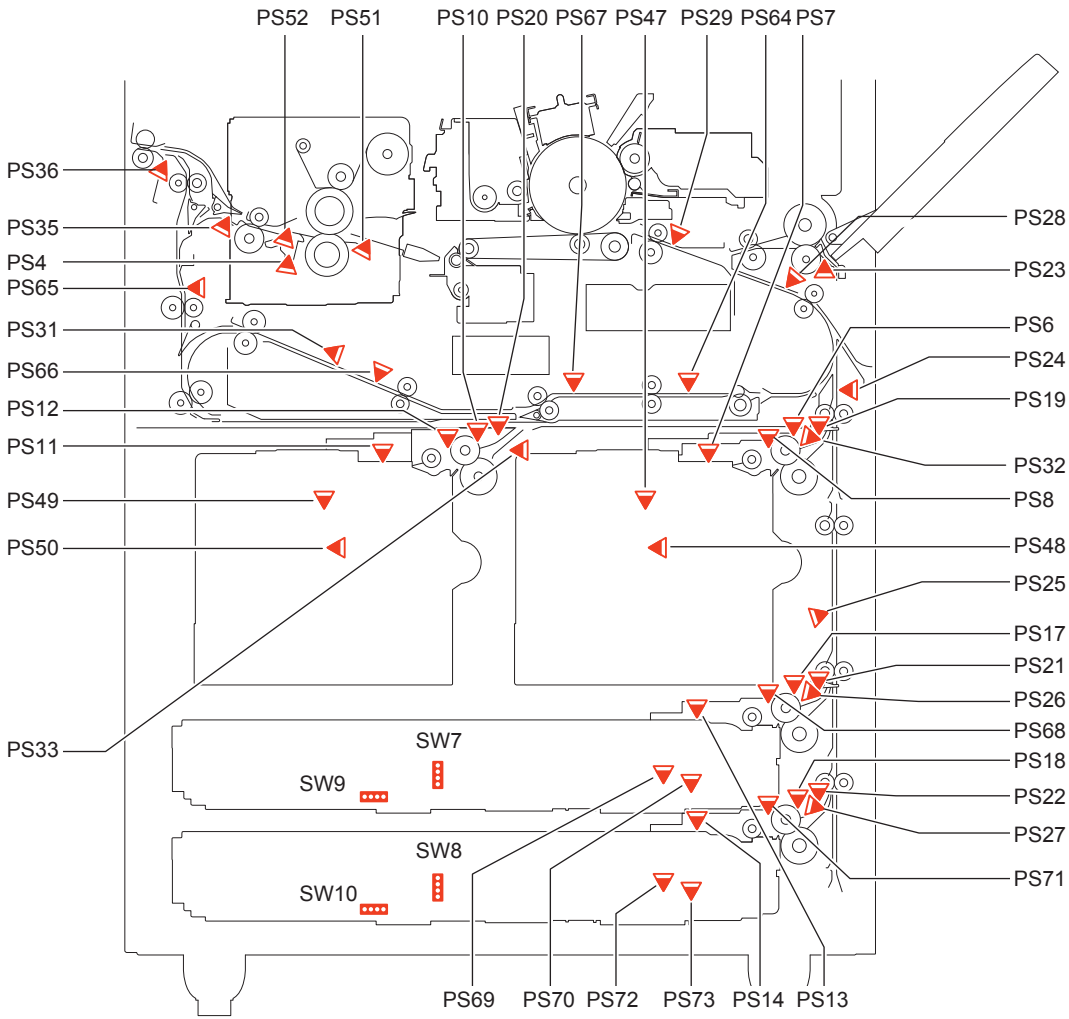
Parts configuration



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PS No.	Sensor No.
PS2	Vertical Path Cover Open/Close Sensor
PS3	Multi-purpose Cover Open/Close Sensor
PS4	Fixing Toenail Jam Sensor
PS6	Right Deck Paper Height Sensor
PS7	Right Deck Paper Sensor
PS8	Right Deck Upper Limit Sensor
PS10	Left Deck Paper Height Sensor
PS11	Left Deck Paper Sensor
PS12	Left Deck Paper Height Sensor
PS13/14	Cassette 3 Paper Sensor / Cassette 4 Paper Sensor
PS17/18	Cassette 3 Paper Height Sensor / Cassette 4 Paper Height Sensor
PS19	Right Deck Pull Out Sensor
PS20	Left Deck Pickup Sensor 2
PS21	Vertical Path Sensor3
PS22	Vertical Path Sensor4
PS23	Multi-purpose Tray Paper Sensor
PS24*/PS25	Vertical Path Sensor1/Vertical Path Sensor2
PS26	Cassette 3 Pickup Sensor
PS27	Cassette 4 Pickup Sensor
PS28*	Writing Gudging Sensor
PS29*	Registration Sensor
PS31	Side Registration Sensor
PS32/PS33	Right Deck Pickup Sensor/Left Deck Pull Out Sensor
PS35	Inner Delivery Sensor
PS36	Outer Delivery Sensor
PS47/48	Right Deck Paper Level Sensor 1/2
PS49/50	Left Deck Paper Level Sensor 1/2
PS51/PS52	Fixing Inlet Sensor/Fixing Outlet Sensor
PS64*	Duplex Outlet Sensor
PS65*	Reverse Vertical Path Sensor
PS66*	Duplex Left Sensor
PS67*	Duplex Merging Sensor
PS68	Cassette 3 Upper Limit Sensor
PS69	Cassette 3 Paper Level Sensor 1
PS70	Cassette 3 Paper Level Sensor 2
PS71	Cassette 4 Upper Limit Sensor
PS72	Cassette 4 Paper Level Sensor 1
PS73	Cassette 4 Paper Level Sensor 2
SW7	Cassette 3 Paper Width Detection Switch
SW8	Cassette 4 Paper Width Detection Switch
SW9	Cassette 3 Paper Length Detection Switch
SW10	Cassette 4 Paper Length Detection Switch

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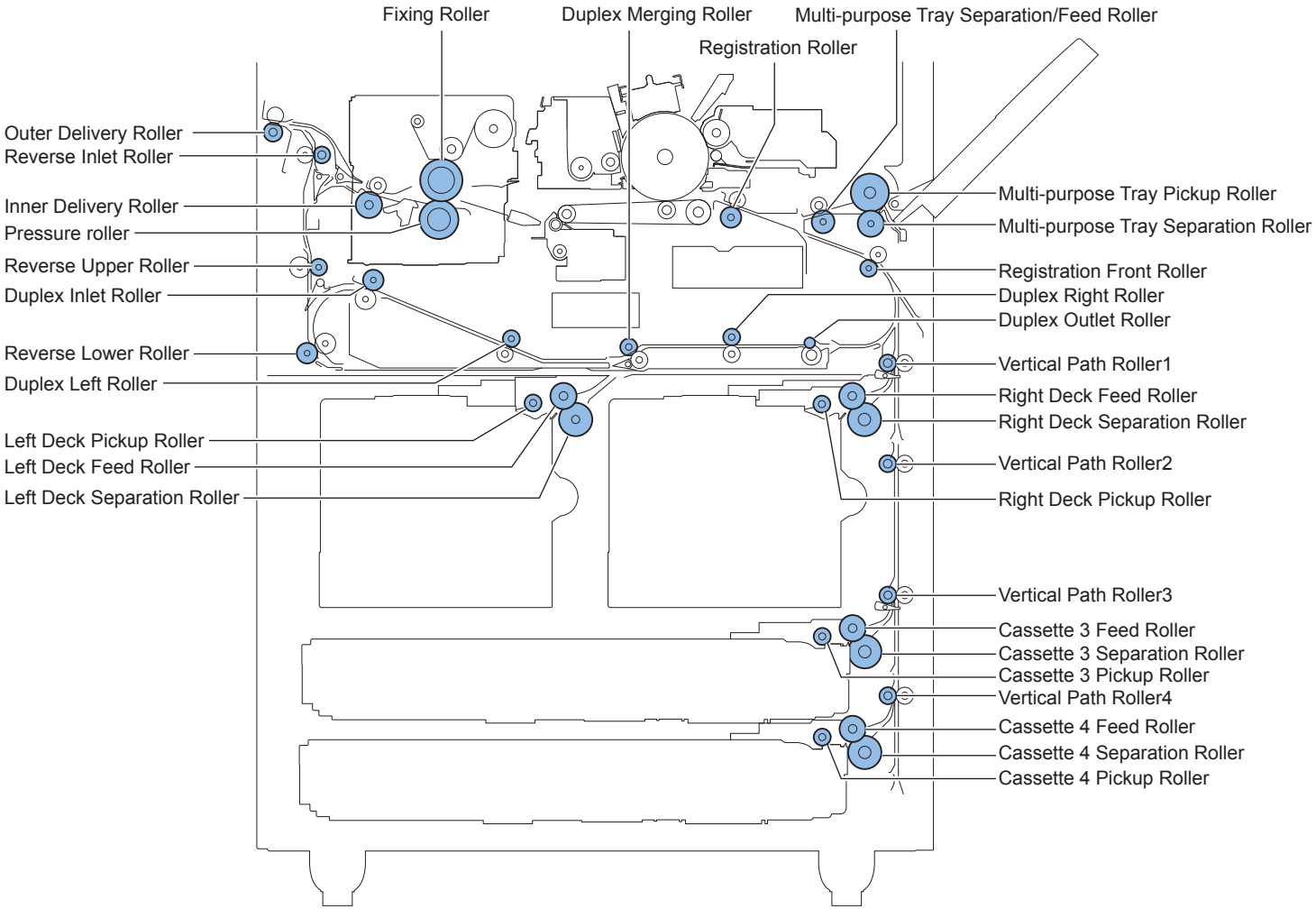
*Scanner Sensor

Roller



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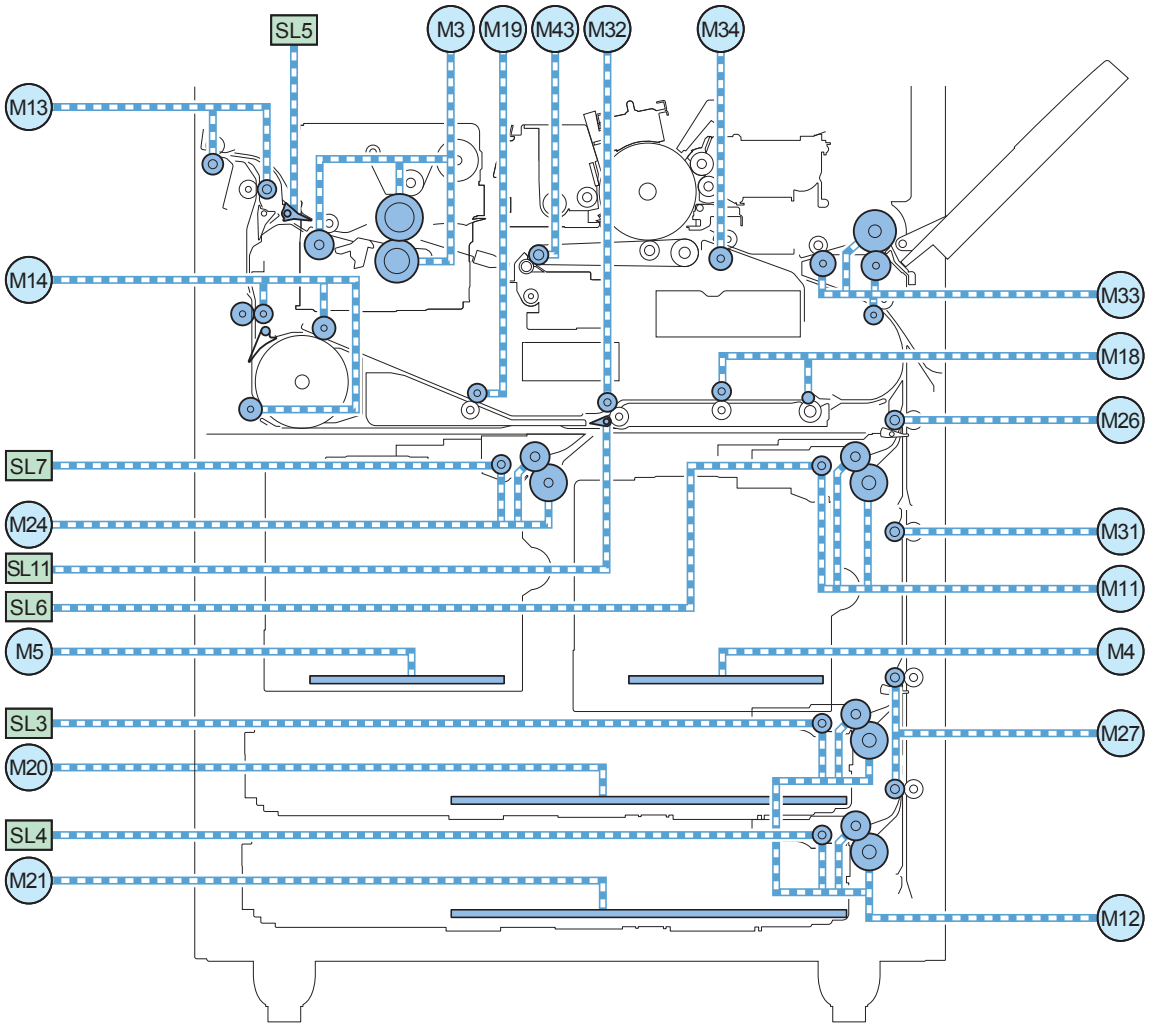
Drive Configuration



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No.	Name
M3	Fixing Motor
M4	Right Deck Lifter Motor
M5	Left Deck Lifter Motor
M11	Right Deck Pickup Motor
M12	Cassette3/4 Pickup Motor
M13	Delivery Motor
M14	Reverse Motor
M18	Duplex Feed Right Motor
M19	Duplex Feed Left Motor
M20	Cassette3 Lifter Motor
M21	Cassette4 Lifter Motor
M24	Left Deck Pickup Motor
M26	Vertical Path Upper Motor
M27	Vertical Path Lower Motor
M31	Vertical Path Middle Motor
M32	Duplex Feed Merging Motor
M33	Multi-purpose Registration Front Motor
M34	Registration Motor
M43	ETB Motor
SL3	Cassette 3 Pickup Solenoid
SL4	Cassette 4 Pickup Solenoid
SL5	Reverse Upper Flapper Solenoid
SL6	Right Deck Pickup Solenoid
SL7	Left Deck Pickup Solenoid
SL11	Left Deck Merging Solenoid

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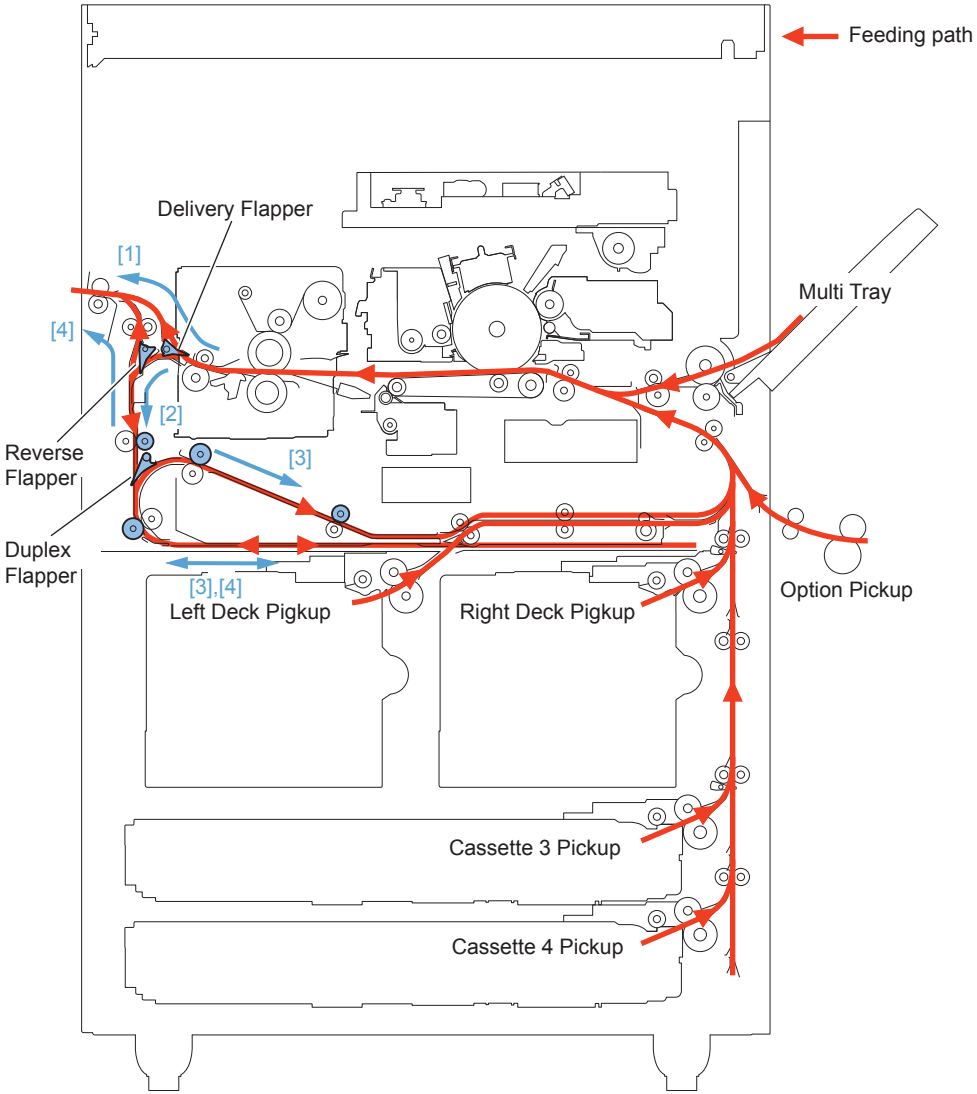
Paper path



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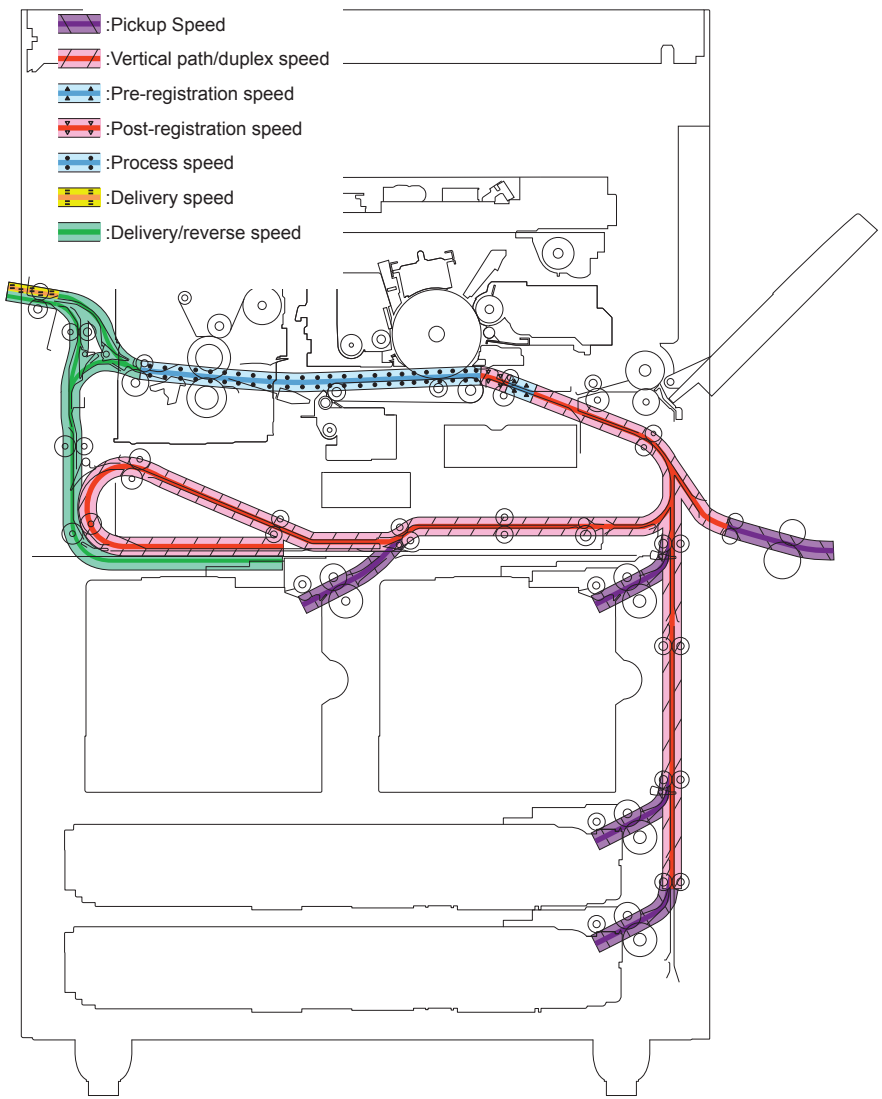
[1] 1-side face-up delivery, duplex face-down delivery
[2] 1-side face-down delivery, duplex printing
[3] Duplex printing
[4] 1-side face-down delivery

Interval speed



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Model	ImageRUNNER ADVANCE 6075/6065/6055 [mm/s]		
[ppm]	75	65	55
Pickup speed	500		
Vertical path/duplex speed	500		
Pre-registration speed	350	290	
Post-registration speed	500		
Process speed	350	290	
Delivery speed	350*/750(ACC)	290*/750(ACC)	
Delivery/Reverse speed	350*/750(ACC)		

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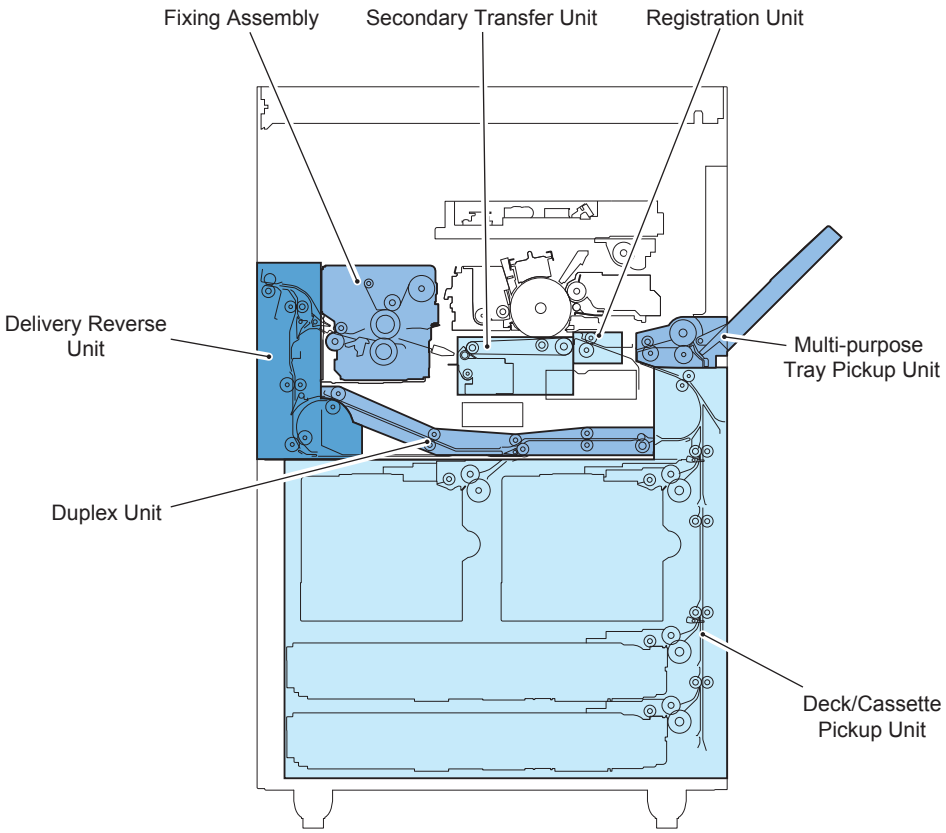
* The delivery speed is slowed down to prevent the paper from being fallen out of the Delivery Tray (the delivery speed)

Various types of control



F-2-152

Unit	Contorol
Deck/cassette pickup unit	Basic Movement
	Deck/Cassette detection
	Paper Size Detection
	Paper Level Detection
	Paper Detection
	Pickup Retry Control
	Pickup Retry Control
Multi-purpose pickup tray unit	Basic Movement
	Paper Detection
Pre-registration/Registration Unit	Pre-registration Control
	Basic Movement
	Registration Deceleration Control
	Registration Acceleration Control
Delivery unit/Duplex unit	Face-up Delivery
	Face-down Delivery
	Basic Movement
	Side Registration Control
	Circulation quantity and limit
Jam detection	Jam Code List
	Forced Paper Feed Control

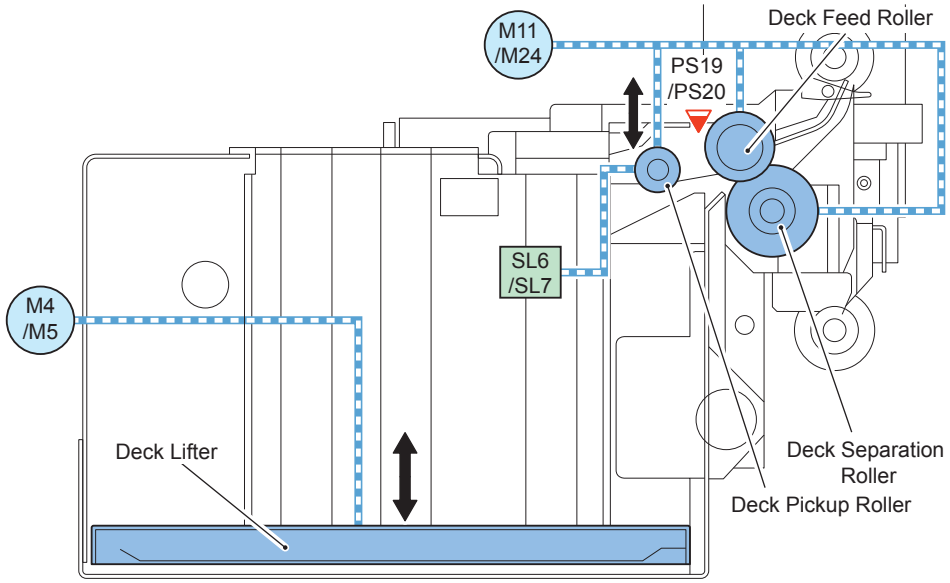
T-2-73

Deck/Cassette Pickup Unit

Basic Movement

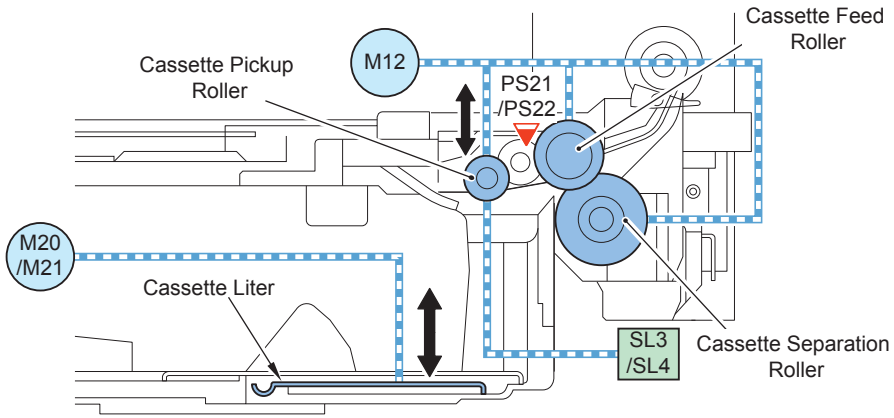
When Deck/Cassette is installed, Motor drives to maintain the height which paper surface attaches to Pickup Roller (This is the height of Pickup Roller when Pickup Solenoid is OFF).
If the Pickup Motor (M11/M12/M24) is turned ON, the Pickup Roller will rotate and the paper will be fed.
When the Pickup Sensor (PS19/PS20/PS21/PS22) detects paper, the Pickup Solenoid (SL3/SL4/SL6/SL7) will turn ON, and Pickup Roller will draw away from paper surface. Only 1 sheet of paper is sent to feed path by the Feed Roller and the Separation Roller, and fed to Vertical Path Roller.

Deck



F-2-153

Cassette



F-2-154

NOTE:
The same single motor is used as a pickup motor for both Cassette 3 and Cassette 4. The drive is transmitted to Cassette 3 when the motor is in normal rotation and the drive is transmitted to Cassette 4 when the motor is in reverse rotation. The drive is switched by the One-way Clutch.

NOTE:Service Mode
(Lv.1) COPIER > OPTION > FEED-SW
DK1-TURN (ON/OFF of Pickup Roller Post-Rotation on Right Deck)
DK2-TURN (ON/OFF of Pickup Roller Post-Rotation on Left Deck)
DK3-TURN (ON/OFF of Pickup Roller Post-Rotation on Cassette3)
DK4-TURN (ON/OFF of Pickup Roller Post-Rotation on Cassette4)
Setting Value 0: OFF (Default), 1: ON

D

Paper Size Detection

Deck

Set in Service Mode.

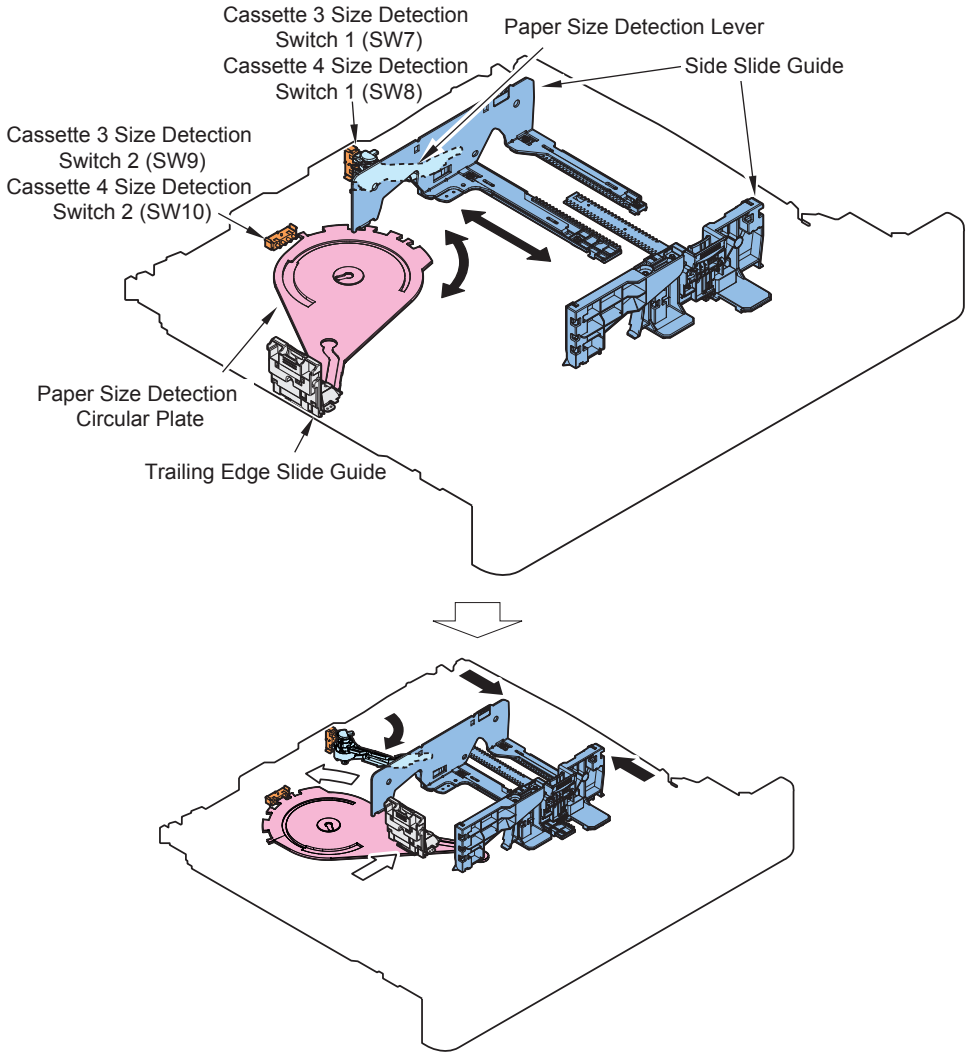
There is no mechanism to detect paper size.

NOTE:Service Mode
(Lv.1) COPIER > OPTION > CST > P-SZ-C1 (Right Deck Paper setting)
(Lv.1) COPIER > OPTION > CST > P-SZ-C2 (Left Deck Paper setting)
Setting Value
0: A4 (default), 1: B5, 2: LTR

Cassette

Paper size in cassette 3/4 is each detected by 2 paper size detection switches.

ON/OFF of 4-actuator in the Host Machine changes according to the Paper Size Detection Circular Plate/ Lever Position linked to Trailing Edge/Side Slide Guide. Paper size is detected by two 4-actuator ON/OFF combinations. And, if all 4-actuator are OFF is detected, it means no-cassette.

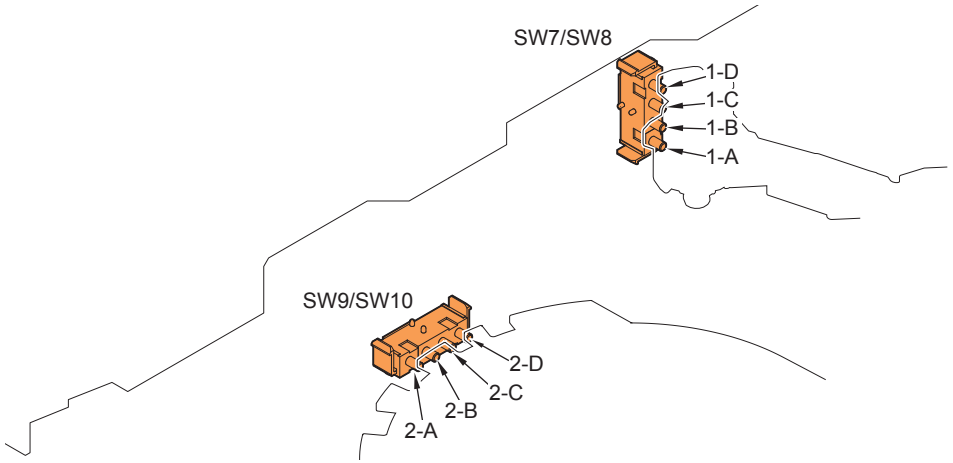


F-2-157

Paper size detection Switch

Paper Size	Width (mm)	Length (mm)	Width SW7/SW8				Length SW9/SW10			
			1-A	1-B	1-C	1-D	2-A	2-B	2-C	2-D
B5	257.0	182.0	ON	-	-	ON	ON	ON	ON	ON
EXEC	267.0	184.0	ON	-	-	ON	ON	ON	ON	ON
16K	270.0	195.0	ON	-	-	ON	-	ON	ON	ON
A5-R	148.5	210.0	-	ON	-	ON	ON	-	ON	ON
A4	297.0	210.0	ON	-	ON	ON	ON	-	ON	ON
STMT-R	139.7	215.9	-	ON	-	ON	ON	-	ON	ON
LTR	279.4	215.9	ON	-	-	ON	ON	-	ON	ON
B5-R	182.0	257.0	-	ON	-	ON	ON	-	ON	-
16K-R	195.0	270.0	ON	ON	-	ON	ON	ON	-	ON
			-	ON	-	ON	ON	ON	-	ON
LTR-R	215.9	279.4	ON	ON	-	ON	-	ON	ON	ON
			ON	ON	-	ON	-	ON	ON	-
A4-R	210.0	297.0	ON	ON	-	ON	-	-	ON	ON
LGL	215.9	355.6	ON	ON	-	ON	ON	ON	-	-
B4	257.0	364.0	ON	-	-	ON	ON	ON	ON	-
8K	270.0	390.0	ON	-	-	ON	-	-	ON	ON
A3	297.0	420.0	ON	-	ON	ON	-	ON	-	-
LDR	279.4	431.8	ON	-	-	ON	-	-	ON	-
SRA3	320.0	450.0	ON	-	ON	-	-	-	-	ON
12 x 18	304.8	457.2	ON	-	ON	ON	-	-	-	ON
13 x 19	330.2	483.0	ON	-	ON	-	-	-	-	-
K_LGL	268.0	190.0	ON	-	-	ON	ON	ON	ON	ON
K_LGL-R	190.0	268.0	-	ON	-	ON	ON	ON	-	ON
G_LTR	267.0	203.0	ON	-	-	ON	-	ON	ON	ON
G_LTR-R	203.0	267.0	ON	ON	-	ON	ON	ON	-	ON
G_LGL	203.2	330.2	ON	ON	-	ON	-	ON	ON	-
OFI	216.0	317.0	ON	ON	-	ON	ON	ON	-	-
E_OFI	220.0	320.0	ON	ON	-	ON	ON	ON	-	-
M_OFI	216.0	341.0	ON	ON	-	ON	ON	-	ON	ON
B_OFI	216.0	355.0	ON	ON	-	ON	ON	ON	-	-
A_OFI	220.0	340.0	ON	ON	-	ON	-	-	ON	ON
FOLIO	216.0	330.0	ON	ON	-	ON	-	ON	ON	-
FLSP	216.0	330.0	ON	ON	-	ON	-	ON	ON	-
A_FLSP	206.0	337.0	ON	ON	-	ON	-	-	ON	ON
A_LTR	280.0	220.0	ON	-	-	ON	ON	-	ON	ON
A_LTR-R	220.0	280.0	ON	ON	-	ON	-	ON	ON	-
A_LGL	220.0	340.0	ON	ON	-	ON	-	-	ON	ON
FA4	216.0	343.0	ON	ON	-	ON	ON	-	-	ON
FB4	216.0	330.0	ON	ON	-	ON	-	ON	ON	-

T-2-74



F-2-158

NOTE:
Settings/registration (Top) > Preferences > Paper Settings > A5R/STMTR Original Selection
Setting value Cassette3: A5R, STMTR Cassette4: A5R, STMTR

Settings/registration (Top) > Preferences > Paper Settings > B5/EXEC Original Selection
Setting value Cassette3: B5, EXEC Cassette4: B5, EXEC

Settings/registration (Top) > Preferences > Paper Settings > Register Custom Size
Setting value X: 148.0 to 431.4 mm, Y: 100.0 to 297.4 mm (Maximum 5 pieces)

Related Service Mode
(Lv.1) COPIER > OPTION > CST
CST3-P1 (Cassette3 paper size setting (A5R/STMTR))
CST4-P1 (Cassette4 paper size setting (A5R/STMTR))
Setting value 0: A5R, 1: STMTR
CST3-P2 (Cassette3 paper size setting (B5/EXEC))
CST4-P2 (Cassette4 paper size setting (B5/EXEC))
Setting value 0: B5, 1: EXEC

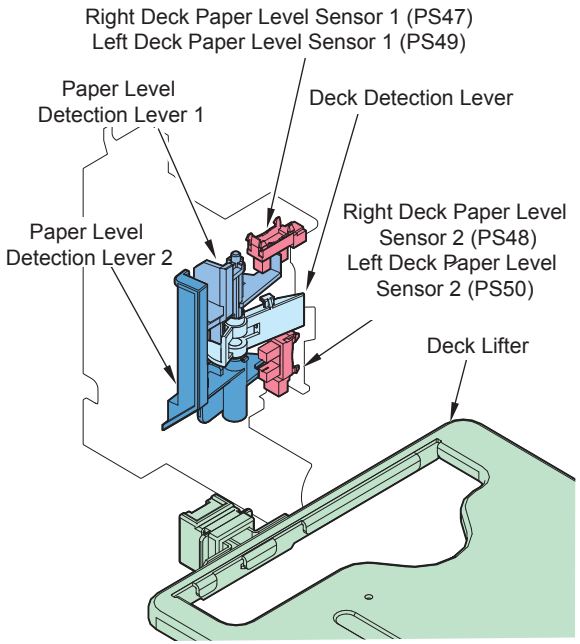
Paper Level Detection

Paper level is detected by two Paper Level sensors in each cassette

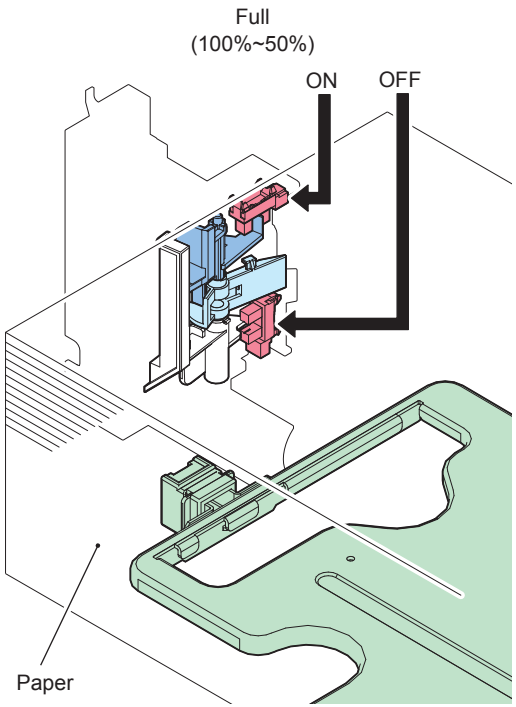
Deck

	Right Deck Paper Level Sensor 1 (PS47) Left Deck Paper Level Sensor 1 (PS49)	ight Deck Paper Level Sensor 2 (PS48) Left Deck Paper Level Sensor 2 (PS50)	Control Panel Screen Display
Full (100%~50%)	ON	OFF	
Half (50%~25%)	ON	ON	
Few (25% or less)	OFF	ON	

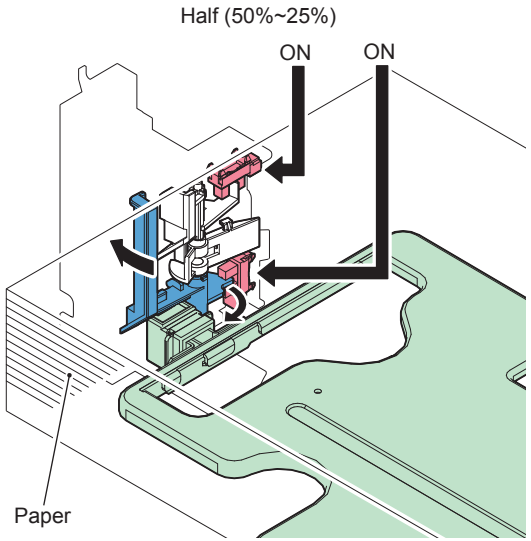
T-2-75



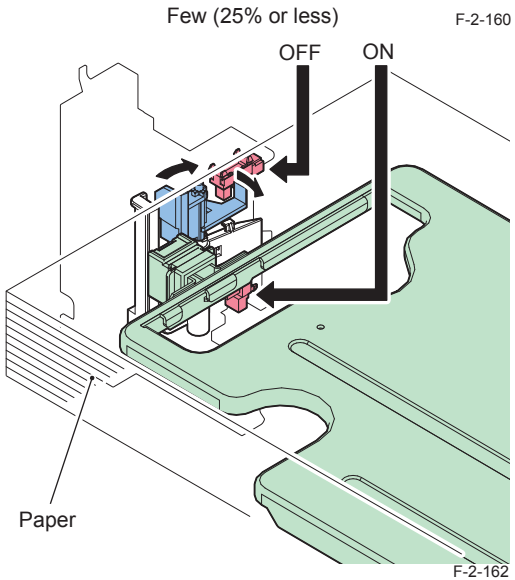
F-2-159



F-2-160

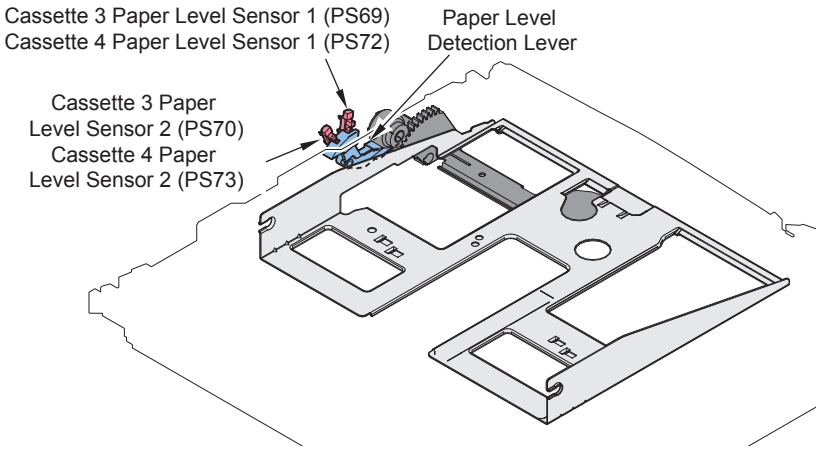


F-2-161



F-2-162

Cassette

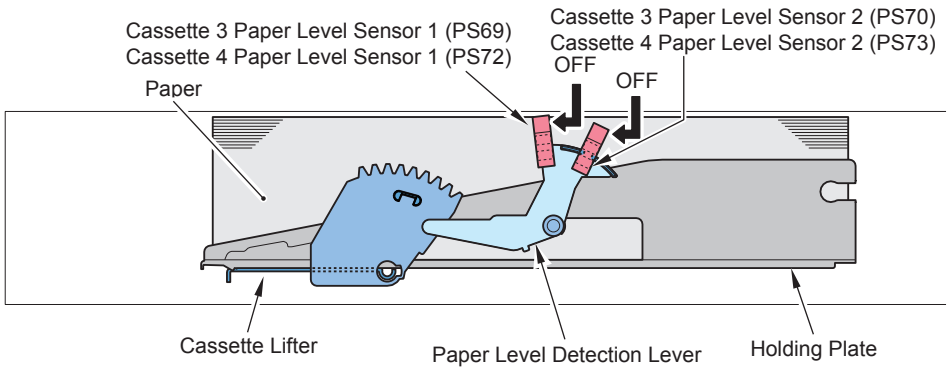


F-2-163

	Cassette 3 Paper Level Sensor 1 (PS69) Cassette 4 Paper Level Sensor 1 (PS72)	Cassette 3 Paper Level Sensor 2 (PS70) Cassette 4 Paper Level Sensor 2 (PS73)	Control Panel Screen Display
Full (100%~50%)	OFF	OFF	
Half (50%~25%)	OFF	ON	
Few (25% or less)	ON	ON	

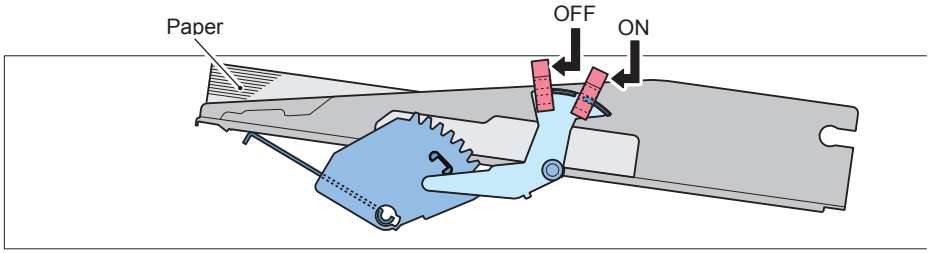
T-2-76

- Full (100%~50%)



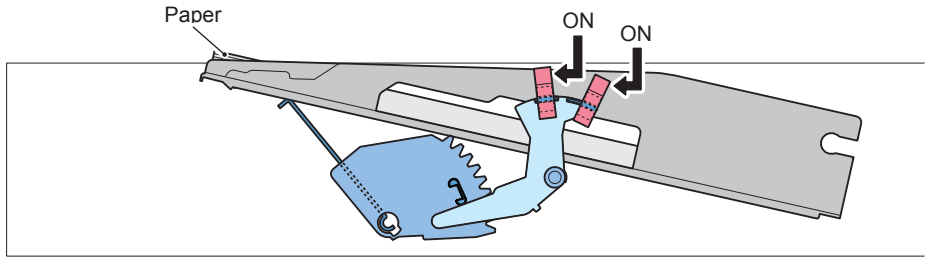
F-2-164

- Half (50%~25%)



F-2-165

- Few (25% or less)



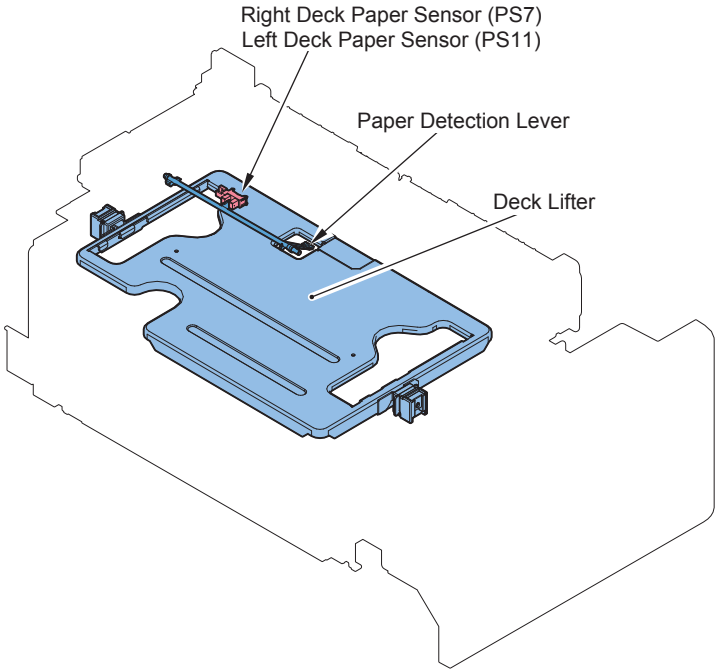
F-2-166

Paper Detection

If paper is present, the Detection Lever is pushed upward when lifter ascends, and Paper Sensor is turned OFF.

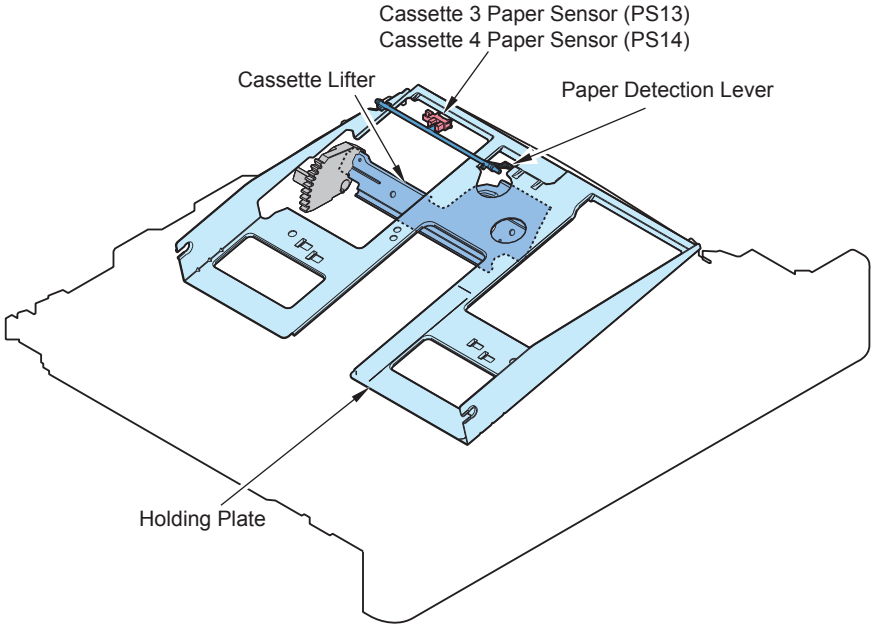
If paper finishes, the Detection Lever enters lifter hole, and Paper Sensor is turned ON

Deck



F-2-167

Cassette

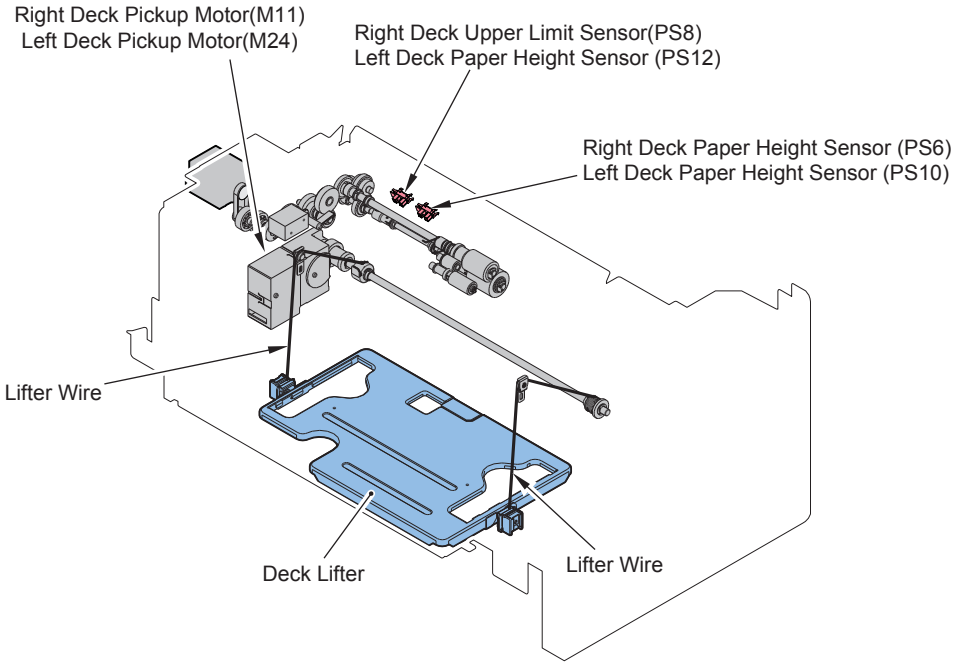


F-2-168

Lifter Control

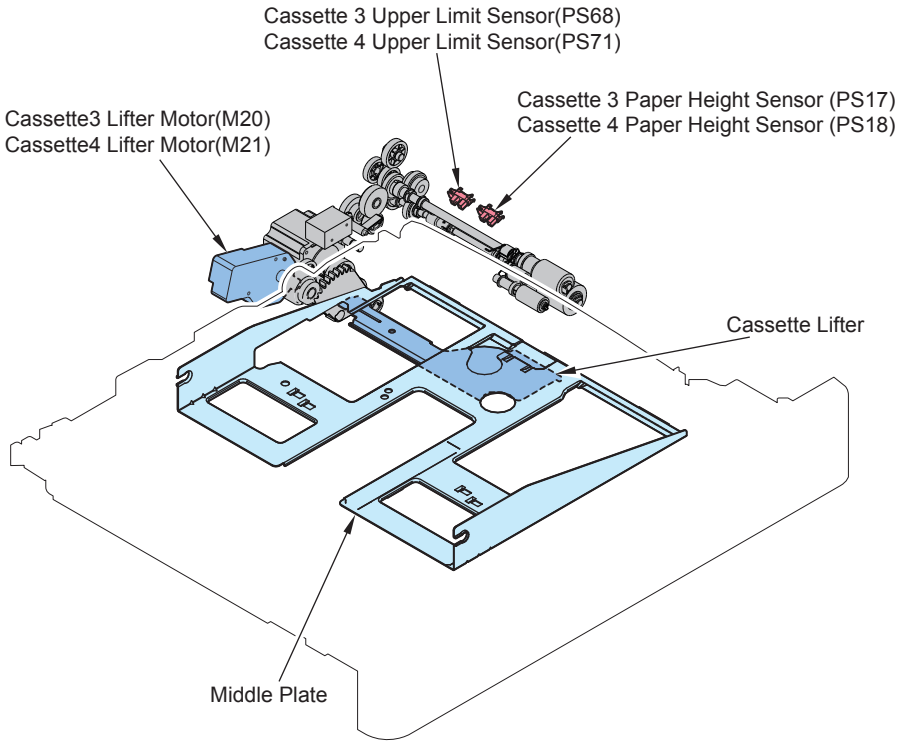
Paper is lifted to the pickup position by the Lifter.
In the machine configuration with the Deck / Cassette set, the Pickup Motor is driven to raise the Lifter to fit the paper level to the height of the pickup position. The Lifter is also raised when the Paper Level Sensor went OFF during the pickup operation.

Deck



F-2-169

Cassette



● Lifter Error Detection

In case due to some reason the lifter keep ascending even the Paper Surface Height Sensor is turned ON, the Upper Limit Sensor is provided to prevent damage in this equipment due to the error in ascending.
And, if the lifter starts ascending, but not detected by the Paper Surface Sensor and the Upper Limit Sensor within 3 minutes, the alarm corresponds to the concerned Pickup Cassette will be triggered. The alarm will release if the corresponding deck/cassette is open or closed, or the power is turned OFF/ON.

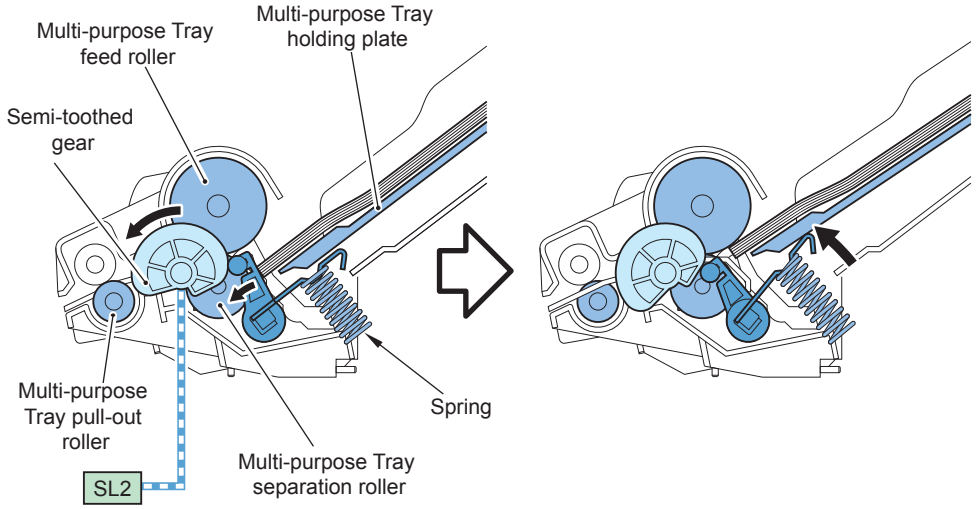
■ Pickup Retry Control

If paper leading edge is not detected by Pickup sensor within the specified time after pickup movement starts, it is not immediately determined as jam, and re-pickup movement will be executed.
During pickup retry, the Pickup Motor will be repeatedly turned ON/OFF with the Pickup Roller is in descended condition.

Multi-purpose Tray Pickup Unit

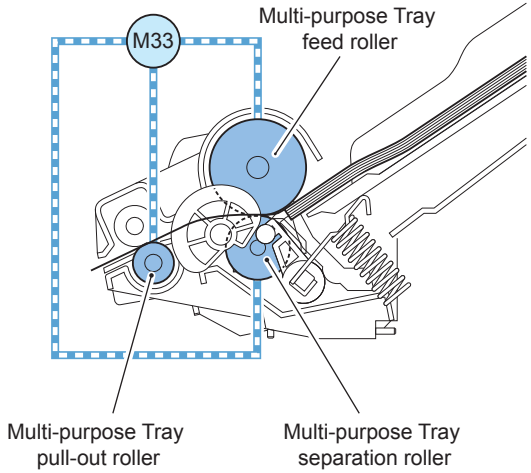
Basic Movement

1) If the Multi-purpose Pickup Solenoid (SL2) is turned ON, the semi-toothed gear will rotate.
2) The holding plate Fixing Members will be released and the holding plate will ascend.



F-2-171

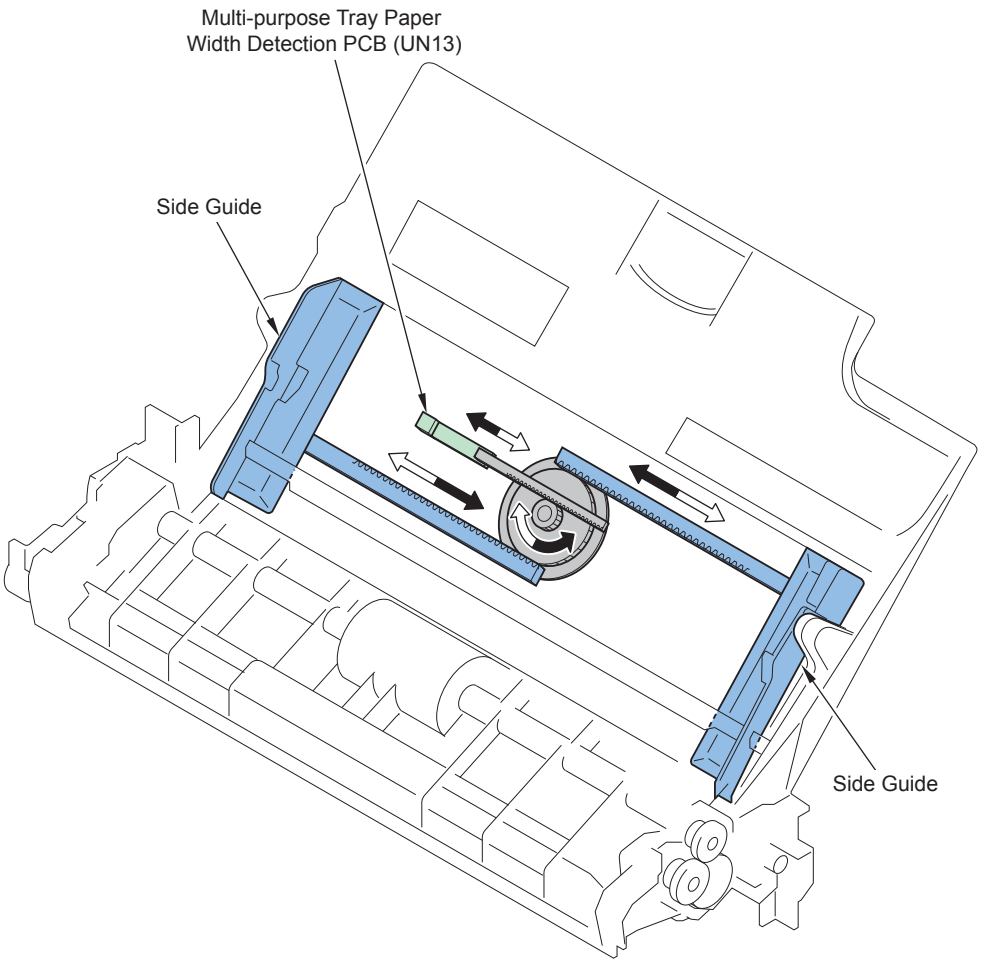
3) When the Pre-registration Multi-purpose Tray Drive Motor drives, the Multi-purpose Pull Out Roller and the Multi-purpose Feed Roller/Multi-purpose Separation Roller will rotate, and only 1 sheet of paper will be picked up/fed.



F-2-172

Paper Size Detection

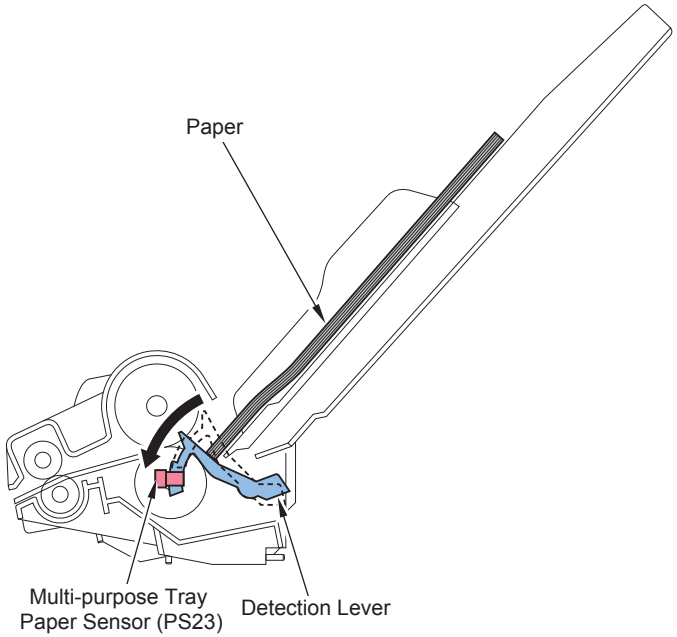
The setting is performed the Side Guide Plate and size code setting (or irregular size setting assignment) by and the Control Panel Unit.
Paper width is detected by the outputted value from the Variable Resistor Assembly (Multi-purpose Tray Paper Width Detection PCB (UN13)) which is linked to movement of the Side Guide Plate.
Setting of the Side Guide Plate on the Multi-purpose Pickup Tray is executed by users after paper is set.



F-2-173

Paper Detection

When paper is set, Paper Presence Detection Lever will be pushed, and the Multi-purpose Tray Paper Sensor (PS23) will turn ON.



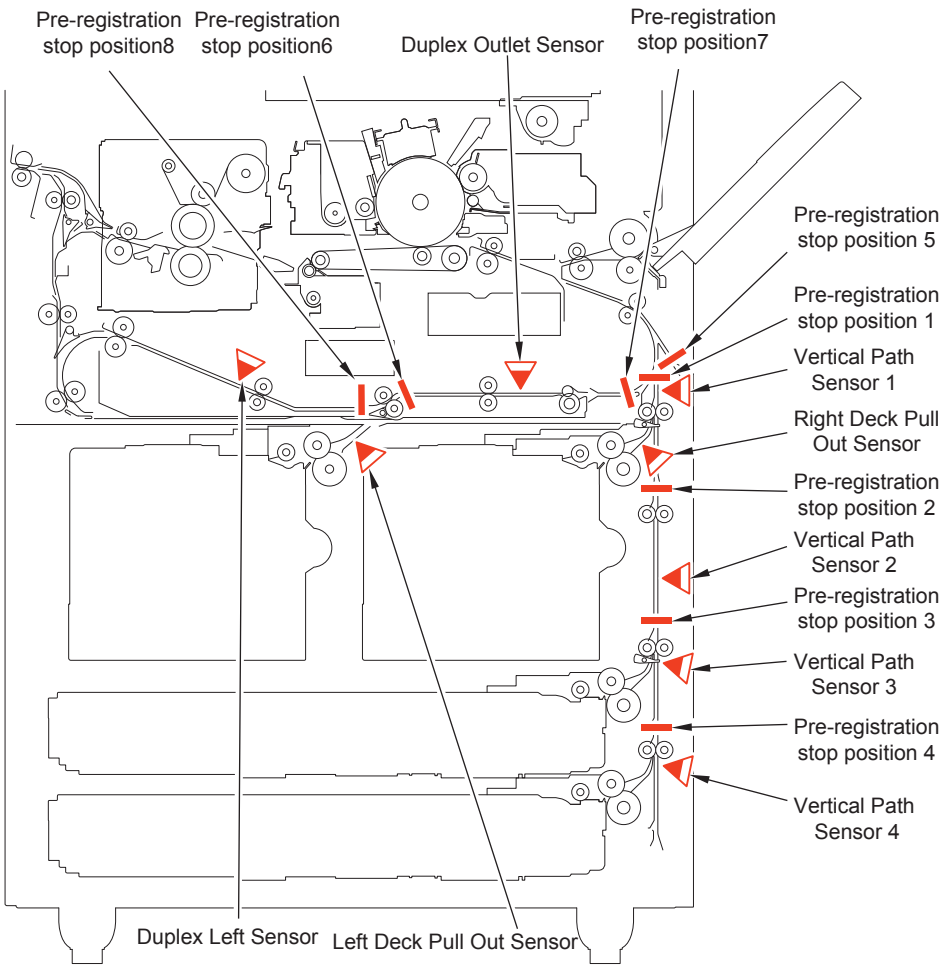
F-2-174

Registration Unit

Pre-registration Control

Pickup processing time can vary depending on the paper type and paper size in use as well as the environment. Therefore, the machine executes pre-registration control to ease such variation.

After the paper is picked up from the pickup cassette, the following reference sensor is used as a reference to feed the paper for a specified distance, and then the paper is stopped at the pre-registration position.



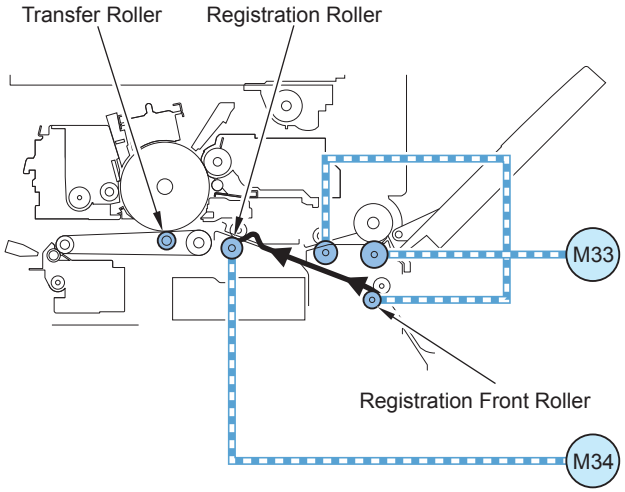
F-2-175

Stop position name	Pickup Assembly	Paper size	Reference sensor	Stop position
Pre-registration stop position 1	Right Deck	Size LTR (215.9mm)	Vertical Path Sensor1(PS24)	Vertical Path Roller 1 Downstream 10mm
	Cassette3			
	Cassette4			
Pre-registration stop position 2	Cassette3	LTRR=< Size =< A4R	Vertical Path Sensor2(PS25)	Vertical Path Roller 2 Downstream 10mm
	Cassette4			
Pre-registration stop position 3	Cassette3	LTRR(279.4mm)< Size	Vertical Path Sensor3(PS26)	Vertical Path Roller 3 Downstream 10mm
	Cassette3 Cassette4	Size =< LTR LTTR < Size < LDRR(431.8mm)		
Pre-registration stop position 4	Cassette4	LDRR < Size	Vertical Path Sensor4(PS27)	Vertical Path Roller 4 Downstream 10mm
Pre-registration stop position 5	OP Deck	All Size	Option Deck Pull Out Sensor	Vertical Path Upper Roller 1 Downstream 10mm
Pre-registration stop position 6	Left Deck	Size =< LTR	Left Deck Pull Out Sensor(PS33)	Duplex Merging Roller Downstream 10mm
Pre-registration stop position 7	Lrft Deck	Size =< LTR	Duplex Outlet Sensor(PS64)	Duplex Outlet Sensor(PS64) Downstream 10mm
Pre-registration stop position 8	-	Size =< LTR	Duplex Left Sensor(PS66)	Duplex Merging Roller Upstream 20mm

T-2-77

Registration Control

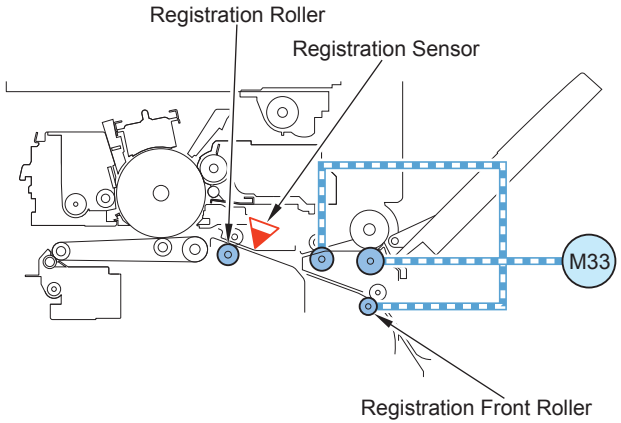
The Registration Motor (M34) is rotated to make the image on the drum and the paper to be aligned at the specified position and feeds the paper to the Transfer Assembly. The rotating speed of the Registration Motor (M34) is increased to be higher than the process speed and then reduced to meet the process speed.



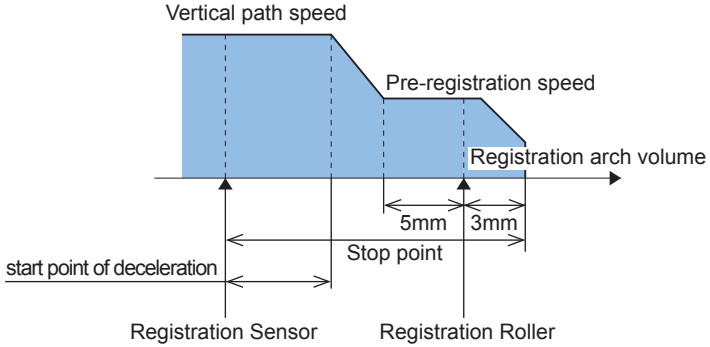
F-2-176

Registration Deceleration Control

This control reduces speed of Multi-purpose Tray Registration Front Motor (M33) (Registration feed speed) by using Registration Sensor (PS29) as a reference and pushes the paper against the Registration Roller to reduce hitting noise.



F-2-177



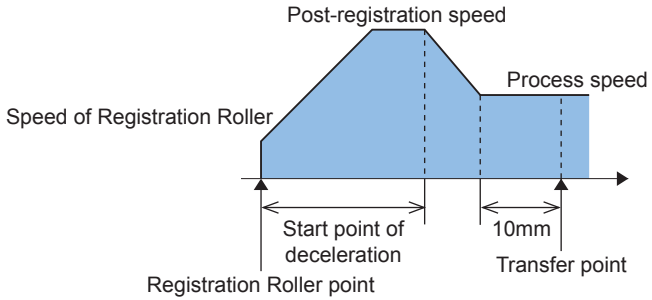
F-2-178

Model	ImageRUNNER ADVANCE 6075/6065/6055		
PPM	75	65	55
Vertical path speed	500[mm/s]		
Registration feed speed	350[mm/s]	290[mm/s]	
start point of deceleration	7.6[mm]	5.3[mm]	
stop point	23[mm] (20mm (distance between the Registration Sensor and the Registration Roller) +3mm (registration arch volume		

T-2-78

Registration Acceleration Control

The Registration Motor (M34) is rotated to make the image on the drum and the paper to be aligned at the specified position and feeds the paper to the Transfer Assembly. The rotating speed of the Registration Motor (M34) is increased to be higher than the process speed and then reduced to meet the process speed.



F-2-179

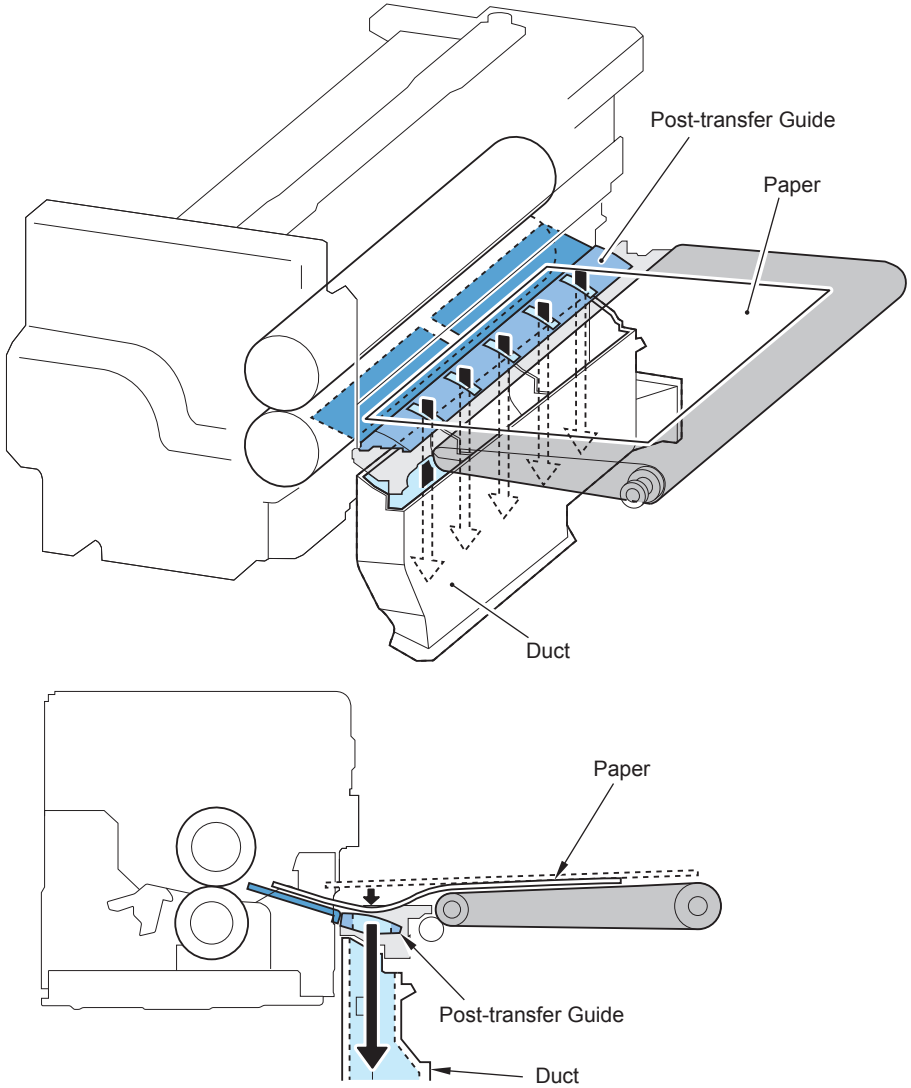
Model	ImageRUNNER ADVANCE 6075/6065/6055		
PPM	75	65	55
Post-registration speed	500[mm/s]		
Process speed	350[mm/s]	290[mm/s]	
start point of deceleration	48.6[mm]	46.4[mm]	

T-2-79

Transfer

Post-transfer Guide Attraction Control

With this machine, paper is attracted to the Post-transfer Guide by exhaust from the Image Formation System Exhaust Fan (FM3). Therefore, behavior of papers between transfer and fixing becomes stable, which increase the paper feed capabilities.



F-2-180

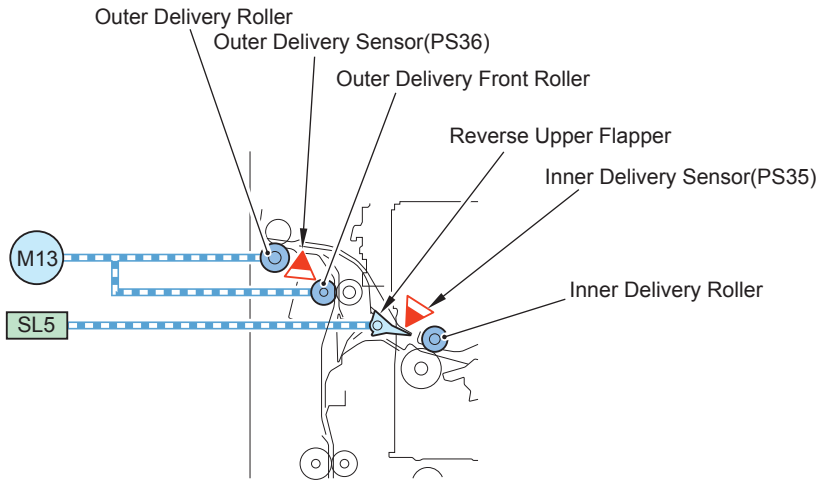
Delivery/Reverse Unit

Basic Operation

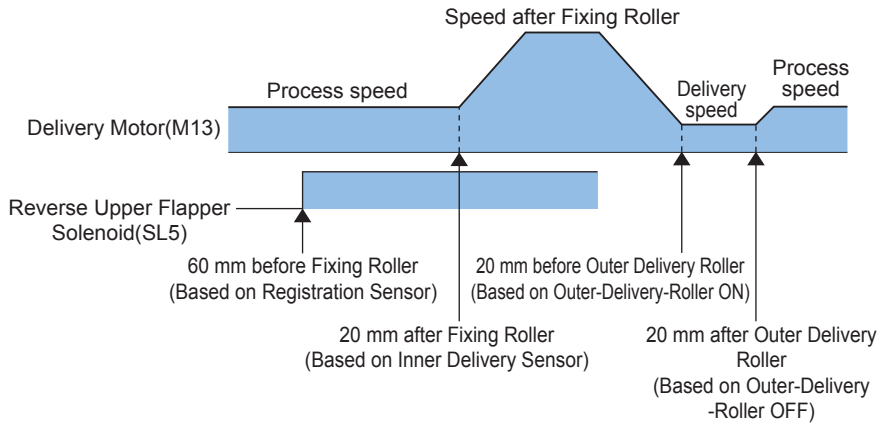
Face-up Delivery

1) The Reverse Upper Flapper Solenoid (SL5) is turned ON to switch the feeding path to the Delivery Assembly side.
2) Rotating speed of the Delivery Motor (M13) is increased once the paper's trailing edge passes through the Fixing Roller (fixing-through speed)
3) Feeding speed is reduced to meet the delivery speed once the paper's trailing edge reaches the specified position.

NOTE:
Delivery speed is changed according to the paper size. Delivery speed remains the same if no delivery option is connected.



F-2-181



F-2-182

Model	ImageRUNNER ADVANCE 6075/6065/6055 [mm/s]		
PPM	75	65	55
Process speed	350	290	
Speed after Fixing Roller	350/750(ACC)	290/750(ACC)	
Delivery speed	350/750(ACC)	290/750(ACC)	

T-2-80

Face-down Delivery

1) The Reverse Upper Flapper Solenoid (SL5) is turned OFF to switch the feeding path to the Delivery Assembly side.

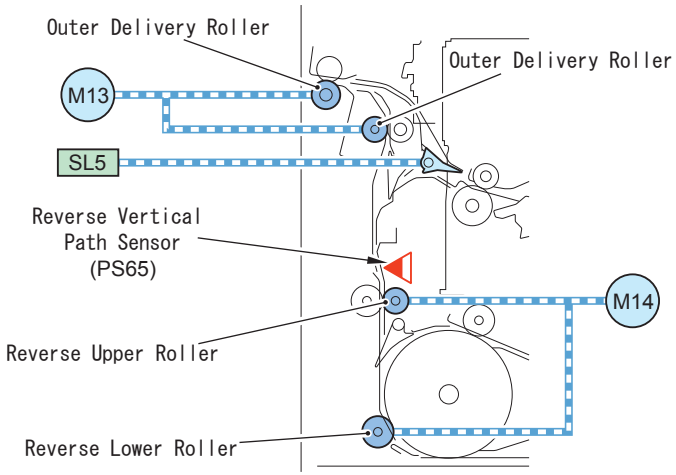
2) Rotating speed of the Reverse Motor (M14) is increased (reverse feed speed) once the trailing edge of the preceding paper passes through the Fixing Roller to make the paper stopped/rotate reversely at the reverse position (reverse delivery speed)

3) Succeeding paper is fed to the reverse path to make the Reverse Motor (M14) stopped/rotate normally.

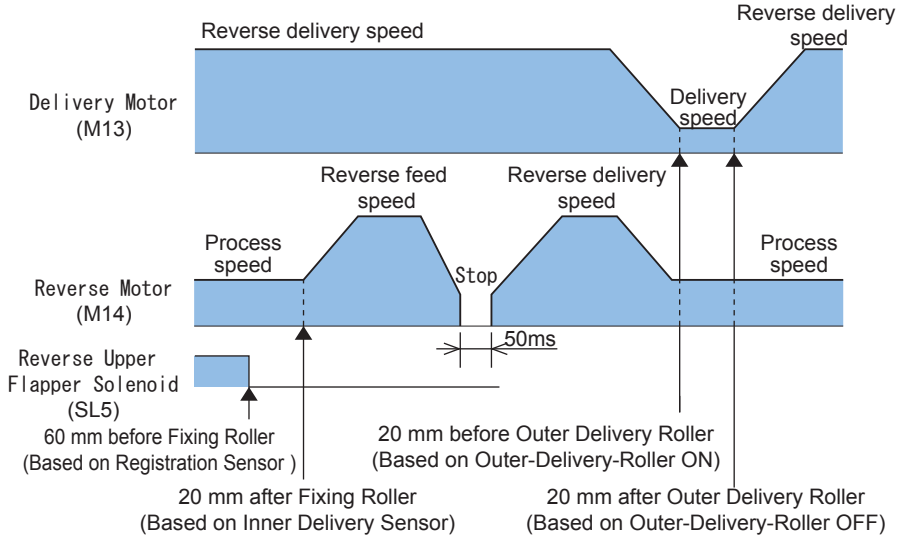
4) Succeeding paper is fed to the reverse stop position.

5) Once the trailing edge of the preceding paper reaches the specified position, rotating speed of the Delivery Motor (M13) is reduced.

NOTE:
Delivery speed is changed according to the paper size. Delivery speed remains the same if no delivery option is connected.



F-2-183



F-2-184

Model	ImageRUNNER ADVANCE6075/6065/6055 [mm/s]		
PPM	75	65	55
Process speed	350	290	
Reverse feed speed	750		
Reverse delivery speed	750		
Delivery speed	350/750(ACC)		

T-2-81

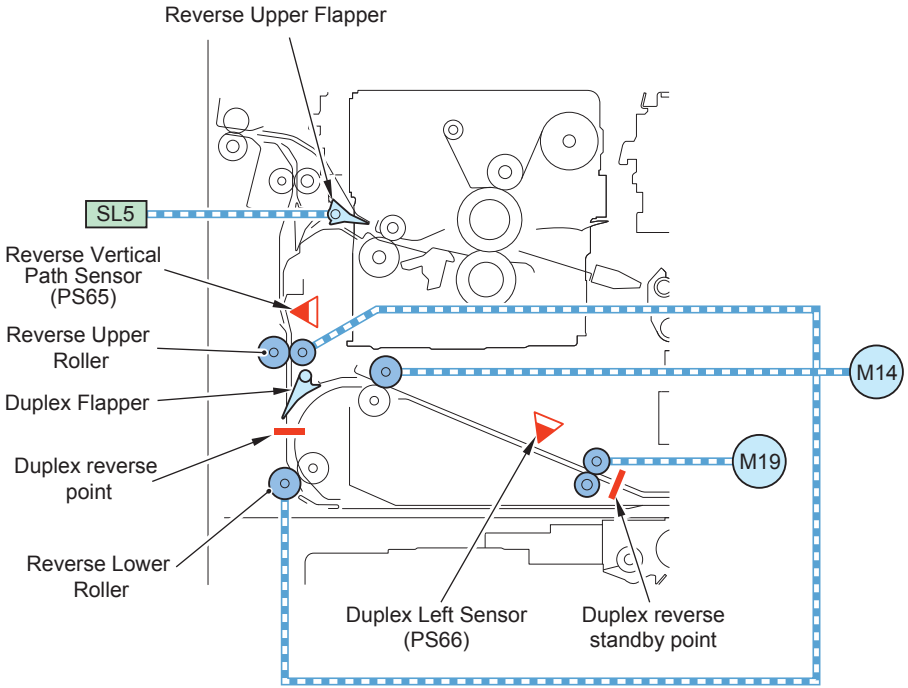
Duplex Unit

Basic Operation

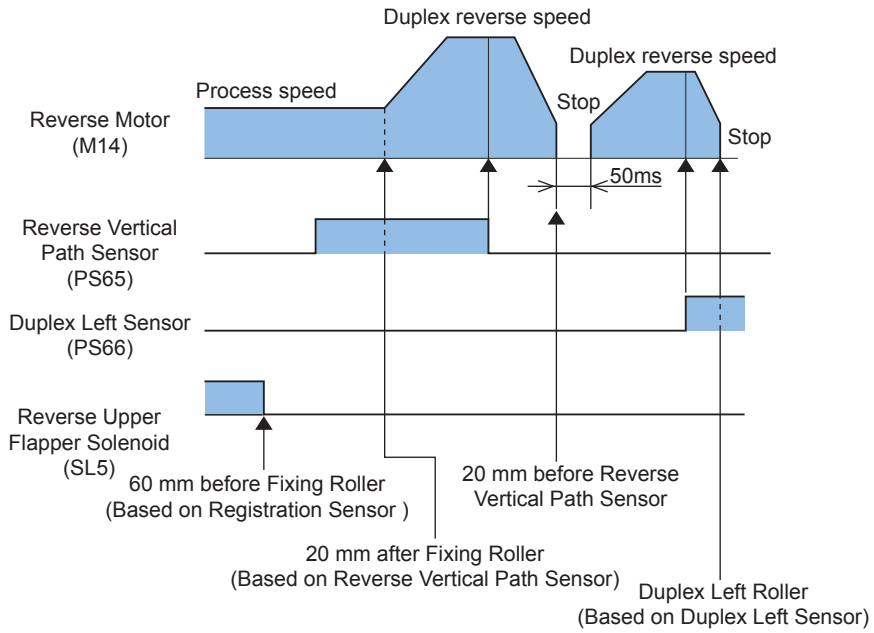
1) The Reverse Upper Flapper Solenoid (SL5) is turned OFF to switch the feeding path to the Reverse Assembly side.

2) When the paper's trailing edge passes through the Fixing Roller, rotating speed of the Reverse Motor (M14) is increased (duplex pull-in speed) to make the paper stopped at the duplex reverse position.

3) The Reverse Motor is driven by the duplex pull-in speed to feed the paper to the Duplex Assembly (the flapper feeds the paper to the Duplex Assembly). Then, the Duplex Left Sensor (P66) detects the paper's leading edge, and the paper is fed for a specified distance to stop at the position of Duplex Left Roller.



F-2-185



F-2-186

Model	ImageRUNNER ADVANCE 6075/6065/6055 [mm/s]		
PPM	75	65	55
Process speed	350	290	
Duplex feed speed	500		
Duplex reserve speed	500		
Duplex delivery spped	500		

T-2-82

Side Registration Control

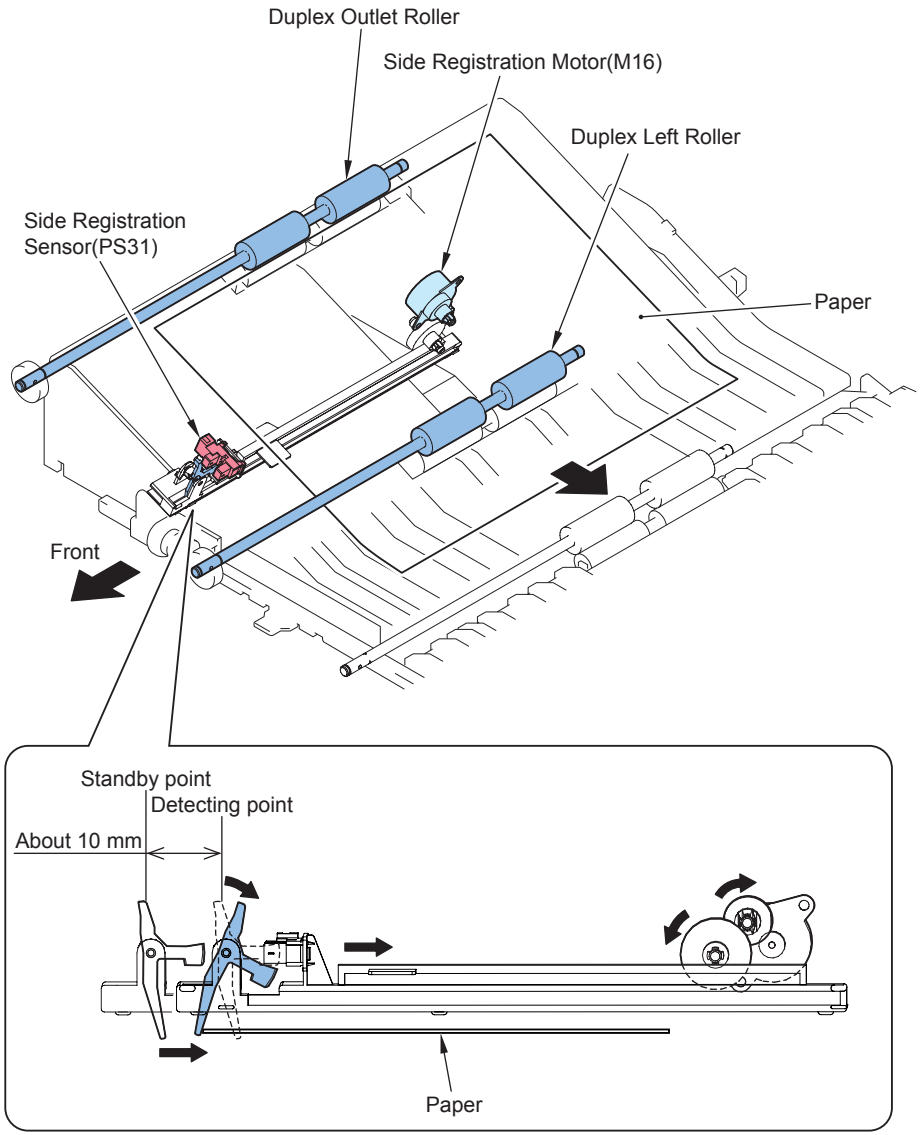
In the case of printing the 2nd side of the 2-sided print, side registration displacement level is measured to adjust the write start timing and correct side registration.
<Execution timing>
When the paper is stopped at the duplex standby position
<Control description>
Side Registration Sensor (PS31) detects side registration.
The side registration control executes detection of the home position as well as operation and detection of the standby position.

1.Home position operation
Side Registration Unit is moved to the home position.
Home position: at 13mm from the nominal dimension of A4 size
Timing
- When the main power is turned ON/when the Front Cover is closed/at the recovery from JAM process/at job completion

2.Standby position operation
The unit is moved to the side registration standby position (10 mm front) corresponding the paper size.

3. Detection operation
The Side Registration Motor (M16) is driven until Side Registration Sensor(PS31) is turned OFF to detect side registration displacement level from the travel distance.

4. The displacement level measured for side registration correction is converted into pixels to adjust the laser write start timing according to the displaced direction.
The write start timing is pushed forward when the paper is displaced to the front.
The write start timing is pushed back when the paper is displaced to the rear.

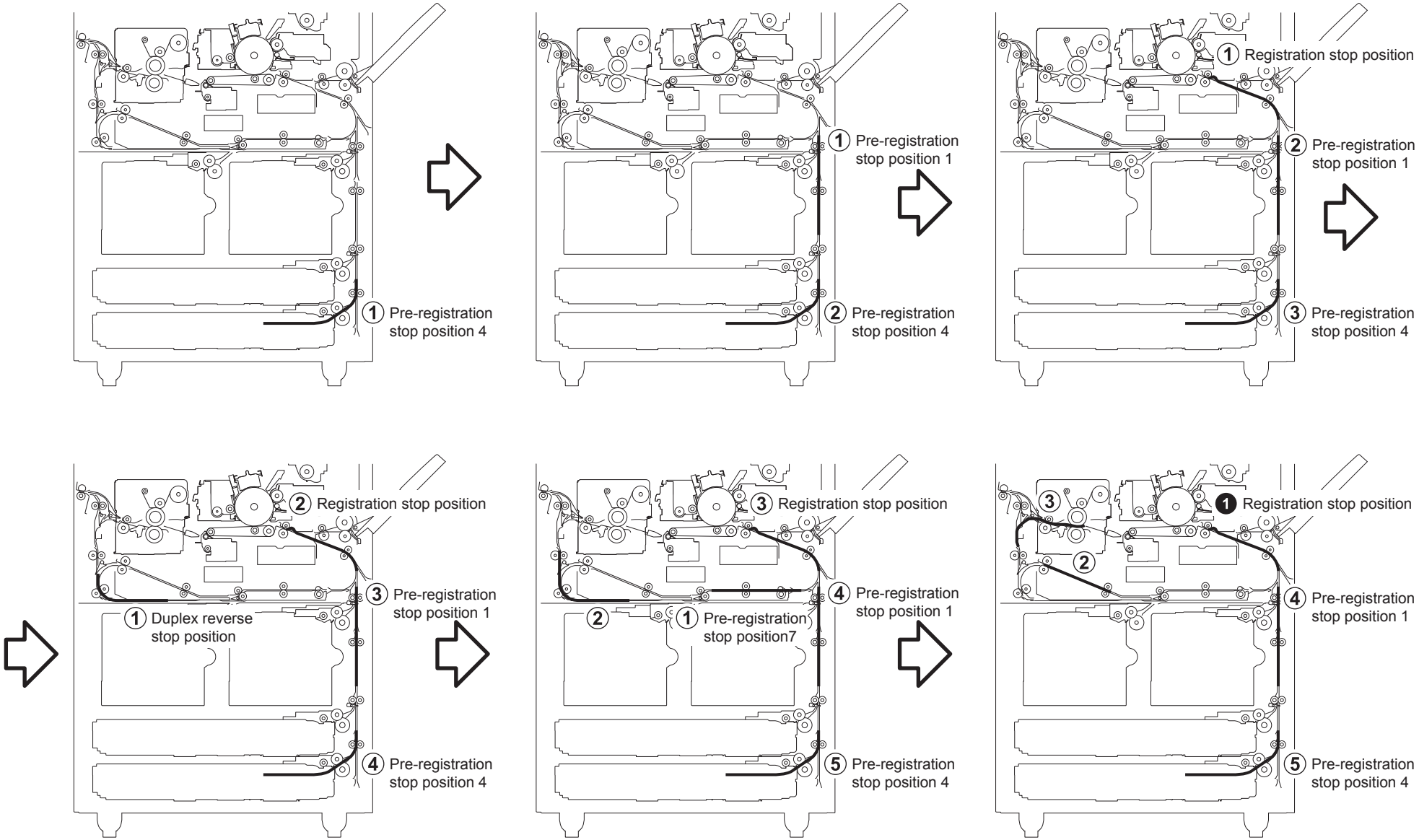


F-2-187

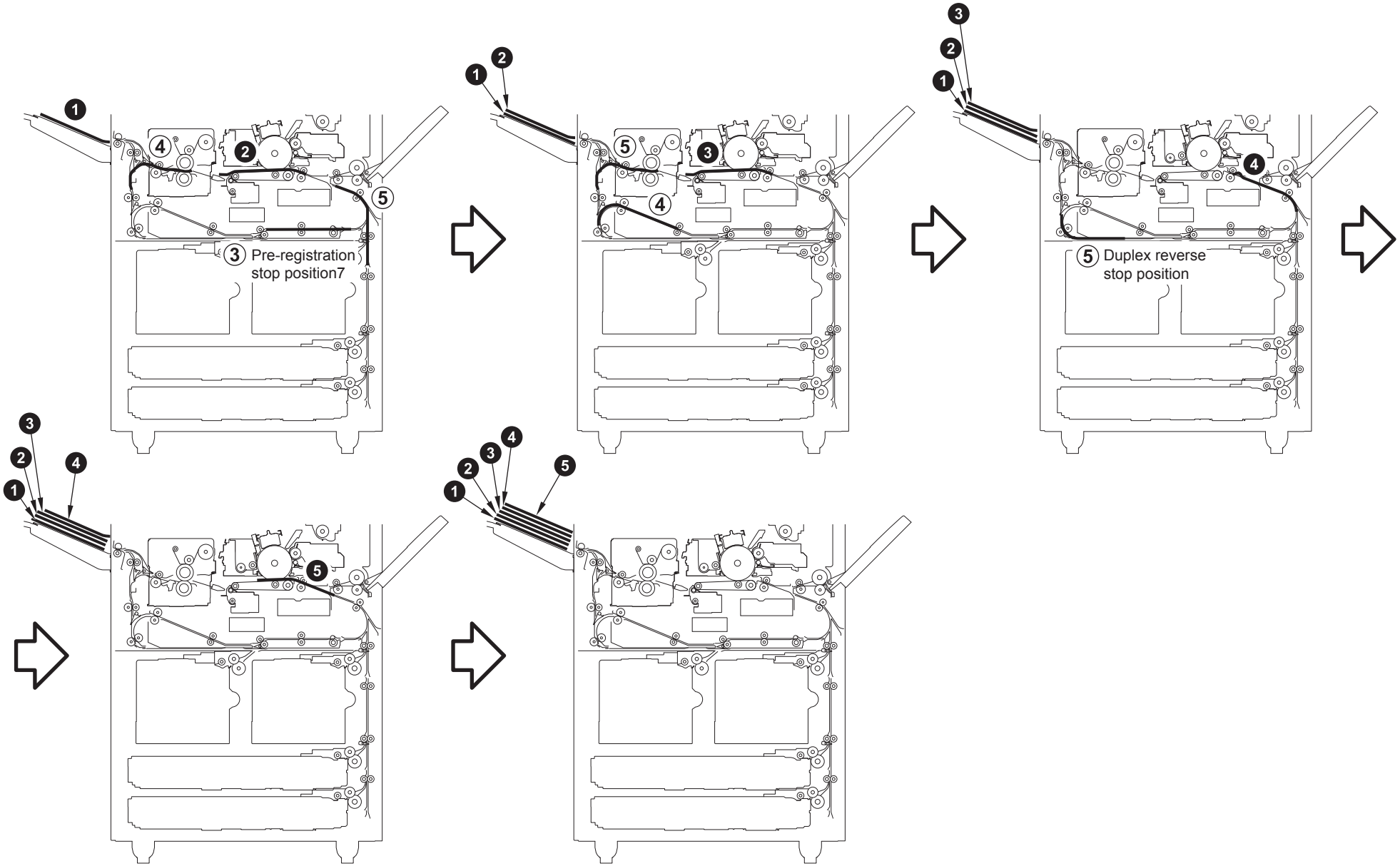
Circulation quantity and limit

The numbers in white background and the numbers in black background show each the first page and second page.

Less than 314 mm in size/5 sheets in circulation (B5 to A4R)

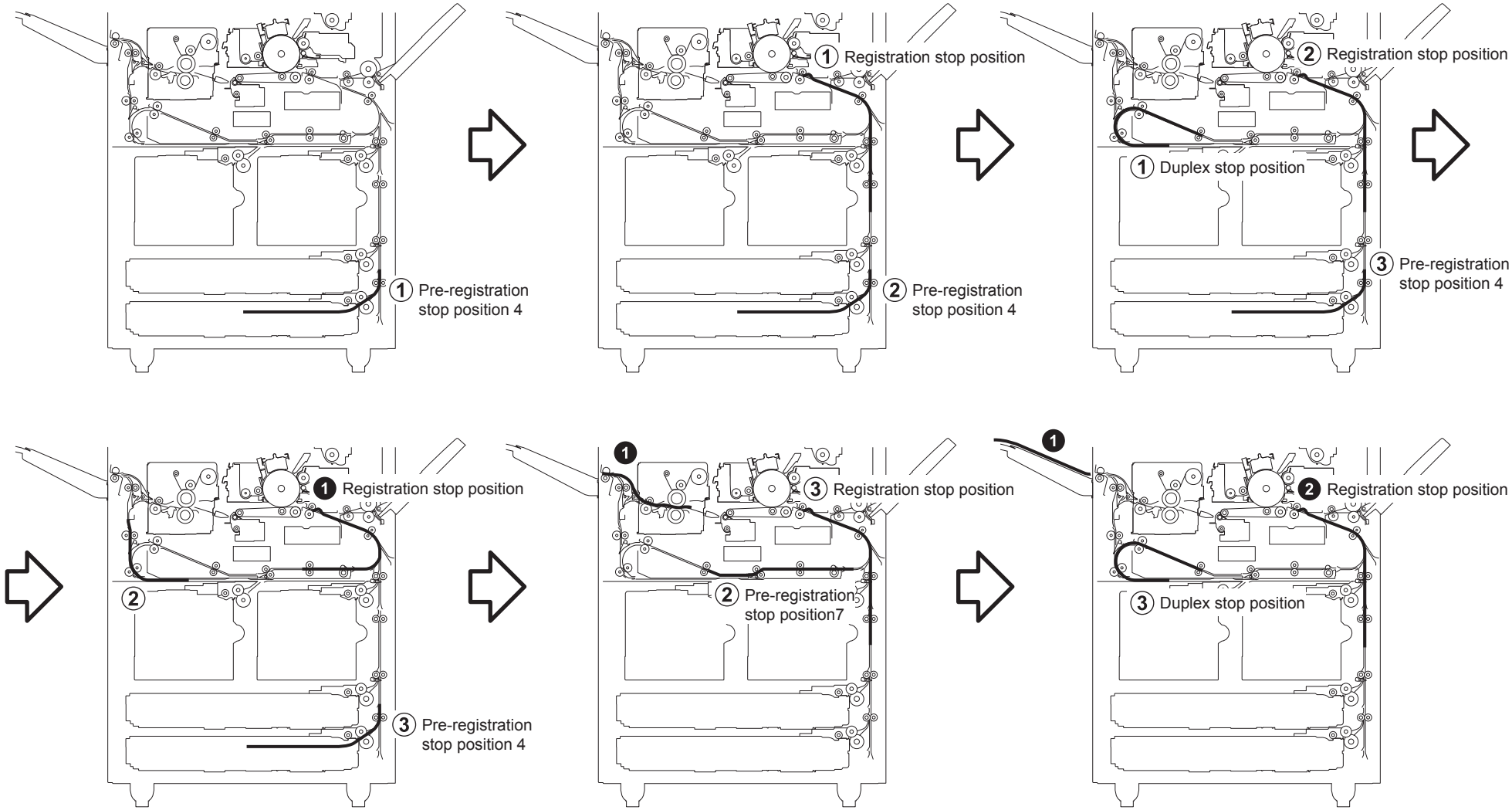


F-2-188

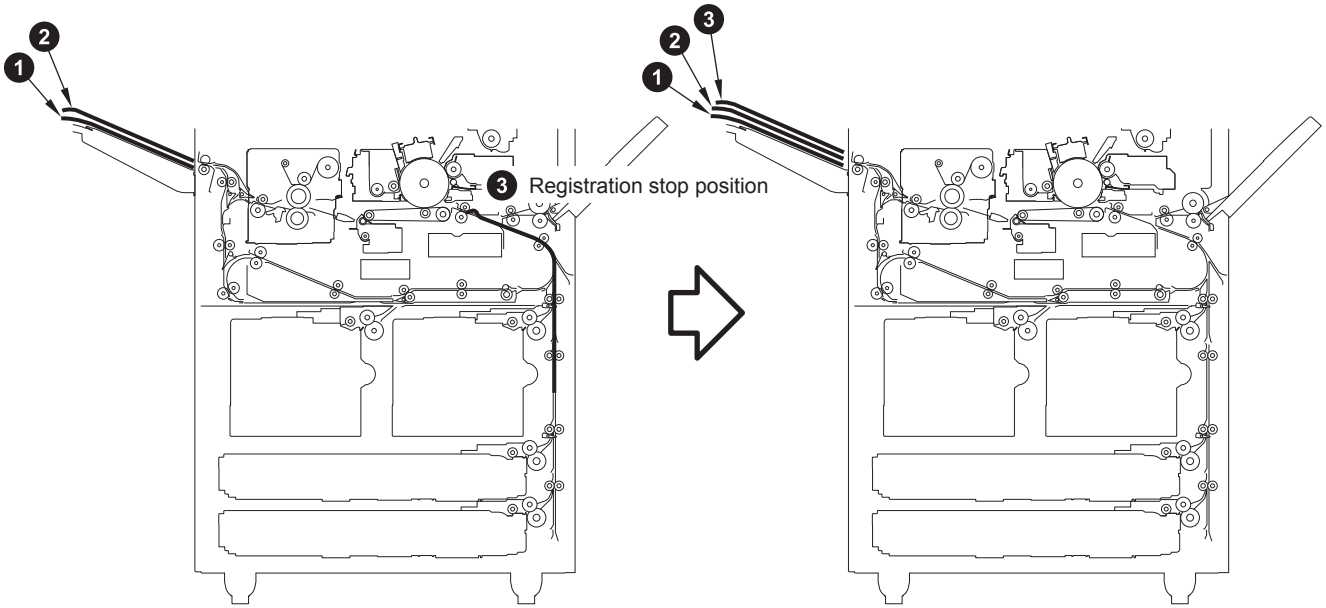

3 Pre-registration stop position7
5 Duplex reverse stop position

F-2-189

Exceeds 314 mm in size/3 sheets in circulation (B4 to LDR inch(431.8))



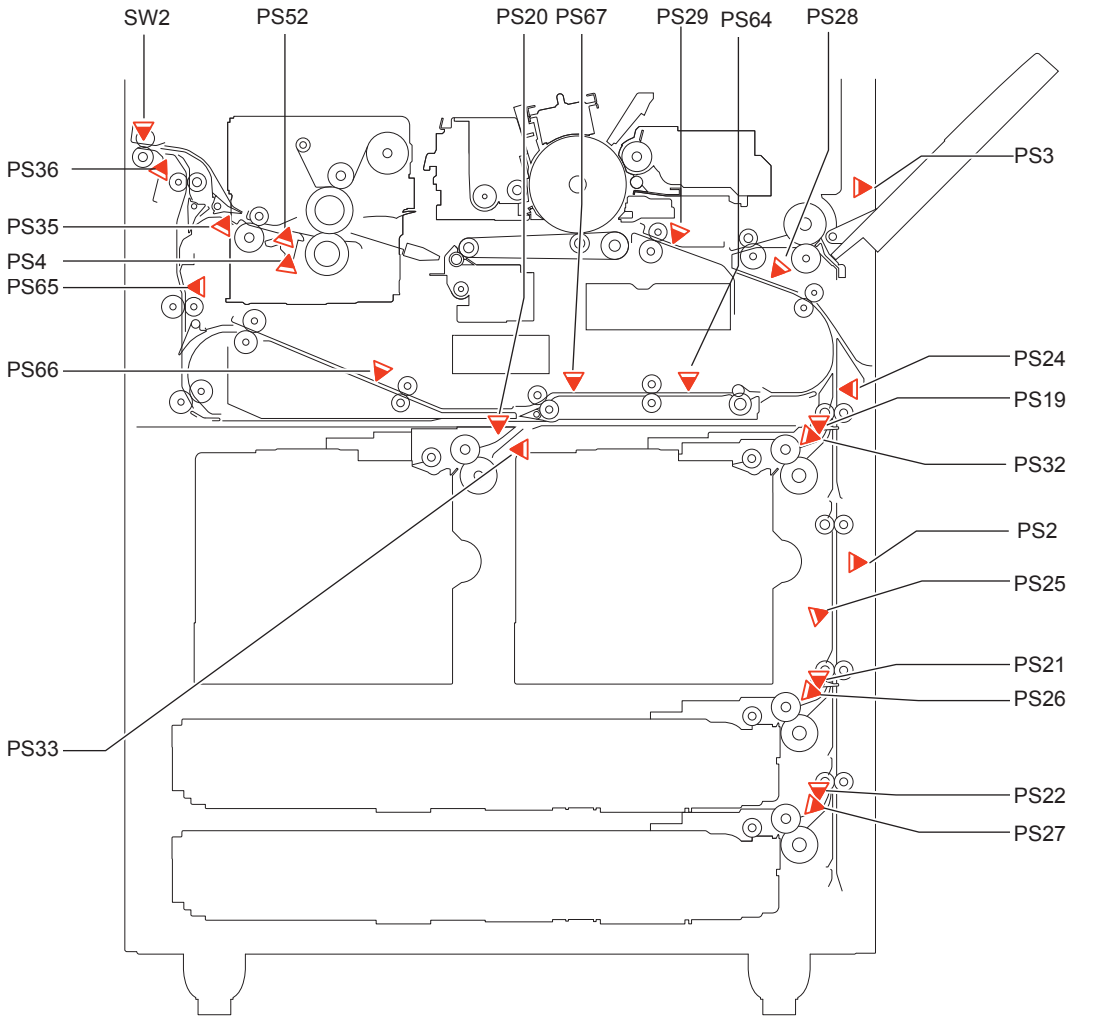
F-2-190



F-2-191

Jam Detection

Jam Code List



F-2-192

Jam in Feed System

xx = 01: Delay, 02: Stationary, 0A: Residue

Yes: Detects, -: Does not detect

Sensor No.	Sensor name			Jam type		
				Delay	Stationary	Residue
xx01	PS19	Right Deck Pickup Sensor 1		Yes	-	
xx02	PS32	Right Deck Pull Out Sensor		Yes	Yes	Yes
xx03	PS24	Vertical Path Sensor1		Yes	Yes	Yes
xx04	PS28	Multi-purpose Paper Last paper Sensor		Yes	Yes	Yes
xx05	PS29	Registration Sensor		Yes	Yes	Yes
xx06	PS20	Left Deck Pickup Sensor 2		Yes	-	-
xx07	PS33	Left Deck Pull Out Sensor		Yes	Yes	Yes
xx08	PS67	Duplex Merging Sensor		Yes	Yes	Yes
xx09	PS64	Duplex Outlet Sensor		Yes	Yes	Yes
xx0A	PS21	Cassette 3 Pickup Sensor 1		Yes	-	-
xx0B	PS26	Vertical Path Sensor3		Yes	Yes	Yes
xx0C	PS25	Vertical Path Sensor2		Yes	Yes	Yes
xx0D	PS22	Cassette 4 Pickup Sensor 1		Yes	-	-
xx0E	PS27	Vertical Path Sensor4		Yes	Yes	Yes
xx11	PS52	Fixing Outlet Sensor		Yes	Yes	Yes
xx12	PS35	Inner Delivery Sensor		Yes	Yes	Yes
xx13	PS36	Outer Delivery Sensor		Yes	Yes	Yes
xx14	PS65	Reverse Vertical Path Sensor		Yes	Yes	Yes
xx15	PS66	Duplex Left Sensor		Yes	Yes	Yes
xx17	PS1	Deck Pickup Roller	Paer Deck / POD Deck	Yes	-	-
xx18	PS6	Deck Pull Out Sensor	Paer Deck / POD Deck	Yes	Yes	Yes
0305	PS29	Registration Sensor		early timing jam		

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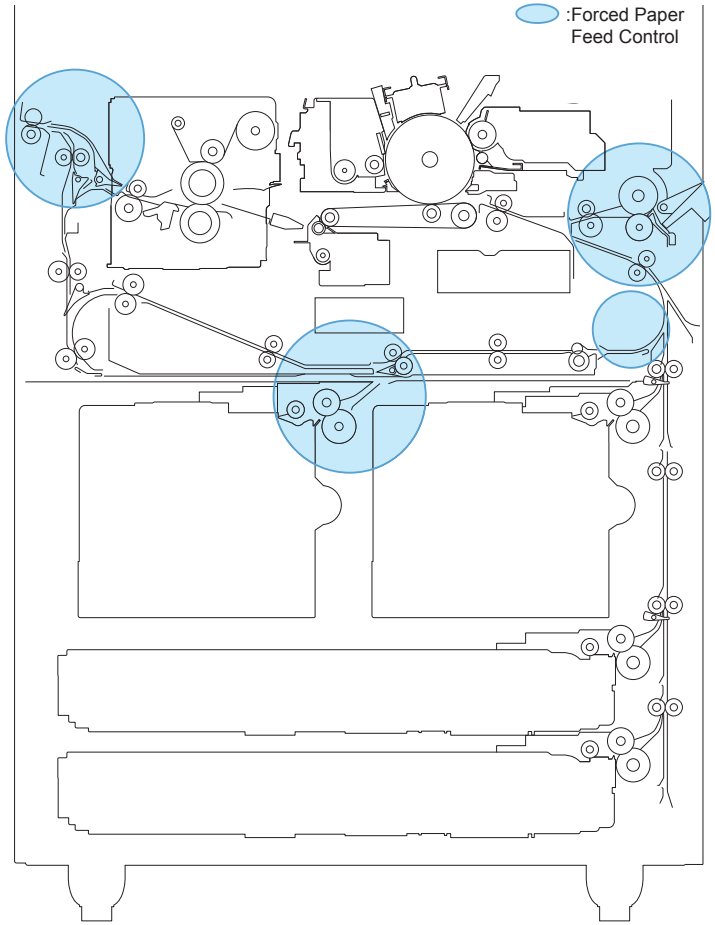
Other Jams

Sensor No.	Sensor name		Jam type
0B01	SW2	Front Door Open Detection Switch	Door Open jam
0B02	PS3	Vertical Path Cover Open/Close Sensor	Door Open jam
0B03	PS2	Multi-purpose Cover Open/Close Sensor	Door Open jam
0CA1	-	FeedSts time out jam	REFEED command is not received. (Former: E240-0001)
0CA2	-	RefeedStart time out jam	RefeedStart command is not received. (Former: E240-0002)
0CA3	-	ImageSet time out jam	ImageSet command is not received. (Former: E240-0003)
0CA4		PageComplete time out jam	PageCompletecommand is not received. (Former: E240-0004)
0CA5	-	Fixing temperature control time out jam	-
0C10	PS4	Fixing Toenail Jam Sensor	Fixing Toenail Jam

T-2-84

Forced Paper Feed Control

If there is paper in the following place after jam is detected, the paper will be forcedly fed to downstream direction.This control suppresses paper damage during jam handling.



F-2-193

Servicing

Periodically Replaced Parts

None

Consumable Parts

Parts Name	Parts Number	Piece	Expected life*	COUNTER (DRBL-1)	Remarks
Right Deck Pickup Roller	FC5-2524	1	50	C1-PU-RL	
Right Deck Feed Roller	FC5-2526	1	50	C2-PU-RL	
Right Deck Separation Roller	FC5-2528	1	50	C1-FD-RL	
Left Deck Pickup Roller	FC5-2524	1	50	C2-FD-RL	
Left Deck Feed Roller	FC5-2526	1	50	C1-SP-RL	
Left Deck Separation Roller	FC5-2528	1	50	C2-SP-RL	
Cassette 3 Pickup Roller	FC5-2524	1	50	C3-PU-RL	
Cassette 3 Feed Roller	FC5-2526	1	50	C3-FD-RL	
Cassette 3 Separation Roller	FC5-2528	1	50	C3-SP-RL	
Cassette 4 Pickup Roller	FC5-2524	1	50	C4-PU-RL	
Cassette 4 Feed Roller	FC5-2526	1	50	C4-FD-RL	
Cassette 4 Separation Roller	FC5-2528	1	50	C4-SP-RL	
Multi-purpose Tray Separation Roller	FB1-8581	1	12	M-FD-RL	
Multi-purpose Tray Feed Roller	FC6-6661	1	12	M-SP-RL	

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*Unit: 10,000 sheets

Periodical Servicing List

Parts/Area Name	Expected life*	Remarks
Feed Guide	50	Remove paper lint with lint-free paper and cleaning tool.
Pre-registration Guide	50	Clean with lint-free paper moistened with alcohol.
Rollers/wheels	50	Clean with lint-free paper moistened with alcohol.
Separation Static Eliminator	50	Remove paper lint (toner) with Blower.
Duplex Unit Cleaning Brush	50	Using Blower, remove paper lint which was collected by Cleaning Brush.
Registration Unit Magnet	50	Clean with lint-free paper moistened with alcohol.
Scanner Sensor(Pickup Assembly)	100*	sing Blower, remove paper lint Left Deck Pickup Sensor 2 (PS20),Right Deck Pickup Sensor 2 (PS19) ,Cassette 3 Pickup Sensor 2 (PS21),Cassette 4 Pickup Sensor 1 (PS22) * when replacing Separation Roller
Scanner Sensor(Feeding Assembly)	100	Using Blower, remove paper lint Vertical Path Sensor 1 (PS24) ,the Multi-purpose Tray Last Paper Sensor (PS28),the Registration Sensor (PS29),Reverse Vertical Path Sensor (PS65),Duplex Outlet Sensor (PS64), Duplex Merge Sensor (PS67), and Duplex Left Sensor (PS66)

T-2-86

*Unit: 10,000 sheets

When Replacing Parts

When replacing the Periodically Replaced Parts and Consumable Parts, be sure to clear the Parts Counter (COPIER > COUNTER > PRDC-1/DRBL-1)

Major Adjustments

None

Troubleshooting

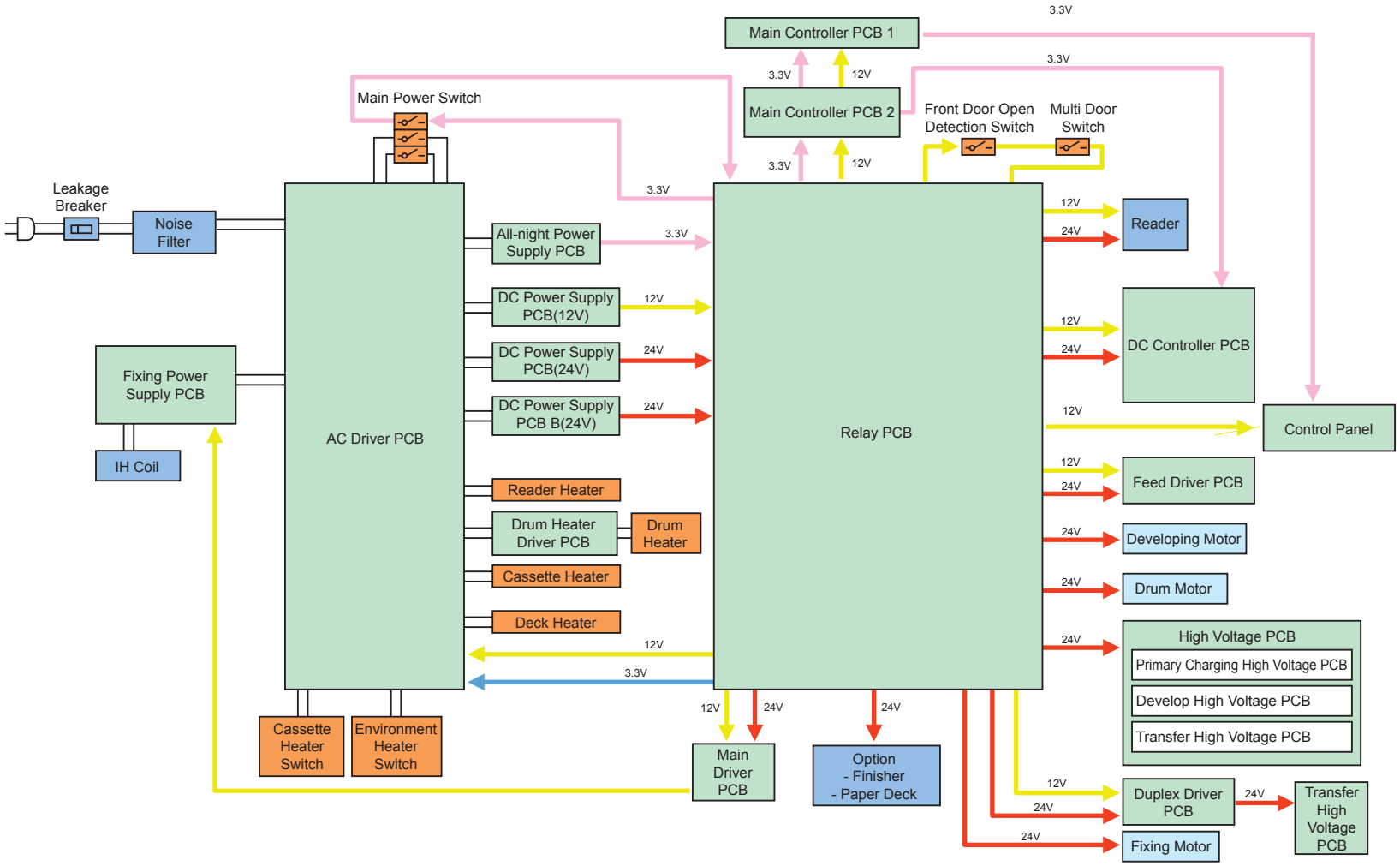
None

External Auxiliary System

Overview

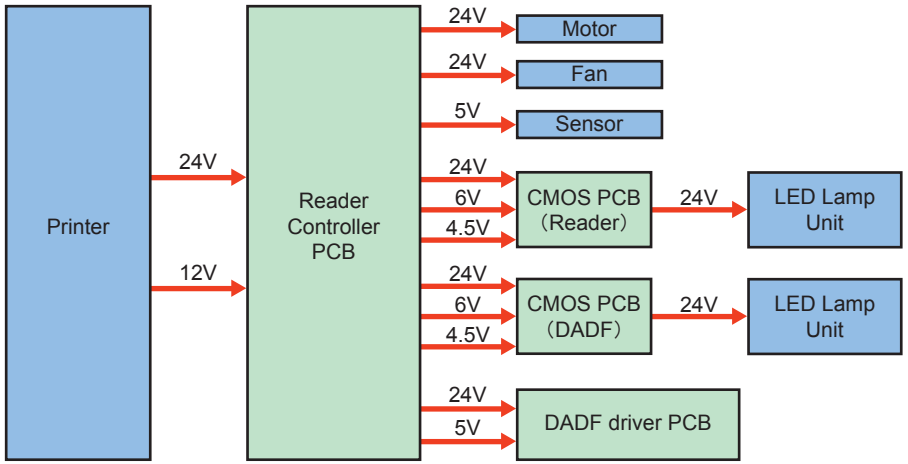
Power Supply Configuration

Power Supply Configuration inside the Host Machine



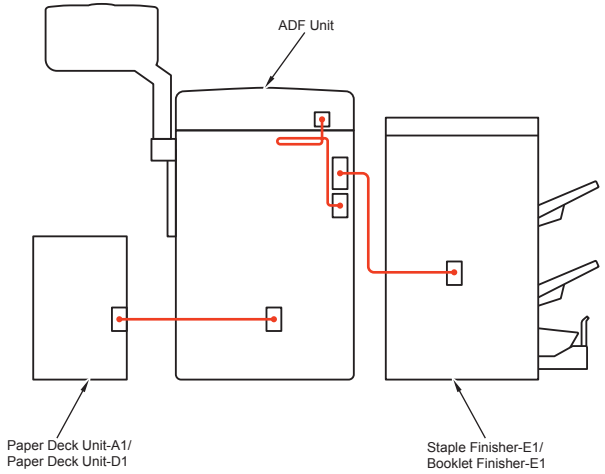
F-2-194

Power Configuration of the Reader Unit



F-2-195

Power wire connection from the Host Machine to the Options



F-2-196

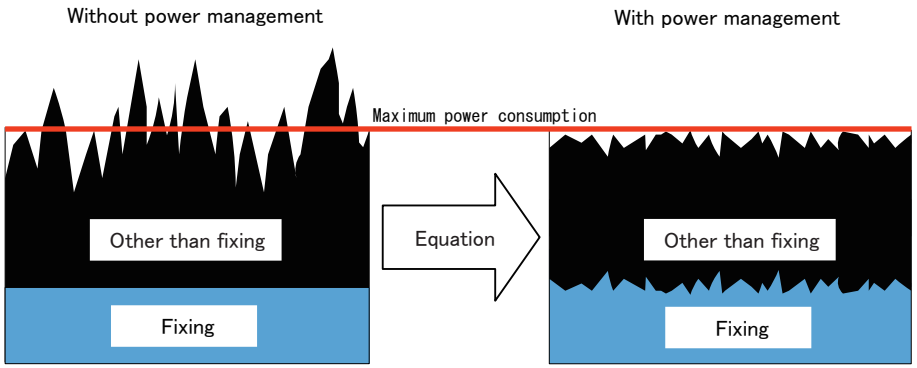
Controls

Power supply control

Electric Power Management

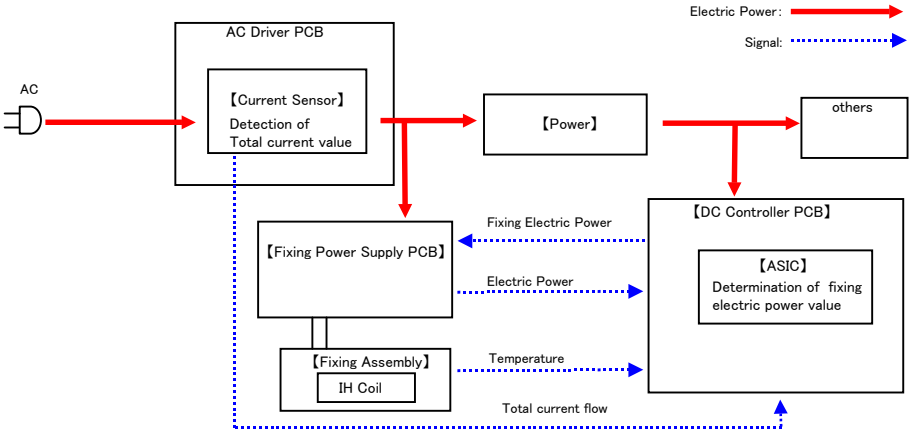
<Over View>

Electric power shortage is prevented by equating the electric power in the machine. Capacitor for preventing the electric power shortage which is applied to the conventional models (iR5075/5065/5055) is discontinued on this machine.



F-2-197

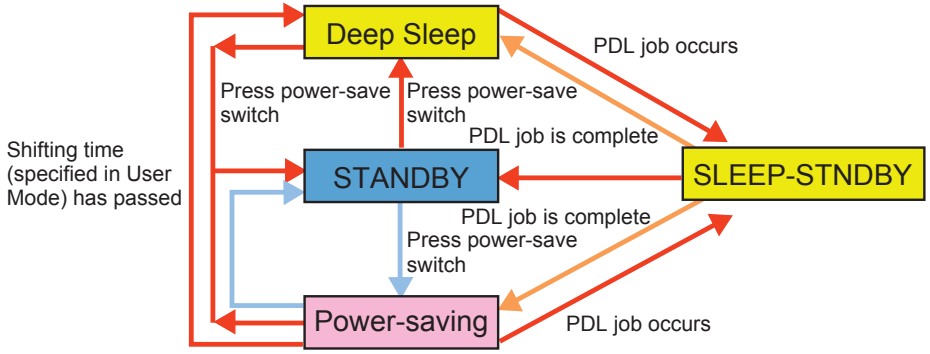
<Control description>
This machine executes electric power management to prevent temporary power shortage. The electric power management detects current value of the entire product with the Current Sensor. In the case that the current value is likely to exceed the electric power reference value, the DC Controller temporarily reduces electric power supply to the fixing area to compensate for power shortage.



F-2-198

Current Sensor : Converts the flux occurred by current to the voltage.

Energy saver function



F-2-199

Sleep standby

The mode that can start operation immediately. All power is supplied in this mode, but display on the Control Panel is OFF.

Energy Saver

The mode to reduce energy consumption by reducing the control temperature when the Fixing Unit is at standby state according to the energy saving rate (this mode can be changed in Settings/registration “Change Energy Saver Mode” Default: -10%).

Deep Sleep

The state that only 3.3V on the All-night Power Supply PCB is supplied. To be shifted to the standby mode when the next job is generated.

- Print job
- Pressing the power key on the Control Panel

Effects of Spanning Tree-supported Hub

If you set the network as a loop, data keeps staying in this loop and efficiency of data transfer might be decreased. In order to prevent this symptom, some hubs have the function called “spanning tree”. If this function is enabled, the device newly connected to the hub can make data communication with network 10 to 50 seconds (time changes due to the conditions) after the connection. When the machine enters Deep sleep mode and restores from the sleep mode, the machine electrically disconnects with the network once. Therefore, if the machine connects with the spanning tree-installed hub, the machine cannot communicate with network for approximately 1 minute at a maximum after restoring from the Deep sleep mode.
For this reason, right after restoring from the Deep sleep mode, the following symptoms might occur: Device status cannot be collected, printing cannot be made, and login using a login application cannot be made. If such symptoms become any problems, perform the following operations.

- Using user mode, set not to enter the Deep sleep mode.
  Preferences > Timer/Energy Settings > Sleep Mode Energy Use > High
- Disable the spanning tree function of hub.
- Request users to use the hub which supports Rapid Spanning-Tree
- Protocol (RSTP) that resolved such problems.

Distribution of Power and the Switches

The power of this machine is supplied to each load side by linking with the following switches, etc.

A. 2-dimensional shading OFF(defolt*1)

<Environment Switch: OFF>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Environment control *1	Environment control *1	ON	ON
	Cassette	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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<Environment Switch: ON>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	Environment control *1	Environment control *1	Environment control *1*2	Environment control *1*2	Environment control *1*2	Environment control *1*2	OFF	OFF	Environment control *1	Environment control *1	ON	ON
	Cassette	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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B. 2-dimensional shading ON *1]

<Environment Switch: OFF>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON *1	ON *1	ON	ON
	Cassette	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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<Environment Switch: ON>

Mode		Main Power OFF		sleep mode (low energy consumption)*3		sleep mode (high energy consumption)*3		WarmUp(Recovery)		Standby/Energy Saver		Copy/Print	
Switch	Main SW	OFF		ON									
	Cassette SW	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
Heater	Drum	ON *1	ON *1	ON *1	ON *1	ON *1	ON *1	OFF	OFF	ON *1	ON *1	ON	ON
	Cassette	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	Reader	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

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*1 It can be switched by COPIR > OPTION > IMG-MCON > 2D-SHADE..

*2 It can be switched by COPIR > OPTION > IMG-MCON > DRM-H-SW.

*3 When sleep mode (high energy consumption) is set, the Cassette Heater/Reader Heater cannot be turned ON although the Environment Switch and the Cassette Heater Switch are ON. When using the Cassette Heater and the Reader Heater at sleep state, set the sleep mode (low energy consumption). Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Energy Use > High/Low

<Environment Control>

Environment control 1: The condition of the heater at the time of turning OFF the main power continues.

Environment control 2: Whether to turn ON or OFF the heater is determined by the environment (moisture content) right before moving to sleep state, and the condition continues while the power is OFF or the machine is at sleep state.

Environment	Moisture content	Temperature/Humidity	Drum Heater
1	0.86	23 deg C 5%	OFF
2	1.73	23deg C 10%	
3	5.8	23 deg C 30%	
4	8.9	23 deg C 50%	
5	15	23 deg C 70%	ON
6	18	27 deg C 80%	
7	12.41	30 deg C 80%	

T-2-91

Environment control 3: Basically the heater is ON. ON or OFF of the heater can be switched depending on the moisture contents when the duration time of standby mode/ energy saving mode is long (4 hours at minimum).

<Related service modes>

COPIER > OPTION > IMG-MCON > DRM-H-SW: To set ON/OFF of the Drum Heater.

0: Normal mode (ON/OFF of the Drum Heater is determined when moving to sleep 1.) (Default)

1: Drum Heater ON mode *(The Drum Heater must be turned ON when moving to sleep 1 while the 2-dimensional shading-related control is OFF.)

2: Energy saving mode (The Drum Heater is OFF when moving to sleep 1.)

* The mode differs from 2-dimensional shading ON (image priority mode). This mode is for users who just want to turn ON the Drum Heater when startup time is delayed because of the increase of controls due to 2-dimensional shading ON.

COPIER > OPTION > IMG-LSR > 2D-SHADE: Image priority mode (2-dimensional shading). ON/OFF

0: 2-dimensional shading OFF (Default)

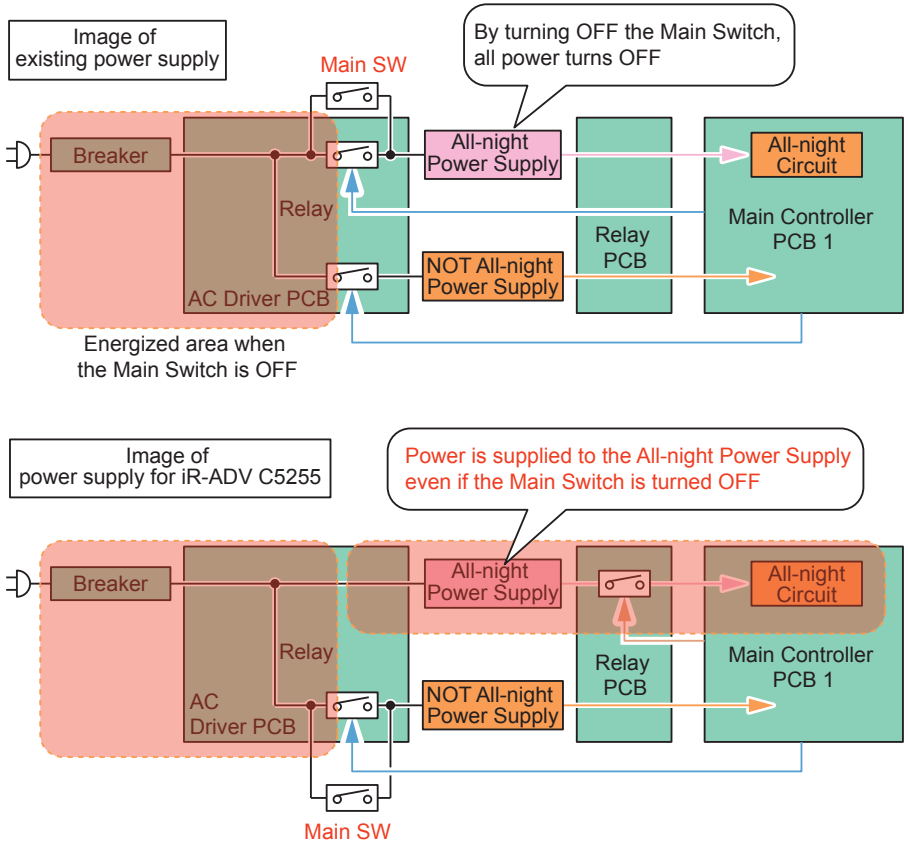
1: 2-dimensional shading ON (The Drum Heater is turned ON at first time for the day, sleep, standby/energy saving, potential control, and 2-dimensional shading.)

Quick Startup

To realize faster startup, power configuration has been changed to always supply power to the All-night Power Supply PCB. Thereby, the main menu can be displayed after 30 seconds from turning ON the Main Power Supply Switch.

Although when the Main Power Supply Switch is OFF, power is supplied to the following PCBs.

- AC Driver PCB
- All-night Power Supply PCB
- Relay PCB
- Main Controller PCB 1

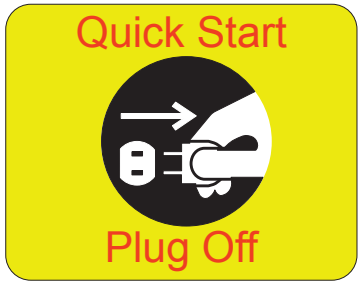


F-2-200

Disconnect the plug from outlet or turn OFF the Breaker when performing work with the

possibility to come in contact with the PCBs above. PCBs may get damage. If a conductive material comes in contact with the PCB, short circuit may occur in the PCB, and may cause damage on it.

The following illustration is used at the place where attention needs. When the following label is affixed, be sure to disconnect the plug from outlet or turn OFF the Breaker.



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In addition, quick startup is not performed under the following conditions.

At first startup after the AC Power Plug is connected to the outlet		
Under the following conditions (settings), the machine always starts up normally (even quick startup is ON).		
	When any of the following devices is connected.	
		• EFI Controller
		• Serial Interface Coin Vendor
		• Wireless LAN
	When any of the following network settings is set to "ON".	
		• RARP
		• BOOTP
		• IPsec
		• IPv6
		• NetWare
		• AppleTalk

As for startup right after shutting down of the machine under any of the following conditions, it starts up normally (even quick startup is ON).		
	FAX	
		• There is a fax transmission reservation.
		• Within a specified period of time (10 seconds) from disconnection of a fax line
		• Within a specified period of time (10 seconds) from non-detection of reception from a fax line
		• Within a specified period of time (10 seconds) from putting down the fax sub device or handset
	MEAP	
		During execution of MEAP application which prohibits moving to Deep Sleep
		A scheduled processing is reserved on MEAP.
	Job processing	
		• During print/scan job processing
		• During SEND job processing
		• During I-Fax communication/job processing
		• During report job processing
		• During forwarding transmission job/reception job processing
		• During processing of data storage to Advanced Box
		• During fax communication/phone communication
		• During distribution of device information
		• During Box backup
		• During export/import by RUI
		• During opening/reading/writing file of Advanced Box (common with SMR/WebDAV)
		• During rebuilding with the HDD Data Encryption/Mirroring Board installed
Others		
	• When the machine state remains unchanged for more than 110 hours after turning ON the power as quick startup or turning OFF the power. -> At the time of shutdown, it will be normal shutdown. * This is to prevent a risk of UI freeze caused by memory leak.	
	• Within a specified period of time (20 seconds) from turning OFF the Main Power Supply Switch -> In such a case, the machine reboots and then starts up normally at startup. Therefore, it will take a few more seconds compared with the normal startup. * This is for starting up the machine normally at the time of failure (UI freeze, etc.).	
	• After moving to the Settings/Registration screen of service mode or RUI	
	• After changing the user mode that requires restart	
	• The machine is shut down from RUI	
	• When an error occurs	
	• When resource downloader is active	
	• In printer/scanner limited functions mode	
	• When a login application is switched by SMS	
	• A license has been registered.	
	• Startup by pressing the Control Panel Key	

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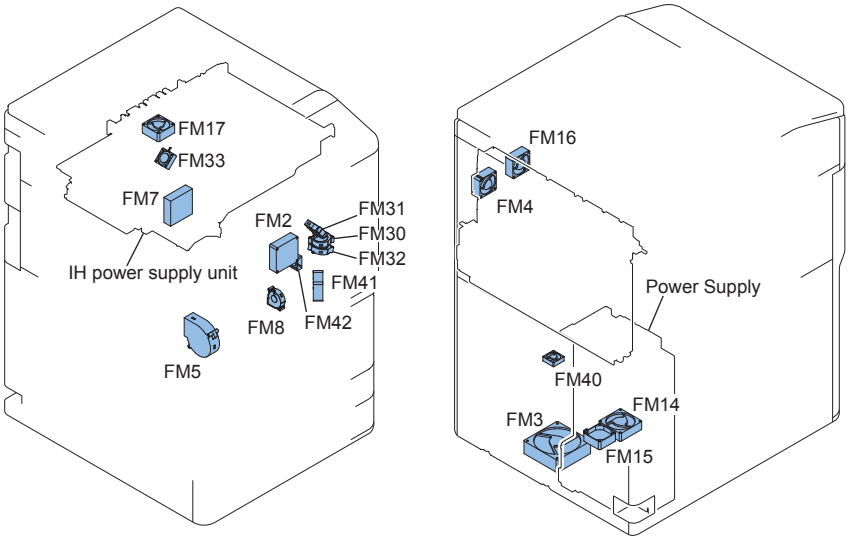
Fan Control

Location of Fans



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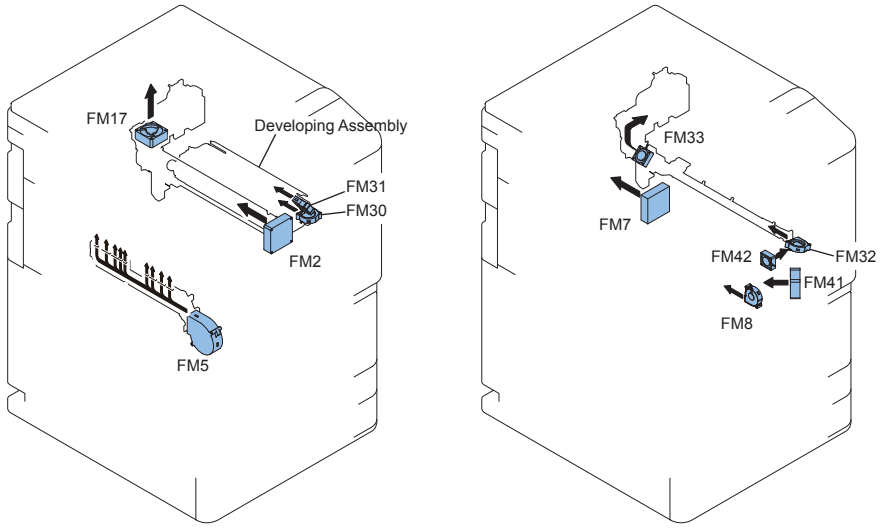
Airflow



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Circuit code	Name	Function	Error/Alarm code
FM2	Primary Charging Air-supply Fan	To intake air around the Primary Charging Assembly	E824-0000
FM3	Making Image Exhaust Fan	To exhaust air in the image formation area	E806-0000
FM4	Main Controller Cooling Fan	To cool the Main Controller PCB	E880-0001
FM5	Paper Cooling Fan	To cool the paper passing through the delivery area	33-0001
FM7	Fixing Power Supply Cooling Fan	To cool the fixing power supply	E804-0001
FM8	Transfer Cleaner Cooling Fan	To cool the Transfer Cleaner / To cool the Duplex Feed Guide	E820-0002
FM14	Power Supply Cooling Fan 1	To cool the power supply	E804-0000
FM15	Power Supply Cooling Fan 2	To cool the power supply	
FM16	Laser Scanner Cooling Fan	To cool the Laser Scanner	E121-0001
FM17	Primary Charging Exhaust Fan	To exhaust air around the Primary Charging Assembly	33-0027
FM30	Developer Lower Cooling Fan	To cool the Developing Unit	E820-0000
FM31	Developer Upper Cooling Fan	To cool the Developing Unit	E820-0001
FM32	Pre-transfer Charging Unit Air-supply Fan	To intake air around the Pre-transfer Charging Assembly	33-0026
FM33	Pre-transfer Charging Unit Exhaust Fan	To exhaust air around the Pre-transfer Charging Assembly	
FM40	Feed Driver Cooling Fan	To cool the Feed Driver	33-0013
FM41	Duplex Driver Cooling Fan	To cool the Duplex Driver	33-0028
FM42	Registration Motor/Duplex Motor Cooling Fan	To cool the Duplex Motor and the Registration Motor	33-0002

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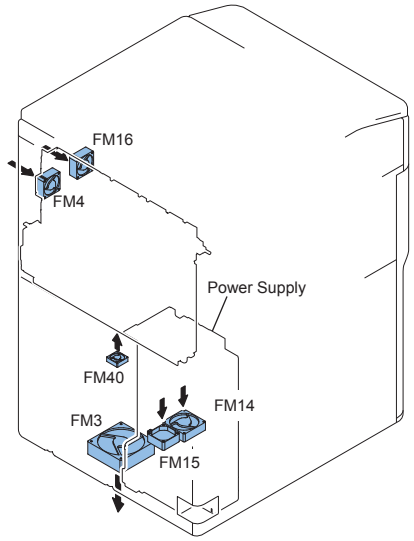

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Fan Sequence

NO.	NAME	WAIT UP	INTR	STBY	PRINT			LSTR	JAM	ERR	Power saving	DEEP Sleep
FM2	Primary Charging Air-supply Fan											
FM3	Making Image Exhaust Fan											
FM4	Main Controller Cooling Fan	Controller control										
FM5	Paper Cooling Fan											
FM7	Fixing Power Supply Cooling Fan											
FM8	Transfer Cleaner Cooling Fan											
FM14	Power Supply Cooling Fan 1											
FM15	Power Supply Cooling Fan 2											
FM16	Laser Scanner Cooling Fan											
FM17	Primary Charging Exhaust Fan											
FM30	Developer Lower Cooling Fan											
FM31	Developer Upper Cooling Fan											
FM32	Pre-transfer Charging Unit Air-supply Fan											
FM33	Pre-transfer Charging Unit Exhaust Fan											
FM40	Feed Driver Cooling Fan											
FM41	Duplex Driver Cooling Fan											
FM42	Registration Motor/ Duplex Motor Cooling Fan											

:Full speed
:half speed

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Counter control

Count-up timing differs according to the following.

- Print mode (1-sided page, 2nd side of 2-sided page, 1st side of 2-sided page)
- Delivery position (Finisher).

Delivery position			Print mode	
			1-sided print/2nd side of 2-sided print	1st side of the 2-sided print
			Count-up timing	
1	In the case of the Host Machine only		Reference Sensor: External Delivery Sensor (PS36)	Reference Sensor: Small (when the length is up to LTR) -> Duplex Left Sensor (PS66)
2	Staple Finisher / Booklet Finisher	Tray A (Upper Tray)	Reference Sensor: Feed Path Sensor (S102)	R-configuration (when the length exceeds LTR up to A4R) -> Duplex Merger Sensor (PPS67)
		Tray B (Lower Tray)		
		Saddle area	Reference Sensor: Saddle inlet sensor (S201)	Large (when the length is A4R or more) -> Reverse Vertical Path Sensor (PS65)

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Default counters for each country (model) are listed below.

Target	Display number of each counter (in service mode) / item						Country code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
100V Japan model Type 1 (Conventional method)	Total 1	*1	*1	*1	*1	*1	JP
	101	0	0	0	0	0	
100V Japan model (New method)	Total 2	Copy (Total 2)	Total A2	*1	*1	*1	JP
	102	202	127	0	0	0	
120V Taiwan model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	*1	*1	TW
	101	103	201	203	0	0	
120V UL model Type 1 (Conventional method)	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	*1	*1	US
	101	103	201	203	0	0	
120V UL model Type 2 (New method)	Total 2	Copy (Total 2)	*1	*1	*1	*1	US
	102	202	0	0	0	0	

Target	Display number of each counter (in service mode) / item						Country code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
230V General model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	*1	*1	SG/KO/CN
	101	103	201	203	0	0	
240V UK model Type 1 (Conventional method)	Total (Black/Large)	Total (Black/Small)	Scan (Total 1)	Print (Total 1)	*1	*1	GB
	112	113	501	301	0	0	
240V UK model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	GB
	101	0	0	0	0	0	
240V CA model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	*1	*1	AU
	101	103	201	203	0	0	
230V FRN model Type 1 (Conventional method)	Total (Black/Large)	Total (Black/Small)	Scan (Total 1)	Print (Total 1)	*1	*1	FR
	112	113	501	301	0	0	
230V FRN model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	FR
	101	0	0	0	0	0	
230V GER model Type 1 (Conventional method)	Total (Black/Large)	Total (Black/Small)	Scan (Total 1)	Print (Total 1)	*1	*1	DE
	112	113	501	301	0	0	
230V GER model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	DE
	101	0	0	0	0	0	
230V AMS model Type 1 (Conventional method)	Total (Black/Large)	Total (Black/Small)	Scan (Total 1)	Print (Total 1)	*1	*1	ES/SE/PT/NO/DK/FI/PL/HU/CZ/SI/GR/EE/RU/NL/SK/RO/HR/BG/TR
	112	113	501	301	0	0	
230V AMS model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	ES/SE/PT/NO/DK/FI/PL/HU/CZ/SI/GR/EE/RU/NL/SK/RO/HR/BG/TR
	101	0	0	0	0	0	
230V ITA model Type 1 (Conventional method)	Total (Black/Large)	Total (Black/Small)	Scan (Total 1)	Print (Total 1)	*1	*1	IT
	112	113	501	301	0	0	
230V ITA model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	IT
	101	0	0	0	0	0	

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<Explanation of the list>

- Large: Large size paper (when paper length exceeds 364 mm in paper feed direction)
- Small: Small size paper (when paper length is 364 mm or less in paper feed direction)
- Total: Copy + Print; 1 count up
- 2-Sided: 1 count up when auto 2-sided copy
- Country code change of CONFIG is executed from COPIER > OPTION > FNC-SW > CONFIG.
- Three-digit number in the counter column shows the setting value of the following service mode items.
  COPIER > OPTION > USER > COUNTER 1 to 8
- COUNTER2 to 8 can be changed from the service mode (COPIER > OPTION > USER).

*1: Nothing is displayed as default. However, you can change this setting from the service mode.

Servicing

Periodically Replaced Parts

No	Parts name	Parts Number	Piece	Expected life	Remarks
1	Ozone Filter	FL3-2134-000	1	6000,000 sheets	
2	Dustproof Filter	FC8-9564-000	1	1000,000 sheets	

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Consumable Parts

None

Periodical Servicing

None

When Replacing Parts

DC Controller PCB

Get in service mode to enter all the latest service mode values written on the label at the back of the Front Cover.

<Procedure of parts replacement>

see "Removing the DC Controller PCB," on p. 4-231.

<Procedure of adjustment>

1. Before Replacing
   1)Backup of the Service Mode data
   COPIER>FUNCTION>SYSTEM>DSRAMBUP

2. After Replacing
   1)Restoring the backup data
   COPIER>FUNCTION>SYSTEM>DSRAMRES
   2)Switch OFF and then ON the main power.
   3)Execute auto gradation adjustment.
   4)Test print

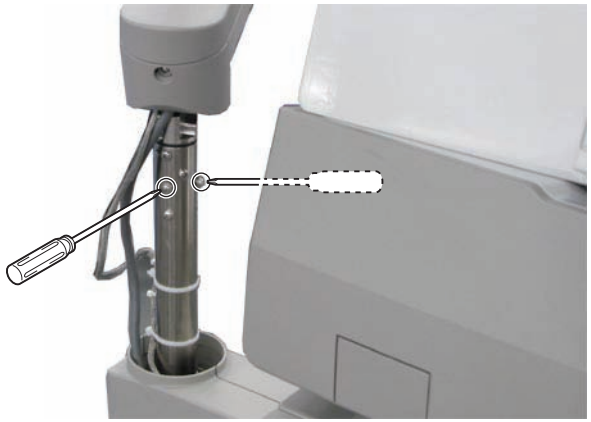
■ Troubleshooting

● Adjusting rotation of the Upright Control Panel Arm

If rotation of the Upright Control Panel Arm has become loose, retighten the Fixation Screws securing the Arm Rotation Adjustment Ring according to the following procedure.

<Procedure>

1) Remove the Shaft Support Cover (Left) and the Shaft Support Cover (Right).
2) Open the DADF and retighten the 2 Fixation Screws securing the Arm Rotation Adjustment Ring.



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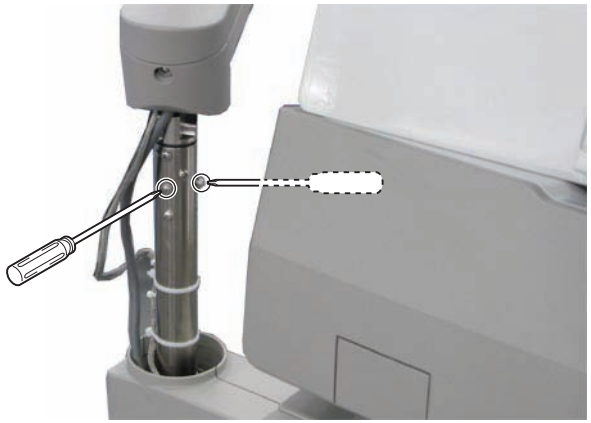
NOTE:
If rotation of the arm is still loose after retightening the Fixation Screws according to "●Adjusting rotation of the Upright Control Panel Arm", change the phase difference between the Arm Rotation Adjustment Ring and the Fixation Screws according to the following procedure.

1) Open the DADF and loosen the 2 Fixation Screws securing the Arm Rotation Adjustment Ring.



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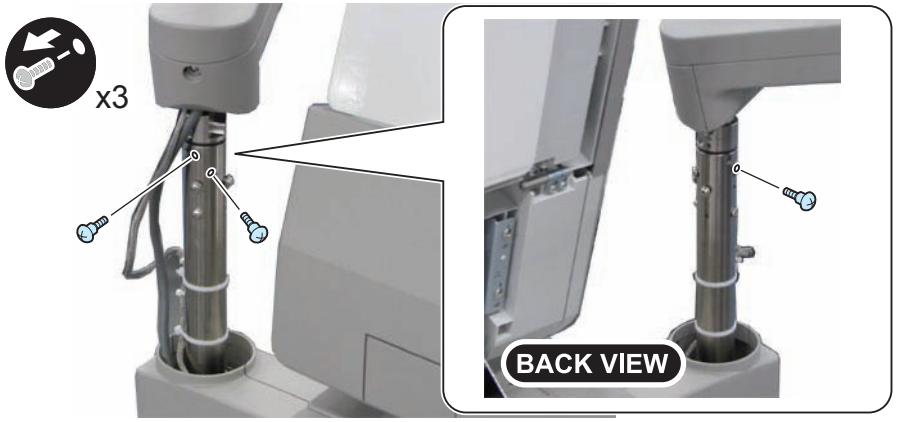
2) Remove the 3 Stepped Screws securing the Arm Shaft.



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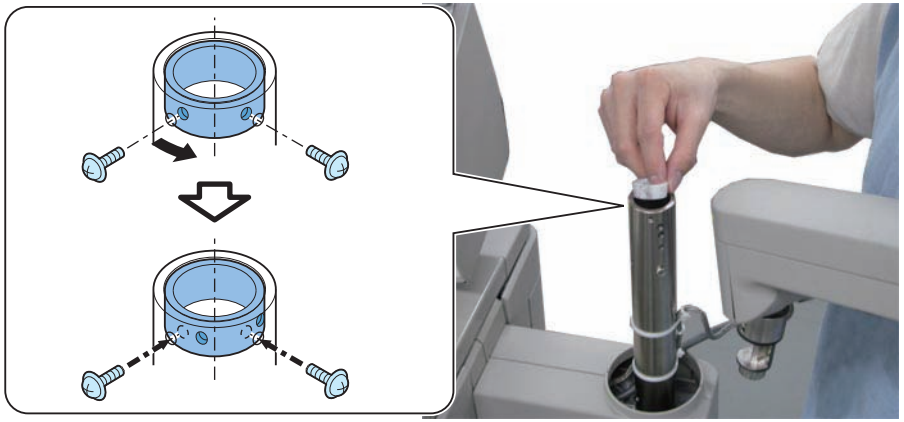
3) Pull out the Upright Control Panel and the Arm Shaft, and rotate the Arm Rotation Adjustment Ring to change the phase so that the Fixation Screws do not contact with the dents formed by tightening the screws.



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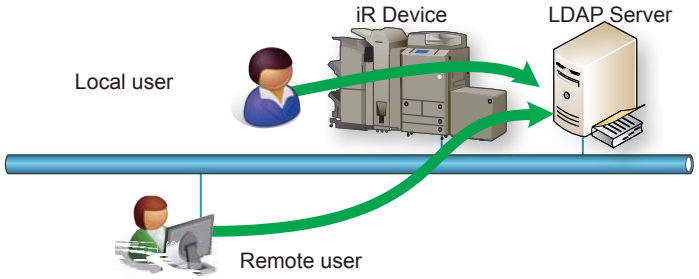
4) Insert the Upright Control Panel and the Arm Shaft, and retighten the 2 screws loosened in step 3.

MEAP

Changes

LDAP Authentication (SSO-H Server Authentication)

LDAP authentication has been added to the server authentication method using Single Sign-On H (hereinafter referred to as SSO-H).
LDAP authentication is a user authentication performed by using an LDAP server on the network linked with the device.



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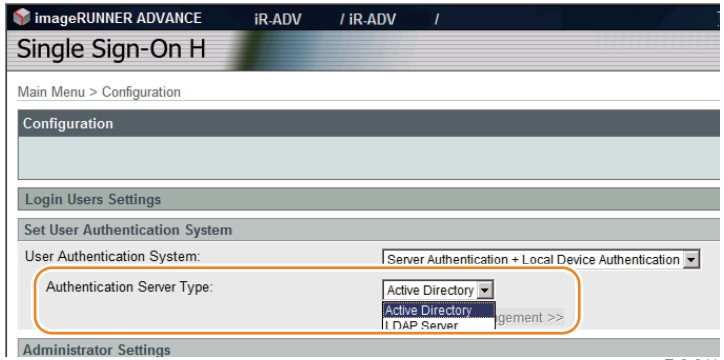
Accordingly, the following item and setting screens have been added to the SSO-H management screen of the remote UI.

- Drop-down list for selecting the LDAP server as the authentication server
- The LDAP server management screen (when [LDAP Server] is selected from the foregoing drop-down list)
- The screen for adding an LDAP server

An example of the screen showing the drop-down list for selecting LDAP Server



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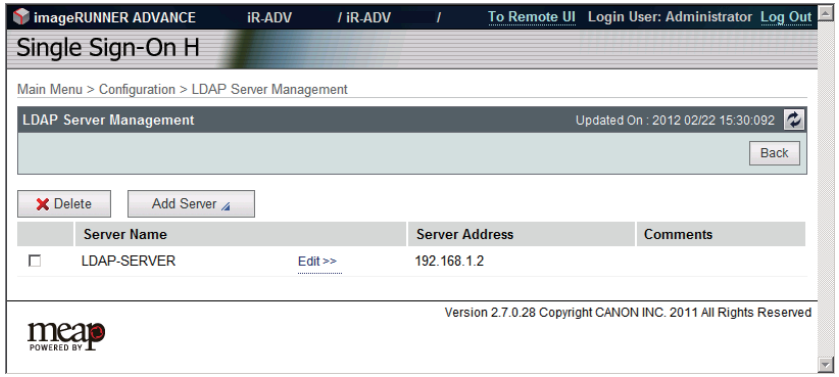
An example of the LDAP server management screen



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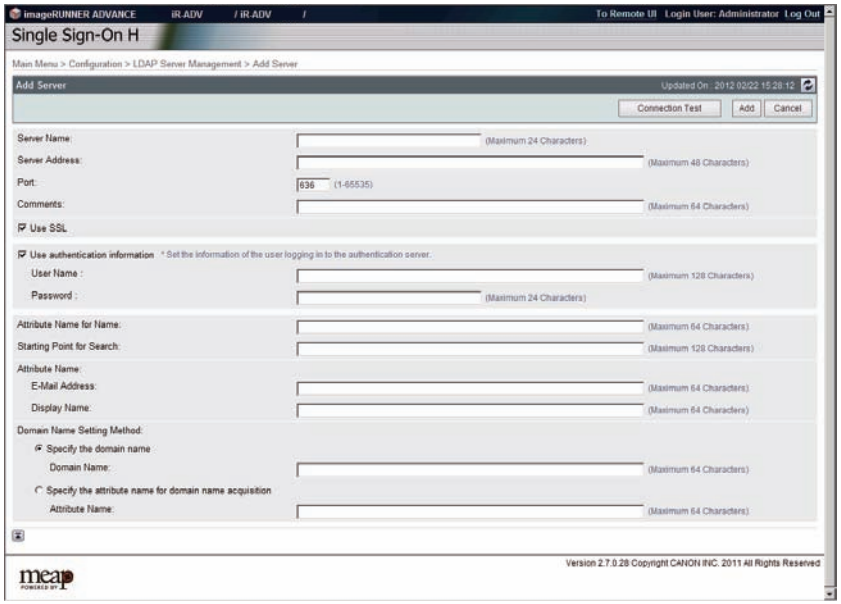
An example of the screen for adding an LDAP server



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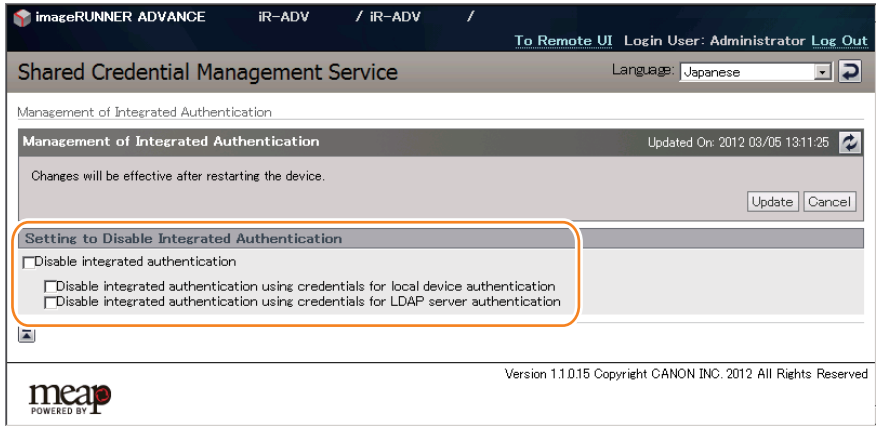
For details, refer to "Server authentication (Active Directory authentication)" in this chapter.

Integrated Authentication Disabling Setting Screen

A user setting screen has been added to the integrated authentication function which allows the authentication information used for logging into the machine to be shared between MEAP applications.

From a security standpoint, the setting screen for disabling the function to allow authentication information (Volatile Credential), whose registered information is discarded at the time of logout or shutdown of the device, to be used has conventionally been included in service mode.
In addition to this service mode, a screen that allows even users to make the setting has been added to the remote UI.
This screen can be also used to disable the integrated authentication function for each authentication protocol.
For details, refer to "Integrated Authentication Function" in this chapter.



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Preparation for Using SSO-H

Outline

When using Single Sign-On H (hereinafter referred to as SSO-H) for the login service, required system environments are different in server authentication or local device authentication.
See the following for system requirements in each of authentication methods:

Server authentication management

The system requirements necessary when using server authentication by SSO-H vary depending on the authentication server.
The system requirements for using each authentication server are shown below.

Active Directory authentication

In order to use Active Directory authentication in SSO-H, the following system environments are required.

1) Authentication server (Active Directory : Windows server)

- Active Directory and Domain Name System (DNS) should be installed.
- A group named "Canon Peripheral Admins" should be created on the Active Directory.
- The OS should be one of the followings.
  - Microsoft Windows Server 2003 SP2 *
  - Microsoft Windows Server 2003 R2 SP2 *
  - Microsoft Windows Server 2008 SP2 *
  - Microsoft Windows Server 2008 R2 SP1

  * 64-bit version is not supported.

2) Users accessing the authentication server (Active Directory: Windows Server)

- The user should belong to the "Canon Peripheral Admins" group on the Active Directory.
- The user name should contain only single-byte alphanumeric characters, - (hyphen), _ (low line), and % (percent).

Note:
The difference in time setting between the authentication server (Active Directory) and the machine (and the computer for login) should be within 5 minutes. (If the difference in time setting is 5 minutes or longer, an error will occur at the time of login for the server authentication.)

Note:
As for the user name for logging into the machine, use the name registered as "User logon name (pre-Windows 2000)" in the Active Directory.

An example of the user registration screen (Windows Server 2003)

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LDAP authentication

When using LDAP authentication by SSO-H, the following conditions need to be satisfied.

1) LDAP server
- Novell eDirectory V8.8 SP6 for Windows
- Lotus Domino V8.5 for Windows

2) OS where the LDAP server runs
- It should comply with the specifications of the LDAP server product.

Operation check has been conducted for the following OS.
- Microsoft Windows Server 2003 Enterprise SP2
- Microsoft Windows Server 2008 Enterprise

Note:
When an LDAP server other than the server shown above is used, SSO-H may not work properly.
Windows Active Directory works also as an LDAP server, but is not supported.

PC Environment of Administrator Users and General Users

The following environment is required to use this machine (managed by SSO-H) from a PC on the network.

OS of the PC and Other Environments

Classification	Operating System	Supported browser	Supported JRE
Client OS	Windows XP Professional SP3	Internet Explorer 7 Internet Explorer 8	JRE 1.5 or later *1 *3
	Windows Vista SP2	Internet Explorer 7 Internet Explorer 8	JRE 1.5 or later *1 *3
		Internet Explorer 9	JRE 1.5 or later *2 *3
	Windows 7 SP1	Internet Explorer 8	JRE 1.5 or later *1 *3
		Internet Explorer 9	JRE 1.5 or later *2 *3
Server OS	Windows Server 2003 SP2 Windows Server 2003 R2 SP2	Internet Explorer 7 Internet Explorer 8	JRE 1.5 or later *1 *3
	Windows Server 2008 SP2	Internet Explorer 7 Internet Explorer 8	JRE 1.5 or later *1 *3
		Internet Explorer 9	JRE 1.5 or later *2 *3
	Windows Server 2008 R2 SP1	Internet Explorer 8	JRE 1.5 or later *1 *3
		Internet Explorer 9	JRE 1.5 or later *2 *3
Mac OS	Mac OS X v10.5	Safari 4.0.5 Safari 5.0.5	J2SE 5.0 *1 *3
	Mac OS X v10.6	Safari 4.0.5 Safari 5.0.5 Safari 5.1	
	Mac OS X v10.7	Safari 5.1	

JRE : Java Runtime Environment
J2SE : Java 2 Platform Standard Edition

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Note:
*1 Excluding JRE6 update4/5
*2 In order to use JRE1.6 with Internet Explorer 9, JRE1.6.0.24 or later is required.
*3 Refer to the website of JAVA (http://java.com/) for how to obtain the Java environment.

Note:
- The ActiveX plug-in should be enabled in Internet Explorer.
- In Internet Explorer, if [Run ActiveX controls and plug-ins] is disabled in [Internet Options] > [Security] > [Custom level...], a warning message that JRE has not yet been installed is displayed.
- JavaScript should be enabled in all the browsers.
- In the case of an IP v6 environment, JRE1.5 or later is required.
- When using Windows XP in an IP v6 environment, IP v6 may need to be installed manually in some cases.

Network ports used

	Port No.	Application
Connecting	53	Communication with DNS server (fixed)
	88	Kerberos authentication with KDC (Key Distribution Center)
	1-65535 (default:389)	Communication with directory service using LDAP (default is 389, may be changed to any port on LDAP service side)
Listening	10000 - 10100	-

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Preparation for Using SMS

To use SMS, a PC and browser used to access SMS are required, and the network settings need to be set up on the device.

Preparation of PC for Accessing SMS

Checking of operation environment

In order to access SMS using password authentication, the PC and browser need to comply with the following system environment.

Combination of the Browser and the OS

Operating System	Supported browser
Windows XP Professional SP3	Microsoft Internet Explorer 7 Microsoft Internet Explorer 8
Windows Vista SP2	Microsoft Internet Explorer 7 Microsoft Internet Explorer 8 Microsoft Internet Explorer 9
Windows 7 SP1	Microsoft Internet Explorer 8 Microsoft Internet Explorer 9
Mac OS X v10.5	Safari 4.0.5 Safari 5.0.5
Mac OS X v10.6	Safari 4.0.5 Safari 5.0.5 Safari 5.1
Mac OS X Lion	Safari 5.1

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In order to access SMS using RLS authentication, the environment should comply with the environment for using SSO-H as the login service. (For details, refer to "PC Environment of Administrator Users and General Users".)

PC and Browser Settings

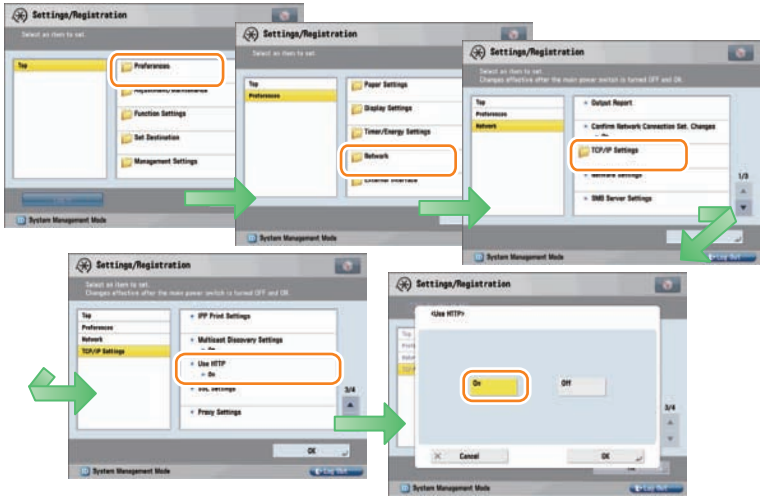
The PC and browser used to access SMS need to satisfy the following conditions.
- The supported browser language should be the same with the language of the OS.
- Java Script should be enabled.
- The supported screen size should be 800 x 600 or larger (recommended size: 1024 x 768).
- Session cookie should be enabled.
- Only alphanumeric characters and some of the symbols ("-" or ".") should be used as the machine domain name and host name.
- If an invalid character string such as a low line ("_") is included in the host name, cookies cannot be enabled.

Settings on the Device Side

Network configuration process

In order to provide support for the machine via network such as SMS, the network settings need to be made from the touch panel of the machine. (this setting is [ON] by default).

1) Press [Settings/Registration] button, select [Preferences] > [Network] > [TCP/IP Settings] > [Use HTTP] and press [On] button.



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Note:
In iR-ADV series, the System Manager ID and the System PIN are configured by default, so “Network” and the items that follow are grayed out and cannot be selected. Return to the top screen, press “Login” button at the lower left of the screen, login as the system manager, and configure the settings.
The default setting for the System Manager ID is “7654321”, and the password is” 7654321”.

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Note:
When using SSL, press [Settings/ Registration] button, select [Management Settings]>[License / Other] > [MEAP Settings] > [SSL Settings] and press [On] button. (This setting is applied to SSL setting on RUI. Vice versa, [On] set for SSL on RUI is also applied to the touch panel.)
When [Use SSL] is set to On, the message dialog, [The Default Key is not set. Check the Key and Certificate List settings in Certificate Setting.], is shown. Press [OK] button for this message.

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2) Press [OK] button to return to Main Menu screen.
3) Restart this device.

CAUTION:

- The setting [Use HTTP] is not actually enabled/disabled until you have restarted the device.
- You cannot make a connection through a proxy server. If a proxy server is in use, enter the IP address of the MEAP device in the Exceptions field for the browser. Open Internet Options dialog of Internet Explorer and select Connections tab, LAN Settings button, Use a proxy server option, and Advanced button of Proxy server group. Proxy Settings dialog will opens. The Exceptions field is in the dialog. As network settings vary among environments, consult the network administrator.
- If Cookie and JavaScript are not enabled in the Web browser, you will not be able to use SMS.
- To type text using the Web browser, use the characters compatible with the MEAP device’s touch panel display. The MEAP device may not properly recognize some characters.
- When [Use SSL] is made available, it is necessary to set the key and the certificate necessary for the SSL communication. Set the key and the certificate by SSL with [SSL Settings] that exists in [Preferences] > [Network] > [TCP/IP Settings] > [SSL Settings] on the iR device.

Key Pair and Server Certificate when Using Encrypted SSL Communication

To use SMS via SSL connection, it is required to specify a key pair and server certificate as the key to be used.

Since a key (default key) that can be used for encrypted SSL communication is installed as standard on the device, advance setting of the key pair and server certificate is not required.

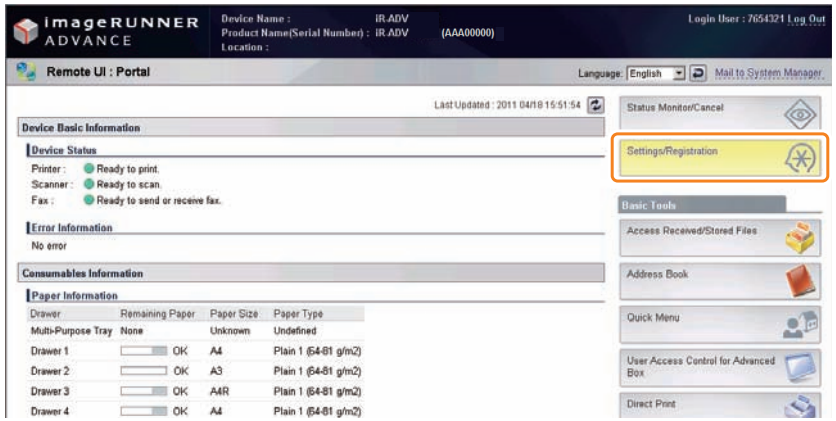
In order to use an encryption key other than the default key, follow the procedure "Generating a key pair" shown below to make settings for the key pair and server certificate necessary for encrypted SSL communication.

Note:
- MFP has a server certificate registered as standard.
- For detailed procedures of the Default Key setting, refer to [e-Manual > Security].
- As for SMS, by setting a Default Key, encrypted SSL communication is always executed regardless of the following setting: [Settings/Registration] > [Management Settings] (Settings/Registration) > [MEAP Settings] > [SSL Settings]: ON/OFF.

Generating a key pair

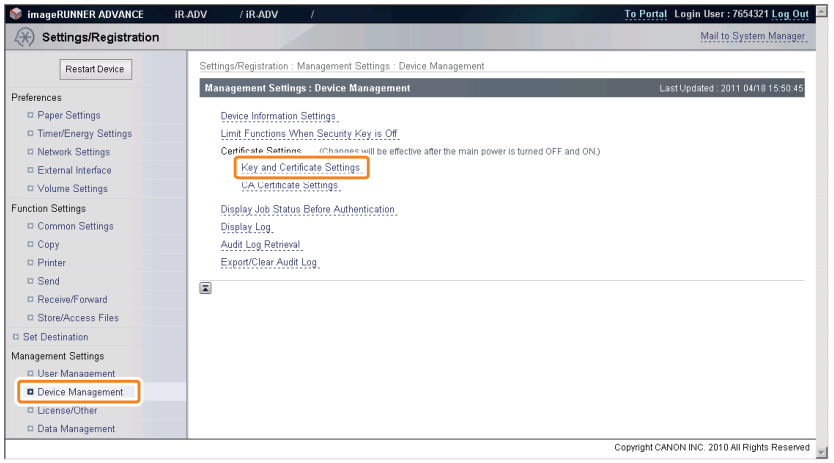
1) From a PC on the same network as the device, use a web browser to access the remote UI's portal page. Then, select [Settings/Registration] from the menu on the right side of the screen.

URL to access: http://<device's IP address>:8000/



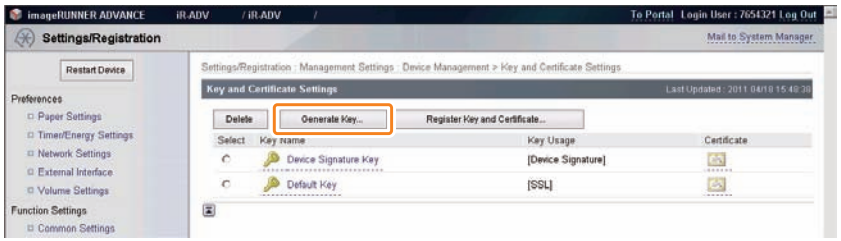
F-2-219

2) Click [Management Settings] > [Device Management] > [Certificate Settings] > [Key and Certificate Settings].



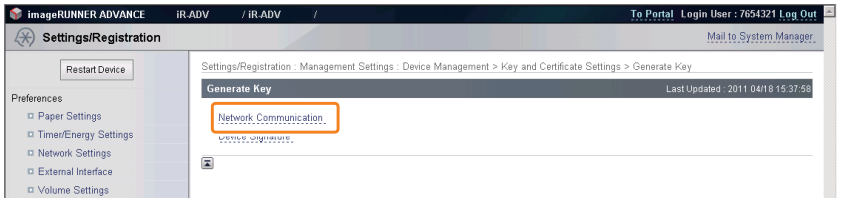
F-2-220

3) Click [Generate Key...] button.



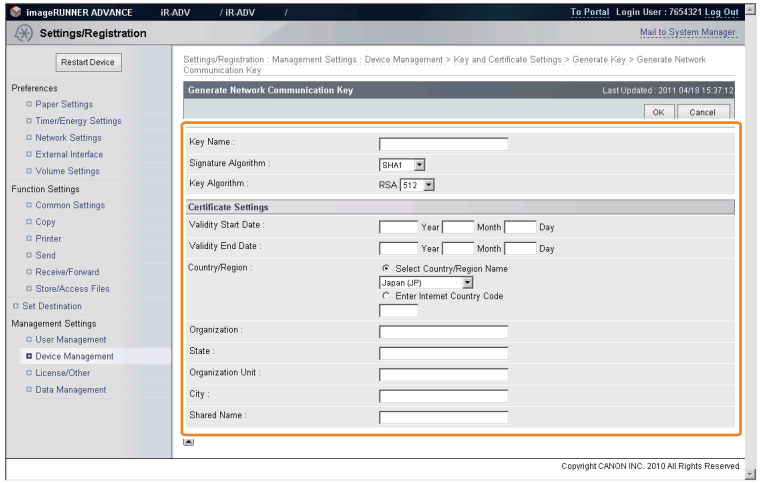
F-2-221

4) Click [Network Communication]



F-2-222

5) Enter the necessary information, and then click the [OK] button.



F-2-223

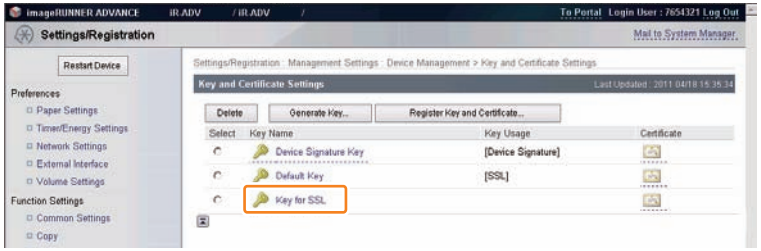
Input example

Item name	Type	Content	Entry
Key Settings			
Key Name	Compulsory	An arbitrary character string	Default Key
Signature Algorithm	Compulsory	Selected from:SHA1/SHA256/SHA384/SHA512	RSA
Key Algorithm	Compulsory	Selected from:512/1024/2048/4096	512
Certificate Settings			
Validity Start Date	Compulsory	Date	15/4/2012
Validity End Date	Compulsory	Date	15/4/2036
Country/Region	Compulsory	Country or region name	US
State	Arbitrary	State name	-
City	Arbitrary	City name	-
Organization	Arbitrary	Organization name	-
Organization Unit	Arbitrary	Organization unit	-
Common Name	Arbitrary	Common Name*	-

T-2-100

Note:
When the IP address of the device has been entered in the [Common Name] entry field, if you install a server certificate to the browser (see "Installing a server certificate (reference information)"), the message "Certificate Error" that usually appears when access is made from Internet Explorer 7 or later will not be displayed.

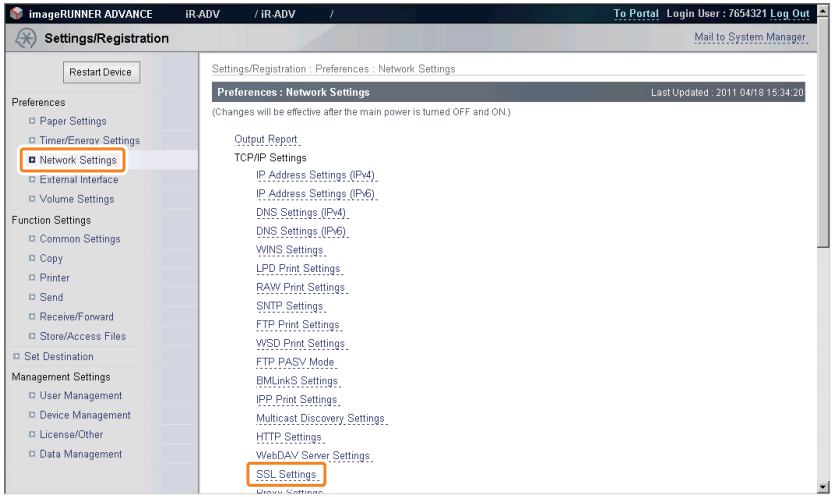
6) Check to see that the generated key appears in [Registered Key and Certificate].



F-2-224

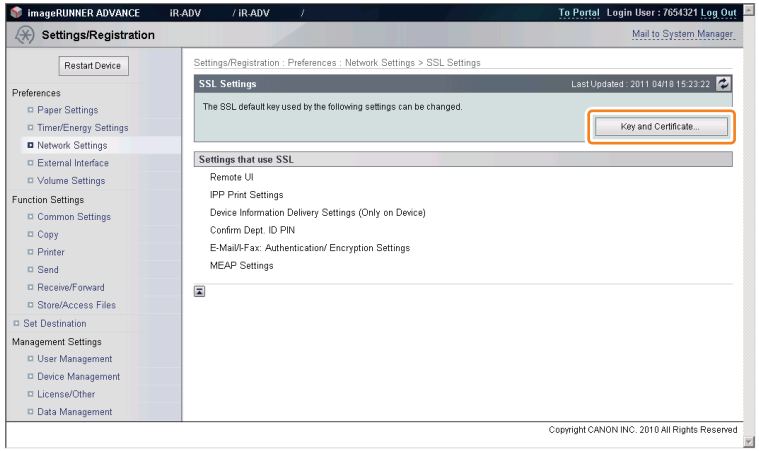
Default Key Settings

1) Click [Preferences] > [Network Settings] > [TCP/IP Settings] > [SSL Settings].



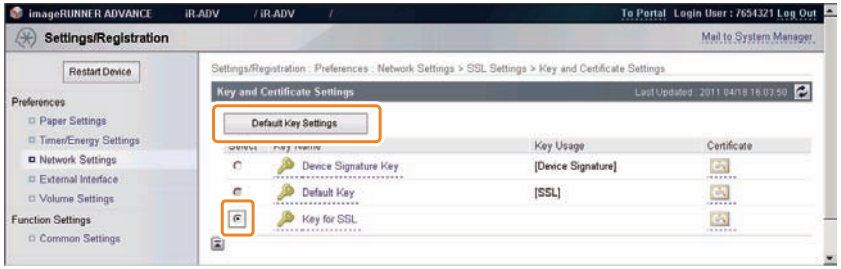
F-2-225

2) Click [Key and Certificate...] button.



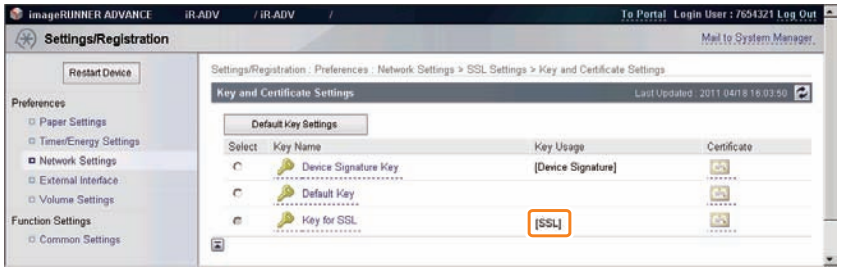
F-2-226

3) Select the generated key, and then click the [Default Key Settings] button.



F-2-227

4) Check that [SSL] is displayed in the [Key Usage] entry field.



F-2-228

5) Log out from the remote UI, and then restart the device.

Installing a server certificate (reference information)

When you access a device where the key installed as standard [default key] is set as the key for SSL, "Certificate Error" appears if the version of Internet Explorer (IE) is Version 7 or later.

Error display example

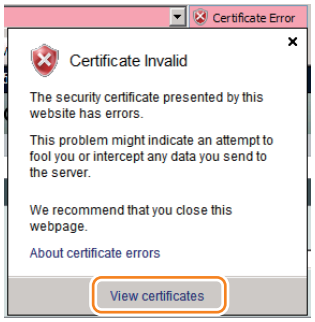
F-2-229

To disable display of "Certificate Error", use the following procedure (for IE8) to set the key generated in "Key Pair and Server Certificate when Using Encrypted SSL Communication" (i.e. the key with the IP address of the device specified as the shared name) as an SSL key.

1) Access SMS from the browser, and then click "Certificate Error" in the URL entry field.

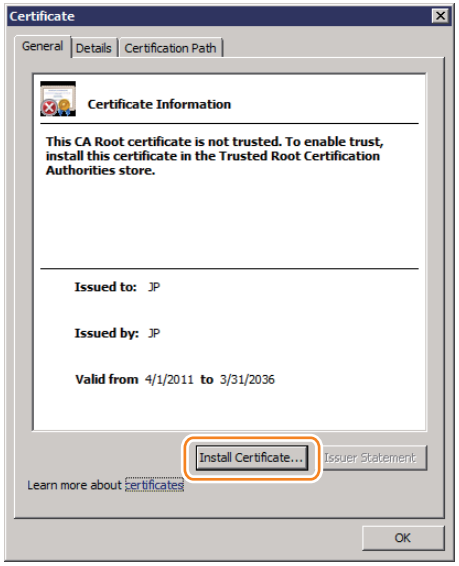
F-2-230

2) Click [View certificates].



F-2-231

3) Click the [Install Certificate...] button on the [General] tab.

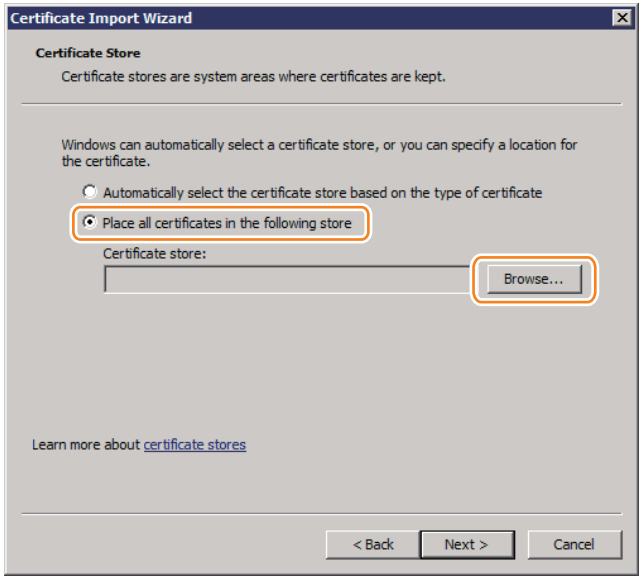


F-2-232

4) [Certificate Import Wizard] will appear. Click the [Next] button.

F-2-233

5) In [Certificate Store], select the [Place all certificates in the following store] option, and then click the [Browse] button.

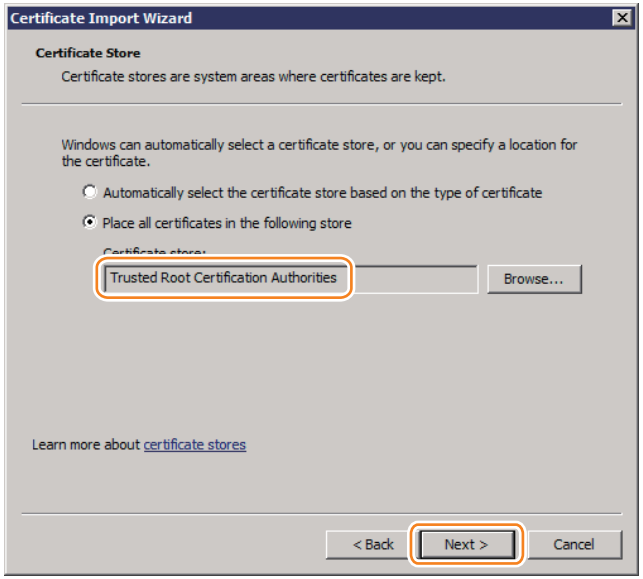


F-2-234

6) In [Select Certificate Store], select [Trusted Root Certification Authorities], and then click the [OK] button.

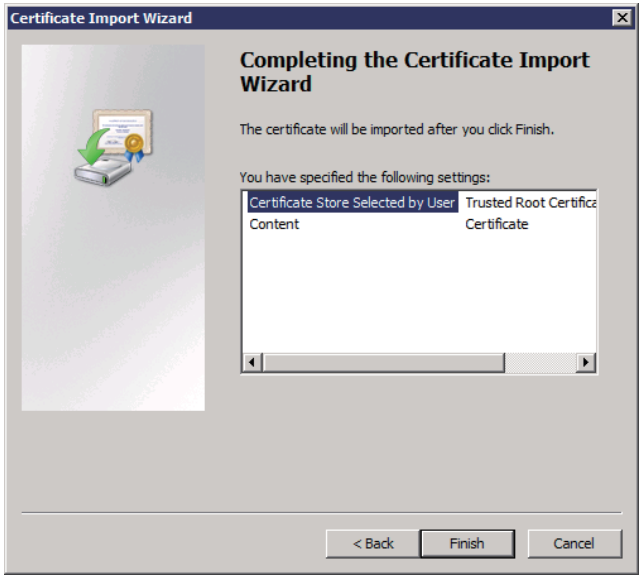
F-2-235

7) You will return to the [Certificate Store] dialog. Check that "Trusted Root Certification Authorities" appears in [Certificate], and then click the [Next] button.



F-2-236

8) [Completing the Certificate Import Wizard] will appear. Click the [Finish] button.

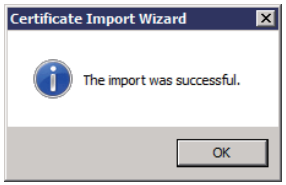


F-2-237

9) If the [Security Warning] appears, click the [Yes] button. (It does not appear when installing the same certificate again.)

F-2-238

10) A message will appear to indicate that import has been completed successfully. Click the [OK] button.

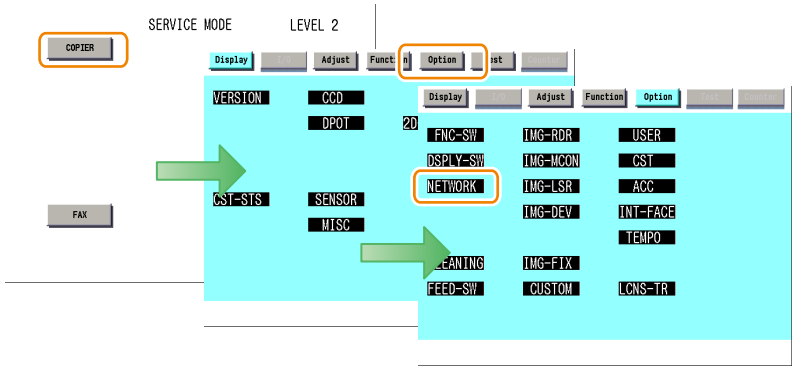


F-2-239

Network Port Settings

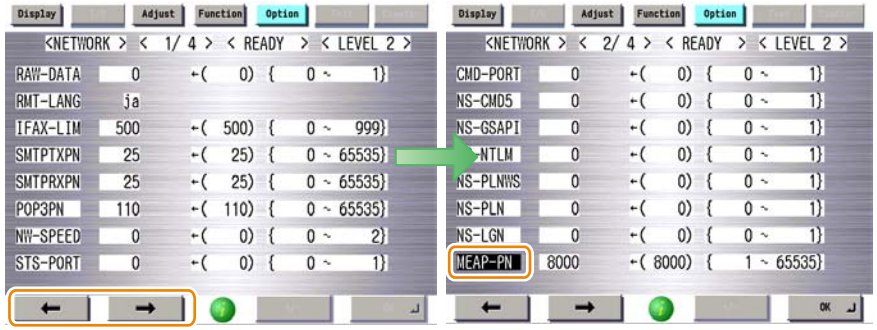
The default port of the HTTP server used for MEAP and MEAP applications to provide the servlet function is 8000, and the HTTPS server's default port is 8443. In the case that these ports have already used by the customer who is to introduce this application, the MEAP application cannot use the HTTP (or HTTPS) server(s).
By changing the following ports to use, however, the MEAP application can be used as well as the existing system.

1) Start [SERVICE MODE] in Level 2.
2) Press [COPIER] > [Option] > [NETWORK] buttons.



F-2-240

3) To set up the HTTP server port, select [MEAP-PN]. To set up the HTTPS server port, select [MEAP-SSL].



F-2-241

4) Press the port number to specify on the control panel (the numerical value input in the field is displayed), and press [OK] button.

F-2-242

> Note:
> A port number can be any integer from 0 to 65535. To avoid port numbers that are frequently used, do not use any integer from 0 to 1023.

Server	Setting value	Default value / Value after RAM clear
HTTP Server	1024 to 65535	8000
HTTPS Server	1024 to 65535	8443

T-2-101

> Note:
> If PS Print Server Unit is connected, do not specify port 8080.
> If port 8080 is specified, it is not possible to access the remote UI of the device where the MEAP authentication application is running. (Port 8080 is reserved to allow the PS Print Server Unit to redirect to the iR device.)

5) Restart the device if the port number is set.

F-2-243

How to Check the Serial Number

When performing MEAP device support, the serial number of the device is necessary in some cases.

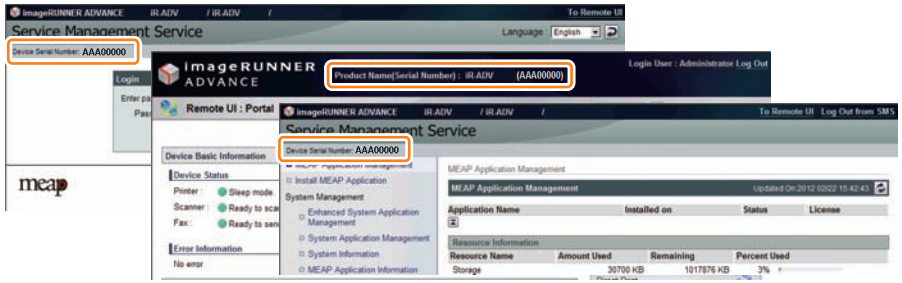
Examples of where the serial number is necessary

- When initializing SMS login password (obtaining a switch license)
- When obtaining a MEAP application license from LMS
- When obtaining a transfer license of MEAP application
- When obtaining a special license for reinstalling MEAP application

If a problem occurs in the MEAP device and you want to contact the support department of the sales company, you need to provide the serial number. Perform the following procedure to get the serial number.

Checking from the PC browser

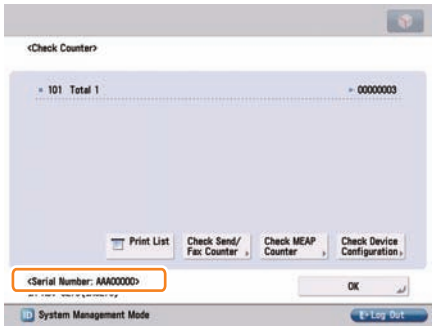
The serial number of the device is displayed on the SMS login screen, SMS screen, and remote UI portal screen.



F-2-244

Checking from the device's Touch Panel

You can see the number by pressing the counter key on the Control Panel of the machine.



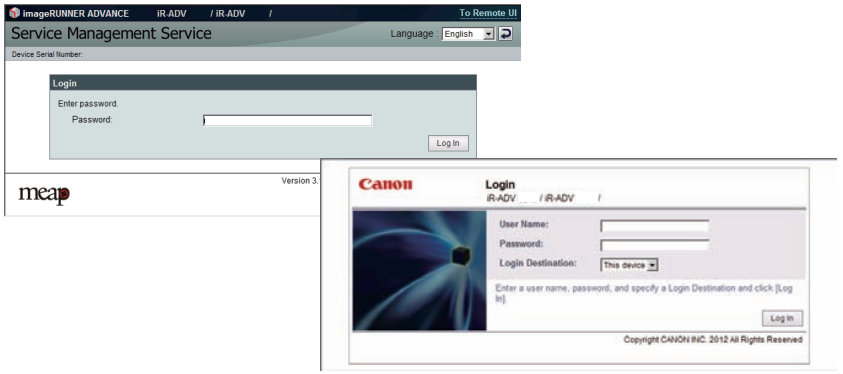
F-2-245

Login to SMS

Outline

SMS login may be done by entering a password for authentication, or by authentication via the Remote Login Service (RLS) login window (RLS authentication). Settings can be changed to allow either only one of these methods or both of them.

SMS login window (password auth) RLS login window (user name/ password auth)



F-2-246

Login method	Authentication method	Authentication service name	Users who may log in
Password authentication	Password authentication	SMS Installer Service (Password Authentication)	Users who know the SMS login password
RLS login	SSO-H	SMS Installer Service (Remote Login Service Authentication)	Users registered as administrators with SSO-H

T-2-102

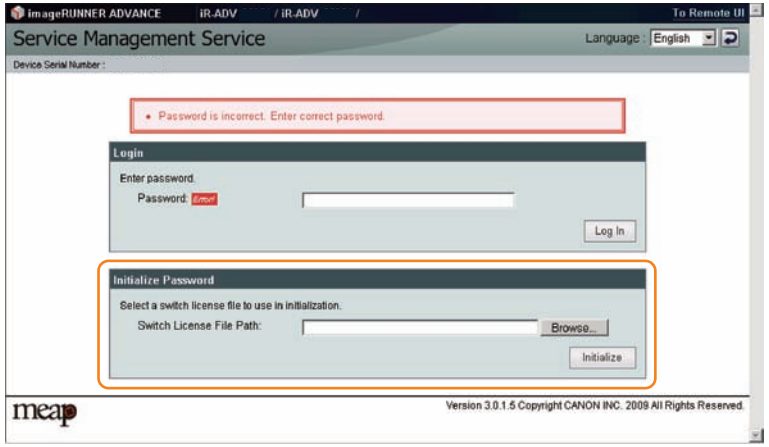
Note:
If Default Authentication is selected as the device authentication method, 'RLS Authentication' is not selectable as SMS Login method. Also, if 'RLS Authentication' is selected, the device authentication method (Default Authentication, SDL, SSO) cannot be changed.

■ When SMS Cannot Be Accessed

● If you forgot the password (SMS login password initialization)

After changing the default SMS login password, if you forgot the new password and cannot log in to SMS, you can use a switch license for password initialization to change the password back to the default value "MeapSmsLogin".
Note that there is no special password for service.

1) Obtain a switch license file for password initialization.
   Contact the person in charge of support at the sales company, give the device's serial number, and have a switch license file for password initialization issued.
2) Load the switch license file.
   With nothing entered, click the [Log in] button to display the area for specifying a switch license file for password initialization.



F-2-247

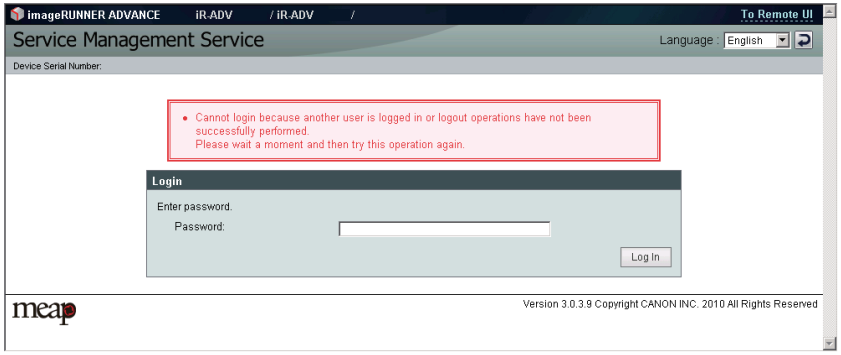
3) Specify the switch license file.
   Click the [Browse] button and specify the switch license file.
4) Initialize the login password.
   Click the [Initialize] button to display an initialization confirmation page, and click the [OK] button.

> Note:
> - The default password is “MeapSmsLogin.” (The password is case-sensitive.)
> - If you click [Cancel] button, the Login page opens without initializing the password.

● If login is not possible due to exclusive control

Since access to SMS is under exclusive control, you cannot log in if another user has already logged into the SMS of the same iR device.

An example of the exclusive control message



F-2-248

If you cannot log in due to exclusive control, you need to ask the other user to log out before you can try again.

> Note:
> If you close the browser without logging out, the session remains active. In that case, you cannot log in again.
> If this problem occurs, you can wait for 5 minutes so that the session is disconnected.
> Or, you can restart the device to force the session to disconnect.

If [Key and Certificate Settings] is not set

If [Key and Certificate Settings] is not set correctly, you cannot access the URL for SMS (https://<device's IP address>:8443/sms/). In that case, perform the following procedure.

1) Go to http://<device's IP address>:8000/sms/, and check to see that "HTTP 500 Internal Server Error" appears.
2) If it appears, perform the procedure "Key Pair and Server Certificate when Using Encrypted SSL Communication" in this chapter.

> Note:
> In the case of SMS, by setting the key to be used, encrypted SSL communication is always executed regardless of the following setting: [Settings/Registration] > ［Management Settings］ > ［License/Other］ > ［MEAP Settings］ > [Use SSL] > ON/OFF.

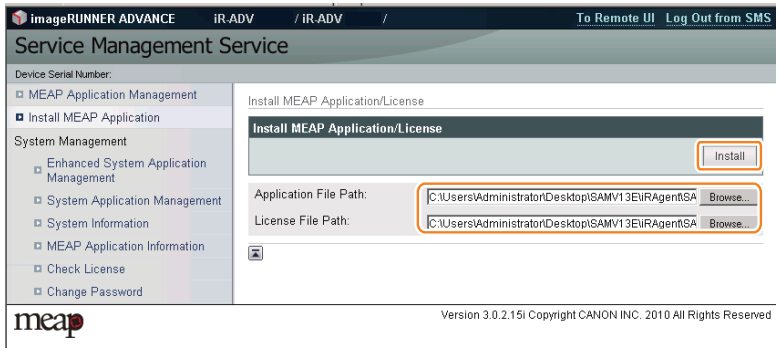
How to Deal with a Message "Certificate Error" That Appears at the Time of Access

When accessing from the browser to SMS, a message "Certificate Error" appears in some cases. In that case, perform the procedure "Installing a server certificate (reference information)" in this chapter.

Installing an MEAP Application

Outline

From the MEAP application installation screen, you can install the MEAP application as well as the license file.



F-2-249

Before installing the MEAP application, be sure to check the following items.

Device compatibility with the MEAP application

To find out whether the device is compatible with the MEAP application, check the devices supported by the MEAP application. Depending on the application, the device's firmware may require version upgrade.

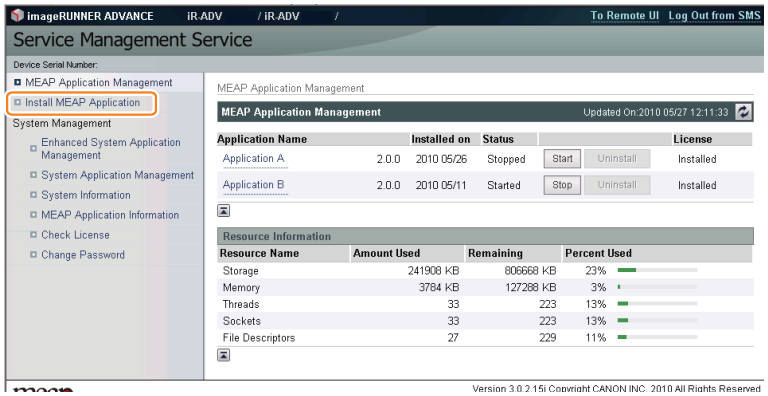
Resources availability (remaining amount)

The necessary resources (free storage space and free memory available) must be secured for an MEAP application to run; otherwise, you cannot install the MEAP application.
To check the resource information, see "Device's resources" in this manual.

Procedure to install applications

1) Long on to SMS.

2) Click [Install MEAP Application] on the menu.

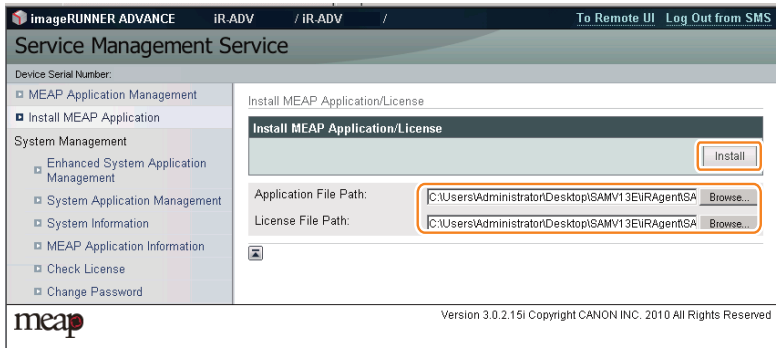


F-2-250

3) Check [Install MEAP Application/License]page appears.

4) Click [Browse..] button, and select the application file and the license file of the application; then, click [Install] button.

Note:
Application File: identified by the extension “jar”.
License File: identified by the extension “lic”.



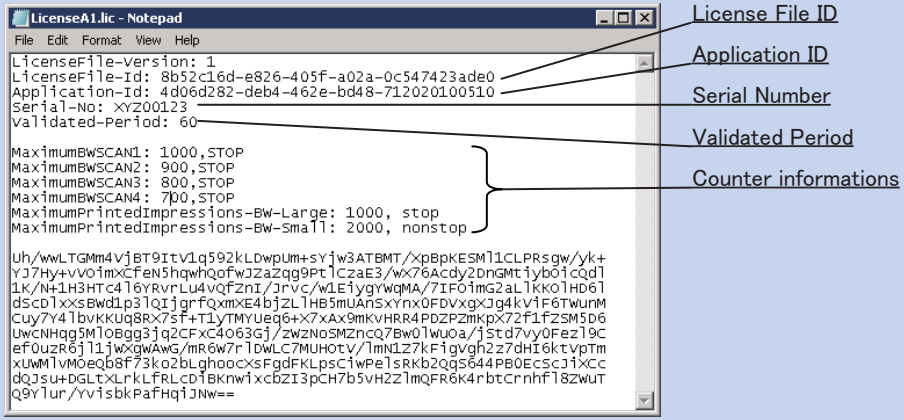
F-2-251

CAUTION:

- You cannot install only the license.
- You will not be able to install the application without using the appropriate license. Be sure to select its license file.
- If you are adding a license to an existing application, see "Procedure adding a license file".
- If you are updating an existing application, stop the application; then, install the new application or its license file. You will not be able to update an application while it is running.

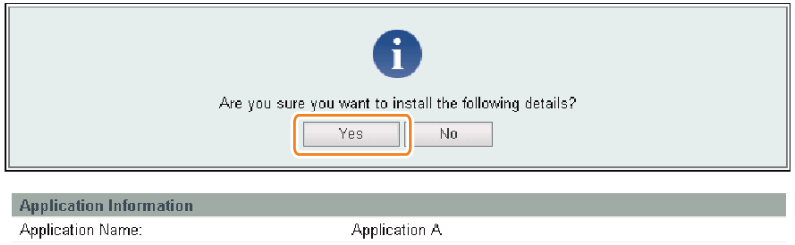
Note:
The license file is provided in text file format, enabling to view in a text editor. The application ID and device serial number shown in the file allow users to confirm which device to install with the license file.
Note that any changes added to the license file may disable installation. Cares should be taken when confirming the contents of the license file.

Sample file



F-2-252

5) Check the contents of the Confirm page; then, click [OK] button.



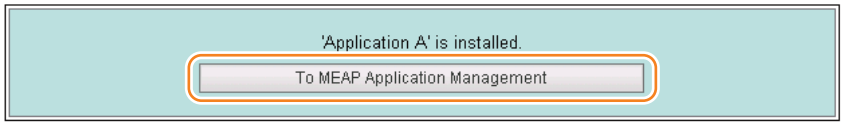
F-2-253

6) Some applications show a screen to indicate the terms of agreement. Read the terms, and click [OK].

7) Check the message "Installing...Please wait." appears, beginning the installation.

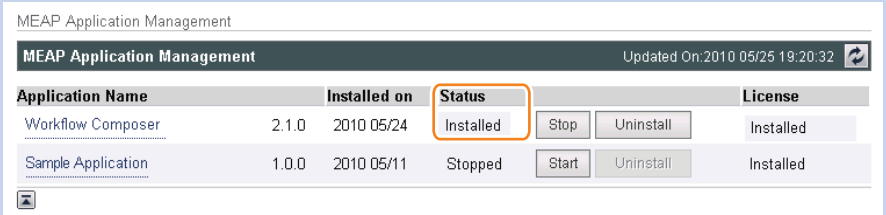
F-2-254

8) Upon installation completed, click [To MEAP Application Management] button shown on the screen to view MEAP Application Management page.



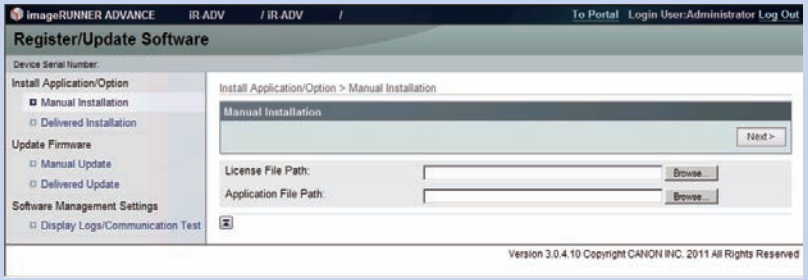
F-2-255

Note:
As for an application that has just been installed, the status is "Installed". In order to use the application, it is necessary to click the [Start] button to change the status to [Started].



F-2-256

Note:
There are two ways to install an MEAP application. You can install using SMS, or install using the [Register/Update Software] screen of the remote UI.
Screen example



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[Register/Update Software] provides two types of installations. One is [Manual Installation] where you specify a jar file and a license file and then install. The other is [Delivered Installation] where you enter a license access number.
For details of the procedures, please refer to the e-Manual.

Resource Information

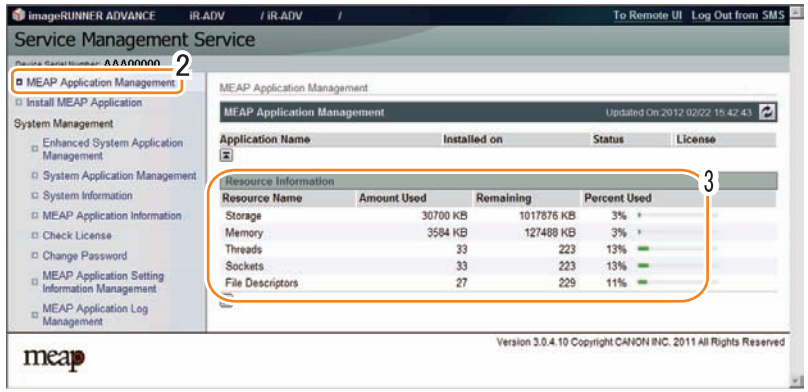
Outline

Application Management page shows [resource information] for information of the whole device resources including Amount Used, Remaining, and Percent Used.
This function enables users to judge the remaining resources before installing the additional application. Such resource information is shown based on the manifest header stated at the top of each application, which declares the resources required in the application. Therefore, the information does not necessarily show the resources actually in use.
The following resource information is shown:

- Storage
- Memory
- Thread
- Socket
- File Descriptor

If the hard disk does not have enough free space for the application, the application cannot be installed.
Moreover, if the free space of any of the resources (Memory, Thread, Socket, and File Descriptor) is insufficient, the application cannot be started.
The following procedure shows how to check the resource information.

1) Log in to SMS.
2) Click [MEAP Application Management].
3) Check [Resource Information] for information of the whole device resources.



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Device's resources

When 1 MEAP application operates, the resource volume allocated to each device is as follows (loaded resource list). Since the following value is an estimate, when installing the MEAP applications, it needs to check the available resource of SMS.
Since the indication of SMS resource volume fluctuates by the login service (authentication function) and configuration (future model), which the user selected, it may show a bigger value than the following values.

List of Available Resources

Product Name		Storage	Memory	Thread	Socket	File Description
iR-ADV C5051 series		1024MB	128MB	256	256	256
iR-ADV C9075 series		1024MB	128MB	256	256	256
iR-ADV 6075 series		1024MB	128MB	256	256	256
iR-ADV 8105 PRO series		1024MB	128MB	256	256	256
iR-ADV C2030/C2020 series	Flash model	220MB	32MB	162	128	128
	HDD model	1024MB	128MB	256	256	256
iR-ADV 4045 series		1024MB	128MB	256	256	256
iR-ADV C5255 series		1024MB	128MB	256	256	256
iR-ADV C9280 PRO series		1024MB	128MB	256	256	256
iR-ADV 6275 series		1024MB	128MB	256	256	256
iR-ADV 8205 PRO series		1024MB	128MB	256	256	256

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Note:
- Among the resources, the free space of Storage is checked when installing an application. For other resources, the free space is checked when the application is started.
- Some applications call for a specific set of conditions for installation. For details, see the User's Guide that comes with the individual applications.
- Maximum installable application is up to 20 even if the remaining resource is adequate. (However, the Send function consumes 1, it must be 19 in practice.) Authentication application is not included in this number.
- The MEAP application, which can be started simultaneously, is up to 19. (Authentication application is not included in this number.)

CAUTION:
To install an application, the user needs to use the following URL when accessing the license control system to obtain a license file. In doing so, he/she needs to register the license access number of the application and the serial number of the device.

http://www.canon.com/lms/license/

MEAP Specifications

What is MEAP Specifications (MEAP Spec Version)?

MEAP Specifications is one of the information required to judge whether MEAP applications can be operated or not. With MEAP Specifications, you can prevent an application that uses a specific function of device from being installed onto the device that does not have the function.

About Name

The displayed name for Meap Specifications differs depending on the screen or the location where the name is displayed.
In this document, it is referred to as "Meap Specifications".

The location where the name is displayed/shown	Displayed name
Platform Information : SMS > [System Management] > [System Information] > [Platform Information]	MEAP Specifications
System Information Print : Local UI [Settings/Registration] > [Management Settings] > [License/Other] > [MEAP Settings] > [System Information Print]	
Manifest file of the MEAP application	MeapSpecVersion
SDK documents	

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Mechanism

MEAP platform judges whether MEAP applications can be operated on it using on the 2 information below:

- Device Specification ID
- MEAP Specifications

Device Specification ID shows information such as the original functions of MFP (including print, scan, and copy), and one that differs by model such as maximum copy number, thus each model has a different ID. (It is easy to determine the IDs for this reason.) MEAP application declares 1 or more Device Specification ID required for its execution. Declaration of multiple Device Specification IDs means that the application is operable in all the models declared. Upon installation of MEAP application in (using) SMS or MEAP Enterprise Service Manager, matching of Device Specification ID is executed on the side of MEAP platform machine. The machine which doesn't support the ID declared by the application rejects installation of such an application.
Meanwhile, MEAP Specifications shows other information than defined by Device Specification ID above, including network and security. Thus each model does not always have the same version.
MEAP application declares 1 or more MEAP Specifications required for its execution.
Declaration of multiple Device Specification IDs means that the application is operable in all the environments declared. Upon installation of MEAP application in SMS or MEAP Enterprise Service Manager, matching of MEAP Specifications is executed on the side of MEAP platform machine. The machine which doesn't support the version declared by the application rejects installation of such an application.

MEAP Specifications for each model

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV C5051 iR-ADV C5045 iR-ADV C5035 iR-ADV C5030	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45	Ver.37.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46 Ver.38.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 49 Ver.50.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59 Ver.65.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV C9075 iR-ADV C9070 iR-ADV C9065 iR-ADV C9060 iR-ADV C7065 iR-ADV C7055	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45	Ver.37.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46 Ver.38.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 49 Ver.50.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59 Ver.65.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV 6075 iR-ADV 6065 iR-ADV 6055	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49	Ver.20.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59 Ver.42.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV 8105 PRO iR-ADV 8095 PRO iR-ADV 8085 PRO	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49	Ver.20.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 1, 32, 33, 34, 35, 36, 37, 38, 39, 40 , 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59 Ver.42.xxor later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25 ,26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV C2030 iR-ADV C2025 iR-ADV C2020	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49	Ver.10.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19,25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 53 Ver.32.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 53, 74
iR-ADV 4045 iR-ADV 4035 iR-ADV 4025	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59	Ver.11.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV C5255 iR-ADV C5250 iR-ADV C5240 iR-ADV C5235	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 68, 69, 70, 71, 72, 74, 78, 80	-

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV C9280 PRO iR-ADV C9270 PRO iR-ADV C7280 iR-ADV C7270 iR-ADV C7260	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45,46,47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 68, 69, 70, 71, 72 ,74 ,78 ,80 ,82	-
iR-ADV 6275 iR-ADV 6265 iR-ADV 6255	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 69, 70, 72, 74, 78, 79, 80, 82	-
iR-ADV 8205 PRO iR-ADV 8295 PRO iR-ADV 8285 PRO	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 69, 70, 72, 74, 78, 79, 80, 82	-

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MEAP Specifications List

Ver	Description
1	MEAP basic function
2	MEAP Spec Version 1 function and SSL/TSL + Proxy
5	MEAP Spec Version 1 function and CPCA V2 + ERS (Error Recovery Service) + New SSL/TSL
6	Reserved
7	MEAP Spec Version 5 function and Compact PDF + OCR PDF (Text Searchable) + USB Host (Buffering of Interrupt Transfer)
9	Reserved
10	MEAP Spec Version 5 function and USB-Host (Exception + Clear Feature + Set Feature+ Hot Plug) + WINS address acquisition using MIB Agent + Timer Service + SSL client authentication
11	MEAP Spec Version 5 function and AMS
13	MEAP Spec Version 5 function and J2ME1.1 Support + Encrypted PDF + Trace and smooth PDF + CTK2.0
14	Device signature PDF
15	IMI + ERS (API addition for IMI) , IPv6, Extended encryption function (AES/RC4)
17	Acquiring images of JBIG format
18	Parsing XML documents (XML parser)
19	Enhancement of IMI function (IMI Version1.2 series)
21	Reserved
25	API to access the HID/Mass Storage class devices.
26	MEAP driver preference function
27	Symbols that can be used with MibAgent added. (symbols for IPv6 address acquisition)
29	IMI API added (IMI version 1.2.1 enabled)
30	Extended address book function. (e-mail/group/i-FAX/file)
31	Integrated ERS function
32	Extended Imaging function (function to generate PDF/OOXML (PowerPoint) with visible signature)
33	Extended function for imageRUNNER / iR ADVANCE series (API for address book/ CTK/ TopMenu)
34	Extended IMI Box function (v1.3.0)

Ver	Description
35	Extended SIS function (function to check the network cable status, function to check PS print server unit status)
36	Reserved
37	CLS (Contextual Login Service) Supporting API Added
38	imageRUNNER / iR ADVANCE Series administrative privileges supported
39	MEAP Specifications added according to Jcrypto API Specification Change
40	ImagingAPI (Creation API of Visible Signature PDF) added
41	Reserved
42	Reserved
44	imageRUNNER / iR ADVANCE Series Remote Address Book Supported, RemoteFAX Supported
45	Addition of API that allows acquisition of the HID installation status
46	Multilingualization of the USB keyboard of the System Driver
47	Addition of API which executes a print order from the MEAP application of the IMI encryption PDF document
48	ID expressing the scan function for iR-ADV C2030/C2025/C2020 series
49	Reserved
50	SecurityOptionalPackage
51	IMI function expansion of iR-ADV C5051 series (Ver.50.xx or later) or later
52	(iR-ADV C5051 series (Ver.50.xx or later)) Addition of registered API to enable SSL communication setting (On/Off) for each URL
53	Disclosure of registration/deletion function to/from Quick Menu
54	Function to notify an event to the application at recovery from the sleep mode.
55	System account release function
56	MEAP User Preference Service
57	MEAP Application Configuration Service
58	MEAP Application Log Service
59	Integrated authentication service

Ver	Description
60	SFP basic functions
61	AVS (Lightweight Applet Viewer Service) for LBP
62	SIS (Lightweight System Interface Service) for LBP
63	LDT
64	IMI customization
65	Extension of MEAP User Preference Service (Ver56) (preference shared among applications)
66	Reserved
68	Addition of Office Open XML's Word creation API
69	Extension of the encryption PDF function (AES 128-bit/256-bit)
70	Addition of 3 formats (uncompressed searchable PDF, XPS, and linearized searchable PDF)
71	Reserved
72	Reserved
73	IMI: API that supports A4 scanners and allows for specifying of the direction of the original image
74	SSL: Support for addition of the CN validation function
75	Reserved
76	Addition of the SFP ExtendedTextInputView class
77	Reserved
78	Reserved
79	Reserved
80	Reserved
81	Reserved
82	API to recover from Sleep 1

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MEAP Application Management

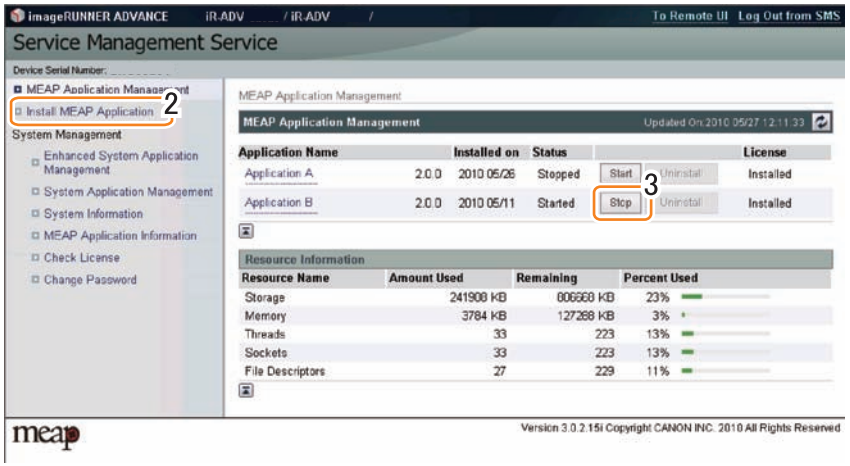
Outline

You can use the MEAP application management screen to perform basic management tasks of the MEAP application (start, stop, uninstall), or check the device's resource information.

Starting, Stopping, or Uninstalling the MEAP Application

Procedure to start and stop a MEAP application

1) Log in to the SMS. (Refer to "Login to SMS" in this manual.)
2) Click [Application List]. (If the Application List is already being displayed, this operation is not necessary.)
3) Click [Start] or [Stop] button shown for the MEAP application to be started or stopped.



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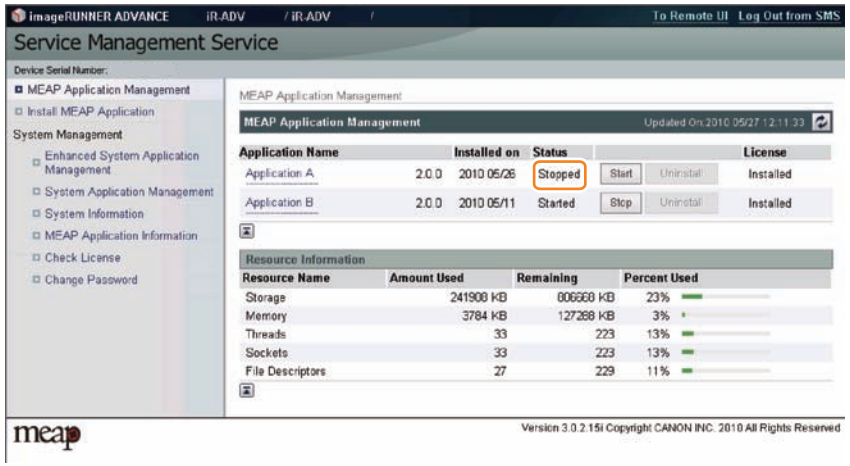
4) Check to see that the status of the MEAP application in question is either [Started] or [Stopped].



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If the MEAP application cannot be started

If the conditions to start the MEAP application are not satisfied, the MEAP application cannot be started.

If the MEAP application cannot be started, check the following items.

Is a valid license installed?

If the license has expired, you cannot start the application. If the license has already expired, obtain a new license and then update the license. (See "Managing the License File" in this manual.)

Are the necessary resources available?

If the resources such as memory capacity or number of threads are not sufficient, the application also cannot be started.

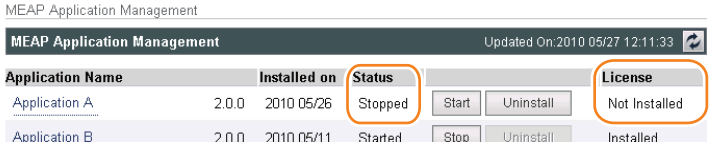
Delete any unnecessary data to secure sufficient resources.

If the application still cannot be started after checking the foregoing conditions, contact the support department of the sales company.

Procedure to uninstall the MEAP application

Before uninstalling the MEAP application, check that the following conditions are met.

- The MEAP application has stopped.
- The license has been disabled or deleted. (The status is "Not Installed".)



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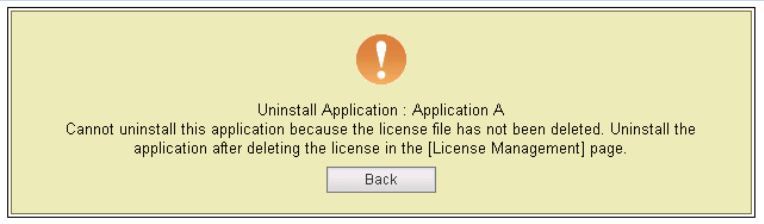
For information on the procedure to stop the MEAP application, see the previous section "Procedure to start and stop a MEAP application".

For information on the procedure to delete the license file, see the following section "Managing the License File".

Note:
When a user tries to uninstall an application before deleting the license, the following message is shown.



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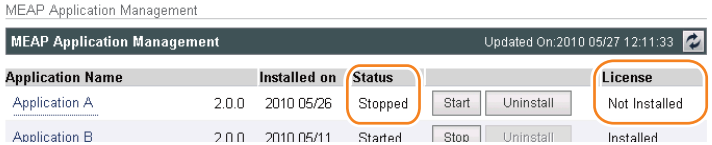
If the license file of the selected application cannot be deleted, the [Uninstall] button is grayed out and therefore the application cannot be uninstalled.

CAUTION:

If the application you are uninstalling is associated with another application, a message will appear to indicate that the package exported by the application will no loner be available. Uninstalling such an application may also disable its associated applications.

1) Log in to SMS to click [MEAP Application Management] on the menu.
2) Check that the status of the application you want to uninstall is [Stop] and the license has been disabled. (The status is "Not Installed".)



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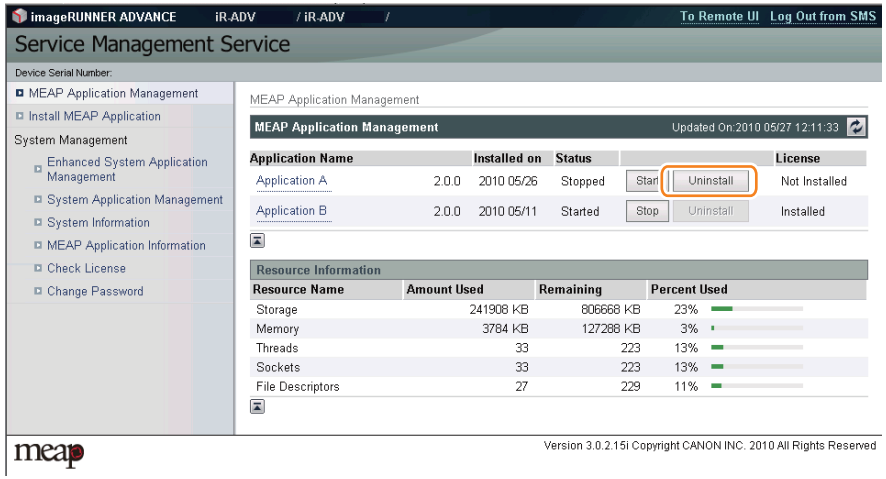
3) Click [Uninstall] button for the application to be uninstalled.



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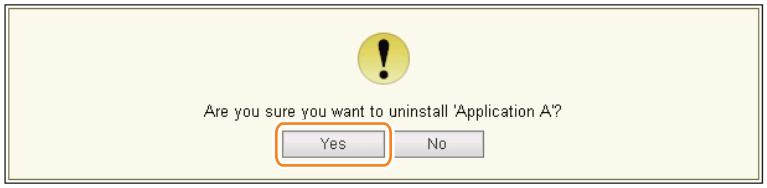
4) Check the application name to be uninstalled shown on the screen to click [Yes] button. Upon [Yes] button clicked, uninstallation process is started.



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Managing the License File

Outline

The license file management functions allow you to perform the following operations related to the license file necessary for the MEAP application to run.

- Update the license which has already expired.
- Disable or delete the license file in order to uninstall the MEAP application.

These license management functions can be performed from the [MEAP Application Management] screen.
The main license management functions are as follows:

Adding a license

When the license has expired, you can add a license file.

Disabling a License File

Before uninstalling the MEAP application, the license needs to be deleted. In that case, you must first disable the license file because a license file which has not been disabled cannot be downloaded or deleted.

Downloading / Removing an Invalidated License File

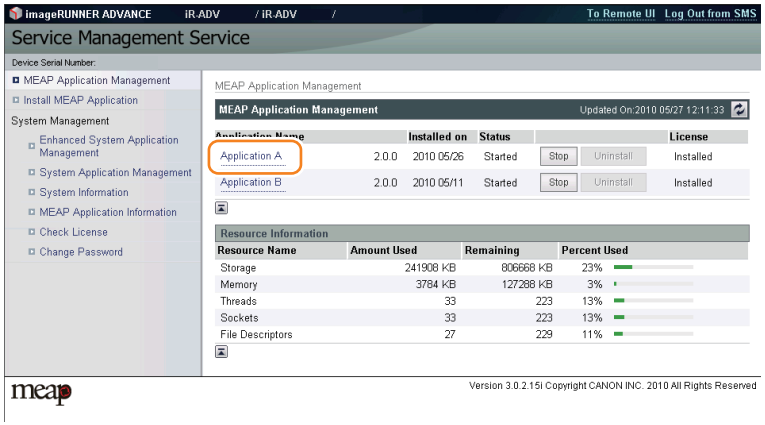
Before uninstalling the MEAP application, you need to delete its license file which has already been disabled.
By downloading the license file to your PC before it is deleted, you can use it when installing the application again to the same device.

WARNING:
After deleting the license file which has been disabled, you can no longer download the license file.

Procedure adding a license file

1) Log on to SMS.

2) On MEAP Application Management, click the name of the application to which you want to add a license file.



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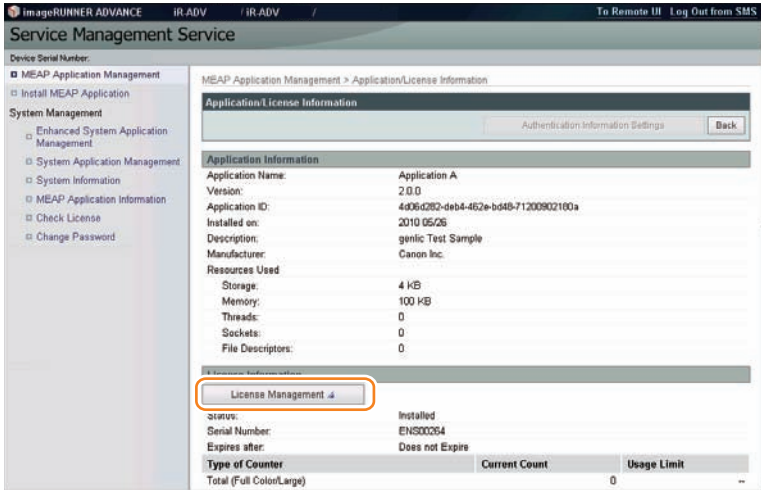
3) In [Application / License Information] page shown on the screen, click [License Management] button.



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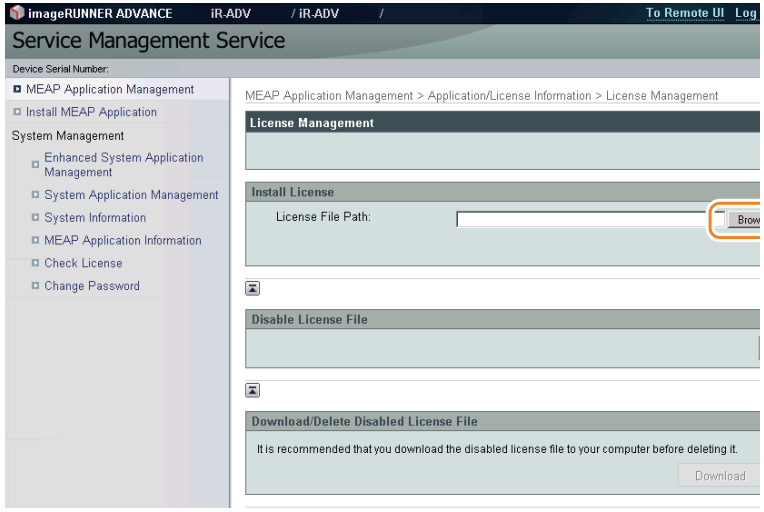
4) Click [Browse] button, and select the license file you want to install.



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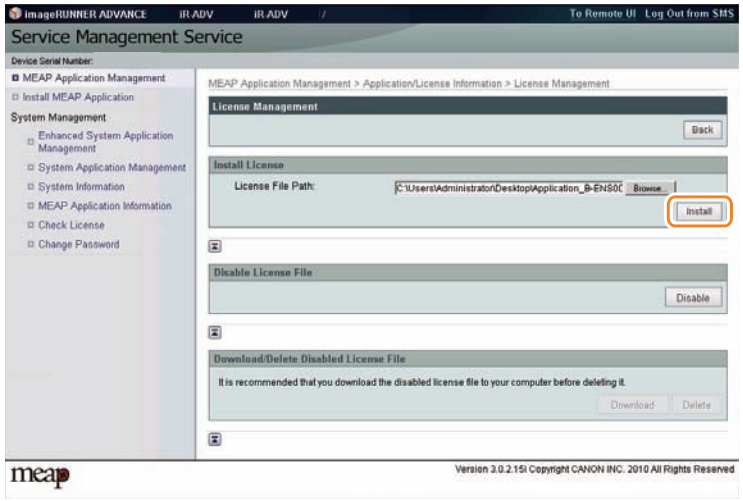
5) Click [Install] button.



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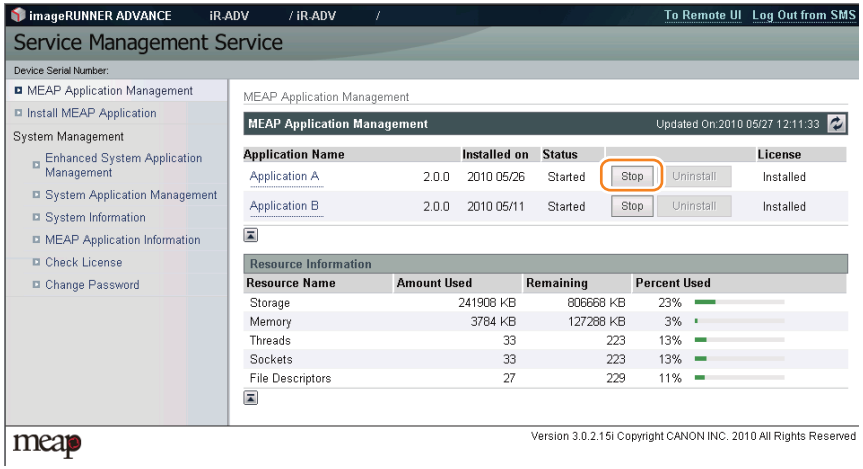
6) Check the content of the confirmation page, and click [OK] button.

Procedure disabling a license file (suspending a license)

CAUTION:

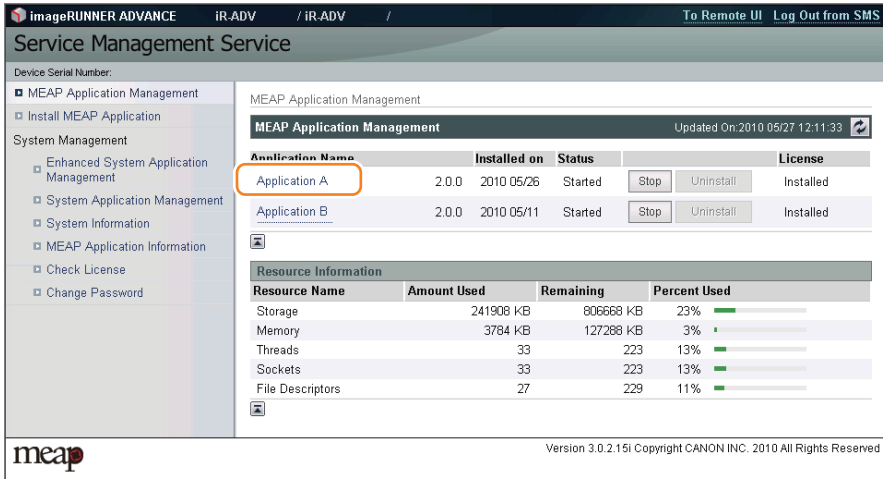
- Since the license file cannot be disabled when the application is still running, the application needs to be stopped before disabling the license file.
- Once suspended, the status of the license will be 'Not Installed', and its application will no longer be available for use.
- You can later restore a suspended license file as long as you are doing so on the same iR, the device with the same device serial number.
- If the machine needs to be replaced due to a device failure, use the transfer license during the replacement. (See "License for forwarding")

1) Stop the application you want to uninstall on MEAP Application Management page.



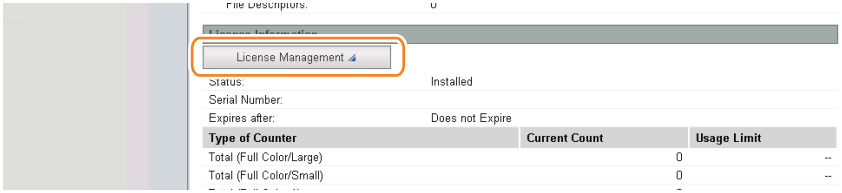
F-2-270

2) Click the name of the application that you want to disable.



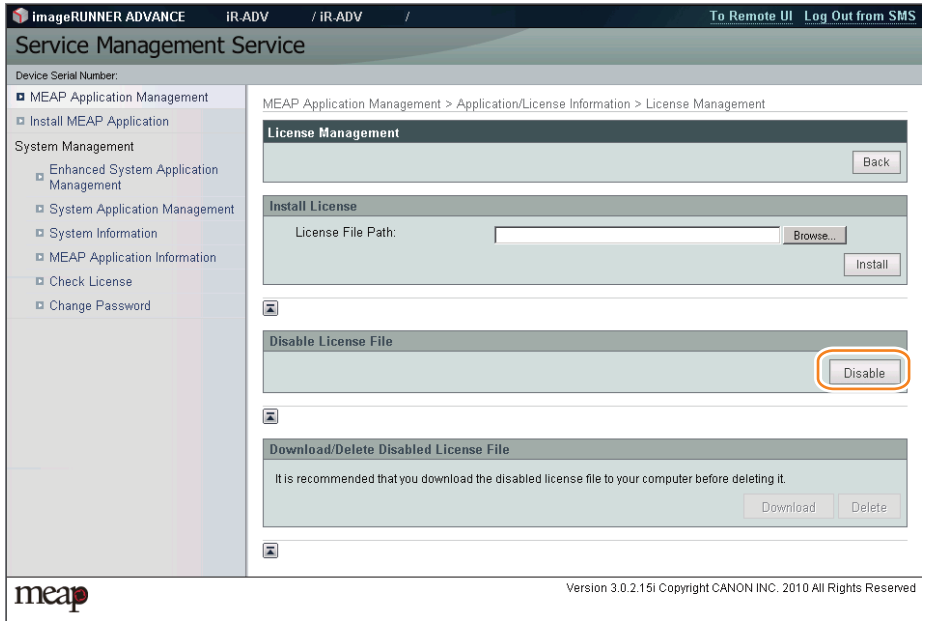
F-2-271

3) On Application/ License Information page, click [License Management] button.



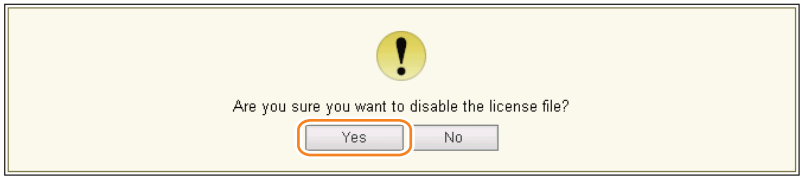
F-2-272

4) License Management page appears. Click [Disable] button.



F-2-273

5) Click [Yes].

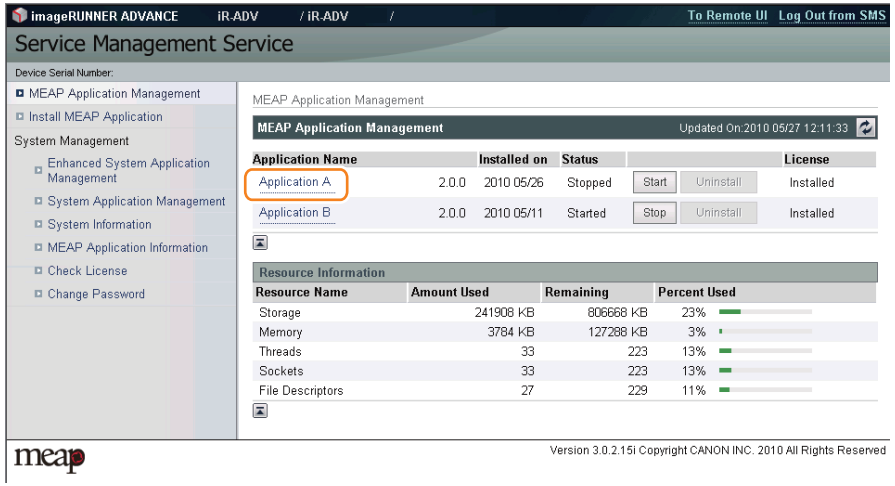


F-2-274

Procedure downloading / removing an invalidated license file

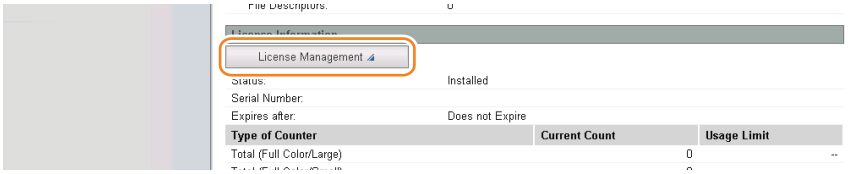
Note:
The downloaded license file can be used for reinstallation only in the same iR device (with the same device serial number).

1) Login to SMS. (See Chapter 2, "Login to SMS.")
2) Application List page appears. On MEAP Application Management page , click the name of the application you want.



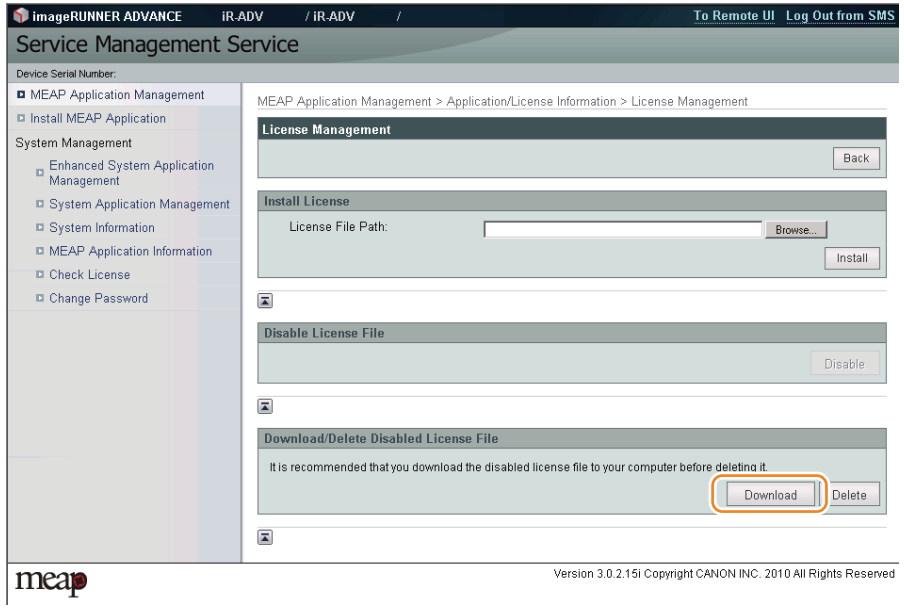
F-2-275

3) Check Application/ License Information page appears.
4) On Application / License Information page, click [License Management] button.



F-2-276

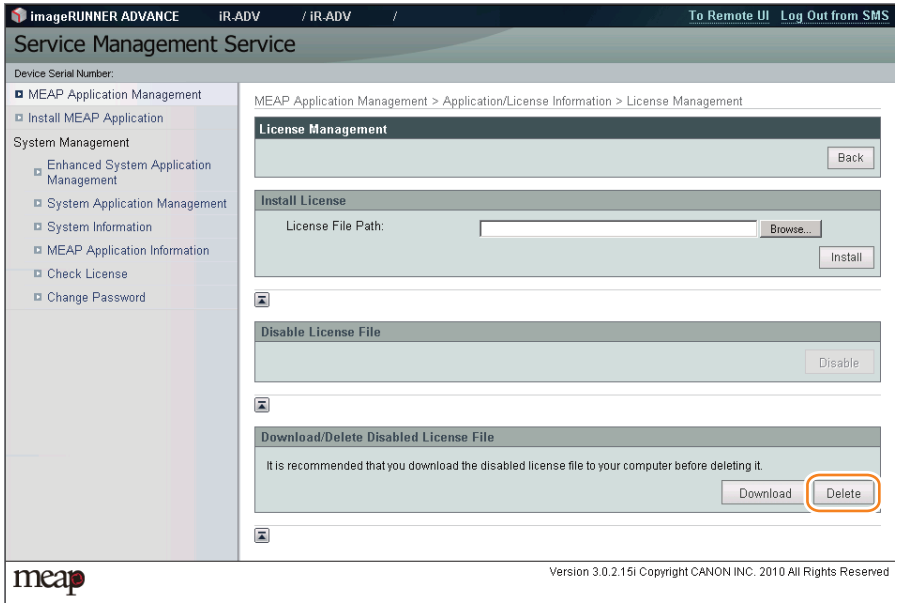
5) License Management page appears. To download, click [Download] button.



F-2-277

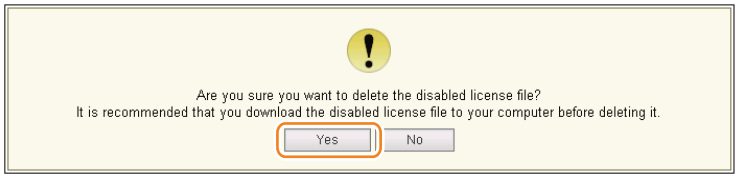
6) When you have selected [Download] button, specify where you want to store the file by following the instructions on the screen.

7) To delete, click [Delete] button.



F-2-278

8) When the dialog to confirm deletion is shown, click [Yes] button.



F-2-279

WARNING:

Without the license file, an application cannot be reinstalled even to the MEAP de-vice that the application had been installed last time. Download and save the license file before deleting the application.

Other License File Management Functions

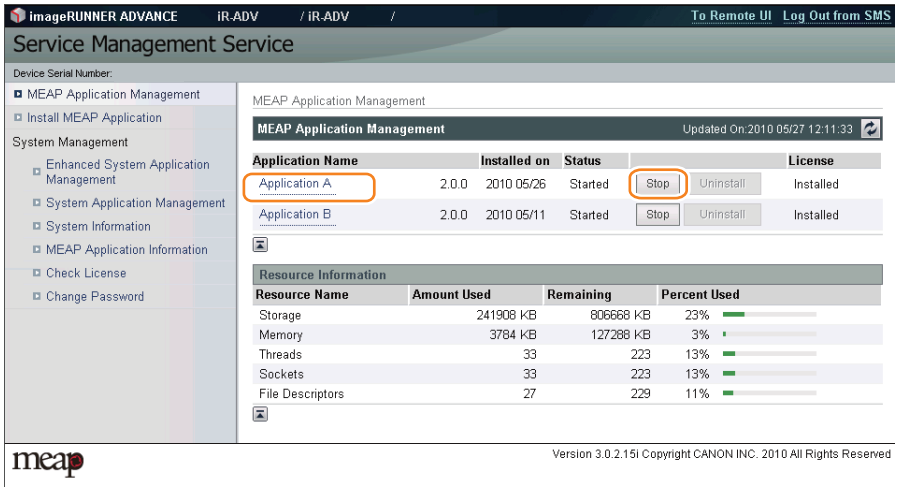
Reusable license

When reinstalling, Disable License file should be downloaded (see Chapter 0, “Disabling a License File .” and see Chapter 0, “Downloading / Removing an Invalidated License File.” in this manual) or a license for reinstallation should be obtained from LMS, before reinstallation. This specification aims to prevent misuse of applications.
To increase convenience of users, only application with unlimited validity date and application counter (e.g. Portal Service, SDL, SSO) has been made to be able to install as many times as needed by the same license file. This kind of license is called 'Reusable license'.

License for forwarding

If the machine needs to be replaced due to a device failure, you can transfer the license information used in the MEAP application to the new machine and continue its usage. Service engineers are responsible for license transfer as this task requires the SMS hidden page (not open to users).
The procedure is shown below.

1) Log in to SMS, stop the application to be forwarded (see Chapter 0, “Starting and Stopping a MEAP Application.” in this manual).

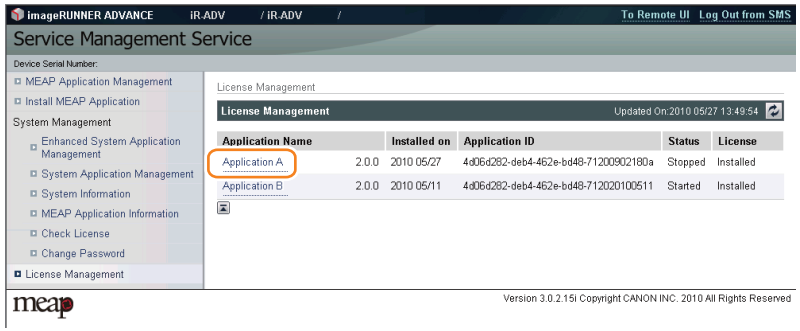


F-2-280

2) Move to the download page of license forwarded for the device as sender (https:// IP address of device: 8443/sms/ForwardLicense).

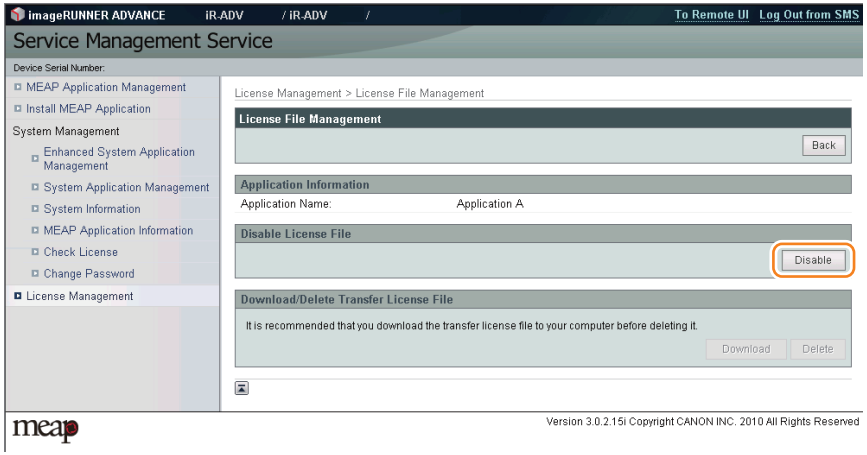
F-2-281

3) Specify the application to be forwarded.



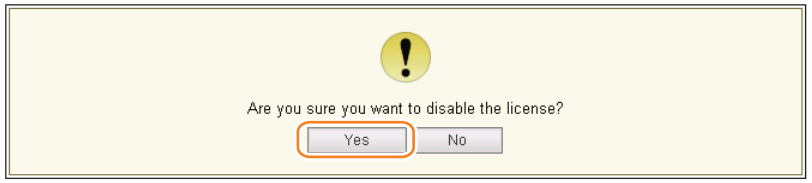
F-2-282

4) Click [Disable] button on the [Disable License File].



F-2-283

5) The window to confirm whether to create a transfer licence will be displayed. Click [Yes].

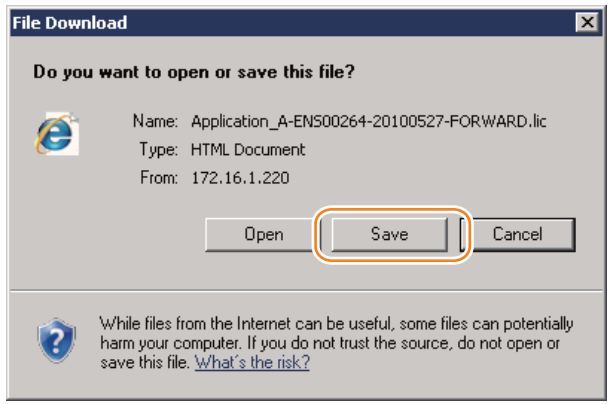


F-2-284

6) When [Download] button on the [Download / Delete Transfer License File] becomes effective, click [Download] button.

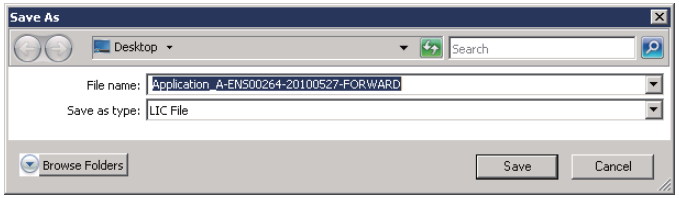
F-2-285

7) The dialogue [File Download] is displayed. Click [Save].



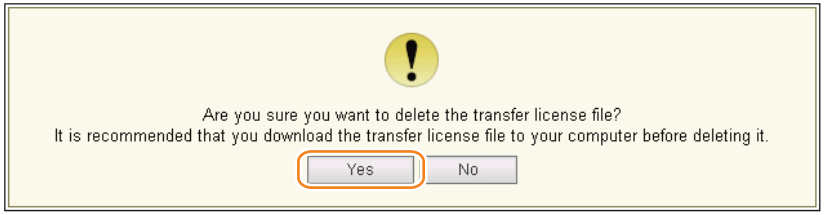
F-2-286

8) Specify the download destination, click [Save].



F-2-287

9) After downloading the license file for forwarding, click [Delete] to display the confirmation screen and click [Yes] to delete the file (in consideration of breakage of license for forwarding, deleting disabled license can be executed after all steps have been completed).



F-2-288

10) Log out of SMS.

11) Since this downloaded transfer license is the file only to prove the license invalidation, it cannot be used for installation to the other device as it is. Send the transfer license to the service support contact of your nearest sales company to request issuance of the new license for installation in the new device.

> Note:
> When requesting issuance of license for forwarding, inform the sales company of the name of product name and serial No. of the device as sender, and of the name of product name and serial No. of the forwarding destination.

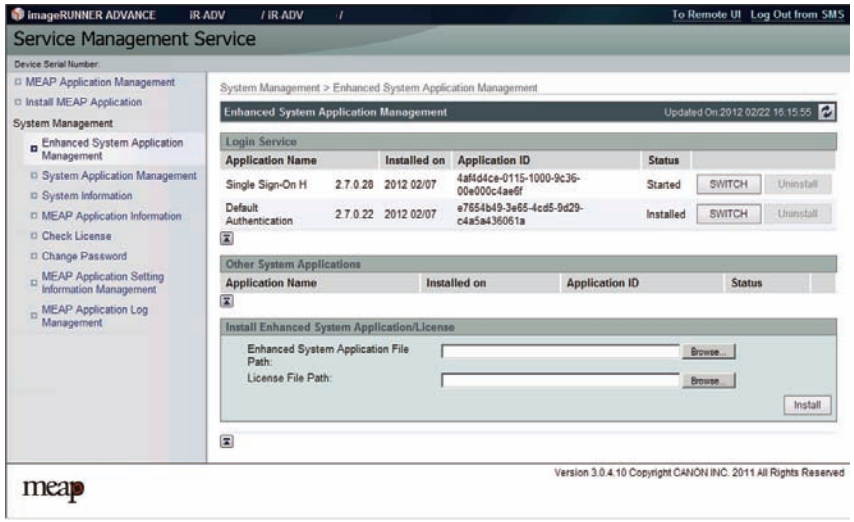
12) Install application using the license for forwarding issued by the sales company.

Enhanced System Application Management

Outline

[Enhanced System Application Management] mainly manages the login services for logging in to devices.

- Installing and uninstalling Enhanced System Application Management (login services, etc.)
- Switching login services (switching the method to log in to devices)
- Checking installation status of other System Applications



F-2-289

About Login Service

The login service is started up to authenticate the user when MEAP-enabled iR device is booted up. Login service changes and install/ uninstall are carried out from the [System Management] page.
The preinstalled login applications are Default Authentication and Single Sign On-H, and Default Authentication is enabled by default.

CAUTION:

- This device does not support SDL, conventional SSO and Security Agent.

Default Authentication overview

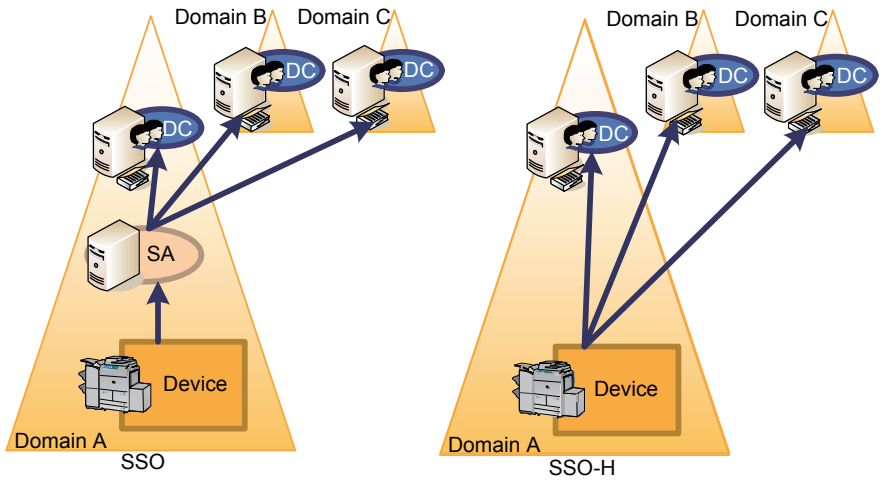
This login service is selected when the department ID management is enabled or no authentication function is set. Set the department ID management to [ON] on Setting / Registration (Additional Functions mode) of this device and register 7-digit ID and PIN by department. This setting restricts the use of this device only to users keying the registered ID and PIN. Department IDs/ and PINs can be registered on the touch panel of this device or Remote UI.

SSO-H (Single Sign-On-H) overview

This is a merger of the existing SDL and SSO login services and has the following features.

- The following three authentication methods may be selected from.
  - Server authentication
  - Server authentication and local authentication
  - Local device authentication
- Active Directory or LDAP can be used as the server for server authentication.
- It is not necessary to prepare a server for Security Agent (SA). (In the case of SSO, SA is necessary.)

Differences from conventional SSO



F-2-290

CAUTION:

- When the setting is SSO-H, the card reader for the option controller card cannot be used.
- When the setting is SSO-H, start up takes a little longer when compared to Default Authentication (because of the time required for object initialization).
- To use the SEND function when the setting is for SSO-H, when sending email, mail addresses need to be programmed against each user. If they are not, email cannot be sent. Note, however, that when sending i-Fax, the mail addresses set in the device are used.
- The system configuration is different from previous SSO, so individual management is required.
- Data porting of user information that was being used with the earlier SSO local device authentication and SDL can be done by exporting/ importing. However, application settings information cannot be ported.

Environment confirmation

Refer to the section of "Preparation for Using SSO-H" of this manual for system requirements needed in each login service.

Specification of SSO-H

Item		Specification
No. of local device users		Up to 5000
Maximum number of domains		Active Directory : 200 domains (“this device” not included)
IPv6		Authentication provided in IPv6 supports AD/KDC/DNS of Windows Server 2008 only)
Resource used		Memory : 3584KB Storage : 25000KB File Description : 27 Thread : 33 Socket : 33
Network ports used	Connecting	88 : KDC 53 : DNS 1 - 65535 (Default : 389) : LDAP
	Listening	10000 - 10100
Supported authentication server		Active Directory : Windows 2000 Server SP4/ Windows Server 2003 SP1 * / Windows Server 2003 R2 * / Windows 2008 Server * *64-bit OS is not supported. LDAP : Novell eDirectory V8.8 SP6 for Windows Lotus Domino V8.5 for Window
Supported Active Directory		Windows 2000 Server SP4/ Windows Server 2003 SP1/Windows Server 2003 R2/ Windows 2008 Server(64BitOS not supported)
Availability of Department Management Linkage		Available only in local authentication

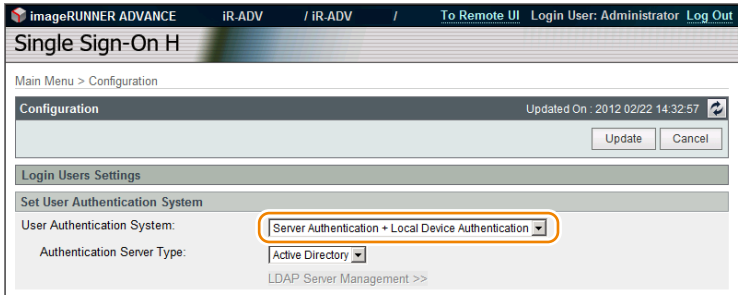
T-2-107

SSO/SDL handling

This model does not support older versions of SSO or SDL released in the past.

Setting the Authentication Method

In the case of SSO-H, it is possible to use a combination of multiple authentication methods. The combination can be changed from the SSO-H setting screen. (For details, refer to e-Manual > MEAP > Menu for Administrators > Setting the SSO-H > "Setting the User Authentication System".)



F-2-291

Note:
The default settings are shown below.
- User authentication method : "Server Authentication + Local Device Authentication"
- Type of authentication : "Active Directory"

CAUTION:
- To ensure the security, it is recommended to change the password and the user name of the Local Device Authentication administrator from those at the time of shipment immediately after you have started using SSO-H.
- Since department ID and password are not assigned to domain users, distributing setting information where the department ID is enabled to a device where the server authentication is enabled may make the device unable to be logged in. If the device has become unable to be logged in, follow "Remedy to Be Performed When the Device Has Become Unable to Be Logged in" in this manual.

Using an Accounting Product When SSO-H Is Used

SSO-H has collaborative linkage with NetSpot Accountant, imageWARE / iW Accounting Manager, imageWARE Enterprise Management Console / iW Management Console Access Management Plug-in, imageWARE Enterprise Management Console / iW Management Console Accounting Management Plug-in.
For details on the combination, refer to the User's Manual or Service Manual of the product.

Conducting Department ID Management When SSO-H Is Used

Department ID Management can be conducted also when SSO-H is used for login service.

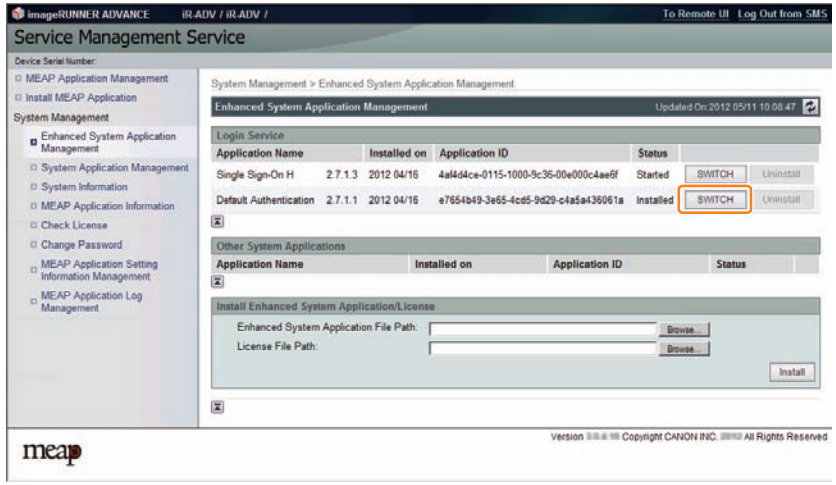
Usage Conditions

In order to allow coexistence of SSO-H and Department ID management, the following conditions need to be satisfied.
- Only "Local Device Authentication" can be used as the user authentication method.
- The department ID and password have been already set for the SSO-H login user before enabling department ID management.
- The information (the department ID and password) set for the login user coincides with the information registered in Department ID Management.

Setting Procedure

In order to allow coexistence of SSO-H and Department ID management, the following procedure needs to be performed to enable the setting.

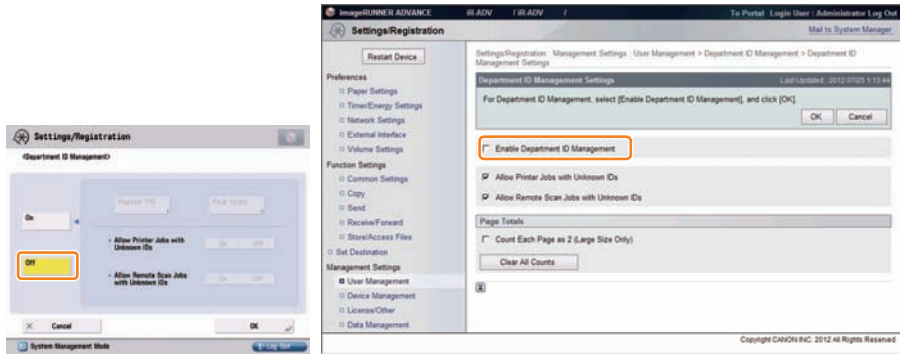
1) Change the authentication method to DA (Default Authentication).
   Access SMS, and select [Default Authentication] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)



F-2-292

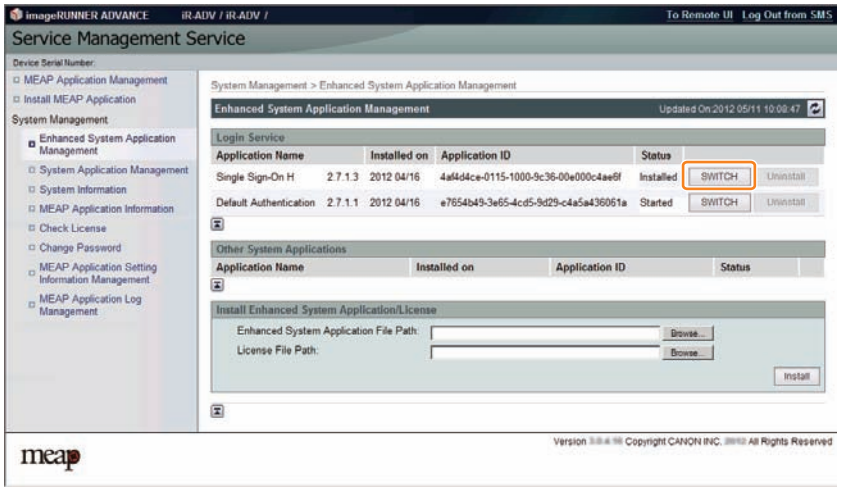
2) Restart the device.
Restart the device in order to reflect the changes in login service.

3) Disable Depart ID Management.
In user mode ([Settings/Registration]), select [Management Settings] > [User Management] > [Department ID Management] > [OFF]. In the case of remote UI, access [Settings/Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and deselect [Enable Department ID Management].



F-2-293

4) Change the authentication method back to SSO-H authentication.
Access SMS, and select [Single Sign-On H] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)

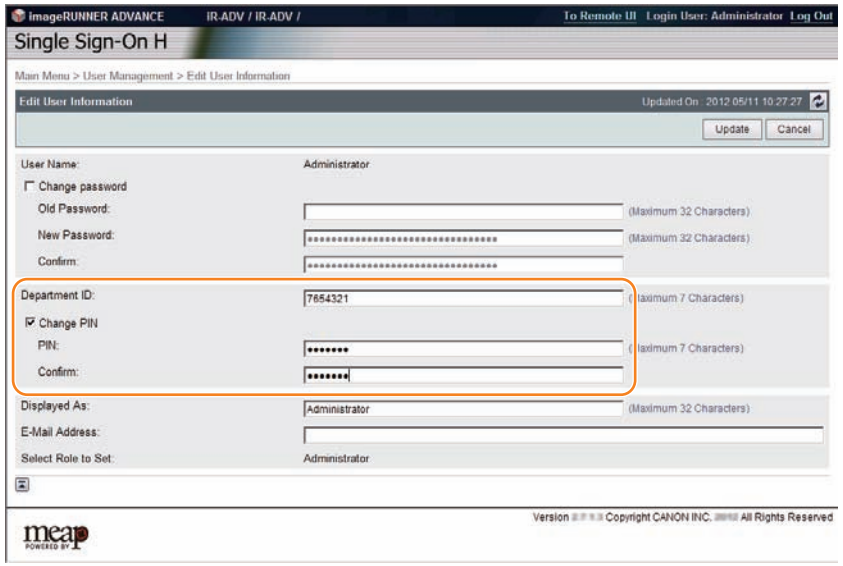


F-2-294

5) Restart the device.
Restart the device in order to reflect the changes in login service.

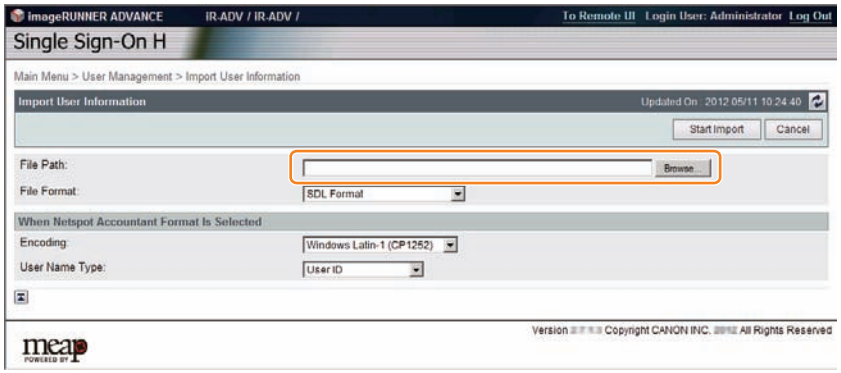
6) Change the user registration information of SSO-H.
Access the URL shown below, and change the content to the information registered in Department ID Management.
Or, import the setting file whose content you want to use.

SSO-H user registration information edition screen
(SSO management screen [Main Menu] > [User Management] > [Edit User Information] or https://<IP address>:8443/sso/Edit).



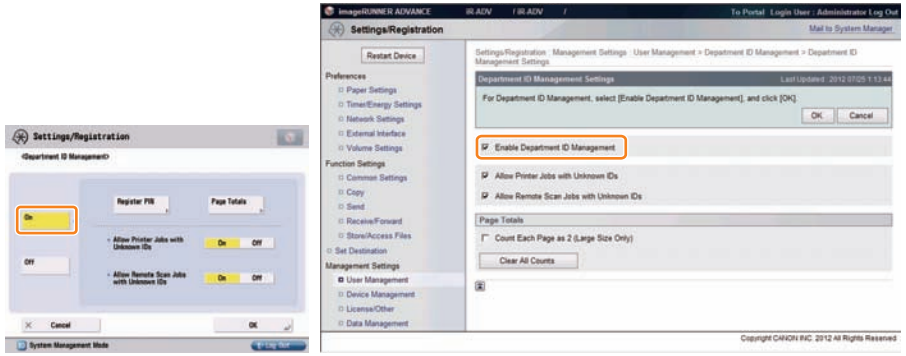
F-2-295

SSO-H user registration information import screen
(SSO management screen [Main Menu] > [User Management] > [Import User Information] or (https://<IP address>:8443/sso/Import).



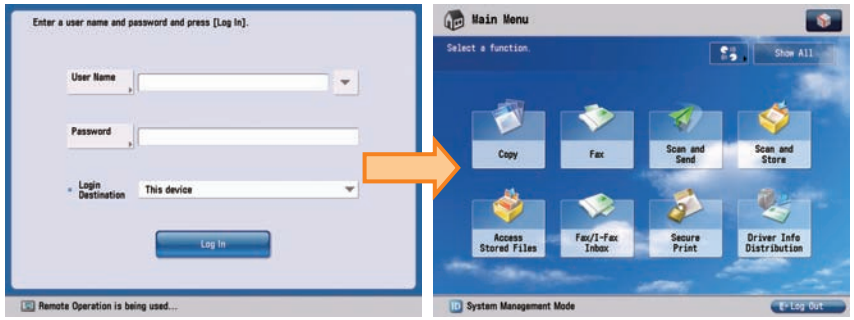
F-2-296

7) Enable Depart ID Management.
In user mode ([Settings/Registration]), select [Management Settings] > [User Management] > [Department ID Management] > [ON]. In the case of remote UI, access [Settings/Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and select [Enable Department ID Management].



F-2-297

8) Check that the device can be logged in.
Log off and then log on to check that the device can be logged in with an environment where Local Device Authentication and Department ID Management are enabled.



F-2-298

Note:
In the case of conventional SSO, department management can be conducted also when server authentication is used provided that iWAM/iW EMC account management is used, which is not supported by SSO-H.

Setting the Administrator for Server Authentication

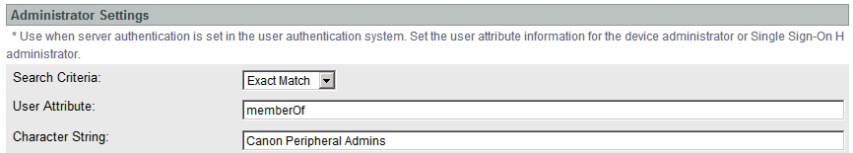
When using Server Authentication, the user who satisfies the specified conditions (user attribute and its match criteria) becomes the administrator (the device administrator and the SSO-H administrator).

The default user attribute and whether the setting value can be changed or not are shown below.

Item	Default value	Active Directory	LDAP
Search Criteria:	Exact Match	Not Available	Available
User Attribute:	memberOf	Not Available	Available
Character String:	Canon Peripheral Admins	Available	Available

T-2-108

The settings of the administrator can be changed on the following screen: remote UI > Single Sign-On H > Configuration (http://device's IP address:8000/sso/ActionSet)



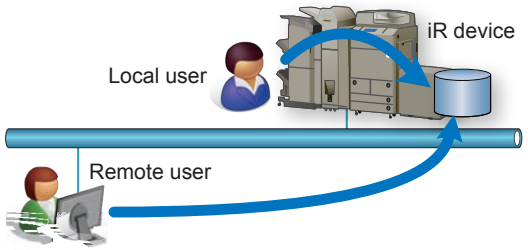
F-2-299

System Manager Linkage (automatic ID allocation to SystemManagers)

SSO provided the automated function conventionally on Security Agent (hereinafter “SA”) to authenticate System Manager by allocating IDs set on SA to domain authentication managers (users belonging to Canon Peripheral Admins group). However, SSO-H does not support this function.

Local device authentication

It is one of the user authentication methods using SSO-H, and is used for an iR device on a stand-alone basis.

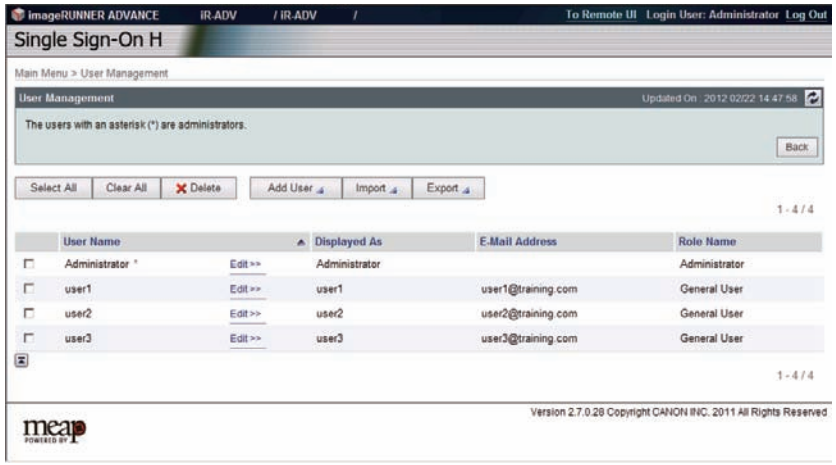


F-2-300

Register the user to be authenticated on the database in the device.

User management can be performed from the User Management screen (http://device's IP address:8000/sso/) or imageWARE Enterprise Management Console. The login destination is [This device].

User Management screen

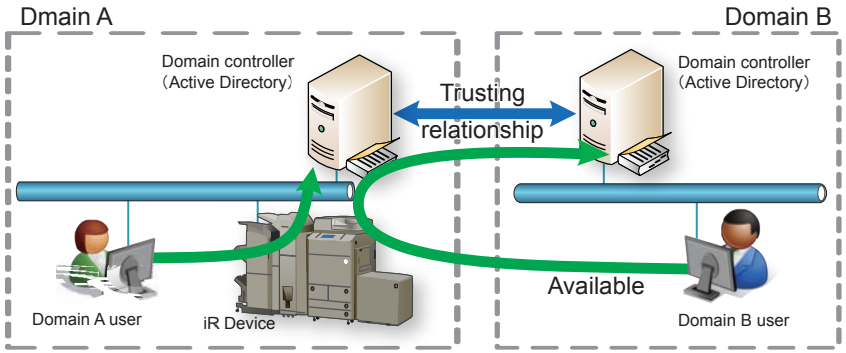


F-2-301

Server authentication (Active Directory authentication)

Outline

It is one of the user authentication methods using SSO-H. User authentication is performed with the device linked with a domain controller on the network in an Active Directory environment. It is a user authentication where the user is authenticated by the domain on the network when the user logs into the device. In addition to users belonging to the domain that includes the iR device, users belonging to domains that have a reliable relationship with the domain (multi-domain) can also be authenticated. The domain name of the login destination can be selected by the users themselves upon login.
Using one of the options (Net Spot Accountant, imageWARE Accounting Manager, or imageWARE EMC Accounting Management Plug-in) makes it possible to analyze/manage the iR device usage.



F-2-302

The protocol used is as follows.

- Kerberos:LLS/RLS/ILS
- NTLMV2:WLS(Web Service Login Service)

User information acquisition is done by LDAP, so the Active Directory LDAP port needs to be made accessible. If LDAP connection fails, the authentication will end in error.
No. of supported domains: 200 (unchanged from SSO) Site access supported.

CAUTION:

In the case of using Server Authentication (Active Directory authentication), it is necessary to synchronize the time settings of the Active Directory server and the machine (and the PC for login). If the difference in time setting is 5 minutes or longer, an error will occur at the time of login. (The setting of the allowable difference in time can be changed.)

CAUTION:

Since department ID and password are not assigned to domain users, distributing setting information where the department ID is enabled to a device where the server authentication is enabled may make the device unable to be logged in. If the device has become unable to be logged in, follow "Remedy to Be Performed When the Device Has Become Unable to Be Logged in" in this manual.

Access Mode in Sites

With SSO-H, access to Active Directory within site can be prioritized or restricted, so there is a setting called 'Access Mode in Sites'. Sites programmed in Active Directory comprise multiple subnets. In this mode, SSO-H uses site information to access the same site as the device, or the subnet Active Directory.

- The SSO-H default setting is with the site internal access mode OFF.
- Access Active Directory within same site only.
- If there is no Active Directory within the same site, or if connection fails, there will be an authentication error.
- Access another site if Active Directory within the same site cannot be located.
- If there is no Active Directory within the same site, or if connection fails, an Active Directory external to the site will be accessed.
- If all attempts to access Active Directory fail, there will be an authentication error.

The operating specifications of the site internal access mode are as described below.
When first logging in to the login service after booting iR, the domain controller (DC) is obtained from the site list.
However, upon the first login, even if the site functionality is active, connection to DC is random. (This is because, if connection to DC should fail, the site to which the device belongs cannot be ascertained.)
If the device IP address or the domain name are changed, the site settings are acquired once more.

In this mode, at the first login (first authentication of domain to which the device belongs) LDAP-Bind is performed directly to DC and site information acquired by LDAP from DC.

From the acquired site list, the site to which the device subnet belongs is extracted and this becomes the site to which device belongs. Active Directory address is acquired (retrieved from DNS)

Note:
- The Active Directory subnet is assumed to be the same subnet as the device sub-net.
- In the Active Directory addresses, the Active Directories of the same site are listed.
- Active Directories of the same subnet as the device are listed first.
- If there is no Active Directory with the same subnet as the device, Active Directories belonging to different subnets than the device are listed.
- The Active Directories within the same site are accessed in order. Note, however, that where there are multiple Active Directories within the same site, access to those Active Directories will be in the order in which the address list was obtained.
- If there is no Active Directory within the same site, if access outside of the site is programmed, Active Directories outside of the site will be accessed in the order in which the address list was obtained.

Site list acquisition

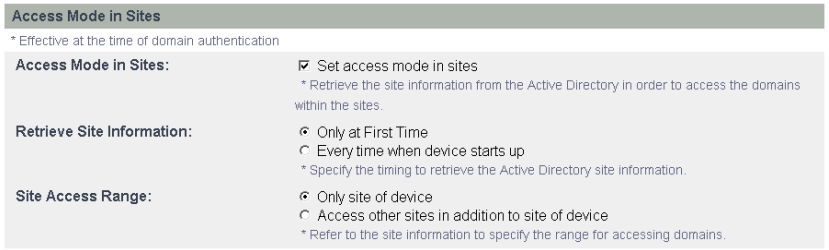
After booting up, upon the first login by LLS or ILS/ RLS, the site list is obtained from the Active Directory. In order to obtain the site list from the Active Directory, Active Directory needs to be accessed in LDAP, so SASL-Kerberos-Bind is used by the login user account. If authentication by Active Directory should fail, an authentication error will be generated and the site list will be acquired again from Active Directory upon the next login.

In SSO-H, the Active Directory to be accessed when acquiring the site list cannot be specified. In other words, if there is no site list, which site's Active Directory is accessed depends upon the order of the Active Directory addresses returned by DNS. Therefore, when acquiring the site list, LDAP may access the Active Di rectory of a different site. Therefore, in such cases, it is sometimes necessary to access across sites or subnets, which means that LDAP protocol needs to have continuity across sites (subnets) (normally, LDAP is port No. 389). Further, if connection with Active Directory fails when acquiring site information, another Active Directory will be accessed.
Site information, once it has been acquired, is cached within the device. The life settings of the cache can be set so that site information in the cache is updated upon the first login after the device boots up, or so that the cache is not updated once acquired.

Settings for access mode in sites

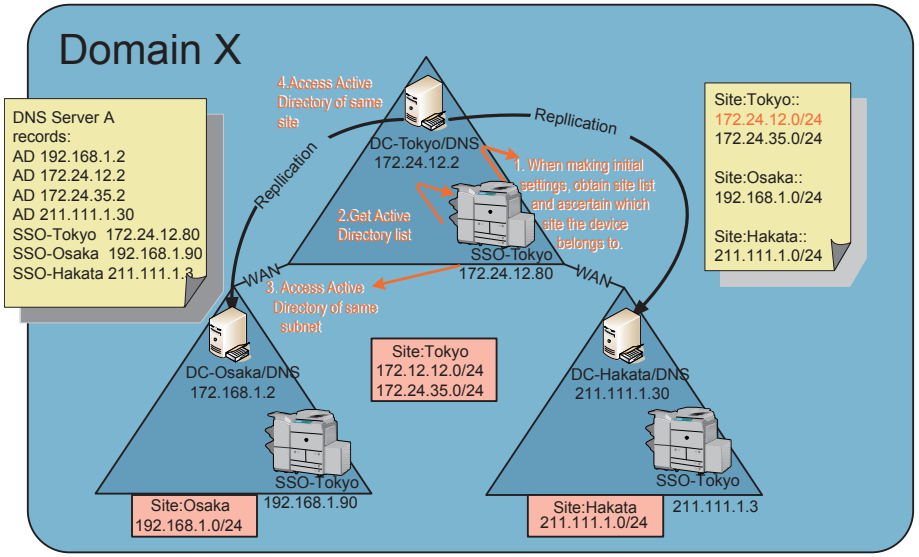
Switching between site internal access mode/ non site internal access mode, as well as detailed mode settings, are done via DMS or iWEMC.

Site internal access mode settings window (DMS)



F-2-303

The figure below shows a sample of processing Access Mode in Sites.
Sample of Processing Access Mode in Sites



F-2-304

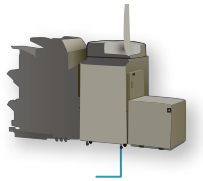
1) SSO-Tokyo acquires site lists from Active Directories.
   Note, however, that the Active Directories accessed in order to acquire site lists are in the order in which they were returned by DNS, so there is no guarantee that the same Active Directory will be accessed as in the initial settings (upon device settings or changes to NW settings, etc.).
   [Site subnet list]
   Site: Tokyo: = 172.24.12.0/24, 172.24.35.0/24
   Site: Osaka: = 192.168.1.0/24
   Site: Hakata: = 211.111.1.0/24
   As a result, since SSO-Tokyo is 172.24.12.80, the subnet is 172.24.12.0/24, and is judged as belonging to site Tokyo.
2) The DNS server obtains its Active Directory list from the primary or secondary DNS, as set in the device.
   [Active Directory]
   172.24.12.2, 172.24.35.2, 192.168.1.2, 211.111.1.30
3) Of the Active Directories in 2), above, the ones that belong to the same site (Tokyo) are 172.24.12.2 and 172.24.35.2.
   Of these, the Active Directory that is the same subnet as SS-Tokyo is 172.24.12.2.
   Therefore, this one will be accessed.
4) If access fails at step 3), above, the other Active Directory of the same site, 172.24.35.2, will be accessed.
5) If access fails at step 4), above, also, SSO-Osaka and SSO-Hakata will be accessed (the order will depend on the order of the Active Directories in DNS). Note, however, that this is an optional operation.

Logging into other domains at multi-domain

At multi-domain, if another domain is logged into, based on the site/ subnet information retrieved in the home domain, the Active Directories of the login destination domain/ KDC address list are computed. In the event that the domain controller IP addresses of other domains are outside of the site access range, and only the domain controller within the site is programmed for access, an error message will be displayed to the effect that the site information is incorrect.

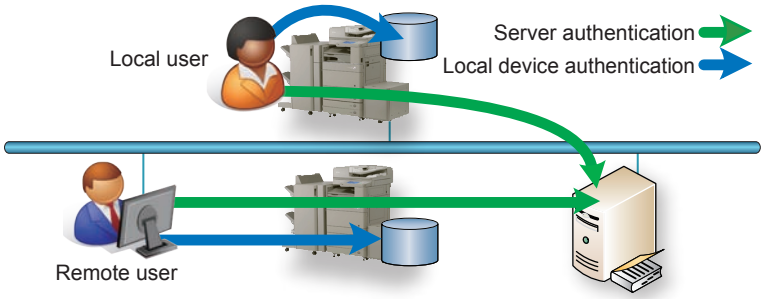
Server Authentication (LDAP Authentication)

It is one of the user authentication methods using SSO-H. User authentication is performed with the device linked with the LDAP Server on the network in an LDAP environment.



Server authentication and local device authentication

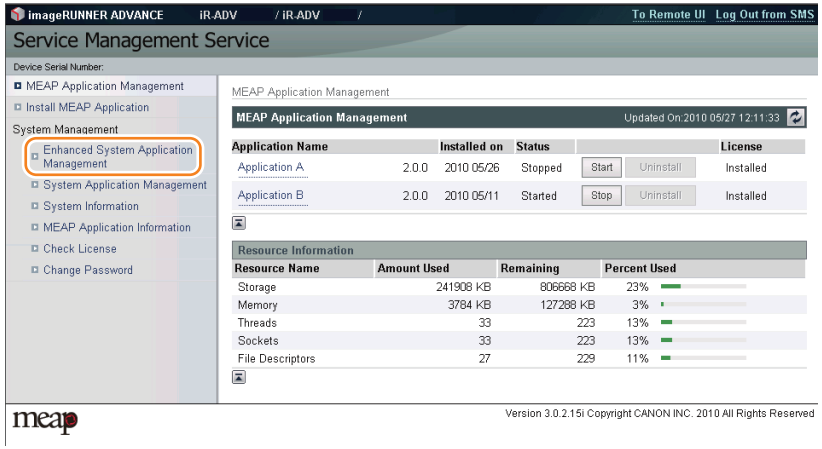
It is a user authentication method provided with both the "server authentication" function and the "local device authentication" function.
It is possible to use server authentication to authenticate the users registered on the authentication server under normal conditions and use local device authentication when a user who cannot be added to the authentication server needs to be temporarily authenticated.
If a trouble occurs in the authentication server, local device authentication can be used as an emergency measure until recovery from the trouble.



F-2-306

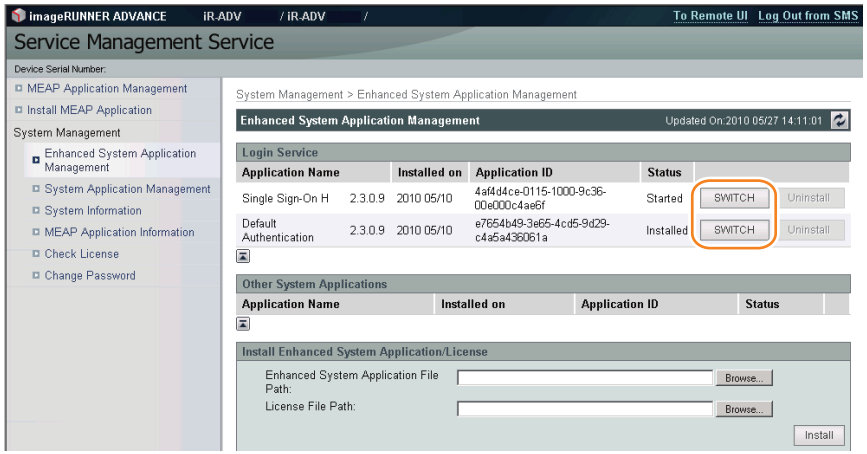
Steps to Change Login Services

1) Click [Enhanced System Application Management] on [System Management].



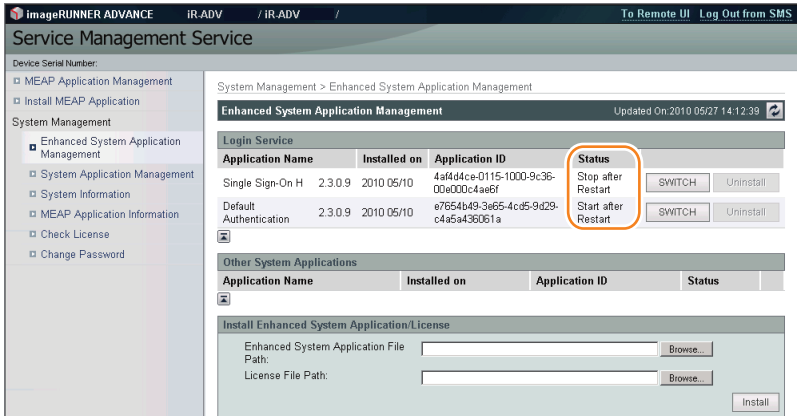
F-2-307

2) A page will appear showing the various selections you can make for the login service. Click [SWITCH] button for the login service to be used.



F-2-308

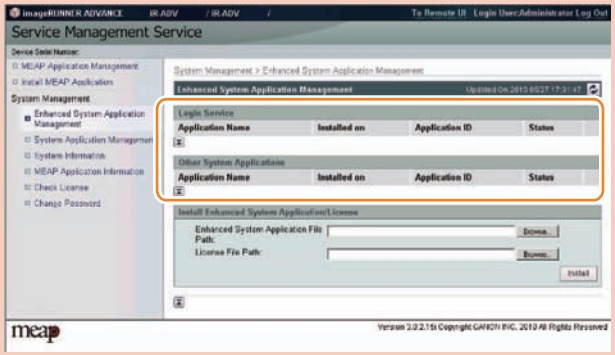
3) When login service application you have selected turns to Start after Restart, restart the device.



F-2-309

CAUTION:

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



F-2-310

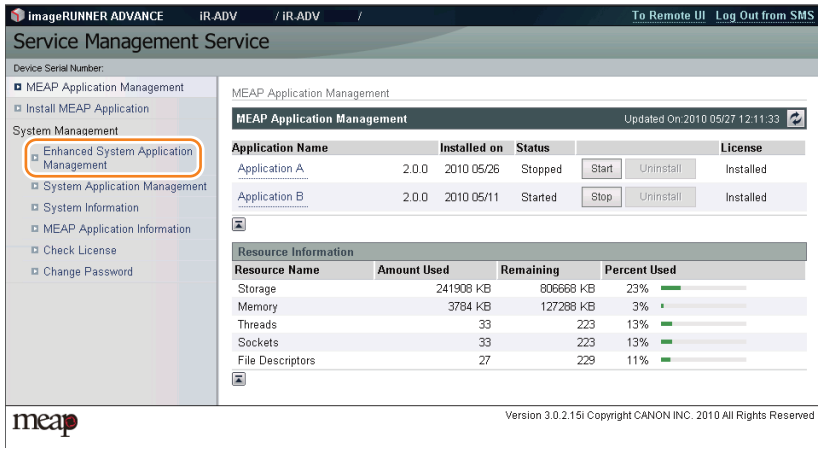
This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

Login Service Installation Procedure

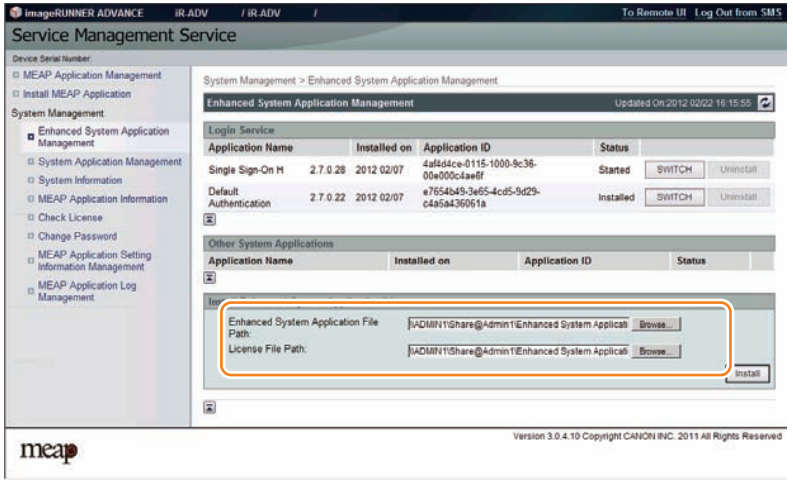
Follow the procedure show below to install login services.

1) Access SMS, and select [System Management] > [Enhanced System Application Management].



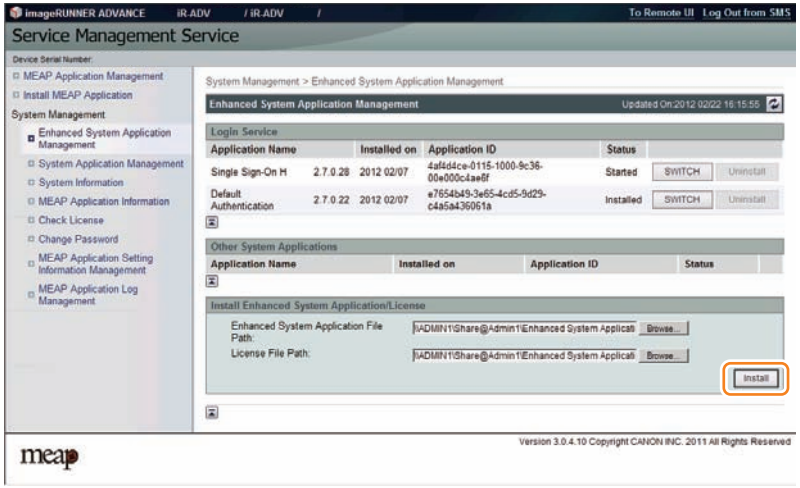
F-2-311

2) Click the [Browse] button, and specify the enhanced system application file and license file.



F-2-312

3) Click [Install] button.

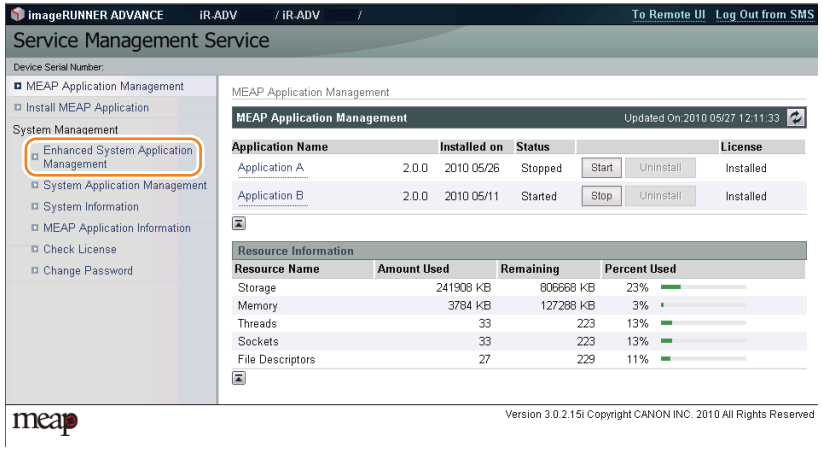


F-2-313

Login Service Uninstallation Procedure

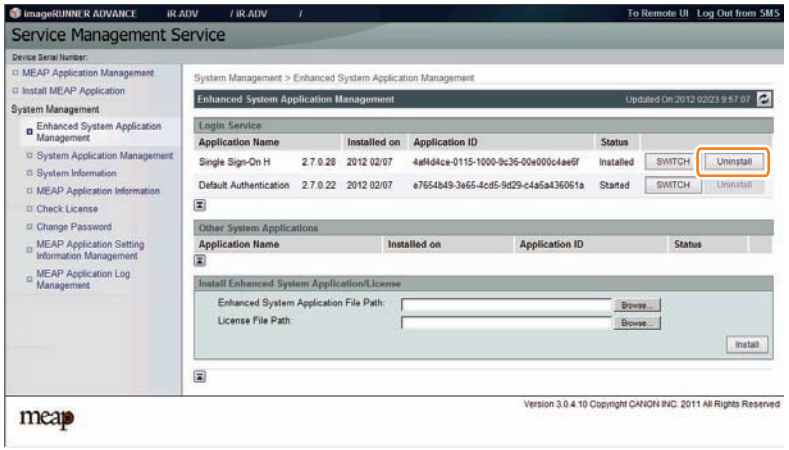
Follow the procedure show below to uninstall login services.
In order to uninstall a login service, the service needs to be stopped ("Installed" status).
Default Authentication cannot be uninstalled even when the service is stopped.

1) Access SMS, and select [System Management] > [Enhanced System Application Management].



F-2-314

2) Click the [Uninstall] button of the login service you want to uninstall.



F-2-315

System Application Management

This function manages the login services for logging in to SMS.
There are two login methods: one is "password authentication" where you enter the password for SMS on the SMS login screen and log in, and the other is "RLS authentication" where you do not use the SMS login screen but enter the user ID and password on the RLS (Remote Login Service) screen for authentication.

Password authentication

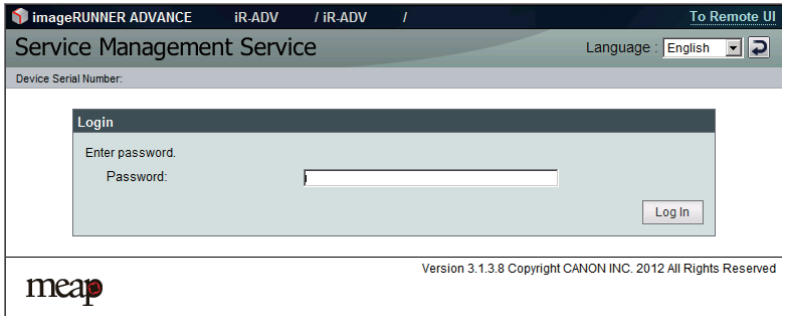
Enter the password on the SMS login screen for authentication. Only one password can be set for SMS.
The login procedure is shown below.

1) Access SMS from the browser of a PC on the same network as the MEAP device. The URL is as follows.

URL: https://<IP address of MEAP device>:8443/sms/
Ex.) https://172.16.188.240:8443/sms/

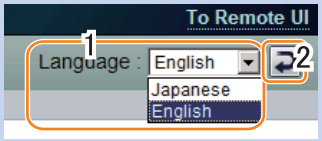
Note:
To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

2) Enter the password in the password entry field, and click the [Log In] button. The default password is “MeapSmsLogin.” (The password is case-sensitive.)



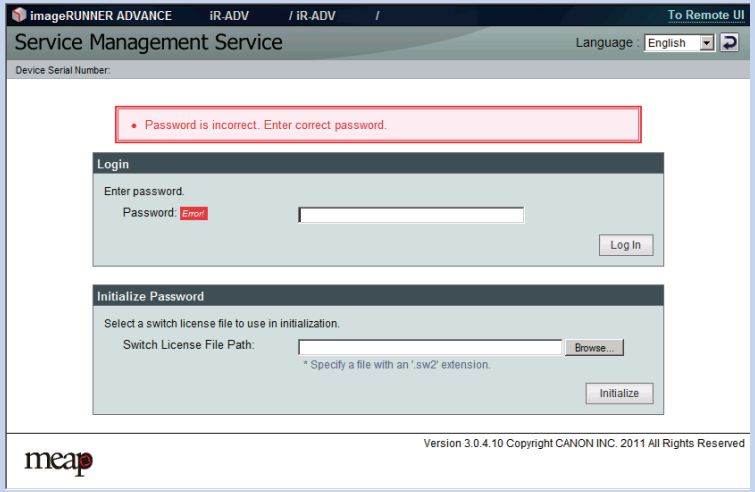
F-2-316

Note:
If you want to change the display language, select the language from the drop-down list of [Language] at the upper right of the login screen, and click the update button.



F-2-317

Note:
If the wrong password is entered, the following window is displayed. The user's system administrator may have changed the password, so confirm the password with the system administrator. Note that there is no special password for service.



F-2-318

RLS Authentication

Login without using the SMS login window but by entering the user ID and password for authentication in the RLS (Remote Login Service) window. The user information (user name and password) used is the information for server authentication or local device authentication. The login procedures are as follows.

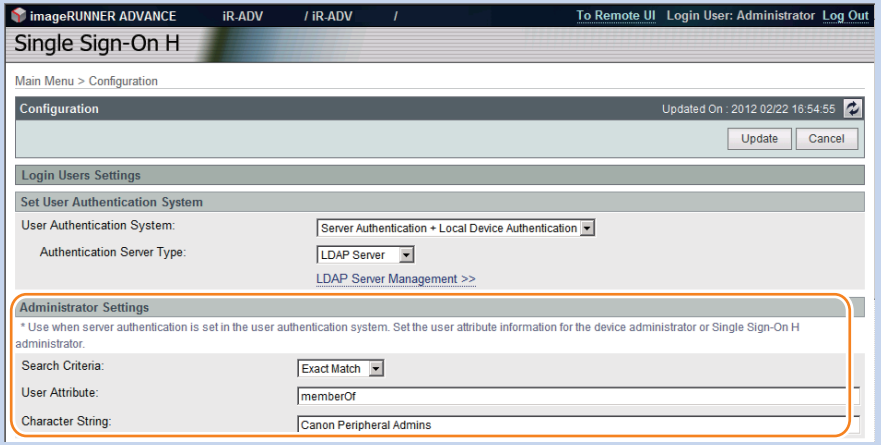
1) Access SMS by RLS Authentication from the PC browser on the same network as the MEAP device.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls/

Note:
- To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

F-2-319

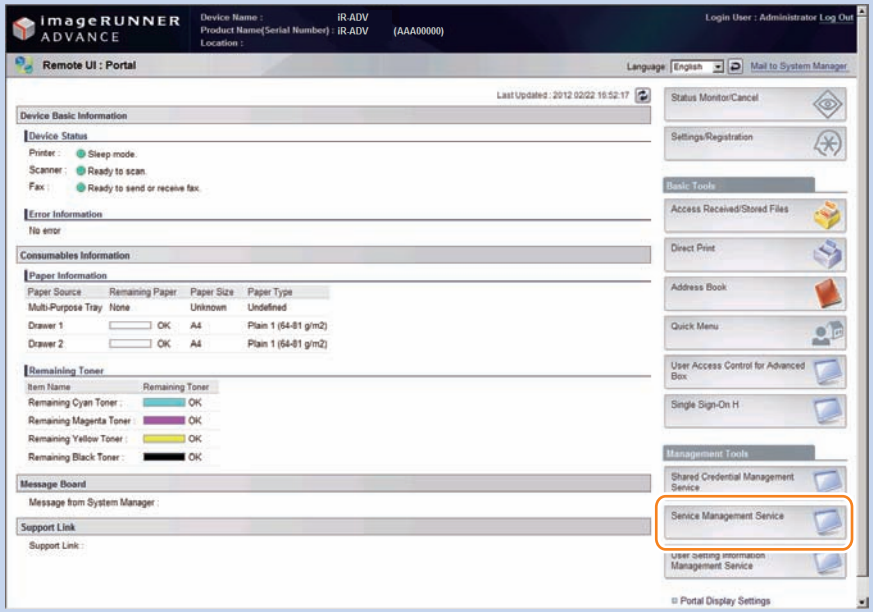
Note:
- When the device authentication method used is server authentication, enter the user name, password and login destination registered with authentication server and then click 'Log In'.
- If the authentication method used is local device authentication, enter the user name, password and login destination registered in the device and click 'Log In' button.
  The user information is set as below for local device authentication by default. Both are case sensitive.
  - User Name: Administrator
  - Password: password

Note:
Only the following users may us SMS via RLS.
- For local device authentication, users with Administrator or Device Admin authority.
- In the case of server authentication, the users who belong to the group (default: Canon Peripheral Admins) specified as the device administrator on the SSO-H Configuration screen.



F-2-320

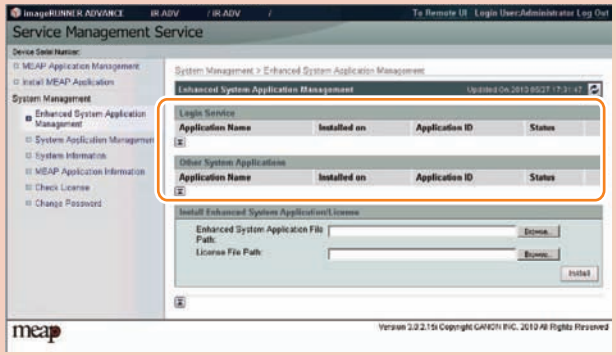
Note:
SMS Access can be gained also from Remote UI.
Access Remote UI and click on SMS shortcut shown on the lower right of the screen to gain access to SMS.
When only the password authentication is enabled, the password authentication screen is shown.
When only the RLS authentication is enabled, no further authentication is needed to access SMS. This is because users have already authorized upon accessing to Remote UI.



F-2-321

CAUTION:

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



F-2-322

This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

Setting the method to login to SMS

Outline

The method to log into SMS can be specified by one of the following methods.

- If you want to change the password authentication settings: Use RLS authentication to log in, and change the settings.
- If you want to change the RLS authentication settings: Use password authentication to log in, and change the settings.

The following table shows the start/stop combinations of the two login methods.

Combination of Login Methods

	Start RLS Authentication	Stop RLS Authentication
Start Password Authentication	Login available with either method	Login available only with
Stop Password Authentication	Login available only with RLS Authentication	Setting unavailable

T-2-109

CAUTION:

If only login via RLS is programmed, login may be disabled for the following reasons.

- Authentication server is down
- Network problem, no communication with authentication server

In the event of either of these cases, try the following.

1. If local device authentication is active, try logging in with local device authentication.
2. If only server authentication is active, launch in MEAP safe mode from the device service mode.

After launching in MEAP safe mode, the Default Authentication will become active, and you will be able to login to SMS with password authentication. After logging into SMS, set the password authentication login to ON (active) and restore the device from MEAP safe mode to normal mode. Until the problem blocking authentication is resolved, log into SMS with password authentication.

Setting for login by Password Authentication

The procedures for changing the password authentication Start/ stop settings are as follows.

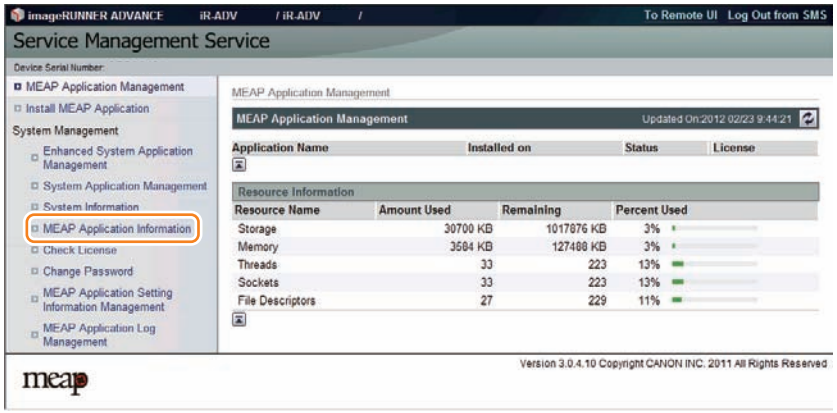
1) Access SMS login screen by RLS Authentication from the PC browser on the same network as the MEAP device.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls

2) Enter the user name and the password of the user registered as an administrator, select the login destination, and then click the [Log In] button.

Login screen (In case authentication method is SSO-H)

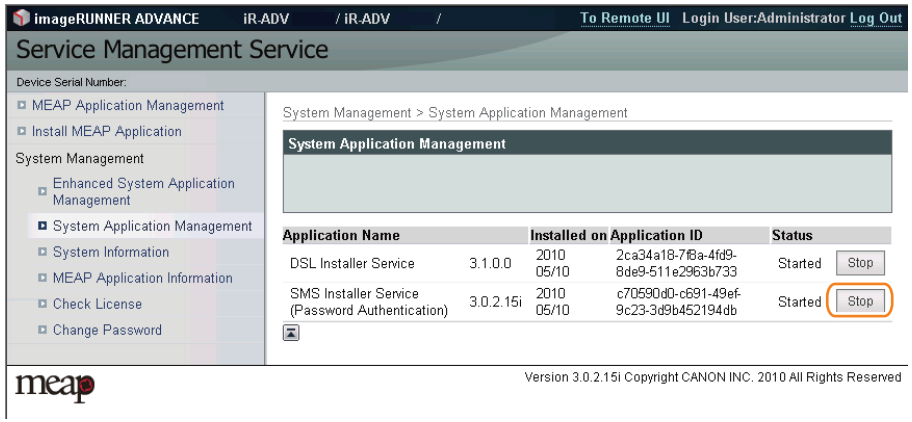
F-2-323

3) Select [System Application Management]



F-2-324

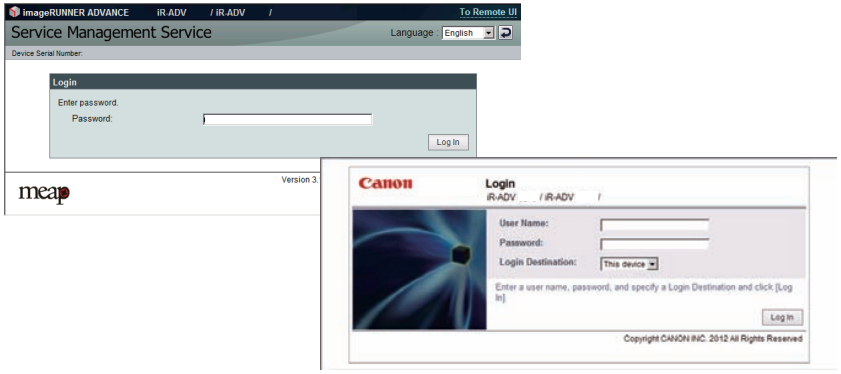
4) Click [Start] or [Stop] button shown in Status field of SMS Installer Service (Password Authentication) to check if the status is changed.



F-2-325

5) Logout once and login again to check to see that the setting is applied properly.
When clicking [Stop] to change the status to [Start], another password authentication login screen is firstly shown. When trying to access the password authentication screen after clicking [Start] to change the status to [Stop], the user is automatically redirected to RLS authentication screen.

Password authentication started screen and Password authentication stopped screen



F-2-326

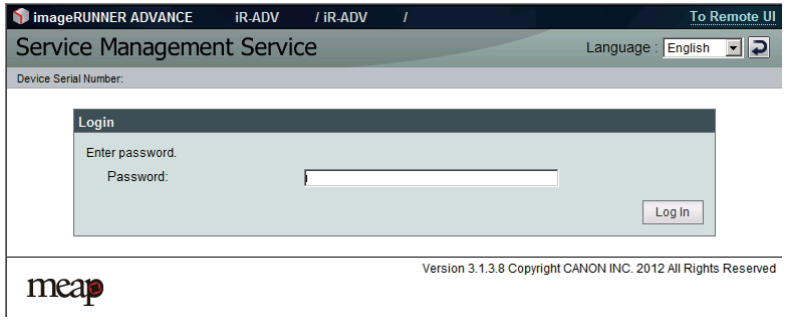
Setting for login by RLS Authentication

The procedures for changing the RLS authentication Start/ Stop settings are as follows.

1) Access the SMS login screen using the normal method (password authentication). The URL is shown below.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls

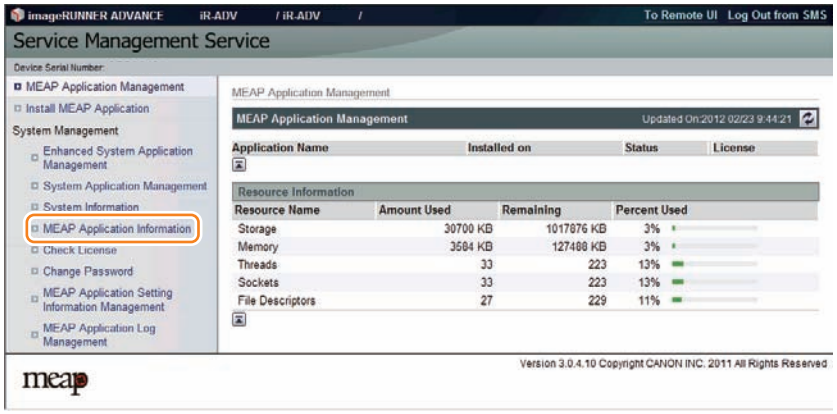
2) Enter the password in the password entry field, and click the [Log In] button. The default password is "MeapSmsLogin". (Case sensitive)

Login screen by Password Authentication



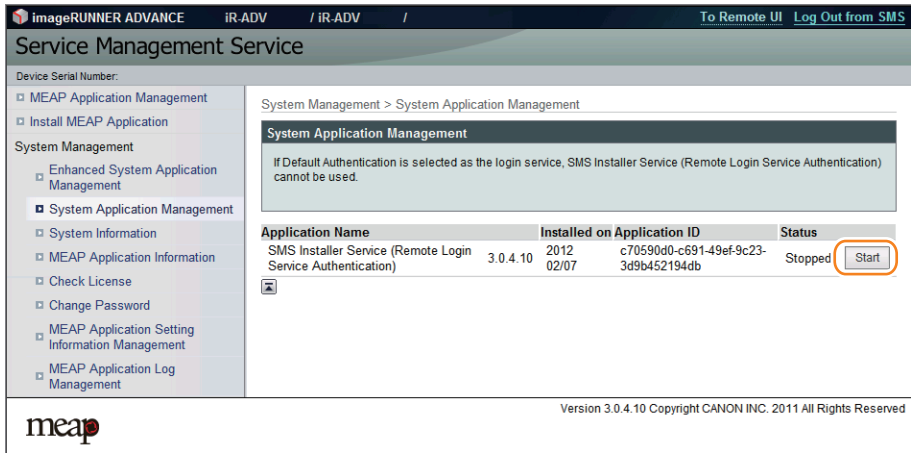
F-2-327

3) Select [System Application Management] on System Management menu.



F-2-328

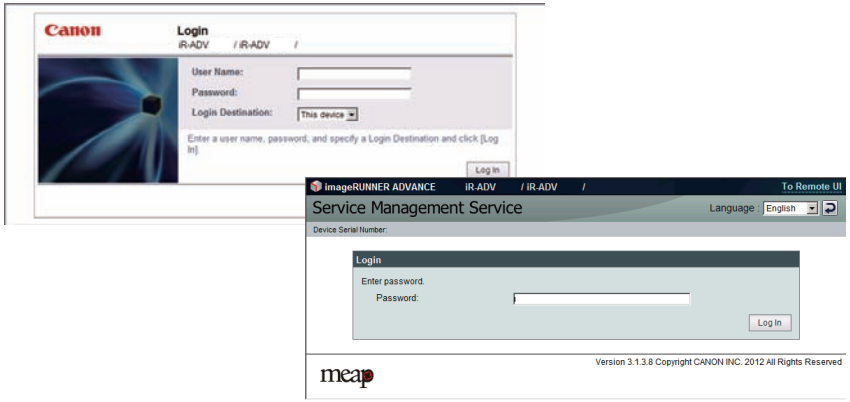
4) Click on [Start] or [Stop] button shown on Status field of SMS Installer Service (Remote Login Service Authentication) to check if the status is changed.



F-2-329

5) Log out and then log in again and access via the RLS authentication login window.
When RLS authentication is set to [Start], another RLS login screen is firstly shown. When accessing to RLS status screen with the setting of [Stop], the user will be redirected to the password authentication screen.

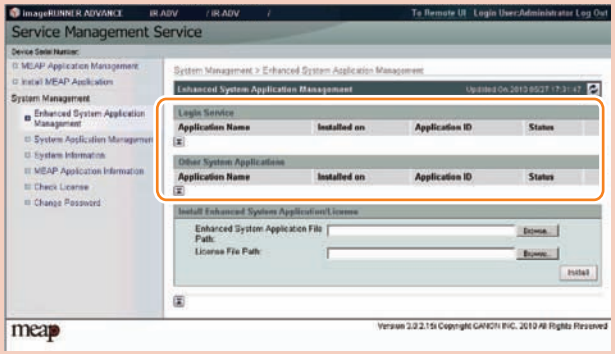
RLS authentication started screen and RLS authentication stopped screen



F-2-330

CAUTION:

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



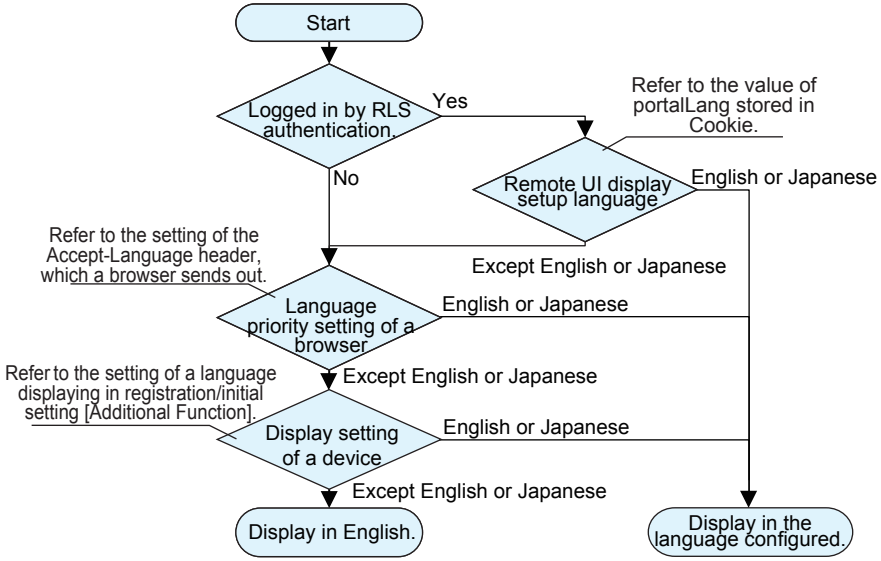
F-2-331

This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

Initial Display Languages of SMS

SMS supports English and Japanese. Display language can be changed with selecting by the drop down list on a login page.
The initial display language at the time of accessing SMS depends on the setting.



F-2-332

When accessing by SMS Installer Service (Password Authentication)

It is referred in order of the language priority (setting of the Accept-Language header which a browser sends out) and the display-language setting in the "user mode". When the language setup is other than English or Japanese, it is displayed in English.

When accessing by SMS Installer Service (Remote Login Service Authentication).

Initial display language is set by the language setting (value of portalLang storing in Cookie) selected by the remote UI screen. When the setting is other than English or Japanese, Selection of display language is performed in a similar way with the SMS Installer Service (Password Authentication) mentioned above.

MEAP Application System Information

Outline

You can check the device's platform information and the MEAP application's system information.

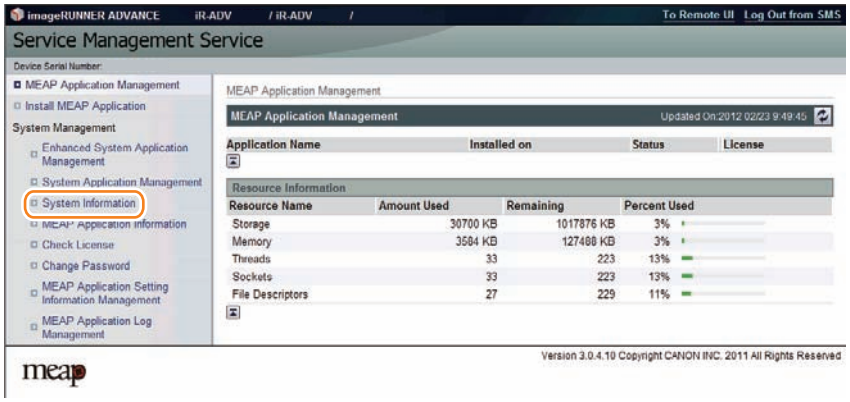
Checking the System Information

System information that can be checked from the screen

- MEAP Specifications version (MEAP Spec Ver)
  - MEAP Contents version
  - Java Virtual Machine version
  - System application information
- The name of the installed system application
  - The installation date of the installed system application
  - Application ID of the installed system application
  - The status of the installed system application

The checking procedure is shown below.

1) Log in to SMS.
2) Select [System Management] > [System Information] on System Management menu.

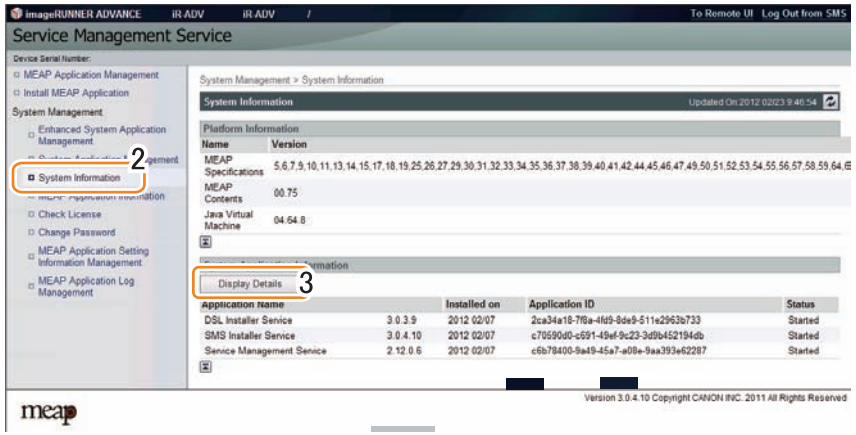


F-2-333

Display of System Information Details

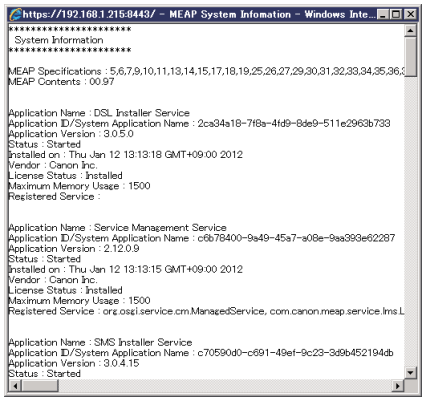
The system information details can be displayed to check more than one pieces of information all at the same time: platform information, system application information, information on the installed MEAP applications, etc.

1) Log in to SMS.
2) Select [System Info] on System Management menu.
3) Click [Display Details] button.



F-2-334

4) System information of each application (including system applications) is shown in an additional window. Copy and paste all the information in a file to attach to AR reports as text information. This function is useful to check status information of each application.



F-2-335

Printing the System Information of a MEAP Application

MEAP system information can be printed out with iR device for confirmation.

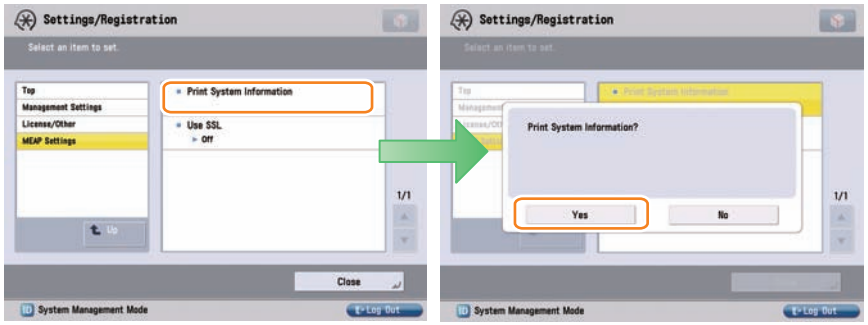
> Note:
> The system information of the MEAP application that you checked in the previous section is exactly the same as the system information of the MEAP application that is output.

Follow the steps below when confirming information:

1) Select [Settings/ Registration] > [Management Settings] > [License/ Other] > [MEAP Settings] > [Print System Information] .

> Note:
> When System Manager ID and PIN are set, go to Top screen and log in as System Manager to continue jobs.

2) Press[Yes] button.



F-2-336

> Note:
> MEAP system information was printed out in PDL format conventionally. However, the information has been printed out in text format instead of PDL format, enabling iR devices without PDL installation to print out information (iR C3220 and later).

Content of MEAP system information

Application System Information

```
Application Name: C-Cabinet Gateway for MEAP
Application ID/System Application Name: 03a46668-63e4-4636-9cbb-492b6cef05d5
Application Version: 1.0.0
Status: Resolved
Installed on: Tue Oct 21 14:00:11 GMT+09:00 2003
Vendor : Canon Inc.
License Status : Installed
Maximum Memory Usage : 1024
Registered Service :
```

item	content
Application Name	It is the name (bundle-name) declared in a statement within the application program. It may not necessarily be identical to the name of the program.
Application ID/System Application Name	Application ID (application-id) items which are declared on the declaration statement in the application program are printed.
Application Version	It is the version of the application (bundle-version) declared in a statement within the application program.
Status	It indicates the status of the application in question; specifically, Installed: the application has been installed. Active: the application is being in use. Resolved: the application is at rest.
Installed On	It indicates the date on which the application was installed.
Vendor	It is the name of the vendor that developed the application, and is the name (bundle-vendor) declared in a statement within the application program.
License Status	It indicates the status of the license; specifically, None: no license is needed. Not Installed: no license has been installed. Installed: the appropriate license has been installed. Invalid: the license has been invalidated. Overlimt: the license has been used beyond its permitted limit.
License Expires After	It indicates the date after which the license expires. If the status of the license is 'none', this item will not be printed.
License Upper Limit	It indicates the limit imposed on individual counter readings. If the status of the license is 'none', this item will not be printed.
Counter Value	It is the current counter reading of a specific counter. If the status of the license is 'none', this item will not be printed.
Maximum Memory Usage	It indicates the maximum amount of memory that the application uses. It is the amount (maximum memory usage) declared in a statement within the application program, and is expressed in kilobytes.
Registered Service	It is a list of services that have been registered by the application with the MEAP framework.Some services may not have printable data.

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MEAP Application Information

Outline

You can check the MEAP application installed on the device.
The following information can be checked on the MEAP application information screen.

Application Information

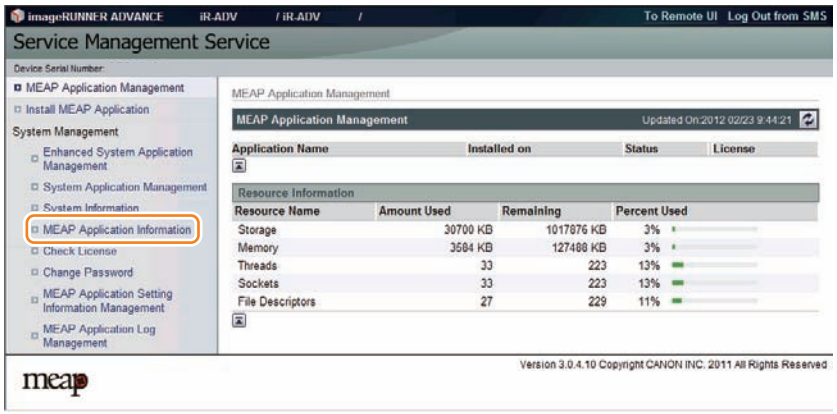
- Application Name
- Application ID
- Installed on
- Applet Number
- Description
- Manufacturer
- ContactAddress
- Category
- Version
- Copyright
- Applet-Name
- URL
- Export Package
- Export Service
- Import Package
- Import Service
- Resources Used (Storage, Memory, Threads, Sockets, File Descriptors)

License Information

- Status
- Serial Number
- Expires after

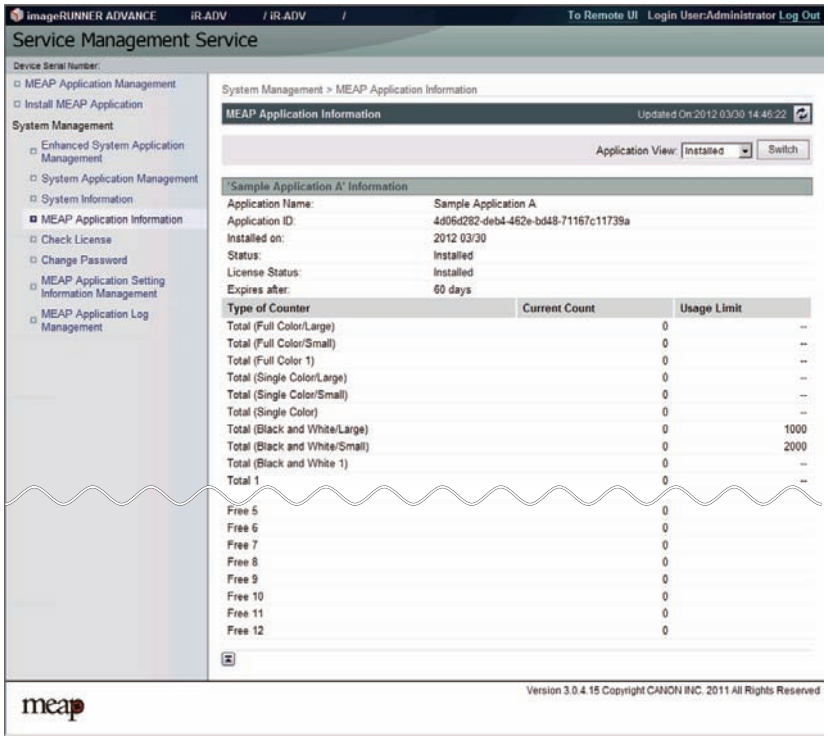
Procedure to Check MEAP Application Information

1) Log in to SMS.
2) Select [System Management] > [MEAP Application Information] on System Management menu.



F-2-337

3) The MEAP application information screen appears. Scroll the screen and check the information of the target application.



F-2-338

Check License

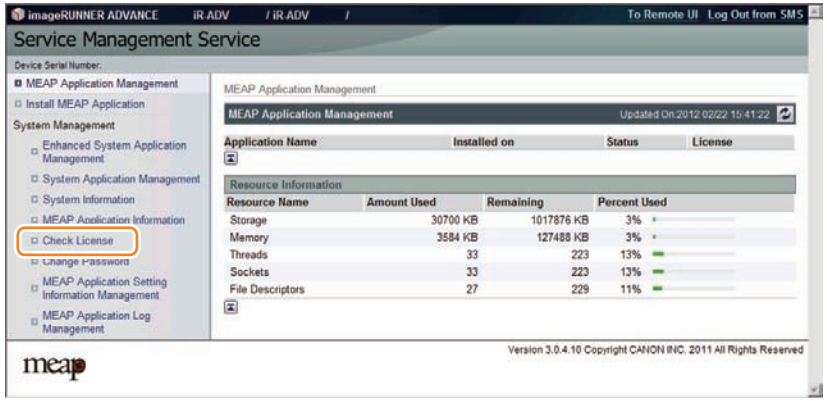
Outline

You can check the contents of the license file.

Procedure to Check the License File

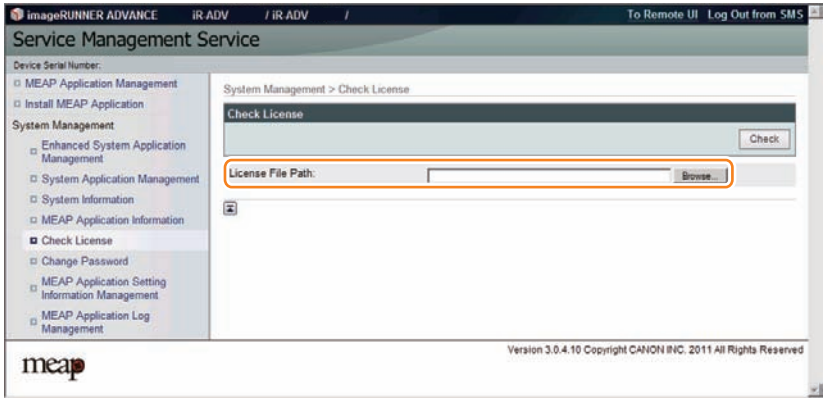
1) Log in to SMS.

2) Select [System Management] > [Check License] on System Management menu.



F-2-339

3) Click the [Browse..] button, specify a license file, and click the [Check] button.



F-2-340

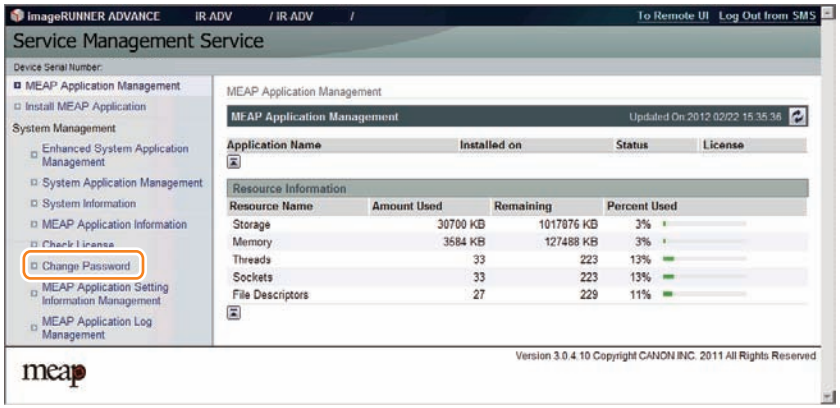
Changing SMS Login Password

Outline

You can change the password for logging into SMS.
If you forgot the login password and you want to change the password back to the default value (MeapSmsLogin), see "If you forgot the password (SMS login password initialization)" in this chapter.

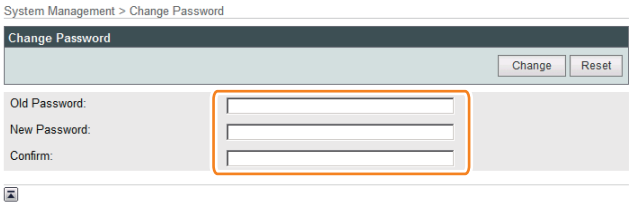
Procedure to Change the SMS Login Password

1) Log in to SMS.
2) Select [System Management] > [Chage Password] on System Management menu.



F-2-341

3) Enter the current password and a new password, and then click the [Change] button.



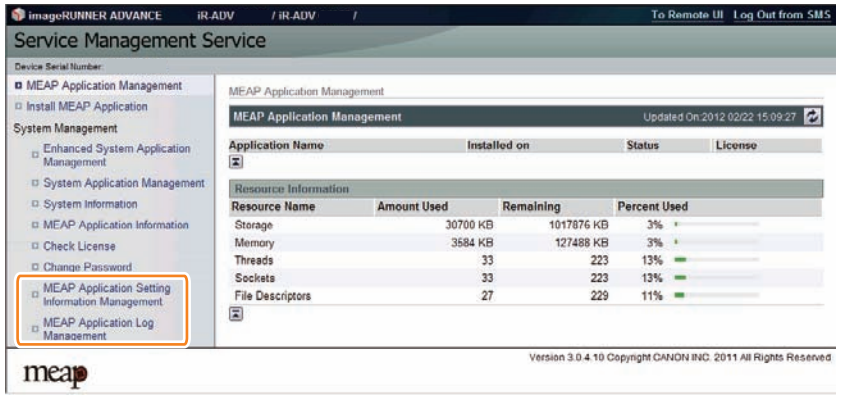
F-2-342

Note:
The [Reset] button on the [Change Password] screen is used to clear the value entered in the text field. It is not a button for changing the SMS login password back to the default value.

MEAP Application Setting Information Management and Log Management

Outline

The MEAP Application Setting Information Management page and the MEAP Application Log Management page provide menu related to "MEAP Application Configuration Service" for managing MEAP application setting information and menu related to "MEAP Application Log Service" for managing log information respectively.



F-2-343

MEAP Application Configuration Service

This service is used to manage the MEAP application setting information. It has functions such as saving setting information to the MEAP area. Ver 57 of MEAP Specifications supports this service.

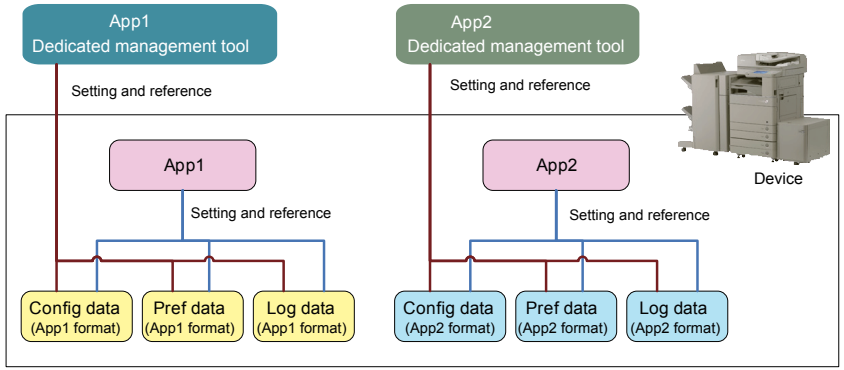
MEAP Application Log Service

This service is used to collect MEAP application logs (debug logs and authentication logs). Ver 58 of MEAP Specifications supports this service.
The collected logs can be downloaded or deleted in user mode.
The settings such as the log level to be saved cannot be made from SMS.
These settings depend on the MEAP application. For detailed information, refer to the manual for the application.

Advantages Obtained When Using the Services

By using MEAP Application Setting Information Management and MEAP Application Log Service, as long as the MEAP application supports these services, you can collectively perform data management tasks.

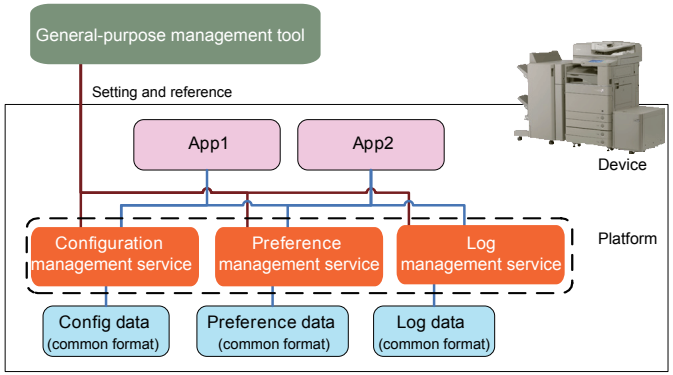
Devices and MEAP applications which do not support new functions



F-2-344

As for devices and MEAP applications that do not support the service, the setting information and log data are managed on an application-by-application basis.

Devices and MEAP applications which support new functions



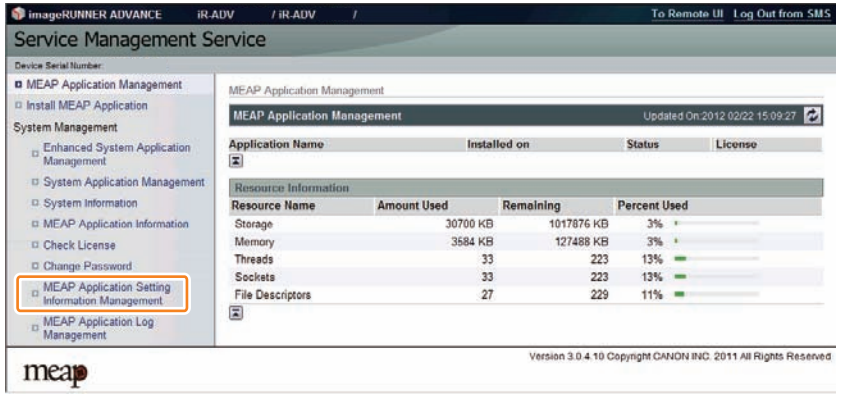
F-2-345

As for devices and MEAP applications that support the service, information can be collectively managed.

MEAP Application Setting Information Management

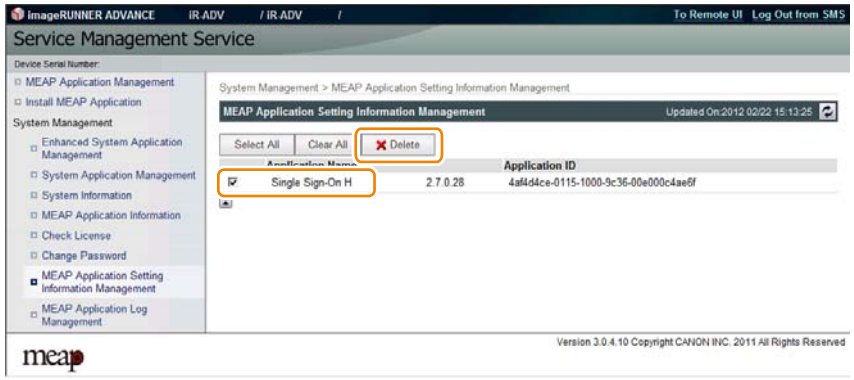
The setting data (stored on the device) of the MEAP applications which support MEAP Application Setting Information Management can be deleted. The procedure is shown below.

1) Log in to SMS.
2) Select [System Management] > [MEAP Application Setting Information Management] on System Management menu.



F-2-346

3) Select an application you want to delete, and click the [Delete] button.



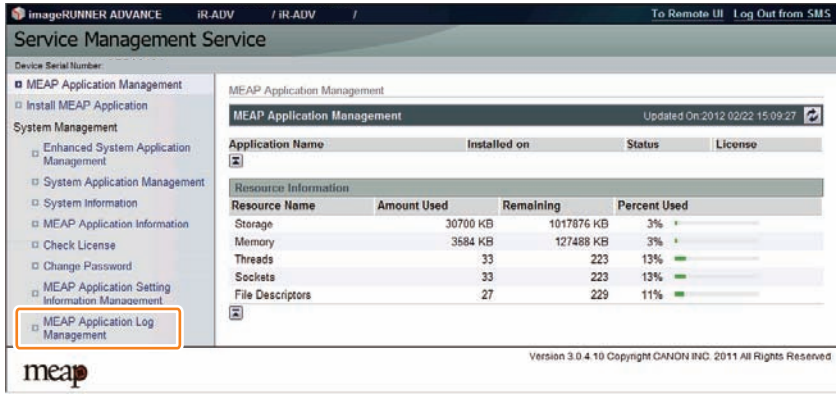
F-2-347

Note:
If a MEAP application that contains setting data which can be shared (not dedicated to the application) is installed, the application name [Shared Setting Information of Applications] is displayed.

MEAP Application Log Management

The log data (stored on the device) of the MEAP applications which support MEAP Application Log Service can be downloaded or deleted. The procedure is shown below.

1) Log in to SMS.
2) Select [System Management] > [MEAP Application Log Management] on System Management menu.



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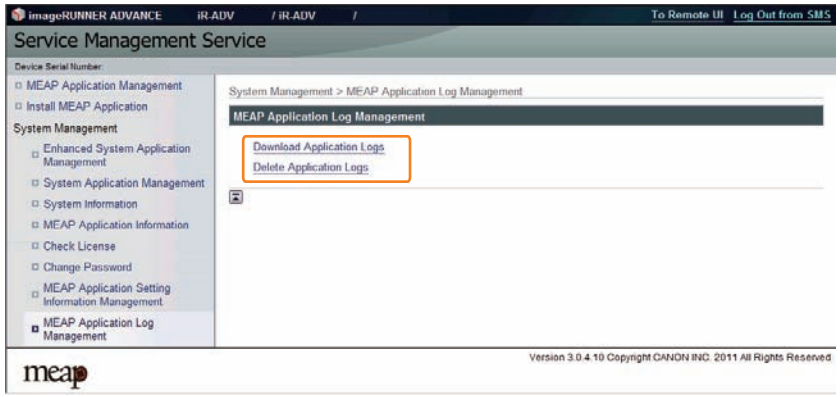
3) Select [Download Application Logs] or [Delete Application Logs].



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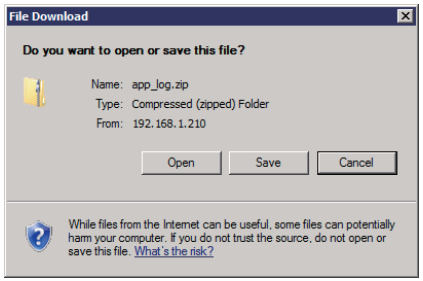
4) To download the logs

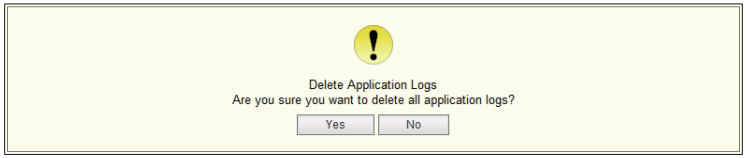
The file save dialog for the log file will appear. Specify the destination and save the file.



F-2-350

5) To delete the logs

The confirmation screen will appear to prompt you to delete the logs. Click the [Yes] button to delete the logs.



F-2-351

Maintenance

Backup of the MEAP Application Area and Recovery of the Backup Data Using SST

Outline

When replacing or formatting the HDD, the data in the MEAP application area needs to be temporarily saved to your PC.
This chapter describes information on backing up the data in the MEAP application area and recovering the backup data.

In the case of MEAP-installed devices, the application is license-managed, so the application needs to be reinstalled and reconfigured when replacing or formatting the HDD.
In that case, a license for reinstallation needs to be downloaded and the customer data and configuration information need to be recovered, and these procedures pose heavy burdens on the service technician.

The area used for the MEAP application can be easily saved/recovered by using the backup function of SST (Service Support Tool).
This greatly reduces the work burden on the service technician.
Please note that the application cannot be illegally copied because the backup data can be recovered only when the iR device has the same serial number.

WARNING:

You must not perform any other work (including checking operation) until the HDD has been backed up. This arrangement is to prevent a mismatch of MEAP counter readings and the HDD contents, and any fault in operation arising as the result of failure to observe this will not be covered by the guarantee of operation.

Note:
The application that is installed with a reusable license can be reinstalled by using the same license.

Backup Item Automatically Copied

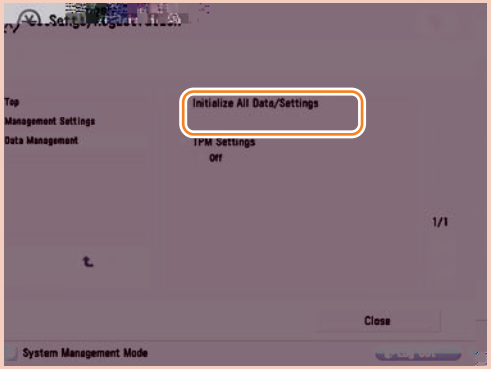
The following data are backed up using SST:

The following data are backed up (saved as Meapbackup.bin) using SST.

- MEAP applications.
- Setup data generated by MEAP applications (Note that image data stored in BOX will not be saved for MEAP applications using BOX function).
- User information data registered for local device authentication in SSO-H
- SMS password

CAUTION:

Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



F-2-352

When [Initialize All Data/Settings] is executed, the key used to combine encrypted backup data (SMS password, etc.) is initialized, which makes it impossible to combine the data.

It means that SMS cannot be accessed even when the backup data has been recovered using SST.

If you inadvertently executed [Initialize All Data/Settings] and can no longer access SMS, the SMS login password needs to be initialized by following the procedure shown in "When SMS Cannot Be Accessed" in "Login to SMS" in this manual.

Data backed up using SST in the case of iR-ADV devices

In the case of iR-ADV devices, menus are implemented as MEAP application. Therefore the following items can be also backed up (stored as Meapbackup.bin).

- Setting items of each menu in the main menu (Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox,).
  - Favorite settings
  - Default settings
  - Settings of option shortcuts
  - Previous settings
- Settings of quick menu
  - Button size information
  - Wallpaper settings
  - Quick menu button information
  - Restrict quick menu use

Requirements for Backup Using the SST

The following conditions must be met for use of the function:

1) Device Firmware Version
Device Firmware Version for SST (Ver4.2x)

	Boot ROM	System	SST
iR-ADV C2030/C2020 series	Boot ROM is not equipped.	Already supported since the 1st version.	The version supporting the corresponding devices.
imageRUNNER ADVANCE series other than iR-ADV C2030/C2020 series	Already supported since the 1st version.	Already supported since the 1st version.	The version supporting the corresponding devices.

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2) SST Version
Version 4.2.x or later. An earlier version will not permit the use of the function. If needed, upgrade the SST.

3) Space for backup
To back up the HDD of the iR, the PC must have approx 1024MB of free space at maximum. Sizes of backup files depend on actual data capacities to be backed up.

Procedure for backing up the MEAP application area using SST

1) Switching Login Service / Backup of Login User Information
If SSO-H is used for the login service, switch to default authentication before backing up the user information. Although SST will back up local device user information, it is recommended to export the user information just in case. For local device user information backup, go to User Management page of SSO-H site and export the data. (The SSO-H login page opens with the URL "https://<device IP address>:8443/sso/").

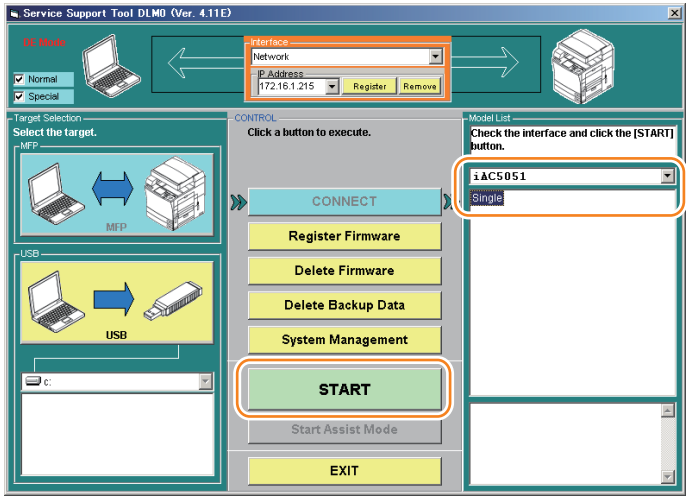
CAUTION:
- If a HDD of a system that uses SSO-H is formatted without changing the login service to the default authentication, the error message “The login service must be set again with SMS” appears and the system cannot start up when you attempt to restart the system after formatting.
- If this problem occurs, change the login service to SSO-H with SMS. If you cannot access to SMS since you do not have the IP address of the device, start the system with FIXIP mode -hold down the numeric keys 1 and 7 and turn the power switch on. The IP address “172.16.1.100” will be automatically assigned for the device. Then log in to SMS specifying the address.

2) Starting the device in Download Mode
Press [2] and [8] buttons at the same time on the control panel and turn on the main power switch to start the device in Download Mode. Note that SST backup function is enabled only in Download Mode.

3) Connecting the main unit to the PC to start SST
Connect the main unit to the PC with SST installed using the crossing cable and the like to start SST on the PC.

4) Connecting the device using SST

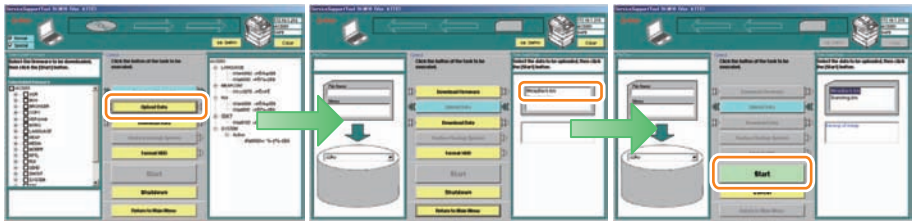
When starting SST, select the target device type as Single and click [Start] button.



F-2-353

5) Generating backup data to transfer it to the PC (uploading)

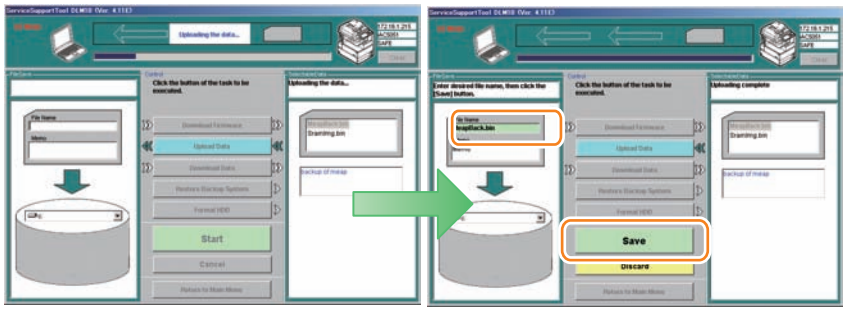
Click [Upload Data] button of SST and select “Meapback.bin” as the item to be backed up to click [Start] button.



F-2-354

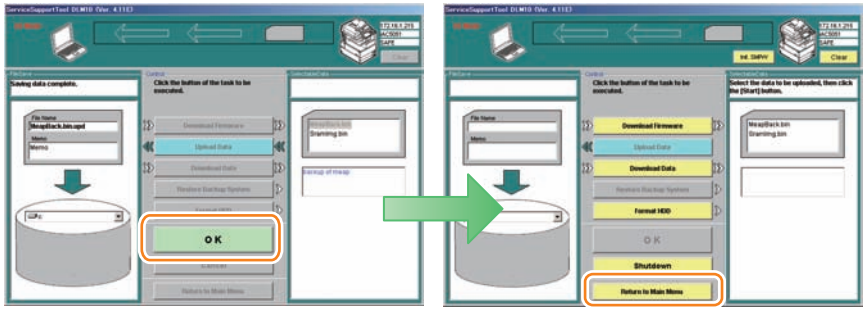
6) Saving backup data

Upon the backup data transferred to the PC, enter an appropriate file name and click [OK] to save the backup data on the PC.



F-2-355

When the file is successfully saved, click [OK] button, and then click [Return to Menu] button.



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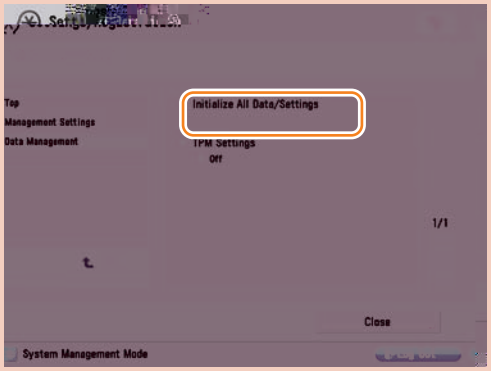
CAUTION:

Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



F-2-357

When [Initialize All Data/Settings] is executed, the key used to combine encrypted backup data (SMS password, etc.) is initialized, which makes it impossible to combine the data.

It means that SMS cannot be accessed even when the backup data has been recovered using SST.

If you inadvertently executed [Initialize All Data/Settings] and can no longer access SMS, the SMS login password needs to be initialized by following the procedure shown in "When SMS Cannot Be Accessed" in "Login to SMS" in this manual.

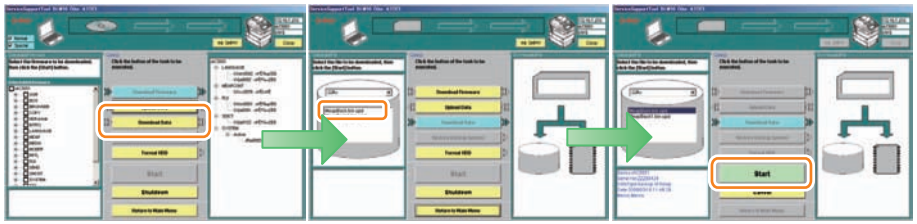
Procedures to Restore Backup Data

1) Connecting to the device

Connect the device using SST by following step 1 to step 4 of the Procedure for backing up the MEAP application area using SST.

2) Restoring backup file

Click [Download Data] button and select the data backed up in the previous step (Meapback.bin) to click [Start Restoring Data]. Note that the data backed up in a different version cannot be restored.



F-2-358

3) Transferring Data

When the data is successfully transferred, click the [OK] button shown on the screen. To continue other jobs, click [Return to Menu] button.

F-2-359

4) Turn off and on the main power switch of the device to gain access in SMS to check that MEAP applications are surely restored.

5) Restore the backup data and setting saved. Note that the user information of the local device is included in the backup data, thus does not need to be restored.

Formatting and Replacing the HDD

Outline

If the HDD is broken or does not function correctly due to failure of the system (excluding the MEAP application), it needs to be formatted or replaced.
When the HDD is formatted or replaced, the files of the MEAP application stored in it will be lost, so make a backup of the MEAP application area according to “Procedure for backing up the MEAP application area using SST” if possible. If a backup cannot be made, the MEAP application and the license files need to be reinstalled.
As for the MEAP counter information, it will not be lost because it is backed up just like the conventional counter.

If a backup cannot be made, a special license file (a license file for installation with the expiration date carried over from the current counter value) is required to reinstall the MEAP application. This special license file is treated as a service tool and cannot be obtained by a general user.
In order to obtain a special license file, a service technician needs to contact a person in charge of support of a sales company.
When contacting the person in charge of support, the service technician also needs to provide the serial number of the device and the name of the MEAP application installed.

In the support departments of regional headquarters of Canon, all license files of the applications that have been issued are filed according to device serial numbers, enabling you to obtain a series of license files through a single screen as long as you can identify the serial number of the device in question.

Note:
The application that is installed with a reusable license can be reinstalled by using the same license.

Formatting the HDD

Procedure to format the hard disk

Follow the following procedure to format the HDD.

1) Connecting to the device
   Connect the device using SST by following step 1 to step 4 of "Procedure for backing up the MEAP application area using SST".

2) Formatting the HDD
   Select “Format HDD” from SST menu to format the HDD.

Note:
HDD can be formatted also by starting Download mode using the USB memory and executing formatting from the displayed menu.

HDD replacement procedure

Outline

The procedure for replacing the HDD differs according to whether the HDD functions normally or not.

If the MEAP application area cannot be backed up

If the HDD does not function correctly due to failure or for other reason, the MEAP application area cannot be backed up. It is therefore necessary to reinstall the application after replacing the HDD. The procedure is shown below.

1) Preparation for replacement
   Copy a set of license files for reinstalling the MEAP application (special licenses and reusable licenses) to a laptop for service operation.
   Register a set of system files of a target product to SST. Or, prepare USB thumb drive of the System file transfer settlement.

2) Replacing the drive
   Prepare the necessary service parts of the HDD, and replace the drive.

3) Formatting HDD
   Format the HDD referring to Procedure to format the hard disk.

4) Reinstalling the MEAP application
   When the device has started normally, obtain the jar files of the MEAP applications from the user, and install them using the license files for reinstallation.
   Installation method is the same as normal installation.

5) Importing user information
   As necessary, make login service selections and import user information.

> Note:
> When you replace the HDD without uninstalling MEAP applications, make sure to reinstall the previously installed applications. Unless reinstalling them, MEAP counter will not be released and the message “The number of applications that can be installed has exceeded the limit. Try to install this application after uninstalling other applications.” is displayed so that the installation of new applications may not be accepted. If you want to install new applications in this case, once reinstall the applications in-stalled before formatting and uninstall unnecessary applications.

If the MEAP application area can be backed up

If the MEAP application area can be backed up, it can be recovered after replacing the HDD, so it is not necessary to prepare the special licenses for reinstallation.

1) Preparation for replacement
   Back up the MEAP application area of the device according to the procedure for backing up the MEAP application area using SST.

2) Replacing the drive
   Prepare the necessary service parts of the HDD, and replace the drive.

3) Formatting HDD
   Format the HDD referring to Procedure to format the hard disk.

4) Restorering the backup file
   Restore the backup data referring to the Procedures to Restore Backup Data.

5) Importing user information
   As necessary, make login service selections and import user information.

MEAP Safe Mode (level 2)

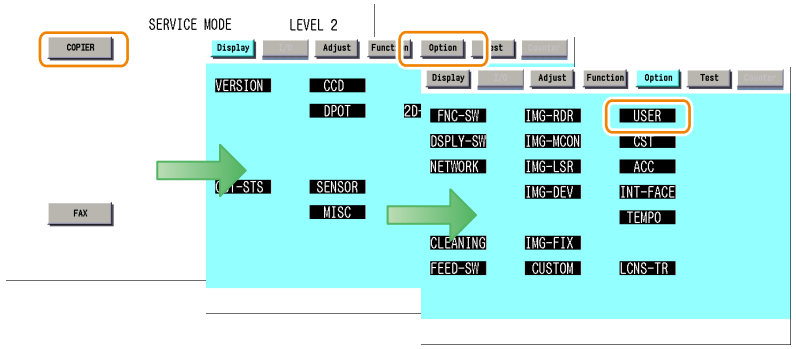
Outline

Use safe mode if you need to start up the system without worrying about extra applications. It will start up only those system software files (including SMS) that normally start up as default files while preventing MEAP applications and the like from starting up.

When you have made changes and restart the device, the control panel will indicate 'MPSF' in its lower right corner. The MEAP applications that may have been active before you shut down the equipment will not start up on their own. Make use of safe mode when restoring the system software as when MEAP applications or services cause a fault as the result of a conflict or wrong sequence of registration/use. You can access to SMS in this condition so that you can take necessary measures, for example, you can stop application that may cause the trouble.
If default authentication has been selected, the mode of authentication remains valid; otherwise, the message "The login service must be set again with SMS" ap pears. Change the login service as necessary.

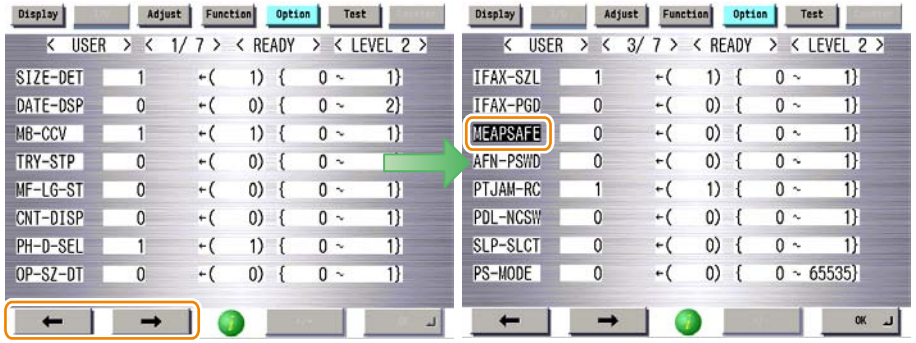
Starting in Safe Mode

1) Startup [SERVICE MODE] in level 2.
2) Press [COPIER] >[Option] > [USER] buttons.



F-2-360

3) Press ← or → button for several times until [MEAPSAFE] button is shown. Click [MEAPSAFE] button.



F-2-361

4) Press the 1 key on the control panel keypad to change the setting to '1'; then, click [OK] button.

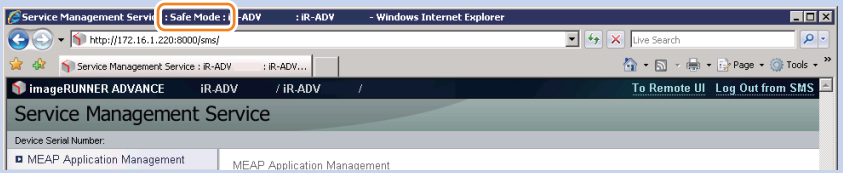
F-2-362

5) Check that the notation 'MPSF' has appeared in the upper left corner of the screen; then, restart the device.

F-2-363

Note:
If accessed to SMS in MEAP SAFE mode, the device started mode is shown on the title bar of the browser.

An example of the title bar displayed at the time of startup in MEAP SAFE mode
Service Management Service : <Device Name>:<Product Name>: Safe Mode

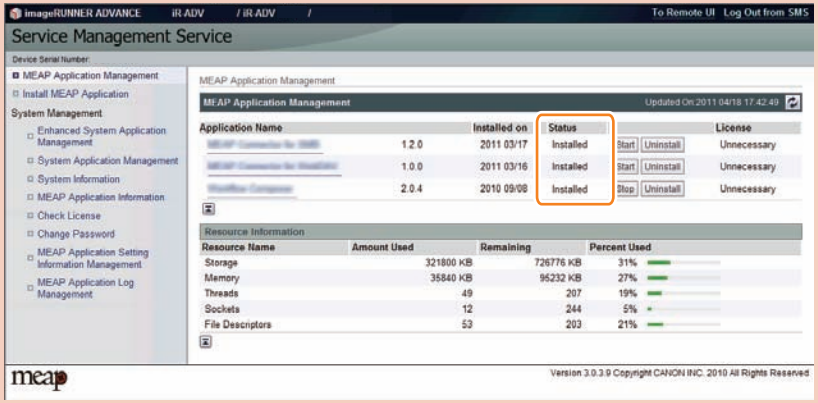


F-2-364

CAUTION:

If the device has been started in MEAP SAFE mode, all the MEAP applications stop and the status becomes "Installed".

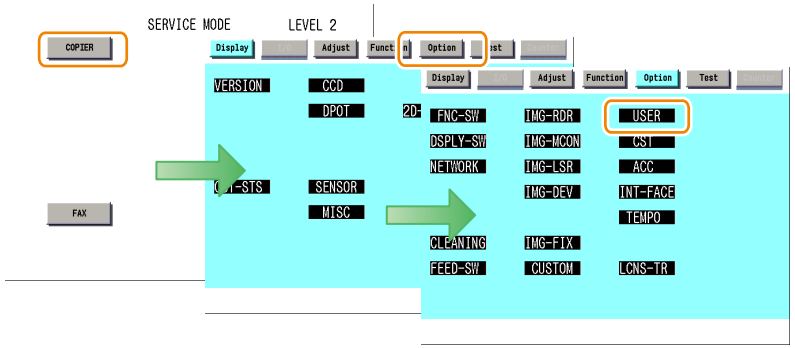
This status remains unchanged even if the MEAP SAFE mode is canceled and the device is started again in normal mode. It is therefore necessary to access SMS after normal startup and start the MEAP application.



F-2-365

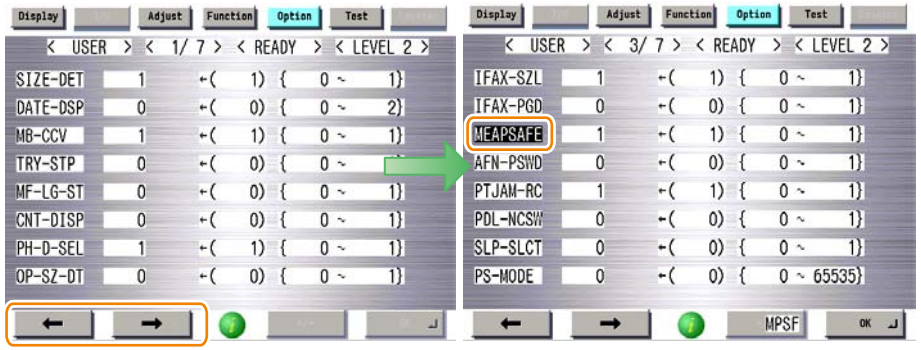
How to cancel MEAP SAFE mode

1) Startup [SERVICE MODE] in level 2.
2) Press [COPIER] >[Option] > [USER] buttons.



F-2-366

3) Press ← or → button for several times until [MEAPSAFE] button is shown. Click [MEAPSAFE] button.



F-2-367

4) Press the 0 key on the control panel keypad to change the setting to '0'; then, press [OK] button.

F-2-368

5) Start service mode again after rebooting the device, and check that the displayed setting value has changed to "0" and that [MPSF] is no longer displayed at the upper left of the screen.

F-2-369

Collection of MEAP Console Logs

Overview

When debugging a MEAP application, console logs need to be collected in some cases. The following shows how to collect MEAP console logs using commercially available terminal software and service mode.

What to Prepare

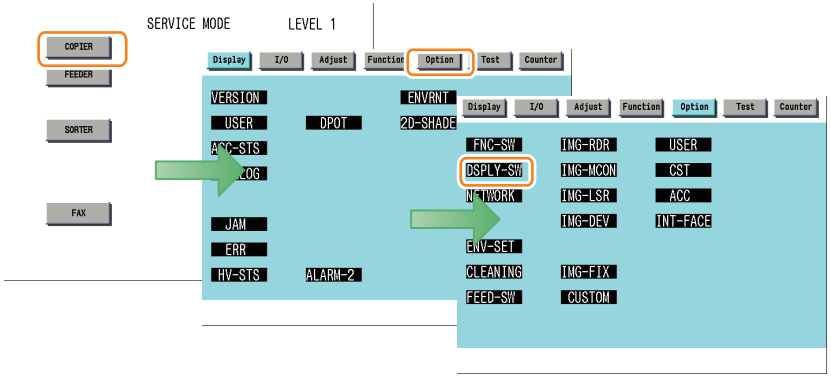
- PC connected with the same network as the device
- Commercially available terminal software

> Note:
> In the procedure shown in this manual, "Tera Term Pro" and "Hyper Terminal" are used as the terminal software.

Work Procedure

Device Setting Procedure

1) Start [SERVICE MODE] in Level 1.
2) Press [COPIER] > [Option] > [DSPLY-SW] buttons.

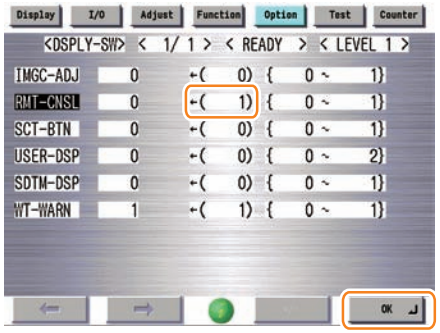


F-2-370

3) Press [RMT-CNSL] button.

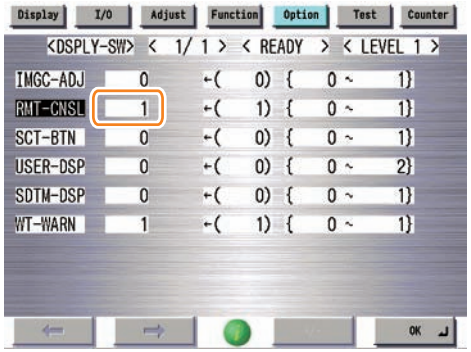
F-2-371

4) Press either 1 (activate remote console function) on control panel (the numerical value input in the field is displayed), and press [OK] button.



F-2-372

5) Check to see that it is reflected in setting field, and restart the device.

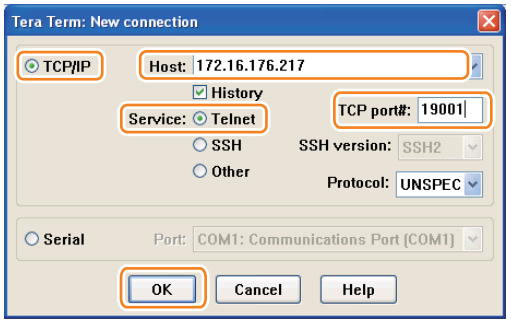


F-2-373

PC setting procedure (when Tera Term is used)

1) Install the terminal software on the PC.

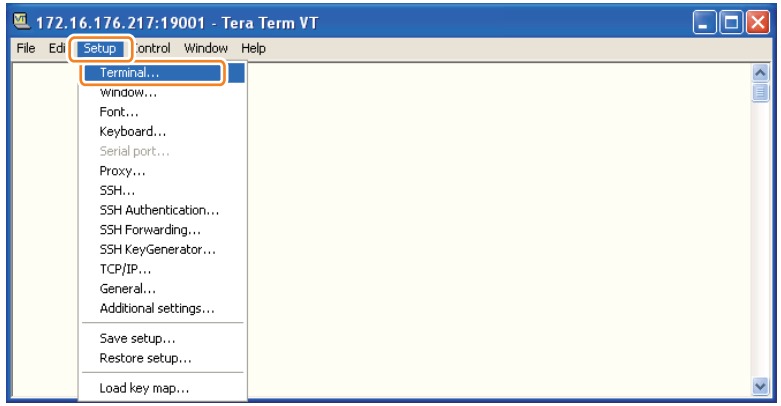
2) Start the terminal software, make the following settings, and then click the "OK" button.



F-2-374

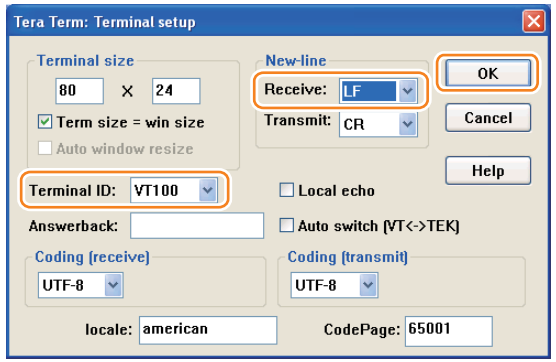
Connection	: Select [TCP/IP] (Default)
Host	: Device Host Name or IP Address
Service	: Select "Telnet"
TCP port#	: Enter 19001

3) The connection window will open. Select [Terminal…] from the [Setup] menu.



F-2-375

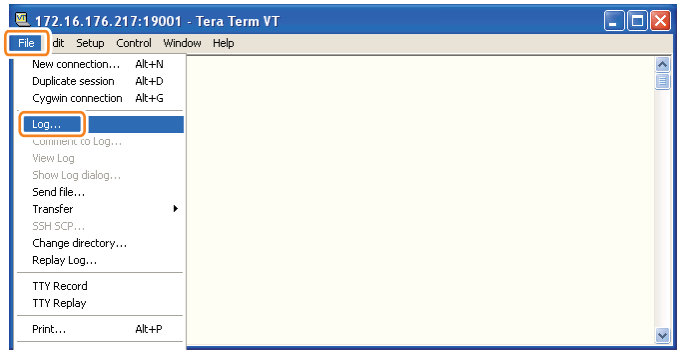
4) The terminal setting screen will appear. Make the following settings, and then click the "OK" button.



F-2-376

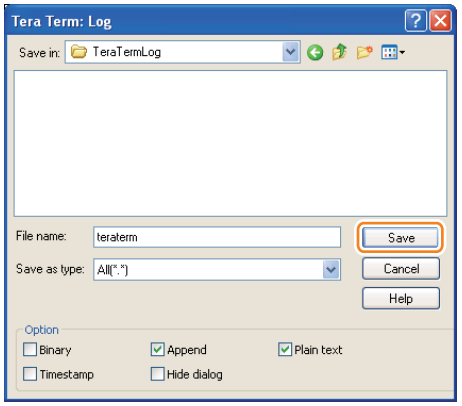
Terminal ID : VT100
New-line Receive : LF

5) Select [Log...] from the [File] menu.



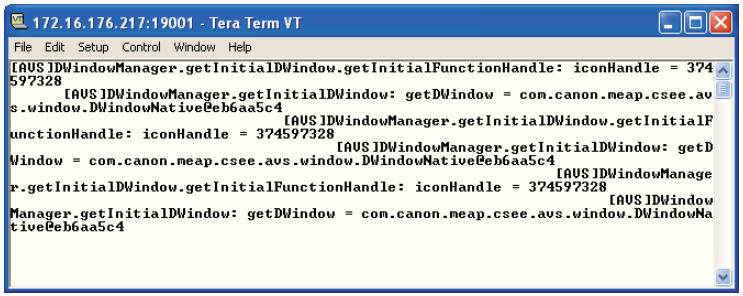
F-2-377

6) The dialog for specifying the save destination of the log file will appear. Set the save destination path and the file name, and then click the [Save] button.



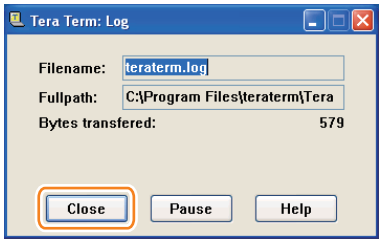
F-2-378

7) Perform the operation whose log you want to collect.



F-2-379

8) Click the [Close] button in the log dialog.

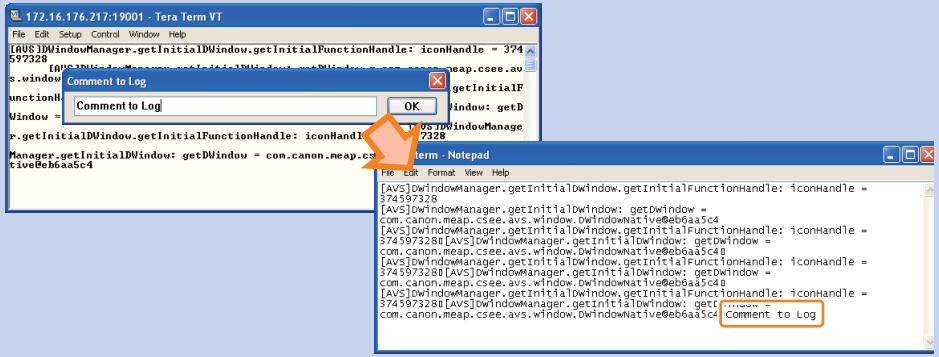


F-2-380

Note:
To suspend log collection, click the [Pause] button.

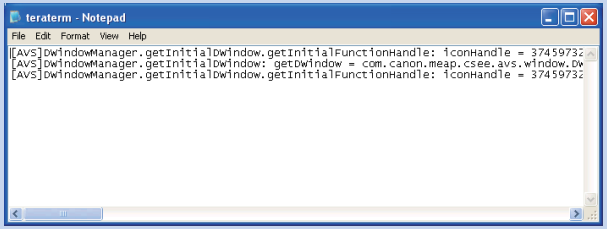
Note:
While collecting logs, the following operations are available from the [File] menu.

Comment to Log... :
You can add a comment to the log being collected. The added comment is reflected in the log file.



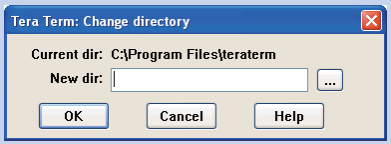
F-2-381

Show Log dialog... :
The logs that have been collected are pasted on Notepad and displayed.



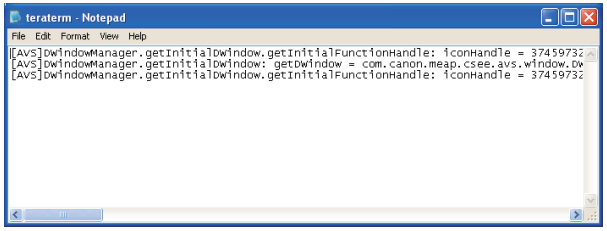
F-2-382

Change directory... :
The preliminarily set save destination of the log file can be changed.



F-2-383

9) Open the file saved in the save destination, and check that the logs are stored correctly.



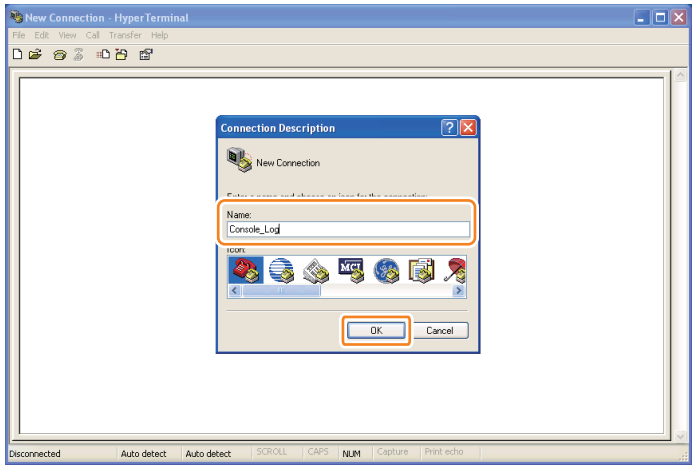
F-2-384

Note:
Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

CAUTION:
After collecting logs, the remote console function of the device needs to be disabled (select [SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [DSPLY-SW] > [RMT-CNSL] > 0, and restart the device).

PC setting procedure (when Hyper Terminal is used)

1) Start Hyper Terminal, set the connection name in the [Connect Description] dialog that appears on the screen, and then click the OK button.

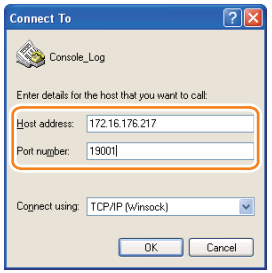


F-2-385

2) Set [TCP/IP(Winsock)] for [Connect using].

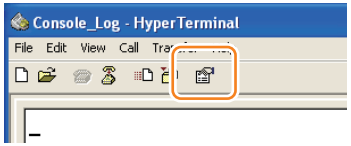
F-2-386

3) Enter the IP address of the target device in [Host address], and enter "19001" (fixed) in [Port number].



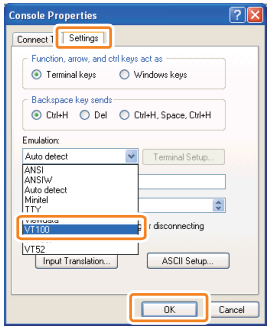
F-2-387

4) Click the "Properties" icon on the Hyper Terminal screen.



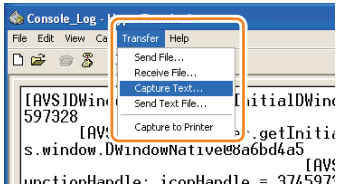
F-2-388

5) The [Console Properties] dialog will appear. Select the [Settings] tab, select [VT100] for [Emulation], and then click the [OK] button.



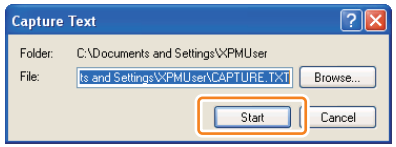
F-2-389

6) Return to the Hyper Terminal window, and select [Transfer] > [Capture Text...] from the menu.



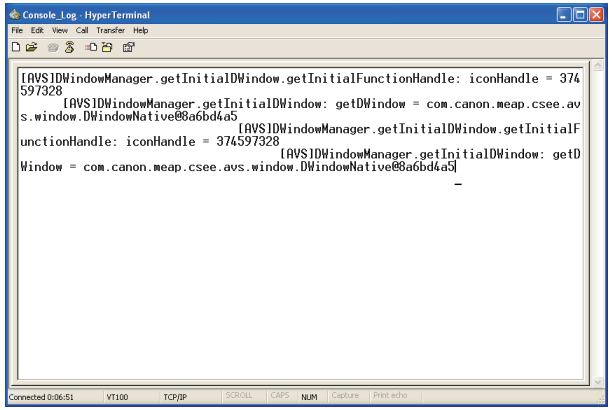
F-2-390

7) The dialog for specifying the save destination of the log file will appear. Specify the save destination.



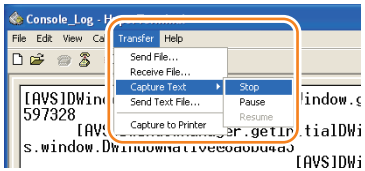
F-2-391

8) Perform the operation whose log you want to collect.



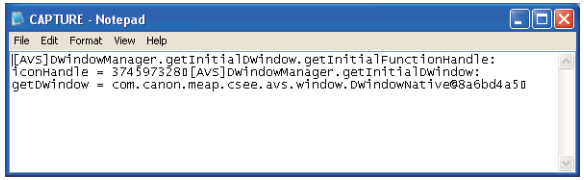
F-2-392

9) Select [Transfer] > [Capture Text...] > [Stop] from the menu.



F-2-393

10) Open the file saved in the save destination, and check that the logs are stored correctly.



F-2-394

Note:
Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

CAUTION:

After collecting logs, the remote console function of the device needs to be disabled (select [SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [DSPLY-SW] > [RMT-CNSL] > 0, and restart the device).

Using USB Devices

USB Driver

Two types of USB drivers

While the USB driver that can be used in iR series is only the USB driver designed exclusively for MEAP application (hereinafter referred to as “MEAP driver”), not only MEAP driver but also USB system driver (hereinafter referred to as “system driver”) can be used in iR-ADV series.

System driver and MEAP driver cannot be used together. When either of them is used, the other driver cannot be used.

USB driver setting (iR-ADV series):

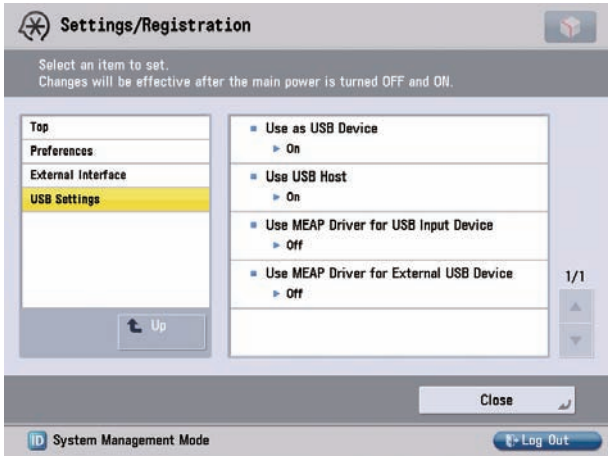
System driver is active by default in iR-ADV series.

The driver can be changed in Settings/Registration (user mode).

Usually, It is not necessary to change the setting because it is specified in the MEAP application side.

Only in the case of a special MEAP application, it is necessary to change the USB driver setting.

For details, refer to specifications of MEAP application side.



F-2-395

Operating mode settings [Use MEAP driver as USB input device]	Conventional USB keyboard enabled MEAP application	Software keyboard application (System Driver/ MEAP Driver)	System driver supported MEAP application
ON * MEAP driver (conventional compatibility mode)	Can use USB keyboard. Can work only on the conventional applications that support the MEAP application driver.	Cannot use USB keyboards. (Device cannot be detected.)	Cannot use USB keyboards.
OFF (*default) * Native driver	Cannot use USB keyboards. (Device cannot be detected.)	Can use USB keyboards.	Can use USB keyboards. Via software keyboards only.

T-2-112

Note:
When any settings changes are made, the device must be restarted.

Setting the USB driver for each USB device (MEAP driver preference registration)

If it is set to use the system driver, the conventional applications that support the MEAP application driver cannot use the USB input device.
Therefore, for the USB drivers used by USB devices/MEAP applications, there is setting function (MEAP driver preference registration) to give priority to the MEAP driver.
If you register the ID of the USB device by using this function, the USB device can use the MEAP driver despite the Additional Function settings.

Using this function requires the conditions below:

- Supported MEAP SpecVer: 26
- Describe the idVendeor(VID) and idProdutc(PID) of USB device in the manifest or activate/ deactivate the VID and PID by calling API from MEAP applications.

The driver setting that is used in a manifest file is reflected in the following timing.

When registering from a manifest file.

- The registration will be enabled when an application is activated and device is restarted.
- The registration will be disabled when an application is stopped and device is restarted.

Note:
You can display/check the used driver setting at “USB device report print” described below regardless of whether it is registered from a manifest file or is registered from API.

Availability for MEAP application of the USB device A (either HID keyboard or Mass Storage) plugged to iR device

Registration status of USB device A	When the HID keyboard is installed > USB Settings: [Use MEAP Driver for USB Input Device] When the Mass Storage is installed > USB Settings: [Use MEAP Driver for External USB Device]	Native application	MEAP application		
			System driver supported application	System driver not supported/ conventional application	Application with VID/ PID declared in Manifest for x
Not registered	OFF	YES	YES	NO	
	ON	NO	NO	YES	
Registered	OFF	NO	NO	YES	YES
	ON	NO	NO	YES	YES

T-2-113

YES: USB device available NO: USB device not available

Availability for MEAP applications of USB devices B and C (either HID keyboard or Mass Storage) plugged to iR device

Registration status of USB device B	Setting to use MEAP driver (Additional Functions mode)	USB device	Native application	MEAP application		
				System driver supported application	System driver not supported / conventional application	Application with VID/PID declared in Manifest for B
Registered	Not used (Native driver to be used)	B	YES	YES	NO	
		C	YES	YES	NO	
	To be used	B	NO	NO	YES	
		C	NO	NO	YES	
Not registered	Not used (Native driver to be used)	B	NO	NO	YES	YES
		C	YES	YES	NO	NO
	To be used	B	NO	NO	YES	YES
		C	NO	NO	YES	YES

T-2-114

YES: USB device available NO: USB device not available

Specifications for the use of USB keyboards

Characters that could be entered on the software keyboard displayed on the conventional control panel can be entered using a USB connected keyboard.

- When the software keyboard window is displayed, characters can be entered from the USB keyboard (in-line entry not possible).
- When the software keyboard window is not displayed, entered characters will not be remembered.
- The characters, which can be entered from a USB keyboard, is only a character, which can be entered from the software keyboard.
- Even if characters are entered from the USB keyboard, the software keyboard window will not change (the corresponding key does not invert or change color).
- Input from the USB keyboard can be accepted at the same time as input from the software keyboard or numeric keys.
- Since the device supports Plug and Play, the USB keyboard can be disconnected/ connected freely. However, do not disconnect and connect during in deep sleep (when in sleep with setting "low" at "the power consumption in sleep"). It is out of an operation guarantee to disconnect and connect the USB keyboard in deep sleep.
- When USB device is attached to iR device, iR devices do not shift to deep sleep mode.
- Keyboard layout changes according to the keyboard layout settings in the Settings/ Registration screen. In addition, function keys and ten keys which are not displayed in the software keyboard cannot be used. (Keyboard which the operation check was conducted is 84-key Keyboard, but this does not mean that the operation of all 84-key Keyboards is guaranteed.)

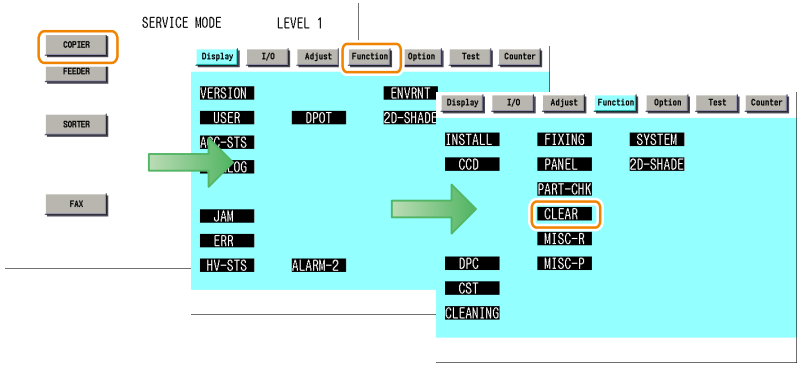
Note:
The factory shipment default setting is to enable the use of native (main unit functionality) USB keyboards. Therefore, in order to use MEAP application keyboards, [Use MEAP driver for USB input device] under [System management settings (initial settings/ registration)] needs to be set to ON (factory shipment setting is OFF).
Operations change as described below in accordance with ON/ OFF settings.
ON: when using MEAP application keyboard
OFF: when using native (main unit functionality) keyboard (factory shipment default)

Initialization of MEAP driver priority registration

When any trouble occurs regarding USB driver settings and it is necessary to reset the setting information, you can reset the MEAP driver preference registration by using service mode.

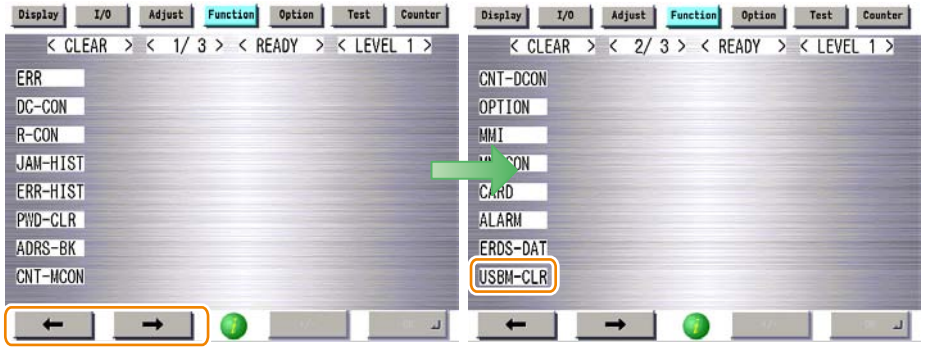
Steps to initialize preference use registration

1) Start [SERVICE MODE] in Level 1.
2) Press [COPIER] > [Function] > [CLEAR] > buttons.



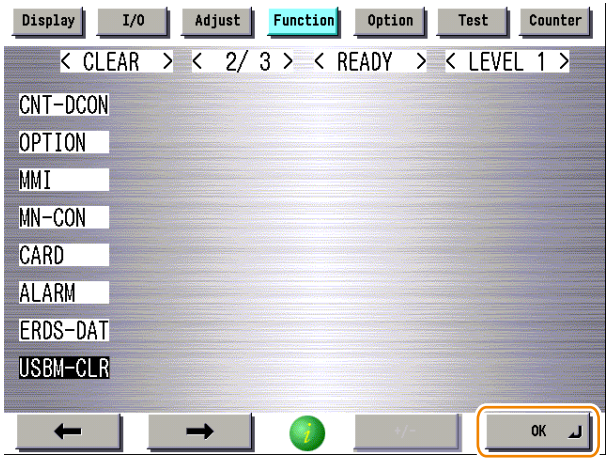
F-2-396

3) Press ← or → button for several times until [USBM-CLR] is shown on the screen. Press [USBM-CLR] button.



F-2-397

4) Press [OK] button to restart this device.



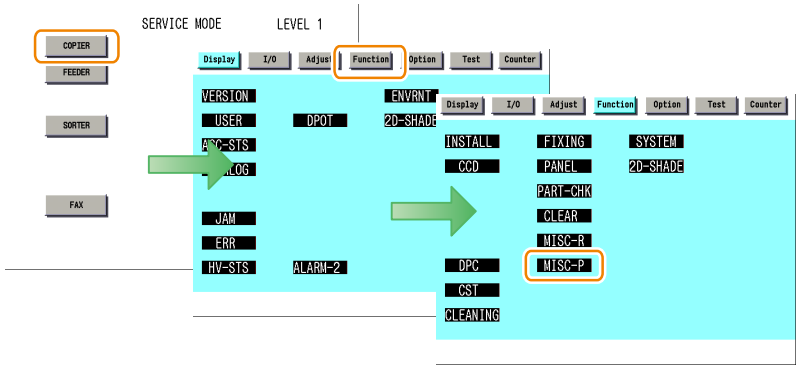
F-2-398

USB Device report print

To check the vendor IDs (idVendor) and the product IDs (idProduct) registered in this device by means of declaration in Manifest file of MEAP applications, output the USB Device repot report print.

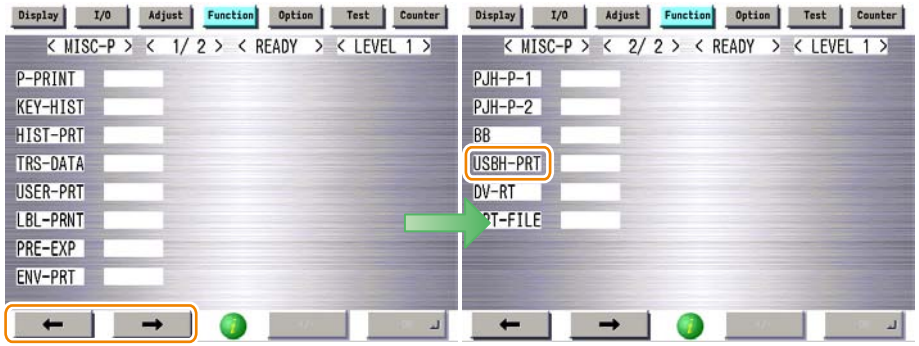
Steps to output the USB Device report print

1) Start [SERVICE MODE] in Level 1.
2) Press [COPIER] > [Function] > [MISC-P] > buttons.



F-2-399

3) Press ← or → button for several times until [USBH-PRT] is shown. Press [USBH-PRT] button.



F-2-400

4) When pressing [OK] button, [ACTIVE] blinks on the status field.

F-2-401

5) When [OK] is shown on the status field, the status print is output. Check the contents of the print.

F-2-402

Example of output result

```
*******************************
*** USB Device report print ***
*******************************

USB device information

T: Bus=01 Lev=02 Prnt=03 Port=01 Cnt=01 Dev#= 5 Spd=480 MxCh= 0
D: Ver=2.00 Cls=00(>ifc) Sub=00 Prot=00 MxPS=64 #Cfgs= 1
P: Vendor=066f ProdID=4210 Rev=10.02
S: Manifacturer=SigmaTel, Inc.
S: Product=STIr42xx
S: SerialNumber=0002F0F7261287A5
C:* #Ifs= 1 Cfg#= 1 Atr=80 MxPwr=100mA
I: If#= 0 Alt= 0 #EPs= 2 Cls=fe(app.) Sub=02 Prot=00 Driver=irda-usb
E: Ad=81(I) Atr=02(Bulk) MxPS=512 Ivl=0ms
E: Ad=01(O) Atr=02(Bulk) MxPS=512 Ivl=0ms
```

F-2-403

USB device information Content

Display the information of the USB device, which the device recognized.
If not displayed, there may be some fault occurred.
Some of standard optional devices are not displayed on a report.
The details of each item are as follows.

T : Topology
Internal hierarchical structure, which a USB device is connected, is shown. The number of a connected bus, the hierarchical structure and connection speed can be indicated.

D : Device
Information of USB devices is shown.

P : Product
Product information of USB devices is shown. Vendor ID and Product ID can be recognized here.

S : String
The character string embedded in a USB device is shown. A manufacture name and a product name can be recognized here.

C : Configure
The configuration information of a USB device is shown. * mark is to know whether it is active.

I : Interface
The interface information of a USB device is shown. Interface class and the driver to handle can be recognized.

The value and the content of Driver are as follows.

Labeling	Content
usbhid	It is displayed when the USB system driver is assigned to the input device connected.
usb-storage	It is displayed when storage devices (USB memory storage etc.) are connected.
irda-usb IrDA	It is displayed when the dongle is connected.
hub	It is displayed when HUB is connected.
gpusb	It is displayed when the USB driver only for MEAP application is assigned to the input device connected.
gpusbex	It is displayed when a USB device, which specific vendor ID/ Product ID are preferentially registered using a manifest and MEAP API, is connected and the USB driver only for MEAP application is assigned.

T-2-115

E:Endpoint
The Endpoint information of a USB device is shown.

Right or wrong of report output

Connecting device		User installation	Report printing
HID		Available	Yes
Storage		Available	Yes
FAX		Not available	No
USB Device Port	IrDA	Not available	Yes
	Multimedia Card Reader	Not available	Yes
	IC Card Reader	Not available	Yes
Image Data Analyzer Board-A1		Not available	No
Hub	Internal Hub*	Not available	No
	External Hub	Available	Yes

* USB Device Port-B1 Hub for device ports installed at the introduction

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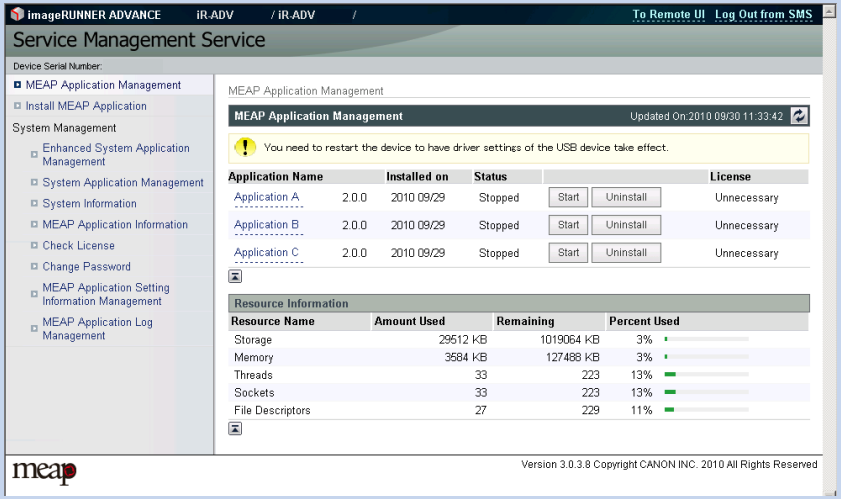
The content of MEAP preferred device information

Display the information of the application or a USB device, which preferentially registered with MEAP application.
By seeing this information, it can check which Application ID of the MEAP application is in the status using a specific USB device.

AppID : Application ID
VID : Vendor ID
PID : Product ID

Note:
By starting, stopping or uninstalling a MEAP application, the driver settings of the USB device may be changed. If the device needs to be restarted following this setting change, a message prompting the user to restart the device is displayed.



F-2-404

Integrated Authentication Function

Sharing the Authentication Information

Separately managing the authentication information at login and the authentication information for MEAP applications creates inconveniences such as that the authentication process is executed many times.
In order to solve this problem, the device has an integrated authentication function. This function allows authentication information to be shared between MEAP applications in a MEAP environment.
The supported version of MEAP Specifications is Ver.59, which needs to be supported by both the device and the MEAP application in order to use this function.
There are 2 types of authentication information that can be shared: Volatile Credential whose registered information is discarded at the time of logout or shutdown of the device and Persistent Credential whose registered information is not discarded at the time of logout.

Volatile Credential

Volatile Credential is used in cases where the authentication information is shared between applications which use the same security domain for authentication.
The credential is registered mainly by the login application, therefore the applications which access the security domain that was used for authentication by the login application can use the credential.

Persistent Credential

Persistent Credential is used to help entry of authentication information when accessing a different security domain for authentication.
The credential is registered mainly by general MEAP applications, and the authentication information can be reused when the same user logs in for the second time or later.

Comparison of Functions

		Volatile Credential	Persistent Credential
Registered information		Character strings and arbitrary Java objects	Character strings only User ID/Password/ Domain/Arbitrary character strings
Lifetime	Registration	At login (the login application), and at any timing of registration by an application	At any timing of registration by an application
	Deletion	Can be used until logout/shutdown.	Can be used until deletion by the application or management tool.
Encryption of credential data		Not supported	Data retained on the HDD is encrypted.
Store (Save) to		Memory in the device	HDD in the device

T-2-117

Disabling the Integrated Authentication Function

If you do not want Volatile Credential to be used from a security standpoint, the function can be disabled.

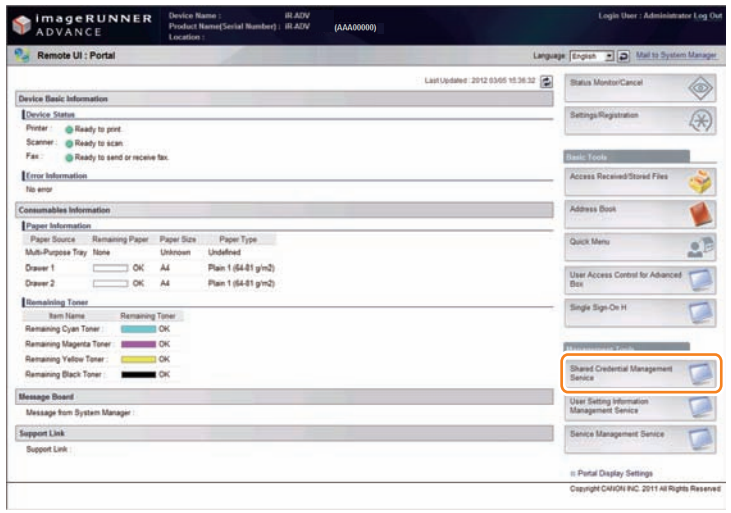
The function can be disabled from remote UI or service mode.

Persistent Credential cannot be disabled.

On the setting screen of remote UI, the function can be disabled on a protocol-by-protocol basis.

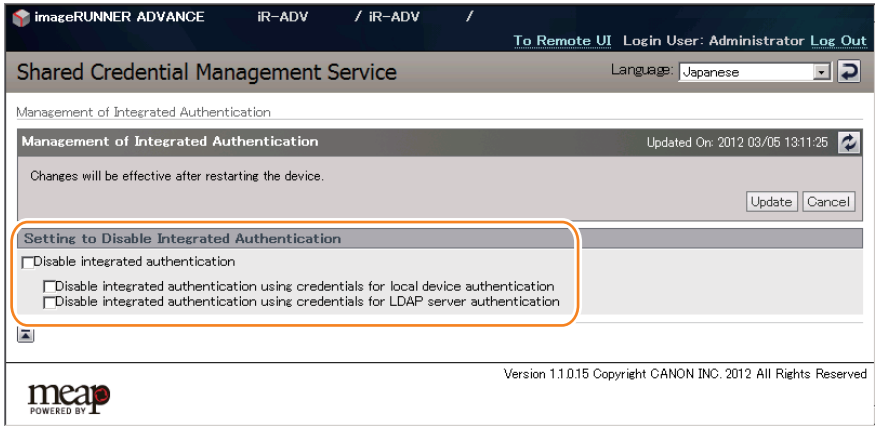
Remote UI

You can access the setting screen on remote UI for disabling integrated authentication as shown below.



F-2-405

Select the item you want to disable, and click the [Update] button.



F-2-406

- [Disable integrated authentication]: The integrated authentication function is disabled regardless of the authentication method.
- [Disable integrated authentication using credentials for local device authentication]: The integrated authentication function is disabled only at the time of local device authentication.
- [Disable integrated authentication using credentials for LDAP server authentication]: The integrated authentication function is disabled only at the time of LDAP server authentication.

Service mode

The location of the service mode setting for disabling integrated authentication:

Setting value: 0 = Enabled, 1 = Disabled

F-2-407

Points to Note When Enabling the [Quick Startup Settings for Main Power] Setting

If some of the MEAP applications are running on the device, the following problems will occur.

The [Quick Startup Settings for Main Power] setting cannot be enabled.

If a MEAP application that restricts the device from shifting to deep sleep mode is running, even when the setting of [Quick Startup Settings for Main Power] is enabled (On), the device starts normally instead of quick startup.
In that case, it does not affect the behavior of the MEAP application.

Changes made in the settings of a MEAP application are not reflected.

If the startup setting [Quick Startup Settings for Main Power] is enabled (On), even when the Main Power Supply Switch of the machine is turned OFF, a shutdown process is not executed internally.
Therefore, in the case of a MEAP application where changes in settings are enabled when the device is restarted, changes in settings are not reflected just by changing the settings.
Follow either of the restart procedures shown below to enable the changes made in the settings.

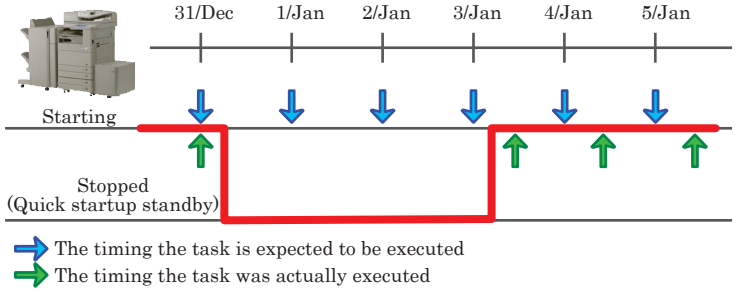
- Execute restart from remote UI.
- Turn OFF the Main Switch, and then turn it ON within 20 seconds.

After recovery from quick startup, MEAP applications do not work properly.

MEAP applications that are scheduled to execute processes at specified times may not work properly after recovery from quick restart.
Unexpected problems such as that the application executes a task at an unexpected timing may occur.
Problems may occur in the following two cases.

In the case of "Schedule: Execute the task every 24 hours"

A schedule is set to start the specified task at the specified time and repeat "fixed-delay execution".
If execution is delayed for some reason, the delay time is ignored.
Problem: If 24 hours have passed since the last execution of the task, the task is executed only once.
=> The task may be executed at a timing other than the time the user expects it to be executed.



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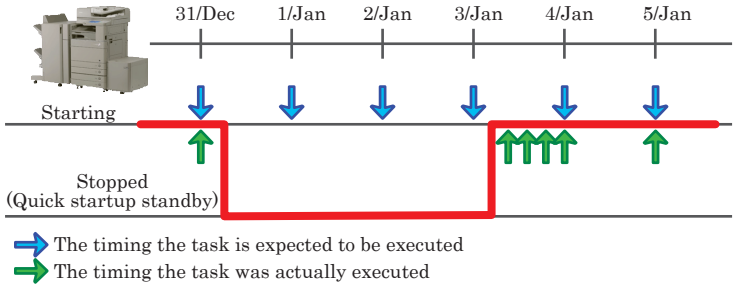
In the case of "Schedule: Execute the task at 00:00 every day"

A schedule is set to start the specified task at the specified time and repeat "fixed-rate execution".
If execution was delayed for some reason, two or more tasks are continuously executed to "make up for the delay".
Problem: The tasks of Jan. 1, Jan. 2, and Jan. 3 are executed after quick startup.

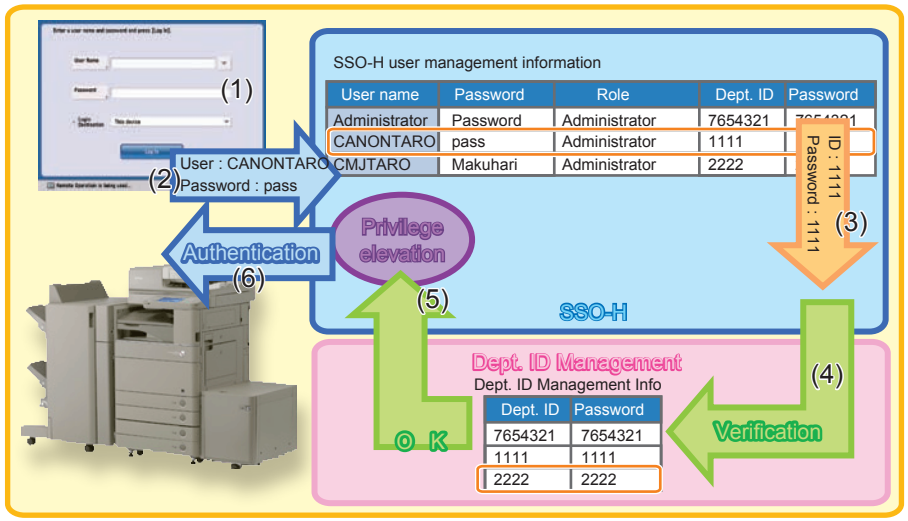


F-2-409

Remedy to Be Performed When the Device Has Become Unable to Be Logged in

Overview

Department ID Management and SSO-H (Local Device Authentication) manage user information separately. Therefore, in order to allow coexistence of Department ID Management and SSO-H, it is necessary that the information of SSO-H and the information of Department ID Management are the same.



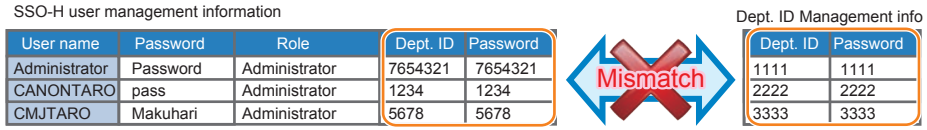
F-2-410

1) The user enters the ID and password of SSO-H to a device where both SSO-H and Department ID Management are enabled.
2) SSO-H checks the entered ID and password with the SSO-H user information table.
3) SSO-H sends the department ID and password which correspond to the entered ID and password to the department ID management function.
4) The department ID management function checks the department ID and password sent from SSO-H with the user information table.
5) The user is elevated to the corresponding privilege.
6) The user is authenticated.

If the department ID and password registered in the user information of SSO-H do not coincide with the department ID and password registered in the Department ID Management, the authentication ends in failure and the user can no longer log in to the device.

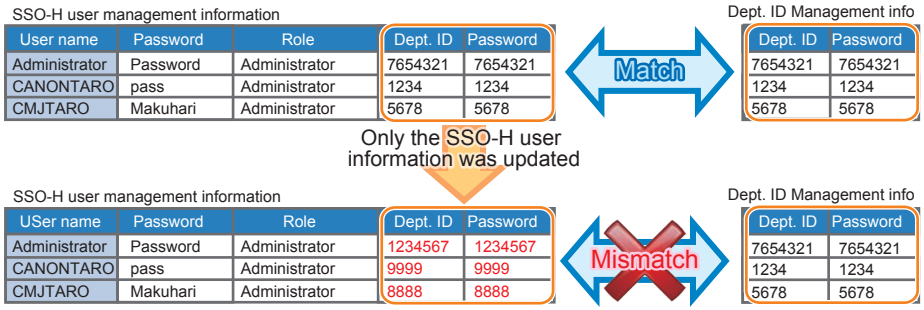
The user information of SSO-H does not coincide with the user information of Department ID Management in the following cases:

- The user information of SSO-H was different from that of Department ID Management when Department ID Management was enabled.
  Department ID Management was enabled before changing the department ID and password registered in SSO-H to match with the information of Department ID Management.



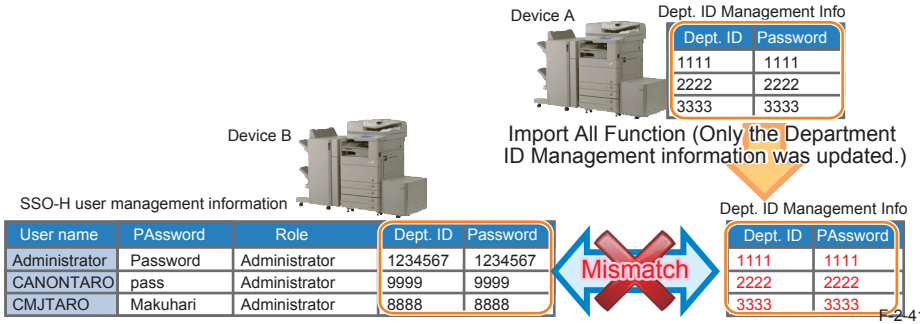
F-2-411

- Only one of information was updated, resulting in mismatch.
  Only the department ID and password registered in SSO-H or those in Department ID Management were changed.



F-2-412

- Only the information of Department ID Management was updated, resulting in mismatch.
  Only the Department ID Management information was changed in "Import All Function", resulting in mismatch. (The SSO-H user information cannot be changed in Import All Function.)



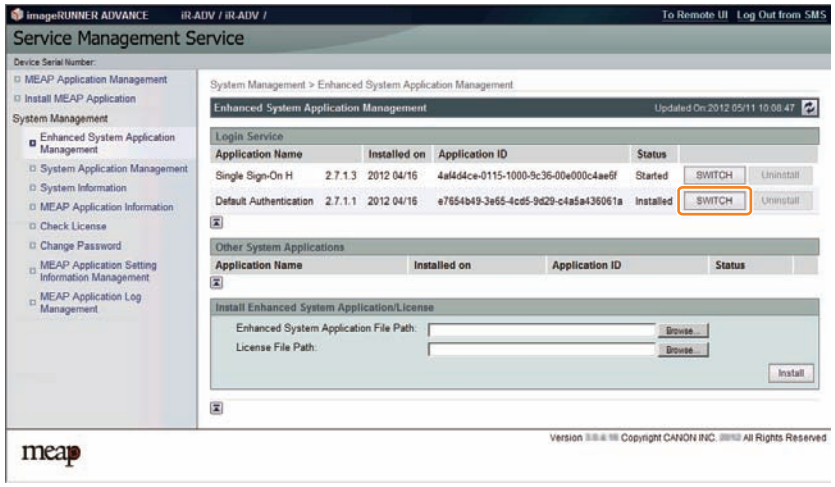
F-2-413

Remedy

If the device became unable to be logged in due to mismatch of the department ID/password, perform the following remedy.

Procedure

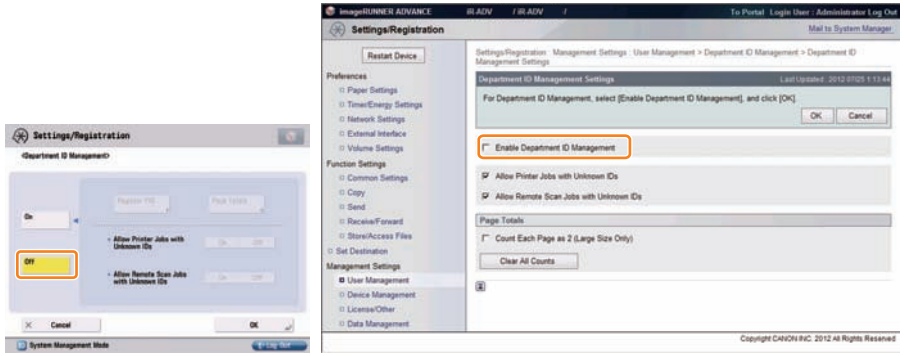
1) Change the authentication method to DA (Default Authentication).
   Access SMS, and select [Default Authentication] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)



F-2-414

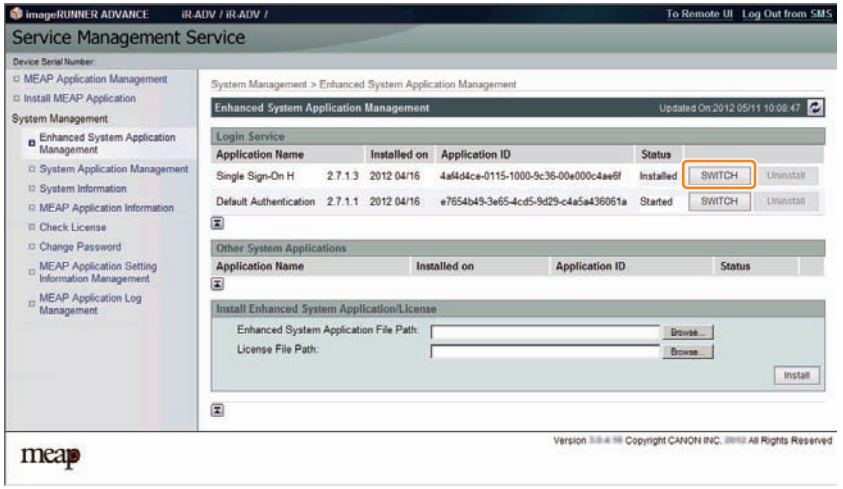
2) Restart the device.
   Restart the device in order to reflect the changes in login service.

3) Disable Depart ID Management.
   In user mode ([Settings/Registration]), select [Management Settings] > [User Management] > [Department ID Management] > [OFF]. In the case of remote UI, access [Settings/Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and deselect [Enable Department ID Management].



F-2-415

4) Change the authentication method back to SSO-H authentication.
   Access SMS, and select [Single Sign-On H] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)



F-2-416

5) Restart the device.
   Restart the device in order to reflect the changes in login service.

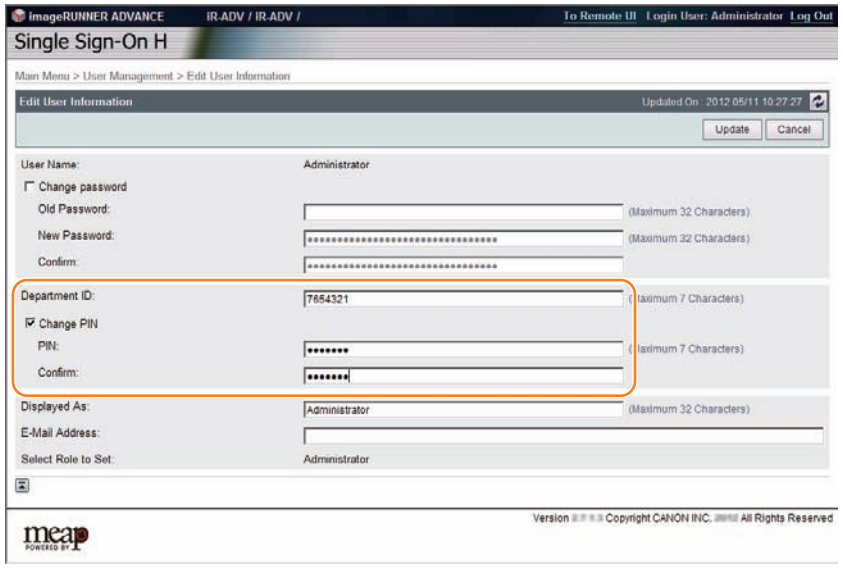
6) Change the user registration information of SSO-H.

Access the URL shown below, and change the content to the information registered in Department ID Management.

Or, import the setting file whose content you want to use.

SSO-H user registration information edition screen:

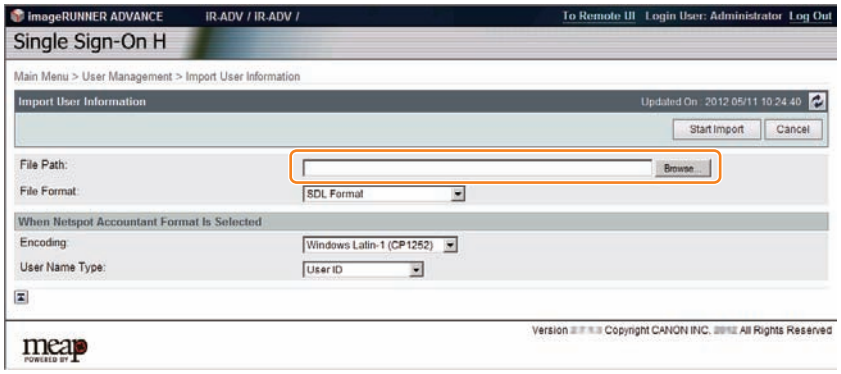
(SSO management screen [Main Menu] > [User Management] > [Edit User Information] or https://<IP address>:8443/sso/Edit).



F-2-417

SSO-H user registration information import screen:

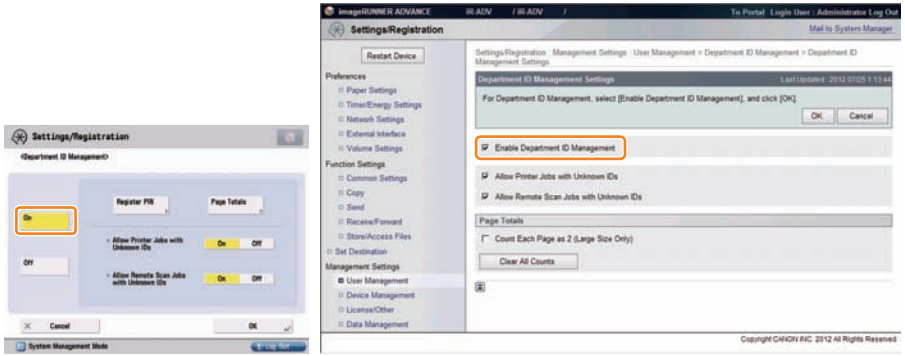
(SSO management screen [Main Menu] > [User Management] > [Import User Information] or (https://<IP address>:8443/sso/Import).



F-2-418

7) Enable Depart ID Management.

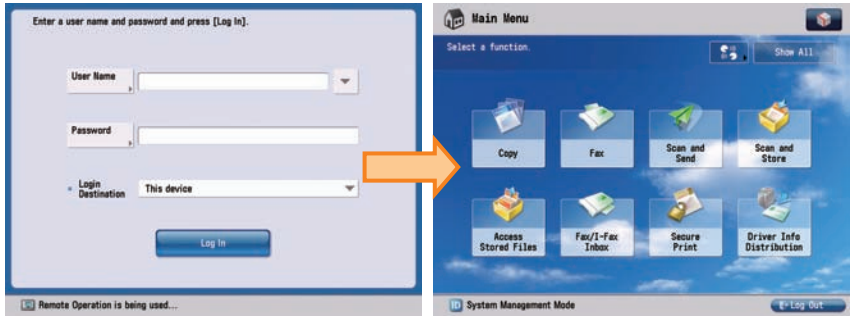
In user mode ([Settings/Registration]), select [Management Settings] > [User Management] > [Department ID Management] > [ON]. In the case of remote UI, access [Settings/Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and select [Enable Department ID Management].



F-2-419

8) Check that the device can be logged in.

Log off and then log on to check that the device can be logged in with an environment where Local Device Authentication and Department ID Management are enabled.



F-2-420

Reference material

Glossary

Terms & Acronyms	Definitions and Explanations
Application	A program unit to provide users with solutions.
Application ID	An identifier assigned to each application. A unique ID is assigned to each MEAP application.
Applet (Applet Type Application)	A MEAP application type created in Java. This type of applications show buttons on the touch panel display.
Code Sign	Information to check if an application is genuine. An application marketed in the normal procedure has a code sign assigned by LMS. MEAP platform rejects applications without Canon code signs for being installed or executed on the device.
CPCA (Common Peripheral Controlling Architecture)	Common Peripheral Controlling Architecture. CPCA defines an object model of peripheral deices. A client can control a device by creating or modifying objects in the device.
CPCA Java CL (Class Library)	CPCA Java Class Library. A Java class library, which is used to control a device.
Default Authentication -Department ID Management	The login service used when the department ID control is used but other authentication controls are not used. When the Department ID control is turned on, the login dialog prompts the users to enter the department ID and password. The dialog appears the initial screen of both the control panel on the MEAP device and Remote UI
Device Specification ID	ID allocated to each device type. This represents CPCA API specification and the version number to use MFP generic functions or obtain information including maximum allowable copies.
Esplet (Esplet Type Application)	A MEAP application type created in Java. This type of applications do not show user interfaces either on Local UI or Web. Esplet is a coined word created by Canon, consisting of [Espresso] or Italian coffee and [let] derived from Applet/Service.
File Description	An identifier for the OS to identify the destination file requested by a program. A program descriptor includes an identifier and information such as a file name and size, which helps OS to judge the file to be edited.
HID class	HID stands for Human Interface Device, representing man-machine interfaces of PC components and peripheral devices. HID class means USB class classified as HID.
iR Native application	The functionalities that existing imageRUNNER has such as Copy, Universal Send and Mailbox.
ISV (Independent Software Vendor)	Independent Software Vender. Software manufacturer who develops and/or sells applications and tools but does not entire computer systems. Refers application developer in this document.

Terms & Acronyms	Definitions and Explanations
J2ME (Java2 Platform Micro Edition)	Java 2 Platform Micro Edition. One of Java Platforms licensed by Sun Microsystems, Inc. It is applied for MEAP. Other devices such as cellular phones and PDA.
J2RE (Java 2 Runtime Environment)	A set of basic programs to run applications developed in the programming language of Java2. This set includes Java virtual machine providing runtime environment for Java applications among others. Java applets do not require J2RE since these are executed on Web browsers using Java runtime environment provided on browsers. However, standalone Java applications require Java runtime environment such as J2RE for execution. Runtime environments can be downloaded for free of charge from the Web site of Sun Microsystems, the Java developer.
Java	A programming language developed by Sun Microsystems, in the U. S. A. Low dependent on models and OSes and runs on various platforms. Taking advantage of this feature, many applications that runs on web servers uses Java. The MEAP platform uses J2ME - a type of Java.
JavaScript	A script language developed by Netscape Communications, in the U.S. A., runs on web browsers such as Netscape Navigator and Internet Explorer. Allows web designers to create interactive pages with HTML files such as animated buttons and display of timetables.
Java VM (Java Virtual Machine)	JAVA Virtual Machine. The Java byte code interpreter. The Virtual Machine acts as an interpreter for processing the byte code using the native instruction set.
License Access Number	A number issued for accessing license file. The Licensing server requires entries of application ID, expiration date/times information, and the number of access numbers, to issue license access numbers
Licensae File	A software manufacture of a MEAP application provides the users with the license files. Specifies the terms of agreement that a user concludes with the manufacturer. Required for installing a MEAP application.
LMS (License Management System)	The license is required for installing a MEAP application in a MEAPenabled iR device. LMS is the server issuing [License Files] as well as license access numbers.
Login Service	Manages user information of MEAP device. Authenticates users with user names and passwords. Three login services are available for MEAP device - Default Authentication, which provides department ID control, SDL (Simple Device Login) and SSO (Single Sign-On).
Mass Storage class	Mass Storage means a storage device with large capacity, generally secondary storage devices. Mass Storage class means USB class classified in the secondary storage device group.
MEAP (Multifunction Embedded Application Platform)	Multifunctional Embedded Application Platform. Provides an environment for executing application programs on a peripheral device. Uses the Java platform (J2ME - Java 2 platform Micro Edition) to run Java application for MEAP.
MEAP Contents	Required to install an MEAP application to a MEAP device.

Terms & Acronyms	Definitions and Explanations
MEAP Specifications (MEAP Spec Version)	MEAP Spec Version, the term used for the SDK. The version number that shows the APIs of the MEAP platform other than CPCA, such as network and security. The version number is not assigned for each device model. MEAP Application Runs on MEAP platform. Consists of application files (*.jar) and the license file (*.lic).
MEAP-enabled iR device	imageRUNNER (iR) devices with built-in MEAP platform.
MFP (Multi Function Peripheral)	Multi Function Peripheral. Peripheral device that supports more than one function, such as digital copier, printer, scanner, and fax.
OSGi (Open Service Gateway Initiative)	Open Service Gateway Initiative. See "http://www.osgi.org/".
Portal Service	The web portal to gain access to a MEAP-enabled device. This service has been integrated in Remote UI top page in iR ADVANCE series.
Protocol	A set of rules applied to data transmission procedures over network. Major communication protocols include: • FTP: File Transfer Protocol. This is a communication protocol or protocolimplemented commands to provide file transfer between a host and clients over TCP/IP network. • DHCP: An upward compatible protocol of BOOTP. This communication protocol allocates a dynamic IP address to each client machine upon communication startup on TCP/IP network and collects the allocated IP address when communication is completed. The server allocates one of multiple IP addresses and notifies the setup information to a client. • BOOTP: A communication protocol to automatically load setup information including IP address and a domain name from the server to a client on TCP/IP network. • RARP: A communication protocol to request IP address information via the network adaptor address (MAC address) of a client. • IPP: A communication protocol to execute remote printing between the print server and clients via Internet. • TCP/IP: A standard communication protocol required to access to Internet and other large-scale network.
Proxy Server	Provides functions to store data fetched from remote servers. When a user request to display a web page that has been displayed and stored in the proxy, the proxy server read the stored data but does not access the remote server where the original page is present, for efficient access services. When a proxy server receives a URL from a PC, it searches the file in the cache and sends it to the PC if the requested file is found. If the requested file is not stored in the cache, it accesses the remote server of the URL to acquire the file and, at the same time, stores the acquired file in the cache so that the proxy server can quickly send the file at the next request.
Redistribution module	A built-in module of an application created with SDK. Applications without this module cannot work on MEAP platform.

Terms & Acronyms	Definitions and Explanations
SDK (Software Development Kit)	The kit containing information and tools required for software development.
Service	A functional unit or an application program working on MEAP platform. [Applications] are generally termed [Services] in Java world.
Servlet (Servlet Type Application)	A MEAP application type created in Java. This type of applications is designed to show user interface on the Web browser.
SMS (Service Management Service)	The web-base service to provide user interfaces for application life cycle management.
Socket	A virtual interface of an application for network communication. A user only needs to specify a socket as a unit of an address and a port from an application. This establishes the network connection for data transmission, eliminating complication related to detailed communication procedures.
SSO-H (Single Sign-On H)	Login service providing features of both local device authentication and domain authentication. The former is the method that iR device independently authorizes users; whereas the latter is that iR device links to the domain controller on the network in the Active Directory environment to authorize users.
Thread	A unit for program execution. A multi-task system allowing multiple programs to run concurrently assigns a memory space and other resources independently to each program, providing users with a feel as if only a program is running. At least one thread is generated upon a program generated.
URL (Uniform Resource Locator)	The method to denote Web page locations on Internet and the like. For instance, a URL on the Web is denoted as [http://www.w3.org/default. html]. [http] at the beginning means that an address following this is in a web page on the Internet.
USB	Abbreviation of Universal Serial Bus. This is the interface standard to link between information devices.
USB system driver	The general-purpose driver that control the behavior of the device, there are HID class driver, Mass Storage class driver and so on.

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Option for exclusive individual measure

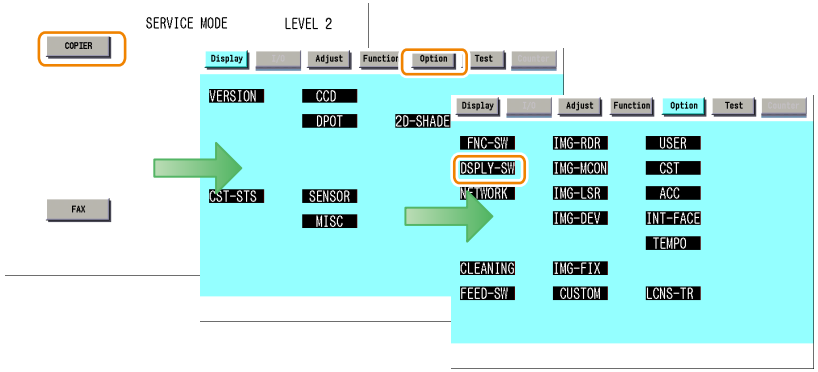
Display Setting of Copy Icon (level2)

Make a setting as to whether to display/hide the copy screen (copy tab) on the control panel.
This is the specification for users who want to customize hiding it on control panel.

Default value
1: display
Setting range, item
0: hide 1: display

Setting Procedure

1) Start [SERVICE MODE] in Level 1.
2) Press [COPIER] > [Option] > [DSPLY-SW] buttons.



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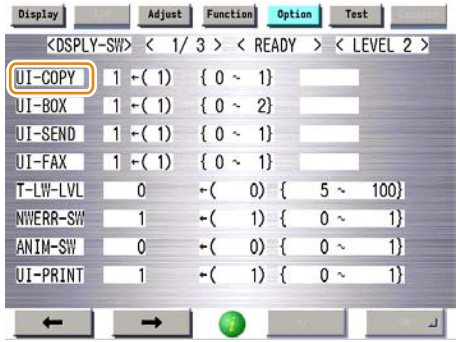
3) Press [UI-COPY] button.



F-2-422

4) Press either 0 (hide) or 1 (display) on control panel (the numerical value input in the field is displayed), and press [OK] button.

F-2-423

5) Check to see that it is reflected in setting field, and restart the device.

Error at starting up the MEAP application/Setting to hide JAM screen (level 2)

In the case that operation is restricted by MEAP application, hide the warning screen of error/JAM (such as JAM screen, door opening, no-toner). In the case that these errors occur, there will be a display indicating 'call the service personnel' etc.

> Note:
> Part of the warning screens is displayed if shifting to the device screen.
> - As for the screens for jam and no-toner, the warning screen (animation) can be displayed by pressing the followings: [Device Screen] > [Recovery Procedure]
> - As for the screen for door opening, the warning screen cannot be displayed because there is no display for [[Device Screen] > [Recovery Procedure]

Default value

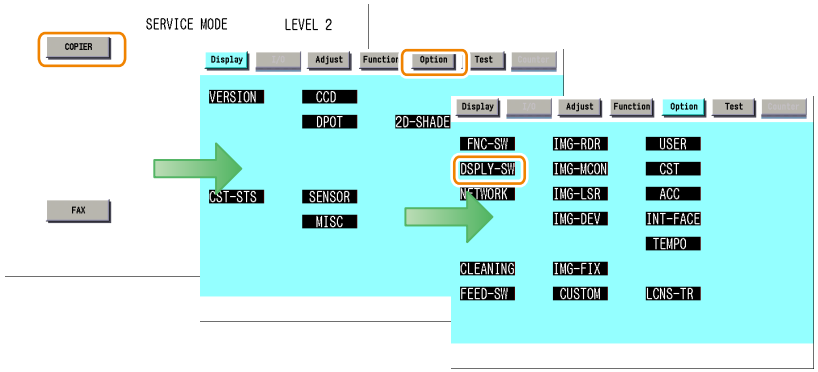
1: No activation of warning display

Setting range, item

0: display warning screen 1: hide warning screen

Setting Procedure

1) Start [SERVICE MODE] in Level 1.
2) Press [COPIER] > [Option] > [DSPLY-SW] buttons.



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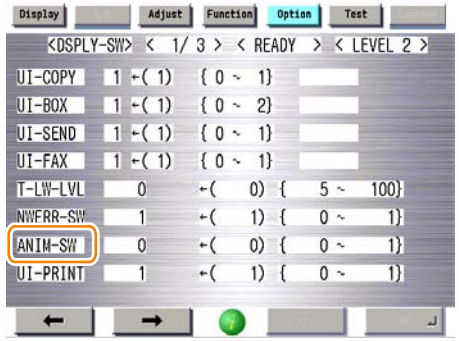
3) Press [ANIM-SW] button.



F-2-425

4) Press either 0 (display warning screen) or 1 (hide warning screen) on control panel (the numerical value input in the field is displayed), and press [OK] button.

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5) Check to see that it is reflected in setting field, and restart the device.

Embedded RDS

Product Overview

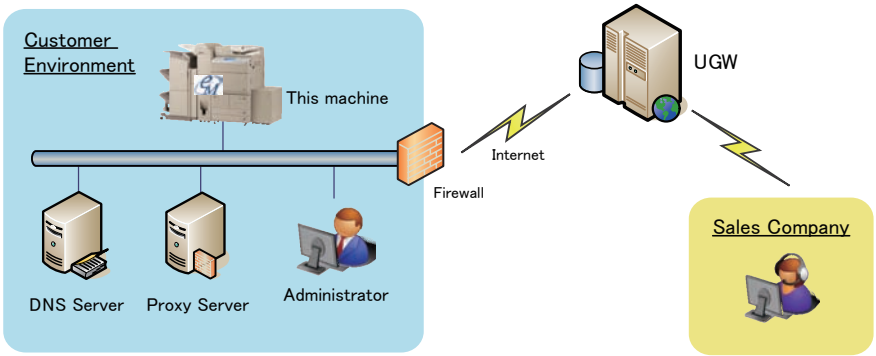
Overview

Embedded RDS (hereinafter referred to as E-RDS) is a monitoring program that runs on the host machine. When the monitoring option is enabled by making the setting on this machine, information such as the status change of the machine, counter information, and failure information are collected. The collected device information is sent to a remote maintenance server called UGW (Universal Gateway Server) via Internet, thus allowing for e-Maintenance/ imageWARE Remote (Remote Diagnosis System).

The following device information/ status can be monitored.

- Billing counts
- Parts counter
- Firmware info
- Service call error log
- Jam log
- Alarm log
- Status changes (Toner low/ out, etc.)

Since high confidentiality is required for the information shown above, it performs communication between this machine and the UGW using HTTPS/ SOAP protocol.



The e-Maintenance/ imageWARE Remote system configuration

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Features and benefits

E-RDS embedded with a network module in advance can realize a front-end processing of e-Maintenance/ imageWARE Remote system without attaching any extra hardware equipment.

Major Functions

Service Call Button

If a user touches service call button on the touch panel display when corrupt image, paper jams, or/ and other problem has occurred, E-RDS generates an alarm and notifies it to UGW. Moreover, E-RDS also notifies cancellation and the completion of the request

Service Browser

Service browser is a web browsing functionality only for service technicians in charge, and is used for referring to the FAQ contents which is connected to UGW.
In order to grasp on which devices the service browser is enabled, when the status of the service browser is changed from disabled (0: OFF) to enabled, E-RDS sends the browser information to the UGW.

Service mode menu Transmission

E-RDS sends the target service mode menu data to UGW in the following cases:

- When a specific alarm and service call error are detected
- When the setting is changed in service mode

The following shows the transmission timing and the target data for transmission in service mode menu:

Transmission timing	Transmitting data			Error retry
When the following alarm is detected. Alarm codes for transmission: 0x060002, // Fixing 0x060004 - 0x069999, // Fixing 0x090005 - 0x099999, // Dram 0x100006 - 0016, 0x100022 - 0099, 0x100101 - 9900, // Development 0x300001 - 0x309999 // High voltage	COPIER	Display	ANALOG	No
			HV-STS	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	

Transmission timing	Transmitting data			Error retry
When the following service call error is detected. Error codes for transmission: E000 - E00F, // Fixing E020, // Development ATR E060 - E06F // High voltage	COPIER	Display	ANALOG	No
			HV-STS	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	
When a value is set to [COPIER - Adjust] subordinate's Service mode menu. (Transmission will be done at 60 min, later of setting)	COPIER	Adjust		Yes
When the first communication test is done. (For transmission process, 5 minutes after the execution)	COPIER	Display	ANALOG	Yes
			HV-STS	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	
		Adjust		

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NOTE:
Target transmission data are only the items under LEVEL1 and 2 in the service mode.

Limitations

Service Mode Menu Transmission Function

1) In the following cases, service mode menu data is not transmitted.
   - When an unsent alarm log or service call log has been detected by E-RDS at power-on
   - When an alarm log or service call log to be resent due to a transmission failure is detected
   - When transmission of service mode menu executed at the time of detection of an alarm or a service call error ended in failure
   - If a new alarm or service call error occurs while service mode menu data is being obtained after detection of an alarm or a service call error, the data being obtained is not sent.

2) If alarms/service call errors successively occur, and if the time of the host machine is corrected or changed while the log is being sent, service mode menu data may not be properly sent. It is because a Link No.* may be applied to the old log although it should be applied to the new log.

   * Link No.:
   A common number for linking the service mode menu data with the alarm log/service call log data to be sent
   After completion of log transmission, the service mode menu data is obtained, and is sent with this number attached.

3) Transmission of the data of changes made in service mode menu settings is not performed instantly, but performed when a specified period of 60 minutes elapse after the change of service mode menu settings is detected or when a communication test is performed at the time of power-on. (There is a time lag.)

4) When service mode menu settings ([COPIER] > [Adjust]) are made, transmission is performed even when no change is made in the target data to be transmitted. Transmission of service mode data is also performed when changes are made in the service mode setting value not subject to transmission (items other than Level 1, 2) or when settlement of a value is performed without changing the setting value.

Service cautions

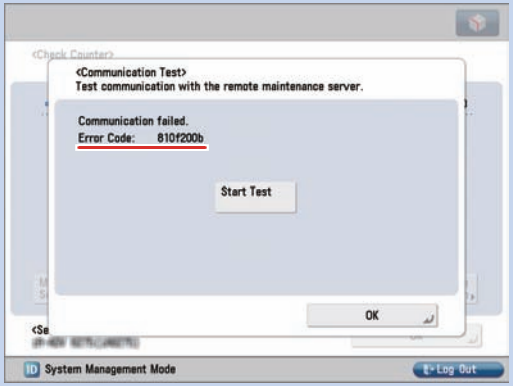
1) After clearing RAM of the Main Controller PCB SRAM Board, initialization of the E-RDS setting (ERDS-DAT) and a communication test (COM-TEST) need to be performed. Failure to do so will result that the counter transmitting value to the UGW may become unusual.
Also, after replacing the main controller board, all settings must be reprogrammed.

2) The following settings in service mode must not be change unless there are specific instructions to do so. Changing these values will cause error in communication with UGW.
   - Set port number of UGW
     [SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-PORT]
     Default : 443
   - URL setting of UGW
     [SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-ADR]
     Default : https://a01.ugwdevice.net/ugw/agentif010

3) If the e-Maintenance/imageWARE Remote contract of the device is invalid, be sure to turn OFF the E-RDS setting (E-RDS : 0).

4) Communication tests can be conducted in user mode.* When conducting a communication test in user mode, pay attention on the following points:
   - During a communication test in user mode, do not take any actions such as pressing a key. Actions are not accepted until the communication test is completed (actions are ignored).
   - When a communication test is being conducted from service mode or user mode, do not conduct a communication test from the other. These operations are not guaranteed.

NOTE:
*The user can conduct a communication test and seen the communication test result. If the communication results in failure, an error code (a hexadecimal number, 8 digits) appears on the touch panel display.



E-RDS Setup

Confirmation and preparation in advance

To monitor this machine with e-Maintenance/ imageWARE Remote, the following settings are required.

(1) Advance confirmation

Confirm with the UGW administrator that the device to be monitored with e-Maintenance/ imageWARE Remote is registered in the UGW.

(2) Advance preparations

The following network-related information needs to be obtained from the user's system administrator in advance.

Information item 1

IP address settings

- Automatic setting : DHCP, RARP, BOOTP
- Manual setting : IP address, subnet mask and gateway address to be set

Information item 2

Is there a DNS server in use?

If there is a DNS server in use, find out the following.

- Primary DNS server address
- Secondary DNS server address

Information item 3

Is there a proxy server?

If there is a proxy server in use, find out the following.

- Proxy server address
- Port No. for proxy server

Information item 4

Is proxy server authentication required?

If proxy server authentication is required, find out the following.

- User name and password required for proxy authentication

(3) Network settings

Based on the results of the information obtained in (2) Advance preparations, make this machine network related settings.

See Users' Guide for detailed procedures.

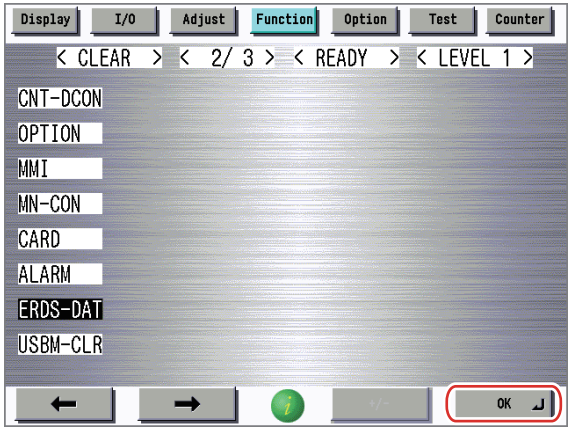
CAUTION:

When changes are made to the above-mentioned network settings, be sure to reboot this machine.

Steps to E-RDS settings

1. Start [Service Mode] at Level 1.
2. Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and touch the [OK] button.

NOTE:
This operation initializes the E-RDS settings to factory setting values.
For the setting values to be initialized, see the section of "Initializing E-RDS settings".



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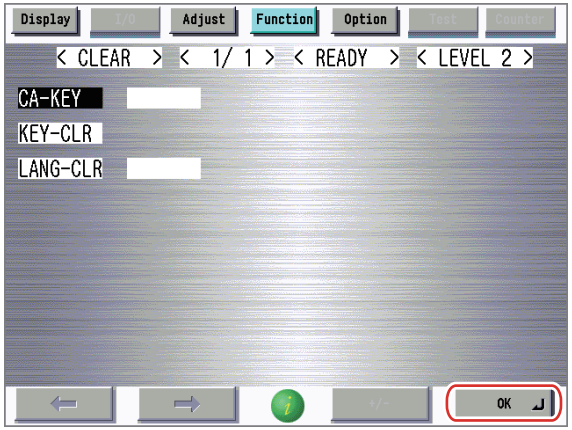
3. Perform installation or deletion of the CA certificate if necessary, and reboot this machine.
- Installation of the CA certificate: Perform installation from SST or Remote UI.
- Deletion of the CA certificate: When the following operation is performed, the CA certificate in the factory setting is automatically installed.

CAUTION:
After following procedure, the registered key and CA certificate are deleted, and only the CA certificate installed at the time of shipment is registered.
It is therefore necessary to check with the user in advance.

(1) Start [Service Mode] at Level 2.

(2) Select [COPIER] > [Function] > [CLEAR] > [CA-KEY] and touch the [OK] button.



F-2-429

"OK!" is displayed if the CA certificate is initialized. When "NG!" is displayed, see the section of "Troubleshooting" to execute the remedy, and then perform initialization of the CA certificate again and check to see if the CA certificate is initialized.

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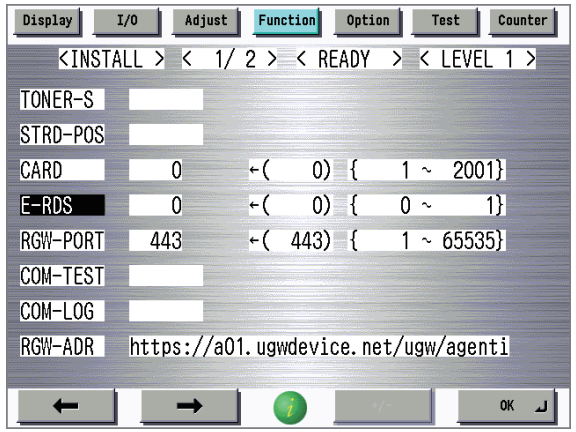
(3) Reboot this machine.

CAUTION:
If a key and a CA certificate have been registered in order to use a function other than E-RDS, it is necessary to register again from SST or Remote UI.

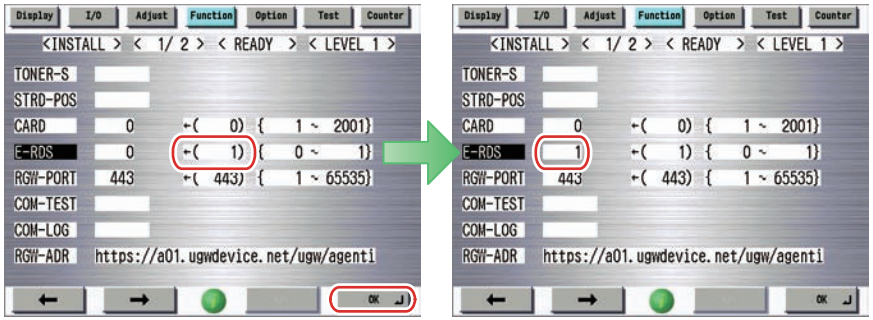
4. Start [Service Mode] at Level 1.
5. Select [COPIER] > [Function] > [INSTALL] > [E-RDS].



F-2-431

6. Touch the numeric button [1] on the control panel (the setting value is changed to 1) and touch the [OK] button. (The data is reflected to the setting value field.)

NOTE:
This operation enables the communication function with UGW.



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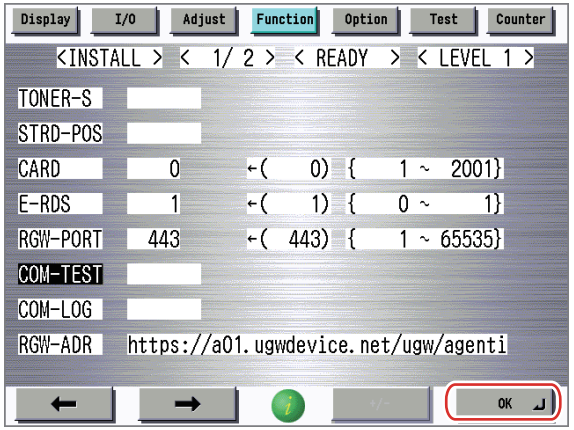
CAUTION:

The following settings i.e. RGW-PORT and RGW-ADR in Service mode must not be change unless there are specific instructions to do so.

Changing these values will cause error in communication with UGW.

7. Select [COM-TEST] and then touch [OK].

NOTE:
This initiates the communication test between the device and the UGW.



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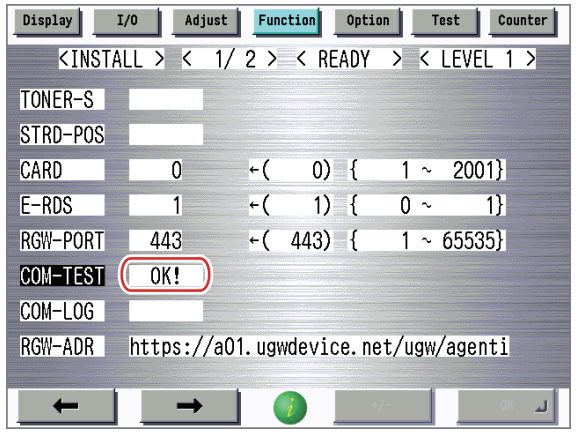
If the communication is successful, "OK!" is displayed. If "NG!" (failed) appears, refer to the "Troubleshooting" and repeat until "OK!" is displayed.



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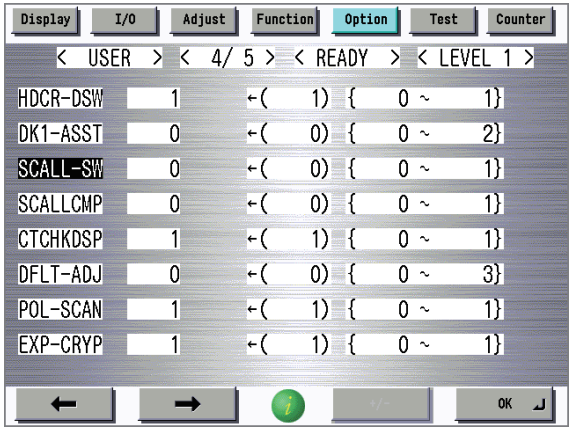
NOTE:
The communication results with UGW can be distinguished by referring to the COM-LOG. By performing the communication test with UGW, E-RDS acquires schedule information and starts monitoring and meter reads operation.

Steps to Service Call button settings

Steps for settings to display the service call button

In order to use the "Service Call" button, follow the procedure shown below to display the "Service Call" button.

1. Start [Service Mode] at Level 1.
2. Select [COPIER] > [Option] > [USER] > [SCALL-SW].



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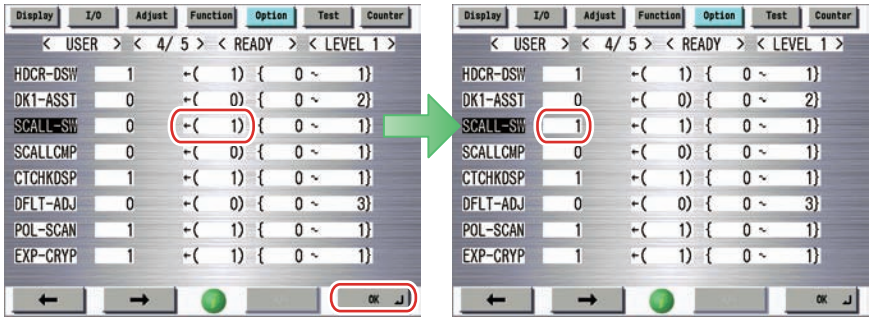
3. Touch the numeric button [1] on the control panel (the setting value is changed to 1) and touch the [OK] button. (The data is reflected to the setting value field.)



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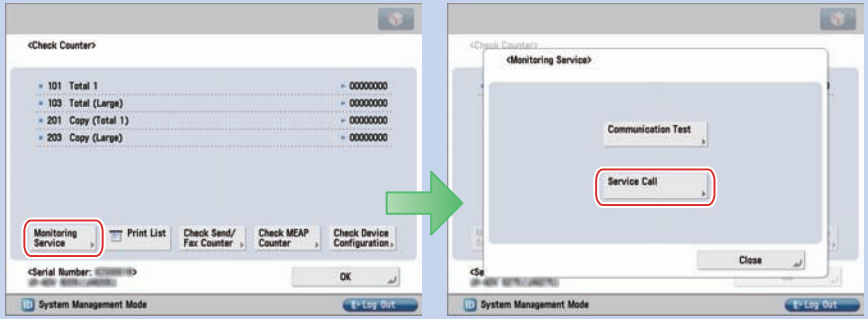
NOTE:
When the function is enabled, the [Service Call] button is displayed on the Monitoring Service screen by touching the [Monitoring Service] button on the Check Counter screen.



Steps for settings of service call completion

When the service technician completes the work for the service call, follow the instruction as described below to execute the service call completion work.

1. Start [Service Mode] at Level 1.
2. Select [COPIER] > [Option] > [USER] > [SCALLCMP].

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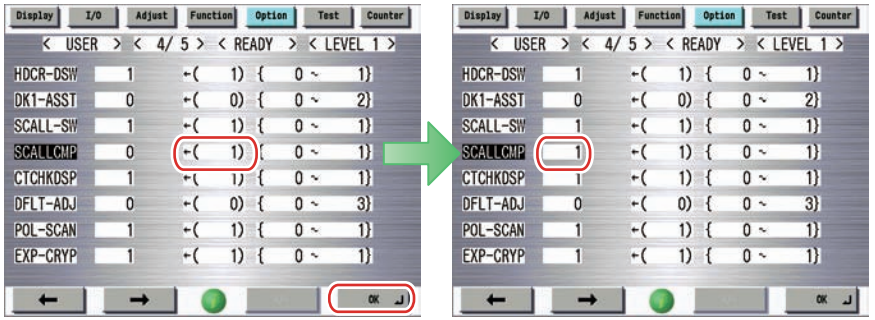
3. Touch the numeric button [1] or [0] on the control panel (the setting value is changed to 1 or 0) and touch the [OK] button. (The data is reflected to the setting value field.)

NOTE:
E-RDS generates an alarm of service call completion at this timing, and sends the alarm to UGW.



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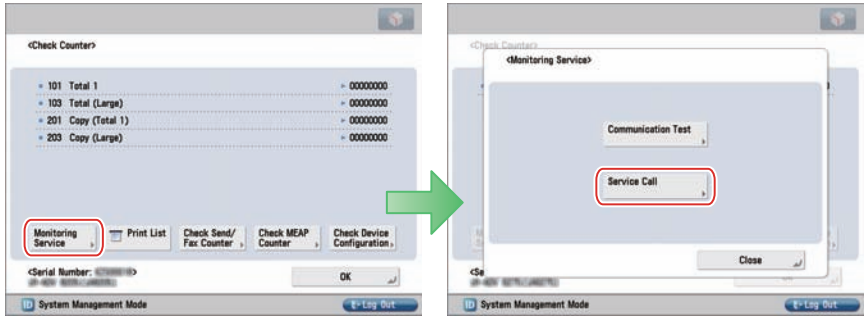
NOTE:
In the current condition, touching the [OK] button completes the service call regardless of whether 0 or 1 is set.

Steps for service call request

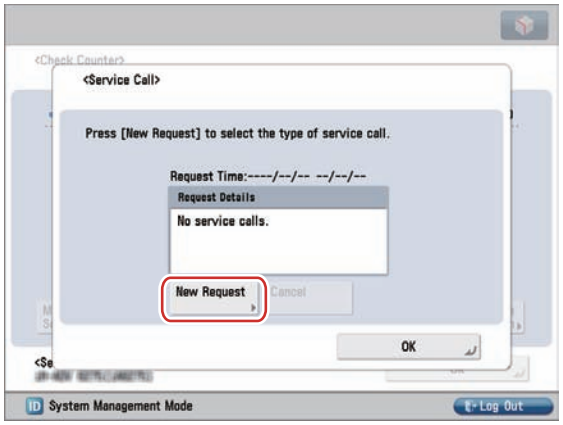
Users should follow the instructions as described below to request a service call.

1. Touch the [Counter Check] button on the control panel to display the Check Counter screen.
2. Touch the [Monitoring Service] button, and touch the [Service Call] button on the Monitoring Service screen.



F-2-439

3. Touch the [New Request] button on the Service Call screen.



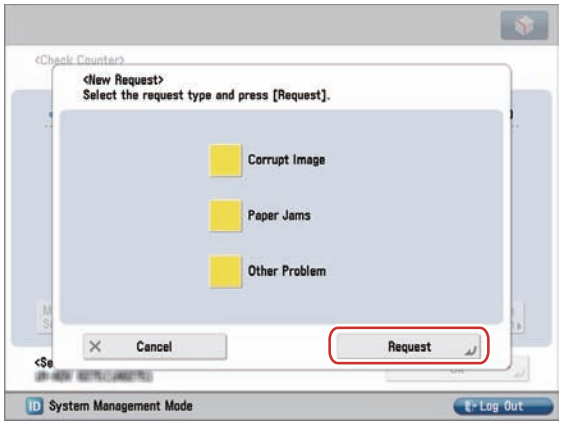
F-2-440

CAUTION:

When a service call has been already requested, another service call cannot be sent. The previous service call needs to be canceled, or a service technician needs to perform processing for service call completion.

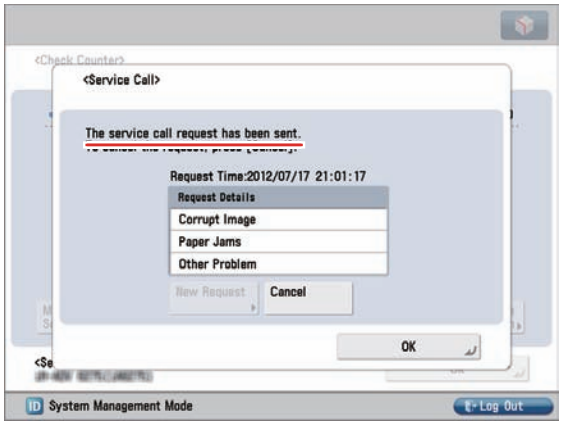
4. Select the request details and touch the [Request] button.

NOTE:
E-RDS generates an alarm of service call request at this timing, and sends the alarm to UGW.



F-2-441

5. If the service call request is successful, "The service call request has been sent." is displayed. If "Could not send the service call request." appears, refer to the "Troubleshooting" and repeat until "The service call request has been sent." is displayed.

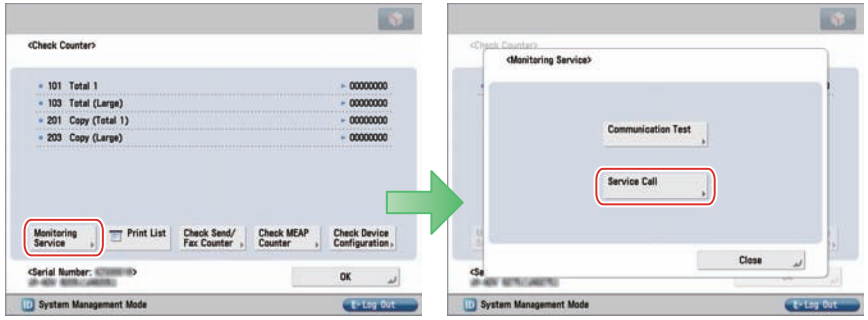


F-2-442

Steps for service call cancellation

To cancel the service call, follow the instructions as described below.

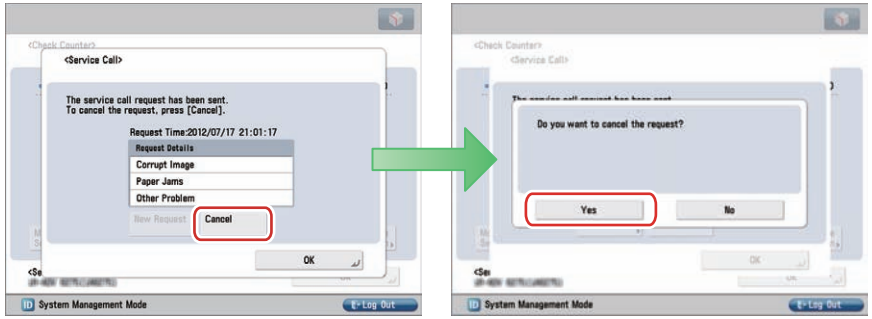
1. Touch the [Counter Check] button on the control panel to display the Check Counter screen.
2. Touch the [Monitoring Service] button, and touch the [Service Call] button on the Monitoring Service screen.



F-2-443

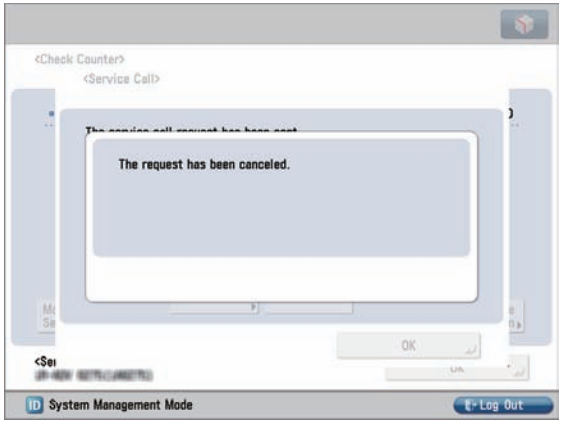
3. Touch the [Cancel] button, and touch the [Yes] button in the check screen.

> NOTE:
> E-RDS generates an alarm of service call cancellation at this timing, and sends the alarm to UGW.



F-2-444

4. "The request has been canceled." is displayed.

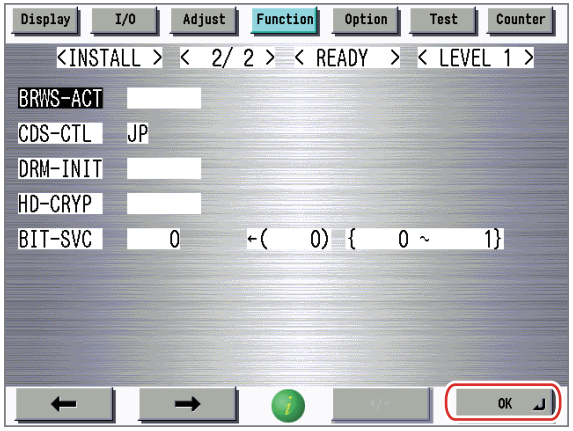


F-2-445

Steps to Service Browser settings

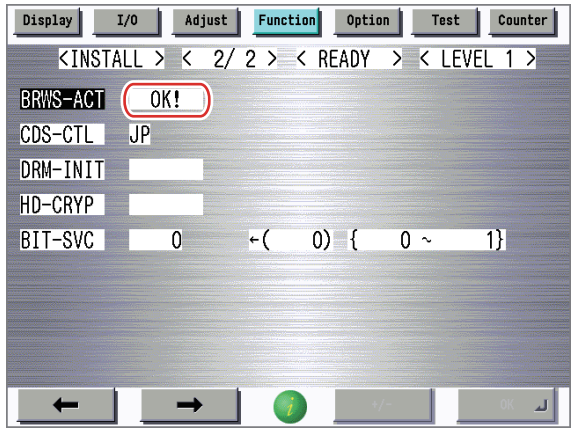
1. Start [Service Mode] at Level 1.
2. Select [COPIER] > [Function] > [INSTALL] > [BRWS-ACT] and then touch [OK].

NOTE:
When the status of the function is changed from disabled to enabled, E-RDS sends the browser information to the UGW.



F-2-446

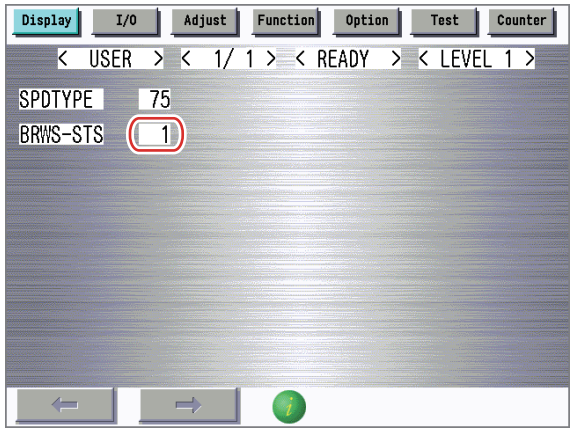
If the connection is established with UGW successfully, "OK!" is displayed. When "NG!" is displayed, perform the steps referring to "Troubleshooting" until connection is established with UGW.



F-2-447

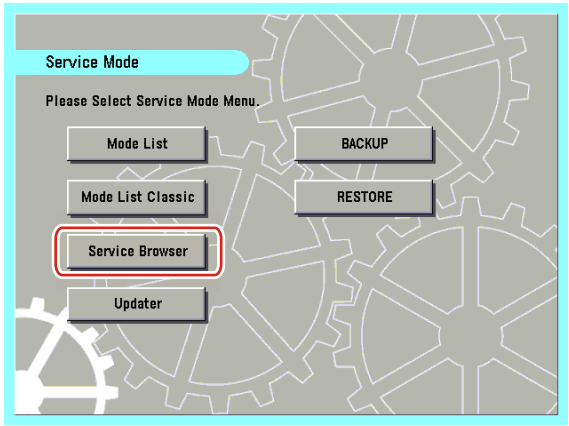
3. Reboot this machine.

4. Make sure that "1 (: ACTIVE)" is set under [COPIER] > [Display] > [USER] > [BRWS-STS].



F-2-448

5. When the above-shown setting values are enabled, [Service Browser] is displayed in the Service Mode screen.



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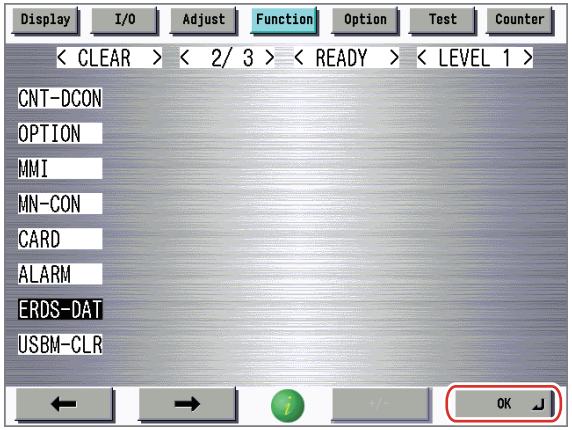
NOTE:
Generally, once service browsing is enabled (BRWS-STS : 1), it cannot be disabled (BRWS-STS : 0) again*. To disable service browsing, clear SRAM.
* The function is disabled (BRWS-STS: 2) by executing BRWS-ACT again.

Initializing E-RDS settings

It is possible to clear the SRAM data of E-RDS and change the E-RDS setting back to the default value.

Initialization procedure

1. Start [Service Mode] at Level 1.
2. Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and then touch [OK].



F-2-450

Setting values and data to be initialized

The following E-RDS settings, internal data, and Alarm filtering information are initialized.

- COPIER > Function > INSTALL > E-RDS
- COPIER > Function > INSTALL > RGW-ADR
- COPIER > Function > INSTALL > RGW-PORT
- COPIER > Function > INSTALL > COM-LOG

CAUTION:

In case of replacing the CA certificate file, even if initialization of E-RDS is executed, the status is not returned to the factory default.

When installing the certificate file other than the factory default CA certificate file, it is required to delete the certificate file after E-RDS initialization and install the factory default CA certificate file.

For detailed procedures, see "Steps to E-RDS settings - step 3.".

FAQ

No.1

Q: In what case does a communication test with UGW fail?

A: The following cases can be considered in the becoming "NG!" case.

1. Name resolution was failed due to an incorrect host name or DNS server has been halted.
2. Network cable is blocked off.
3. Proxy server settings is not correct.

No.2

Q: When does E-RDS send counter information to UGW? How many data is sent?

A: The schedule of data transmitting, the start time are determined by settings in the UGW side. The send time cannot be specified on the E-RDS side. Data is sent once every 16 hours.
The data size of counter information is approx. 285 KB.

No.3

Q: Will data which failed to be sent due to an error in communication with UGW be resent?

A: Data shown below will be resent.

- Jam log
- Service call log
- Alarm log
- Service mode menu
  The newest data is resent only when the settings are changed in service mode.
- Browser information
  It is resent only when the web browser option is enabled.

Data is resent endlessly (after 5, 10, 15, 20, 25, and 30 minutes since the occurrence of communication error; once 30 minutes have passed, it is resent at 30-minute intervals) until it is sent successfully. Resend continues even if the power is turned OFF and then ON.

No.4

Q: What is the upper limit of the number of COM-LOGs? What is the upper limit of the number of characters of error information displayed in a COM-LOG?

A: Up to 30 log data can be saved. The data size of error information is maximum 128 characters.

No.5

Q: Although Microsoft ISA as a proxy server is introduced, the authentication check is failed. Can E-RDS adopt with Microsoft ISA?

A: E-RDS must comply with "Basic" while "Integrated" authentication is used for Microsoft ISA (as default); therefore, authentication with E-RDS is available if you change the setting to "Basic" authentication on the server.

No.6

Q: Can I turn this machine power off during the e-Maintenance/ imageWARE Remote system operation?

A: While operating the e-Maintenance/ imageWARE Remote system, the power of the device must be ON. If power OFF is needed, do not leave the device power OFF for long time.
It will become "Device is busy, try later" errors if the power supply of network equipment such as HUB is made prolonged OFF.

No.7

Q: Although a Service call error may not be notified to UGW, the reason is what?

A: If a service technician in charge turns off the power supply of this machine immediately after error occurred once, It may be unable to notify to UGW because data processing does not take a time from the controller of this machine to NIC though, the data will be saved on the RAM.
If the power supply is blocked off while starting up, the data will be inevitably deleted.

No.8

Q: How does E-RDS operate while this machine is placed in the sleep mode?

A: While being in Real Deep Sleep, and if data to be sent is in E-RDS, the system wakes up asleep, then starts to send the data to the UGW. The system also waits for completion of data transmission and let the device to shift to asleep status again.
However, transition time to the Real Deep Sleep depends on the device, and the transition to sleep won't be done if the next data transmission will be done within 10 minutes.

No.9

Q: Is E-RDS compatible with Department counter?

A: No, E-RDS does not support Department counter.

No.10

Q: Is there any setting to be made on the device side to enable the service mode menu transmission function? Moreover, what is Service mode menu set as the object of transmission?

A: No steps peculiar to Transmitting Service mode menu. As for the data that applies to transmission of the service mode, see the "Service mode menu Transmission".

No.11

Q: What service browser data is transmitted to UGW by E-RDS in what timing?

A: The service browser data to be transmitted and the transmission timing are shown below.

Transmission timing	Detailed procedure	Transmission information	Error occurs
When the service browser is enabled from the disabled state [OFF]	1) Specify the service browser setting in the service mode menu. 2) Send browser information to UGW. 3) Once obtaining OK response from UGW, enable the service browser mode [ACTIVE]. (To use the setting, it is necessary to reboot this machine)	Service browser mode: [Register] WEB browser option: [ON] or [OFF] according to the license status	Retransmission is not performed. ("Disabling [OFF]" continues to be set.)

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No.12

Q: Can I make another service call request when I have already requested a service call?

A: No, you cannot make another service call request if you have already made a service call request.
Touch the [Cancel] button to cancel the service call which you'd made. Or the service technician performs a service call completion process.

No.13

Q: Is the "Requesting" status cancelled when this machine is rebooted?

A: The requesting status is not cancelled even if the device is rebooted. The information of the notified service call request (the time that the request was made, the service call request description) is also retained during the "Requesting" status.

No.14

Q: Counter information could not be sent at the scheduled send time due to the power of this machine being turned OFF. Will the counter information be sent later when the power of this machine is turned ON?

A: Yes. When a scheduled send such as that for counter could not be executed due to the power of this machine being turned OFF, etc., and the scheduled send time has already passed at power-on, the send is executed immediately.

The following shows data send according to the status of this machine.

Send types	Status of this machine		
	Power ON	Power OFF	Sleep
Scheduled send	Sent	Not sent*1	Sent*2
Immediate send (Service call log / Alarm log / Jam log)	Sent	-	Sent*2

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*1: Immediately sent if the send time has already passed at power-on.

*2: Sent after recovery from sleep mode.

No.15

Q: Some part of information seems to be suppressed as screens passes: Settings/ Registration > Preferences > Network > TCP/ IP Settings, when the device is connected with a PS server unit. How the authentication information such as CA certificate is dealt?

A: The certificate-related items are displayed. Even when the device is connected with a PS Server Unit, E-RDS functions.

Troubleshooting

No.1

Symptom: A communication test (COM-TEST) results NG!

Cause: Initial settings or network conditions is incomplete.

Remedy 1: Check and take actions mentioned below.

1) Check network connections

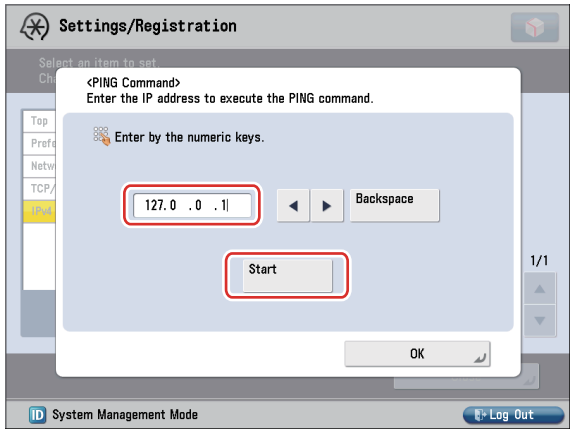
Is the status indicator LED for the HUB port to which this machine is connected ON?

YES: Proceed to Step 2).

NO: Check that the network cable is properly connected.

2) Confirm loop back address (* In case of IPv4)

Select [Settings/Registration (User Mode)] > [Preferences] > [Network] > [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter "127.0.0.1", and touch the [Start] button.



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Does the screen display "Response from the host."? (See the next figure.)

YES: Proceed to Step 3).

NO: There is a possibility that this machine's network settings are wrong. Check the details of the IPv4 settings once more.

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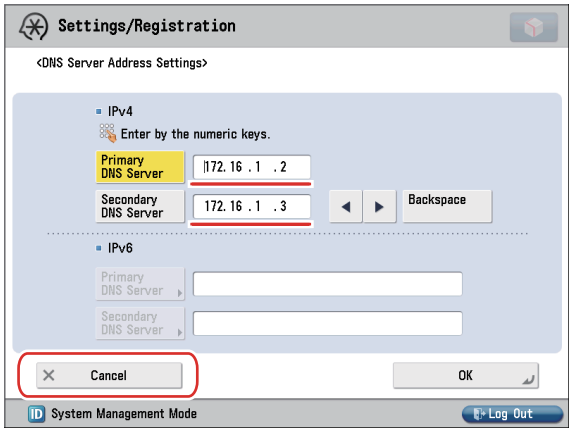
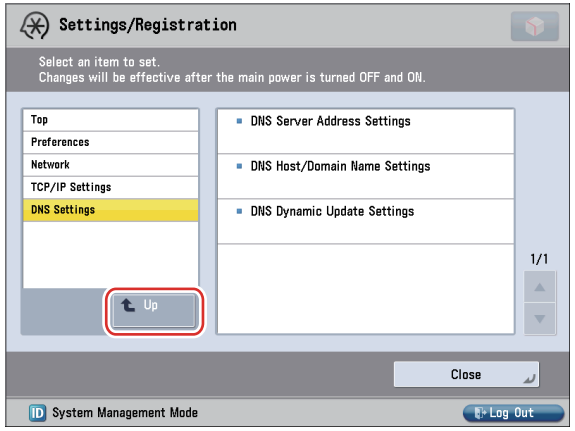
3) Confirmation from another PC connected to same network.
Request the user to ping this machine from a PC connected to same network.
Does this machine respond?
YES: Proceed to Step 4).
NO: Confirm the details of this machine's IP address and subnet mask settings.

4) Confirm DNS connection
(a) Select [Settings/Registration (User Mode)] > [Preferences] > [Network] > [TCP/IP Settings] > [DNS Settings] > [DNS Server Address Settings], write down the primary and secondary addresses of the DNS server, and touch the [Cancel] button.



F-2-453

(b) Touch the [Up] button.



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(c) Select [IPv4 Settings] > [PING Command], enter the primary DNS server noted down in step a) as the IP address, and touch the [Start] button.

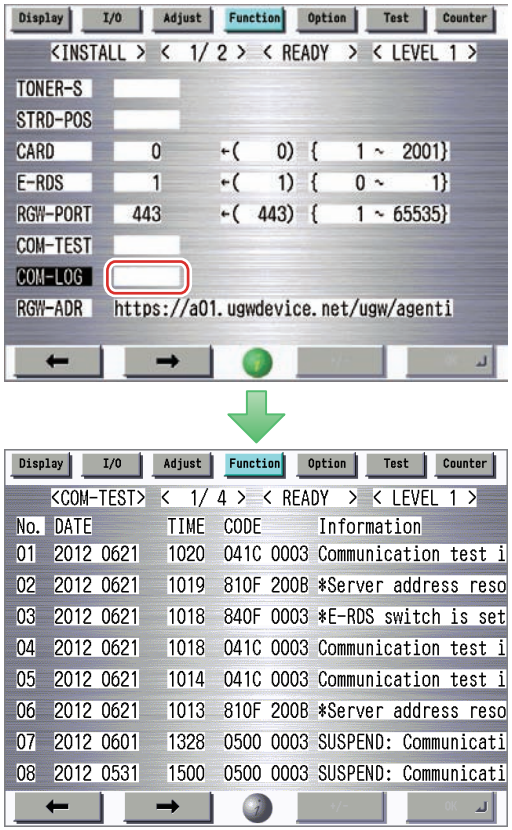
Does the screen display "Response from the host."?
YES: Proceed to Remedy 2.
NO: Enter the secondary DNS server noted down in step a) as the IP address, and then touch the [Start] button.

Does the screen display "Response from the host."?
YES: Proceed to Remedy 2.
NO: There is a possibility that the DNS server address is wrong. Reconfirm the address with the user's system administrator.

Remedy 2: Troubleshooting using communication error log (COM-LOG)

1) Start [Service Mode] at Level 1.

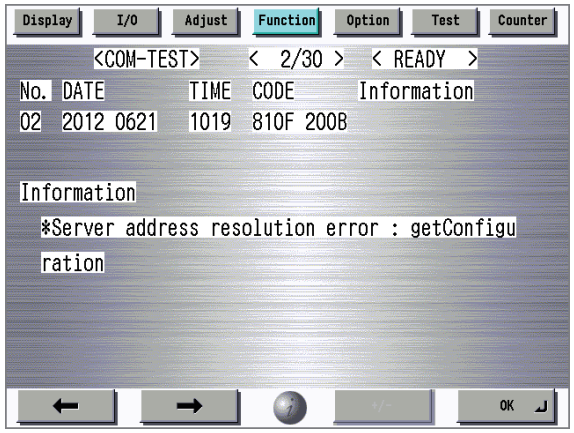
2) Select [COPIER] > [Function] > [INSTALL] > [COM-LOG] and touch the blank field on the right side. The communication error log list screen is displayed.



F-2-455

NOTE:
- Only the initial part of error information is displayed in the communication error log list screen.
- "*" is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

3) When each line is selected, the communication error log detailed screen is displayed as shown in the figure below. (Example: No. 02)



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NOTE:
- A detailed description of the error appears below 'Information'. (Max 128 characters)
- Touch the [OK] button to return to the communication error log list screen.

4) When a message is displayed, take an appropriate action referring to "Error code and strings".

No.2

Symptom: A communication test results NG! even if network setting is set properly.

Cause: The network environment is inappropriate, or RGW-ADR or RGW-PORT settings for E-RDS have been changed.

Remedy: The following points should be checked.

1) Check network conditions such as proxy server settings and so on.

2) Check the E-RDS setting values.

- Check the communication error log from COM-LOG.
- Check whether RGW-ADR or RGW-PORT settings has changed. If RGW-ADR or RGW-PORT settings has changed, restore initial values. For initial values, see "Service cautions".

2

2

No.10

Symptom: When a communication test (COM-TEST) is repeatedly executed, an error occurs.

Cause: During communication conducted after execution of a COM-TEST, another COM-TEST was executed again.

Remedy: When repeatedly executing COM-TEST, execute COM-TEST at intervals of 5 minutes or more.

Error code and strings

The following error information is displayed on the communication error log details screen. (Here, "server" means UGW.)

- The error information are displayed in the following form.
  [*] [Error strings] [Method name] [Error details provided by UGW]

NOTE:
"*" is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

No.	Code	Error strings	Cause	Remedy
1	0000 0000	SUSPEND: mode changed.	Unmatched Operation Mode	Initialize the E-RDS setting (ERDS-DAT).
2	0500 0003	SUSPEND: Communication test is not performed.	Rebooting the device while the communication test had not been performed although E-RDS is enabled.	Perform a communication test (COM-TEST).
3	0xxx 0003	Server schedule is not exist	Blank schedule data have been received from UGW.	Perform and complete a communication test (COM-TEST).
4	0xxx 0003	Communication test is not performed	Communication test has not completed.	Perform and complete a communication test (COM-TEST).
5	84xx 0003	E-RDS switch is setted OFF	A communication test has been attempted with the E-RDS switch being OFF.	Set E-RDS switch (E-RDS) to 1, and then perform a communication test (COM-TEST).
6	8600 0002 8600 0003 8600 0101 8600 0201 8600 0305 8600 0306 8600 0401 8600 0403 8600 0414 8600 0415	Event Registration is Failed	Processing (event processing) within the device has failed.	Turn the device OFF/ ON. If the error persists, replace the device system software. (Upgrade)
7	8700 0306	SRAM version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of E-RDS.	Turn the device OFF/ ON.
8	8700 0306	SRAM AeRDS version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of Ae-RDS.	Turn the device OFF/ ON.

No.	Code	Error strings	Cause	Remedy
9	8xxx 0004	Operation is not supported	Method which E-RDS is not supporting attempted.	Contact help desk
10	8xxx 0101	Server response error (NULL)	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding. When (Null) is displayed at the end of the message, this indicates that there has been an error in the HTTPS communication method.	Perform and complete a communication test (COM-TEST).
11	8xxx 0201 8xxx 0202 8xxx 0203 8xxx 0204 8xxx 0206	Server schedule is invalid	During the communication test, there has been some kind of error in the schedule values passed from UGW.	When the error occurs, report the details to the support section. After the UGW side has responded, try the communication test again.
12	8xxx 0207 8xxx 0208	Internal Schedule is broken	The schedule data in the inside of E-RDS is not right.	Perform a communication test (COM-TEST).
13	8xxx 0221	Server specified list is too big	Alarm/Alert filtering error: The number of elements of the list specified by the server is over restriction value.	Alert filtering is not supported by UGW.
14	8xxx 0222	Server specified list is wrong	Alarm filtering error: Unjust value is included in the element of the list specified by the server.	Alert filtering is not supported by UGW.
15	8xxx 0304	Device is busy, try later	The semaphore consumption error at the time of a communication test.	Try again a communication test after a period of time.
16	8xxx 0709	Tracking ID is not match	When upgrading firmware, the TrackingID notified by Updater differs from the thing of UGW designates.	Obtain the sublog, and contact the support department of the sales company.
17	8xxx 2000	Unknown error	Some other kind of communication error has occurred.	Perform and complete a communication test (COM-TEST).
18	8xxx 2001	URL Scheme error(not https)	The header of the URL of the registered UGW is not in https format.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
19	8xxx 2002	URL server specified is illegal	A URL different to that specified by the UGW has been set.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.

No.	Code	Error strings	Cause	Remedy
20	8xxx 2003	Network is not ready, try later	Communication attempted without confirming network connection, just after booting up a device in which the network preparations are not ready.	Check the network connection, as per the initial procedures described in the troubleshooting. Perform a communication test (COM-TEST) about 60 seconds later, after turn on the device.
21	8xxx 2004	Server response error ([Hexadecimal]) [Error detailed in UGW][*1]	Communication with UGW has been successful, but an error of some sort has prevented Check detailed error code (Hexadecimal) and [Error details in UGW] from UGW	
			• Exact communication fault • The IP address of device is not set • error	Check the network connection, as per the initial procedures described in the troubleshooting. • When proxy is used, make the settings for proxy, an] check the status of m e proxy server
				resolution error

No.	Code	Error strings	Cause	Remedy
27	8xxx 2028	Server certificate error	• No route certificate installed in device. • Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device. • The date and time of the device is not correct.	• Install the latest device system software. (Upgrade) • Correctly set the date and time of the device. • Execute CLEAR > CA-KEY, and turn OFF and then ON the device. (The CA certificate at the time of shipment is automatically installed.)
28	8xxx 2029	Server certificate verify error	The server certificate verification error occurred.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
29	8xxx 2046	Server certificate expired	• The route certificate registered with the device has expired. • Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device. • The device time and date is outside of the certificated period.	Check that the device time and date are correctly set. If the device time and date are correct, upgrade to the latest system software.
30	8xxx 2047	Server response time out	Due to network congestion, etc., the response from UGW does not come within the specified time. (HTTPS level time out)	If this error occurs when the communication test is being run or Service Browser is being set, try again after a period of time.
31	8xxx 2048	Service not found	There is a mistake in the UGW URL, and UGW cannot be accessed. (Path is wrong)	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
32	8xxx 2052	URL error	The data which is not URL is inputted into URL field.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
33	8xxx 2058	Unknown error	SOAP Client fails to obtain SOAP Response. Possibility of a problem in UGW or of a temporary problem in the network load.	Perform and complete a communication test (COM-TEST).
34	8xxx 2063	SOAP Fault	SOAP communication error has occurred.	Check that the value of port number of UGW (RGW-PORT) is 443.
35	xxxx xxxx	Device internal error	An internal error, such as memory unavailable, etc., has occurred during a device internal error phase.	Turn the device OFF/ ON. Or replace the device system software. (Upgrade)
36	xxxx xxxx	SUSPEND: Initialize Failure!	Internal error occurred at the initiating E-RDS.	Turn the device OFF/ ON.

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*1: [Hexadecimal]: indicates an error code returned from UGW.
[Error details in UGW]: indicates error details returned from UGW.

Updater

Overview

Updater provides functions that enable network communication with Content Delivery System (hereinafter CDS) to install firmware, MEAP applications and system options.

- Firmware Installation
  Updater function enables users to distribute firmware through CDS via Internet. Particularly on e-Maintenance/UGW (called NETEYE in Japan)-enabled devices, firmware can be updated remotely, which effectively slashes costs incurred in field services.

- MEAP Application/System Option Installation
  By linking devices to CDS and License Management System (providing the function to manage licenses; hereinafter LMS), applications can be installed in devices via Updater, regardless of those not embedded (MEAP application) or embedded (system options) in devices.

Installing Firmware

With link to Updater, service technicians provide firmware install services in the following 3 methods.

Distribution Method	Download Commanded by:	Update Timing	Downloadable Firmware Versions		
			Previous Ver	Current Ver	Newer Ver
a. UGW-linked Download / Update (Full-remote update)	UGW	Auto	No	Yes	Yes*1
b. UGW-linked Download (Remote Distribution / Update)	UGW	Manual	Yes	Yes	Yes
c. Manual Download / Update (On-site Update via Service mode)	Local UI	Auto	No	Yes	Yes*1
		Manual	Yes	Yes	Yes

*1:You can select the version allowed Remote Update.

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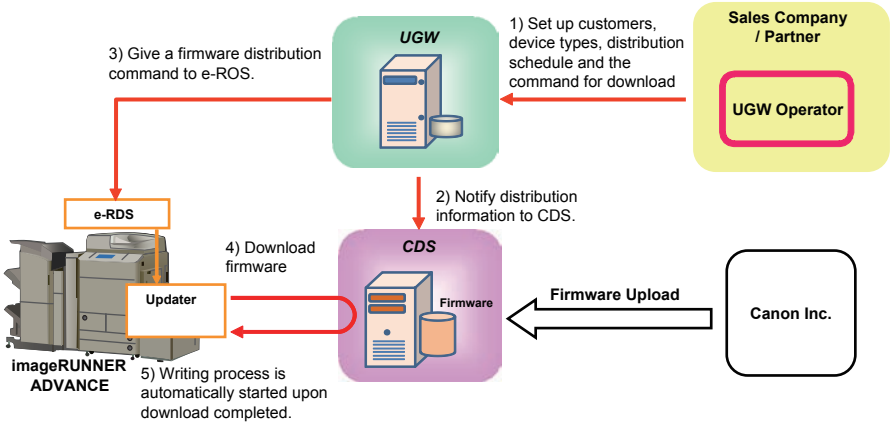
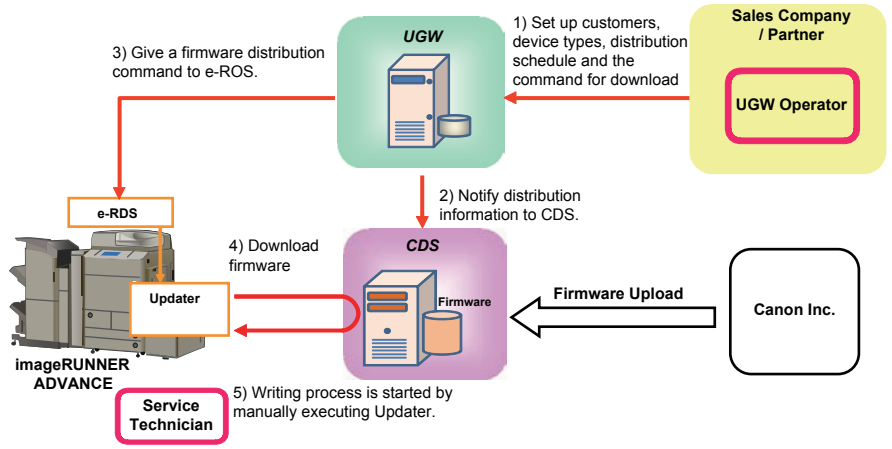
a. UGW-linked Download and Update (Full-Remote Update)
If the device is linked to UGW and the distribution schedule and update setting are registered on UGW in advance, full remote firmware update is available on an imageRUNNER ADVANCE-series device. Upon downloaded from CDS, the firmware is updated on the device.



F-2-477

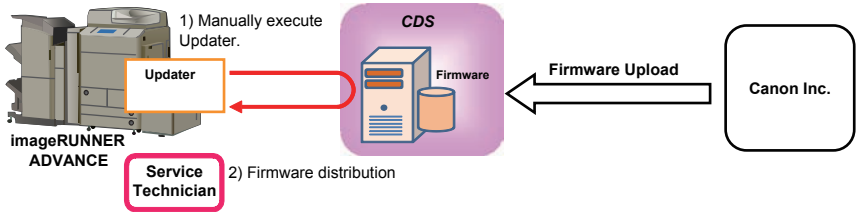
b. UGW-linked Download (Remote Distribution / Update)
If the device is linked to UGW and the distribution schedule is registered on UGW in advance, firmware can be distributed to an imageRUNNER ADVANCE-series device before a service technician actually visits the customer site. This allows the service technician to update the firmware manually immediately after completing device inspection.



F-2-478

c. Manual Download and Update (On-site Update via Service Mode)

If an imageRUNNER ADVANCE-series device has connection with the external network, a service technician can gain access to CDS via Service mode to download and update firmware. This allows service technicians to update the firmware as needed on the customer site even without PCs.



F-2-479

NOTE:
"External network" here means the network connecting the device to CDS via Internet.

NOTE:
Users are able to gain firmware distribution in the following 4 methods by introducing CDS. See User Manual for detailed information.

Distribution Method	Download Commanded by	Update Timing	Downloadable Firmware Versions		
			Previous Ver	Current Ver	Newer Ver
Manual download/ update via Local UI	Local UI	Auto	No	No	Yes *1
		Manual	No	No	Yes *1
Manual download/ upload via Remote UI	Remote UI	Auto	No	No	Yes *1
		Manual	No	No	Yes *1
Special download/ upload via Remote UI	Remote UI	-	Specific version only (Obtain it separately)		
Periodical update via Local UI	Local UI	Auto	No	No	Yes *1

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*1: Only the latest version of Remote update-enabled version is downloadable.

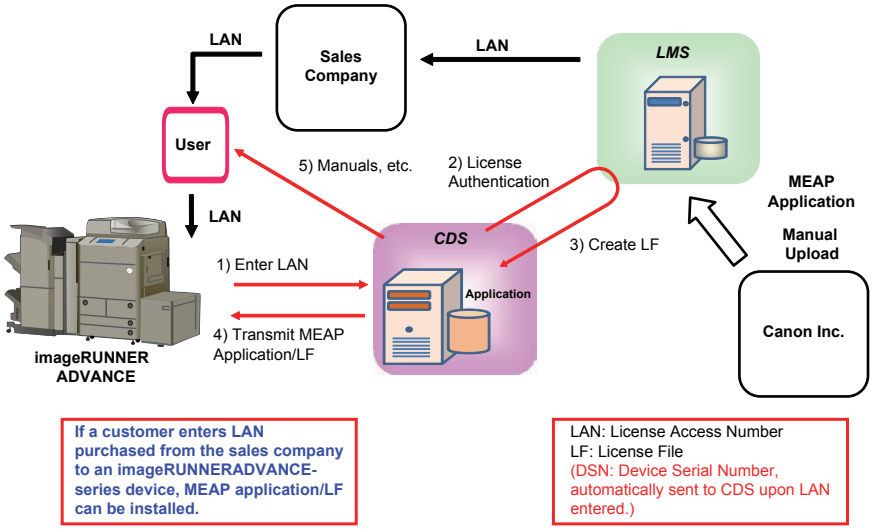
Installing MEAP Application/System Option

The following is the installation method of MEAP application/system option which is enabled by applying CDS.

a. LMS-linked MEAP Application/System Option Installation

If an imageRUNNER ADVANCE-series device is connected to the external network, user or service technician can gain access to CDS from User mode to install a MEAP application or a system option.

Installing MEAP Application



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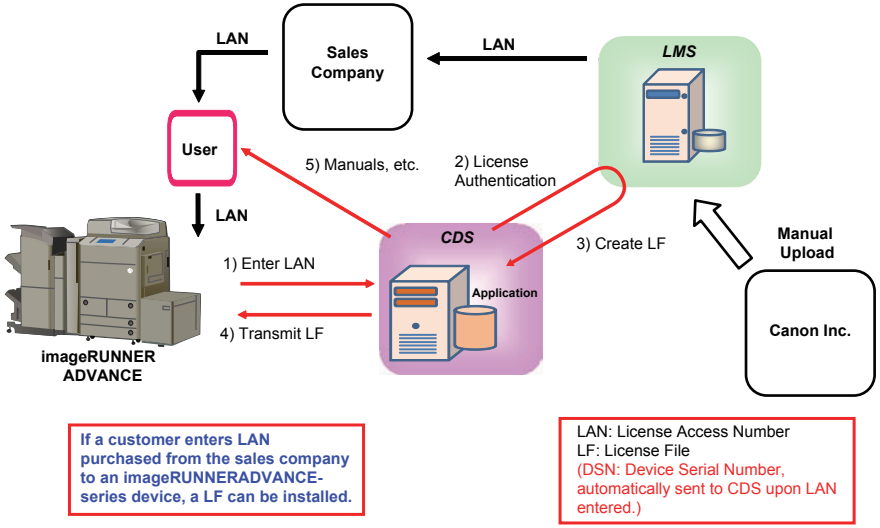
Installing System Option



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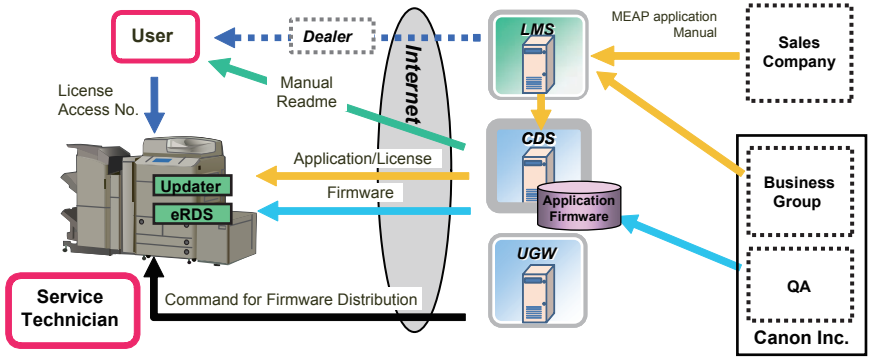
System Configuration

The figure below schematically shows the system configuration.



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List of Functions

The matrix below shows the list of functions provided by Updater.

Category	Function	Service Mode	User Mode	Remote UI	UGW-linked
Firmware	Checking firmware compatibility	Yes	-	-	-
	Checking special firmware	Yes	-	-	-
	Checking latest firmware version	-	Yes	Yes	-
	Registering/deleting firmware distribution schedule	Yes	Yes	Yes	-
	Confirming and downloading firmware	Yes	Yes	Yes	Yes
	Updating downloaded firmware	Yes	Yes	Yes	-
	Cancelling downloaded firmware	Yes	Yes	Yes	-
	Acquiring firmware distribution information registered from UGW	-	-	-	Yes
	Notifying firmware version information	-	-	-	Yes
	Periodical update*	-	Yes	-	-
MEAP application/ system option	Inquiring license for MEAP application/system option	-	Yes	Yes	-
	Installing MEAP application / system option	-	Yes	Yes	-
System Management	Settings	Yes	-	-	-
	Testing communications	Yes	Yes	Yes	-
	Displaying update logs	Yes	Yes	Yes	-
	Displaying system logs	Yes	Yes	Yes	-
Internal system error notification	Notifying internal system error occurrence to distribution server	Yes	Yes	Yes	Yes

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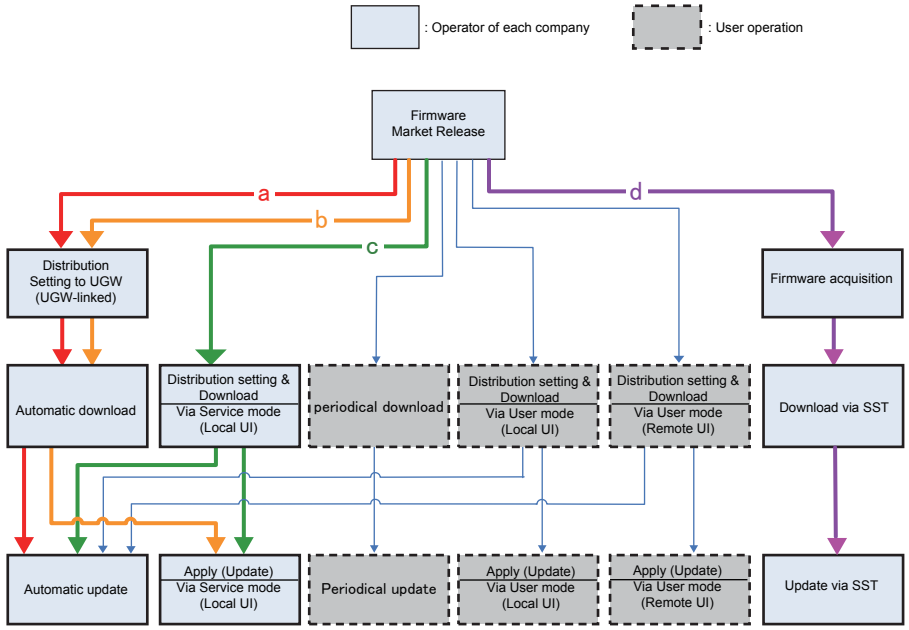
*Functioning supports periodical update with a device after firmware version V50.00.

Distribution Flow

Firmware Installation Flow

Service technicians provide firmware install services in the following 4 methods.

a: UGW-linked download and update
b: UGW-linked download
c: Manual download and update
d: Update via SST



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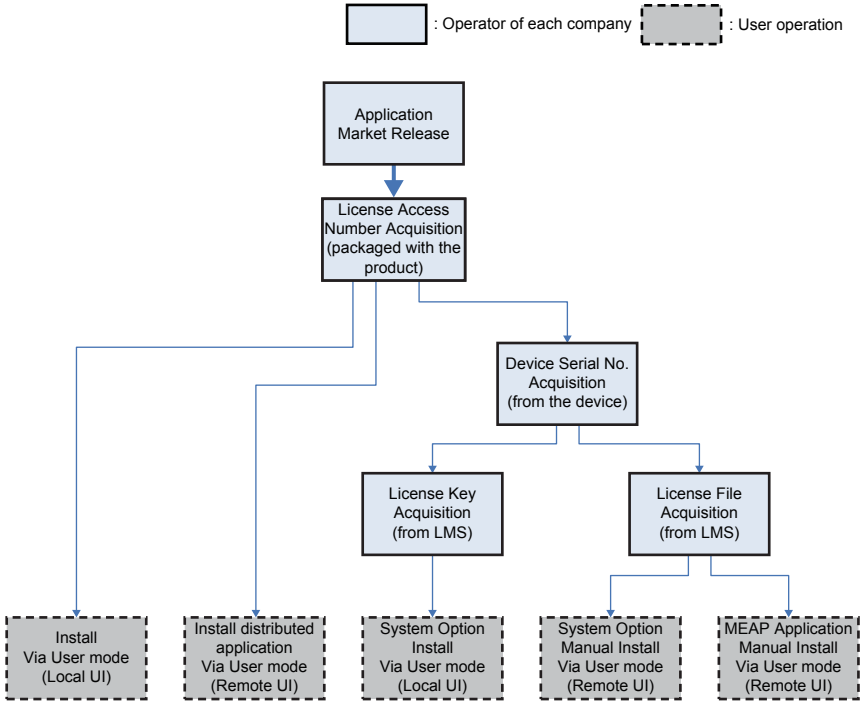
*1: Schedules for UGW-linked distribution are maintained on CDS.
*Functioning supports periodical update with a device after firmware version V50.00.

MEAP Application/System Option Installation Flow

MEAP application/system option installation method using service mode is not provided.
Be sure to use the user mode to install.



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Limitations and Cautions

Limitations

Changing Date/Time on Device

When a user changes the date/time setting on the device (including change of the setting according to daylight saving time), the firmware distribution may not be performed as scheduled.
But there is not the problem if it is time adjustment of several minutes with NTP servers.

Change of Setting from Service mode

Any settings from Service mode will be enabled after restarting the device.

Cautions

Concurrent use of Updater functions

Multiple users cannot use Updater functions on a device concurrently by using it together with Remote UI.

Coexistence of Remote UI and other tools

Users logged in SMS (Service Management Service) are unable to use Update functions from Remote UI.

Using Updater function from Remote UI

Upon the following operations done, Updater functions are suspended from Remote UI for certain duration.

- When a user exits Web browser without clicking [Portal] or [Log Out] button in the setting of Remote Login Service via SMS
- When a user exits Web browser without clicking [Portal] button in the setting of not to use Remote Login Service via SMS.
- When a user exits Web browser without clicking [Log out from SMS] or [To Remote UI] button.

Wait for EOJ (end of job) Function

Firmware update will be triggered only after the following jobs are completed.
This is the Updater-specific specification.

Job/Function type	Receiving	Printing	Queued print jobs	Sending	Queued send jobs
COPY	-	Wait for EOJ	Wait for EOJ	-	-
PRINT	Wait for EOJ (end of job)	Wait for EOJ	Wait for EOJ	-	-
FAX	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ
I-FAX Receipt	Cancel processing to trigger update *	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ
Report Print	-	Wait for EOJ	Wait for EOJ	-	-
SEND	-	-	-	Cancel processing to trigger update *	Cancel processing to trigger update *

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*The data are guaranteed even if cut off in the middle of a job.It becomes the recovery object after the device reboot and carry out send / reception again.

Even during transfer, Pull SCAN job processing is cancelled soon after scanning is completed.
Firmware update is cancelled if the jobs are not completed within 10 minutes. If this occurs, the error code, 8x001106, will be returned (different numbers will be shown for x depending on the execution modes).
Firmware update is executed if the jobs stated above are not in the queue.
Follow the shutdown sequence to reboot the device after the firmware is updated.

Caution:
The following firmware versions do not support Wait for EOJ Function.

- iR-ADV V5000 series: V40.17 or earlier
- iR-ADV V7000/9000 series: V40.18 or earlier

For the versions above, triggering firmware update will cancel all COPY/PDL jobs submitted and/or queued. Only jobs with power-off safeguard (Fax/ I-Fax/ Auto-Report Print) are recovered after reboot.

Overview of Preparation

The following should be prepared before using Updater.

- For updating of firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

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- For Install of Application

Installation Method	Network Settings	Enabling [Install Application/ Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

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Setting Sales Company's HQ

When using devices input in the markets listed below, the default setting of Sales Company's HQ should be changed before obtaining firmware distributed from CDS. Unless the setting is changed properly, the desired firmware may not be able to be selected.

Market	Default Setting of Sales Company's HQ	Setting of Sales Company's HQ after Change
Canada	US	CA
Latin America	US/SG	LA
Hong Kong	SG	HK

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Go to the following screen to change the setting of Sales Company's HQ.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL

NOTE:
The list below shows the setting of Sales Company's HQ for CDS-CTS by market.
Check and adhere to the appropriate setting for your market.
<List of Sales Company's HQ and the settings for CDS-CTL>

Japan = JP
USA = US
Singapore = SG
Europe = NL
Korea = KR
China = CN
Hong Kong = HK
Australia = AU
Canada = CA
Latin America= LA

Network Settings

Connecting to External Network

The method of connecting to external network is similar to a normal network connection method. Refer to user manual of the device for details.

NOTE:
- See User Manual for how to connect the device to the external network.
- Before using UGW link or User mode, see the sections below to prepare as required.
  "Enabling UGW Link"
  "Enabling [Update Firmware] Button of User Mode"
  "Enabling [Install Application/Options] Button of User Mode"

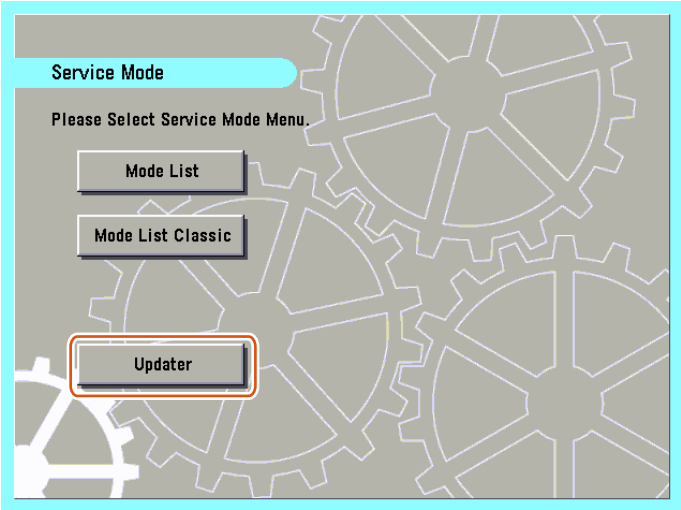
NOTE:
“External Network” here means the network connecting the device to CDS via Internet.

Confirming URL Setting of Distribution Server

This section describes how to confirm the URL setting of the distribution server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



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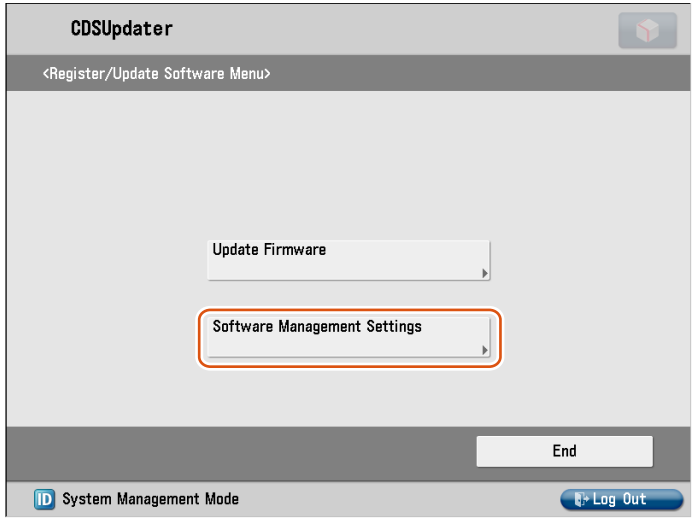
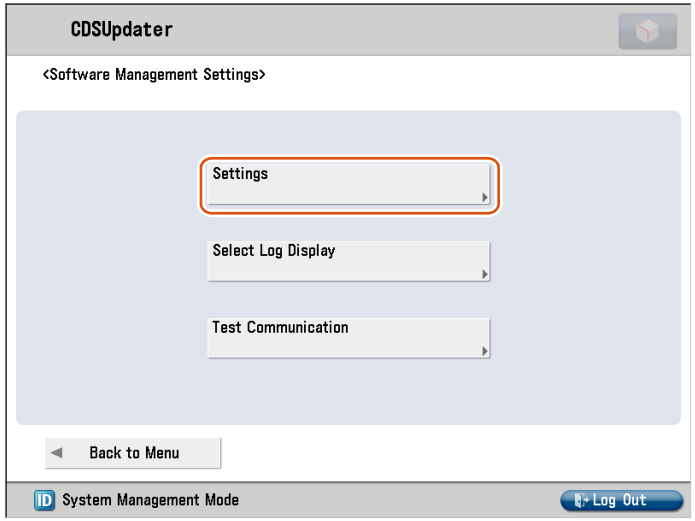
3. Press [Software Management Settings] button.



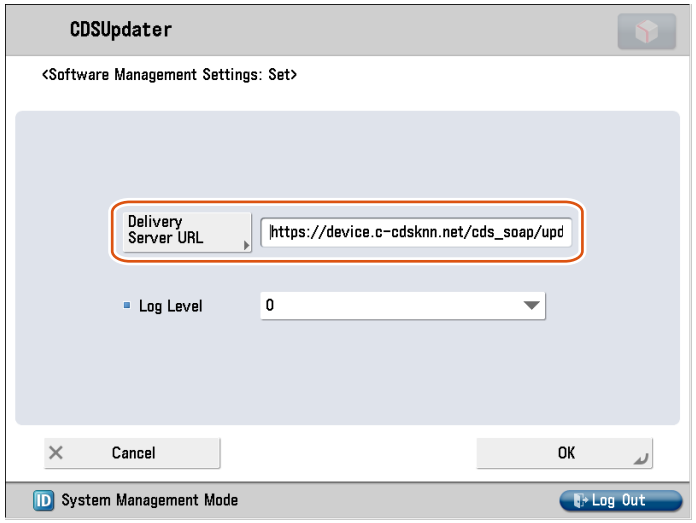
F-2-486

4. Press [Settings] button.



F-2-487

5. Ensure to enter “https://device.c-cdsknn.net/cds_soap/updaterif” in the field beside the [Delivery Server URL] button.
If the URL is not entered or a wrong URL is entered in the field, click [Delivery Server URL] button to show the virtual keypad. Check the URL and enter the correct one.



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6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

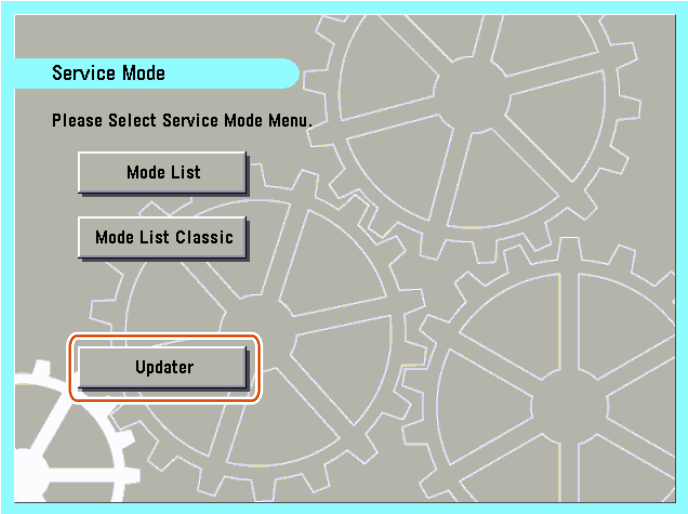
Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

NOTE:
CDS and RDS are another servers.You need the communication test of CDS by all means even if You succeed in a communication test of the Embedded RDS.

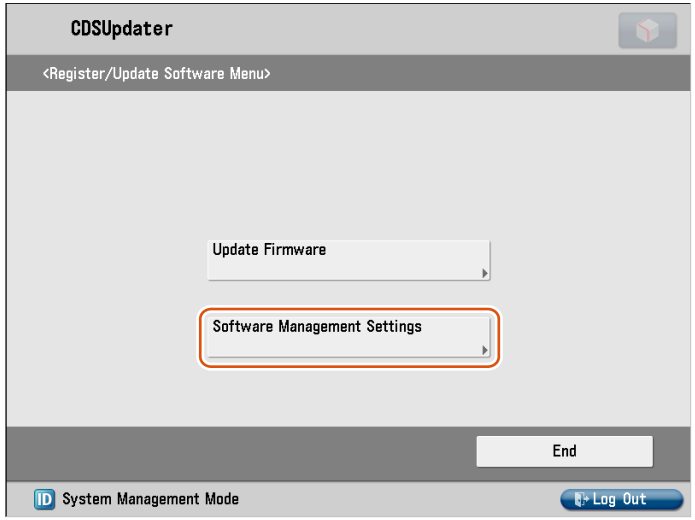
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



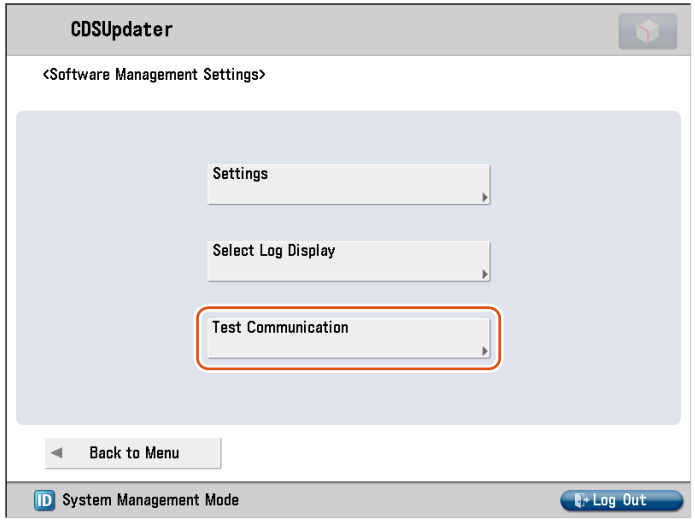
F-2-489

3. Press [Software Management Settings] button.



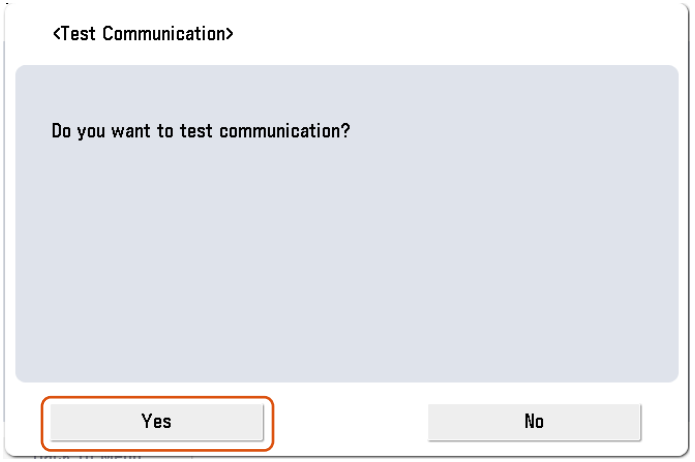
F-2-490

4. Press [Test Communication] button.



F-2-491

5. Press [Yes] button.



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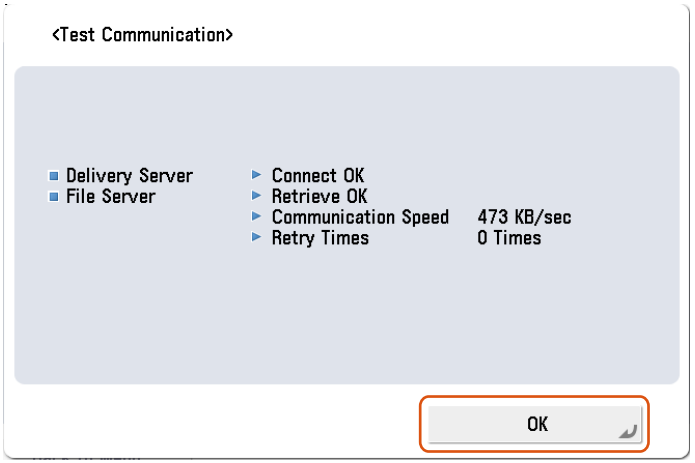
Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).
Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown. Press [OK] button to exit this operation.



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Enabling UGW Link

When installing the firmware in the method of “UGW-linked Download and Update” or “UGW-linked Download”, the following should be set before actually using UGW link.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware Distribution Information" to grant the appropriate authorities to each account.

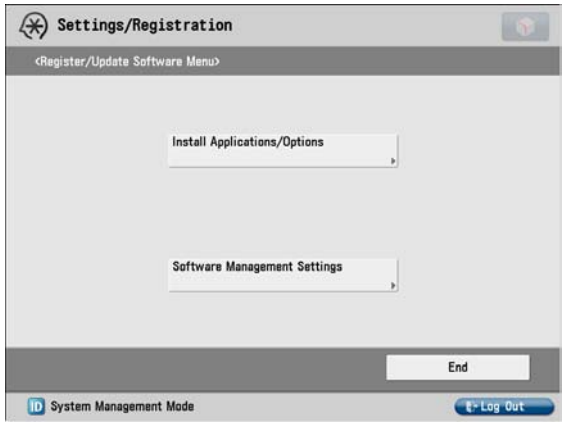
NOTE:
- See “imageWARE Remote Operator’s Manual / e-Maintenance Business Operation Manual“ for how to operate UGW WebPortal.
- [Distribute Firmware] should be set on [Customer Management] screen for staff in charge of setting for [Enter customer information] or [Command for firmware distribution] in order to allow them to select the desired device on [Firmware Distribution Information] screen.
- If [Distribute Firmware] is not shown on [Customer Management] screen of UGW WebPortal, appropriate authorities may not be set to each account in Firmware Distribution Information. Contact the Sales Company HQ concerned for confirmation.

Enabling [Update Firmware] Button of User Mode

To allow users to install firmware using Updater, the setting of firmware installation should be set to ON for users in advance.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-FIRM (0 -> 1)

- User Mode screen for Updater when the setting is not enabled (CDS-FIRM(0)):



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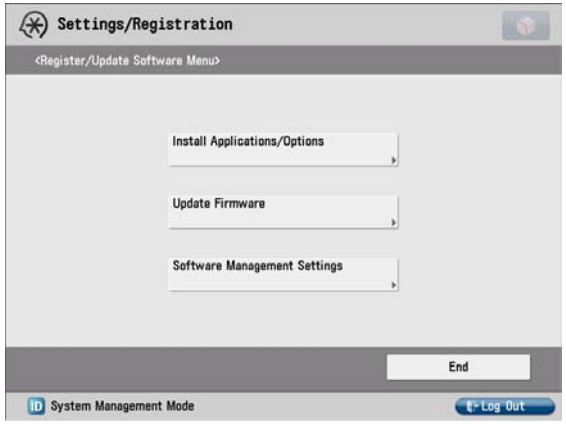
- User Mode screen for Updater when the setting is enabled (CDS-FIRM(1)):



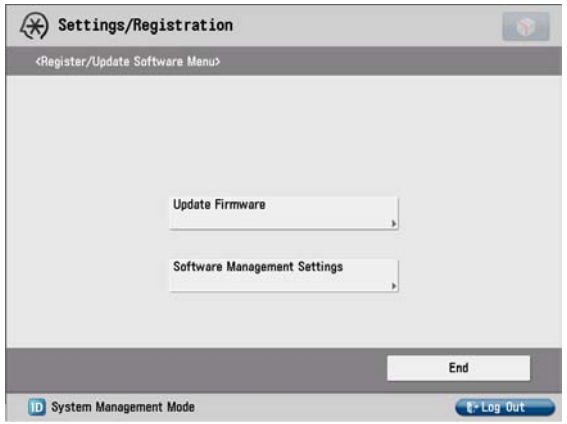
F-2-495

Enabling [Install Application/Options] Button of User Mode

To allow users to install applications using Updater, the setting of application installation should be set to ON for users in advance.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-MEAP (0 -> 1)

- User Mode screen of Updater when the setting is not enabled (CDS-MEAP(0)):



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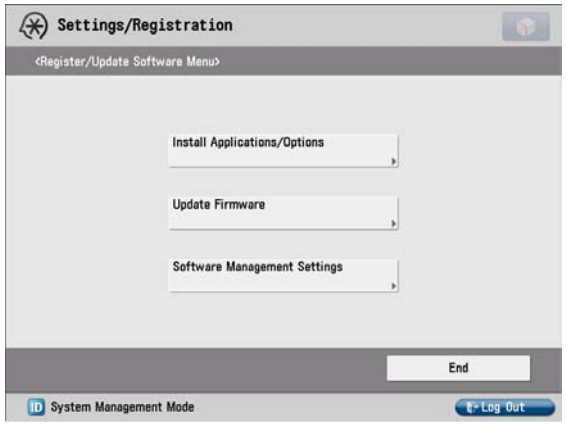
- User Mode screen of Updater when the setting is enabled (CDS-MEAP(1)):



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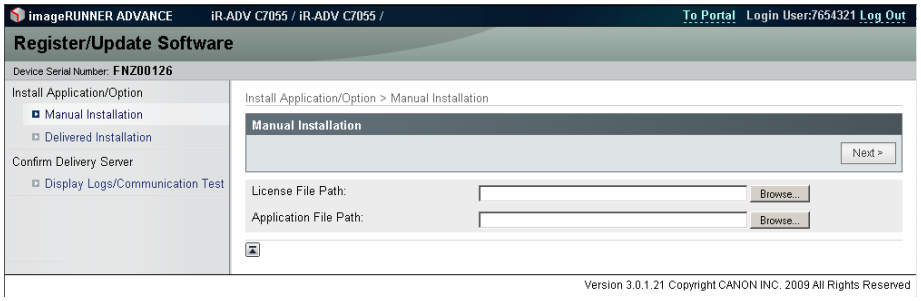
Enabling [Manual Update] Button of User Mode (Remote UI)

To allow users to install firmware from Updater using the file on Local PCs, the setting of firmware installation should be set to ON for users in advance.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >LOCLFIRM (0 -> 1)

- Remote UI screen of Updater when the setting is not enabled (LOCLFIRM (0)):



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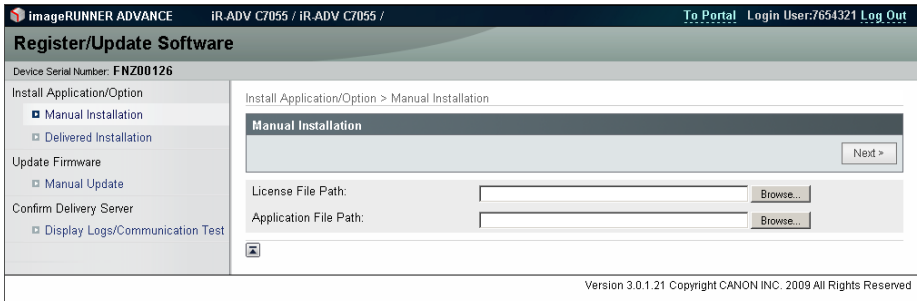
- Remote UI screen of Updater when the setting is enabled (LOCLFIRM (1)):



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- Periodical validation

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-LVUP (0 -> 1)

System Management Operations

Various Setting

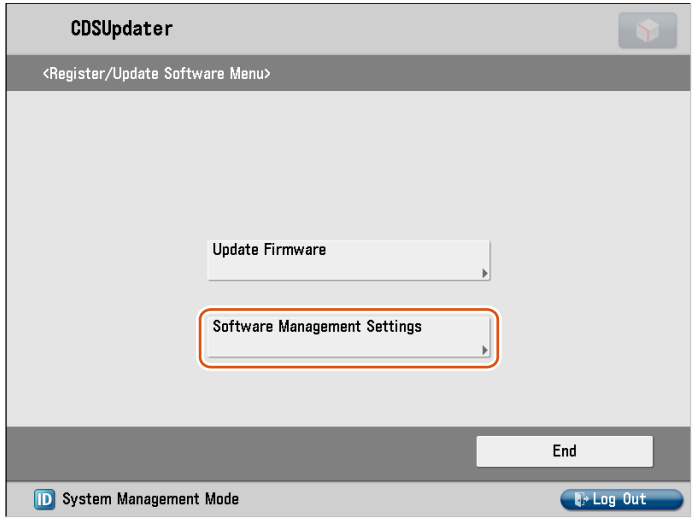
Setting URL of Distribution Server

This section describes how to set URL of the distribution server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

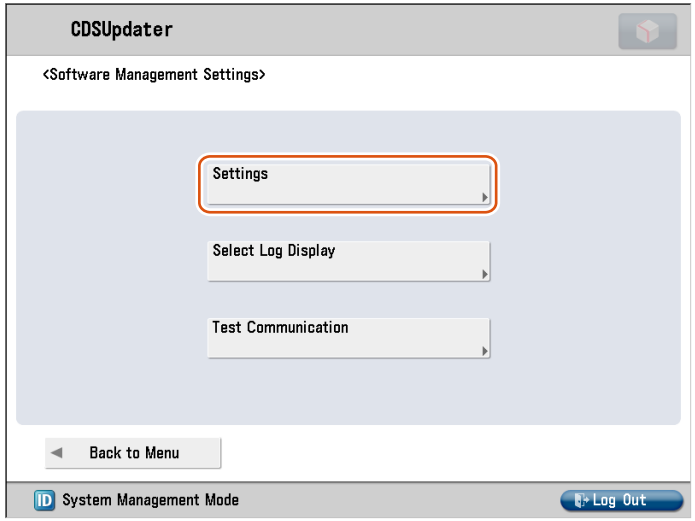
2. Press [Updater] button.

3. Press [Software Management Settings] button.



F-2-500

4. Press [Settings] button.



F-2-501

5. Press [Delivery Server URL] to show the virtual keypad. Enter the URL.

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- [Delivery Server URL]:
  Enter the "https://device.c-cdsknn.net/cds_soap/updaterif"

6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

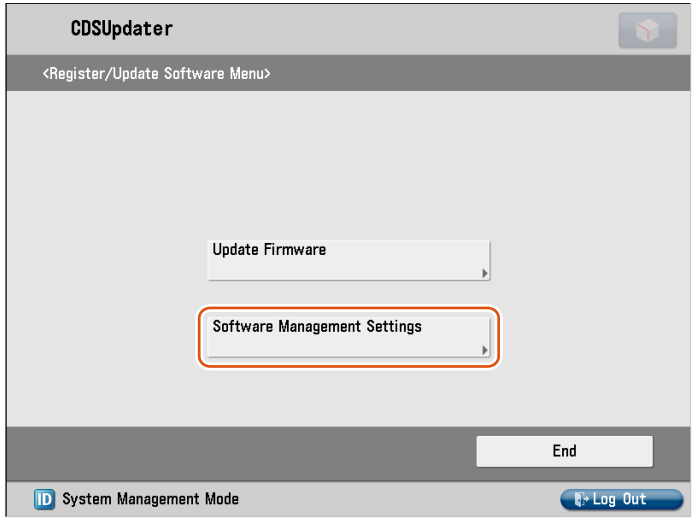
Setting Log Level

This section describes how to set system log levels.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.

3. Press [Software Management Settings] button.



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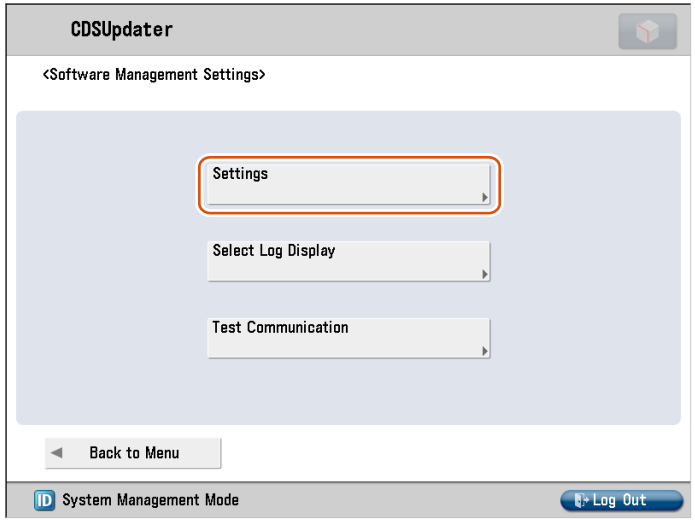
4. Press [Settings] button.



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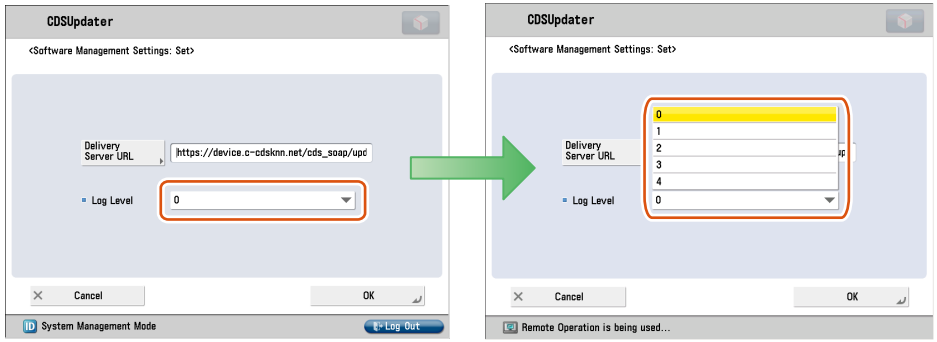
5. Select a log level from [Log Level] dropdown list.



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- [Log Level]:
  Select one of 5 levels ranging from [0] to [4].
  See the table below for logs output in each level.

Log Level	Log Output				
	Trace	Information	Important Message	Ordinary Error	System Error
0	-	-	-	-	Yes
1	-	-	-	Yes	Yes
2	-	-	Yes	Yes	Yes
3	-	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes

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NOTE:
This list shows the contents of the Log Output.

Log Output	Description
Trace	Detailed logs for debug
Information	Logs related to operations done on the system
Important Message	Update logs output by firmware type Installation logs by MEAP application Logs related to enabled functions by system option
Ordinary Error	Logs for ordinary errors
System Error	Logs for internal system errors

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6. Press [OK] button to set the selected log level. Now the log level is successfully set.

Displaying Logs

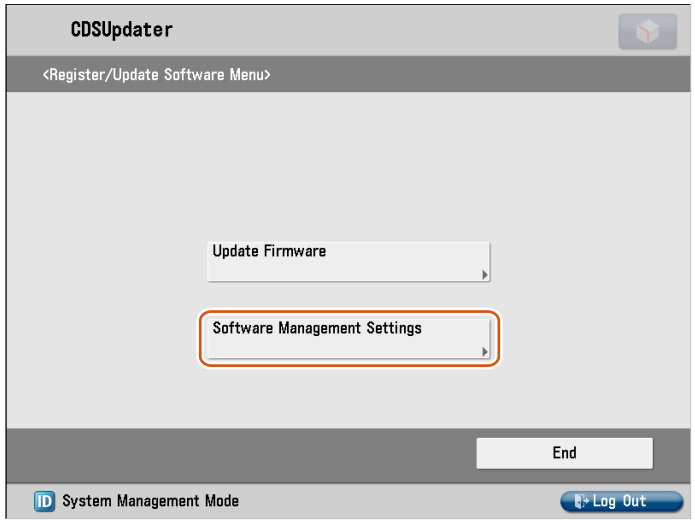
Update Logs

This section describes how to confirm System Option/MEAP Application Installation Logs and Firmware Update Logs.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.

3. Press [Software Management Settings] button.



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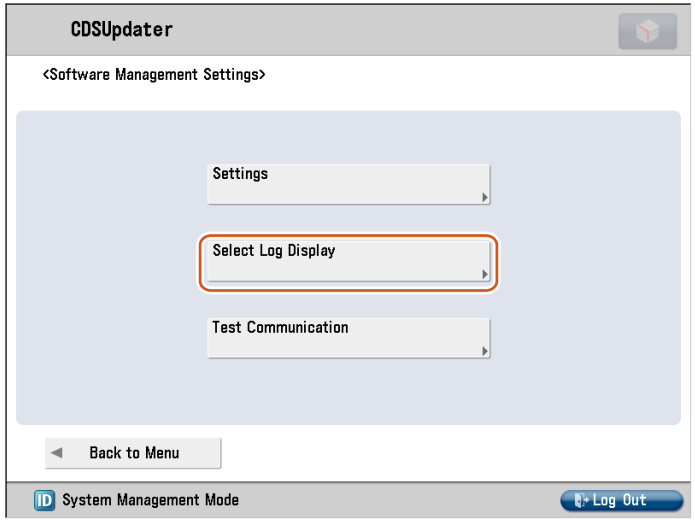
4. Press [Select Log Display] button.



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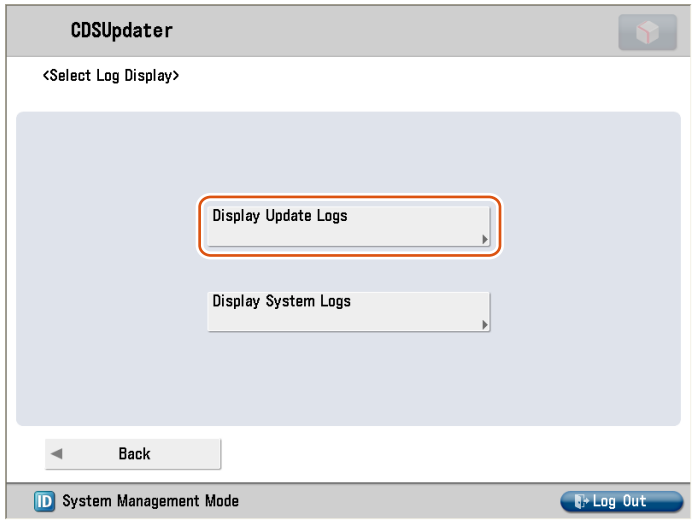
5. Press [Display Update Logs] button.



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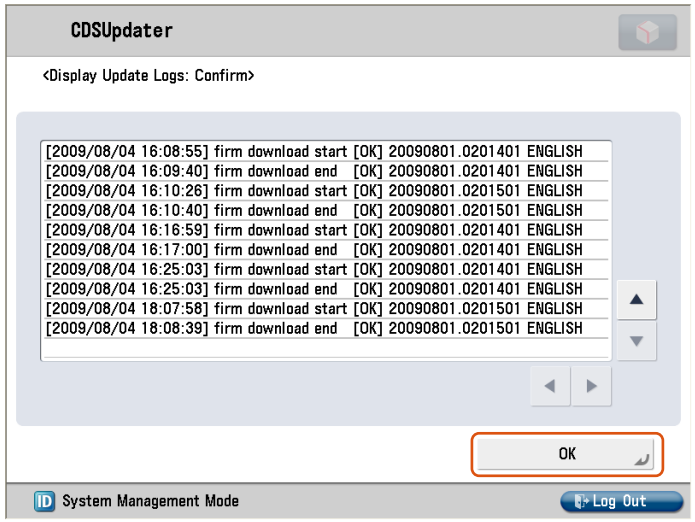
6. System Option/MEAP Application Installation Logs and Firmware Update Logs are shown. Press [OK] button to exit this operation.



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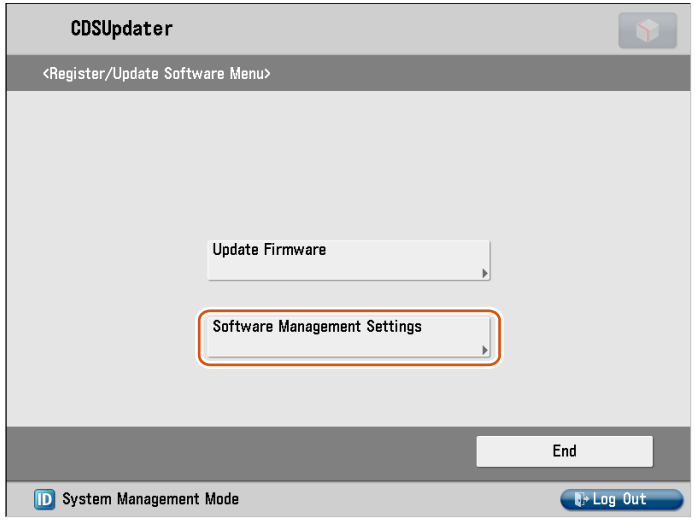
System Logs

This section describes how to confirm System Logs.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.

3. Press [Software Management Settings] button.



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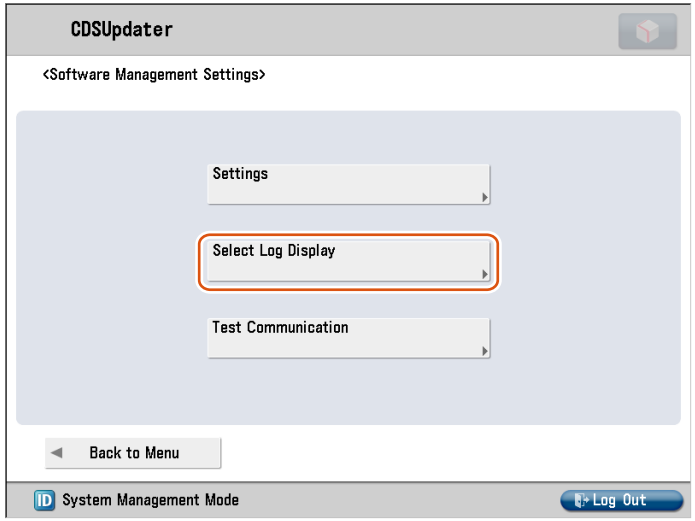
4. Press [Select Log Display] button.



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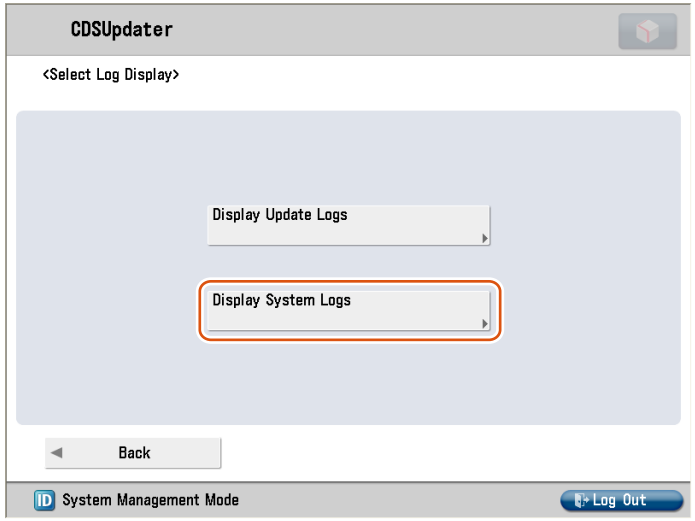
5. Press [Display System Logs] button.



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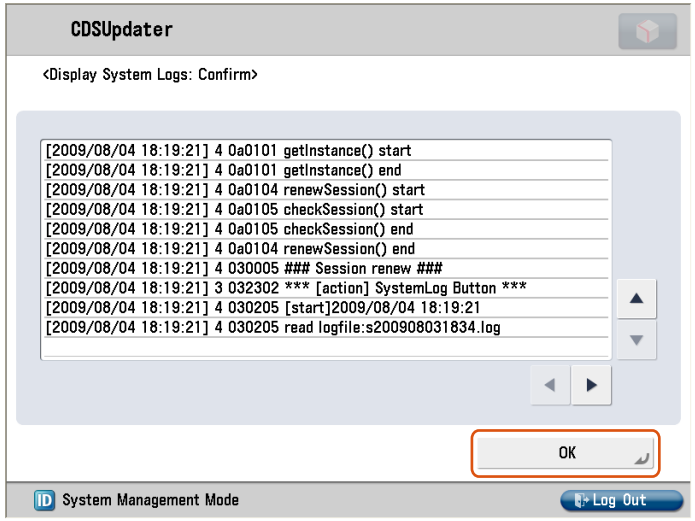
6. Updater internal logs are displayed.
Press [OK] button to exit this operation.



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NOTE:
See Chapter6 "Debug Logs" for how to obtain System Log.

Communication Test

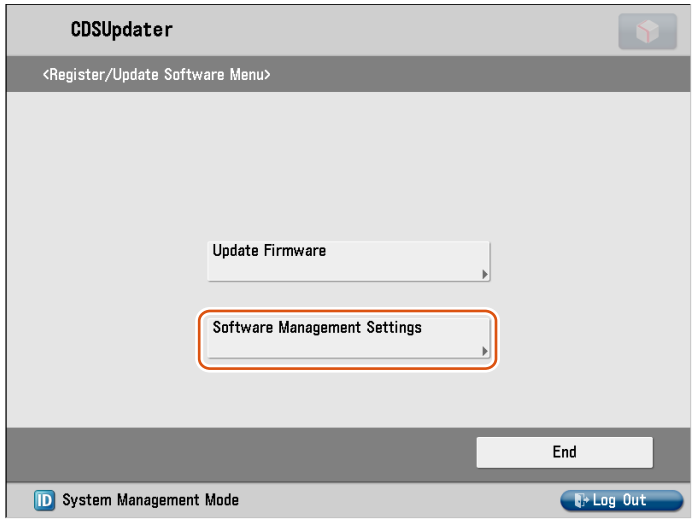
This section describes how to check if the communication is normally done to the distribution server and/or the file server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

NOTE:
CDS and RDS are another servers.
You need the communication test of CDS by all means even if You succeed in a communication test of the RDS.

2. Press [Updater] button.

3. Press [Software Management Settings] button.



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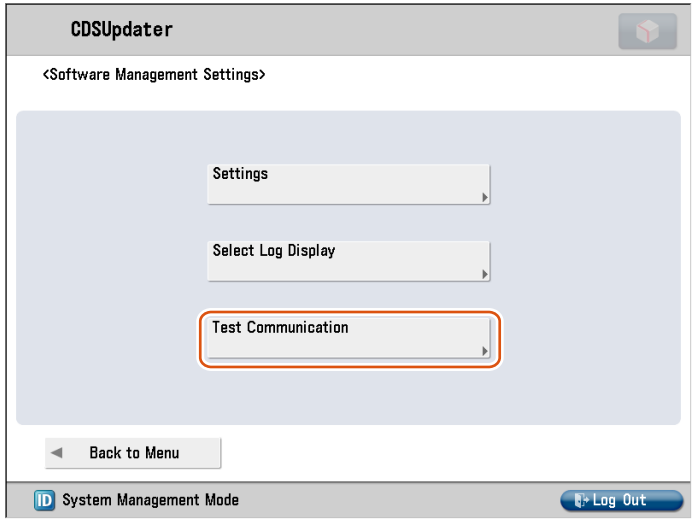
4. Press [Test Communication] button.



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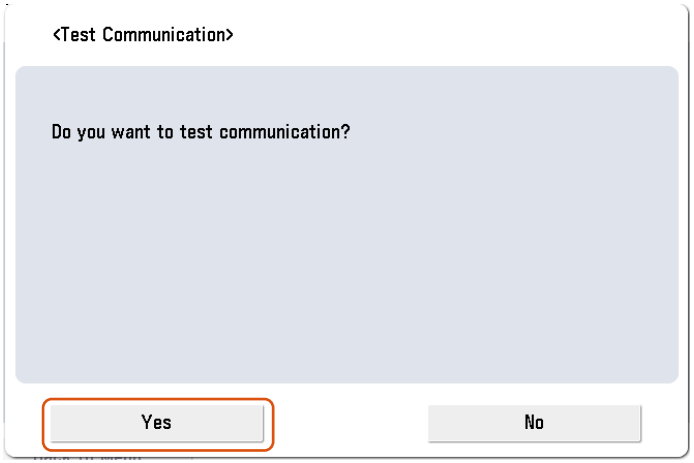
5. Press [Yes] button.



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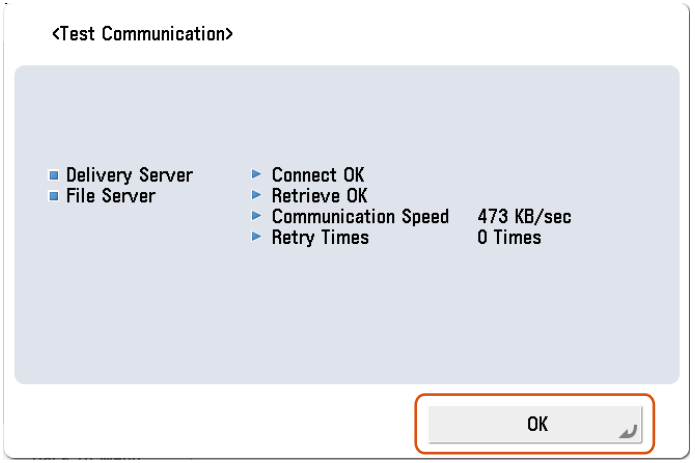
Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).
Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown.
   Press [OK] button to exit this operation.



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Upgrading Updater

The firmware installed in the device should be also upgraded when upgrading Updater. See "Overview" in chapter 3 of this manual for how to update firmware.
The setting information and logs (update logs/system logs) are inherited in the upgraded version.

Formatting Hard Disk

Since Updater is a MEAP application, its contents can be temporarily saved in the MEAP application storage area on PC via SST during formatting or replacing HDD. See MEAP Service Manual for further information.
The settings initialized in format or replacement should be restored. See "Overview of Preparation" in chapter 2 of this manual for details.

NOTE:
When formatting or replacing HDD, distribution schedule, downloaded firmware (not updated yet) and logs (update/system logs) will be deleted.

How to Replace Controller Boards

The steps are different depending on which of 2 controller boards are to be replaced.

- Main Controller Board PCB 1
  No steps follow.

- Main Controller Board PCB 2 (including SRAM)
  The network and service mode setting should be set again after initialization. See "Overview of Preparation" in chapter 2 of this manual for details.

How to Replace Devices

All settings should be set again because no data are inherited. See "Overview of Preparation" in chapter 2 of this manual for details.

FAQ on Installing Firmware

No.1

Q: Is it also possible to downgrade firmware with using CDS?

A: Firmware can be downgraded in some methods shown in the table below.
If download and update are performed consecutively, firmware can't be downgraded.

Distribution Method	Downgrade Possibility
UGW-linked Download and Update	No
UGW-linked Download	Yes
Manual Download and Update(Timing to Apply : Manual)	Yes
Manual Download and Update(Timing to Apply : Automatic)	No

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No.2

Q: When installing firmware, does it take less time in "manual download and update" compared to "update via SST"?

A: It depends on the number of devices to update firmware.
When updating the firmware on a device, it takes more time in "manual download and update" compared to "update via SST" (It depend on network environment.).
As for the time to update firmware to multiple devices, "manual download and update" takes less time compared to "update via SST" because updating the firmware to multiple devices can be executed simultaneously.

When the network line of the user is slow, update via CDS becomes slow in comparison with the SST. Because speed is displayed by a communication test, You refer to it.
As for the aim of the downloading time, transmission rate is 6 or 7 minutes in the case of 1000KB/sec. (There is a difference in a device and a version of Firmware, accessories and the quantity of the language files).

No.3

Q: How can we confirm that the firmware is properly updated after "UGW-linked download and update" done?

A: You can confirm this in E-mail or the Device List on UGW-linked screen.
E-mail to notify firmware update will be sent from CDS server to the addresses set as destinations at the time of distribution setting to notify update completion.
On UGW-linked screen, search the device of your interest on [Select Device] screen to find the distribution status per device as shown in the search result.

No.4

Q: In the course of "UGW-linked download", what will happen if the user downloads the firmware before the service technician update the firmware downloaded with "UGW-linked download" before?

A: The previously downloaded firmware in the method of "UGW-linked download" will be overridden by the subsequently downloaded one.
This is because only one downloaded firmware can be held on the device.
The firmware downloaded in the method of "Service mode-linked download" and "UGW-linked download" can be checked/deleted from User mode, but cannot be updated, so it cannot be updated by the user unnoticed by the service technician.

No.5

Q: What happens if the user registers another distribution schedule when the distribution schedule has been set in "manual download and update"?

A: The distribution schedule subsequently registered by the user will override the existing schedule. This is because only one distribution schedule can be held. Any existing distribution schedule is deleted and the newly registered distribution schedule is made valid.

No.6

Q: How is an individual response edition of firmware distributed?

A: Any individual response edition of firmware can be installed in all the methods provided by service technicians. Before installing the individual response edition, ensure to obtain the ID and password separately.

No.7

Q: If the device is down during firmware update, can the device be started using the older firmware version?

A: No, it is impossible to start the device using older versions. If this occurs, the service technician in charge should reinstall the firmware via SST. See "Troubleshooting on Firmware Installation" in chapter 6 of this manual for details.

No.8

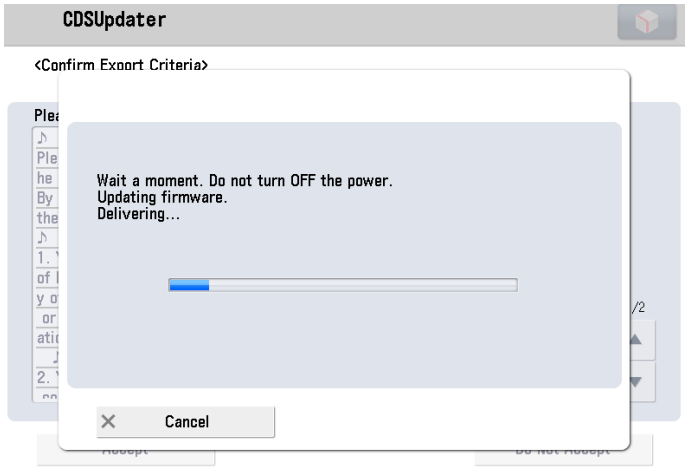
Q: If the device is down during firmware download, is it possible to download the firmware again?

A: Firmware cannot be downloaded again automatically. Instead, the error is notified in E-mail.
The user should register the firmware distribution schedule again accordingly.

No.9

Q: Can we cancel the operation during firmware download?

A: Yes. [Cancel] button is shown.



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No.10

Q: E-mail is sent to users to notify update completion. Can service technicians also receive such a notification?

A: Yes. The notification E-mail is also set for the service technician in charge if the user enters his/her E-mail address at the time of firmware distribution setting.
Multiple E-mail addresses can be entered in the field.Delimit each E-mail address with “,” (comma) or “;” (semicolon) when you enter multiple E-mail addresses in the field.

No.11

Q: How long does the firmware update take?

A: Approx. 30 min. However, this does not include the download time. Download time relies on the network environment.

FAQ on Installing MEAP Application/System Option

No.1

Q: What happens if a MEAP application is installed in the system with insufficient HDD free space?

A: An error message is shown. Upon starting installation, the MEAP application checks the required space against free space to judge installation availability.

No.2

Q: Can we cancel the operation during installation of MEAP application?

A: Yes: [Cancel] button is shown.

No.3

Q: Is the device automatically restarted after the system option is enabled?

A: The device is not automatically restarted. Users should restart the device manually.

FAQ on General Matters of Updater

No.1

Q: What preparation is needed in each installation method?

A: See the table below for preparation required in each installation method.

- For updating firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

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- For install Application

Installation Method	Network Settings	Enabling [Install Application/ Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

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No.2

Q: How can operations using Updater be masked on the users' side?

A: Be sure to perform the following from the service mode.

- Masking Firmware Installation

Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-FIRM (1 -> 0)
Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >LOCLFIRM (1 -> 0)

- Masking Application Installation

Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-MEAP (1 -> 0)

No.3

Q: Can the communication be cancelled during the communication test?

A: Yes. During the communication test, “Cancel” button is displayed.

DCM

DCM

Overview

DCM (Device Configuration Management) is a function to migrate the setting values (of user mode and service mode). In terms of the description in the User's Guide, it is synonymous with "Import/Export All". Service mode setting values can be backed up/restored from the top screen of service mode.
By the conventional method for backing up SRAM of the Main Controller 2, data could be backed up/restored only for the same machine. DCM supports the following 3 patterns.

- The same machine (backup for the purpose of providing against emergency)
- A different machine of the same model (setting values are migrated collectively to multiple machines when replacing a host machine)
- A different model (e.g.: the setting values are copied from an old model to a new model)

Where data is stored

Store the backup data in the following location.

- User > PC (RUI)
- Service > USB memory device/HDD of the machine (top screen of service mode)

Setting values that can be backed up

The values changed by the user under [Settings/Registration] and those specified in service mode can be backed up.
Only setting values are backed up. Image data such as scanned image cannot be backed up.

- [Settings/Registration] value that a user set.
- Service mode setting values

General limitations on DCM

- With DCM, stored data, MEAP application, and system option license cannot be migrated.
- A .dcm file exported to the internal HDD is not deleted even when the machine is restarted. Only 2 files at a maximum are stored in HDD. When there are more than 2 files, the old .dcm files are deleted from the oldest.
- Continuous import is not guaranteed. After importing a file, the machine must be restarted. If executing import without restart, NG is displayed and a file is not imported.
- When importing DCM file in service mode and user mode separately, perform it in the following procedures.
  1) Perform the import of the DCM data of the service mode earlier.
  2) Reboot the Host machine.
  3) Import the DCM data of the user mode.
- As for service mode, if the process is not completed within 5 minutes in the case of export and 15 minutes in the case of import, the item performed at that time is continued until it ends, but the final result becomes ERROR.
- Data to which no password is set when exporting service mode cannot be loaded from collective import from RUI. When assuming to perform collective import from RUI, password must be set to data to be exported.
- Following limitations are applied to password for DCM data:
  - Character string of software keyboard: 0 to 32 characters
  - No password is set when 0 character is entered. (The setting in which no password is set is allowed only for service mode.)
  - No space is allowed in the middle of a password.
  - Password is case sensitive.
- At the time of following setting, Host matchine does not recognize USB memory.The DCM function is not usable, too.
  - Settings/Registration > Preferences > External Interface > USB Settings > Use MEAP Driver for External USB Device = On

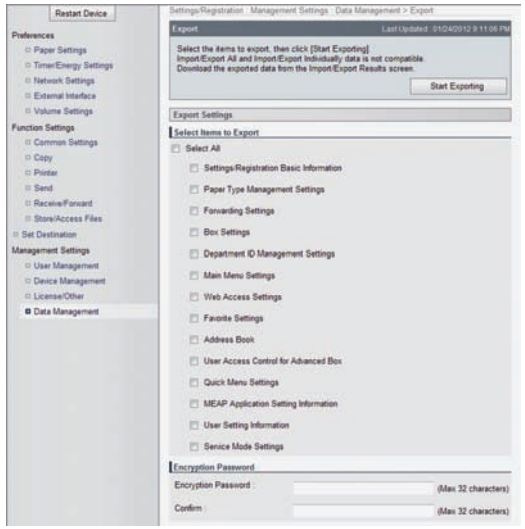
Restrictions about import/export

- An import/export process ends with error while the following specific job is executed;
  - Send job,
  - Forwarding job,
  - FAX reception job,
  - IFAX reception job
- If this function is executed with a print job simultaneously, it affects the operation such as; UI is locked, or a print job is cleared by reboot after import. So it requires careful operation.
- A device rejects an import/ export request during shut-down.
- If this function is executed with device information distribution or RUI import/ export (conventional function) simultaneously, the first coming job takes priority and they are controlled exclusively.
- If this function is executed with a firmware update by a CDS Updater simultaneously, a firmware update process takes priority, and this function is stopped temporarily by reboot.
- When error code is issued, this function ends with error.
- If the display language differs between export and import, a setting value of a text corrupts in some cases. The character corruption can be solved by changing the display language to the appropriate one.

Import/Export All from Remote UI

The following settings information is available with the Import function in each case

- Settings/Registration Basic Information
- Box Settings
- Department ID Management Settings
- Main Menu Settings
- Favorite Settings
- Address Book
- Forwarding Settings
- Quick Menu Settings
- MEAP Application Setting Information
- Paper Type Management Settings
- User Access Control for Advanced Space
- Web Access Settings
- Service Mode Settings(Display/hide of the service mode settings on the export screen)



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Note:
Display/hide of the service mode settings on RUI can be switched by changing the setting in the following service mode.
Service mode L1 > Copier > Option > USER > SMD-EXPT
[0]: Hide the service mode settings. (Def.)
[1]: Display the service mode settings.

Collective Import Using Data Collectively Exported from RUI

For the reason of security, it is not appropriate that the user mode can be exported from service mode without user's permission. Because of that, it cannot be exported due to the specification However, it is possible to import the setting values of user mode exported from RUI.

Preparation

PC and web browser

USB memory device to store the data of reference machine

Overall flow

1. Complete the device setting as a reference machine.
2. Export the data of reference machine including service mode from RUI.
3. Copy the data to the root of the USB memory device using a PC.
4. Connect the USB memory device to the copy destination machine.
5. Execute import by specifying the target files from RESTORE in service mode.

The following cases may be possible for the Import All function.
Case A:Importing all to your machine (Restoring the settings information to your machine for backups)
Case B:Importing all to the same model machine.
Case C:Importing all to the different model machine that supports the Import All function

Setting Information			Case A	Case B	Case C
Preferences	Paper Settings	Paper Settings	Yes	Yes	No
		A5R/STMTR Paper Selection	Yes	Yes	No
		B5/EXEC Paper Selection	Yes	Yes	Yes
		Paper Type Management Settings	Yes	Yes	No
		Register Custom Size	Yes	Yes	Yes
	Display Settings	Default Screen after Startup/Restoration	Yes	Yes	Yes
		Default Screen (Status Monitor/Cancel)	Yes	Yes	Yes
		Copy Screen Display Settings	Yes	Yes	Yes
		Display Fax Function	Yes	Yes	Yes
		Store Location Display Settings	Yes	Yes	Yes
		Language/Keyboard Switch On/Off	Yes	Yes	Yes
		Language/Keyboard Switch	Yes	Yes	Yes
		Use Keyboard Shift Lock Feature	Yes	Yes	Yes
		Display Remaining Paper Message	Yes	Yes	Yes
		No. of Copies/Job Duration Status	Yes	Yes	Yes
		Display Original Scanning Cleaning Area	Yes	Yes	Yes
		Paper Type Selection Screen Priority	Yes	Yes	Yes
		mm/Inch Entry Switch	Yes	Yes	Yes
		ID/User Name Display On/Off	Yes	Yes	Yes
	Timer/Energy Settings	Date/Time Settings	Yes	Yes	Yes
		Time Format	Yes	Yes	Yes
		Quick Startup Settings for Main Power	Yes	Yes	Yes
		Auto Reset Time	Yes	Yes	Yes
		Restrict Auto Reset Time	Yes	Yes	Yes
		Function After Auto Reset	Yes	Yes	Yes
		Auto Sleep Time	Yes	Yes	Yes
		Sleep Mode Energy Use	Yes	Yes	Yes
		Auto Sleep Weekly Timer	Yes	Yes	Yes
		Energy Saver/Sleep Mode Exit Time Settings	Yes	Yes	Yes
		Mode After Energy Saver Key Pressed	Yes	Yes	Yes

Setting Information				Case A	Case B	Case C
		Change Energy Saver Mode		Yes	Yes	Yes
		Silent Mode Time		Yes	Yes	Yes
	Network	Confirm Network Connection Set. Changes		Yes	Yes	Yes
		TCP/IP Settings				
		IPv4 Settings	Use IPv4	Yes	Yes	Yes
			IP Address Settings			
			IP Address	Yes	No	No
			Subnet Mask	Yes	Yes	Yes
			Gateway Address	Yes	Yes	Yes
			DHCP	Yes	Yes	Yes
			RARP	Yes	Yes	Yes
			BOOTP	Yes	Yes	Yes
			DHCP Option Settings	Yes	Yes	Yes
		IPv6 Settings	Use IPv6	Yes	Yes	Yes
			Stateless Address Settings	Yes	Yes	Yes
			Manual Address Settings	Yes	No	No
			Use DHCPv6	Yes	Yes	Yes
		DNS Settings	DNS Server Address Settings	Yes	Yes	Yes
			DNS Host/Domain Name Settings	Yes	No	No
			DNS Dynamic Update Settings	Yes	Yes	Yes
		WINS Settings		Yes	Yes	Yes
		LPD Print Settings		Yes	Yes	Yes
		RAW Print Settings		Yes	Yes	Yes
		SNTP Settings		Yes	Yes	Yes
		FTP Print Settings		Yes	Yes	Yes
		WSD Settings		Yes	Yes	Yes
		Use FTP PASV Mode		Yes	Yes	Yes
		Multicast Discovery Settings		Yes	Yes	Yes
		Use HTTP		Yes	Yes	Yes
		Use WebDAV Server		Yes	Yes	Yes
		Proxy Settings		Yes	Yes	Yes
		NetWare Settings		Yes	Yes	Yes
		AppleTalk Settings		Yes	No	No
		SMB Server Settings		Yes	No	No

Setting Information			Case A	Case B	Case C
		SNMP Settings	Yes	Yes	Yes
		Dedicated Port Settings	Yes	Yes	Yes
		Use Spool Function	Yes	Yes	Yes
		Startup Settings	Yes	Yes	Yes
		Ethernet Driver Settings	Yes	Yes	Yes
		Firewall Settings	Yes	Yes	Yes
	External Interface	USB Settings	Yes	Yes	Yes
	Accessibility	Key Repetition Settings	Yes	Yes	Yes
		Reversed Display (Color)	Yes	Yes	Yes
	Adjustment/Maintenance				
	Adjust Image Quality	Correct Density	Yes	Yes	Yes
		Fine Adjust Zoom	Yes	No	No
	Adjust Action	Speed/Precision Priority for Double Staple	Yes	Yes	No
		Alignment Adjustment When Stapling	Yes	No	No
		Finisher Tray A Alignment Adjustment	Yes	No	No
		Finisher Tray B Alignment Adjustment	Yes	No	No
Function Settings	Common	Paper Feed Settings			
		Suspended Job Timeout	Yes	Yes	Yes
		Paper Output Settings			
		Output Tray Settings	Yes	No	No
		High Volume Stack Mode	Yes	Yes	
		Offset Jobs	Yes	Yes	No
		Job Separator Between Jobs	Yes	Yes	No
		Job Separator Between Copies	Yes	Yes	No
		Different Paper Sizes for Output Tray	Yes	No	No
		Align Output Paper of Diff. Sizes (Diff. Width)	Yes	Yes	No
		Unfinished Tab Paper Forced Output	Yes	Yes	Yes
		Print Settings			
		Print Priority	Yes	Yes	Yes
		Thin/Plain Paper Printing Priority Settings	Yes	Yes	No
		Output Report Default Settings	Yes	Yes	Yes
		Register Characters for Page No./Watermark	Yes	Yes	Yes
		Copy Set Numbering Option Settings	Yes	Yes	No
		Secure Watermark/Document Scan Lock	Yes	Yes	Yes
		Scan Settings			
		Timing to Raise Feeder Tray	Yes	Yes	No
		Feeder Jam Recovery Method	Yes	Yes	No

Setting Information				Case A	Case B	Case C
		Scanner Noise Settings		Yes	Yes	No
		Streak Prevention		Yes	Yes	No
		LTRR/STMT Original Selection		Yes	Yes	No
		Remote Scan Gamma Value		Yes	Yes	No
		Auto Online		Yes	Yes	Yes
		Auto Offline		Yes	Yes	Yes
		Generate File				
		High Compression Image Quality Level		Yes	Yes	Yes
		OCR (Text Searchable) Settings		Yes	Yes	Yes
		Trace & Smooth Settings		Yes	Yes	Yes
		OOXML Settings		Yes	Yes	Yes
		Specify Minimum PDF Version		Yes	Yes	Yes
		Format PDF to PDF/A		Yes	Yes	Yes
		Optimize PDF for Web		Yes	Yes	Yes
		256-bit AES Settings for Encrypted PDF		Yes	Yes	Yes
		Document Scan Lock Operational Settings		Yes	Yes	Yes
		Set Authentication Method		Yes	Yes	Yes
	Copy	Auto Collate		Yes	Yes	No
		Image Orientation Priority		Yes	Yes	No
		Auto Orientation		Yes	Yes	Yes
		Photo Printout Mode		Yes	Yes	No
		Cascade Copy Communication Timeout		Yes	Yes	Yes
	Send	Common Settings		Yes	Yes	Yes
		E-Mail/I-Fax Settings				
		Register Unit Name		Yes	Yes	Yes
		Communication Settings	SMTP RX	Yes	Yes	Yes
			POP	Yes	Yes	Yes
			SMTP Server	Yes	Yes	Yes
			E-Mail Address	Yes	No	No
			POP Server	Yes	Yes	Yes
			POP Login Name	Yes	No	No
			POP Password	Yes	No	No
			POP Interval	Yes	Yes	Yes
		Authent./Encryption		Yes	Yes	Yes
		Confirm SSL Certificate for SMTP TX		Yes	Yes	Yes
		Confirm SSL Certificate for POP RX		Yes	Yes	Yes
		Maximum Data Size for Sending		Yes	Yes	Yes

Setting Information				Case A	Case B	Case C
		Default Subject		Yes	Yes	Yes
		Specify Authentication User Dest. to Reply		Yes	Yes	Yes
		Set Authentication User Dest. to Sender		Yes	Yes	Yes
		Allow Unregistered Users to Send E-Mail		Yes	Yes	Yes
		Full Mode TX Timeout		Yes	Yes	Yes
		Print MDN/DSN upon Receipt		Yes	Yes	Yes
		Use Send via Server		Yes	Yes	Yes
		Allow MDN Not via Server		Yes	Yes	Yes
		Restrict TX Destination Domain		Yes	Yes	Yes
		Autocomplete for Entering E-Mail Addresses		Yes	Yes	Yes
		Fax Settings				
		Default Screen		Yes	Yes	Yes
		Change Default Settings		Yes	Yes	Yes
		Register Options Shortcuts		Yes	Yes	Yes
		Register Sender Name (TTI)		Yes	Yes	Yes
		Use Auth. User Name as Sender Name		Yes	Yes	Yes
		ECM TX		Yes	Yes	Yes
		Set Pause Time		Yes	Yes	Yes
		Auto Redial		Yes	Yes	Yes
		Check Dial Tone Before Sending		Yes	Yes	Yes
		Fax TX Report		Yes	Yes	Yes
		Fax Activity Report		Yes	Yes	Yes
		Set Line	Line 1 to Line 4	Yes	Yes	Yes
			Register Unit Telephone Number	Yes	No	No
			Register Unit Name	Yes	No	No
			Select Line Type	Yes	Yes	Yes
			Select TX Line	Yes	Yes	Yes
		TX Start Speed		Yes	Yes	Yes
		PIN Code Access		Yes	Yes	Yes
		Confirm Entered Fax Number		Yes	Yes	Yes
		Allow Fax Driver TX		Yes	Yes	Yes
		Remote Fax TX Settings		Yes	Yes	Yes
		Remote Fax Settings		Yes	Yes	Yes
	Receive/Forward	Common Settings		Yes	Yes	Yes
		Fax Settings		Yes	Yes	Yes

Setting Information			Case A	Case B	Case C
	Store/Access Files	Common Settings			
		Scan and Store Settings	Yes	Yes	Yes
		Access Stored Files Settings	Yes	Yes	No
		Limit Box PIN to 7 Digits/Restrict Access	Yes	Yes	Yes
		Mail Box Settings	Yes	Yes	Yes
		Advanced Space Settings	Yes	Yes	Yes
		Network Settings	Yes	Yes	Yes
		Memory Media Settings	Yes	Yes	Yes
	Secure Print	Simple Authentication Settings	Yes	Yes	Yes
		Only Allow Encrypted Print Jobs	Yes	Yes	Yes
	Hold	Use Hold Function	Yes	Yes	Yes
		Store PS/PDF Data to Hold	Yes	Yes	Yes
Set Destination	Change Default Display of Address Book		Yes	Yes	Yes
	Address Book PIN		Yes	Yes	Yes
	Manage Address Book Access Numbers		Yes	Yes	Yes
	Include Pswd. When Exporting Address Book		Yes	Yes	Yes
	Register LDAP Server		Yes	Yes	No
	Auto Search When Using LDAP Server		Yes	Yes	Yes
	Change Default LDAP Search Conditions		Yes	Yes	Yes
	Register/Edit LDAP Search Conditions		Yes	Yes	No
	Acquire Remote Address Book	Acquire Address Book	Yes	Yes	Yes
		Remote Address Book Server Address	Yes	Yes	Yes
		Communication Timeout	Yes	Yes	Yes
		Fax TX Line Auto Select Adjustment	Yes	Yes	Yes
	Make Remote Add. Book Open	Make Address Book Open	Yes	Yes	Yes
Management Settings	Device Management	Device Information Settings	Yes	No	No
		Device Information Delivery Settings			
		Register Destinations	Yes	Yes	No
		Set MEAP Authentication	Yes	Yes	Yes
		Set Auto Delivery	Yes	Yes	No
		Restrict Receiving Device Information	Yes	Yes	Yes
		Restrict Receiving for Each Function	Yes	Yes	Yes
		Set Paper Information	Yes	Yes	Yes
		Use MEAP Auth. When Receive	Yes	Yes	Yes
		Report Settings	Yes	Yes	Yes
		Display Job Status Before Authentication	Yes	Yes	Yes

Setting Information				Case A	Case B	Case C
		Display Log		Yes	Yes	Yes
		Audit Log Retrieval		Yes	Yes	Yes
		Store Key Operation Log		Yes	Yes	Yes
		Format Encryption Method to FIPS 140-2		Yes	Yes	Yes
	License/Other	Message Board/Support Link		Yes	Yes	Yes
		Remote Operation Settings		Yes	Yes	Yes
	Data Management	Back Up/Restore Settings		Yes	Yes	Yes
		HDD Data Complete Deletion		Yes	Yes	Yes
Box Settings	Function Settings	Receive/Forward	Common Settings	Yes	Yes	Yes
		Store/Access Files	Mail Box Settings	Yes	Yes	Yes
	Access Stored Files	Mail Box (Print)	Color Balance (Options)	Yes	Yes	No
	Scan and Store	Advanced Space (Scan)	Custom (Scan Size)	Yes	Yes	No
Department ID Management Settings	Management Settings	User Management	System Manager Information Settings	Yes	Yes	Yes
			Department ID Management			
			Register PIN	Yes	Yes	Yes
Main Menu Settings	Main Menu Settings	Setting File		Yes	Yes	Yes
		Wallpaper Image File		Yes	Yes	Yes
Favorite Settings	Copy	Register/Edit Favorite Settings		Yes	Yes	No
		Change Default Settings		Yes	Yes	No
		Register Options Shortcuts (Regular Copy)		Yes	Yes	No
		Register Options Shortcuts (Express Copy)		Yes	Yes	No
	Send	Common Settings		Yes	Yes	Yes
		Fax Settings		Yes	Yes	Yes
	Store/Access Files	Common Settings		Yes	Yes	No
	Scan and Store					
	Advanced Box (Scan)	Custom (Scan Size)		Yes	Yes	No
Address Book	Set Destination	Register Destinations		Yes	Yes	Yes
		Rename Address List		Yes	Yes	Yes
		Register One-Touch		Yes	Yes	Yes
Forwarding Settings	Function Settings	Receive/Forward	Common Settings	Yes	Yes	Yes

Setting Information				Case A	Case B	Case C
Quick Menu Settings	Quick Menu Settings	Button File		Yes	Yes	No
MEAP Application Setting Information	Workflow Composer	Flow Data File		Yes	Yes	Yes
		Operation Setting File		Yes	Yes	Yes
	MEAP User Setting Information	Data		Yes	Yes	Yes
	MEAP Application Setting Information	Data		Yes	Yes	Yes
Paper Type Management Settings	Preferences	Paper Settings	Paper Type Management Settings	Yes	Yes	Yes
User Access Control for Advanced Space	User Access Control for Advanced Box	User List		Yes	Yes	Yes
		Integrated Authentication Settings		Yes	Yes	Yes
		Authentication/Operation Log Management		Yes	Yes	Yes
Web Access Settings	Web Access Settings	Favorites		Yes	Yes	Yes
		Settings		Yes	Yes	Yes

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Service mode setting values that can be backed up by DCM

The numbers shown in the Compatibility level are explained in the table below.

Compatibility level (Lv)	Description
0	Not supported.
1	Can import to a device of the same model and same SN only.
	Usable for the purpose of backup/restore.
2	Can import to a device of a same model.
3	Can import to a device of a different model also.

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DCM list for Service Mode

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
BOARD	OPTION		FONTDL	Yes	Yes	Yes
COPIER	ADJUST	ADJ-XY	ADJ-X	Yes		
COPIER	ADJUST	ADJ-XY	ADJ-Y	Yes		
COPIER	ADJUST	ADJ-XY	ADJ-Y-DF	Yes		
COPIER	ADJUST	ADJ-XY	STRD-POS	Yes		
COPIER	ADJUST	ADJ-XY	ADJ-X-MG	Yes		
COPIER	ADJUST	ADJ-XY	ADJY-DF2	Yes		
COPIER	ADJUST	ADJ-XY	ADJ-Y-MG	Yes		
COPIER	ADJUST	AE	AE-TBL	Yes	Yes	
COPIER	ADJUST	BLANK	BLANK-T	Yes		
COPIER	ADJUST	BLANK	BLANK-L	Yes		
COPIER	ADJUST	BLANK	BLANK-R	Yes		
COPIER	ADJUST	BLANK	BLANK-B	Yes		
COPIER	ADJUST	CCD	W-PLT-X	Yes		
COPIER	ADJUST	CCD	W-PLT-Y	Yes		
COPIER	ADJUST	CCD	W-PLT-Z	Yes		
COPIER	ADJUST	CCD	SH-TRGT	Yes		
COPIER	ADJUST	CCD	100-RG	Yes		
COPIER	ADJUST	CCD	100-GB	Yes		
COPIER	ADJUST	CCD	DFTAR-R	Yes		
COPIER	ADJUST	CCD	DFTAR-G	Yes		
COPIER	ADJUST	CCD	DFTAR-B	Yes		
COPIER	ADJUST	CCD	MTF2-M1	Yes		
COPIER	ADJUST	CCD	MTF2-M2	Yes		
COPIER	ADJUST	CCD	MTF2-M3	Yes		
COPIER	ADJUST	CCD	MTF2-M4	Yes		
COPIER	ADJUST	CCD	MTF2-M5	Yes		
COPIER	ADJUST	CCD	MTF2-M6	Yes		
COPIER	ADJUST	CCD	MTF2-M7	Yes		
COPIER	ADJUST	CCD	MTF2-M8	Yes		
COPIER	ADJUST	CCD	MTF2-M9	Yes		
COPIER	ADJUST	CCD	MTF2-S1	Yes		
COPIER	ADJUST	CCD	MTF2-S2	Yes		
COPIER	ADJUST	CCD	MTF2-S3	Yes		
COPIER	ADJUST	CCD	MTF2-S4	Yes		
COPIER	ADJUST	CCD	MTF2-S5	Yes		
COPIER	ADJUST	CCD	MTF2-S6	Yes		
COPIER	ADJUST	CCD	MTF2-S7	Yes		
COPIER	ADJUST	CCD	MTF2-S8	Yes		
COPIER	ADJUST	CCD	MTF2-S9	Yes		
COPIER	ADJUST	CCD	100DF2GB	Yes		
COPIER	ADJUST	CCD	100DF2RG	Yes		
COPIER	ADJUST	CCD	DFCH2R2	Yes		
COPIER	ADJUST	CCD	DFCH2R10	Yes		
COPIER	ADJUST	CCD	DFCH2B2	Yes		
COPIER	ADJUST	CCD	DFCH2B10	Yes		
COPIER	ADJUST	CCD	DFCH2G2	Yes		
COPIER	ADJUST	CCD	DFCH2G10	Yes		
COPIER	ADJUST	CCD	CCD-CHNG	Yes		
COPIER	ADJUST	CCD	MTF-M1	Yes		
COPIER	ADJUST	CCD	MTF-M2	Yes		
COPIER	ADJUST	CCD	MTF-M3	Yes		
COPIER	ADJUST	CCD	MTF-M4	Yes		
COPIER	ADJUST	CCD	MTF-M5	Yes		
COPIER	ADJUST	CCD	MTF-M6	Yes		
COPIER	ADJUST	CCD	MTF-M7	Yes		
COPIER	ADJUST	CCD	MTF-M8	Yes		
COPIER	ADJUST	CCD	MTF-M9	Yes		
COPIER	ADJUST	CCD	MTF-S1	Yes		
COPIER	ADJUST	CCD	MTF-S2	Yes		
COPIER	ADJUST	CCD	MTF-S3	Yes		
COPIER	ADJUST	CCD	MTF-S4	Yes		
COPIER	ADJUST	CCD	MTF-S5	Yes		
COPIER	ADJUST	CCD	MTF-S6	Yes		
COPIER	ADJUST	CCD	MTF-S7	Yes		
COPIER	ADJUST	CCD	MTF-S8	Yes		
COPIER	ADJUST	CCD	MTF-S9	Yes		
COPIER	ADJUST	CCD	DFCH-R2	Yes		
COPIER	ADJUST	CCD	DFCH-R10	Yes		
COPIER	ADJUST	CCD	DFCH-B2	Yes		
COPIER	ADJUST	CCD	DFCH-B10	Yes		
COPIER	ADJUST	CCD	DFCH-G2	Yes		
COPIER	ADJUST	CCD	DFCH-G10	Yes		
COPIER	ADJUST	CCD	MTF2-M10	Yes		
COPIER	ADJUST	CCD	MTF2-M11	Yes		
COPIER	ADJUST	CCD	MTF2-M12	Yes		
COPIER	ADJUST	CCD	MTF2-S10	Yes		
COPIER	ADJUST	CCD	MTF2-S11	Yes		
COPIER	ADJUST	CCD	MTF2-S12	Yes		
COPIER	ADJUST	CCD	MTF-M10	Yes		

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	ADJUST	CCD	MTF-M11	Yes		
COPIER	ADJUST	CCD	MTF-M12	Yes		
COPIER	ADJUST	CCD	MTF-S10	Yes		
COPIER	ADJUST	CCD	MTF-S11	Yes		
COPIER	ADJUST	CCD	MTF-S12	Yes		
COPIER	ADJUST	CCD	DFCH2K2	Yes		
COPIER	ADJUST	CCD	DFCH2K10	Yes		
COPIER	ADJUST	CCD	DFCH-K2	Yes		
COPIER	ADJUST	CCD	DFCH-K10	Yes		
COPIER	ADJUST	CCD	DFTAR-BW	Yes		
COPIER	ADJUST	CCD	DFTBK-G	Yes		
COPIER	ADJUST	CCD	DFTBK-B	Yes		
COPIER	ADJUST	CCD	DFTBK-R	Yes		
COPIER	ADJUST	CCD	CCD-CHG2	Yes		
COPIER	ADJUST	CCD	DFTBK-BW	Yes		
COPIER	ADJUST	CST-ADJ	MF-A4R	Yes		
COPIER	ADJUST	CST-ADJ	MF-A6R	Yes		
COPIER	ADJUST	CST-ADJ	MF-A4	Yes		
COPIER	ADJUST	DENS	DENS-ADJ	Yes		
COPIER	ADJUST	DENS	P-OFFSET	Yes		
COPIER	ADJUST	DENS	P-DHALF	Yes		
COPIER	ADJUST	DENS	P-B-TGT	Yes		
COPIER	ADJUST	DENS	DMAX-N-T	Yes		
COPIER	ADJUST	DEVELOP	BIAS	Yes		
COPIER	ADJUST	EXP-LED	PR-EXP	Yes		
COPIER	ADJUST	FEED-ADJ	REGIST	Yes		
COPIER	ADJUST	FEED-ADJ	ADJ-C1	Yes		
COPIER	ADJUST	FEED-ADJ	ADJ-C2	Yes		
COPIER	ADJUST	FEED-ADJ	ADJ-C3	Yes		
COPIER	ADJUST	FEED-ADJ	ADJ-C4	Yes		
COPIER	ADJUST	FEED-ADJ	ADJ-MF	Yes		
COPIER	ADJUST	FEED-ADJ	ADJ-DK	Yes		
COPIER	ADJUST	FEED-ADJ	ADJ-REFE	Yes		
COPIER	ADJUST	FEED-ADJ	RG-MF	Yes		
COPIER	ADJUST	FEED-ADJ	REG-THCK	Yes		
COPIER	ADJUST	FEED-ADJ	REG-OHT	Yes		
COPIER	ADJUST	FEED-ADJ	REG-DUP1	Yes		
COPIER	ADJUST	FEED-ADJ	REG-DUP2	Yes		
COPIER	ADJUST	FEED-ADJ	LP-FEED1	Yes		
COPIER	ADJUST	FEED-ADJ	LP-MULT1	Yes		
COPIER	ADJUST	FEED-ADJ	LP-DUP1	Yes		
COPIER	ADJUST	FEED-ADJ	REG-SPD	Yes		
COPIER	ADJUST	HV-PRI	PRI-GRID	Yes		
COPIER	ADJUST	HV-TR	TR-OFS1	Yes		
COPIER	ADJUST	HV-TR	TR-OFS2	Yes		
COPIER	ADJUST	HV-TR	TR-OFS3	Yes		
COPIER	ADJUST	HV-TR	TR-OFS4	Yes		
COPIER	ADJUST	HV-TR	TR-OFS5	Yes		

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	ADJUST	HV-TR	TR-OFS6	Yes		
COPIER	ADJUST	HV-TR	TR-L-OF1	Yes		
COPIER	ADJUST	HV-TR	TR-L-OF2	Yes		
COPIER	ADJUST	HV-TR	TR-L-OF3	Yes		
COPIER	ADJUST	HV-TR	TR-L-OF4	Yes		
COPIER	ADJUST	HV-TR	TR-L-OF5	Yes		
COPIER	ADJUST	HV-TR	TR-L-OF6	Yes		
COPIER	ADJUST	HV-TR	P-TR-OF1	Yes		
COPIER	ADJUST	HV-TR	P-TR-OF2	Yes		
COPIER	ADJUST	HV-TR	P-TR-OF3	Yes		
COPIER	ADJUST	HV-TR	P-TR-OF4	Yes		
COPIER	ADJUST	HV-TR	P-TR-OF5	Yes		
COPIER	ADJUST	HV-TR	P-TR-OF6	Yes		
COPIER	ADJUST	HV-TR	TR-SP1	Yes		
COPIER	ADJUST	HV-TR	TR-SP2	Yes		
COPIER	ADJUST	HV-TR	TR-L-SP1	Yes		
COPIER	ADJUST	HV-TR	TR-L-SP2	Yes		
COPIER	ADJUST	HV-TR	P-TR-SP1	Yes		
COPIER	ADJUST	HV-TR	P-TR-SP2	Yes		
COPIER	ADJUST	IMG-REG	MAG-V	Yes		
COPIER	ADJUST	LASER	PVE-OFST	Yes		
COPIER	ADJUST	LASER	POWER	Yes		
COPIER	ADJUST	MISC	SEG-ADJ	Yes		
COPIER	ADJUST	MISC	K-ADJ	Yes		
COPIER	ADJUST	MISC	ACS-ADJ	Yes		
COPIER	ADJUST	MISC	ACS-EN	Yes		
COPIER	ADJUST	MISC	ACS-CNT	Yes		
COPIER	ADJUST	MISC	ACS-EN2	Yes		
COPIER	ADJUST	MISC	ACS-CNT2	Yes		
COPIER	ADJUST	MISC	WT-FL-LM	Yes	Yes	
COPIER	ADJUST	MISC	SEG-ADJ3	Yes		
COPIER	ADJUST	MISC	K-ADJ3	Yes		
COPIER	ADJUST	MISC	ACS-ADJ3	Yes		
COPIER	ADJUST	MISC	ACS-EN3	Yes		
COPIER	ADJUST	MISC	ACS-CNT3	Yes		
COPIER	ADJUST	MISC	TBSIS-WB	Yes		
COPIER	ADJUST	MISC	DCON-V	Yes		
COPIER	ADJUST	MISC	HP-OFST	Yes		
COPIER	ADJUST	PASCAL	OFST-P-K	Yes		
COPIER	ADJUST	V-CONT	VL-OFST	Yes		
COPIER	ADJUST	V-CONT	VD-OFST	Yes		
COPIER	ADJUST	V-CONT	DE-OFST	Yes		
COPIER	ADJUST	V-CONT	VCONT-1	Yes		
COPIER	ADJUST	V-CONT	VL-OF-L	Yes		
COPIER	ADJUST	V-CONT	VL-OF-H1	Yes		
COPIER	ADJUST	V-CONT	VL-OF-H2	Yes		
COPIER	FUNCTION	2D-SHADE	M-LINE1	Yes		
COPIER	FUNCTION	2D-SHADE	M-LINE2	Yes		

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	FUNCTION	2D-SHADE	S-LINE1	Yes		
COPIER	FUNCTION	2D-SHADE	S-LINE2	Yes		
COPIER	FUNCTION	2D-SHADE	S-LINE3	Yes		
COPIER	FUNCTION	2D-SHADE	S-LINE4	Yes		
COPIER	FUNCTION	DENS	AGG-SW	Yes		
COPIER	FUNCTION	INSTALL	E-RDS	Yes	Yes	Yes
COPIER	FUNCTION	INSTALL	RGW-PORT	Yes	Yes	Yes
COPIER	FUNCTION	INSTALL	RGW-ADR	Yes	Yes	Yes
COPIER	FUNCTION	INSTALL	CDS-CTL	Yes	Yes	Yes
COPIER	FUNCTION	INSTALL	BIT-SVC	Yes	Yes	Yes
COPIER	FUNCTION	SYSTEM	DEBUG-1	Yes	Yes	Yes
COPIER	OPTION	ACC	COIN	Yes		
COPIER	OPTION	ACC	DK-P	Yes		
COPIER	OPTION	ACC	CARD-SW	Yes		
COPIER	OPTION	ACC	PD-SIZE	Yes		
COPIER	OPTION	ACC	CC-SPSW	Yes		
COPIER	OPTION	ACC	UNIT-PRC	Yes		
COPIER	OPTION	ACC	MIN-PRC	Yes		
COPIER	OPTION	ACC	MAX-PRC	Yes		
COPIER	OPTION	ACC	MIC-TUN	Yes		
COPIER	OPTION	ACC	SRL-SPSW	Yes		
COPIER	OPTION	ACC	PDL-THR	Yes		
COPIER	OPTION	ACC	CR-TYPE	Yes	Yes	
COPIER	OPTION	ACCPST-D	ACC1	Yes		
COPIER	OPTION	ACCPST-D	ACC2	Yes		
COPIER	OPTION	ACCPST-D	ACC3	Yes		
COPIER	OPTION	ACCPST-D	ACC4	Yes		
COPIER	OPTION	ACCPST-D	ACC5	Yes		
COPIER	OPTION	ACCPST-D	ACC6	Yes		
COPIER	OPTION	ACCPST-D	ACC7	Yes		
COPIER	OPTION	ACCPST-D	ACC8	Yes		
COPIER	OPTION	BODY	PO-CNTMD	Yes	Yes	
COPIER	OPTION	BODY	MODEL-SZ	Yes		
COPIER	OPTION	BODY	FIX-CLN	Yes		
COPIER	OPTION	BODY	FIX-TEMP	Yes	Yes	
COPIER	OPTION	BODY	FSPD-S1	Yes	Yes	
COPIER	OPTION	BODY	SCANSLCT	Yes		
COPIER	OPTION	BODY	PASCAL	Yes		
COPIER	OPTION	BODY	DH-SW	Yes		
COPIER	OPTION	BODY	DRM-IDL	Yes	Yes	Yes
COPIER	OPTION	BODY	SENS-CNF	Yes		
COPIER	OPTION	BODY	CONFIG	Yes		
COPIER	OPTION	BODY	RAW-DATA	Yes	Yes	Yes
COPIER	OPTION	BODY	SHARP	Yes	Yes	
COPIER	OPTION	BODY	LAPC-SW	Yes	Yes	
COPIER	OPTION	BODY	RMT-LANG	Yes		
COPIER	OPTION	BODY	IFAX-LIM	Yes	Yes	Yes
COPIER	OPTION	BODY	DF-BLINE	Yes		

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	OPTION	BODY	TEMP-TBL	Yes		
COPIER	OPTION	BODY	W/SCNR	Yes		
COPIER	OPTION	BODY	DRM-H-SW	Yes	Yes	
COPIER	OPTION	BODY	SMTPTXPN	Yes	Yes	Yes
COPIER	OPTION	BODY	SMTPRXPN	Yes	Yes	Yes
COPIER	OPTION	BODY	POP3PN	Yes	Yes	Yes
COPIER	OPTION	BODY	ORG-LGL	Yes	Yes	
COPIER	OPTION	BODY	ORG-LTR	Yes	Yes	
COPIER	OPTION	BODY	ORG-B5	Yes	Yes	
COPIER	OPTION	BODY	UI-COPY	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-BOX	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-SEND	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-FAX	Yes	Yes	Yes
COPIER	OPTION	BODY	SCR-SLCT	Yes	Yes	
COPIER	OPTION	BODY	TMC-SLCT	Yes		
COPIER	OPTION	BODY	CAL-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	FTPTXPN	Yes	Yes	Yes
COPIER	OPTION	BODY	NW-SPEED	Yes		
COPIER	OPTION	BODY	T-LW-LVL	Yes		
COPIER	OPTION	BODY	INTROT-1	Yes		
COPIER	OPTION	BODY	DMAX-SW	Yes		
COPIER	OPTION	BODY	TRY-CHG	Yes	Yes	Yes
COPIER	OPTION	BODY	NWERR-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	STS-PORT	Yes	Yes	Yes
COPIER	OPTION	BODY	CMD-PORT	Yes	Yes	Yes
COPIER	OPTION	BODY	MODELSZ2	Yes		
COPIER	OPTION	BODY	DFDST-L1	Yes		
COPIER	OPTION	BODY	DFDST-L2	Yes		
COPIER	OPTION	BODY	NS-CMD5	Yes	Yes	Yes
COPIER	OPTION	BODY	NS-GSAPI	Yes	Yes	Yes
COPIER	OPTION	BODY	NS-NTLM	Yes	Yes	Yes
COPIER	OPTION	BODY	NS-PLNWS	Yes	Yes	Yes
COPIER	OPTION	BODY	NS-PLN	Yes	Yes	Yes
COPIER	OPTION	BODY	NS-LGN	Yes	Yes	Yes
COPIER	OPTION	BODY	MEAP-PN	Yes	Yes	Yes
COPIER	OPTION	BODY	SVMD-ENT	Yes	Yes	Yes
COPIER	OPTION	BODY	DH-MODE	Yes		
COPIER	OPTION	BODY	ENVP-INT	Yes	Yes	Yes
COPIER	OPTION	BODY	DRM-CNTR	Yes		
COPIER	OPTION	BODY	CHNG-STS	Yes	Yes	Yes
COPIER	OPTION	BODY	CHNG-CMD	Yes	Yes	Yes
COPIER	OPTION	BODY	ANIM-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	BASE-SW	Yes	Yes	
COPIER	OPTION	BODY	DV-RT-LG	Yes		
COPIER	OPTION	BODY	MEAP-SSL	Yes	Yes	Yes
COPIER	OPTION	BODY	SC-L-CNT	Yes	Yes	
COPIER	OPTION	BODY	CBLTINVL	Yes		
COPIER	OPTION	BODY	KSIZE-SW	Yes	Yes	

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	OPTION	BODY	LPD-PORT	Yes	Yes	Yes
COPIER	OPTION	BODY	PDF-RDCT	Yes	Yes	Yes
COPIER	OPTION	BODY	ABC-MODE	Yes		
COPIER	OPTION	BODY	REBOOTSW	Yes	Yes	Yes
COPIER	OPTION	BODY	VP-ART	Yes		
COPIER	OPTION	BODY	VP-TXT	Yes		
COPIER	OPTION	BODY	UI-PRINT	Yes	Yes	Yes
COPIER	OPTION	BODY	WUEV-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	WUEV-INT	Yes	Yes	Yes
COPIER	OPTION	BODY	WUEV-POT	Yes	Yes	Yes
COPIER	OPTION	BODY	WUEV-RTR	Yes	Yes	Yes
COPIER	OPTION	BODY	SJB-UNW	Yes	Yes	Yes
COPIER	OPTION	BODY	IMGC-ADJ	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-RSCAN	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-EPRNT	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-WEB	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-HOLD	Yes	Yes	Yes
COPIER	OPTION	BODY	WEBV-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	OPEMANT	Yes	Yes	Yes
COPIER	OPTION	BODY	CARD-RNG	Yes	Yes	
COPIER	OPTION	BODY	WUEN-LIV	Yes	Yes	Yes
COPIER	OPTION	BODY	MAILYEAR	Yes	Yes	Yes
COPIER	OPTION	BODY	OPLOG-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	OP-ALMT	Yes	Yes	Yes
COPIER	OPTION	BODY	TMP-TBL2	Yes		
COPIER	OPTION	BODY	TMP-TBL3	Yes		
COPIER	OPTION	BODY	TMP-TBL4	Yes		
COPIER	OPTION	BODY	SJOB-CL	Yes	Yes	Yes
COPIER	OPTION	BODY	DHCP-12	Yes	Yes	Yes
COPIER	OPTION	BODY	DHCP-81	Yes	Yes	Yes
COPIER	OPTION	BODY	IFX-CHIG	Yes	Yes	Yes
COPIER	OPTION	BODY	USB-RCNT	Yes	Yes	Yes
COPIER	OPTION	BODY	UNLMTBND	Yes		
COPIER	OPTION	BODY	SCANTYPE	Yes	Yes	
COPIER	OPTION	BODY	RAG-CONT	Yes		
COPIER	OPTION	BODY	DNSTRANS	Yes	Yes	Yes
COPIER	OPTION	BODY	ABC-MD2	Yes		
COPIER	OPTION	BODY	MIBCOUNT	Yes	Yes	Yes
COPIER	OPTION	BODY	DRY-CISU	Yes		
COPIER	OPTION	BODY	RMT-CNSL	Yes	Yes	Yes
COPIER	OPTION	BODY	MEAP-PRI	Yes	Yes	Yes
COPIER	OPTION	BODY	PDLEVCT1	Yes	Yes	Yes
COPIER	OPTION	BODY	PROXYRES	Yes	Yes	Yes
COPIER	OPTION	BODY	WOLTRANS	Yes	Yes	Yes
COPIER	OPTION	BODY	DF2DSTL1	Yes		
COPIER	OPTION	BODY	DF2DSTL2	Yes		
COPIER	OPTION	BODY	802XTOUT	Yes	Yes	Yes
COPIER	OPTION	BODY	IKERETRY	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	OPTION	BODY	SPDALDEL	Yes	Yes	Yes
COPIER	OPTION	BODY	NCONF-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	ABK-TOOL	Yes	Yes	Yes
COPIER	OPTION	BODY	IKEINTVL	Yes	Yes	Yes
COPIER	OPTION	BODY	REG-SPD	Yes		
COPIER	OPTION	BODY	INSRT-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	ILSZ-JAM	Yes	Yes	Yes
COPIER	OPTION	BODY	IPSDEBLV	Yes	Yes	Yes
COPIER	OPTION	BODY	SP-LINK	Yes	Yes	Yes
COPIER	OPTION	BODY	W/RAID	Yes	Yes	
COPIER	OPTION	BODY	PSWD-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	SM-PSWD	Yes	Yes	Yes
COPIER	OPTION	BODY	C-PDL-T	Yes	Yes	
COPIER	OPTION	BODY	C-S-P-D	Yes	Yes	
COPIER	OPTION	BODY	C-S-C-D	Yes	Yes	
COPIER	OPTION	BODY	DH-TGT	Yes		
COPIER	OPTION	BODY	ADJ-VPPN	Yes		
COPIER	OPTION	BODY	RAG-SW	Yes		
COPIER	OPTION	BODY	DEV-SP1	Yes		
COPIER	OPTION	BODY	DEV-SP2	Yes		
COPIER	OPTION	BODY	LM-LEVEL	Yes	Yes	Yes
COPIER	OPTION	BODY	RPT2SIDE	Yes	Yes	Yes
COPIER	OPTION	BODY	AFS-JOB	Yes	Yes	Yes
COPIER	OPTION	BODY	AFC-EVNT	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-SBOX	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-MEM	Yes	Yes	Yes
COPIER	OPTION	BODY	ILOGMODE	Yes	Yes	Yes
COPIER	OPTION	BODY	ILOGKEEP	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-NAVI	Yes	Yes	Yes
COPIER	OPTION	BODY	UI-MOBP	Yes	Yes	Yes
COPIER	OPTION	BODY	ERS-SEL	Yes		
COPIER	OPTION	BODY	IR-FILTR	Yes		
COPIER	OPTION	BODY	STND-PNL	Yes	Yes	
COPIER	OPTION	BODY	INVALPDL	Yes	Yes	
COPIER	OPTION	BODY	CDS-FIRM	Yes	Yes	Yes
COPIER	OPTION	BODY	CDS-MEAP	Yes	Yes	Yes
COPIER	OPTION	BODY	CDS-UGW	Yes	Yes	Yes
COPIER	OPTION	BODY	LOCLFIRM	Yes	Yes	Yes
COPIER	OPTION	BODY	RSHDW-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	DEV-SP3	Yes		
COPIER	OPTION	BODY	DEV-SP4	Yes		
COPIER	OPTION	BODY	DEV-SP5	Yes		
COPIER	OPTION	BODY	DEV-SP6	Yes		
COPIER	OPTION	BODY	DEV-SP7	Yes		
COPIER	OPTION	BODY	DEV-SP8	Yes		
COPIER	OPTION	BODY	IPTBROAD	Yes	Yes	Yes
COPIER	OPTION	BODY	DK2-TURN	Yes		
COPIER	OPTION	BODY	DK3-TURN	Yes		

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	OPTION	BODY	DK4-TURN	Yes		
COPIER	OPTION	BODY	DK1-TURN	Yes		
COPIER	OPTION	BODY	DK5-TURN	Yes		
COPIER	OPTION	BODY	PFWFTPRT	Yes	Yes	Yes
COPIER	OPTION	BODY	YP-ROT	Yes	Yes	
COPIER	OPTION	BODY	PG-DMAX	Yes		
COPIER	OPTION	BODY	CLN-SW	Yes		
COPIER	OPTION	BODY	CLN-ADJ	Yes		
COPIER	OPTION	BODY	FIX-DWN	Yes		
COPIER	OPTION	BODY	FIX-RT	Yes		
COPIER	OPTION	BODY	DRM-IDL2	Yes		
COPIER	OPTION	BODY	AC-FREQ	Yes	Yes	Yes
COPIER	OPTION	BODY	2D-SHADE	Yes		
COPIER	OPTION	BODY	T-RUN-LV	Yes	Yes	
COPIER	OPTION	BODY	WDREDUCT	Yes		
COPIER	OPTION	BODY	VDADDCNT	Yes		
COPIER	OPTION	BODY	HDADDCNT	Yes		
COPIER	OPTION	BODY	DK1-AIR	Yes		
COPIER	OPTION	BODY	BXNUPLOG	Yes	Yes	Yes
COPIER	OPTION	BODY	LIN-OFST	Yes	Yes	
COPIER	OPTION	BODY	TFL-RTC	Yes	Yes	
COPIER	OPTION	BODY	D-MXDSZ	Yes	Yes	
COPIER	OPTION	BODY	UI-CUSTM	Yes	Yes	Yes
COPIER	OPTION	BODY	MIX-WAIT	Yes	Yes	
COPIER	OPTION	BODY	P-BETWN	Yes		
COPIER	OPTION	BODY	FIX-TMP2	Yes	Yes	
COPIER	OPTION	BODY	FIX-TMP3	Yes	Yes	
COPIER	OPTION	BODY	SDLMTWRN	Yes	Yes	Yes
COPIER	OPTION	BODY	JLK-PWSC	Yes	Yes	Yes
COPIER	OPTION	BODY	IPMTU	Yes	Yes	Yes
COPIER	OPTION	BODY	DDNSINTV	Yes	Yes	Yes
COPIER	OPTION	BODY	FX-IMGLV	Yes	Yes	
COPIER	OPTION	BODY	FX-WNKL	Yes	Yes	
COPIER	OPTION	BODY	FAX-INT	Yes	Yes	Yes
COPIER	OPTION	BODY	ATM	Yes	Yes	
COPIER	OPTION	BODY	CDS-LVUP	Yes	Yes	Yes
COPIER	OPTION	BODY	EP-CONT	Yes		
COPIER	OPTION	BODY	LWDTY-SW	Yes	Yes	
COPIER	OPTION	BODY	LWDTYADJ	Yes		
COPIER	OPTION	BODY	BB-CNT	Yes		
COPIER	OPTION	BODY	PRI-SHUT	Yes		
COPIER	OPTION	BODY	TBLTCLSW	Yes		
COPIER	OPTION	BODY	TBLTBIS+	Yes		
COPIER	OPTION	BODY	TBLTBIS-	Yes		
COPIER	OPTION	BODY	TBLTTMS	Yes		
COPIER	OPTION	BODY	FIX-TMP4	Yes	Yes	
COPIER	OPTION	BODY	DRM-IDL3	Yes		
COPIER	OPTION	BODY	AMSOFFSW	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	OPTION	BODY	EXT-TBOX	Yes		
COPIER	OPTION	BODY	UA-OFFSW	Yes	Yes	Yes
COPIER	OPTION	BODY	MIB-NVTA	Yes	Yes	
COPIER	OPTION	BODY	MIB-EXT	Yes	Yes	
COPIER	OPTION	BODY	SCT-BTN	Yes	Yes	Yes
COPIER	OPTION	BODY	DFEJCLED	Yes		
COPIER	OPTION	BODY	SVC-RUI	Yes	Yes	
COPIER	OPTION	BODY	PSCL-TBL	Yes		
COPIER	OPTION	BODY	USER-DSP	Yes	Yes	Yes
COPIER	OPTION	BODY	LCDSFLG	Yes	Yes	Yes
COPIER	OPTION	BODY	STNDBY-A	Yes	Yes	Yes
COPIER	OPTION	BODY	SDTM-DSP	Yes	Yes	Yes
COPIER	OPTION	BODY	NWLOGINT	Yes	Yes	Yes
COPIER	OPTION	BODY	BXSHIFT	Yes	Yes	Yes
COPIER	OPTION	BODY	HOME-SW	Yes	Yes	Yes
COPIER	OPTION	BODY	NO-LGOUT	Yes	Yes	Yes
COPIER	OPTION	BODY	T-DLV-BK	Yes		
COPIER	OPTION	BODY	WT-WARN	Yes	Yes	Yes
COPIER	OPTION	BODY	JM-ERR-D	Yes		
COPIER	OPTION	BODY	JM-ERR-R	Yes		
COPIER	OPTION	BODY	WEB-LIFE	Yes	Yes	
COPIER	OPTION	BODY	LCRY-DSP	Yes	Yes	Yes
COPIER	OPTION	CST	U1-NAME	Yes	Yes	Yes
COPIER	OPTION	CST	U2-NAME	Yes	Yes	Yes
COPIER	OPTION	CST	U3-NAME	Yes	Yes	Yes
COPIER	OPTION	CST	U4-NAME	Yes	Yes	Yes
COPIER	OPTION	CST	P-SZ-C1	Yes	Yes	Yes
COPIER	OPTION	CST	P-SZ-C2	Yes	Yes	Yes
COPIER	OPTION	CST	CST3-P1	Yes		
COPIER	OPTION	CST	CST3-P2	Yes		
COPIER	OPTION	CST	CST4-P1	Yes		
COPIER	OPTION	CST	CST4-P2	Yes		
COPIER	OPTION	CST	CST3-U1	Yes		
COPIER	OPTION	CST	CST3-U3	Yes		
COPIER	OPTION	CST	CST4-U1	Yes		
COPIER	OPTION	CST	CST4-U3	Yes		
COPIER	OPTION	INT-FACE	IMG-CONT	Yes		
COPIER	OPTION	INT-FACE	AP-OPT	Yes		
COPIER	OPTION	INT-FACE	AP-ACCNT	Yes		
COPIER	OPTION	INT-FACE	AP-CODE	Yes		
COPIER	OPTION	INT-FACE	NWCT-TM	Yes		
COPIER	OPTION	LCNS-TR	OF-POPDF	Yes	Yes	Yes
COPIER	OPTION	USER	COPY-LIM	Yes	Yes	
COPIER	OPTION	USER	SLEEP	Yes	Yes	Yes
COPIER	OPTION	USER	SIZE-DET	Yes		
COPIER	OPTION	USER	COUNTER1	Yes	Yes	Yes
COPIER	OPTION	USER	COUNTER2	Yes	Yes	Yes
COPIER	OPTION	USER	COUNTER3	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	OPTION	USER	COUNTER4	Yes	Yes	Yes
COPIER	OPTION	USER	COUNTER5	Yes	Yes	Yes
COPIER	OPTION	USER	COUNTER6	Yes	Yes	Yes
COPIER	OPTION	USER	DATE-DSP	Yes	Yes	Yes
COPIER	OPTION	USER	MB-CCV	Yes		
COPIER	OPTION	USER	CONTROL	Yes		
COPIER	OPTION	USER	B4-L-CNT	Yes	Yes	
COPIER	OPTION	USER	TRY-STP	Yes		
COPIER	OPTION	USER	MF-LG-ST	Yes	Yes	Yes
COPIER	OPTION	USER	CNT-DISP	Yes	Yes	Yes
COPIER	OPTION	USER	PH-D-SEL	Yes		
COPIER	OPTION	USER	COPY-JOB	Yes	Yes	
COPIER	OPTION	USER	OP-SZ-DT	Yes	Yes	
COPIER	OPTION	USER	NW-SCAN	Yes	Yes	Yes
COPIER	OPTION	USER	INS-C-S	Yes		
COPIER	OPTION	USER	HDCR-DSP	Yes	Yes	Yes
COPIER	OPTION	USER	JOB-INVL	Yes	Yes	Yes
COPIER	OPTION	USER	TAB-ROT	Yes	Yes	
COPIER	OPTION	USER	PR-PSESW	Yes	Yes	Yes
COPIER	OPTION	USER	IDPRN-SW	Yes	Yes	
COPIER	OPTION	USER	PCL-COPY	Yes	Yes	Yes
COPIER	OPTION	USER	CNT-SW	Yes	Yes	Yes
COPIER	OPTION	USER	TAB-ACC	Yes	Yes	Yes
COPIER	OPTION	USER	BCNT-AST	Yes	Yes	Yes
COPIER	OPTION	USER	PRJOB-CP	Yes	Yes	Yes
COPIER	OPTION	USER	DOC-REM	Yes	Yes	Yes
COPIER	OPTION	USER	DPT-ID-7	Yes	Yes	Yes
COPIER	OPTION	USER	RUI-RJT	Yes	Yes	Yes
COPIER	OPTION	USER	CTM-S06	Yes	Yes	Yes
COPIER	OPTION	USER	FREG-SW	Yes	Yes	Yes
COPIER	OPTION	USER	IFAX-SZL	Yes	Yes	Yes
COPIER	OPTION	USER	IFAX-PGD	Yes	Yes	Yes
COPIER	OPTION	USER	MEAPSAFE	Yes	Yes	
COPIER	OPTION	USER	AFN-PSWD	Yes	Yes	Yes
COPIER	OPTION	USER	PTJAM-RC	Yes	Yes	Yes
COPIER	OPTION	USER	PDL-NCSW	Yes	Yes	
COPIER	OPTION	USER	SLP-SLCT	Yes	Yes	
COPIER	OPTION	USER	PS-MODE	Yes	Yes	Yes
COPIER	OPTION	USER	CNCT-RLZ	Yes	Yes	Yes
COPIER	OPTION	USER	LDAP-SW	Yes	Yes	Yes
COPIER	OPTION	USER	FROM-OF	Yes	Yes	Yes
COPIER	OPTION	USER	DOM-ADD	Yes	Yes	Yes
COPIER	OPTION	USER	FILE-OF	Yes	Yes	Yes
COPIER	OPTION	USER	MAIL-OF	Yes	Yes	Yes
COPIER	OPTION	USER	IFAX-OF	Yes	Yes	Yes
COPIER	OPTION	USER	LDAP-DEF	Yes	Yes	Yes
COPIER	OPTION	USER	FREE-DSP	Yes		
COPIER	OPTION	USER	CLR-TIM	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
COPIER	OPTION	USER	HDCR-DSW	Yes	Yes	Yes
COPIER	OPTION	USER	DK1-ASST	Yes		
COPIER	OPTION	USER	SNMP-COA	Yes	Yes	
COPIER	OPTION	USER	SCALL-SW	Yes	Yes	Yes
COPIER	OPTION	USER	SCALLCMP	Yes	Yes	Yes
COPIER	OPTION	USER	USBH-DSP	Yes	Yes	Yes
COPIER	OPTION	USER	USBM-DSP	Yes	Yes	Yes
COPIER	OPTION	USER	USBI-DSP	Yes	Yes	Yes
COPIER	OPTION	USER	CTCHKDSP	Yes	Yes	Yes
COPIER	OPTION	USER	DFLT-ADJ	Yes	Yes	Yes
COPIER	OPTION	USER	USBR-DSP	Yes	Yes	Yes
COPIER	OPTION	USER	POL-SCAN	Yes	Yes	Yes
COPIER	OPTION	USER	PH-D-SL2	Yes	Yes	
COPIER	OPTION	USER	SCAN-RSL	Yes	Yes	
COPIER	OPTION	USER	JA-SBOX	Yes	Yes	Yes
COPIER	OPTION	USER	JA-DFAX	Yes	Yes	Yes
COPIER	OPTION	USER	JA-REP	Yes	Yes	Yes
COPIER	OPTION	USER	JA-FREP	Yes	Yes	Yes
COPIER	OPTION	USER	JA-BOX	Yes	Yes	Yes
COPIER	OPTION	USER	JA-FORM	Yes	Yes	Yes
COPIER	OPTION	USER	JA-PREV	Yes	Yes	Yes
COPIER	OPTION	USER	JA-PULL	Yes	Yes	Yes
COPIER	OPTION	USER	JA-PDLB	Yes	Yes	Yes
COPIER	OPTION	USER	JA-JOBK	Yes	Yes	Yes
COPIER	OPTION	USER	JA-JDF	Yes	Yes	Yes
COPIER	OPTION	USER	JA-RUI	Yes	Yes	Yes
COPIER	OPTION	USER	JA-WEB	Yes	Yes	Yes
COPIER	OPTION	USER	EXP-CRYP	Yes	Yes	Yes
COPIER	OPTION	USER	THK1-DSP	Yes	Yes	Yes
COPIER	OPTION	USER	SLEEP1SW	Yes	Yes	Yes
COPIER	OPTION	USER	AUT-SLCT	Yes	Yes	Yes
COPIER	OPTION	USER	CNCL-ATH	Yes	Yes	Yes
COPIER	OPTION	USER	EZY-SCRP	Yes	Yes	Yes
COPIER	OPTION	USER	DMN-MTCH	Yes	Yes	Yes
COPIER	OPTION	USER	SCN-RSLG	Yes	Yes	Yes
COPIER	OPTION	USER	SNDSTREN	Yes	Yes	Yes
COPIER	OPTION	USER	FAXSTREN	Yes	Yes	Yes
FEEDER	ADJUST		DOCST	Yes		
FEEDER	ADJUST		LA-SPEED	Yes		
FEEDER	ADJUST		DOCST2	Yes		
FEEDER	ADJUST		LA-SPD2	Yes		
FEEDER	ADJUST		ADJMSCN1	Yes		
FEEDER	ADJUST		ADJMSCN2	Yes		
FEEDER	ADJUST		ADJSSCN1	Yes		
FEEDER	ADJUST		ADJSSCN2	Yes		
FEEDER	OPTION		SIZE-SW	Yes	Yes	Yes
SORTER	ADJUST		PNCH-Y	Yes		
SORTER	ADJUST		PF-A3Z1	Yes		

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
SORTER	ADJUST		PF-A3Z2	Yes		
SORTER	ADJUST		PF-B4Z1	Yes		
SORTER	ADJUST		PF-B4Z2	Yes		
SORTER	ADJUST		PF-A4RZ1	Yes		
SORTER	ADJUST		PF-A4RZ2	Yes		
SORTER	ADJUST		PF-LDRZ1	Yes		
SORTER	ADJUST		PF-LDRZ2	Yes		
SORTER	ADJUST		PF-LGLZ1	Yes		
SORTER	ADJUST		PF-LGLZ2	Yes		
SORTER	ADJUST		PFLTRRZ1	Yes		
SORTER	ADJUST		PFLTRRZ2	Yes		
SORTER	ADJUST		PF-A4RC1	Yes		
SORTER	ADJUST		PF-A4RC2	Yes		
SORTER	ADJUST		PFLTRRC1	Yes		
SORTER	ADJUST		PFLTRRC2	Yes		
SORTER	ADJUST		PF-A4R31	Yes		
SORTER	ADJUST		PF-A4R32	Yes		
SORTER	ADJUST		PFLTRR31	Yes		
SORTER	ADJUST		PFLTRR32	Yes		
SORTER	ADJUST		PF-A4R41	Yes		
SORTER	ADJUST		PF-A4R42	Yes		
SORTER	ADJUST		PFLTRR41	Yes		
SORTER	ADJUST		PFLTRR42	Yes		
SORTER	ADJUST		PF-A4R21	Yes		
SORTER	ADJUST		PFLTRR21	Yes		
SORTER	ADJUST		PRCS-ALG	Yes		
SORTER	ADJUST		STP-F1	Yes		
SORTER	ADJUST		STP-F2	Yes		
SORTER	ADJUST		STP-R1	Yes		
SORTER	ADJUST		STP-R2	Yes		
SORTER	ADJUST		STP-2P	Yes		
SORTER	ADJUST		BFF-SFT	Yes		
SORTER	ADJUST		PNCH-X	Yes		
SORTER	ADJUST		TRM-RG1	Yes		
SORTER	ADJUST		TRM-RG2	Yes		
SORTER	ADJUST		TRM-CUT1	Yes		
SORTER	ADJUST		TRM-CUT2	Yes		
SORTER	ADJUST		BFF-SFT2	Yes		
SORTER	ADJUST		SDL-STP	Yes		
SORTER	ADJUST		SDL-FLD	Yes		
SORTER	ADJUST		SDL-ALG	Yes		
SORTER	ADJUST		SDL-RLPT	Yes		
SORTER	ADJUST		SDL-RLFD	Yes		
SORTER	ADJUST		SDL-RLHD	Yes		
SORTER	ADJUST		BFR-UPA4	Yes		
SORTER	ADJUST		BFR-UPB5	Yes		
SORTER	ADJUST		BFR-UPLT	Yes		
SORTER	ADJUST		RTR-DWA4	Yes		

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
SORTER	ADJUST		RTR-DWB5	Yes		
SORTER	ADJUST		RTR-DWLT	Yes		
SORTER	ADJUST		BF-SB-A4	Yes		
SORTER	ADJUST		BF-SB-B5	Yes		
SORTER	ADJUST		BF-SB-LT	Yes		
SORTER	ADJUST		RTR-UPA4	Yes		
SORTER	ADJUST		RTR-UPB5	Yes		
SORTER	ADJUST		RTR-UPLT	Yes		
SORTER	ADJUST		PUNCH-SB	Yes		
SORTER	ADJUST		ST-ALG1	Yes		
SORTER	ADJUST		ST-ALG2	Yes		
SORTER	ADJUST		DW-CL	Yes		
SORTER	ADJUST		PRT-DWN	Yes		
SORTER	ADJUST		PF-LGL41	Yes		
SORTER	ADJUST		PF-LGL42	Yes		
SORTER	ADJUST		PNC-SBTN	Yes		
SORTER	ADJUST		SBFD-SPL	Yes		
SORTER	ADJUST		SBFD-LPL	Yes		
SORTER	ADJUST		SBFD-SHV	Yes		
SORTER	ADJUST		SBFD-LHV	Yes		
SORTER	ADJUST		SBFD-STN	Yes		
SORTER	ADJUST		SBFD-LTN	Yes		
SORTER	ADJUST		SBFD-SCT	Yes		
SORTER	ADJUST		SBFD-LCT	Yes		
SORTER	ADJUST		NST-SPD	Yes		
SORTER	ADJUST		NST-SPTN	Yes		
SORTER	ADJUST		RTNRL-SP	Yes		
SORTER	ADJUST		SW-ADJ	Yes		
SORTER	ADJUST		GRP-ALG	Yes		
SORTER	ADJUST		PRTN-ALG	Yes		
SORTER	ADJUST		BFF-SFT3	Yes		
SORTER	ADJUST		BFF-SFT4	Yes		
SORTER	OPTION		BLNK-SW	Yes		
SORTER	OPTION		MD-SPRTN	Yes		
SORTER	OPTION		CNTR-OUT	Yes	Yes	Yes
SORTER	OPTION		SDL-PRS	Yes		
SORTER	OPTION		BUFF-SW	Yes		
SORTER	OPTION		TRY-EJCT	Yes		
SORTER	OPTION		PN-SKEW	Yes		
SORTER	OPTION		CURL-SW	Yes		
SORTER	OPTION		TRY-OVER	Yes	Yes	
SORTER	OPTION		TRM-LMT	Yes		
SORTER	OPTION		PUCH-SW	Yes	Yes	
SORTER	OPTION		ALG-IMPR	Yes	Yes	
SORTER	OPTION		BUFF-SW2	Yes	Yes	
SORTER	OPTION		1SHT-SRT	Yes	Yes	
SORTER	OPTION		SD-LMTLS	Yes	Yes	
SORTER	OPTION		SD-STCNB	Yes	Yes	

Initial screen	Large	Middle	Small	Lev1	Lev2	Lev3
SORTER	OPTION		BUFF-THK	Yes	Yes	
SORTER	OPTION		PRCS-SP1	Yes		
SORTER	OPTION		PRCS-SP2	Yes	Yes	
SORTER	OPTION		BUFF-MX1	Yes	Yes	
SORTER	OPTION		BUFF-MX2	Yes	Yes	
SORTER	OPTION		PRCS-MX1	Yes	Yes	
SORTER	OPTION		PRCS-MX2	Yes	Yes	
SORTER	OPTION		BUF-THK1	Yes	Yes	
SORTER	OPTION		PRD-PRTY	Yes	Yes	
SORTER	OPTION		SLD-BCK	Yes		
SORTER	OPTION		STP-MAX	Yes	Yes	Yes
SORTER	OPTION		SDL-MAX	Yes	Yes	Yes
SORTER	OPTION		VFLD-MAX	Yes	Yes	Yes
SORTER	OPTION		NEAT-MIX	Yes		
SORTER	OPTION		NEAT-SW	Yes	Yes	Yes
SORTER	OPTION		TRM-CNT	Yes	Yes	Yes
SORTER	OPTION		THN-SW	Yes		
SORTER	OPTION		THN-STK	Yes	Yes	Yes

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■ Import/export by service mode (external)

The following shows the procedure for importing and exporting the service mode setting values in service mode. With export by which data is collected from the machine, service mode setting values can be backed up. With import, data backed up from service mode and that backed up from remote UI can be restored.
The save destination of backup data can be selected from either a USB memory device or HDD of the machine.

● Export

Preparation

- USB memory device
  * Required when exporting to an external USB memory device.
  It needs to have been formatted to be recognized by the device. No firmware registration is necessary.

Overall flow

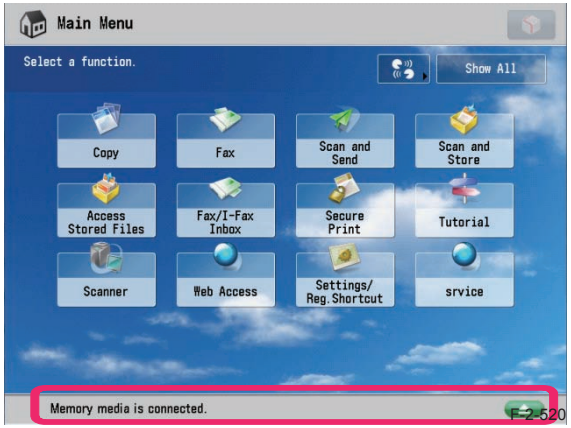
Select the save destination between the internal HDD or external USB memory device depending on the use case.

Procedure

1. Select external USB memory device as save destination (LIST=1)
2. Register password
3. Export to external USB memory device
4. Remove USB memory device

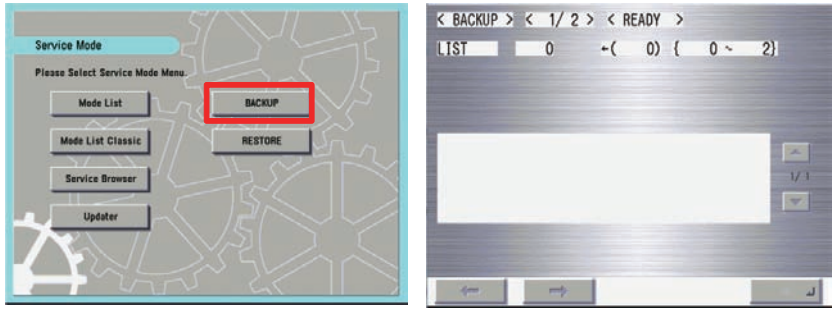
Exporting data to an external USB memory device

1. Connect the USB memory device and check that it has been mounted. (When using the external USB memory device)



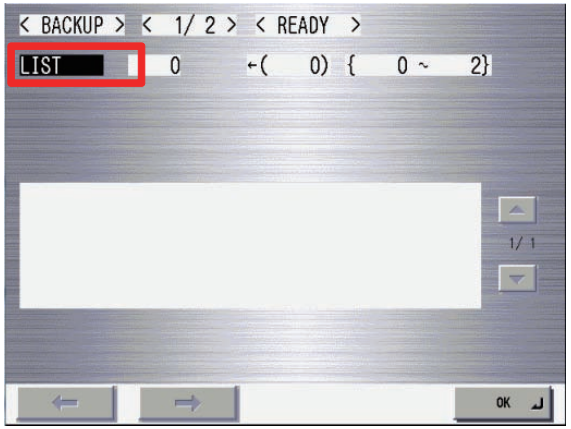
F-2-520

2. Log in to service mode and press BACKUP.



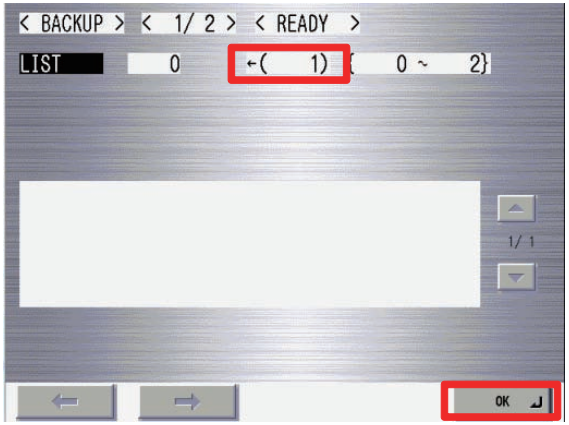
F-2-521

3. Select LIST after the screen moves to <BACKUP>.



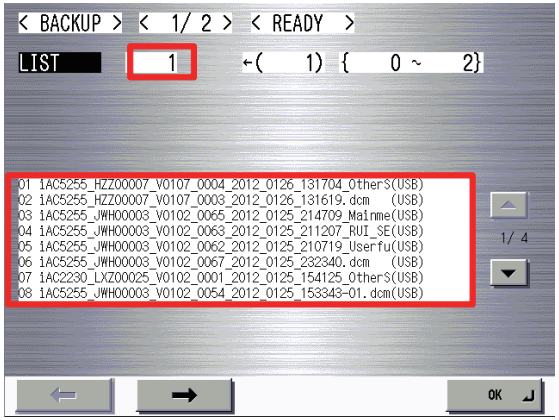
F-2-522

4. When saving to the external USB memory device, select 1 and press OK.



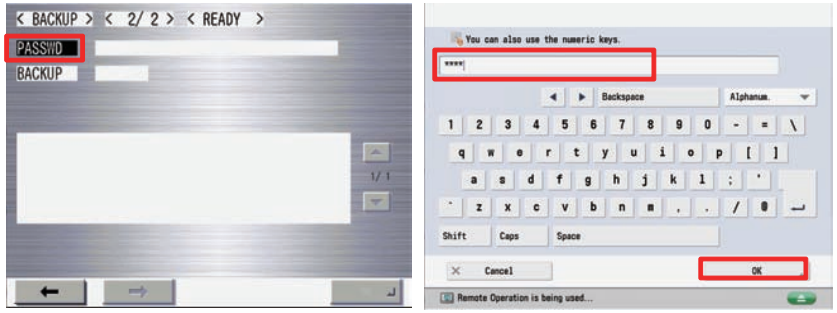
F-2-523

5. The names of .dcm files saved in the external USB memory device are displayed.



F-2-524

6. Select PASSWD, enter a password from the software keyboard, and then press OK.

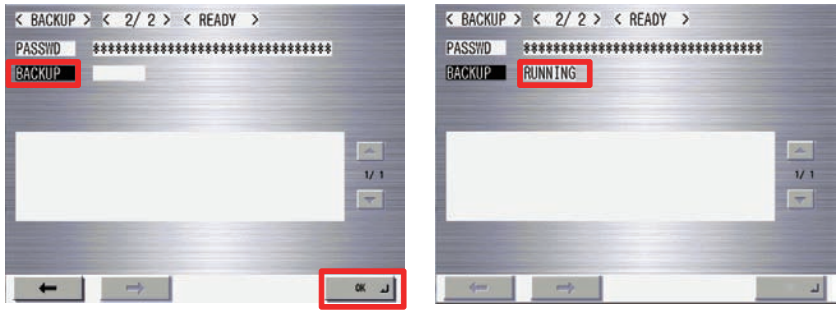


F-2-525

Note:
Limitations regarding the DCM data password
- Character string of software keyboard: 0 to 32 characters
- No password is set when 0 character is entered. (The setting in which no password is set is allowed only for service mode.)
- No space is allowed in the middle of a password.
- Password is case sensitive.

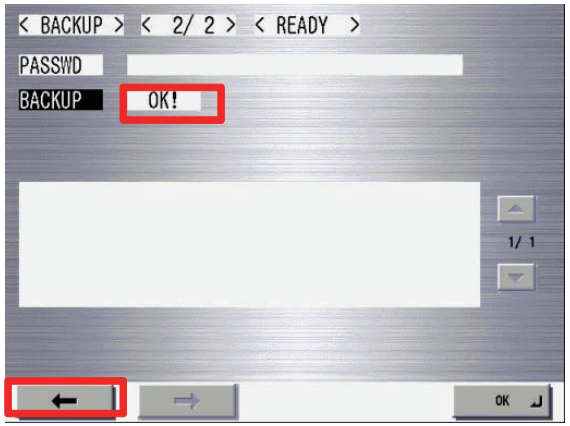
Limitations regarding the DCM data no password
- The exporte data cannot import from remote UI without appointing a password. You can import only from service mode UI.

7. After registering the password, select BACKUP. Press OK to execute export.



F-2-526

8. OK!" is displayed in the status column when the processing is successfully completed. Press <-.



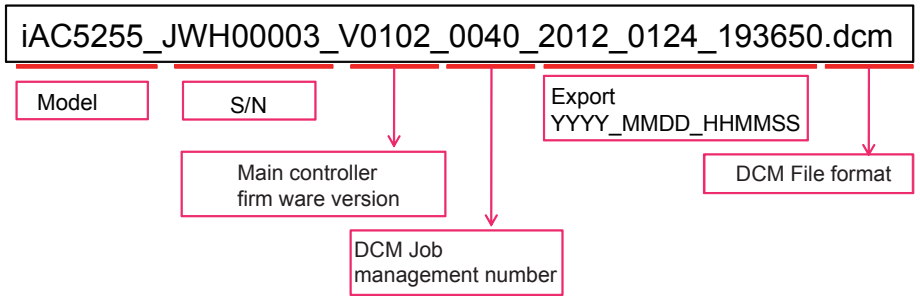
F-2-527

9. After access to the USB memory device has occurred, select LIST=0 and press OK. Unmount the USB memory device.

It can also be removed by pressing the Remove button on the main menu.

F-2-528

Reference:



F-2-529

Import

Preparation

- USB memory device
  * Required when importing from an external USB memory device.
- It needs to have been formatted to be recognized by the device. No firmware registration is necessary.
- When necessary, copy the files which you want to import using a PC in advance.
- Be sure to store them in the root folder of the USB memory device.
- Do not change the extension from .dcm. (only .dcm files can be recognized.)
- It is desirable to connect the USB memory device before entering service mode.

Overall flow

Procedure for restoring data from an external USB memory device.

Procedure

1. Select external USB memory device as save destination (LIST=1)

2. Names of saved DCM data files are displayed
3. Register password
4. Import from external USB memory device
5. Remove USB memory device
6. Specification of export file name

Procedure for restoring data from an external USB memory device

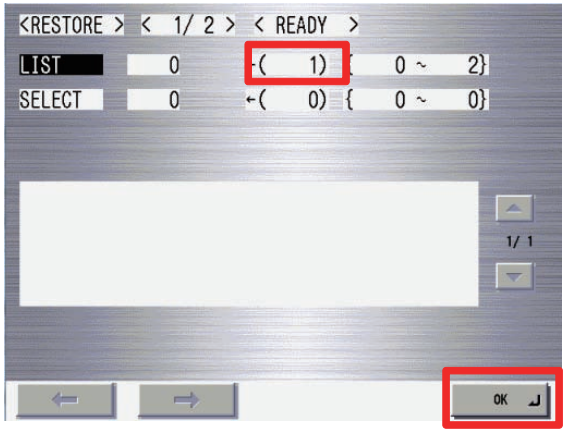
1. Connect the USB memory device. (When using the external USB memory device)
2. Log in to service mode and press RESTORE.

F-2-530

3. Select LIST after the screen moves to <RESTORE>.

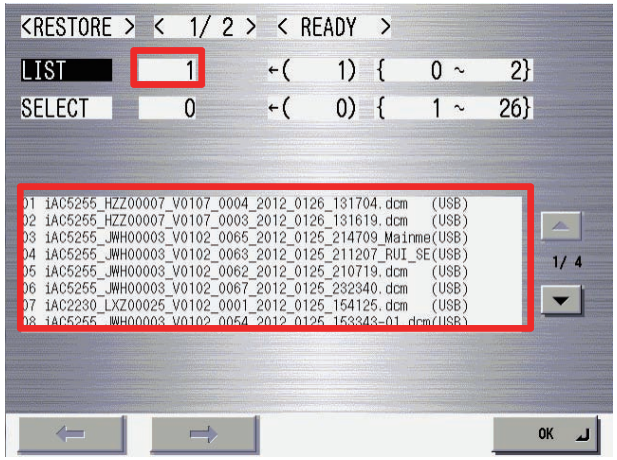
F-2-531

4. When referring to the external USB memory device, select 1 and press OK.



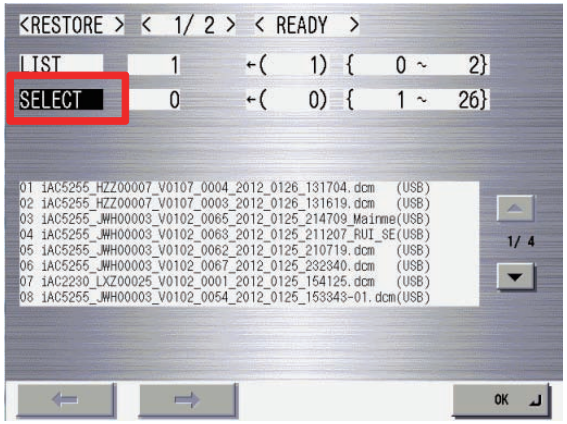
F-2-532

5. The names of .dcm files referred to in the external USB memory device are displayed.



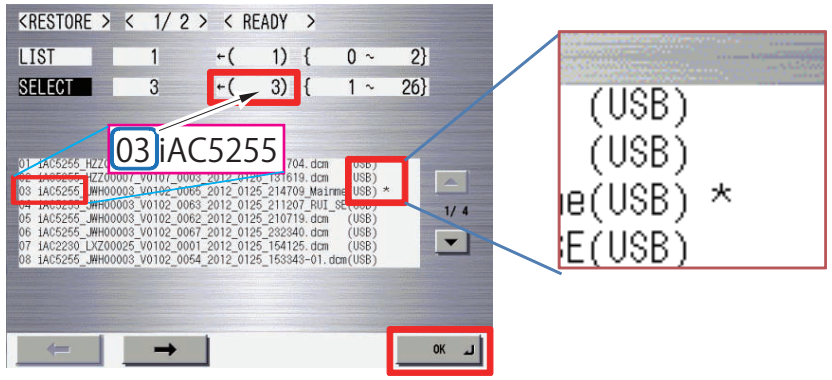
F-2-533

6. Select SELECT.



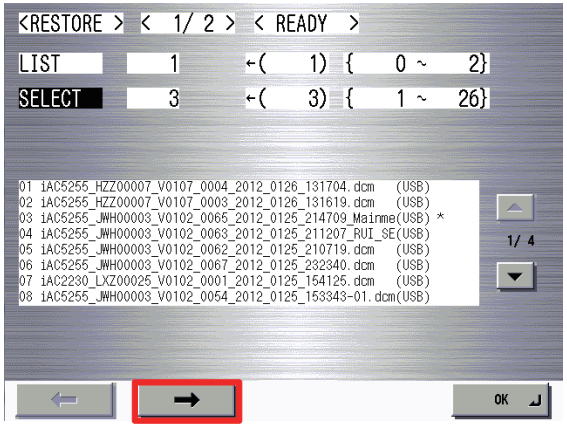
F-2-534

7. Enter the selection number displayed on the left side of the file to be selected and press OK.



F-2-535

8. When the correct file is displayed, press ->.



F-2-536

Note:

Specification of file selection display

- "*" is displayed on the right side of the file to indicate that the file has been selected in SELECT.
- USB memory device: Up to 8 files are displayed in a screen.

9. Select PASSWD, enter a password from the software keyboard, and then press OK.

F-2-537

F-2-538

Note:

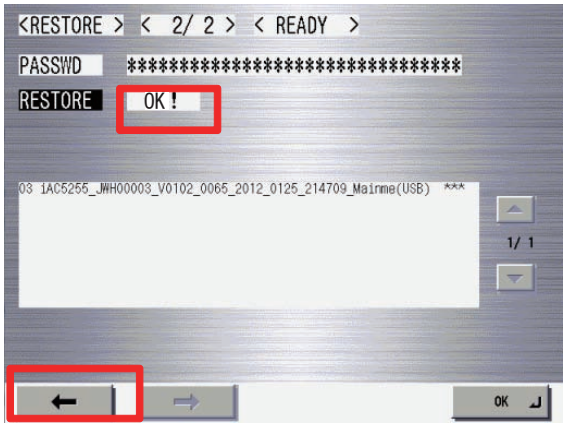
Specification of file selection display

- "<-" is displayed on the right side of the file to indicate that the selection of the file has been confirmed.
- "***" is displayed after the password is entered.

10. After registering the password, select RESTORE. Press OK to execute import.

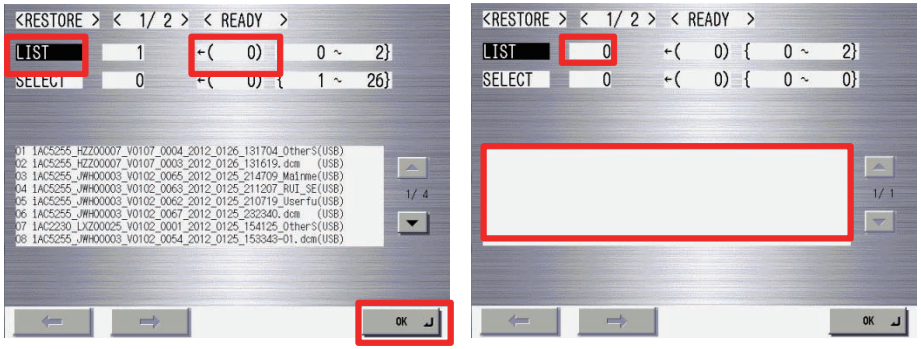
F-2-539

11. OK!" is displayed in the status column when the processing is successfully completed. Press <-.



F-2-540

12. After access to the USB memory device has occurred, select LIST=0 and press OK. Unmount the USB memory device.
It can also be removed by pressing the Remove button on the main menu.



F-2-541

Import/export by service mode (internal)

When selecting the HDD of the machine at execution of BACKUP from the top screen of service mode, service mode settings can be saved. Setting values of Main Controller 2, Reader Controller, DC Controller, etc. can be collectively saved. It can be used when recovering the initial status after having tried multiple setting changes temporarily for troubleshooting, etc.

Note:
DCM must not be used when replacing a PCB.
Be sure to use a method such as backup of SRAM of the Main Controller 2/service mode backup of DCON/RCON.
DCM enables to back up only service mode setting values. There is still necessary information other than setting values when replacing a PCB.
SRAM backup or service mode backup enables to save data other than setting values.

Export

Preparation

There is no need to newly prepare for saving data to the HDD of the machine.

Overall flow

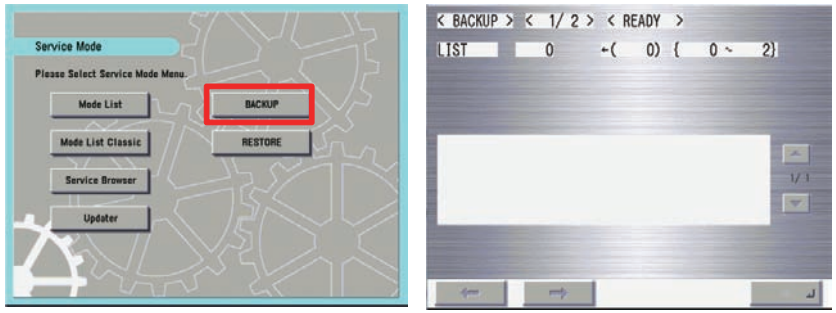
Here is a procedure for exporting data of the HDD of the machine.

Procedure

1. Select internal HDD as save destination (LIST=2)
2. Register password
3. Import from the internal HDD

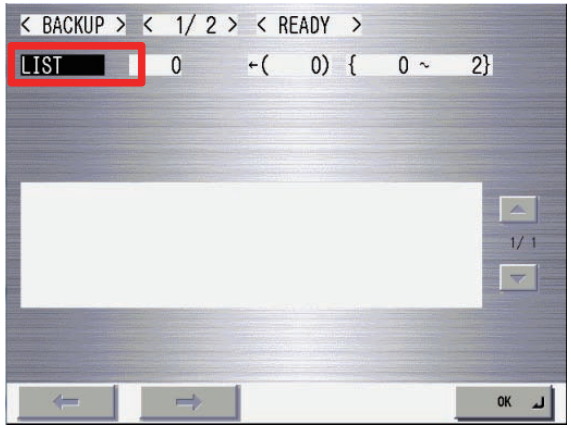
Procedure for backing up data to the HDD of the machine

1. Select LIST after the screen moves to <BACKUP>.



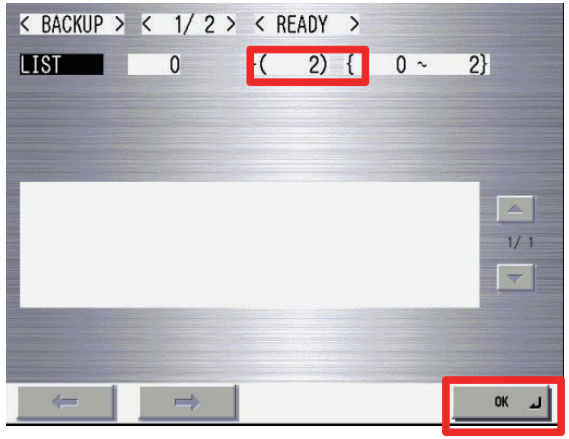
F-2-542

2. Select LIST after the screen moves to <BACKUP>.

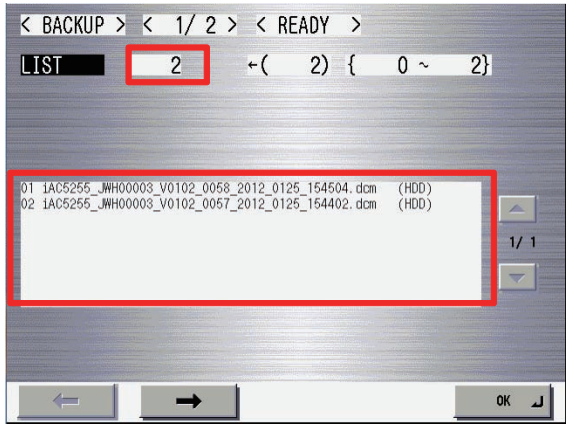


F-2-543

3. When saving to the internal HDD, select 2 and press OK.

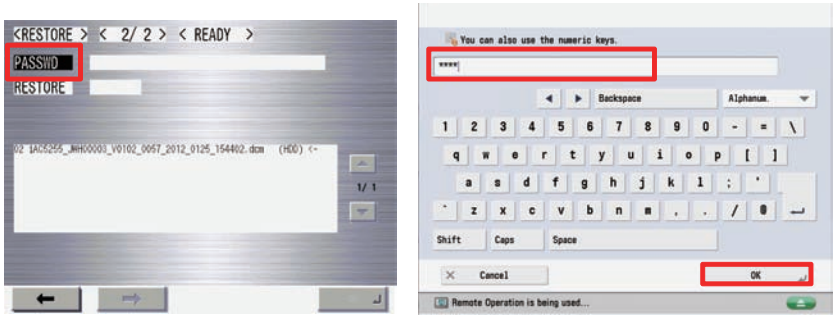


4. The names of .dcm files saved in the internal HDD are displayed. F-2-544



F-2-545

5. Select PASSWD, enter a password from the software keyboard, and then press OK.

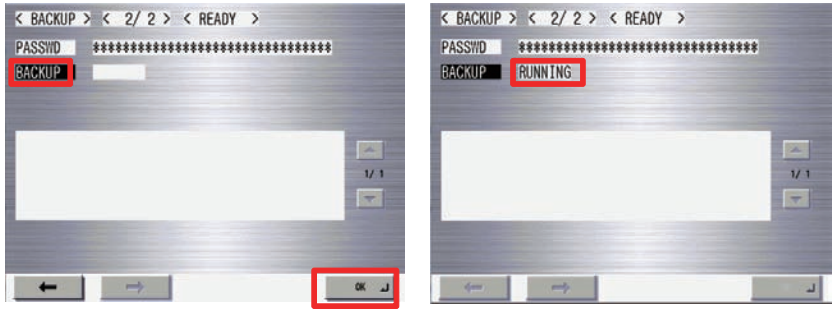


F-2-546

Note:
Limitations regarding the DCM data password

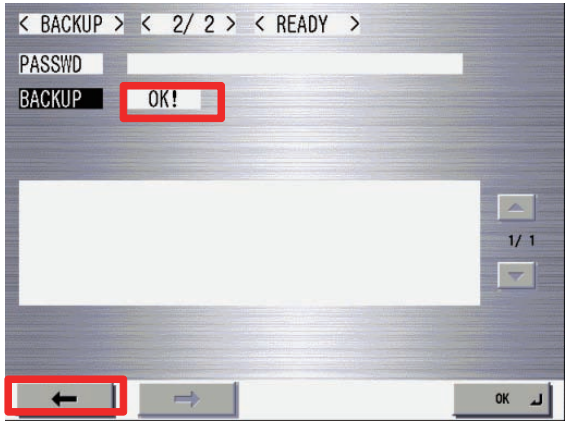
- Character string of software keyboard: 0 to 32 characters
- No password is set when 0 character is entered. (The setting in which no password is set is allowed only for service mode.)
- No space is allowed in the middle of a password.
- Password is case sensitive.

6. After registering the password, select BACKUP. Press OK to execute export.



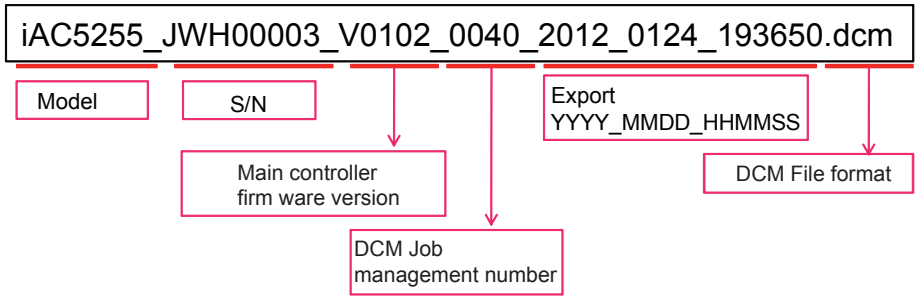
F-2-547

7. OK!" is displayed in the status column when the processing is successfully completed. Press <-.



F-2-548

Reference:



F-2-549

● Import

Preparation

There is no need to newly prepare for saving data to the HDD of the machine.

Overall flow

Here is a procedure for Importing data of the HDD of the machine.

Procedure

1. Select internal HDD as save destination (LIST=2)
2. Register password
3. Import from the internal HDD

Import from the internal HDD

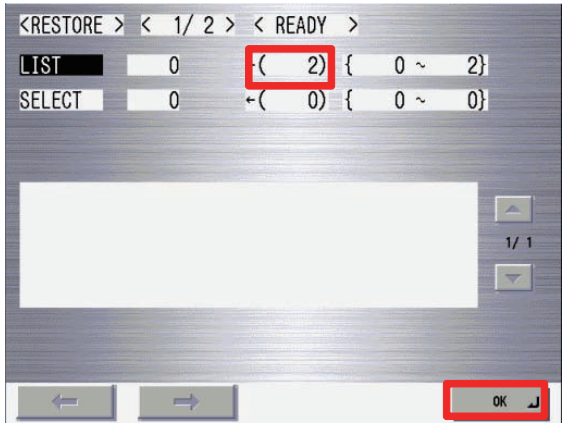
1. Log in to service mode and press RESTORE.

F-2-550

2. Select LIST after the screen moves to <RESTORE>.

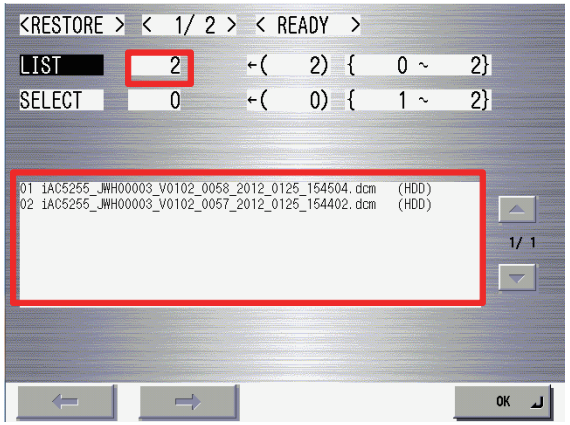
F-2-551

3. When referring to the internal HDD, select 2 and press OK.



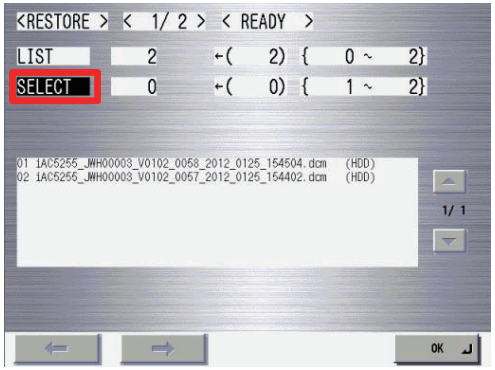
F-2-552

4. The names of .dcm files referred to in the internal HDD are displayed.



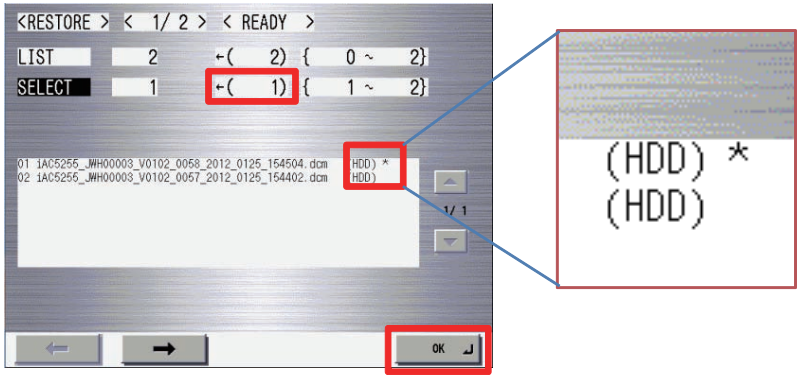
F-2-553

5. Select PASSWD.



F-2-554

6. Enter the selection number displayed on the left side of the file to be selected.



F-2-555

7. When the correct file is displayed, press ->.

F-2-556

Note:
Specification of file selection display
- " *" is displayed on the right side of the file to indicate that the file has been selected in SELECT.
- HDD : Up to 2 files are displayed in a screen.

8. Select PASSWD, enter a password from the software keyboard, and then press OK.

F-2-557

F-2-558

Note:

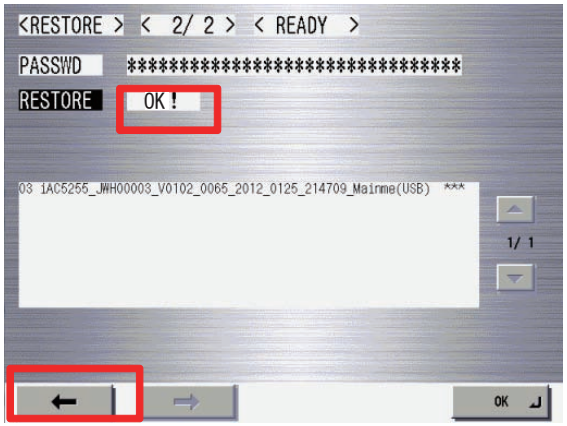
Specification of file selection display

- "<-" is displayed on the right side of the file to indicate that the selection of the file has been confirmed.
- "***" is displayed after the password is entered.

9. After registering the password, select RESTORE. Press OK to execute import.

F-2-559

10. OK!" is displayed in the status column when the processing is successfully completed. Press <-.



F-2-560

3 Periodic Service

Periodical Service Operation Item

Periodical Service Operation Item

♦: Replacement (Periodical replacement) ●: Replacement (Consumable parts) Δ: Cleaning ×: Lubrication □: Adjustment ■: Inspection

No.	Category	Part Name	Part No	Number	Interval								Counter		Remark
					At installation	120K	250K	500K	600K	1000K	6000K	As needed			
1	Process Unit	Primary Charging Assembly	FM3-7288	1						●			DRBL-1	PRM-UNIT	
2		Primary Charging Wire	FB4-3687	2				♦					PRDC-1	PRM-WIRE	With spring:FL3-4558 In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
3		Primary Charging Wire cleaner	FL2-04620	2				♦					PRDC-1	PRM-CLN	In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
4		Primary Charging Wire cleaner holder	FL2-2720	2				♦							In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
5		Grid Wire	FY1-0883	AR				♦					PRDC-1	PRM-GRID	
6		Pre-transfer Charging Assembly	FM3-7297	1						●			DRBL-1	PO-UNIT	
7		Pre-transfer Charging Wire	FB4-3687	1				♦					PRDC-1	PO-WIRE	With spring:FL3-4559 In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
8		Pre-transfer Charging Wire cleaner	FL2-0462	1				♦					PRDC-1	PO-CLN	In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
9		Pre-transfer Charging Wire cleaner holder	FL2-2720	1				♦							In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
10		Developing Cylinder	FM4-5438	1						●			DRBL-1	DVG-CYL	
11		Developing Roller	FB6-6569	2						●			-	-	
12		Drum Cleaning Blade	FL3-5187	1					●				DRBL-1	CLN-BLD	The blade movement is reversed at every 300 thousand sheets (1-sided).
13		Drum Separation Claw	FB4-8018	3				●					DRBL-1	SP-CLAW	
14		Drum Front Side Seal	FC8-7086	1				●					DRBL-1	BS-SL-F	
15		Drum Rear Side Seal	FC8-7086	1				●					DRBL-1	BS-SL-R	
16		Scraper	FC9-9153	2				●				Δ	DRBL-1	EXP-SCRP	Clean with lint-free paper moistened with alcohol.
17		Dustproof Glass	-	1								Δ	-	-	Clean with lint-free paper moistened with alcohol.
18		Primary Charging Assembly Shield Plate	-	3				Δ					-	-	Clean with lint-free paper moistened with water.
19		Pre-transfer Charging Assembly Shield Plate	-	2				Δ					-	-	Clean with lint-free paper moistened with water.
20		Drum Cleaning Unit Plate	-	1				Δ					-	-	Clean with lint-free paper moistened with alcohol.
21		Toner collection area	-	1				Δ					-	-	Crumb toner clusters.
22		Separation Claw Mounting Base	-	1				Δ					-	-	Clean with lint-free paper moistened with alcohol.
23		Process Unit Rear Guide	-	1				Δ					-	-	Clean with lint-free paper moistened with alcohol.
24		Drum Sliding Assembly	-	1								×	-	-	Apply lubricant at the Drum Sliding Assembly when abnormal sound is heard at the time of operation (FY9-6008).
25		Drum Surface	-	1				Δ							Using lint-free paper, clean the drum with the drum cleaning powder (FY9-6024).
26		Drum Edge	-	1				Δ							Clean with lint-free paper moistened In a high temperature/humidity environment (30 deg C/80%), it is 250000 sheets
27		The host machine surface below the Developing Assembly	-	1								Δ	-	-	Remove toner which was scattered at removal of Developing Assembly.
28		Developing wheel	-	2				Δ					-	-	Clean with lint-free paper moistened with alcohol.
29		Lower side of Cylinder.	-	1				Δ					-	-	Clean with lint-free paper moistened with alcohol.
30		Toner Receptacle Tray	-	1								Δ	-	-	Remove toner on the tray.
31		Waste Toner Container	-	1				Δ					-	-	Clean when the message is displayed.

♦: Replacement (Periodical replacement) ●: Replacement (Consumable parts) Δ: Cleaning ×: Lubrication □: Adjustment ■: Inspection

No.	Category	Part Name	Part No	Number	Interval								Counter		Remark
					At installation	120K	250K	500K	600K	1000K	6000K	As needed			
32	Image Formation System	ETB	FC8-7160	1				●					DRBL-1	TR-BLT	
33		Transfer Roller	FC8-7159	1				●					DRBL-1	TR-ROLL	
34		Brush Roller	FC8-7175	1				●					DRBL-1	T-CN-BRU	
35		ETB Cleaning Blade	FC6-1647	1				●					DRBL-1	T-CLN-BD	
36		ETB Driver Roller	-	1				Δ					-	-	Clean with lint-free paper moistened with alcohol.
37		ETB Idler Roller	-	1				Δ					-	-	Clean with lint-free paper moistened with alcohol.
38	Fixing System	Fixing Web	FY1-1157	1				●					DRBL-1	FX-WEB	
39		Fixing Roller	FC9-9163	1				●					DRBL-1	FX-UP-RL	
40		Fixing Roller Insulating Bush	FC9-8069	2				●					DRBL-1	FX-IN-BS	
41		Fixing Roller Thrust retainer	FC6-35010	2				●					DRBL-1	FX-RTNR	
42		Main Thermistor Unit	FK2-7683	1				♦					PRDC-1	FIX-TH1	
43		Sub Thermistor	FK2-76930	1				♦					PRDC-1	FIX-TH2	
44		Pressure Roller Unit	FM4-3160	1				●					DRBL-1	FX-LW-RL	
45		Pressure Roller Static Eliminator	FC7-4287	1				●					DRBL-1	FX-L-STC	
46		Fixing Inlet Guide	-	1				Δ					-	-	Clean with solvent and lint-free paper. Also, remove paper lint covered on the Inlet Sensor Flag.
47		Fixing Oil Receiver	-	1				Δ					-	-	Dry wiping
48		Fixing Web Guide	-	1				Δ					-	-	Dry wiping
49		Fixing Right Stay	-	1				Δ					-	-	Clean with solvent and lint-free paper.
50		Dowel	-	4				Δ					-	-	Clean with solvent and lint-free paper.
51		Dowel Holder	-	4				Δ					-	-	Clean with solvent and lint-free paper.

♦: Replacement (Periodical replacement) ●: Replacement (Consumable parts) Δ: Cleaning ×: Lubrication □: Adjustment ■: Inspection

No.	Category	Part Name	Part No	Number	Interval								Counter		Remark
					At installation	120K	250K	500K	600K	1000K	6000K	As needed			
52	Pickup/ Feeding System	Upper Separation Claw	FB5-3625	6				● Δ					DRBL-1	DLV-UCLW	Clean this part when it is not replaced. Clean with solvent and lint-free paper.
53		Cassette 3 Pickup Roller / Cassette 4 Pickup Roller	FC5-2524	2				●					DRBL-1	3: C3-PU-RL 4: C4-PU-RL	Actual use in terms of number of prints. 1 pc. each (3/4)
54		Cassette 3 Feed Roller / Cassette 4 Feed Roller	FC5-2526	2				●					DRBL-1	3: C3-FD-RL 4: C4-FD-RL	Actual use in terms of number of prints. 1 pc. each (3/4)
55		Cassette 3 Separation Roller / Cassette 4 Separation Roller	FC5-2528	2				●					DRBL-1	3: C3-SP-RL 4: C4-SP-RL	Actual use in terms of number of prints. 1 pc. each (3/4)
56		Right Deck Pickup Roller / Left Deck Pickup Roller	FC5-2524	2				●					DRBL-1	Right: C1-PU-RL Left: C2-PU-RL	Actual use in terms of number of prints. 1 pc. each (Left/Right)
57		Right Deck Feed Roller / Left Deck Feed Roller	FC5-2526	2				●					DRBL-1	Right: C1-FD-RL Left: C2-FD-RL	Actual use in terms of number of prints. 1 pc. each (Left/Right)
58		Right Deck Separation Roller / Left Deck Separation Roller	FC5-2528	2				●					DRBL-1	Right: C1-SP-RL Left: C2-SP-RL	Actual use in terms of number of prints. 1 pc. each (Left/Right)
59		Multi-purpose Tray Separation Roller	FC6-6661	1		●							DRBL-1	M-SP-RL	Actual use in terms of number of prints.
60		Multi-purpose Tray Feed Roller	FB1-8581	1		●							DRBL-1	M-FD-RL	Actual use in terms of number of prints.
61		Feed Guide	-	-				Δ					-	-	Remove paper lint with lint-free paper and cleaning tool.
62		Rollers/wheels	-	-				Δ					-	-	Clean with lint-free paper moistened with alcohol.
63		Separation Static Eliminator	-	1				Δ					-	-	Remove paper lint (toner) with Blower.
64		Duplex Unit Cleaning Brush	-	2				Δ					-	-	Using Blower, remove paper lint which was collected by Cleaning Brush.
65		Registration Unit Magnet	-	1				Δ					-	-	Clean with lint-free paper moistened with alcohol.
66		Scanner Sensor(Feeding Assembly)	-	7						Δ			-	-	Using Blower, remove paper lint Vertical Path Sensor 1 (PS24) ,the Multi-purpose Tray Last Paper Sensor (PS28),the Registration Sensor (PS29),Reverse Vertical Path Sensor (PS65),Duplex Outlet Sensor (PS64), Duplex Merge Sensor (PS67), and Duplex Left Sensor (PS66)
67	Filter	Ozone Filter	FL3-2134	1							♦		PRDC-1	OZ-FIL1	
68		Dustproof Filter	FC8-9564	1						♦			PRDC-1	AR-FIL1	

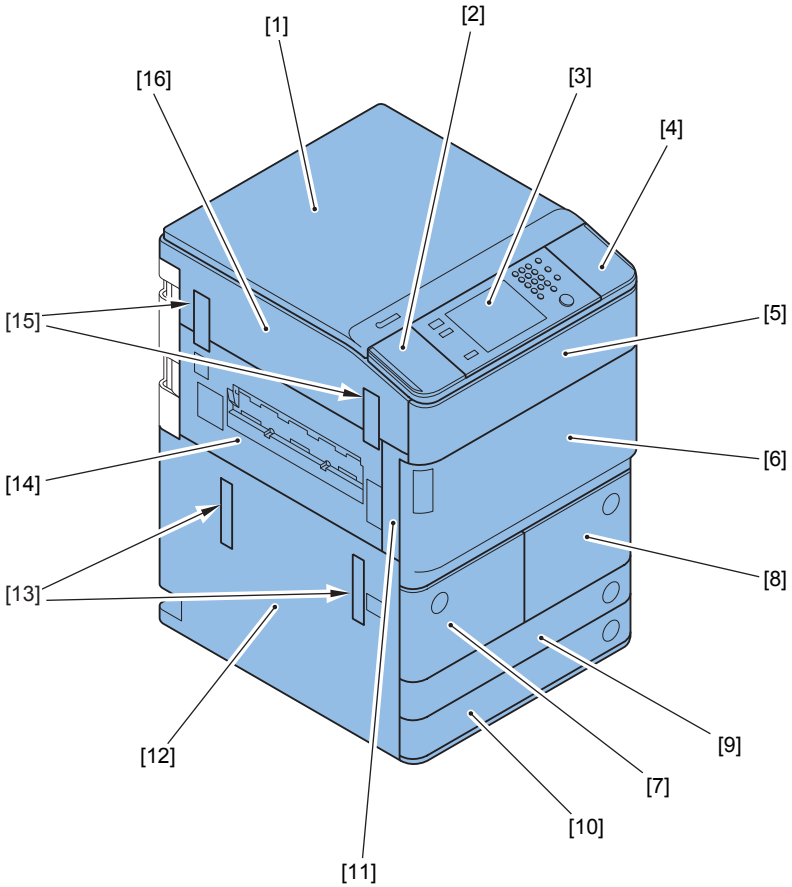
T-3-1

4 Parts Replacement and Clearning

- List of Parts
- Main Controller
- Laser Exposure System
- Image Formation System
- Fixing
- Pickup/Feed System
- External Auxiliary System

List of Parts

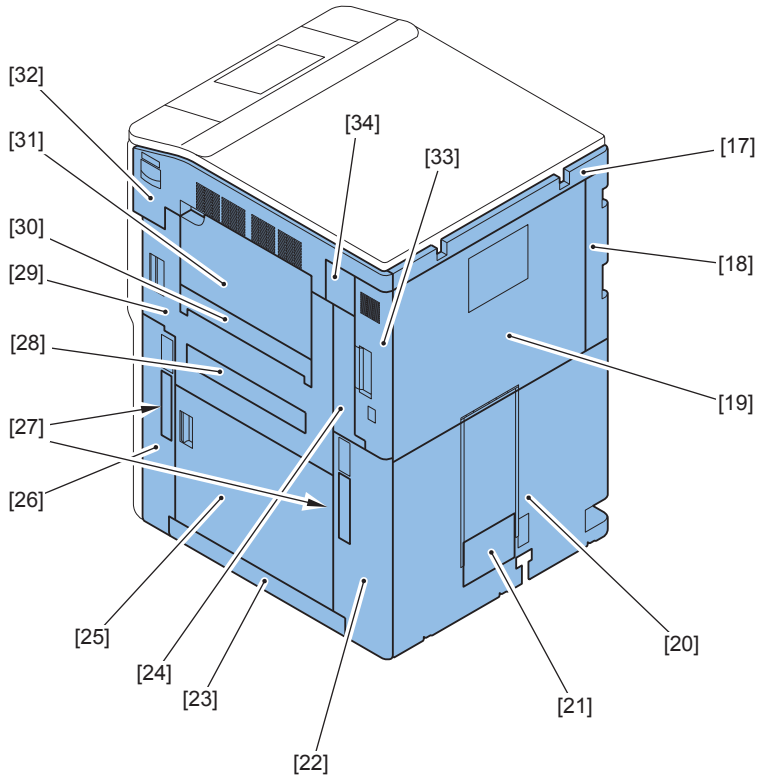
List of External / Internal Cover



F-4-1

No	Name	Reference
[1]	Upper Cover	
[2]	Upper Left Cover	
[3]	Operation Panel	
[4]	Upper Right Cover	
[5]	Toner Exchange Cover	
[6]	Front Cover	
[7]	Deck Left Cover	
[8]	Deck Right Cover	
[9]	Cassette Front Cover	
[10]	Cassette Front Cover	
[11]	Left Front Cover	
[12]	Left Lower Cover	
[13]	Left Handle Cover	
[14]	Delivery Cover	
[15]	Finisher Connector Cover	
[16]	Left Upper Cover	

T-4-1

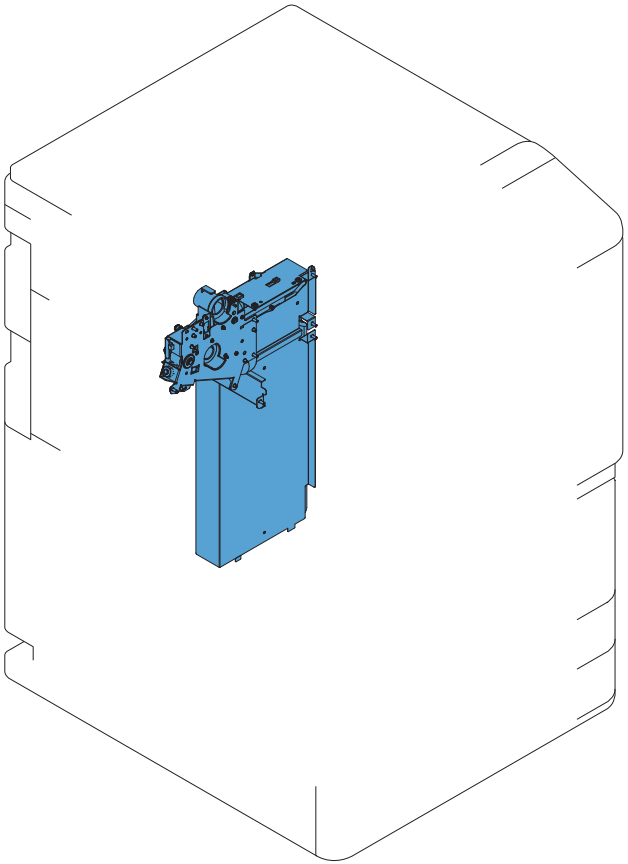


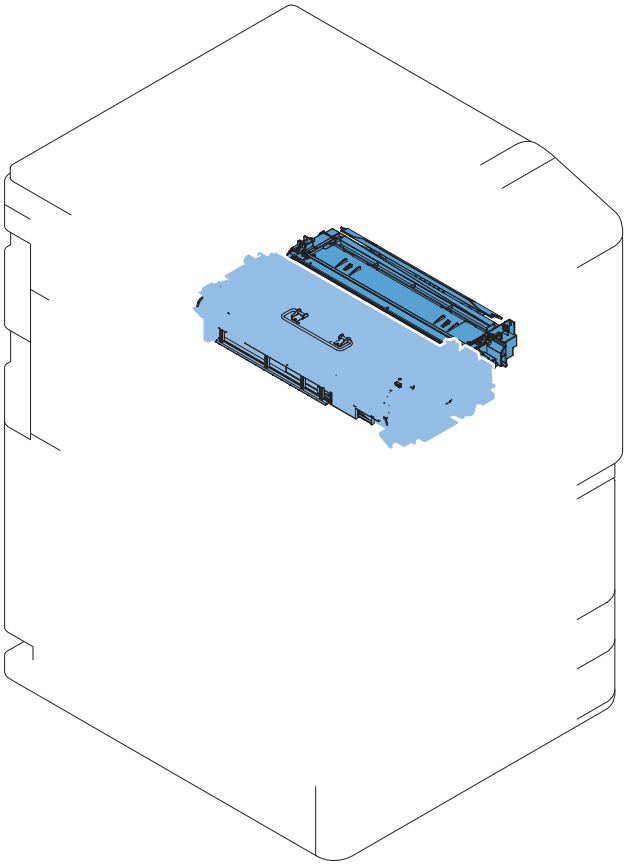
F-4-2

No	Name	Reference
[17]	Upper Rear Cover	
[18]	Left Rear Cover	
[19]	Rear Upper Cover	
[20]	Rear Lower Cover	
[21]	Filter Cover	
[22]	Waste Toner Container Cover	
[23]	Right Lower Cover	
[24]	Right Rear Cover 2	
[25]	Vertical Path Cover	
[26]	Right Front Cover	
[27]	Right Handle Cover	
[28]	Duplex Delivery Cover	
[29]	Right Cover	
[30]	MP Pickup Tray Sub Cover	
[31]	MP Pickup Tray	
[32]	Right Upper Cover	
[33]	Right Rear Cover 1	
[34]	Right Rear Cover 2	

T-4-2

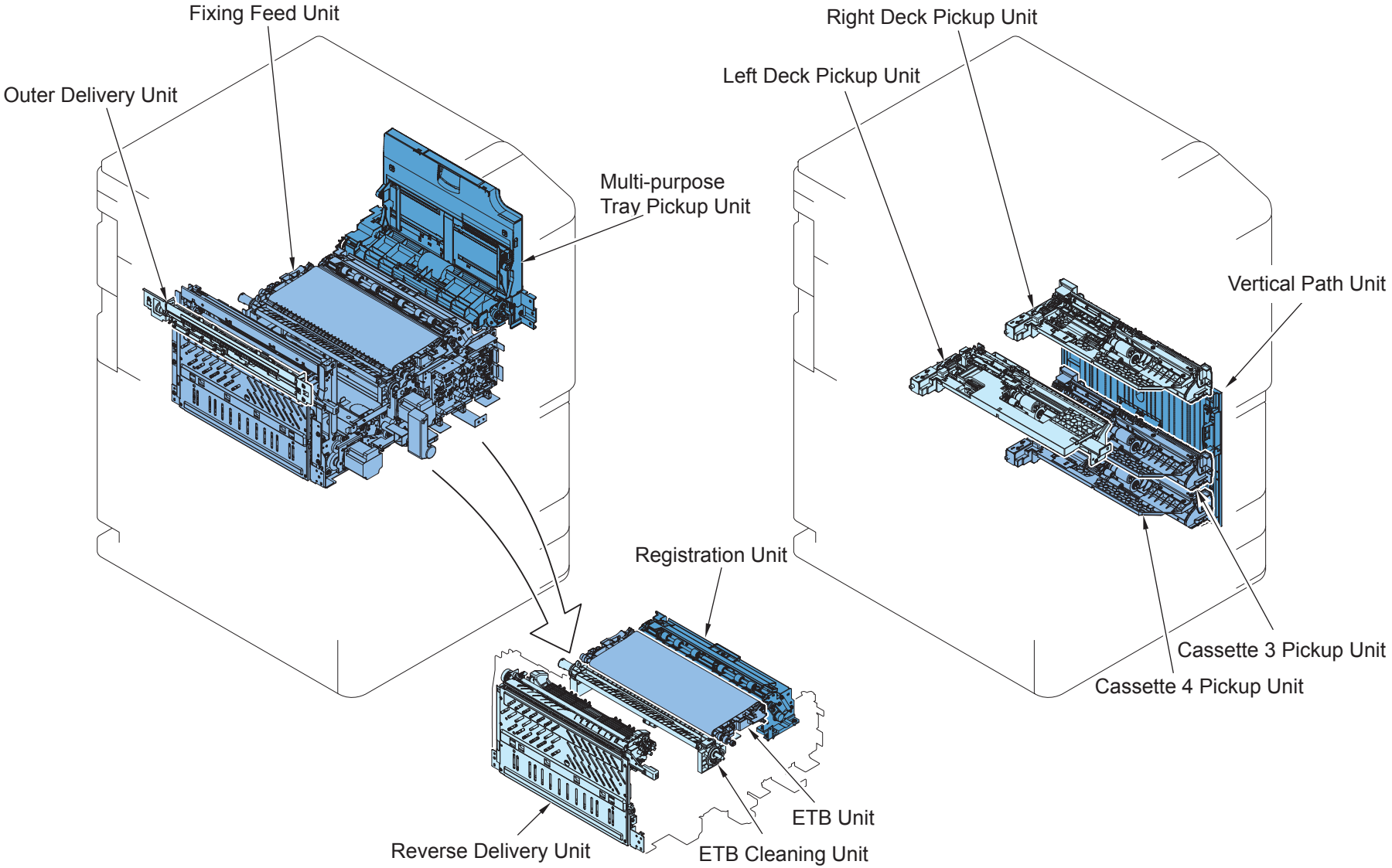
List of Main Unit





No	Name	Service Parts No.	Reference
[1]	Waste Toner Feed Unit	FM4-0899	"Removing the Waste Toner Feed Unit"(page 4-168).
[2]	Laser Scanner Unit	FM3-7526	"Removing the Laser Scanner Unit"(page 4-92).
[3]	Hopper Unit	FM4-0879	"Removing the Hopper Unit"(page 4-159).
[4]	Fixing Assembly	NPN	"Removing the Fixing Assembly"(page 4-176).
[5]	Process Uint	FM4-5397	"Removing the Process Unit"(page 4-113).
[6]	Developing Assembly	FM3-7384	"Removing the Developing Assembly"(page 4-128).

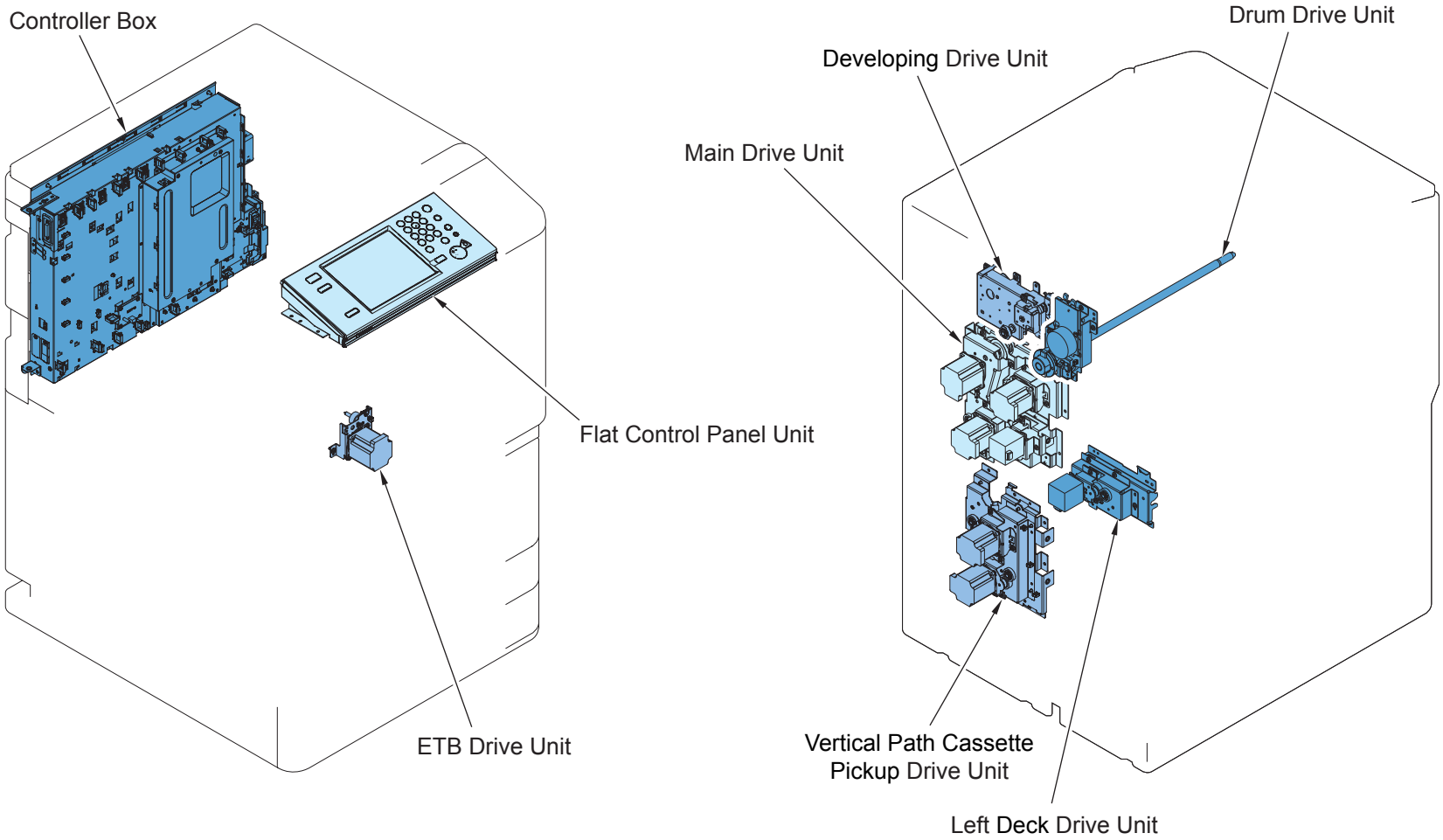
T-4-3


Fixing Feed Unit
Outer Delivery Unit
Multi-purpose
Tray Pickup Unit
Right Deck Pickup Unit
Left Deck Pickup Unit
Vertical Path Unit
Registration Unit
Cassette 3 Pickup Unit
Cassette 4 Pickup Unit
ETB Unit
Reverse Delivery Unit
ETB Cleaning Unit

F-4-4

No	Name	Service Parts No.	Reference
[7]	Outer Delivery Unit	FM3-7379	
[8]	Fixing Feed Unit	NPN	
[9]	Multi-purpose Tray Pickup Unit	FM3-7367	
[10]	Left Deck Pickup Unit	FM0-3208	"Removing the Left Deck Pickup Unit"(page 4-215).
[11]	Right Deck Pickup Unit	FM0-3207	"Removing the Right Deck Pickup Unit"(page 4-216).
[12]	Vertical Path Unit	FM4-0943	
[13]	Cassette 3 Pickup Unit	FM0-3207	"Removing the Cassettes 3 and 4 Pickup Unit"(page 4-217).
[14]	Cassette 4 Pickup Unit	FM0-3207	"Removing the Cassettes 3 and 4 Pickup Unit"(page 4-217).
[15]	Registration Unit	FM4-5156	"Removing the Registration Unit"(page 4-221).
[16]	Reverse Delivery Unit	FM4-5316	
[17]	ETB Cleaning Unit	FM4-0913	"Removing the ETB Unit"(page 4-137).
[18]	ETB Unit	FM4-0916	"Removing the ETB Unit"(page 4-137).

T-4-4


Controller Box
Flat Control Panel Unit
ETB Drive Unit
Drum Drive Unit
Developing Drive Unit
Main Drive Unit
Vertical Path Cassette
Pickup Drive Unit
Left Deck Drive Unit

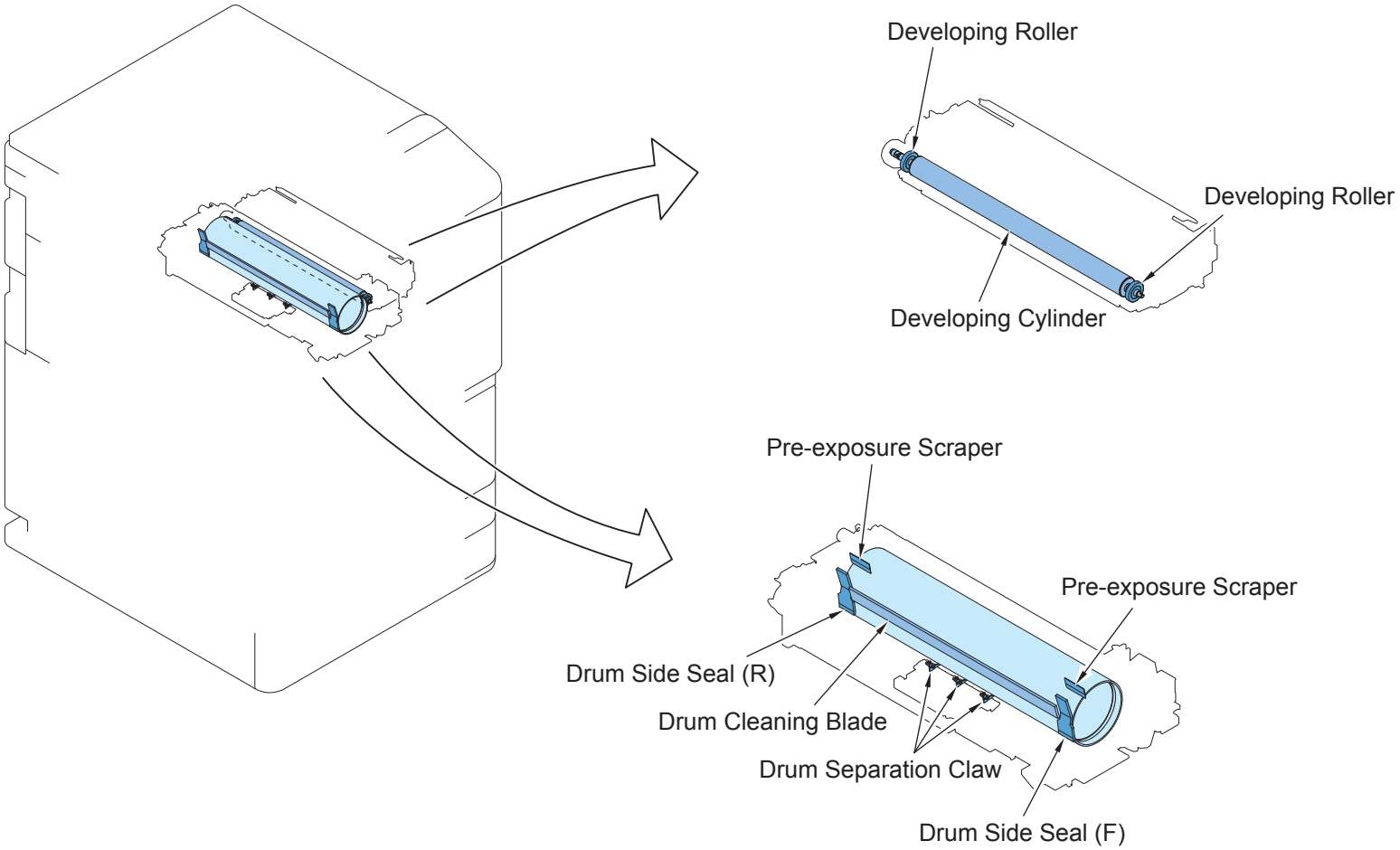
F-4-5

No	Name	Service Parts No.	Reference
[19]	Flat Control Panel Unit	FM0-1155	
[20]	Controller Box	NPN	
[21]	Drum Drive Unit	FM4-0904	"Removing the Drum Drive Unit"(page 4-171).
[22]	Developing Drive Unit	FM3-7386	"Removing the Developing Drive Unit"(page 4-173).
[23]	Main Drive Unit	NPN	"Removing the Main Drive Unit"(page 4-225).
[24]	Vertical Path Cassette Pickup Drive Unit	FM3-7374	"Removing the Vertical Path Cassette Pickup Drive Unit"(page 4-218).
[25]	Left Deck Drive Unit		"Removing the Left Deck Pickup Drive Unit"(page 4-224).
[26]	ETB Drive Unit	NPN	"Removing the ETB Drive Unit"(page 4-153).

T-4-5

Periodic Replacing Parts,Durable Parts,Cleaning Parts

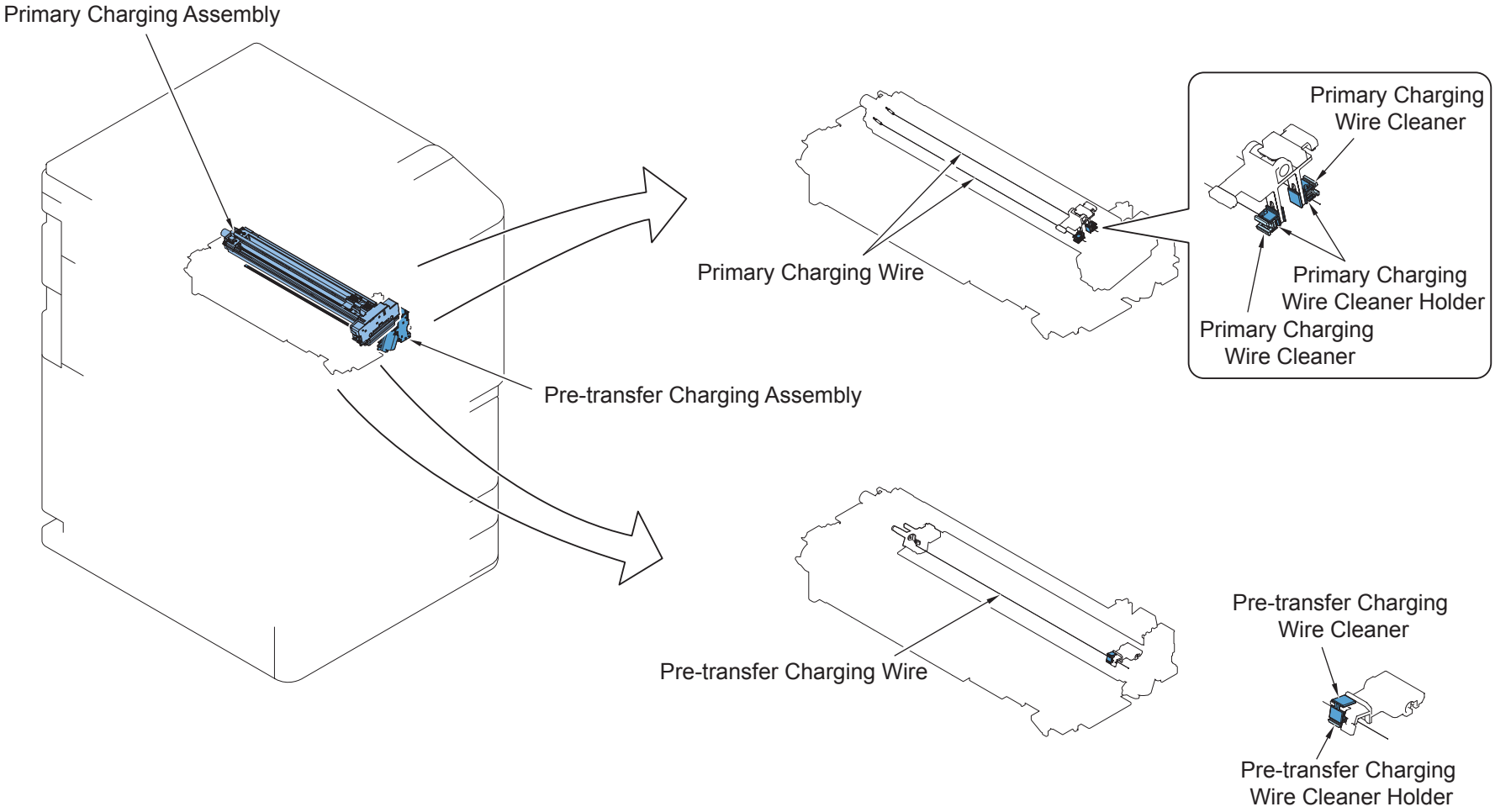
Periodic Replacing Parts, Durable Parts



F-4-6

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts replacement
[1]	Developing Roller	Developing Assembly		"Removing the Developing Cylinder and the Developing Roller"(page 4-132).	-
[2]	Developing Cylinder	Developing Assembly	FM4-5438	"Removing the Developing Cylinder and the Developing Roller"(page 4-132).	
[3]	Drum Side Seal(Rear)	Process Uni	FC8-7086	"Removing the Side Seal"(page 4-127).	-
[4]	Drum Cleaning Blade	Process Unit	FL3-6291	"Removing the Drum Cleaning Blade"(page 4-117).	-
[5]	Drum Separation Claw	Process Unit	FB4-8018	"Removing the Cleaner Separation Claw"(page 4-127).	-
[6]	Drum Side Seal(Front)	Process Unit	FC8-7086	"Removing the Side Seal"(page 4-127).	-
[7]	Pre-exposure Scraper	Drum Cleaning Unit	FC9-9153	"Replacing the Pre-exposure Plastic Film"(page 4-120).	

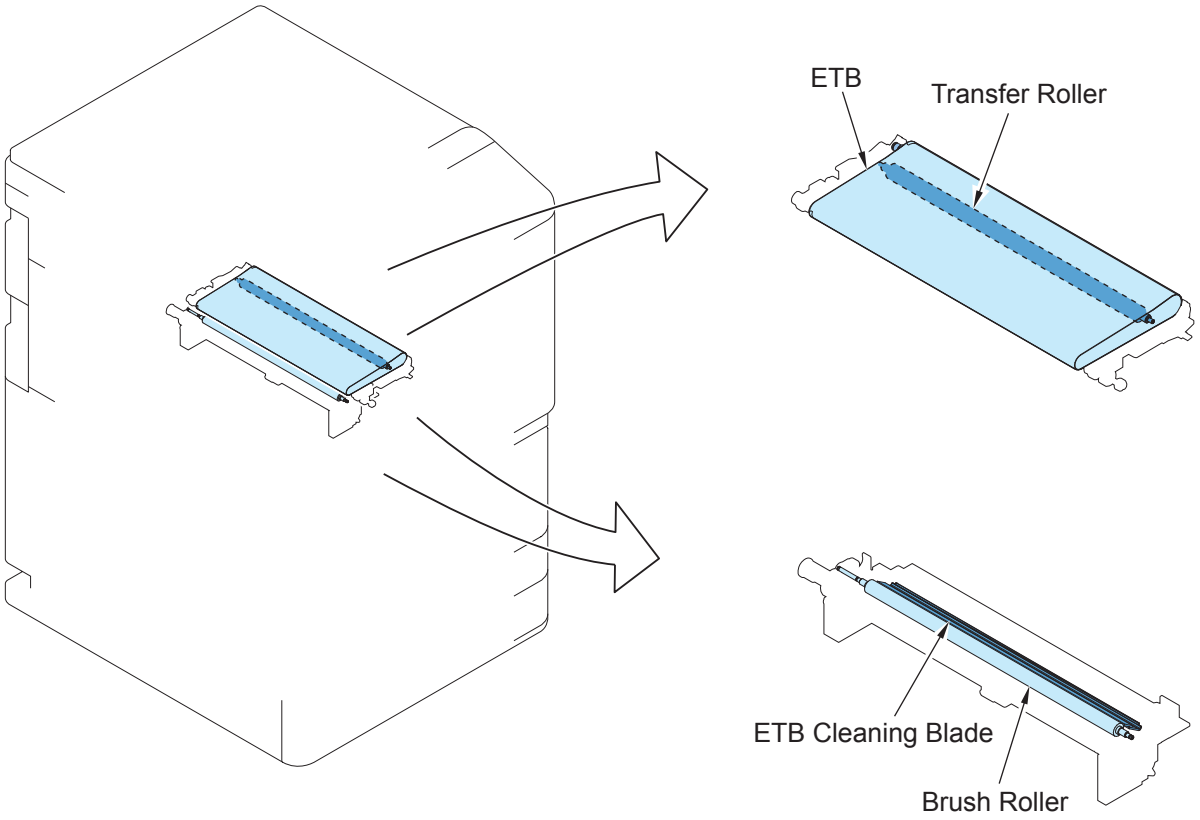
T-4-6


Primary Charging Assembly
Primary Charging Wire
Primary Charging Wire Cleaner
Primary Charging Wire Cleaner Holder
Primary Charging Wire Cleaner
Pre-transfer Charging Assembly
Pre-transfer Charging Wire
Pre-transfer Charging Wire Cleaner
Pre-transfer Charging Wire Cleaner Holder

F-4-7

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts replacement
[1]	Primary Charging Assembly	Process Unit	FM3-7288	"Removing the Primary Charging Assembly"(page 4-96).	"Primary Charging Assembly"(page 5-7).
[2]	Pre-transfer Charging Assembly	Process Unit	FM3-7297	"Removing the Pre-transfer Charging Assembly"(page 4-107).	"Pre-transfer Charging Assembly"(page 5-9).
[3]	Primary Charging Wire	Primary Charging Assembly	FB4-3687 FL3-4558	"Replacing the Primary Charging Wire"(page 4-103). Primary Charging Wire(with Spring)	"Primary Charging Wire"(page 5-7).
[4]	Pre-transfer Charging Wire	Pre-transfer Charging Assembly	FB4-3687 FL3-4559	"Replacing the Pre-transfer Charging Wire"(page 4-111). Pre-transfer Charging Wire(with Spring)	"Pre-transfer Charging Wire"(page 5-9).
[5]	Primary Charging Wire Cleaner	Primary Charging Assembly	FL2-4271	"Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)"(page 4-97).	-
[6]	Primary Charging Wire Cleaner Holder	Primary Charging Assembly	FL2-2720	"Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)"(page 4-97).	-
[7]	Grid Wire	Primary Charging Assembly	FY1-0883	"Replacing the Primary Charging Assembly Grid Wire"(page 4-100).	-
[8]	Pre-transfer Charging Wire Cleaner	Pre-transfer Charging Assembly	FL2-4271	"Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder"(page 4-108).	-
[9]	Pre-transfer Charging Wire Cleaner Holder	Pre-transfer Charging Assembly	FL2-2720	"Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder"(page 4-108).	-

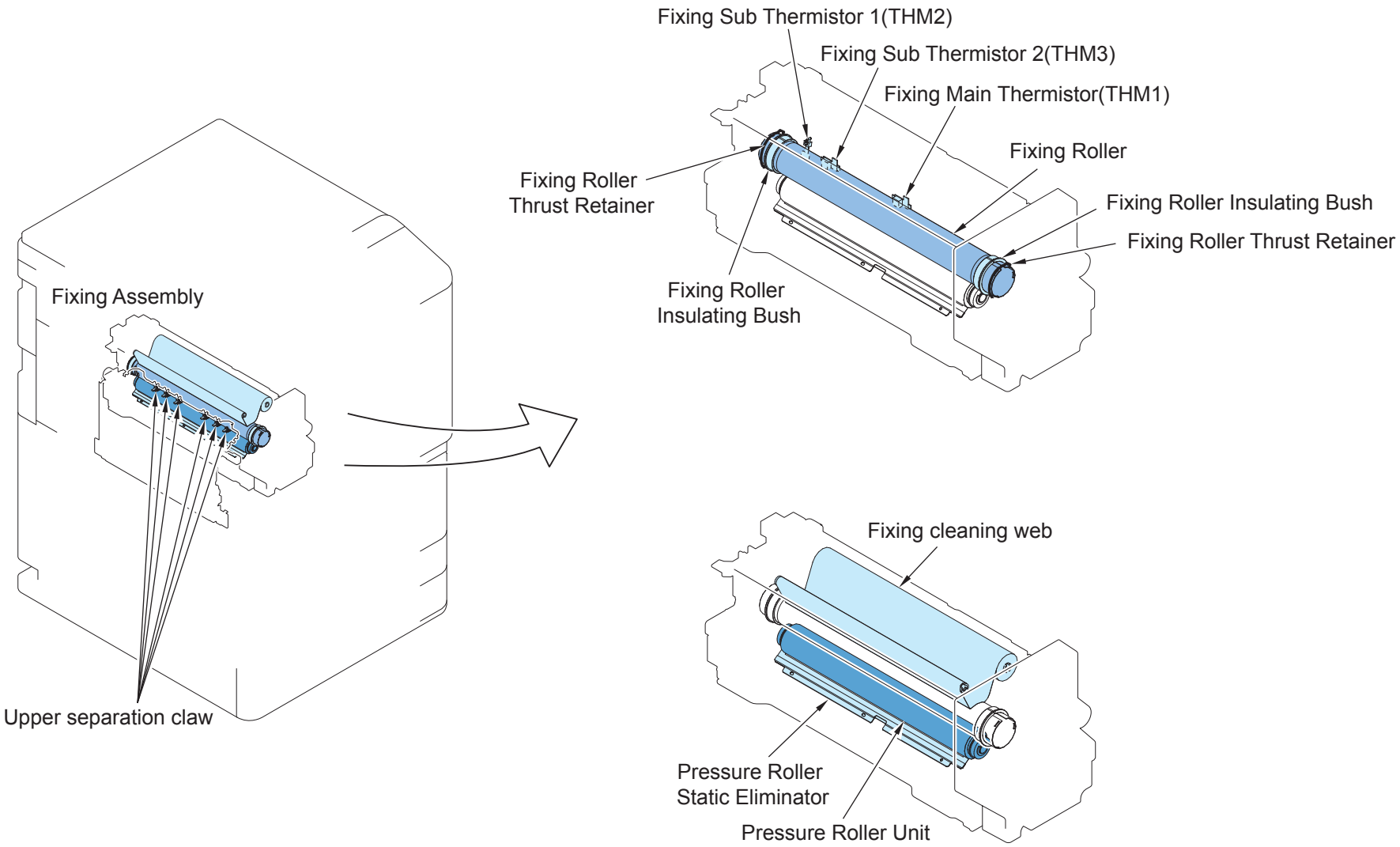
T-4-7



F-4-8

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts replacement
[1]	ETB	ETB Unit	FC8-7159	"Removing the ETB Unit"(page 4-137).	-
[2]	Transfer Roller	ETB Unit	FC8-7160	"Removing the Transfer Roller"(page 4-141).	
[3]	ETB Cleaning Blade	ETB Unit	FC6-1647	"Removing the ETB Cleaning Blade"(page 4-142).	-
[4]	Brush Roller	ETB Unit	FC8-7175	"Removing the ETB Brush Roller"(page 4-142).	-

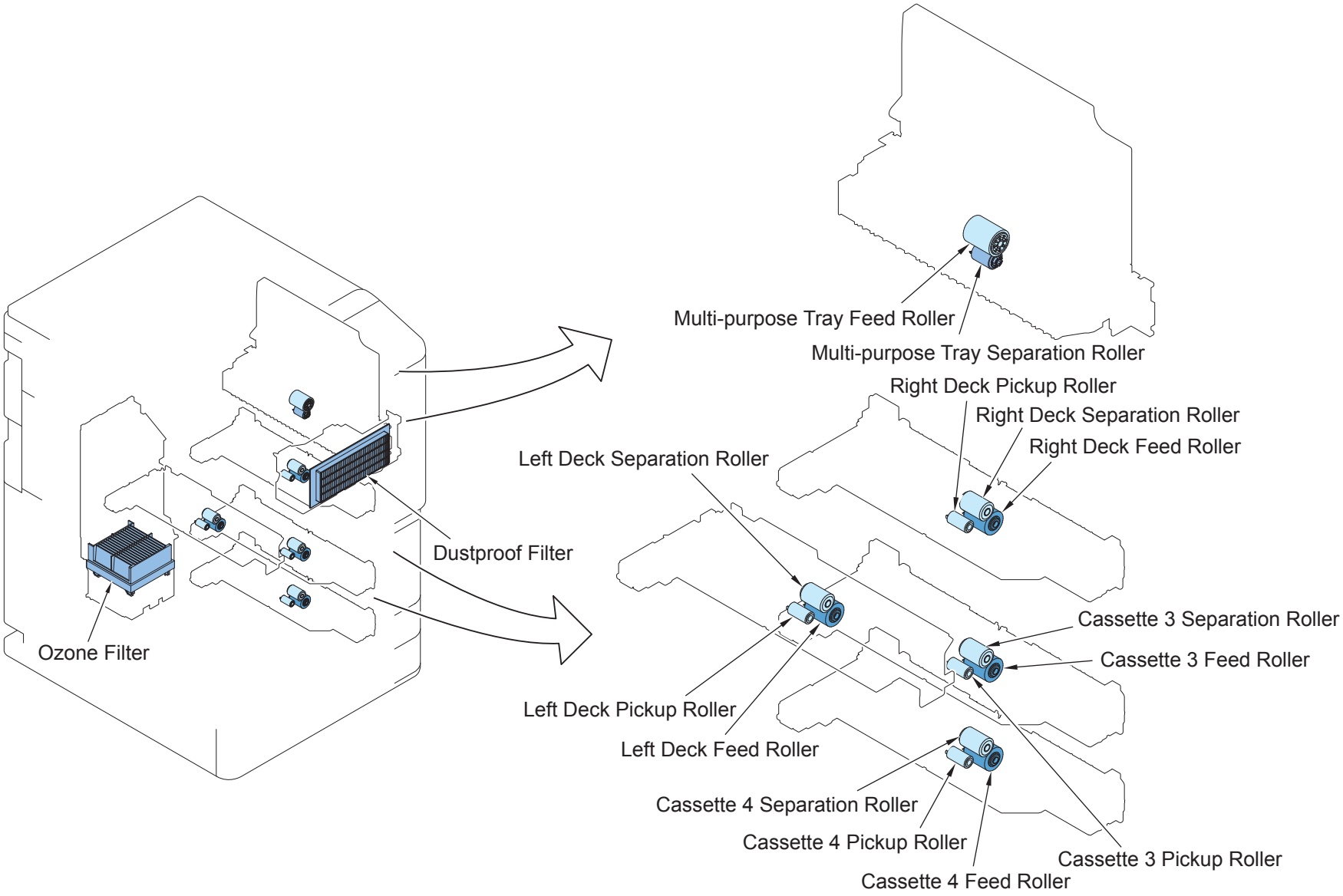
T-4-8


Fixing Sub Thermistor 1(THM2)
Fixing Sub Thermistor 2(THM3)
Fixing Main Thermistor(THM1)
Fixing Roller
Fixing Roller Thrust Retainer
Fixing Roller Insulating Bush
Fixing Roller Thrust Retainer
Fixing Roller Insulating Bush
Fixing Assembly
Upper separation claw
Fixing cleaning web
Pressure Roller Static Eliminator
Pressure Roller Unit

F-4-9

No	Name	Main Unit	Service Parts No.	Reference	Adjustment during parts raplacement
[1]	Fixing Sub Thermister 1(THM2)	Fixing Assembly	FK2-7693	"Removing the Sub Thermistor1"(page 4-192).	-
[2]	Fixing Sub Thermister 2(THM3)	Fixing Assembly	FK2-7693	"Removing the Main Thermistor, Sub Thermistor2"(page 4-190).	
[3]	Fixing Main Thermister(THM1)	Fixing Assembly	FK2-7683	"Removing the Main Thermistor, Sub Thermistor2"(page 4-190).	-
[4]	Fixing Roller	Fixing Assembly	FC9-9163	"Removing the Fixing Roller, Insulating Bush and Thrust Stopper"(page 4-186).	"Fixing Roller"(page 5-12).
[5]	Fixing Roller Insulating Bushing	Fixing Assembly	FC9-8069	"Removing the Fixing Roller, Insulating Bush and Thrust Stopper"(page 4-186).	-
[6]	Fixing Roller Thrust Retainer	Fixing Assembly	FC6-3501	"Removing the Fixing Roller, Insulating Bush and Thrust Stopper"(page 4-186).	-
[7]	Fixing Cleaning Web	Fixing Assembly	FY1-1157	"Removing the Fixing Cleaning Web"(page 4-180).	-
[8]	Pressure Roller Static Eliminator	Fixing Assembly	FC7-4287	"Removing the Pressure Roller Static Eliminator Unit"(page 4-189).	-
[9]	Pressure Roller Unit (120V, 230V)	Fixing Assembly	FM4-3160	"Removing the Pressure Roller"(page 4-188).	-
	Pressure Roller Unit (100V)	Fixing Assembly	FM4-5403		
[10]	Upper Separation Claw	Fixing Assembly	FB5-3625	"Removing the Upper Separation Claw"(page 4-193).	

T-4-9

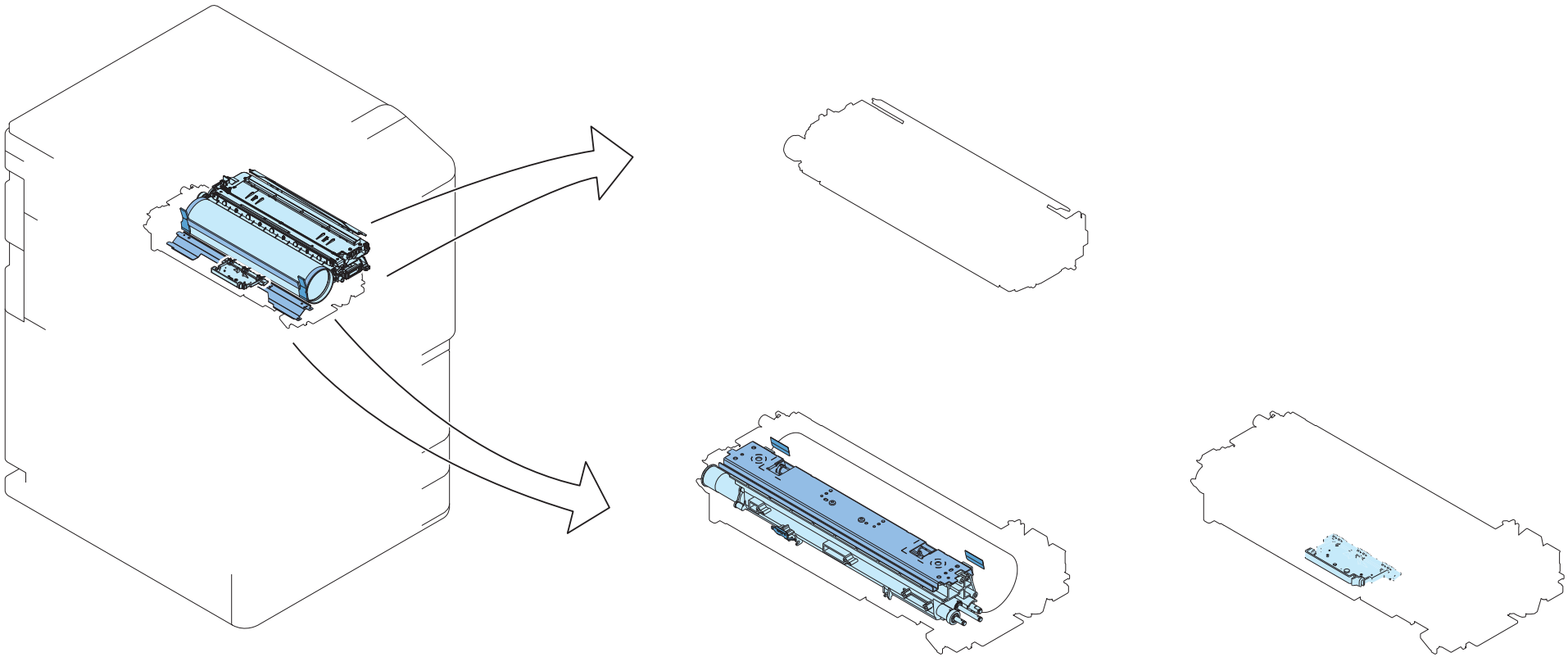

Multi-purpose Tray Feed Roller
Multi-purpose Tray Separation Roller
Right Deck Pickup Roller
Right Deck Separation Roller
Right Deck Feed Roller
Left Deck Separation Roller
Dustproof Filter
Ozone Filter
Cassette 3 Separation Roller
Cassette 3 Feed Roller
Left Deck Pickup Roller
Left Deck Feed Roller
Cassette 4 Separation Roller
Cassette 4 Pickup Roller
Cassette 3 Pickup Roller
Cassette 4 Feed Roller

F-4-10

No	Name	Main Unit	Reference	Adjustment during parts replacement
[1]	Multi-purpose Tray Feed Roller	Multi-purpose Pickup Unit	"Removing the Multi-purpose Tray Feed Roller"(page 4-205).	-
[2]	Multi-purpose Tray Separation Roller	Multi-purpose Pickup Unit	"Removing the Multi-purpose Tray Separation Roller"(page 4-206).	-
[3]	Right Deck Pickup Roller	Right Deck Pickup Unit	"Removing the Right Deck Pickup Roller"(page 4-199).	-
[4]	Right Deck Separation Roller	Right Deck Pickup Unit	"Removing the Right Deck Separation Roller"(page 4-200).	-
[5]	Right Deck Feed Roller	Right Deck Pickup Unit	"Removing the Right Deck Feed Roller"(page 4-200).	-
[6]	Left Deck Separation Roller	Left Deck Pickup Unit	"Removing the Left Deck Separation Roller"(page 4-199).	-
[7]	Left Deck Pickup Roller	Left Deck Pickup Unit	"Removing the Left Deck Pickup Roller"(page 4-197).	-
[8]	Left Deck Feed Roller	Left Deck Pickup Unit	"Removing the Left Deck Feed Roller"(page 4-198).	-
[9]	Cassette 3 Separation Roller	Cassette 3 Pickup Unit	"Removing the Upper Cassette Separation Roller"(page 4-202).	-
[10]	Cassette 3 Feed Roller	Cassette 3 Pickup Unit	"Removing the Upper Cassette Feed Roller"(page 4-202).	-
[11]	Cassette 3 Pickup Roller	Cassette 3 Pickup Unit	"Removing the Upper Cassette Pickup Roller"(page 4-201).	-
[12]	Cassette 4 Separation Roller	Cassette 4 Pickup Unit	"Removing the Lower Cassette Separation Roller"(page 4-204).	-
[13]	Cassette 4 Feed Roller	Cassette 4 Pickup Unit	"Removing the Lower Cassette Feed Roller"(page 4-204).	-
[14]	Cassette 4 Pickup Roller	Cassette 4 Pickup Unit	"Removing the Lower Cassette Pickup Roller"(page 4-203).	-
[15]	Dustproof Filter	Product configuration	"Removing the Filter (for primary charging)"(page 4-230).	-
[16]	Ozone Filter	Product configuration	"Removing the Ozone Filter"(page 4-230).	-

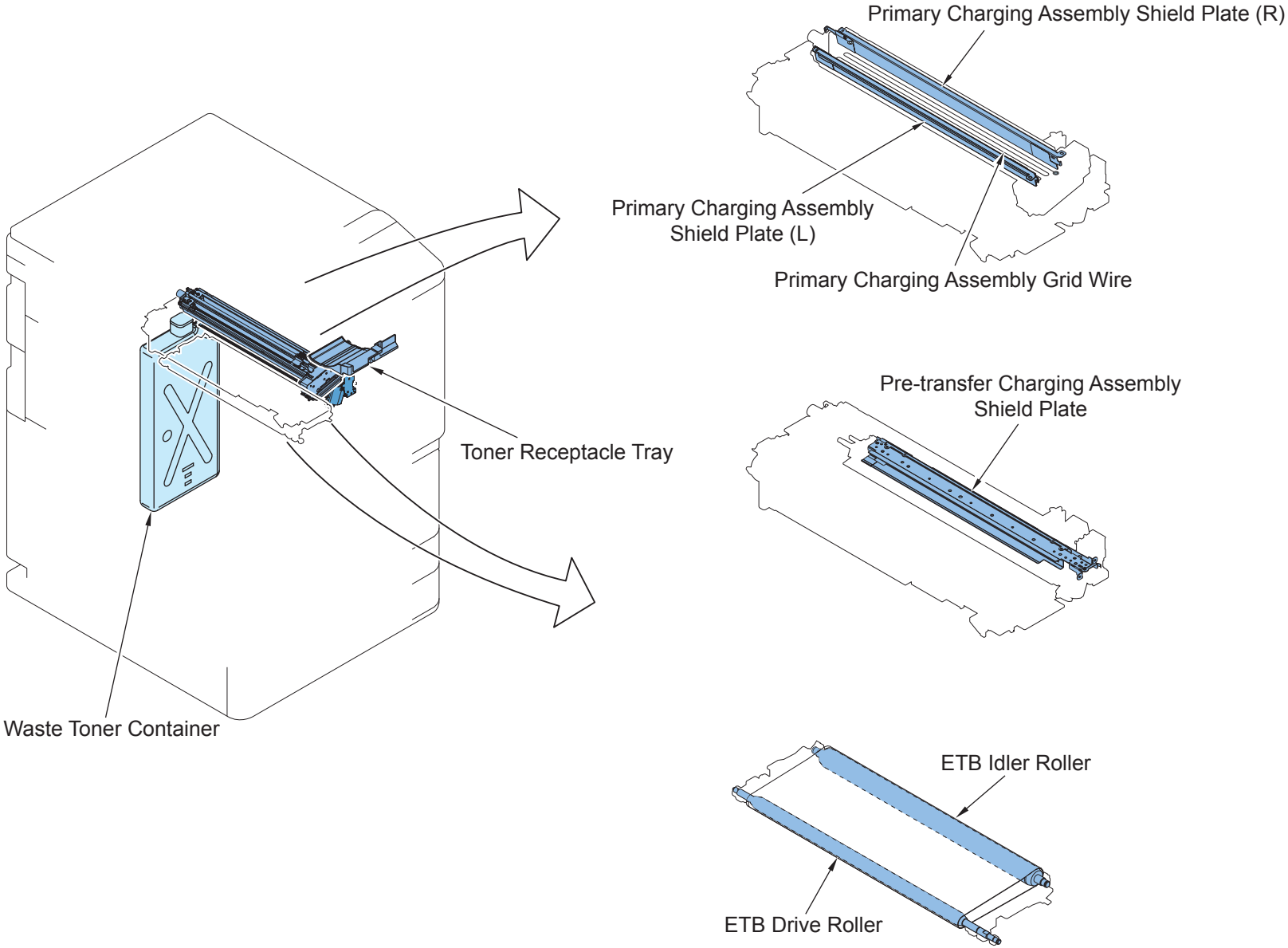
T-4-10

List of Cleaning Parts



No	Name	Main Unit	Reference
[1]	Cleaning Unit Plate	Drum Cleaning Unit	"Cleaning the Drum Cleaning Unit"(page 4-119).
[2]	Pre-exposure Scraper	Drum Cleaning Unit	"Cleaning the Drum Cleaning Unit"(page 4-119).
[3]	Waste Toner Collection Area	Drum Cleaning Unit	"Cleaning the Drum Cleaning Unit"(page 4-119).
[4]	Separation Claw Mounting Base	Process Unit	"Cleaning the Process Unit"(page 4-115).
[5]	Process Unit Rear Guide	Process Unit	"Cleaning the Process Unit"(page 4-115).
[6]	Drum Sliding Assembly	Process Unit	"Cleaning the Process Unit"(page 4-115).
[7]	Drum	Process Unit	"Cleaning Photosensitive Drum"(page 4-125).
[8]	Drum Edge	Process Unit	"Cleaning the Drum edges"(page 4-126).
[9]	Lower side of Developing Assembly	Developing Assembly	"Cleaning the Developing Assembly"(page 4-131).
[10]	Developing Roller	Developing Assembly	"Cleaning the Developing Assembly"(page 4-131).
[11]	Lower side of Cylinder	Developing Assembly	"Cleaning the Developing Assembly"(page 4-131).

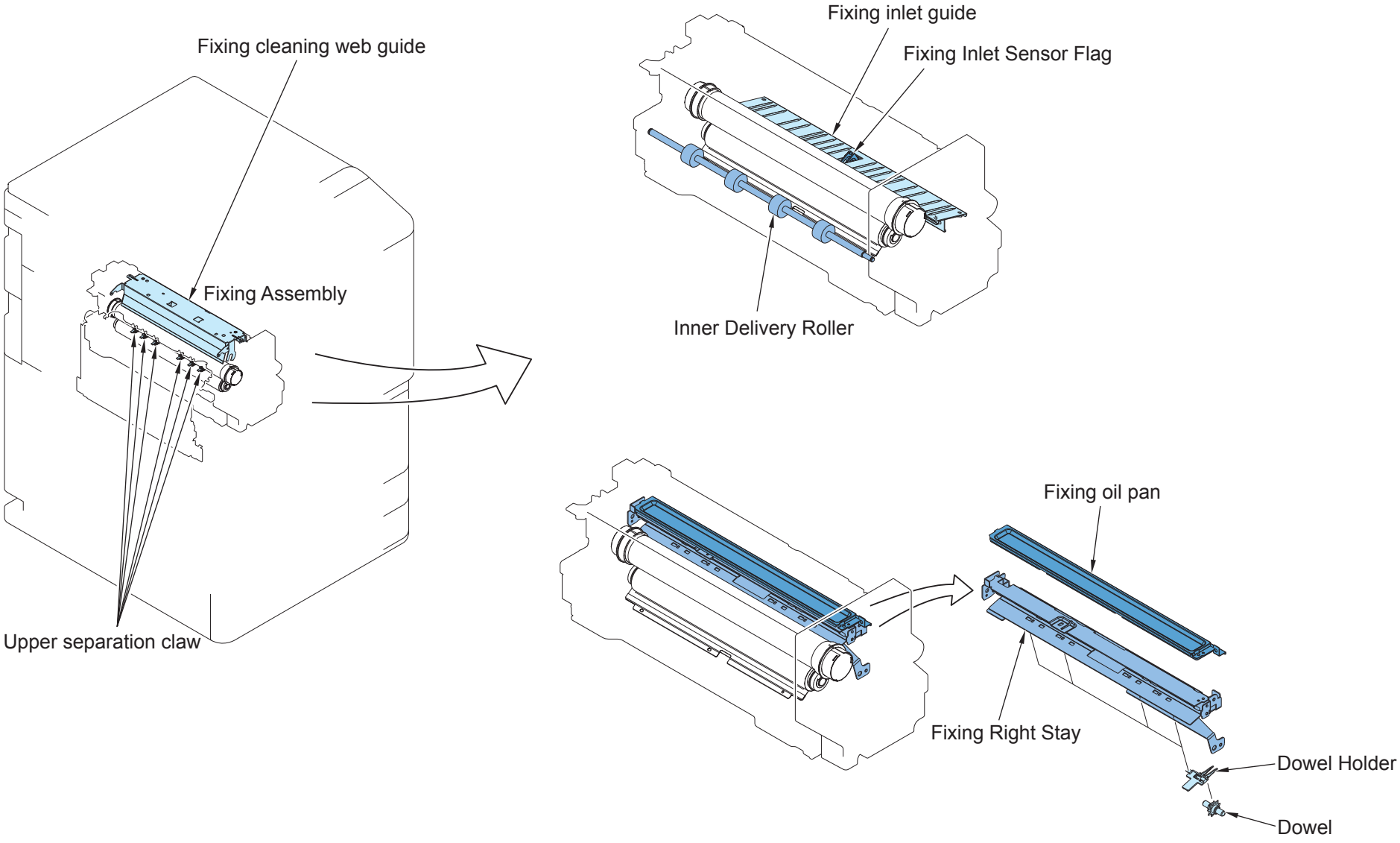
T-4-11


Primary Charging Assembly Shield Plate (R)
Primary Charging Assembly Shield Plate (L)
Primary Charging Assembly Grid Wire
Toner Receptacle Tray
Pre-transfer Charging Assembly Shield Plate
Waste Toner Container
ETB Idler Roller
ETB Drive Roller

F-4-12

No	Name	Main Unit	Reference
[1]	Primary Charging Assembly Grid Wire	Primary Charging Assembly	"Cleaning the Primary Charging Assembly Grid Wire"(page 4-106).
[2]	Primary Charging Assembly Shield Plate	Primary Charging Assembly	"Cleaning the Primary Charging Assembly Grid Wire"(page 4-106).
[3]	Pre-transfer Charging Assembly Shield Plate	Pre-transfer Charging Assembly	"Cleaning the Pre-transfer Charging Wire"(page 4-113).
[4]	ETB Drive Roller	ETB Unit	"Cleaning the ETB"(page 4-140).
[5]	ETB Idler Roller	ETB Unit	"Cleaning the ETB"(page 4-140).
[6]	Toner Receptacle Tray	Hopper Unit	"Removing the Toner Receptacle Tray"(page 4-158).
[7]	Waste Toner Container	Hopper Unit	"Removing the Waste Toner Container"(page 4-145).

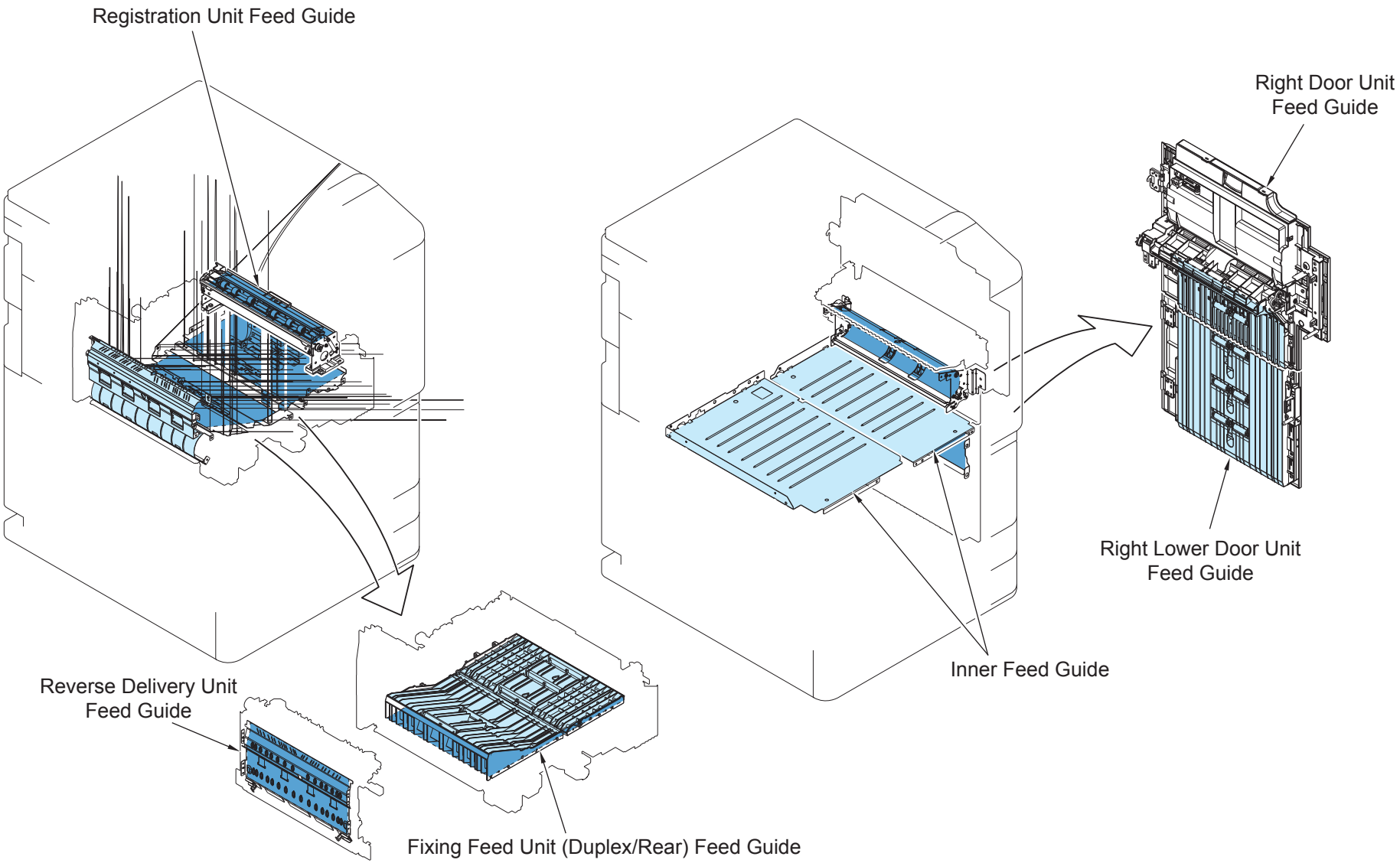
T-4-12


Fixing cleaning web guide
Fixing Assembly
Upper separation claw
Fixing inlet guide
Fixing Inlet Sensor Flag
Inner Delivery Roller
Fixing oil pan
Fixing Right Stay
Dowel Holder
Dowel

F-4-13

No	Name	Main Unit	Reference
[1]	Fixing Inlet Guide	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[2]	Fixing Right Stay	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[3]	Dowel	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[4]	Dowel Holder	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[5]	Fixing Oil Pan	Fixing Assembly	"Cleaning the Fixing Oil Pan, Fixing Cleaning Web Guide"(page 4-180).
[6]	Upper Separation Claw	Fixing Assembly	"Cleaning the Upper Separation Claw"(page 4-194).
[7]	Fixing Cieaning Web Guide	Fixing Assembly	"Cleaning the Fixing Oil Pan, Fixing Cleaning Web Guide"(page 4-180).
[8]	Fixing Inlet Sensor Flag	Fixing Assembly	"Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder"(page 4-178).
[9]	Inner Delivery Roller	Fixing Assembly	"Cleaning the Inner Delivery Roller"(page 4-179).

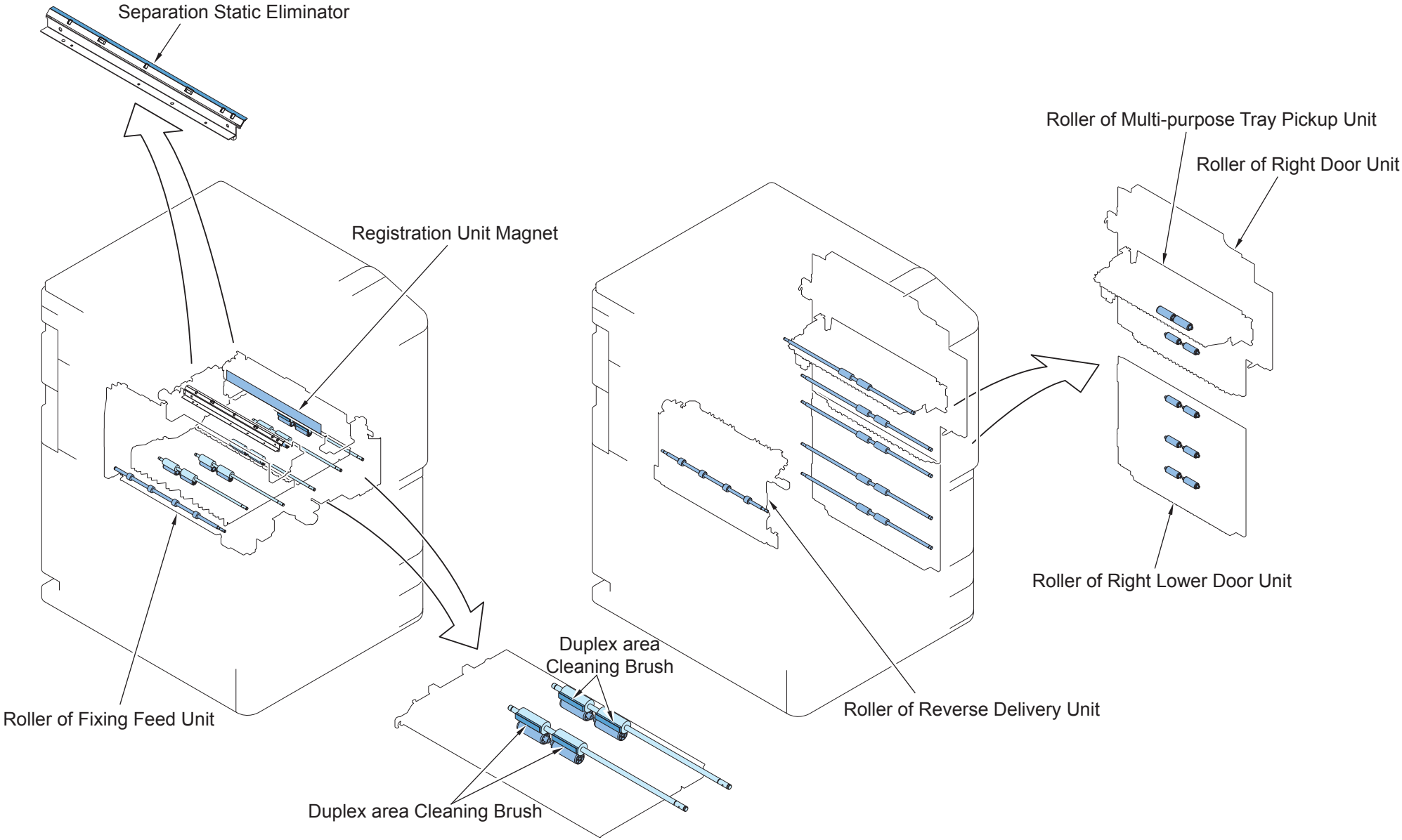
T-4-13


Registration Unit Feed Guide
Right Door Unit
Feed Guide
Right Lower Door Unit
Feed Guide
Inner Feed Guide
Reverse Delivery Unit
Feed Guide
Fixing Feed Unit (Duplex/Rear) Feed Guide

F-4-14

No	Name	Main Unit	Reference
[1]	Registration Unit Feed Guide	Registration Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[2]	Reverse Delivery Unit Feed Guide	Reverse Delivery Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[3]	Fixing Feed Unit (Duplex/Rear)Feed Guide	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[4]	Inner Feed Guide	Product Specification	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[5]	Right Door Unit Feed Guide	Right Door Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[6]	Right Lower Door Unit Feed Guide	Right Lower Door Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).

T-4-14


Separation Static Eliminator
Registration Unit Magnet
Roller of Fixing Feed Unit
Duplex area
Cleaning Brush
Duplex area Cleaning Brush
Roller of Reverse Delivery Unit
Roller of Multi-purpose Tray Pickup Unit
Roller of Right Door Unit
Roller of Right Lower Door Unit

F-4-15

No	Name	Main Unit	Reference
[1]	Roller of Fixing Feed Unit	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[2]	Registration Unit Magnet	Registration Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[3]	Roller of Multi-purpose Tray Pickup Unit	Multi-purpose Tray Pickup Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[4]	Roller of Right Door Unit	Right Door Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[5]	Roller of Right Lower Door Unit	Right Lower Door Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[6]	Roller of Reverse Delivery Unit	Reverse Delivery Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[7]	Duplex area Cleaning Brush	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
[8]	Separation Static Eliminator	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).

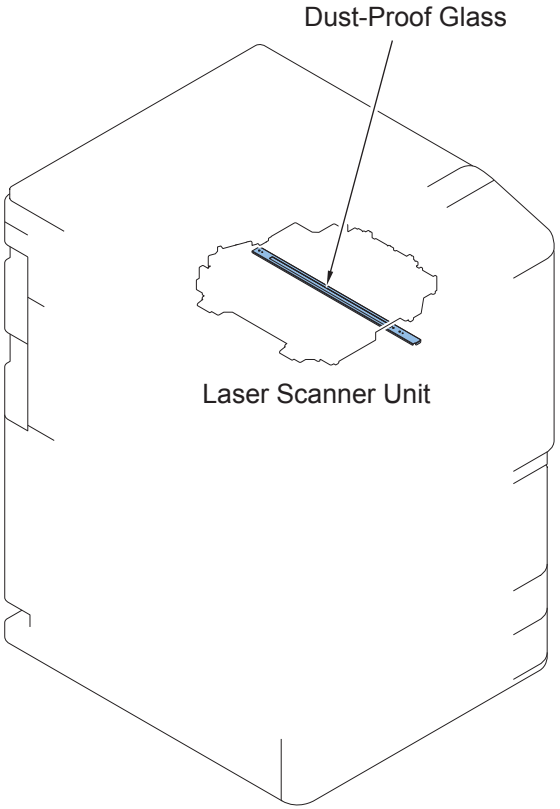
T-4-15

Multi-purpose Tray Pickup Unit
Pickup Feed Drive Unit
PS28
PS24
PS29
PS64
PS67
PS66
PS65
Right Door Unit
Fixing Feed Unit

F-4-16

No	Name	Main Unit	Reference
PS24	Vertical Path Sensor 1	Vertical Path Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
PS28	Multi-purpose Tray Last Paper Sensor	Multi-purpose Tray Pickup Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
PS29	Registration Sensor	Pickup Feed Drive Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
PS64	Duplex Outlet Sensor	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
PS66	Duplex Left Sensor	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).
PS67	Duplex Merging Sensor	Fixing Feed Unit	"Cleaning the Pickup and Fixing Feed Assembly"(page 4-207).

T-4-16

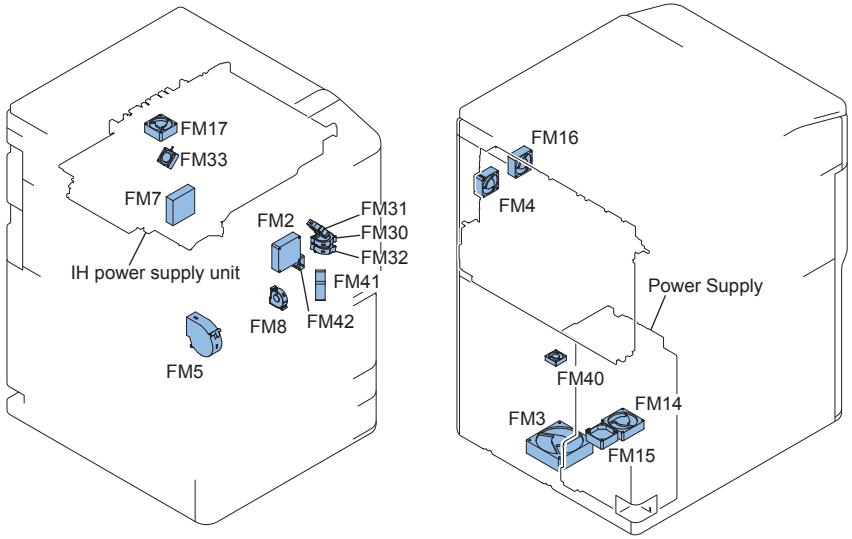


F-4-17

No	Name	Main Unit	Reference
[1]	Dustproof Glass	Main Body	"Cleaning the Dust Collecting Glass"(page 4-95).

T-4-17

List of Fan

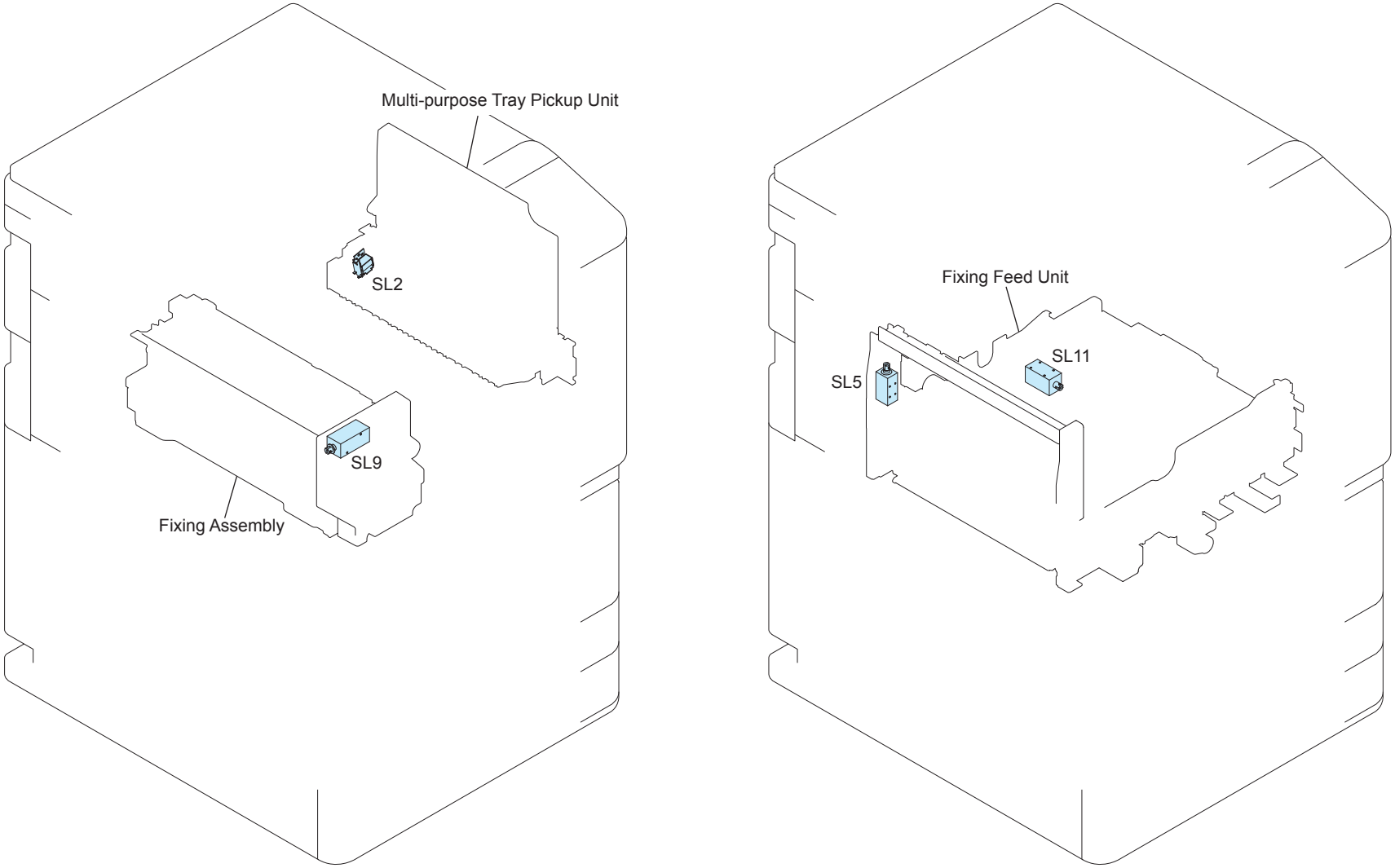


F-4-18

No	Name	Main Unit	Adjustment during parts replacement	Reference
FM2	Primary Charging Assembly Air Supply Fan	Product configuration		
FM3	Making Image Exhaust Fan	Product configuration		
FM4	Main Controller Cooling Fan	Product configuration		
FM5	Paper Cooling Fan	Product configuration		
FM7	Fixing Power Supply Cooling Fan	Product configuration		
FM8	Transfer Cleaner Cooling Fan	Product configuration		
FM14	Power Supply Cooling Fan 1	Product configuration		
FM15	Power Supply Cooling Fan 2	Product configuration		
FM16	Laser Scanner Cooling Fan	Product configuration		
FM17	Primary Charging Assembly Exhaust Fan	Product configuration		
FM30	Developing Assembly Lower Cooling Fan	Product configuration		
FM31	Developing Assembly Upper Cooling Fan	Product configuration		
FM32	Pre-transfer Charging Assembly Air Supply Fan	Product configuration		
FM33	Pre-transfer Charging Assembly Exhaust Fan	Product configuration		
FM40	Feed Driver Cooling Fan	Product configuration		
FM41	Duplex Driver Cooling Fan	Product configuration		
FM42	Registration Motor/Duplex Motor Cooling Fan	Product configuration		

T-4-18

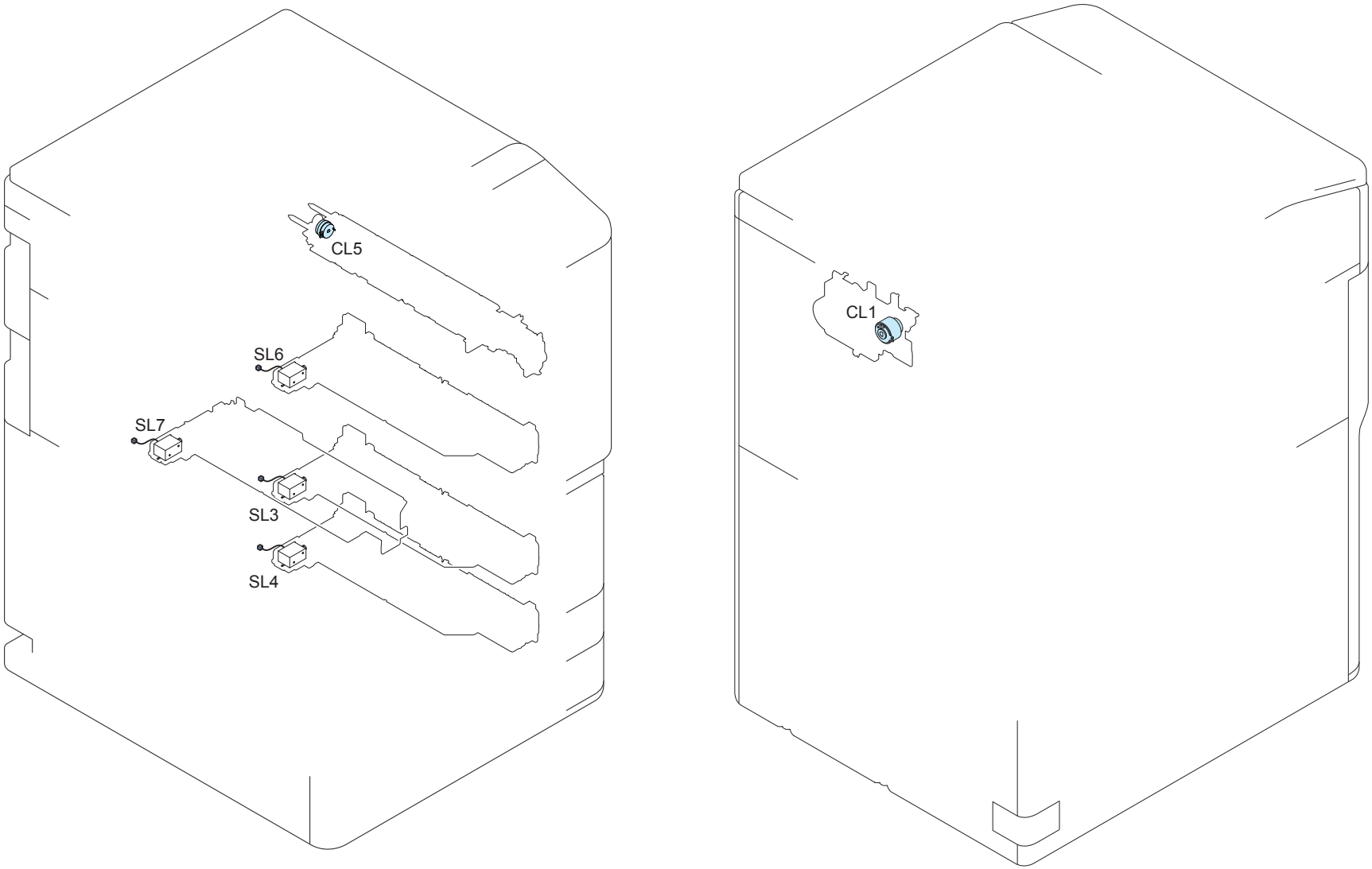
List of Clutch / Solenoid



F-4-19

No	Name	Main Unit	Adjustment during parts replacement	Reference
SL2	Multi-purpose Tray Pickup Solenoid	Multi-purpose Pickup Unit		-
SL5	Reverse Upper Flapper Solenoid	Fixing Feed Unit		-
SL9	Fixing Cleaning Web Drive Solenoid	Fixing Assembly		-
SL11	Left Deck Merging Solenoid	Fixing Feed Unit		-

T-4-19

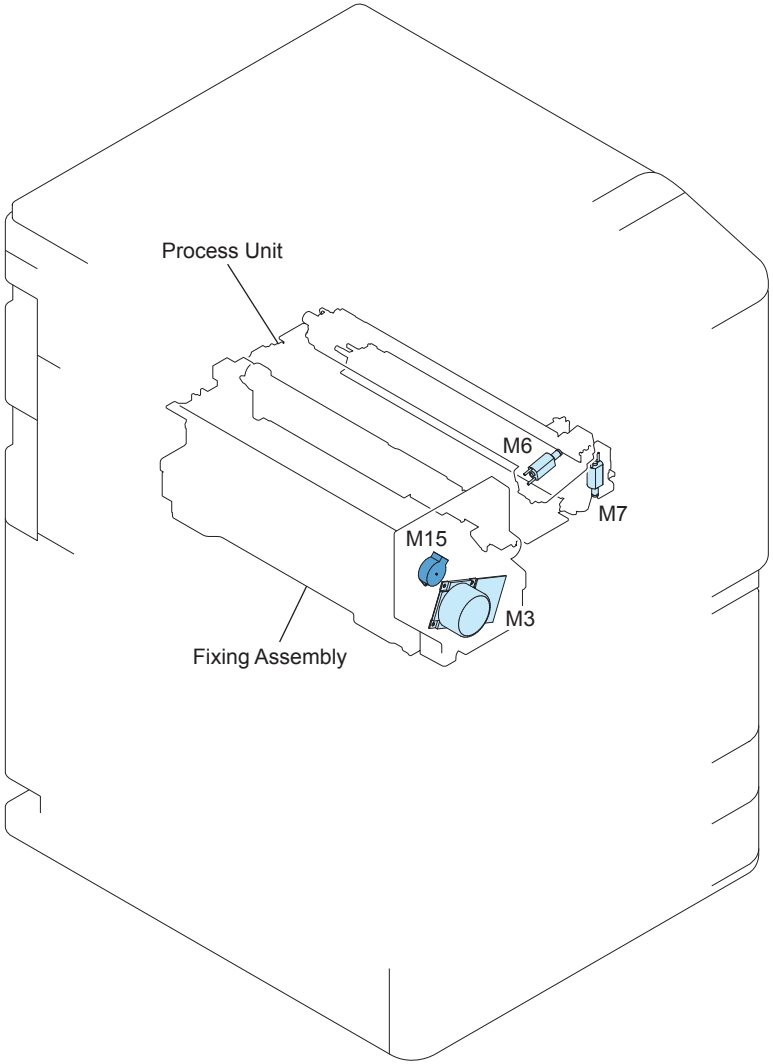


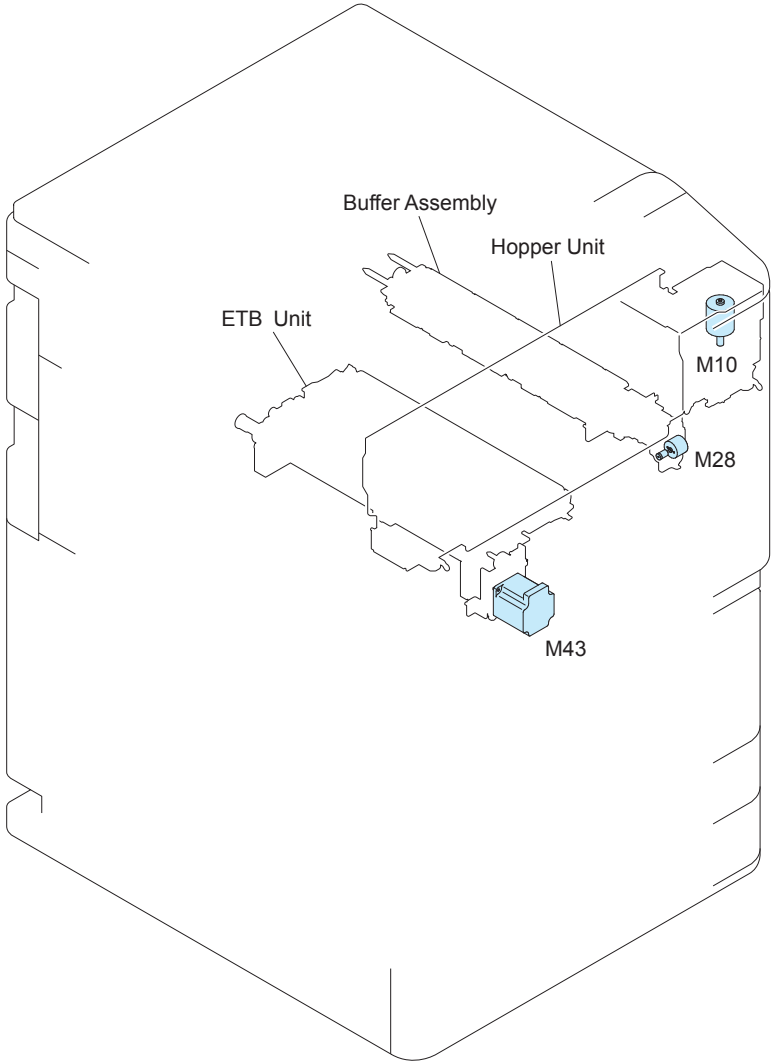
F-4-20

No	Name	Main Unit	Adjustment during parts replacement	Reference
CL1	Developing Clutch	Developing Assembly		
SL3	Cassette 3 Pickup Solenoid	Cassette 3 Pickup Unit		-
SL4	Cassette 4 Pickup Solenoid	Cassette 4 Pickup Unit		-
CL5	Magnet Roller Clutch	Hopper Unit		
SL6	Right Deck Pickup Solenoid	Right Deck Pickup Unit		-
SL7	Left Deck Pickup Solenoid	Left Deck Pickup Unit		-

T-4-20

List of Motor

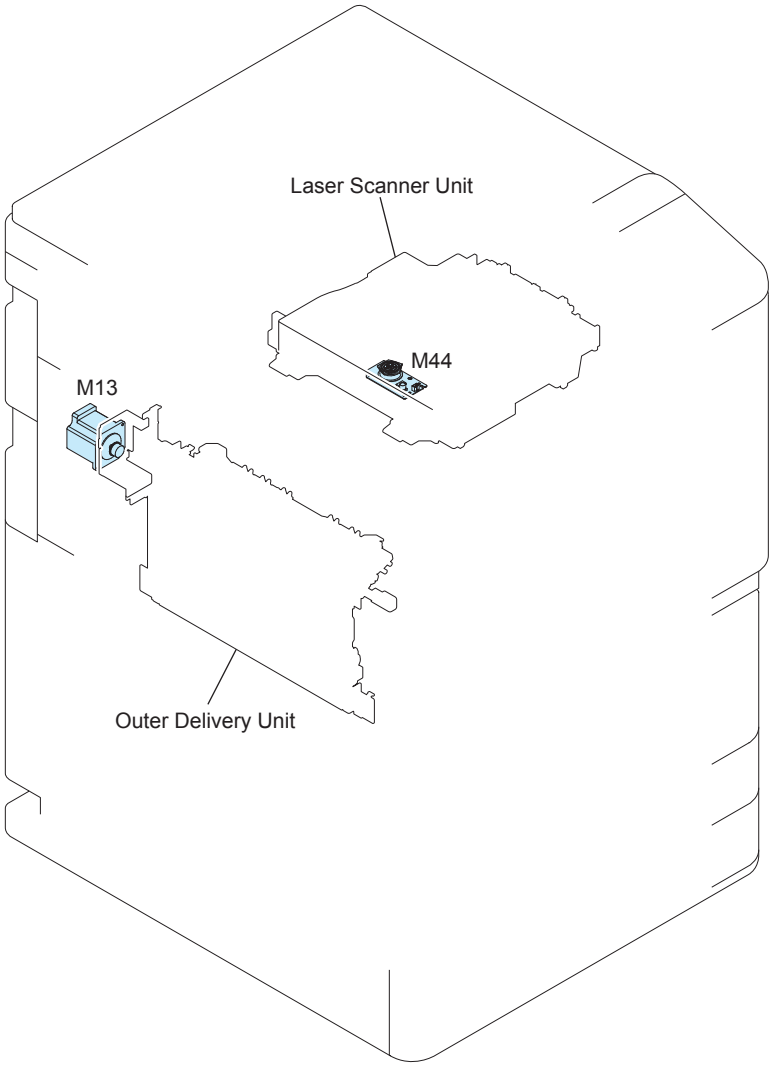


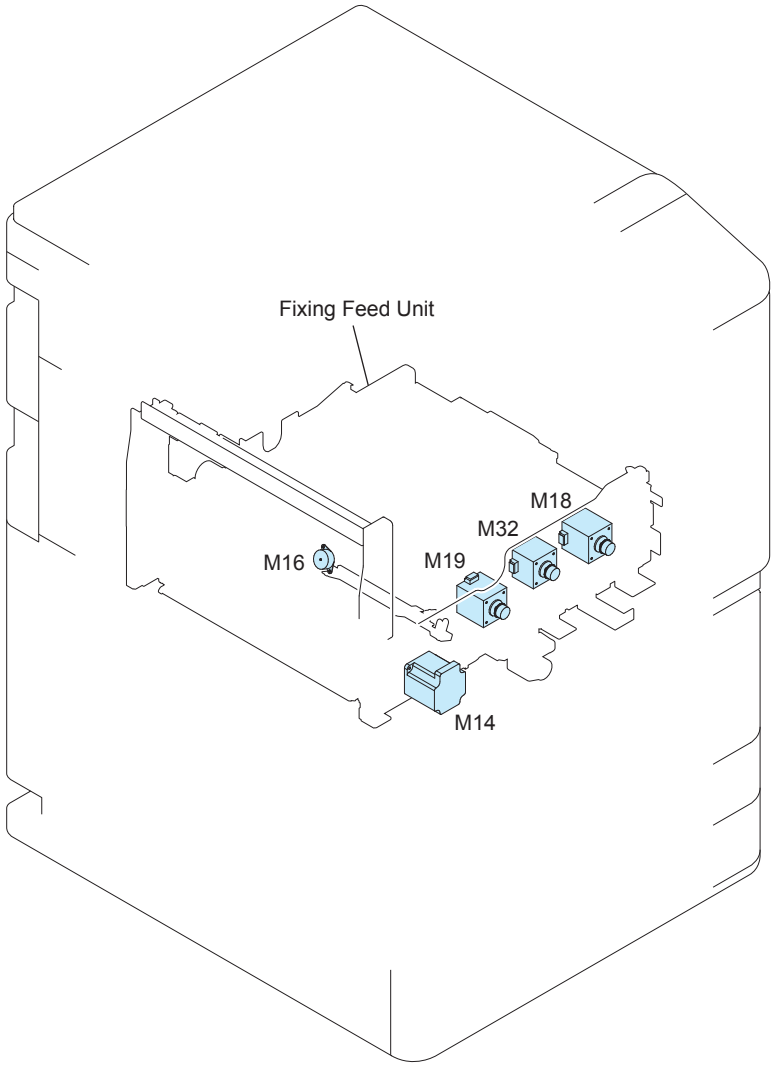


F-4-21

No	Name	Main Unit	Adjustment during parts replacement	Reference
M3	Fixing Motor	Fixing Assembly		-
M6	Primary Charging Wire Cleaning Motor	Process Unit		-
M7	Pre-transfer Charging Wire Cleaning Motor	Process Unit		-
M10	Toner Supply Motor	Hopper Unit		-
M15	Fixing Shutter Motor	Fixing Assembly		
M28	Toner Feed Motor	Hopper Unit		-
M43	ETB Motor	ETB Unit		-

T-4-21

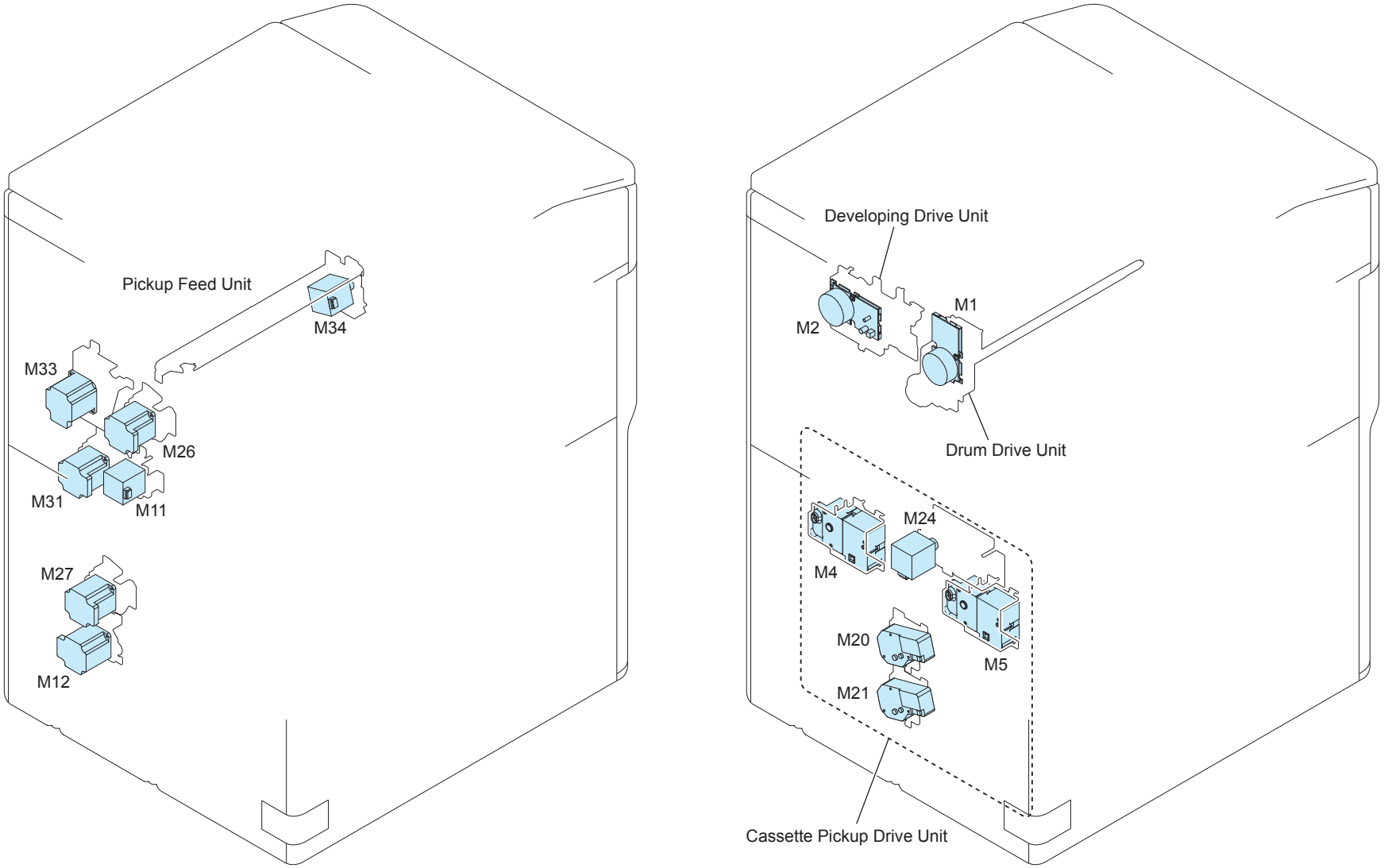

Laser Scanner Unit
M44
M13
Outer Delivery Unit


Fixing Feed Unit
M18
M32
M16
M19
M14

F-4-22

No	Name	Main Unit	Adjustment during parts replacement	Reference
M13	Delivery Motor	Outer Delivery Unit		-
M14	Reverse Motor	Fixing Feed Unit		-
M16	Side Registration Motor	Fixing Feed Unit		-
M18	Duplex Feed Right Motor	Fixing Feed Unit		-
M19	Duplex Feed Left Motor	Fixing Feed Unit		-
M32	Duplex Feed Merging Motor	Fixing Feed Unit		-
M44	Polygon Motor	Laser Scanner Unit		-

T-4-22

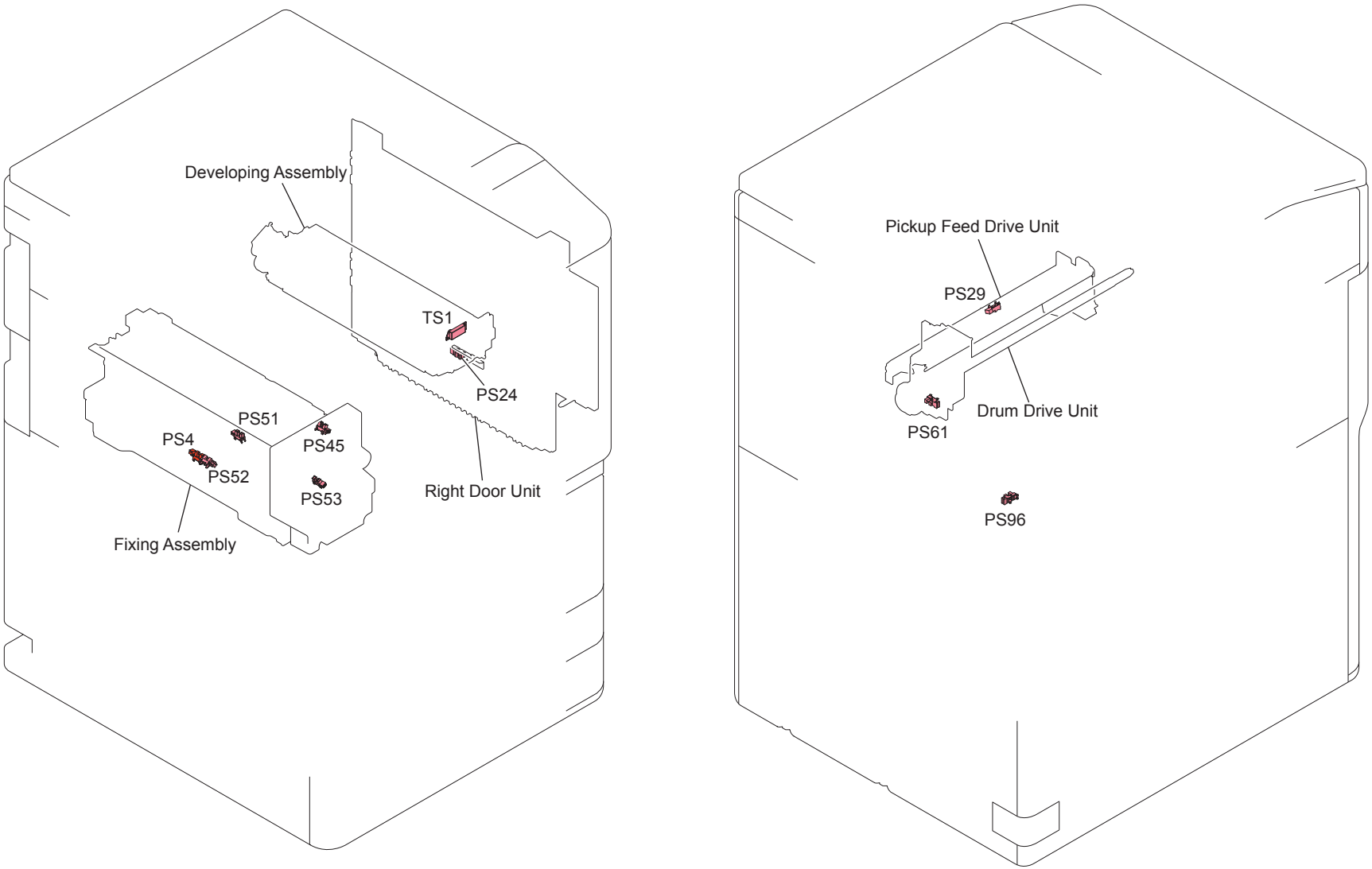

Pickup Feed Unit
M34
M33
M26
M31
M11
M27
M12
Developing Drive Unit
M1
M2
Drum Drive Unit
M24
M4
M20
M5
M21
Cassette Pickup Drive Unit

F-4-23

No	Name	Main Unit	Adjustment during parts replacement	Reference
M1	Drum Motor	Drum Drive Unit		-
M2	Developing Motor	Developing Assembly Drive Unit		-
M4	Right Deck Lifter Motor	Cassette Pickup Drive Unit		-
M5	Left Deck Lifter Motor	Cassette Pickup Drive Unit		-
M11	Right Deck Pickup Motor	Pickup Feed Unit		-
M12	Cassette 3,4 Pickup Motor	Pickup Feed Unit		-
M20	Cassette 3 Lifter Motor	Cassette Pickup Drive Unit		-
M21	Cassette 4 Lifter Motor	Cassette Pickup Drive Unit		-
M24	Left Deck Pickup Motor	Cassette Pickup Drive Unit		-
M26	Vertical Path Upper Motor	Pickup Feed Unit		-
M27	Vertical Path Lower Motor	Pickup Feed Unit		-
M31	Vertical Path Middle Motor	Pickup Feed Unit		-
M33	Multi-purpose Tray Registration Front Motor	Pickup Feed Unit		-
M34	Registration Motor	Pickup Feed Unit		-

T-4-23

List of Sensor



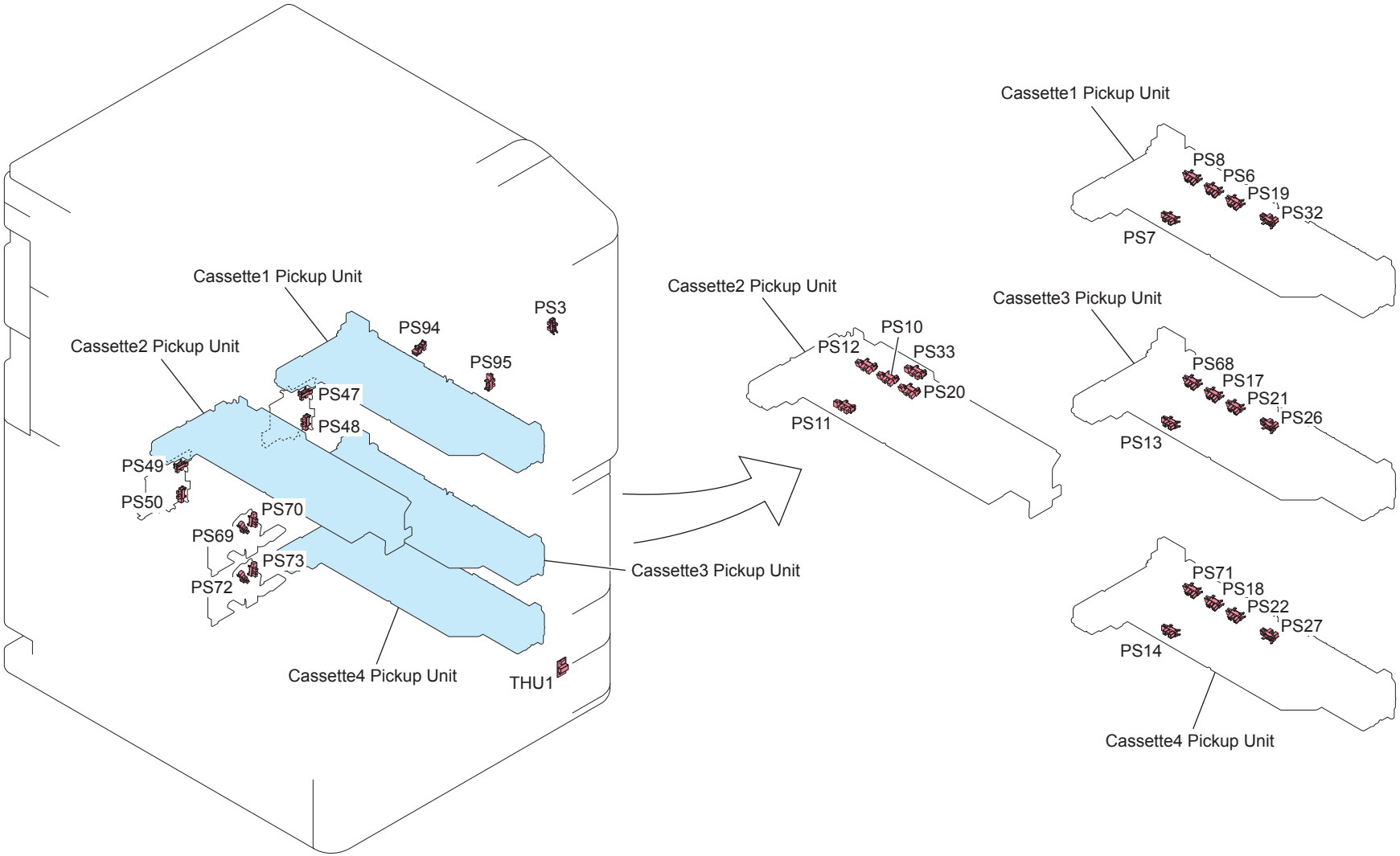
F-4-24

No	Name	Main Unit	Adjustment during parts replacement	Reference
PS4	Fixing Toenail Jam Sensor	Fixing Assembly		
PS24	Vertical Path Sensor 1	Vertical Path Unit		
PS29	Registration Sensor	Pickup Feed Drive Unit		
PS45	Fixing Cleaning Web Level Sensor	Fixing Assembly		
PS51	Fixing Inlet Sensor	Fixing Assembly		
PS52	Fixing Outlet Sensor	Fixing Assembly		
PS61	Drum Home Position Sensor	Drum Drive Unit		
PS96	Fixed Feed Lever Sensor	Fixing Feed Unit		
TS1	Developing Assembly Toner Sensor	Developing Assembly		

T-4-24

No	Name	Main Unit	Adjustment during parts replacement	Reference
PS2	Vertical Path Cover Open/Close Sensor	Vertical Path Unit		-
PS23	Multi-purpose Tray Paper Sensor	Multi-purpose Pickup Unit		-
PS25	Vertical Path Sensor 2	Vertical Path Unit		-
PS28	Multi-purpose Tray Last Paper Sensor	Multi-purpose Pickup Unit		-
PS31	Side Registration Sensor	Fixing Feed Unit		-
PS35	Inner Delivery Sensor	Fixing Feed Unit		-
PS36	Outer Delivery Sensor	Outer Delivery Unit		-
PS54	Toner Exchange Cover Open/Close Sensor	Hopper Unit		-
PS55	Transfer Belt Engage Sensor	Fixing Feed Unit		-
PS56	Transfer Belt Disengage Sensor	Fixing Feed Unit		-
PS64	Duplex Outlet Sensor	Fixing Feed Unit		-
PS65	Reverse Vertical Path Sensor	Fixing Feed Unit		-
PS66	Duplex Left Sensor	Fixing Feed Unit		-
PS67	Duplex Merging Sensor	Fixing Feed Unit		-
TS2	Buffer Toner Sensor 1	Hopper Unit		-
TS3	Buffer Toner Sensor 2	Hopper Unit		-
UN13	Multi-purpose Tray Paper Width Sensor	Multi-purpose Pickup Unit		-

T-4-25

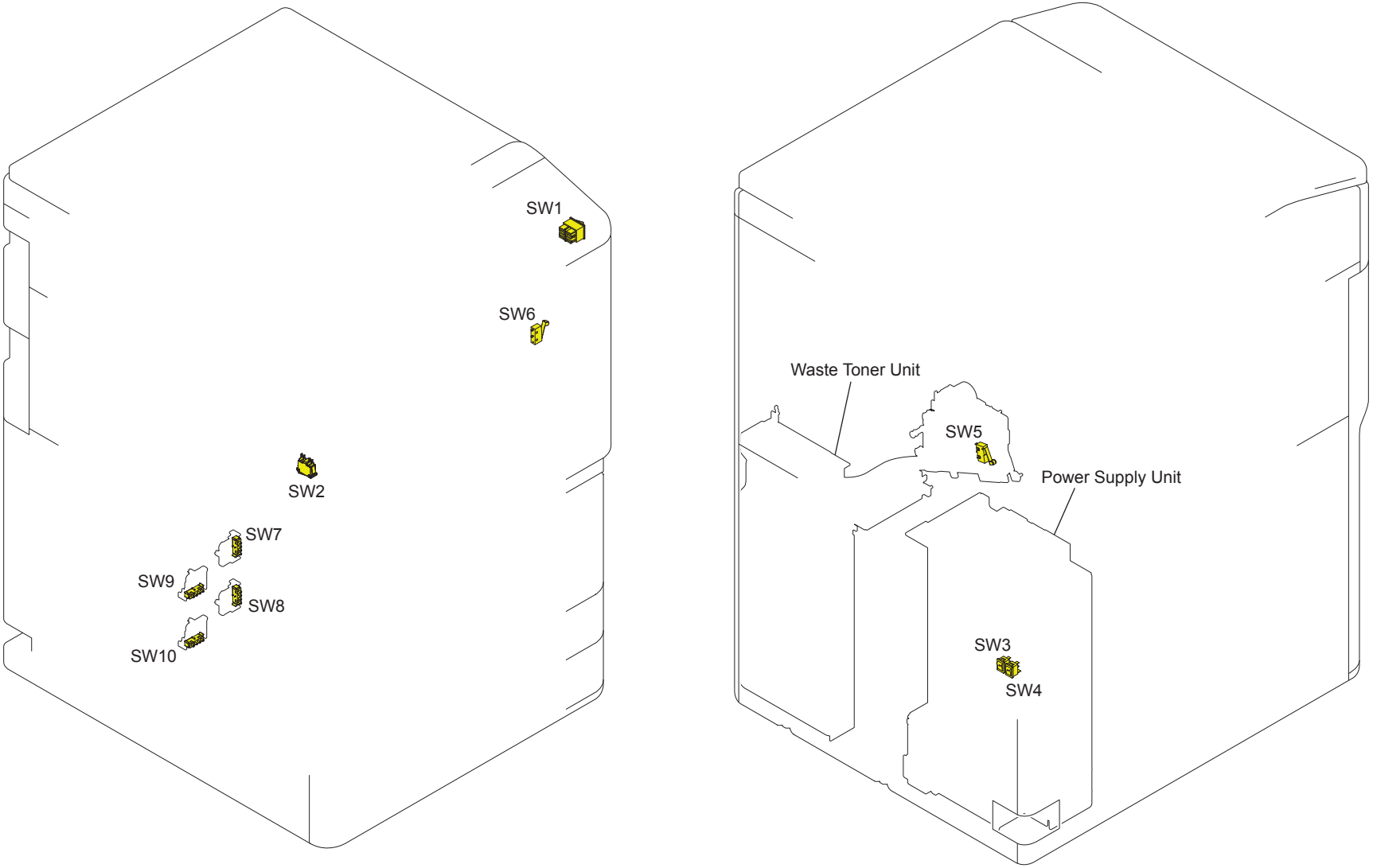

Cassette1 Pickup Unit
Cassette2 Pickup Unit
PS94
PS3
PS95
PS47
PS48
PS49
PS50
PS70
PS69
PS73
PS72
Cassette3 Pickup Unit
Cassette4 Pickup Unit
THU1
Cassette2 Pickup Unit
PS12
PS10
PS33
PS20
PS11
Cassette1 Pickup Unit
PS8
PS6
PS19
PS32
PS7
Cassette3 Pickup Unit
PS68
PS17
PS21
PS26
PS13
PS71
PS18
PS22
PS27
PS14
Cassette4 Pickup Unit

F-4-26

No	Name	Main Unit	Adjustment during parts replacement	Reference
PS3	Multi-purpose Tray Cover Open/Close Sensor	Multi-purpose Tray Pickup Unit		
PS6	Right Deck Paper Height Sensor	Right Deck Unit		
PS7	Right Deck Paper Sensor	Right Deck Unit		
PS8	Right Deck Upper Limit Sensor	Right Deck Unit		
PS10	Left Deck Paper Height Sensor	Left Deck Unit		
PS11	Left Deck Paper Sensor	Left Deck Unit		
PS12	Left Deck Upper Limit Sensor	Left Deck Unit		
PS13	Cassette 3 Paper Sensor	Cassette 3 Pickup Unit		
PS14	Cassette 4 Paper Sensor	Cassette 4 Pickup Unit		
PS17	Cassette 3 Paper Height Sensor	Cassette 3 Pickup Unit		
PS18	Cassette 4 Paper Height Sensor	Cassette 4 Pickup Unit		
PS19	Right Deck Pickup Sensor 2	Right Deck Unit		
PS20	Left Deck Pickup Sensor 2	Left Deck Unit		
PS21	Cassette 3 Pickup Sensor 2	Cassette 3 Pickup Unit		
PS22	Cassette 4 Pickup Sensor 1	Cassette 4 Pickup Unit		
PS26	Vertical Path Sensor 3	Vertical Path Unit		
PS27	Vertical Path Sensor 4	Vertical Path Unit		
PS32	Right Deck Pull Out Sensor	Right Deck Unit		
PS33	Left Deck Pull Out Sensor	Left Deck Unit		
PS47	Right Deck Paper Level Sensor 1	Right Deck Unit		
PS48	Right Deck Paper Level Sensor 2	Right Deck Unit		
PS49	Left Deck Paper Level Sensor 1	Left Deck Unit		
PS50	Left Deck Paper Level Sensor 2	Left Deck Unit		
PS68	Cassette 3 Upper Limit Sensor	Cassette 3 Pickup Unit		
PS69	Cassette 3 Paper Level Sensor 1	Cassette 3 Pickup Unit		
PS70	Cassette 3 Paper Level Sensor 2	Cassette 3 Pickup Unit		
PS71	Cassette 4 Upper Limit Sensor	Cassette 4 Pickup Unit		
PS72	Cassette 4 Paper Level Sensor 1	Cassette 4 Pickup Unit		
PS73	Cassette 4 Paper Level Sensor 2	Cassette 4 Pickup Unit		
PS94	Primary Charging Assembly Shutter Open/Close Sensor	Primary Charging Assembly		
PS95	Pre-transfer Charging Assembly Shutter Open/Close Sensor	Pre-transfer Charging Assembly		
THU1	Environment Sensor	Main Body		

T-4-26

List of Switch

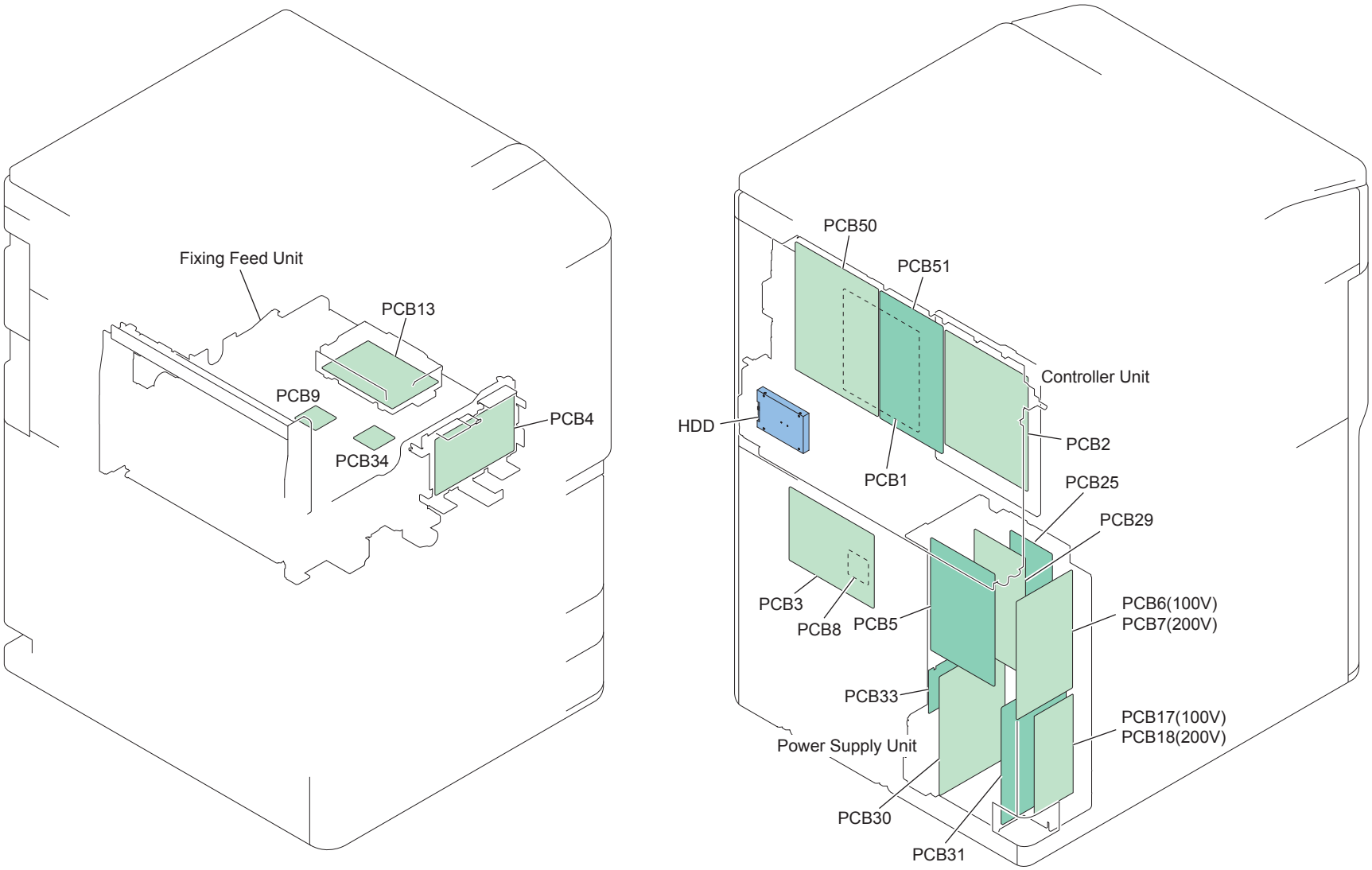


F-4-27

No	Name	Main Unit	Adjustment during parts replacement	Reference
SW1	Power Switch	Product configuration		
SW2	Front Door Open Detection Switch	Product configuration		
SW3	Environment Switch	Product configuration		
SW4	Cassette Heater Switch	Product configuration		
SW5	Waste Toner Lock Detection Switch	Waste Toner Unit		
SW6	Multi Door Switch	Product configuration		
SW7	Cassette 3 Paper Width Detection Switch	Cassette 3 Pickup Unit		
SW8	Cassette 4 Paper Width Detection Switch	Cassette 4 Pickup Unit		
SW9	Cassette 3 Paper Length Detection Switch	Cassette 3 Pickup Unit		
SW10	Cassette 4 Paper Length Detection Switch	Cassette 4 Pickup Unit		

T-4-27

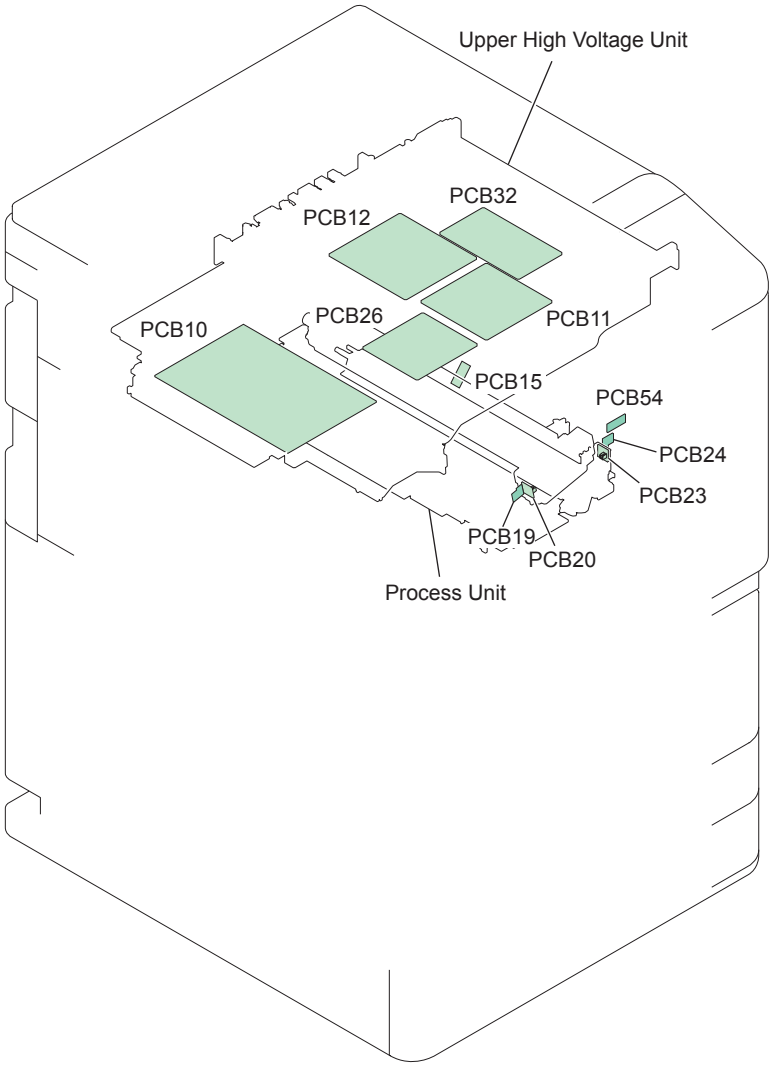
List of PCB

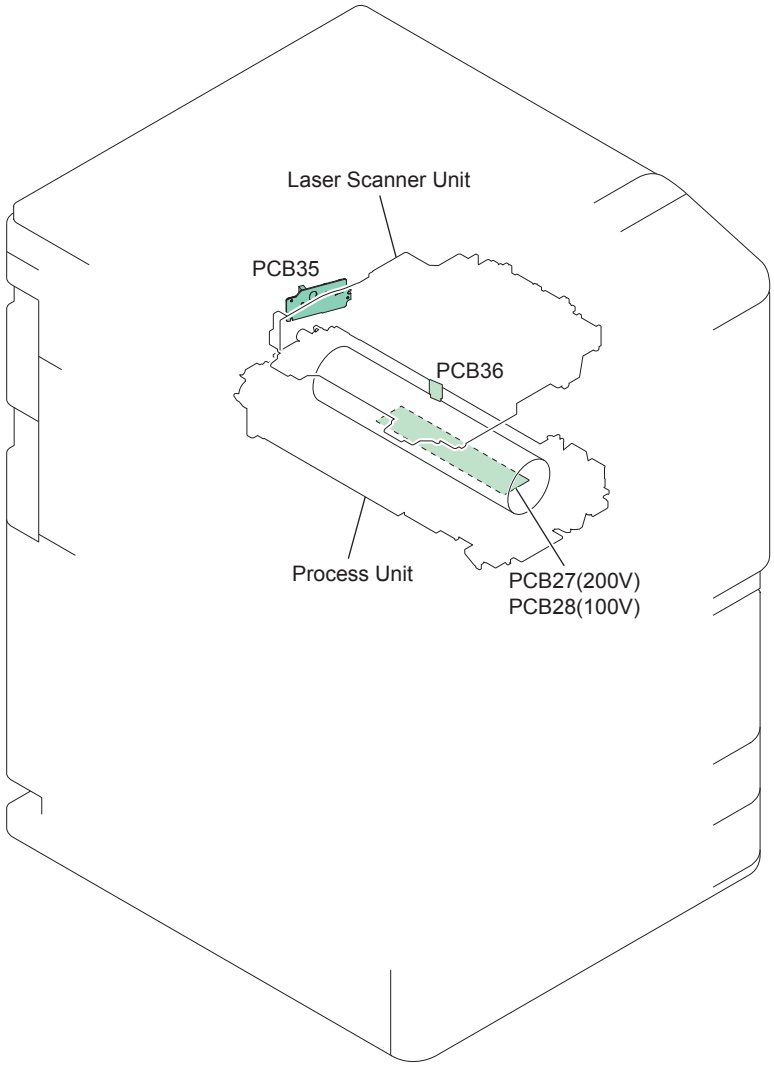


F-4-28

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Reference
PCB1	DC Controller PCB	Product configuration	FM0-4158		"DC Controller PCB"(page 5-12).
PCB2	Main Driver PCB	Product configuration	FM4-1083		
PCB3	Feed Driver PCB	Product configuration	FM4-1084		
PCB4	Duplex Driver PCB	Product configuration	FM4-1085		
PCB5	Relay PCB	Product configuration	FM0-2963		
PCB6	AC Driver PCB(100V)	Product configuration	FM0-2961		
PCB7	AC Driver PCB(200V)	Product configuration	FM0-2962		
PCB8	DC-DC Converter PCB	Product configuration	FM4-1089		
PCB9	DC-DC Converter PCB	Product configuration	FM4-1089		
PCB13	Transfer High Voltage PCB	Product configuration	FM4-1095		
PCB17	Noise Filter(100V)	Product configuration	FM0-2958		
PCB18	Noise Filter(200V)	Product configuration	FM0-2959		
PCB25	Choke Coil PCB	Product configuration	FM4-1103		
PCB29	DC Power Supply(12V)	Product configuration	FM0-4161		
PCB30	DC Power Supply(24V)	Product configuration	FM0-4153		
PCB31	DC Power Supply(24V)	Product configuration	FM0-4152		
PCB33	All-night Power Supply PCB	Product configuration	FK3-1998		
PCB34	Transfer High Voltage Registance PCB	Product configuration	FM2-7196		
PCB50	Main Controller PCB 1	Product configuration	iR-ADV6255:FM4-2500 iR-ADV6265:FM4-2501 iR-ADV6275:FM4-2517		"Main Controller PCB 1"(page 5-4).
PCB51	Main Controller PCB 2	Product configuration	FM4-2497		"Main Controller PCB 2"(page 5-5).

T-4-28


Upper High Voltage Unit
PCB32
PCB12
PCB10
PCB26
PCB11
PCB15
PCB54
PCB24
PCB23
PCB19
PCB20
Process Unit

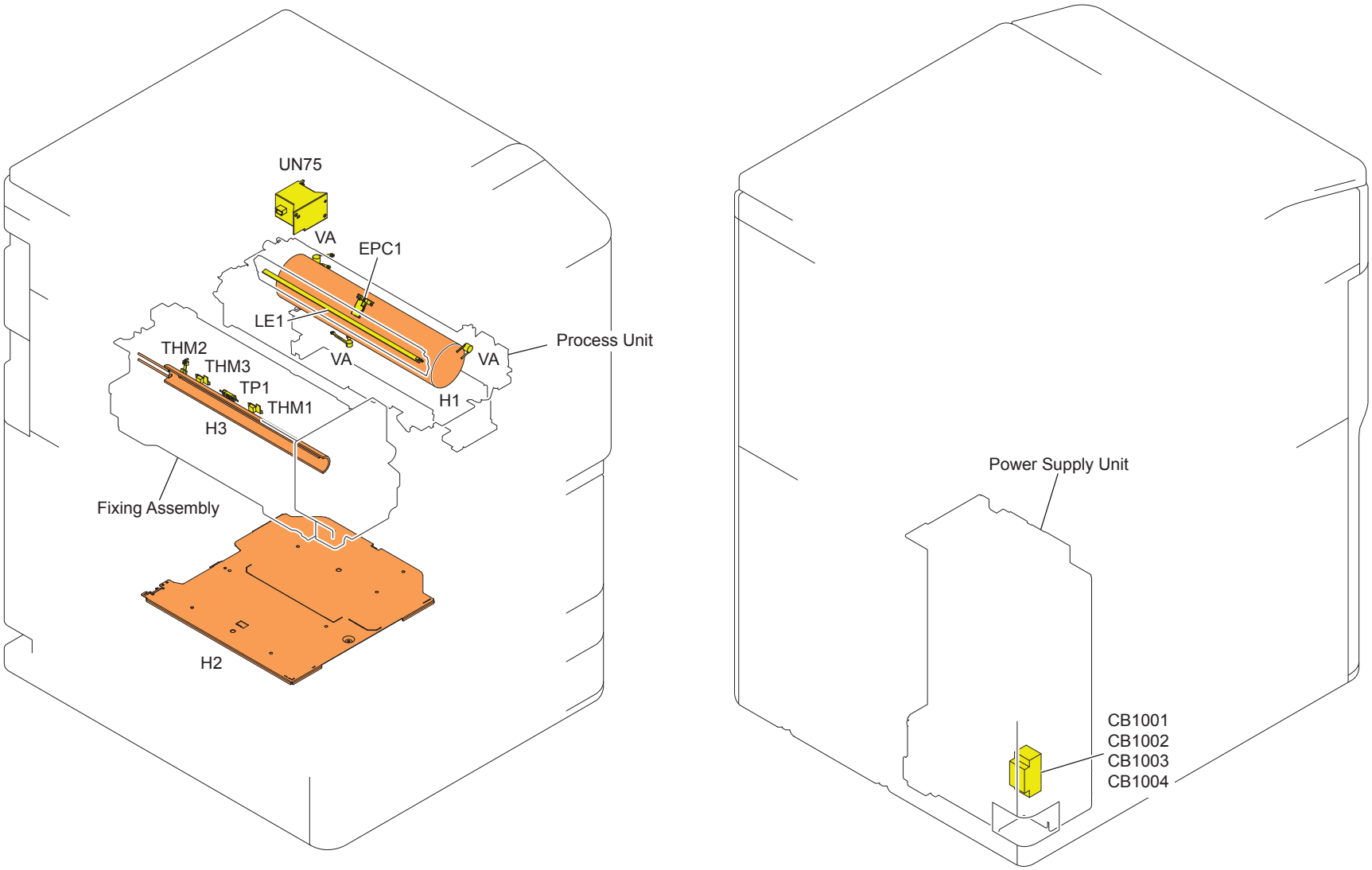

Laser Scanner Unit
PCB35
PCB36
Process Unit
PCB27(200V)
PCB28(100V)

F-4-29

No	Name	Main Unit	Service Parts No.	Adjustment during parts replacement	Refernce
PCB10	Fixing power Supply PCB (100V, 120V)	Product configuration	FM2-3648		
PCB10	Fixing power Supply PCB (230V)	Product configuration	FM4-1099		
PCB11	Primary Charging High Voltage PCB	Product configuration	FM4-1093		
PCB12	Developing High Voltage PCB	Product configuration	FM4-1094		
PCB15	Potential Sensor PCB	Product configuration	FM4-1096		"Potential Sensor / Potential Control PCB"(page 5-11).
PCB19	Primary Charging Contact A PCB	Product configuration	FM4-5148		
PCB20	Primary Charging Contact B PCB	Product configuration	FM4-1102		
PCB23	Pre-transfer Charging Contact A PCB	Product configuration	FM4-5148		
PCB24	Pre-transfer Charging Contact A PCB	Product configuration	FM4-1102		
PCB26	Pre-transfer Charging PCB	Product configuration	FM4-1106		
PCB27	Drum Heater Driver PCB(200V)	Product configuration	FM4-1107		
PCB28	Drum Heater Driver PCB(100V)	Product configuration	FM4-1108		
PCB32	Potential Control PCB	Product configuration	FM4-1096		"Potential Sensor / Potential Control PCB"(page 5-11).
PCB35	Laser Driver PCB	Product configuration	Laser Scanner Unit: FM3-7531		
PCB36	BD PCB	Product configuration	Laser Scanner Unit: FM3-7531		
PCB54	Drum Rom PCB	Product configuration	FM2-7734		

T-4-29

Heater,others



F-4-30

No	Name	Main Unit	Adjustment during parts replacement	Reference
H1	Drum Heater	Process Unit		
LE1	Pre-exposure LED	Process Unit		
H2	Multi Cassette Heater	Product configuration		
H3	Fixing Heater	Fixing Assembly		
TP1	Fixing Thermal Switch 1	Fixing Assembly		
THM1	Fixing Main Thermistor	Fixing Assembly		
THM2	Fixing Sub Thermistor 1	Fixing Assembly		
THM3	Fixing Sub Thermistor 2	Fixing Assembly		
EPC1	Potential Sensor	Process Unit		
CB1002	Leakage Breaker	Product configuration		
CB1003	Leakage Breaker	Product configuration		

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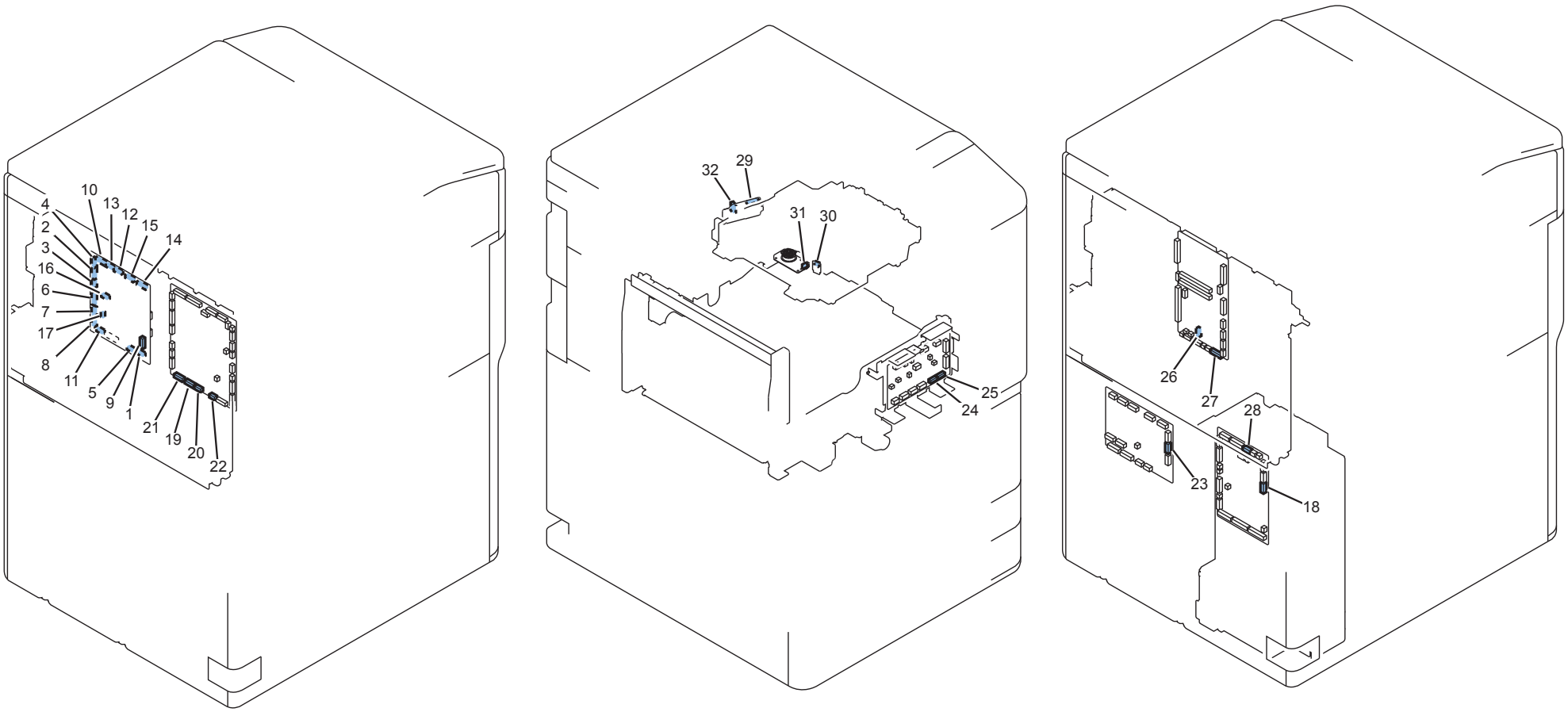
Connector List



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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J401	PCB1	DC Controller PCB									18	J518	PCB5	Relay PCB	
2	J411	PCB1	DC Controller PCB									19	J126	PCB2	Main Driver PCB	
3	J412	PCB1	DC Controller PCB									20	J125	PCB2	Main Driver PCB	
4	J413	PCB1	DC Controller PCB									21	J124	PCB2	Main Driver PCB	
5	J414	PCB1	DC Controller PCB									22	J128	PCB2	Main Driver PCB	
6	J421	PCB1	DC Controller PCB	J3017								23	J204	PCB3	Feed Driver PCB	
7	J431	PCB1	DC Controller PCB	J3002								24	J300	PCB4	Duplex Driver PCB	
8	J432	PCB1	DC Controller PCB	J3002								25	J301	PCB4	Duplex Driver PCB	
9	J441	PCB1	DC Controller PCB									26	J21	PCB51	Main Controller PCB 2	
10	J442	PCB1	DC Controller PCB									27	J22	PCB51	Main Controller PCB 2	
11	J451	PCB1	DC Controller PCB									28	J514	PCB5	Relay PCB	
12	J461	PCB1	DC Controller PCB	J3123	J9040							-	-	-	DECK LATTICE	
12	J461	PCB1	DC Controller PCB	J3130	J9040							-	-	-	DECK LATTICE	
13	J462	PCB1	DC Controller PCB	J3241	J9043							-	-	-	FINISHER LATTICE	
14	J471	PCB1	DC Controller PCB									29	J5100	PCB35	Laser Driver PCB	
15	J472	PCB1	DC Controller PCB	J3018	J3011							30	J403	PCB36	BD PCB	
15	J472	PCB1	DC Controller PCB	J3018	J3011							31	J2159	M44	Polygon Motor	
15	J472	PCB1	DC Controller PCB									32	J5101	PCB35	Laser Driver PCB	
16	J491	PCB1	DC Controller PCB	J2087								-	-	-	-	
17	J493	PCB1	DC Controller PCB	J2102								-	-	-	-	

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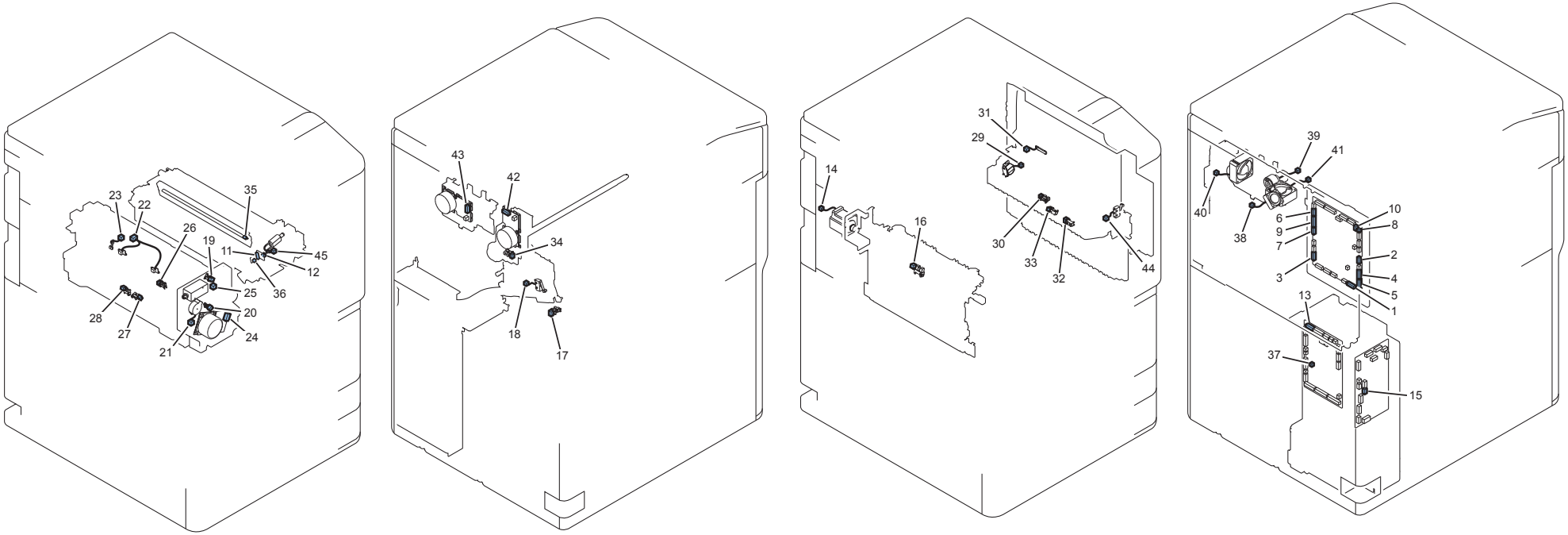
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J101	PCB2	Main Driver PCB									13	J515	PCB5	Relay PCB	
2	J102	PCB2	Main Driver PCB									14	J2009	M13	Delivery Motor	
3	J103	PCB2	Main Driver PCB	3174								15	J615	PCB6,7	AC Driver PCB	
3	J103	PCB2	Main Driver PCB	3251								16	J2136	PS36	Outer Delivery Sensor	
3	J103	PCB2	Main Driver PCB									17	J2140	PS96	Fixed Feed Lever Sensor	
3	J103	PCB2	Main Driver PCB									18	J3050	SW5	Waste Toner Lock Detection Switch	
4	J104	PCB2	Main Driver PCB	J3001	J3006							19	J2011	PS45	Fixing Cleaning Web Level Sensor	
4	J104	PCB2	Main Driver PCB	J3001	J3006							20	J2012	PS53	Fixing Shutter Home Position Sensor	
4	J104	PCB2	Main Driver PCB	3001	J3007							21	J2014	M15	Fixing Shutter Motor	
4	J104	PCB2	Main Driver PCB	3001								22	J2157	THM1	Fixing Main Thermistor	
4	J104	PCB2	Main Driver PCB	J3001								22	J2157	THM3	Fixing Sub Thermistor 2	
4	J104	PCB2	Main Driver PCB	J3001								23	J2158	THM2	Fixing Sub Thermistor 1	
5	J105	PCB2	Main Driver PCB	J3001	J3092			J3093				24	J1	M3	Fixing Motor	
5	J105	PCB2	Main Driver PCB	J3001	J3092			J3093				25	J2015	SL9	Fixing Cleaning Web Drive Solenoid	
5	J105	PCB2	Main Driver PCB	J3001	J3009							26	J2017	PS51	Fixing Inlet Sensor	
5	J105	PCB2	Main Driver PCB	J3001	J3094							27	J2018	PS52	Fixing Outlet Sensor	
5	J105	PCB2	Main Driver PCB	J3001	J3094							28	J2019	PS4	Fixing Toenail Jam Sensor	
6	J106	PCB2	Main Driver PCB	J3235	J3121							29	J2001	SL2	Multi-purpose Pickup Solenoid	
6	J106	PCB2	Main Driver PCB	J3235	J3121							30	J2002	PS23	Multi-purpose Tray Paper Sensor	
6	J106	PCB2	Main Driver PCB	J3235	J3121			J3122				31	J2003	UN13	Multi-purpose Tray Paper Width Sensor	
6	J106	PCB2	Main Driver PCB	J3235	J3121			J3101				32	J2005	PS24	Vertical Path Sensor1	
6	J106	PCB2	Main Driver PCB	J3235	J3121							33	J2053	PS28	Multi-purpose Tray Paper Last paper Sensor	
7	J107	PCB2	Main Driver PCB									34	J2137	PS61	Drum Home Position Sensor	
7	J107	PCB2	Main Driver PCB	J3177	J4060							35	J4141	LED03	LE1	
7	J107	PCB2	Main Driver PCB	J3177	J4060							36	J151	PCB19	Pre-tranfer Charging Contact A PCB	
8	J108	PCB2	Main Driver PCB									37	J522	PCB5	Relay PCB	
9	J109	PCB2	Main Driver PCB									38	J2004	FM33	Pre-transfer Charging Exhaust Fan	
9	J109	PCB2	Main Driver PCB									39	J2006	CL1	Developing Clutch	
9	J109	PCB2	Main Driver PCB									40	J2007	FM16	Laser Scanner Cooling Fan	
9	J109	PCB2	Main Driver PCB									41	J2008	FM17	Primary Charging Exhaust Fan	
9	J109	PCB2	Main Driver PCB									42	J2138	M1	Drum Motor	
9	J109	PCB2	Main Driver PCB									43	J2139	M2	Developing Motor	
10	J110	PCB2	Main Driver PCB	J3272	J3167							-	-	SW2	Front Door Open Detection Switch	
10	J110	PCB2	Main Driver PCB	J3272	J3167							44	J3253	SW6	Multi Door Switch	
11	J152	PCB19	Pre-tranfer Charging Contact A PCB									-	-	PCB20	Pre-tranfer Charging Contact B PCB	
12	J153	PCB20	Pre-tranfer Charging Contact B PCB									45	J4107	M6	Primary Charging Wire Cleaning Motor	

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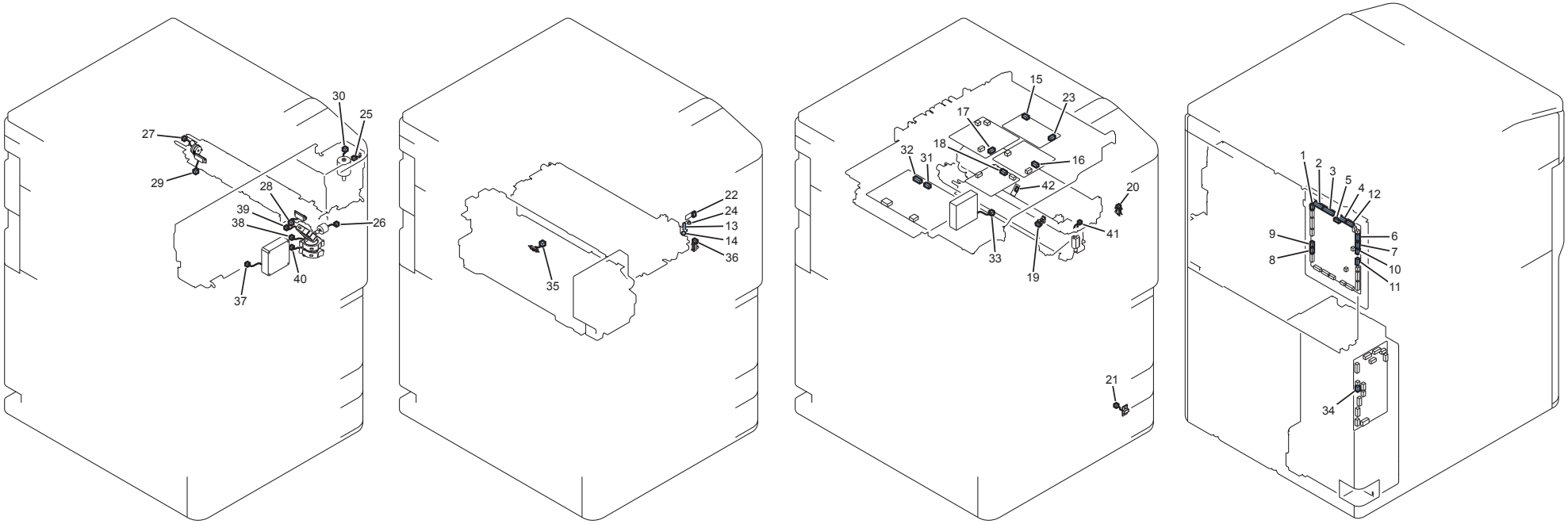
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J111	PCB2	Main Driver PCB	J3097								16	J3501	PCB11	Primary Charging High Voltage PCB	
2	J112	PCB2	Main Driver PCB	J3098								17	J3511	PCB12	Develop High Voltage PCB	
2	J112	PCB2	Main Driver PCB	J3098								18	J3544	PCB26	Pre-transfer Charging PCB	
3	J114	PCB2	Main Driver PCB	J3088	J3089							19	J2029	PS94	Primary Charging Shutter Sensor	
3	J114	PCB2	Main Driver PCB	J3088	J3089			J3252				20	J2132	PS3	Multi-purpose Cover Open/Close Sensor	
3	J114	PCB2	Main Driver PCB	J3088	J3089			J3047				21	J3048	THU1	Environment Sensor	
3	J114	PCB2	Main Driver PCB	J3088	J3055							22	J3510	PCB54	Drum ROM PCB	
3	J114	PCB2	Main Driver PCB	J3088	J3089			J2133				-	-	TS1	Developing Toner Sensor	
3	J114	PCB2	Main Driver PCB	J3088	J3089			J3168				23	J1	PCB32	Voltage Control PCB	
3	J114	PCB2	Main Driver PCB	J3088	J3089							24	J151	PCB23	Contact A PCB	
4	J115	PCB2	Main Driver PCB	J3091	J3090			J3106				25	J2034	PS54	Toner Exchange Cover Sensor	
4	J115	PCB2	Main Driver PCB	J3091	J3090			J3124				26	J2035	M28	Toner Feed Motor	
4	J115	PCB2	Main Driver PCB	J3091	J3090			J3124				27	J2036	CL5	Magnet Roller Clutch	
4	J115	PCB2	Main Driver PCB	J3091	J3090			J3124				28	J2038	TS2	Toner Excess Supply Sensor	
4	J115	PCB2	Main Driver PCB	J3091	J3090			J3124				29	J2039	TS3	Buffer Toner Sensor	
5	J117	PCB2	Main Driver PCB	J3063	J3080							30	J2037	M10	Toner Supply Motor	
6	J118	PCB2	Main Driver PCB	J3172								31	J104	PCB10	Fixing Power Supply PCB	
7	J119	PCB2	Main Driver PCB	J3111								32	J103	PCB10	Fixing Power Supply PCB	
7	J119	PCB2	Main Driver PCB	J3111								33	J2130	FM7	Fixing Power Supply Cooling Fan	
8	J122	PCB2	Main Driver PCB	J9058								-	-	-	Shift Tray-E1	
9	J123	PCB2	Main Driver PCB	J9059								-	-	-	Shift Tray-E1	
10	J127	PCB2	Main Driver PCB	J3176								34	J614	PCB6,7	AC Driver PCB	
11	J129	PCB2	Main Driver PCB	J3231	J3001							35	J2156	TP1	Thermal Switch1	
12	J130	PCB2	Main Driver PCB	J3066	J3067			J3215				36	J2114	PS95	Pre-transfer Charging Shutter Sensor	
12	J130	PCB2	Main Driver PCB	J3066	J3067			J3215				37	J2131	FM2	Primary Charging Suction Fan	
12	J130	PCB2	Main Driver PCB	J3066	J3067			J3215				38	J2170	FM30	Developer Lower Cooling Fan	
12	J130	PCB2	Main Driver PCB	J3066	J3067			J3215				39	J2171	FM31	Developer Upper Cooling Fan	
12	J130	PCB2	Main Driver PCB	J3066	J3067			J3215				40	J2177	FM32	Pre-transfer Charging Assembly Air Supply Fan	
13	J152	PCB23	Pre-tranfer Charging Contact A PCB									-	-	PCB24	Contact B PCB	
14	J153	PCB24	Pre-tranfer Charging Contact B PCB									41	J3108	M7	Pre-transfer Charging Wire Cleaning Motor	
15	J3	PCB32	Voltage Control PCB	J3169	J3170							42	J3172	PCB15	Voltage Sensor PCB	

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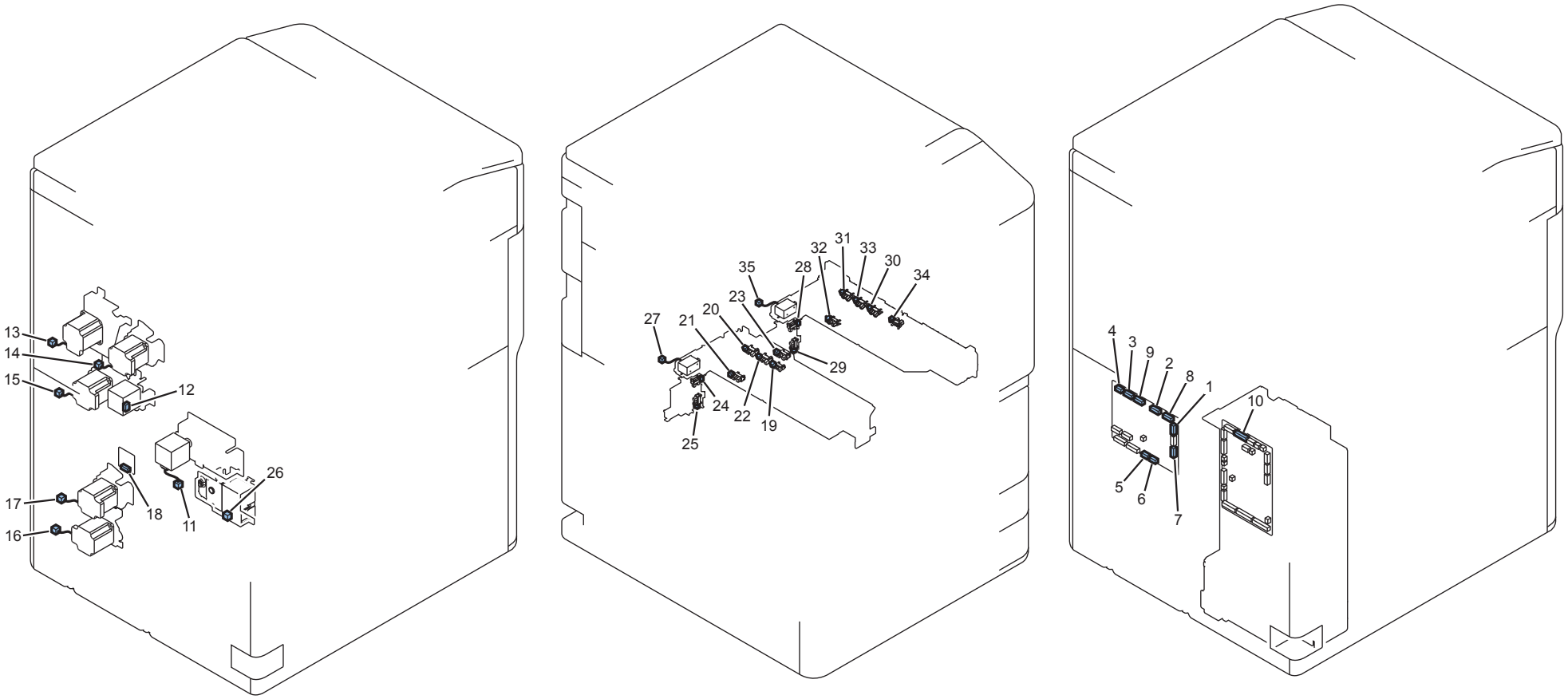
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J201	PCB3	Feed Driver PCB									10	J516	PCB5	Relay PCB	
2	J211	PCB3	Feed Driver PCB									11	J2050	M24	Left Deck Pickup Motor	
2	J211	PCB3	Feed Driver PCB									12	J2071	M11	Right Deck Pickup Motor	
3	J212	PCB3	Feed Driver PCB									13	J2146	M33	Multi-purposeTray Registration Front Motor	
3	J212	PCB3	Feed Driver PCB									14	J2147	M26	Vertical Path Upper Motor	
4	J213	PCB3	Feed Driver PCB									15	J2076	M31	Vertical Path Middle Motor	
5	J214	PCB3	Feed Driver PCB									16	J2097	M12	Cassette3.4 Pickup Motor	
6	J215	PCB3	Feed Driver PCB									17	J2077	M27	Vertical Path Lower Motor	
7	J218	PCB3	Feed Driver PCB									18	J100	PCB8	DC-DC Converter PCB	
8	J221	PCB3	Feed Driver PCB	J3634								19	J2042	PS20	Left Deck Pickup Sensor 1	
8	J221	PCB3	Feed Driver PCB	J3634								20	J2043	PS12	Left Deck Paper Height Sensor	
8	J221	PCB3	Feed Driver PCB	J3634								21	J2044	PS11	Left Deck Paper Sensor	
8	J221	PCB3	Feed Driver PCB	J3634								22	J2045	PS10	Left Deck Paper Height Sensor	
8	J221	PCB3	Feed Driver PCB	J3634								23	J2046	PS33	Left Deck Pull Out Sensor	
8	J221	PCB3	Feed Driver PCB	J3132								24	J2048	PS49	Left Deck Paper Level Sensor 1	
8	J221	PCB3	Feed Driver PCB	J3132								25	J2049	PS50	Left Deck Paper Level Sensor 2	
8	J221	PCB3	Feed Driver PCB									26	J2051	M5	Left Deck Lifter Motor	
8	J221	PCB3	Feed Driver PCB	J3634								27	J2052	SL7	Left Deck Pickup Solenoid	
8	J221	PCB3	Feed Driver PCB	J3028								28	J2148	PS47	Right Deck Paper Level Sensor 1	
8	J221	PCB3	Feed Driver PCB	J3028								29	J2149	PS48	Right Deck Paper Level Sensor 2	
9	J222	PCB3	Feed Driver PCB	J3633								30	J2060	PS19	Right Deck Pickup Sensor 1	
9	J222	PCB3	Feed Driver PCB	J3633								31	J2061	PS8	Right Deck Upper Limit Sensor	
9	J222	PCB3	Feed Driver PCB	J3633								32	J2062	PS7	Right Deck Paper Sensor	
9	J222	PCB3	Feed Driver PCB	J3633								33	J2063	PS6	Right Deck Paper Height Sensor	
9	J222	PCB3	Feed Driver PCB	J3633								34	J2064	PS32	Right Deck Pull Out Sensor	
9	J222	PCB3	Feed Driver PCB	J3633								35	J2070	SL6	Right Deck Pickup Solenoid	

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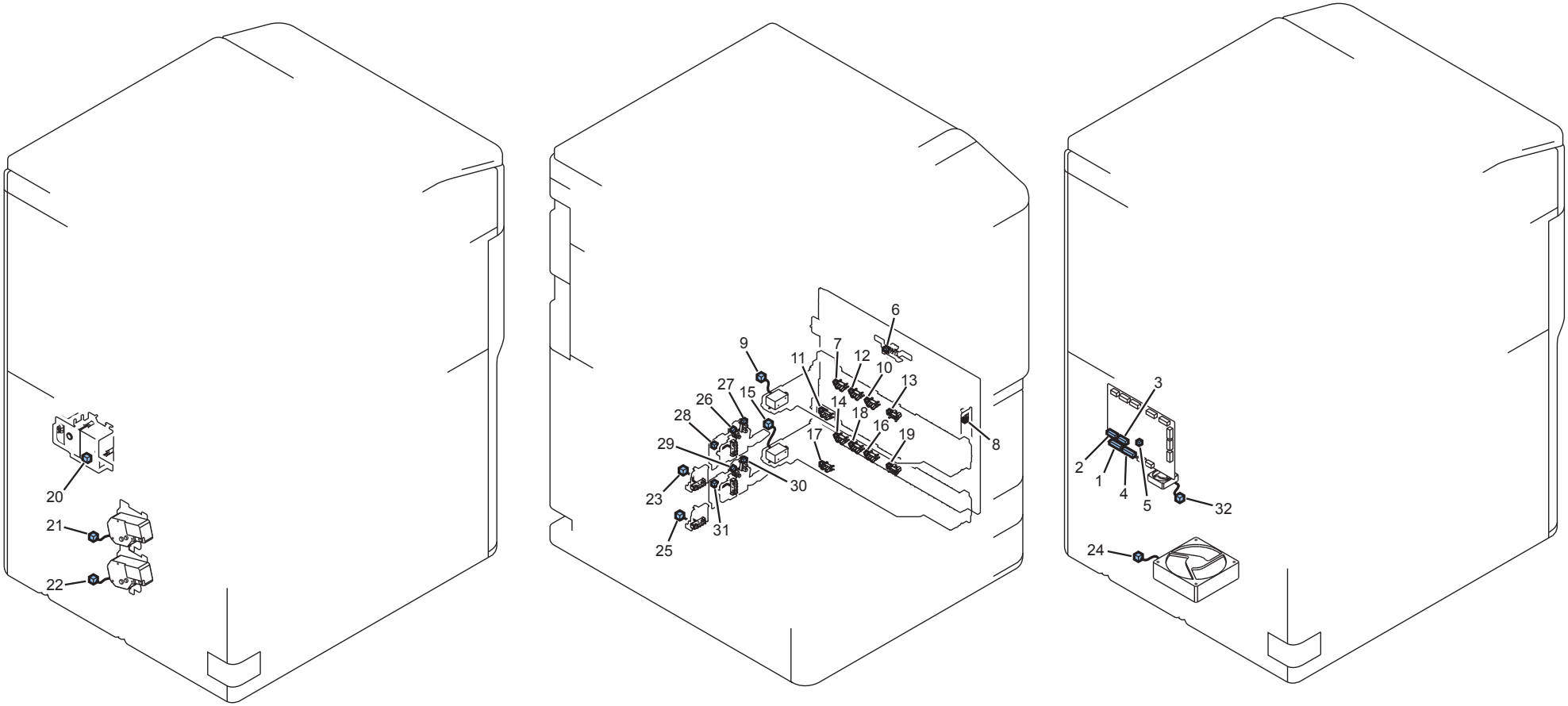
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J223	PCB3	Feed Driver PCB	J3128								6	J2054	PS25	Vertical Path Sensor2	
1	J223	PCB3	Feed Driver PCB	J3635								7	J2055	PS68	Cassette 3 Upper Limit Sensor	
1	J223	PCB3	Feed Driver PCB	J3128								8	J2066	PS2	Vertical Path Cover Open/Close Sensor	
1	J223	PCB3	Feed Driver PCB	J3635								9	J2073	SL3	Cassette 3 Pickup Solenoid	
1	J223	PCB3	Feed Driver PCB	J3635								10	J2078	PS21	Cassette 3 Pickup Sensor 1	
1	J223	PCB3	Feed Driver PCB	J3635								11	J2079	PS13	Cassette 3 Paper Sensor	
1	J223	PCB3	Feed Driver PCB	J3635								12	J2080	PS17	Cassette 3 Paper Height Sensor	
1	J223	PCB3	Feed Driver PCB	J3635								13	J2081	PS26	Vertical Path Sensor3	
2	J224	PCB3	Feed Driver PCB	J3636								14	J2056	PS71	Cassette 4 Upper Limit Sensor	
2	J224	PCB3	Feed Driver PCB	J3636								15	J2075	SL4	Cassette 4 Pickup Solenoid	
2	J224	PCB3	Feed Driver PCB	J3636								16	J2089	PS22	Cassette 4 Pickup Sensor 1	
2	J224	PCB3	Feed Driver PCB	J3636								17	J2090	PS14	Cassette 4 Paper Sensor	
2	J224	PCB3	Feed Driver PCB	J3636								18	J2091	PS18	Cassette 4 Paper Height Sensor	
2	J224	PCB3	Feed Driver PCB	J3636								19	J2092	PS27	Vertical Path Sensor4	
3	J225	PCB3	Feed Driver PCB									20	J2069	M4	Right Deck Lifter Motor	
3	J225	PCB3	Feed Driver PCB									21	J2072	M20	Cassette3 Lifter Motor	
3	J225	PCB3	Feed Driver PCB									22	J2074	M21	Cassette4 Lifter Motor	
3	J225	PCB3	Feed Driver PCB	J3031								23	J2085	SW9	Cassette 3 Paper Length Detection Switch	
3	J225	PCB3	Feed Driver PCB	J3008								24	J2088	FM3	Making Image Exhaust Fan	
3	J225	PCB3	Feed Driver PCB	J3031								25	J2096	SW10	Cassette 4 Paper Length Detection Switch	
4	J226	PCB3	Feed Driver PCB	J3273								26	J2082	PS69	Cassette 3 Paper Level Sensor 1	
4	J226	PCB3	Feed Driver PCB	J3273								27	J2083	PS70	Cassette 3 Paper Level Sensor 2	
4	J226	PCB3	Feed Driver PCB	J3273								28	J2084	SW7	Cassette 3 Paper Width Detection Switch	
4	J226	PCB3	Feed Driver PCB	J3033								29	J2093	PS72	Cassette 4 Paper Level Sensor 1	
4	J226	PCB3	Feed Driver PCB	J3033								30	J2094	PS73	Cassette 4 Paper Level Sensor 2	
4	J226	PCB3	Feed Driver PCB	J3033								31	J2095	SW8	Cassette 4 Paper Width Detection Switch	
5	J227	PCB3	Feed Driver PCB									32	J2168	FM40	Feed Driver Cooling Fan	

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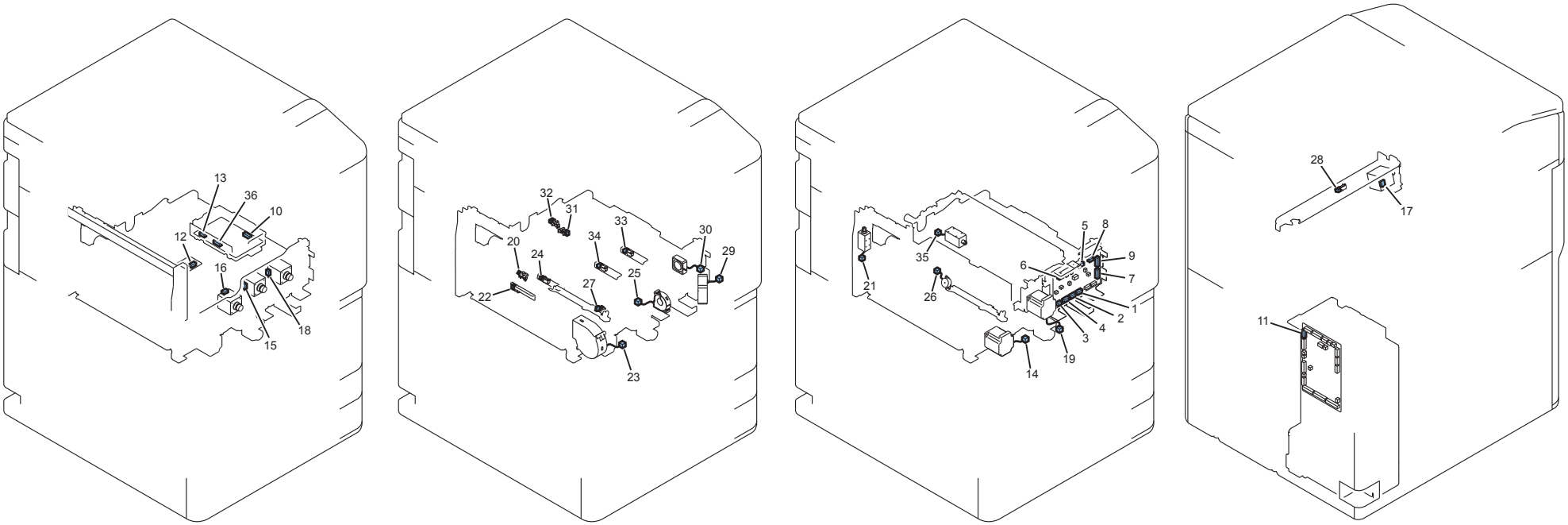
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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J310	PCB4	Duplex Driver PCB	J3233	J3002							11	J517	PCB5	Relay PCB	
2	J311	PCB4	Duplex Driver PCB									12	J100	PCB9	DC-DC Converter PCB	
2	J311	PCB4	Duplex Driver PCB									13	J3061	PCB13	Transfer High Voltage PCB	
3	J330	PCB4	Duplex Driver PCB									14	J2167	M14	Reverse Motor	
4	J331	PCB4	Duplex Driver PCB									15	J2108	M32	Duplex Feed Merging Motor	
4	J331	PCB4	Duplex Driver PCB									16	J2111	M19	Duplex Feed Left Motor	
5	J332	PCB4	Duplex Driver PCB	J3042								17	J2098	M34	Registration Motor	
5	J332	PCB4	Duplex Driver PCB									18	J2109	M18	Duplex Feed Right Motor	
6	J333	PCB4	Duplex Driver PCB									19	J2107	M43	ETB Motor	
7	J340	PCB4	Duplex Driver PCB	J3236	J3243							20	J2113	PS35	Inner Delivery Sensor	
7	J340	PCB4	Duplex Driver PCB									21	J2115	SL5	Reverse Upper Flapper Solenoid	
7	J340	PCB4	Duplex Driver PCB	J3236								22	J2117	PS65	Reverse Vertical Path Sensor	
7	J340	PCB4	Duplex Driver PCB									23	J2118	FM5	Paper Cooling Fan	
7	J340	PCB4	Duplex Driver PCB									24	J2120	PS66	Duplex Left Sensor	
7	J340	PCB4	Duplex Driver PCB	J2121	J3020			J3021				25	J2121	FM8	Transfer Cleaner Cooling Fan	
7	J340	PCB4	Duplex Driver PCB	J3242								26	J2124	M16	Side Registration Motor	
7	J340	PCB4	Duplex Driver PCB	J3242								27	J2125	PS31	Side Registration Sensor	
8	J342	PCB4	Duplex Driver PCB	J3263								28	J2116	PS29	Registration Sensor	
8	J342	PCB4	Duplex Driver PCB									29	J2144	FM41	Duplex Driver Cooling Fan	
8	J342	PCB4	Duplex Driver PCB									30	J2145	FM42	Registration Motor/Duplex Motor Cooling Fan	
9	J343	PCB4	Duplex Driver PCB	J3270								31	J2100	PS55	ETB Engage Sensor	
9	J343	PCB4	Duplex Driver PCB	J3270								32	J2101	PS56	ETB Disengage Sensor	
9	J343	PCB4	Duplex Driver PCB	J3265								33	J2104	PS64	Duplex Outlet Sensor	
9	J343	PCB4	Duplex Driver PCB	J3269								34	J2105	PS67	Duplex Merging Sensor	
9	J343	PCB4	Duplex Driver PCB	J3270								35	J2106	SL11	Left Deck Merging Solenoid	
9	J343	PCB4	Duplex Driver PCB									36	J3062	PCB13	Transfer High Voltage PCB	
10	J3063	PCB13	Transfer High Voltage PCB	J3306								-	-	PCB34	Transfer High Voltage Resistance PCB	

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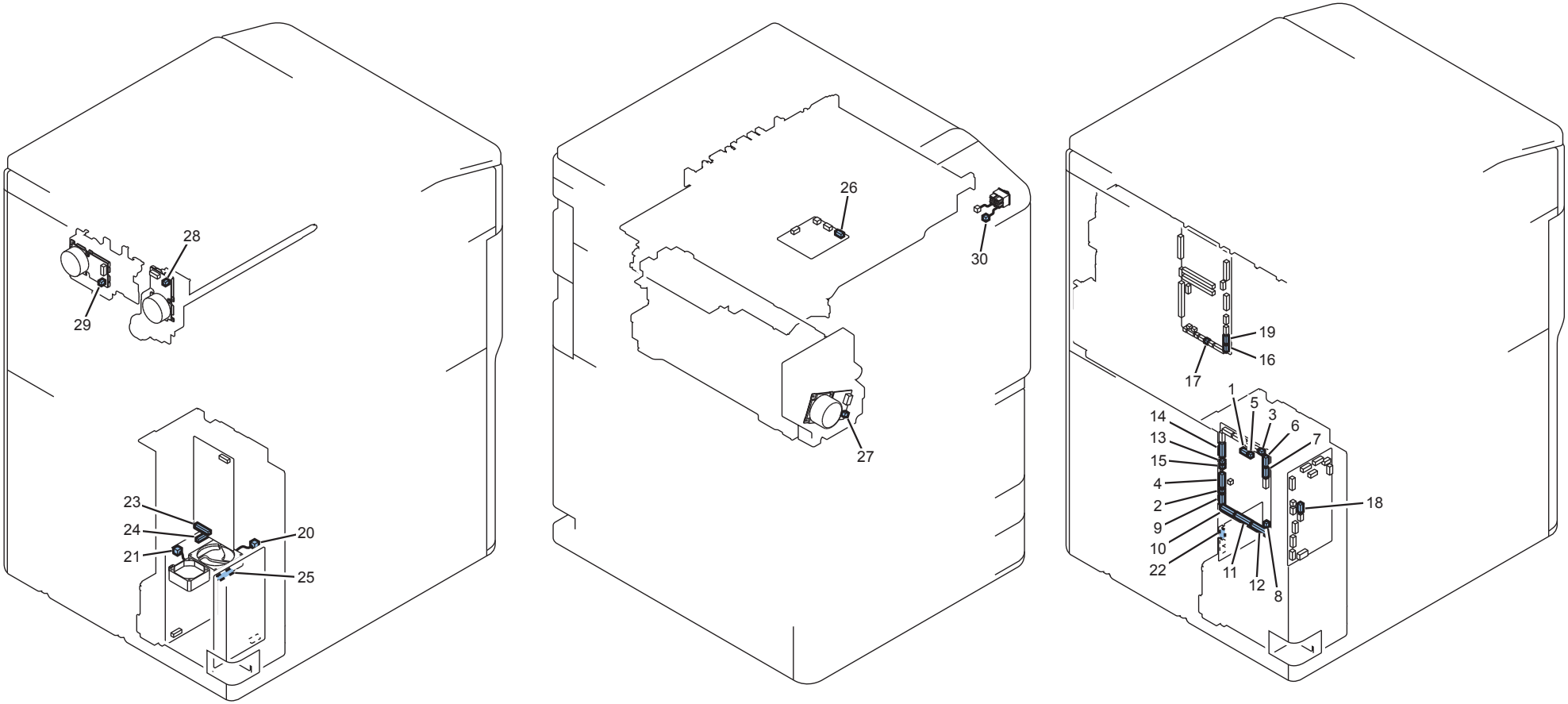
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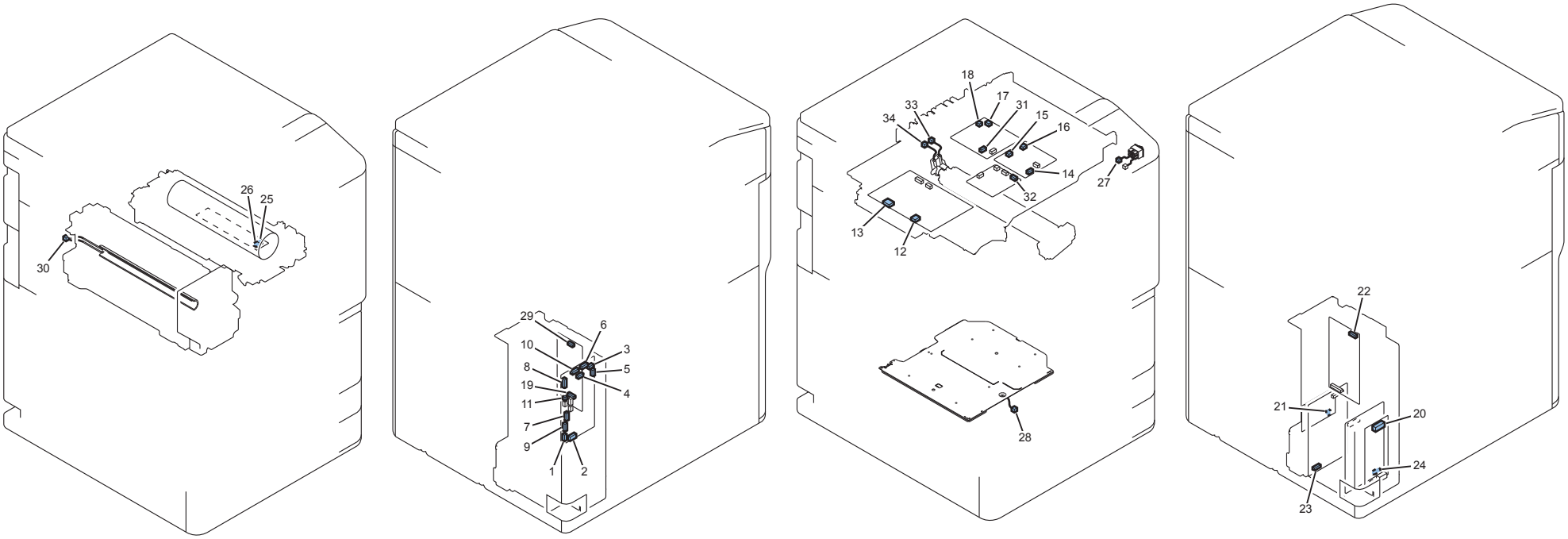
KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J501	PCB5	Relay PCB									16	J5	PCB51	Main Controller PCB 2	
2	J502	PCB5	Relay PCB	J3237	J9040							-	-	-	DECK LATTICE	
3	J503	PCB5	Relay PCB	J709								-	-	-	USB Device Port-A1	
4	J505	PCB5	Relay PCB	J3118	J9024							-	-	-	READER LATTICE	
4	J505	PCB5	Relay PCB	J3238	J9043							-	-	-	FINISHER LATTICE	
5	J506	PCB5	Relay PCB									17	J23	PCB51	Main Controller PCB 2	
6	J507	PCB5	Relay PCB									18	J611	PCB6,7	AC Driver PCB	
7	J508	PCB5	Relay PCB									19	J4	PCB51	Main Controller PCB 2	
8	J509	PCB5	Relay PCB	J3224								20	J2134	FM14	Power Supply Cooling Fan 1	
8	J509	PCB5	Relay PCB									21	J2154	FM15	Power Supply Cooling Fan 2	
9	J510	PCB5	Relay PCB									22	J691	PCB33	All-night Power Supply PCB	
10	J511	PCB5	Relay PCB									23	J201	PCB29	DC Power Supply PCB	
11	J512	PCB5	Relay PCB									24	J202	PCB30	DC Power Supply PCB	
12	J513	PCB5	Relay PCB									25	J202	PCB31	DC Power Supply PCB	
13	J519	PCB5	Relay PCB	J3099								26	J3545	PCB26	Pre-transfer Charging PCB	
14	J520	PCB5	Relay PCB	J3218	J3001			J3095	J3096			27	J2	M3	Fixing Motor	
14	J520	PCB5	Relay PCB	J3102								28	J2151	M1	Drum Motor	
14	J520	PCB5	Relay PCB	J3102								29	J2152	M2	Developing Motor	
15	J523	PCB5	Relay PCB									30	J3637	SW1	Power ON Switch	

T-4-37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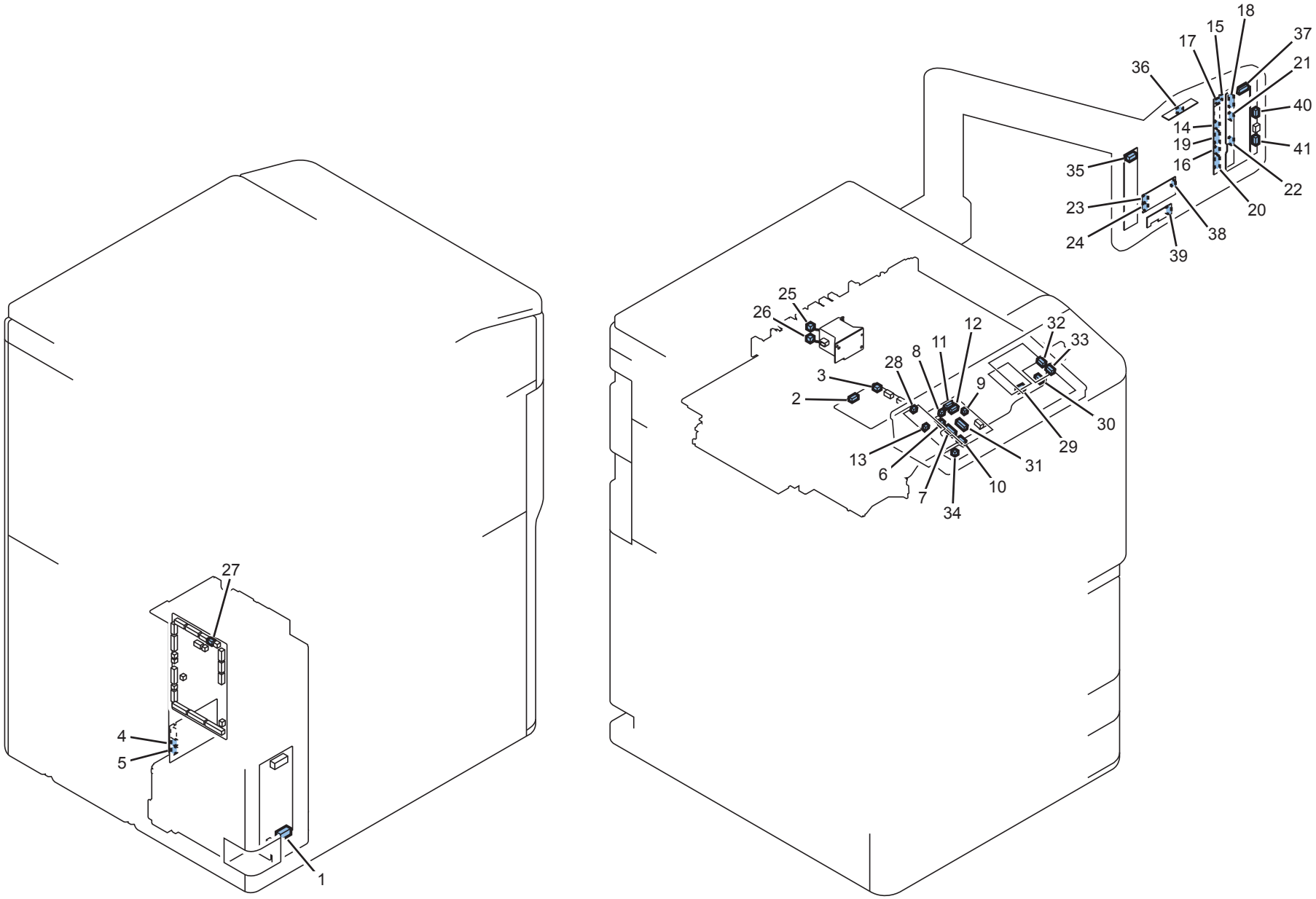
KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J601	PCB6,7	AC Driver PCB									19	J1	PCB25	Choke Coil PCB	
2	J602	PCB6,7	AC Driver PCB									20	J802	PCB17,18	Noise Filter	
3	J603	PCB6,7	AC Driver PCB									21	J681	PCB33	All-night Power Supply PCB	
4	J604	PCB6,7	AC Driver PCB	9020								-	-	-	Paper Deck Unit-A1	
4	J604	PCB6,7	AC Driver PCB	9020								-	-	-	Paper Deck Unit-D1	
5	J605	PCB6,7	AC Driver PCB									22	J101	PCB29	DC Power Supply PCB	
6	J606	PCB6,7	AC Driver PCB									23	J102	PCB30	DC Power Supply PCB	
6	J606	PCB6,7	AC Driver PCB									24	J102	PCB31	DC Power Supply PCB	
7	J607	PCB6,7	AC Driver PCB									-	-	SW3	Environment Switch	
7	J607	PCB6,7	AC Driver PCB									-	-	SW4	Cassette Heater Switch	
8	J608	PCB6,7	AC Driver PCB	J3173	J3119			J9024				-	-	-	READER LATTICE	
8	J608	PCB6,7	AC Driver PCB	J3173	J3115			J3116	J4060			25	J2001	PCB27,28	Drum Heater Driver PCB	
8	J608	PCB6,7	AC Driver PCB	J3173	J3115			J3116	J4060			26	J2002	PCB27,28	Drum Heater Driver PCB	
9	J609	PCB6,7	AC Driver PCB	J3549								27	J3273	SW1	Power ON Switch	
10	J610	PCB6,7	AC Driver PCB	J9019								28	J220	H2	Multi Cassette Heater	
11	J613	PCB6,7	AC Driver PCB	J3174	J3638			J9043				-	-	-	FINISHER LATTICE	
12	J101	PCB10	Fixing Power Supply PCB	J3639								29	J2	PCB25	Choke Coil PCB	
13	J107	PCB10	Fixing Power Supply PCB									30	J9005	H3	Fixing Heater	
14	J3500	PCB11	Primary Charging High Voltage PCB									31	J3510	PCB12	Develop High Voltage PCB	
14	J3500	PCB11	Primary Charging High Voltage PCB									32	J3545	PCB26	Pre-transfer Charging PCB	
15	J3502	PCB11	Primary Charging High Voltage PCB									33	J3214	-	High Voltage Connector	
16	J3503	PCB11	Primary Charging High Voltage PCB									34	J3003	-	High Voltage Connector	
17	J3512	PCB12	Develop High Voltage PCB	J3221								-	-	-	-	
17	J3512	PCB12	Develop High Voltage PCB	J3222								-	-	-	-	
18	J3513	PCB12	Develop High Voltage PCB	J3217								-	-	-	-	

T-4-38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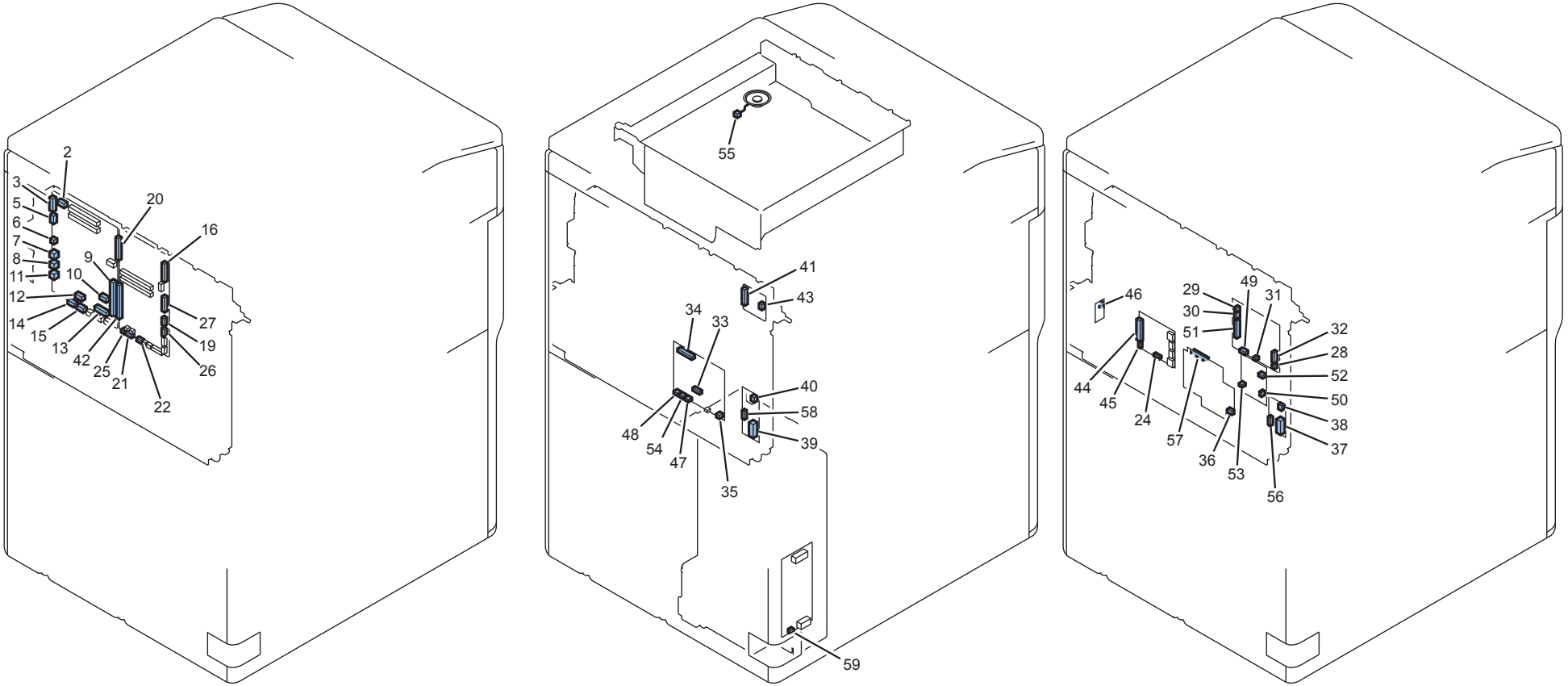
F-4-39

KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector								KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	J801	PCB17,18	Noise Filter									-	-	CB1001	Leakage Breaker	
1	J801	PCB17,18	Noise Filter									-	-	CB1002	Leakage Breaker	
1	J801	PCB17,18	Noise Filter									-	-	CB1003	Leakage Breaker	
1	J801	PCB17,18	Noise Filter									-	-	CB1004	Leakage Breaker	
2	J3547	PCB26	Pre-transfer Charging PCB	J3004	J3129							25	J9001	UN75	Post Charging Trance	
3	J3548	PCB26	Pre-transfer Charging PCB									26	J3005	UN75	Post Charging Trance	
4	J692	PCB33	All-night Power Supply PCB									-	-	-	-	
5	J693	PCB33	All-night Power Supply PCB									-	-	-	-	
6	J776	UN111	CPU PCB	3225								27	J504	PCB5	Relay PCB	
7	J1003	UN111	CPU PCB									28	J4001	UN112	Sub Key PCB	
7	J1003	UN111	CPU PCB									29	J6001	UN114	Inverter PCB	
8	J1005	UN111	CPU PCB									-	-	-	Transparent touch panel	
9	J1006	UN111	CPU PCB									30	J2002	UN109	Hub PCB	
10	J1007	UN111	CPU PCB									31	J1	-	LCD	
11	J1008	UN111	CPU PCB									32	J3002	UN110	Ten Key PCB	
12	J1009	UN111	CPU PCB									33	J3001	UN110	Ten Key PCB	
13	J4002	UN112	Sub Key PCB									34	J5001	UN113	Volume PCB	
14	J1	UN117	CPU PCB	J3225								27	J504	PCB5	Relay PCB	
15	J2	UN117	CPU PCB									35	J1	UN118	Sub Key PCB	
15	J2	UN117	CPU PCB									36	J1	UN121	TALLY PCB	
16	J3	UN117	CPU PCB									-	-	-	Transparent touch panel	
17	J4	UN117	CPU PCB									-	-	-	-	
18	J5	UN117	CPU PCB									37	J1	UN116	Ten Key PCB	
19	J7	UN117	CPU PCB									-	-	-	Transparent touch panel	
20	J8	UN117	CPU PCB									38	J1	UN120	Inverter PCB	
20	J8	UN117	CPU PCB									39	J1	UN119	Volume PCB	
21	J9	UN117	CPU PCB									40	J1	UN115	Hub PCB	
22	J10	UN117	CPU PCB									41	J2	UN115	Hub PCB	
23	J2	UN120	Inverter PCB									-	-	-	Transparent touch panel	
24	J3	UN120	Inverter PCB									-	-	-	Transparent touch panel	

T-4-39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KeyNo.	J No.	Symbol	Parts Name	Intermediate Connector						KeyNo.	J No.	Symbol	Parts Name	REMARKS
2	J13	PCB50	Main Controller PCB 1							-	-	-	Voice Guidance Kit-F2	
3	J6	PCB50	Main Controller PCB 1							-	-	-	USB Device Port-A2	
5	J4	PCB50	Main Controller PCB 1							-	-	-	Control panel	
6	J15	PCB50	Main Controller PCB 1							-	-	FM4	Main Controller Cooling Fan	
7	J7	PCB50	Main Controller PCB 1							-	-	-	LAN	
8	J3	PCB50	Main Controller PCB 1							-	-	-	USB(D)	
9	J17	PCB50	Main Controller PCB 1							42	J2	PCB51	Main Controller PCB 2	
10	J11	PCB50	Main Controller PCB 1							-	-	-	Flash PCB	
11	J5	PCB50	Main Controller PCB 1							-	-	-	USB(H)	
12	J8	PCB50	Main Controller PCB 1							-	-	-	TPM PCB	
13	J1025	PCB50	Main Controller PCB 1							-	-	-	Not used	
14	J21	PCB50	Main Controller PCB 1							-	-	-	Copy Control Interface Kit-A1	
15	J20	PCB50	Main Controller PCB 1							-	-	-	Card reader or Serial interface kit or Coin manager	
16	J1	PCB51	Main Controller PCB 2							43	J1	PCB52	Channel Link PCB	
19	J14	PCB51	Main Controller PCB 2							-	-	-	Memory PCB	
20	J2017	PCB51	Main Controller PCB 2							-	-	-	Image Data Analyzer Board-B1	
21	J12	PCB51	Main Controller PCB 2							44	J1	-	HDD Mirroring Kit-G1 or HDD Data Encryption & MirroringKit-C5	
22	J2024	PCB51	Main Controller PCB 2							44	J1	-	HDD Mirroring Kit-G1 or HDD Data Encryption & MirroringKit-C5	
24	J6	-	HDD Mirroring Kit-G1 or HDD Data Encryption & MirroringKit-C5							46	J2	-	LED PCB	
25	J19	PCB51	Main Controller PCB 2							47	J403	-	Super G3 2nd Line Fax Board-AL1	
26	J20	PCB51	Main Controller PCB 2							48	J5	-	Super G3 2nd Line Fax Board-AL1	
26	J20	PCB51	Main Controller PCB 2							49	J2	-	Super G3 FAX Board-AL1	
26	J20	PCB51	Main Controller PCB 2							50	J2	-	Pseudo CI PCB/Off-hook Power Supply PCB	
27	J2083	PCB51	Main Controller PCB 2							51	J1	-	Super G3 FAX Board-AL1	
28	J4	-	Super G3 FAX Board-AL1							52	J3	-	Pseudo CI PCB/Off-hook Power Supply PCB	
29	J5	-	Super G3 FAX Board-AL1							53	J1	-	Pseudo CI PCB/Off-hook Power Supply PCB	
30	J6	-	Super G3 FAX Board-AL1							54	J8	-	Super G3 2nd Line Fax Board-AL1	
31	J7	-	Super G3 FAX Board-AL1	J3141	J3140					55	J751	-	Speaker	
32	J3	-	Super G3 FAX Board-AL1							56	J4	-	Modular PCB (1 line)	
33	J1	-	Super G3 2nd Line Fax Board-AL1							-	-	-	-	
34	J3	-	Super G3 2nd Line Fax Board-AL1							57	J1	-	Super G3 3rd/4th Line Fax Board-AL1	
35	J4	-	Super G3 2nd Line Fax Board-AL1							58	J4	-	Modular PCB (2 to 4 lines)	
36	J2	-	Super G3 3rd/4th Line Fax Board-AL1							58	J4	-	Modular PCB (2 to 4 lines)	
37	J1	-	Modular PCB (1 line)							-	-	-	-	
38	J7	-	Modular PCB (1 line)	J3012						59	J803	PCB17,18	Noise Filter	
39	J1	-	Modular PCB (2 to 4 lines)							-	-	-	-	
40	J2	-	Modular PCB (2 to 4 lines)	J3012						59	J803	PCB17,18	Noise Filter	

T-4-40

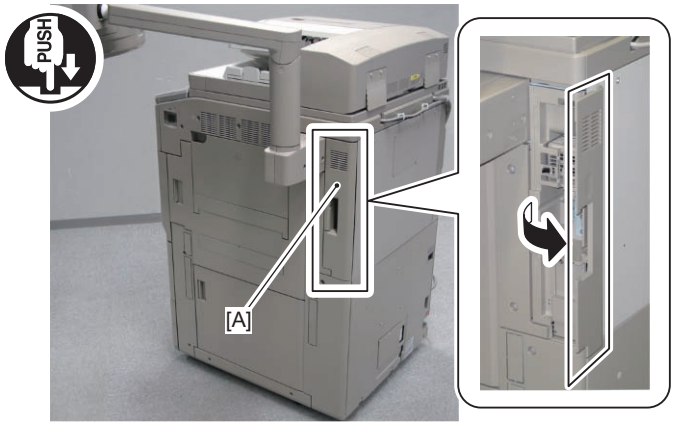
Main Controller

Removing Main Controller PCB 1

<Preparation>

1. Remove the Box Cover (Right).

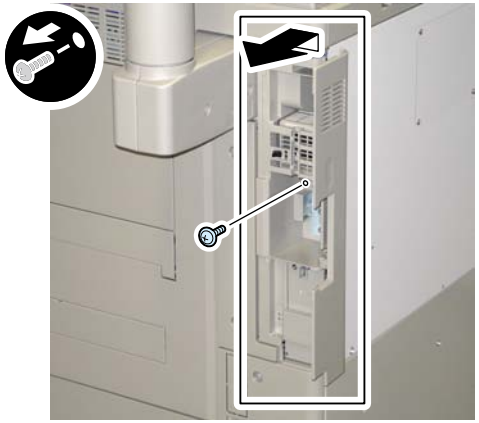
1-1) Push [A] part to open the HDD Cover.



F-4-41

1-2) Remove the Main Controller Right Cover Unit.

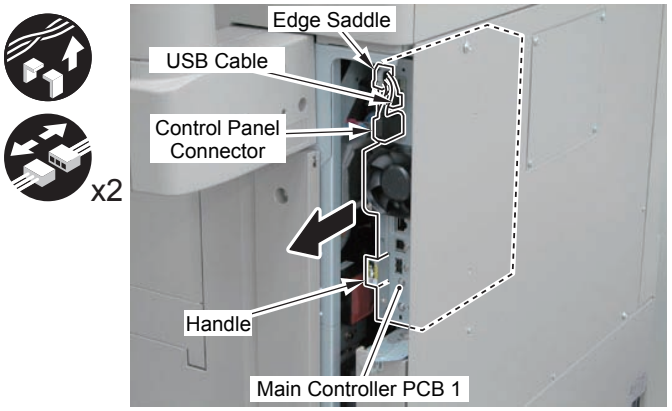
- 1 Screw



F-4-42

<Procedure>

1) Route the removed cable to the open space and remove the Main Controller PCB 1.



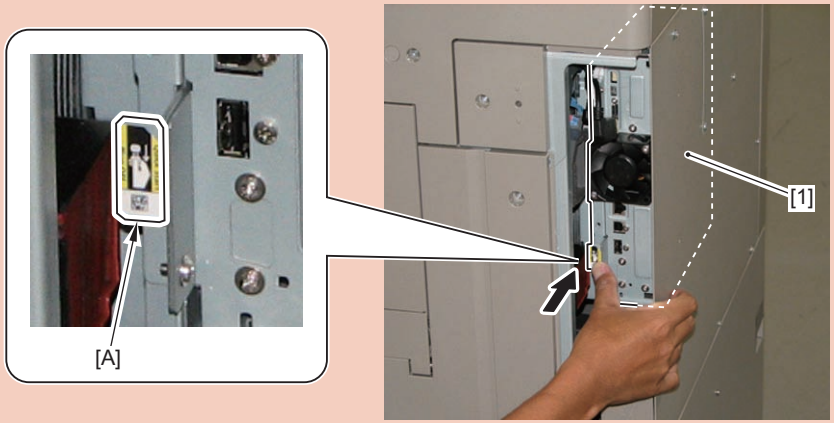
F-4-43

CAUTION:

Points to Note when Inserting the Main Controller PCB 1

Be sure to push the handle in horizontally.

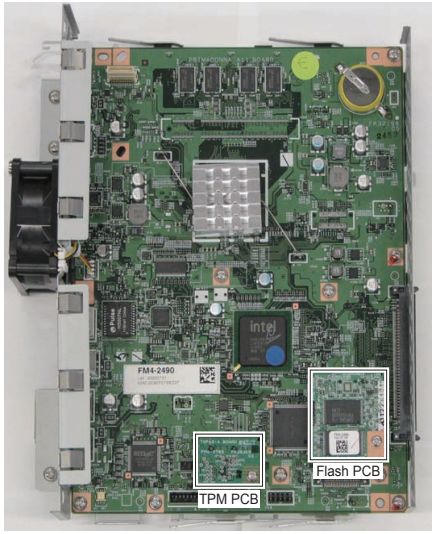
If pushing any part other than the handle, the Main Controller PCB 1 may not be inserted horizontally. In such case, note that connector connection error (or damage of connector) or deformation of plate may occur.



F-4-44

3) Remove the Flash PCB and the TPM PCB.

- 2 Screws



F-4-45

<Actions after Parts Replacement>

1. Install the following parts removed from the old PCB to the new PCB.

- Flash PCB
- TPM PCB

NOTE:
It is not necessary to reconfigure/register the data after replacing the Main Controller PCB 1.

Removing Main Controller PCB 2

<Processing before replacing the parts>

Be sure to gain agreement from the user in advance to execute the following work.

1) Backup the Settings/Registration data

Data in SRAM on the Main Controller PCB 2 can be backed up to a USB memory device or an HDD from download mode.

* However, if the HDD Encryption Board is installed, backup to an HDD is not possible. It is therefore recommended to perform backup to an USB memory device.

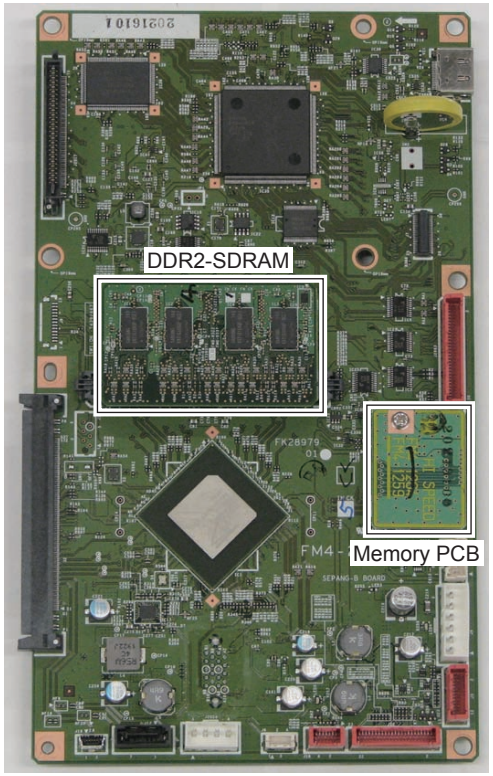
Operation method:
COPIER > FUNCTION > SYSTEM > DOWNLOAD
then,
Download Menu > Backup > SRAM(HDD/USB)

Note:
Download Menu is not intended for the "Settings/Registration > Paper Type Management Settings".
You need back up from:
Remote UI
Settings/Registration > Management Settings > Data Management > Export

<Processing when replacing the parts>

1) Replace the part from the old PCB to the new PCB.

- DDR2-SDRAM (when the option DDR2-SDRAM is installed)
- Memory PCB



F-4-46

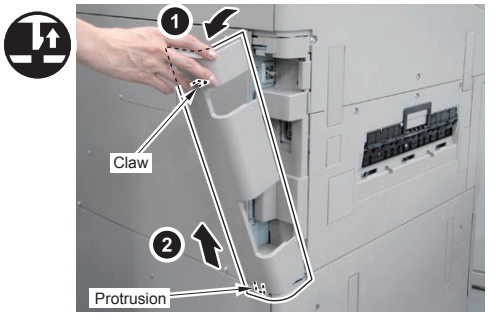
Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number).If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)
- Memory PCB

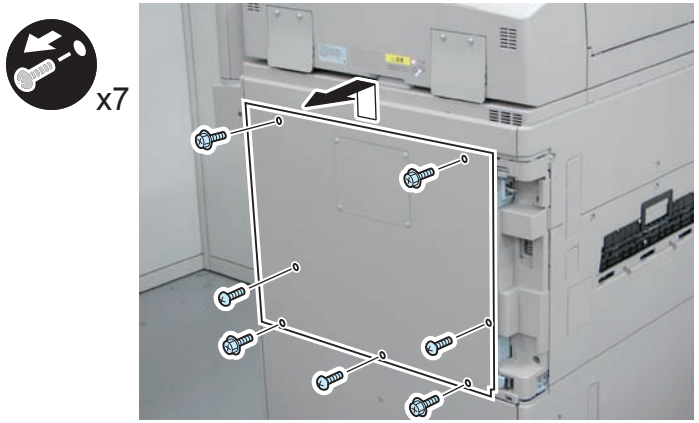
<Preparation>

1. Remove the Box Cover (Right). (Refer to "Removing Main Controller PCB 1")
2. Remove the Main Controller PCB 1. (Refer to page 4-80)
3. Remove the Box Cover (Left).
- 1 Claw
- 1 Protrusion



F-4-47

4. Remove the Rear Cover.

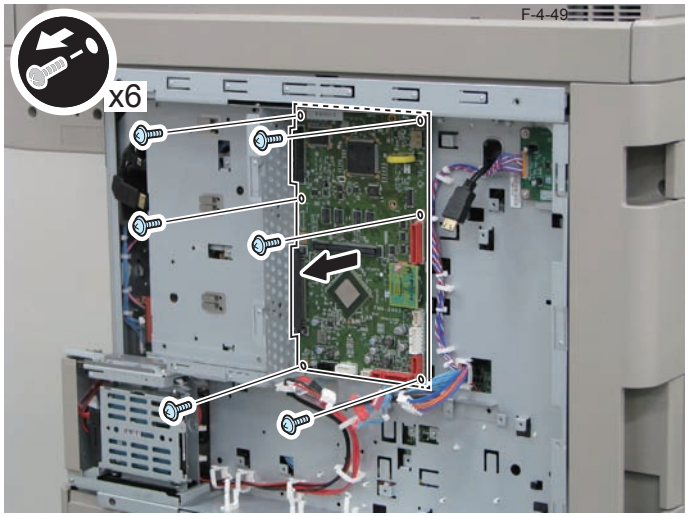


F-4-48

<Procedure>

12) Remove the Main Controller PCB 2.
- 7 Connectors
- 6 Screws

F-4-49



F-4-50

<Actions after Parts Replacement>

1. Specify and register the data again of the Main Controller PCB 2.

1) While pressing 2 + 8 keys at the same time, turn ON the Main Power Switch.

2) The restore of backup data:

When Download Menu is displayed, connect USB memory to the main body.

Download Menu 2 > Restore

3) Specify and register the data again.

Import from:

Remote UI

Settings/Registration > Management Settings > Data Management > Import

4) When an encryption key/certificate/CA certificate has been generated or added by the user, ask the user to execute reinstallation.

Laser Exposure System

Removing the Laser Scanner Unit

<Preparation>

1. Removing the Right Upper Cover.

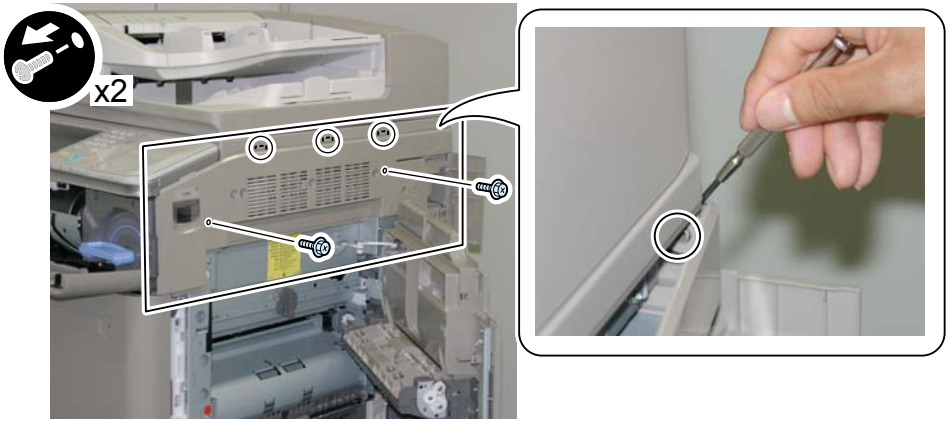
1-1) Open the Toner Exchange Cover.

1-2) Open the Right Cover.

1-3) Open the Right Rear Cover1

1-4) Remove the Right Upper Cover.

- 2 Screws
- 1 Boss
- 3 Protrusions



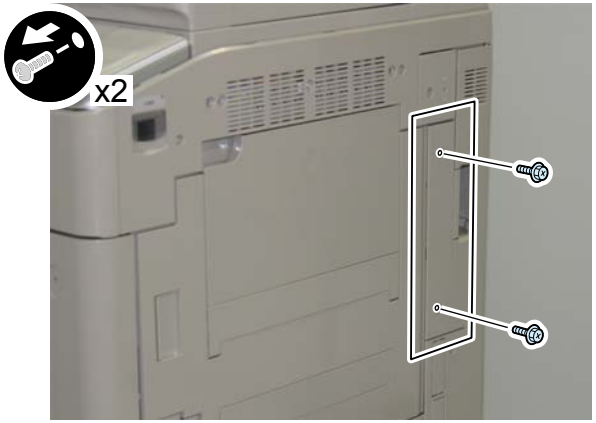
F-4-51

2. Removing the Right Cover.

NOTE:
Laser Scanner Unit can be removed without removing the Right Cover.
Howerver, removing the Right Cover is recommended here for better operability.

2-1) Remove the Right Rear Cover2.

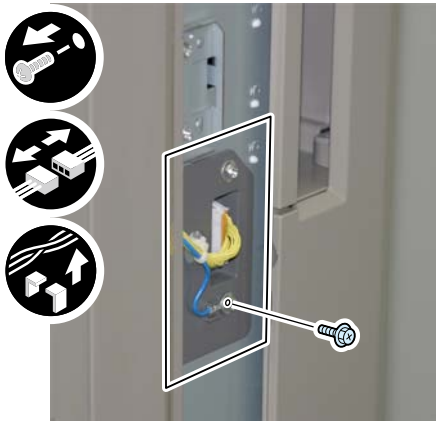
- 2 Screws



F-4-52

2-2) Disconnect the Connector and remove the Grounding Wire and the Reuse Band.

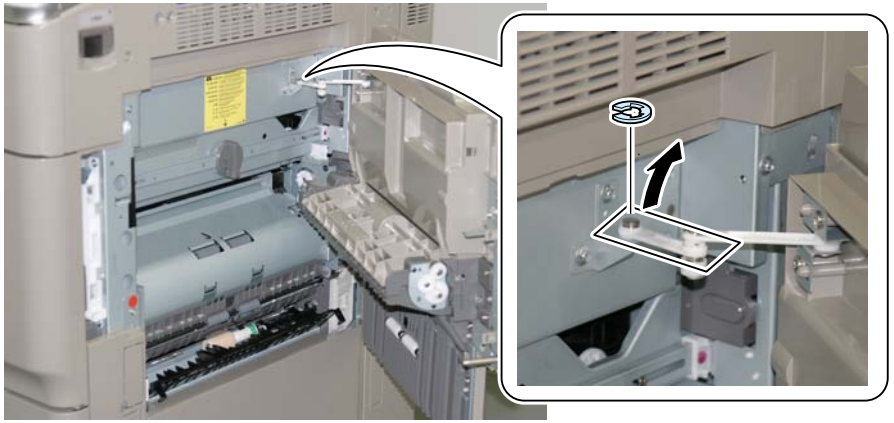
- 1 Screw



F-4-53

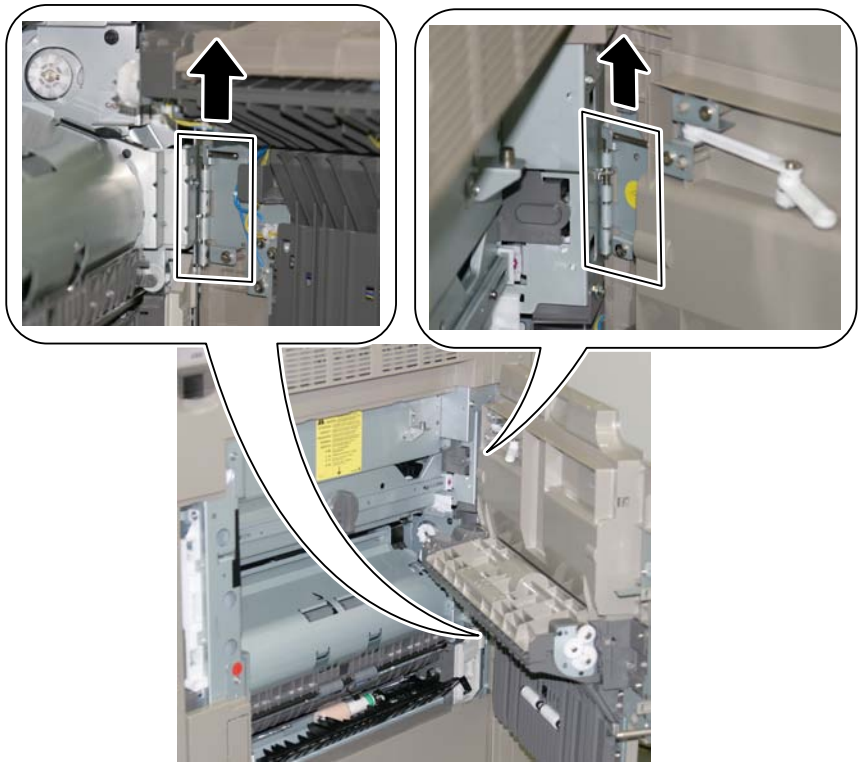
2-3) Open the Right Cover.

2-4) Remove the E-ring to remove the Door Link.



F-4-54

2-5) Remove the 2 Hinge Pins to remove the Right Cover.



F-4-55

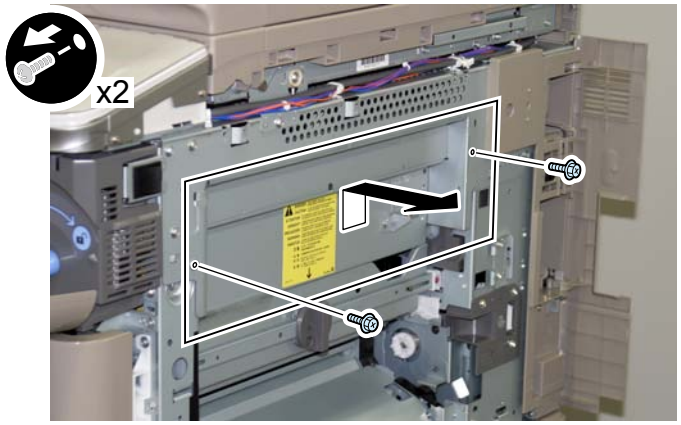
CAUTION:

To prevent falling of Right Cover, hold the Right Cover to remove the Hinge Pins.

<Procedure>

1) Lift the Plate to remove.

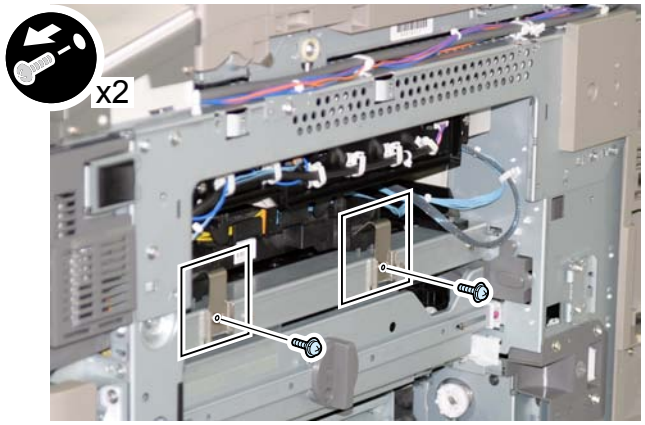
- 2 Screws



F-4-56

2) Remove the 2 Retainer Fixtures.

- 2 Screws



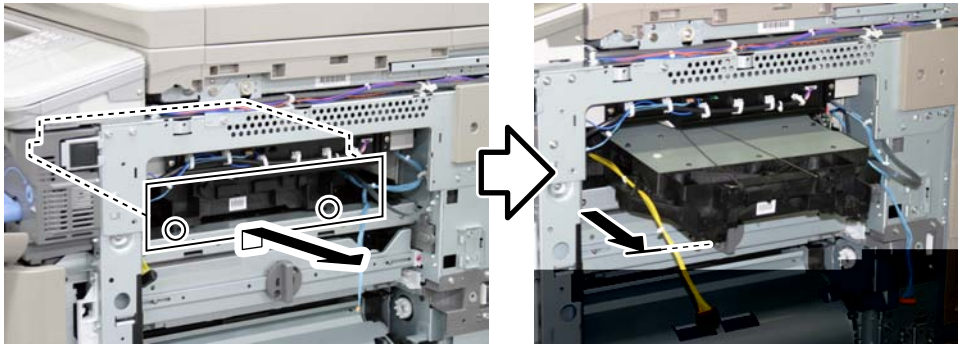
F-4-57

3) Free the Harness from the Harness Guide and Disconnect the Connector.

F-4-58

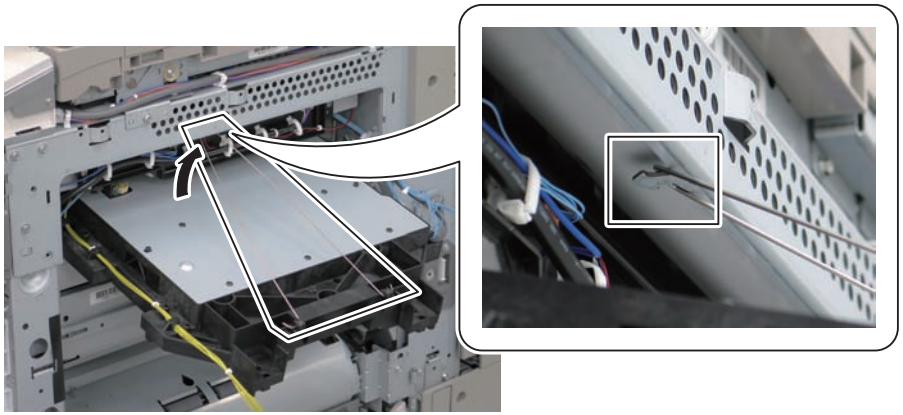
4) Pull out the Laser Scanner Unit halfway.

- 2 Bosses



F-4-59

5) Hook the wire of the Laser Scanner Unit to the hook of the main body.

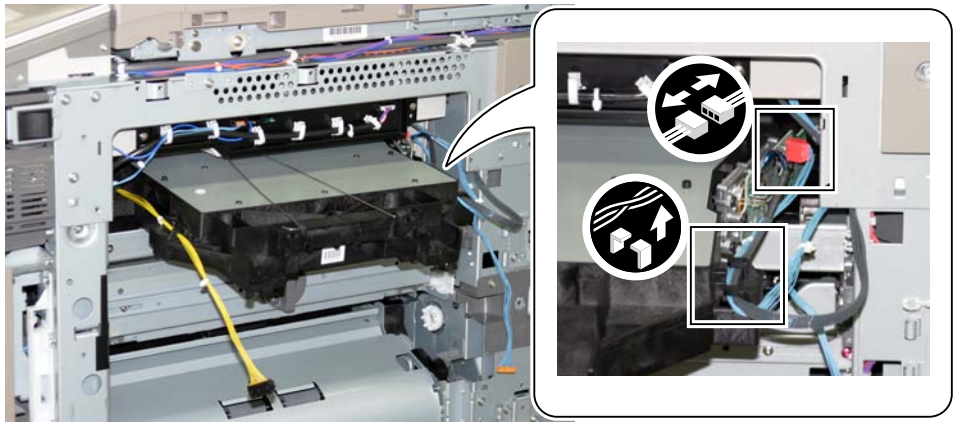


F-4-60

CAUTION:

Do not use the wire when the Right Cover is not removed.

6) Free the Harness from the Harness Guide and Disconnect the Connector.

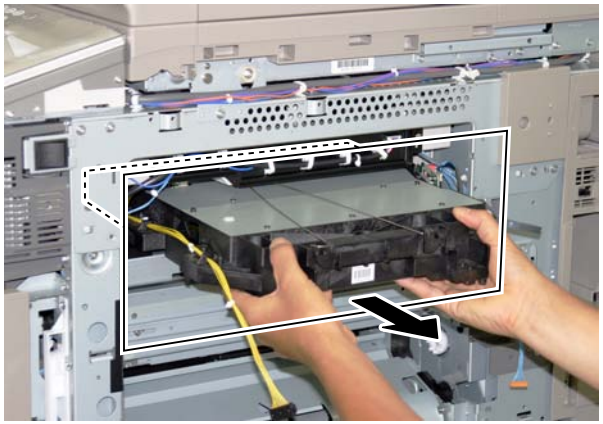


F-4-61

7) Remove the Laser Scanner Unit.

CAUTION:

Before removing the Laser Scanner Unit, check that the hooking wire of the unit is not hooked to the frame of the main body.



F-4-62

CAUTION:

When installing the Laser Scanner Unit, be sure to check that the bosses are fitted into the holes.

F-4-63

Cleaning the Dust Collecting Glass

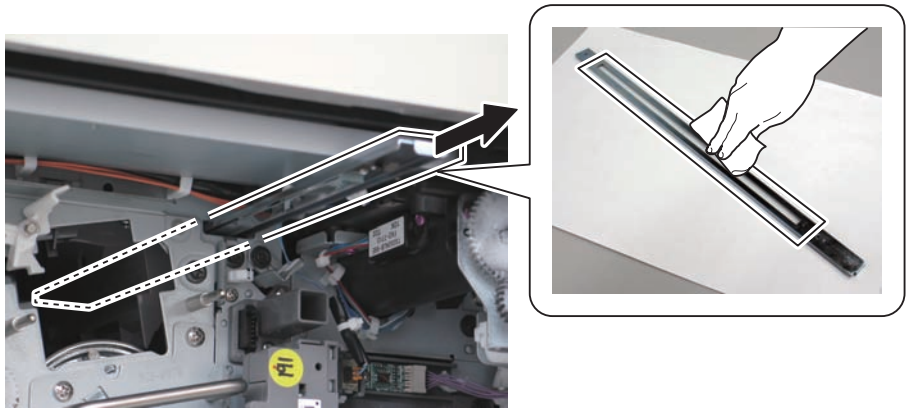
<Preparation>

1) Open the Front Cover.
2) Remove the Primary Charging Assembly. (Refer to page 4-96)

<Procedure>

Removing the Dustproof Glass

1) Pull out the Dustproof Glass and clean it with lint-free paper.



F-4-64

Image Formation System

Removing the Primary Charging Assembly

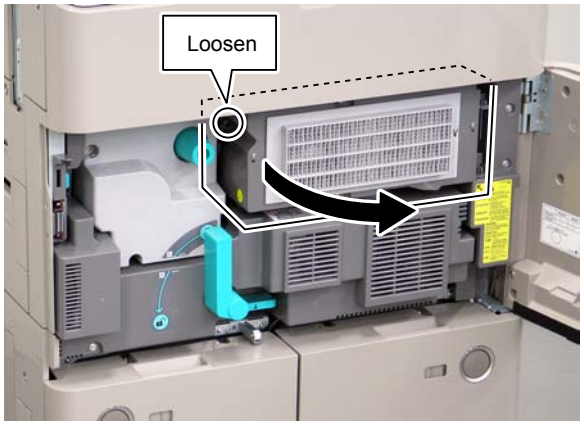
<Preparation>

1. Open the Inner Cover.

1-1) Open the Front Cover.

1-2) Open the Inner Cover.

- 1 Screw (to loosen)



F-4-65

<Procedure>

CAUTION:

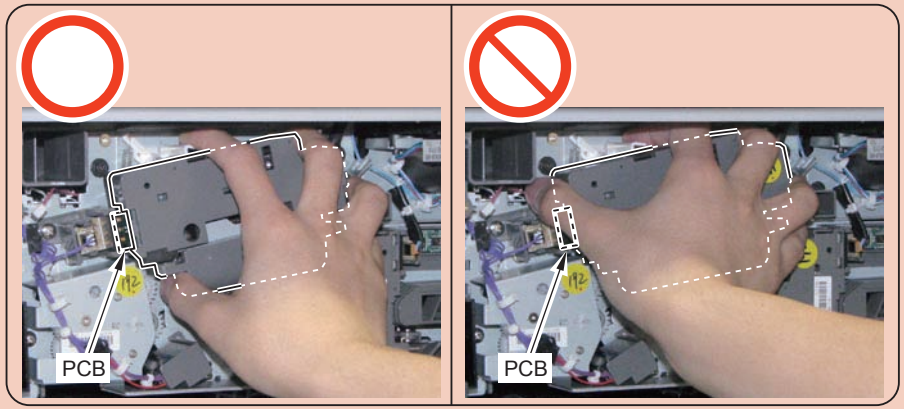
- When removing the Primary Charging Assembly and the Pre-transfer Charging Assembly, go through the following procedure while the Charging Shutter is open.
- At sleep mode, press the Power Switch on the Control Panel, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.
- In the case that the condition of the Charging Shutter (open/close) is unknown while the power of the host machine is OFF, turn ON the power, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.

If the above operations are not performed, it may be possible to remove the assembly while the Charging Shutter is closed, which may damage the drum or the shutter.

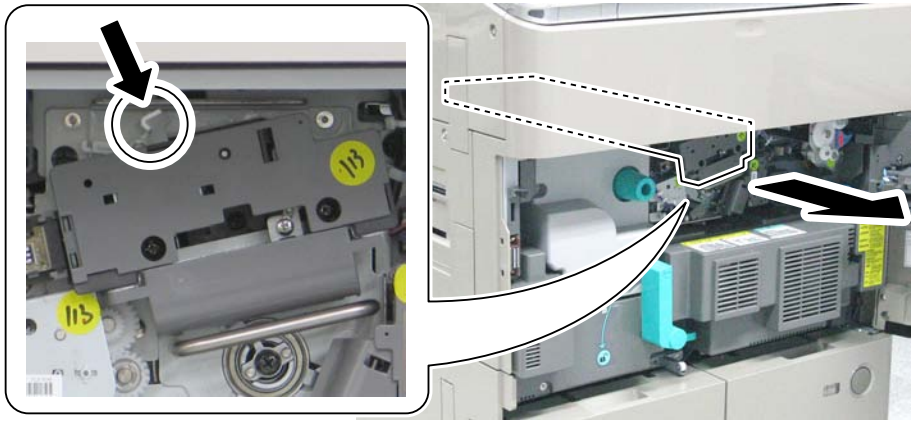
1) While pushing the Release Lever in the direction of the arrow, pull out the Primary Charging Assembly.

CAUTION:

When removing the Primary Charging Assembly, be careful not to hold the PCB of the Primary Charging Assembly.



F-4-66



F-4-67

<Processing after replacing the parts>

1) Clear the parts counter for the Primary Charging Assembly.
2) Output halftone image in service mode.
   TEST > PG > TYPE: 5 halftone test print
3) Output HT to check density difference between the front and the rear. (Refer to page 5-7)
4) In the case of density difference: Execute adjustment with the Wire Height Adjustment Spring.
5) Execute cleaning of the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)
6) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
7) Execute the potential control (COPIER>FUNCTION>DPC>DPC). Turn OFF and then ON the main power. (The potential control is executed at startup.)

Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)

<Preparation>

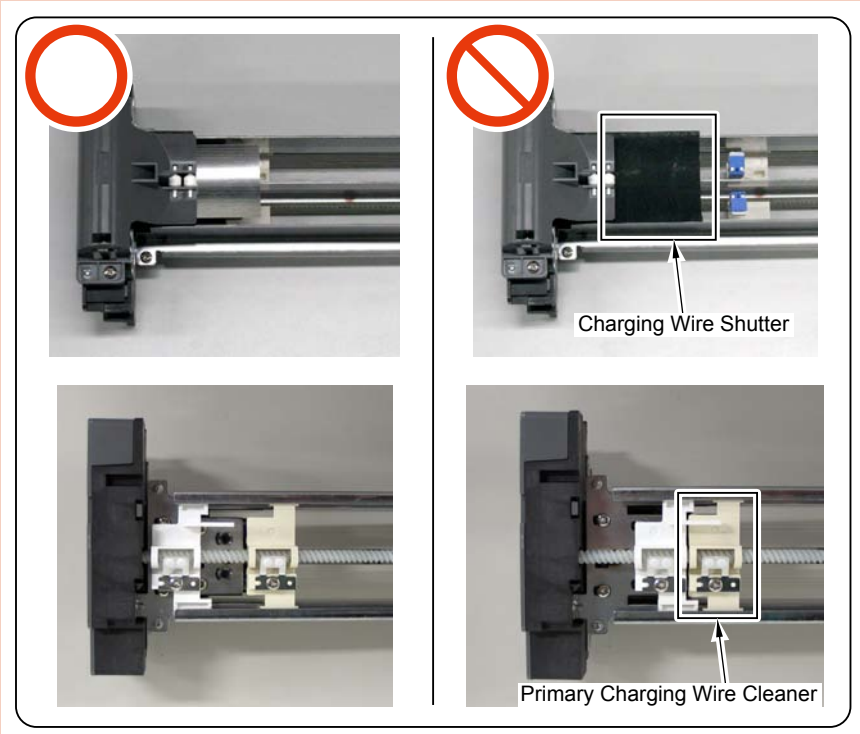
NOTE:
Replacement procedure is the same between the Primary Charging Wire Cleaner/Cleaner Holder (Left) and the Primary Charging Wire Cleaner/Cleaner Holder (Right). The following explains the procedure of the Primary Charging Wire Cleaner (Right) and Cleaner Holder (Right).

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)

<Procedure>

CAUTION:

Do not move the Charging Wire Shutter; otherwise, the shutter can be damaged when installing the Charging Assembly. When the Charging Wire Shutter is moved by chance, be sure to move the Shutter until it is invisible.



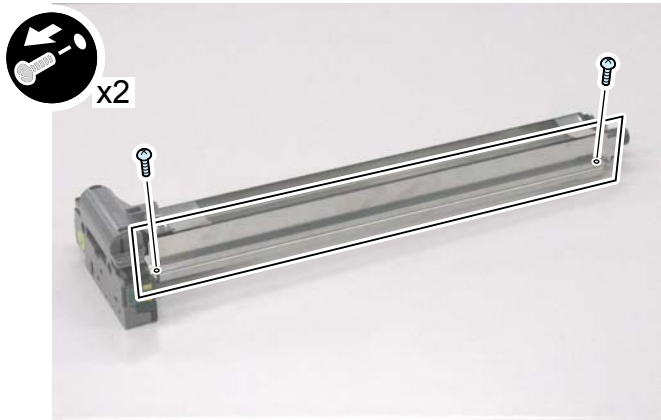
F-4-68

CAUTION:

Do not remove both Shield Plates (Right and Left) of the Primary Charging Assembly at the same time. Be sure to work on one Shield Plate at a time (otherwise, the Frame of the Primary Charging Assembly can be deformed).

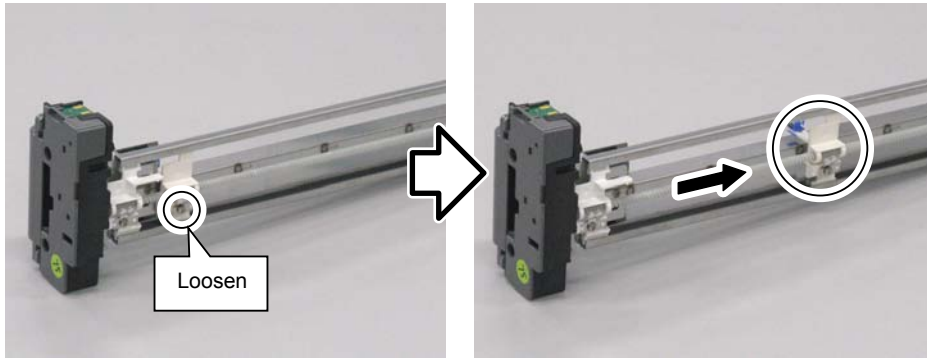
1) Remove the Shield Plate (Right). When removing the Primary Charging Wire Cleaner Holder (Left), remove the Shield Plate (Left).

- 2 Screws



F-4-69

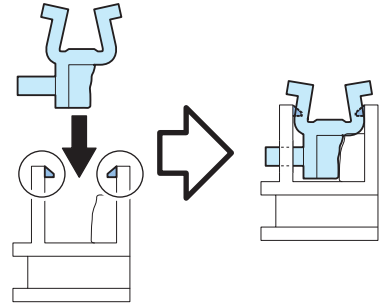
2) Loosen the screw to move the Primary Charging Assembly Cleaner to the center.



F-4-70

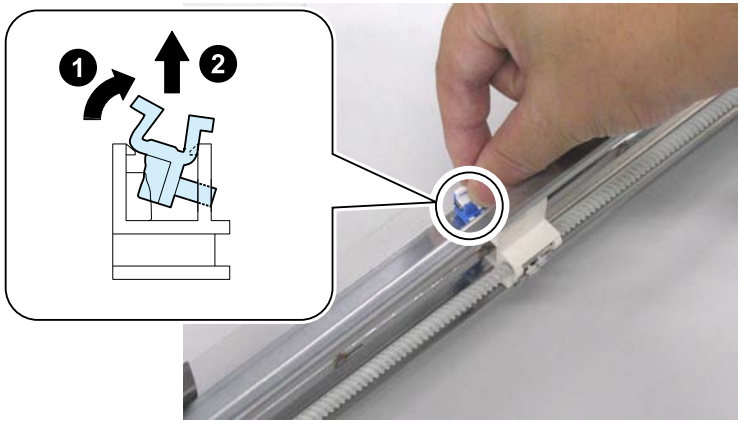
CAUTION:Points to Caution when Installing the Primary Charging Wire Cleaner Holder

Be sure to push in the Primary Charging Wire Cleaner Holder until it is secured with the Claw.



F-4-71

3) Bring up the Primary Charging Assembly and pinch the Hook to remove the Primary Charging Assembly Cleaner Holder (Right) in the direction of the arrow.

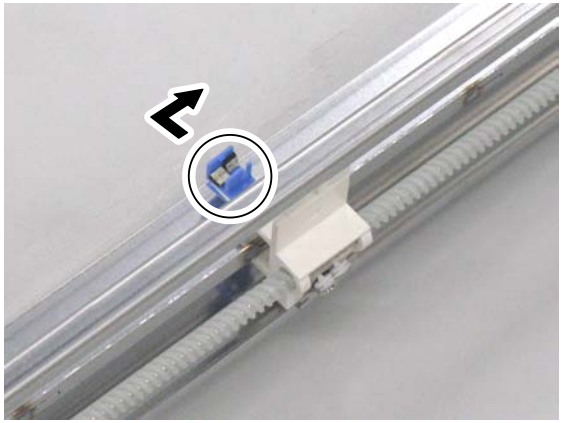


F-4-72

4) Remove the Primary Charging Wire Cleaner (Right) in the direction of the arrow.

CAUTION:

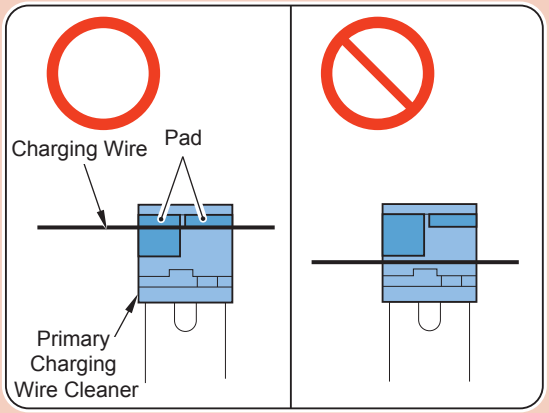
Be careful not to damage the Primary Charging Wire and the Grid Wire when removing the Primary Charging Wire Cleaner (Right).



F-4-73

CAUTION:Points to Caution at Installation

Be sure to push the Charging Wire against the 2 pads of the Primary Charging Wire Cleaner to install.



F-4-74

Replacing the Primary Charging Assembly Grid Wire

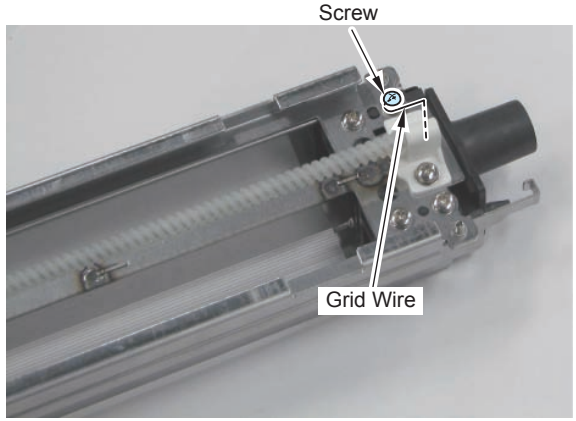
<Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Primary Charging Assembly. (Refer to page 4-96)
4. Removing the Primary Charging Shutter Unit (Refer to page 4-147)

<Procedure>

1) Remove the Primary Charging Assembly Grid Wire

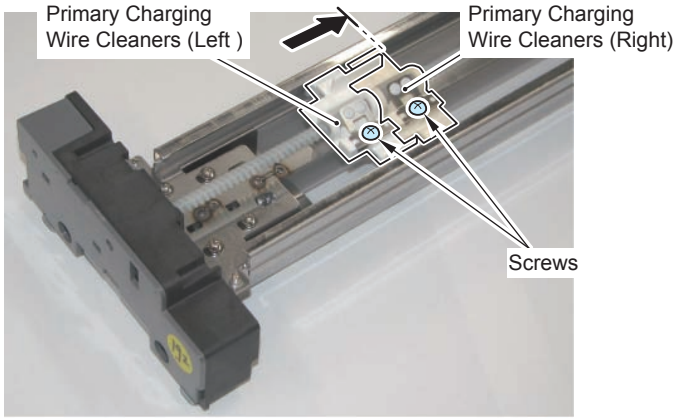
- 1 Screw



F-4-75

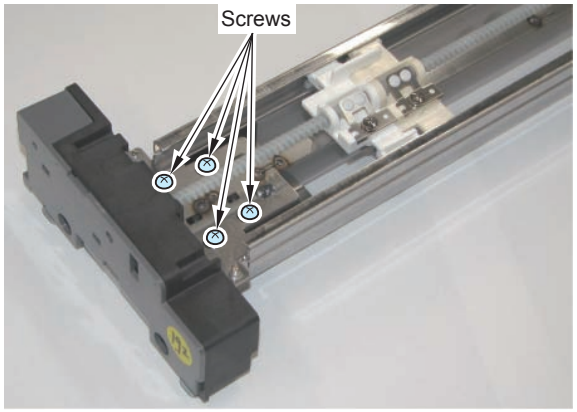
2) Shift the Primary Charging Wire Cleaners (Left and Right).

- 2 Screws (to loosen)



F-4-76

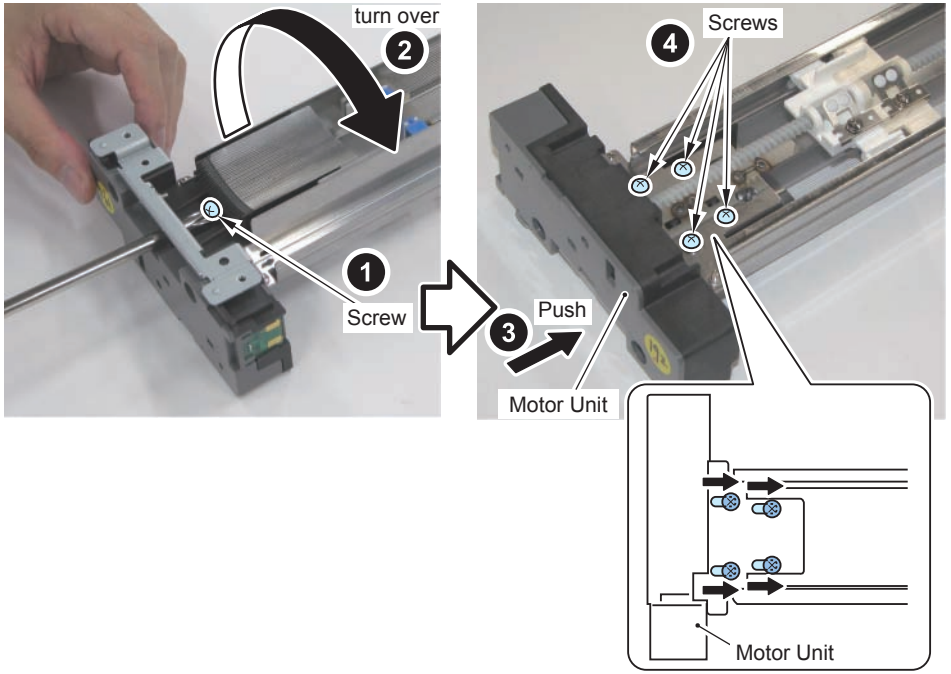
3) Loosen the 4 screws fixing the Motor Unit in the front.



F-4-77

4) Loosen the screw and turn over the Primary Charging Assembly.

5) Push the front Motor Unit in the direction of the arrow and tighten the 4 screws.



F-4-78

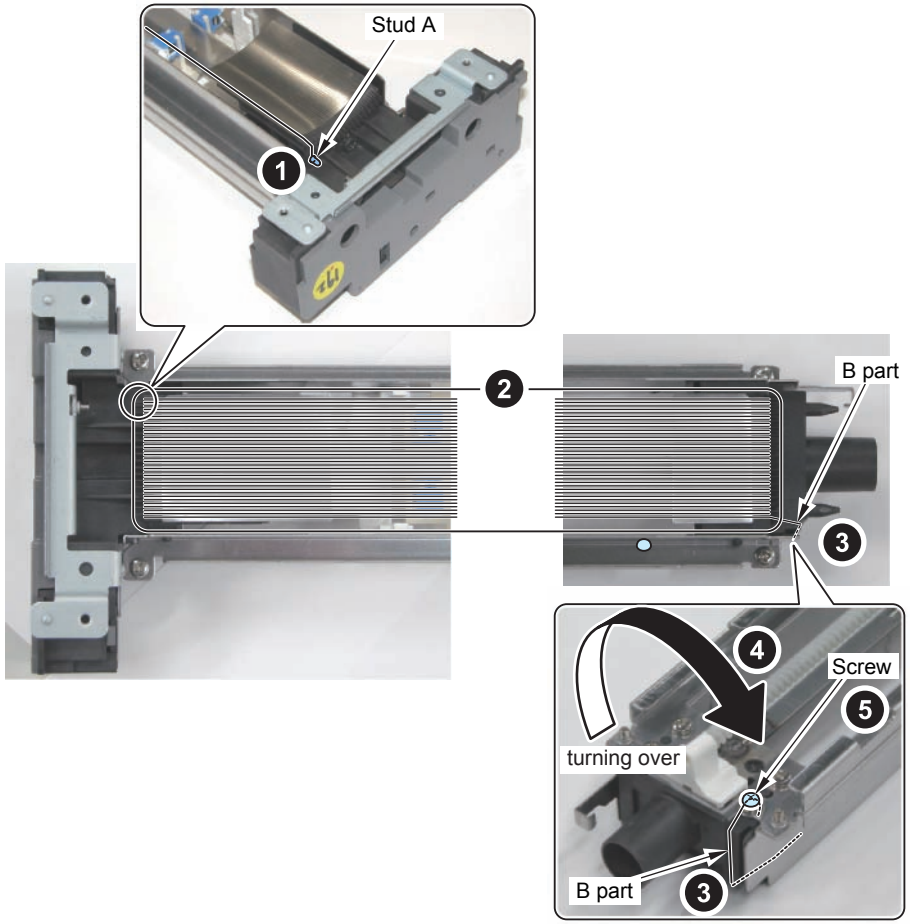
6) Untie approx. 5cm of the Charging Wire from the 0.1mm (wire-diameter) Charging Wire Reel to make a 2mm-diameter ring at the edge.

NOTE:
The ring can be easily made by the following procedure: Wrap the Charging Wire around the Hex Key to make a full round, and then turn the Hex Key for 3 to 4 times to twist the Charging Wire.

7) Cut the twisted Charging Wire (extra length) with nippers.

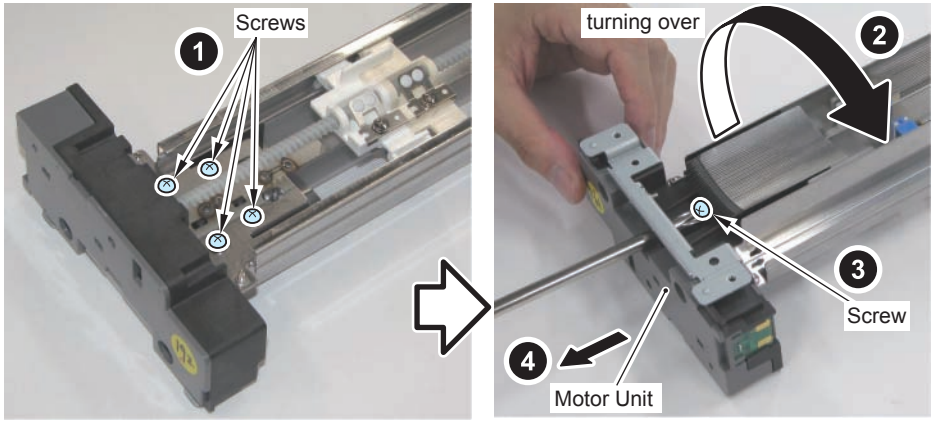
8) Hook the ring to the Stud A as shown in the figure.

9) After setting the wire 35 times around, pass through B part. After turning over the Primary Charging Assembly, pass the wire between the washer and the Motor Unit, wrap around the screw clockwise to make a full round and secure with the screw.



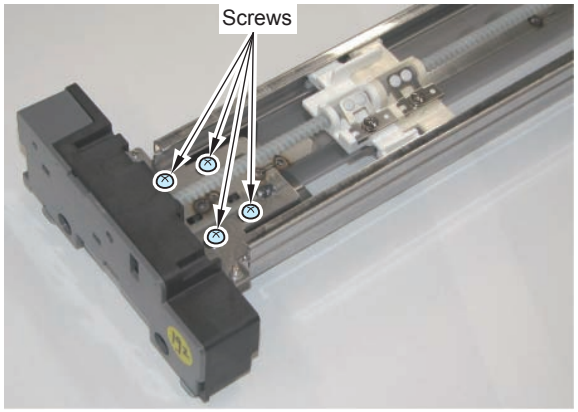
F-4-79

10) Cut the extra length of the Charging Wire with nippers.
11) Loosen the 4 screws and tighten the screw until the tension of the Grid Wire is uniformed. Be careful not to deform (bend) the Charging Assembly.



F-4-80

12) Tighten the loosened 4 screws.



F-4-81

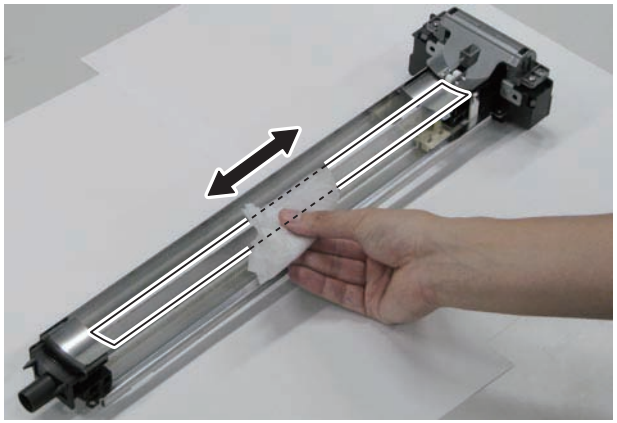
Be sure to check the following items.

- No bend or twist is found with the Grid Wire.
- The wire is set evenly spaced apart. (The Grid Wire is fitted into the groove of the Block.)

13) Remove the Shield Plate (Left) and pinch the Grid Wire from the left side to clean it on the left side with lint-free paper moistened with water.

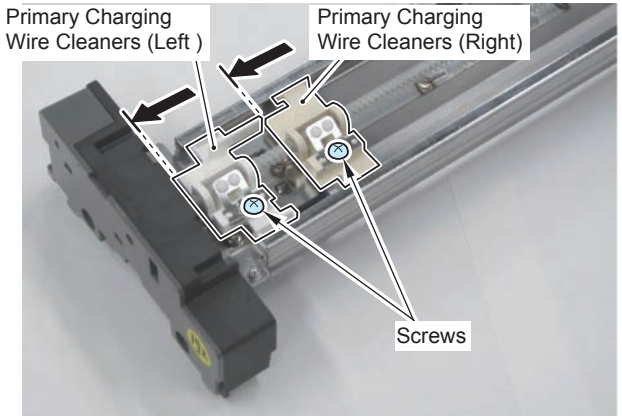
CAUTION:

- The frame of the Primary Charging Assembly may be distorted, so be careful not to remove both Left and Right Shield Plates simultaneously.



F-4-82

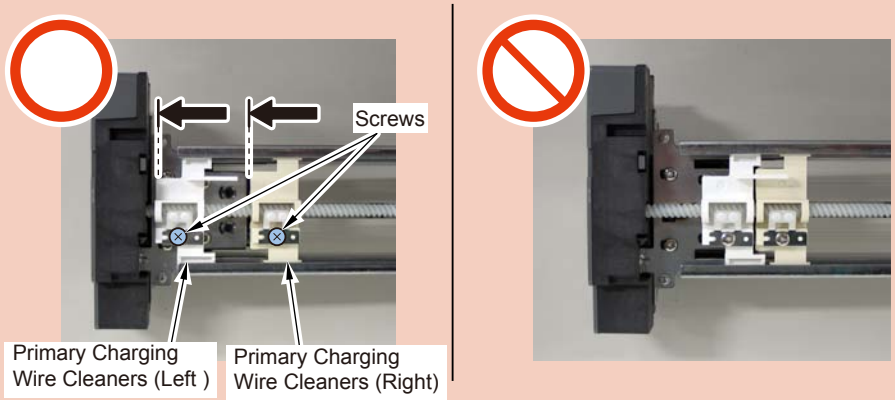
14) Shift the Primary Charging Wire Cleaners (Left and Right).
15) Tighten the 2 screws.



F-4-83

CAUTION:

Be sure to move the Primary Charging Wire Cleaners (Left and Right) until they stop and tighten the screws.



F-4-84

16) Install the Primary Charging Shutter Unit.(Refer to page 4-147)

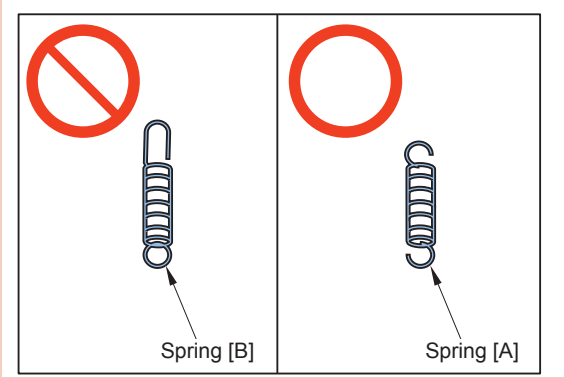
Replacing the Primary Charging Wire

NOTE:
Replacement procedure is the same between the Primary Charging Wire (Left) and the Primary Charging Wire (Right).
The following explains the procedure of the Primary Charging Wire (Right).

NOTE:
The Primary Charging Wire with spring is set as a service part.

CAUTION:

In the case of replacing the Charging Wire on a Charging Wire basis, be sure to use the dedicated Charging Wire Tension Spring (97-5527) [A]. Do not use the Spring [B] attached to the Charging Wire.



F-4-85

<Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Primary Charging Assembly. (Refer to page 4-96)
4. Remove the Primary Charging Wire Cleaner Holder (Right). (Refer to "Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)")
5. Remove the Primary Charging Wire Cleaner (Right). (Refer to page 4-97)

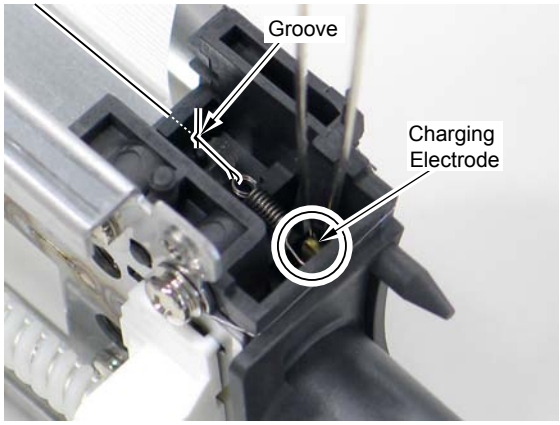
<Procedure>

<Removing the Charging Wire>

1) Remove the Sheet.

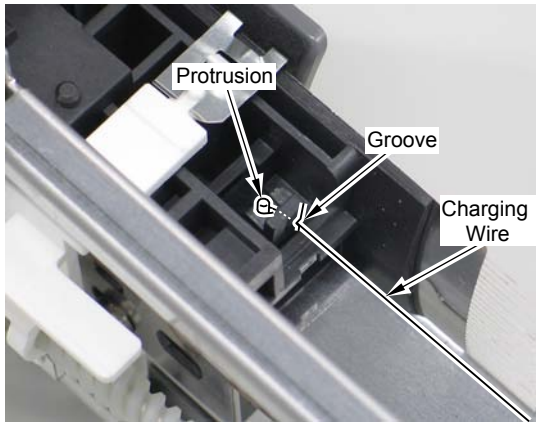
F-4-86

2) Use tweezers to hold the tip of the Spring at the rear side to remove the Spring from the charging electrode and remove the Charging Wire from the groove of the Positioning Block.



F-4-87

3) Remove the Charging Wire from the protrusion and the groove of the Positioning Block at the front side.



F-4-88

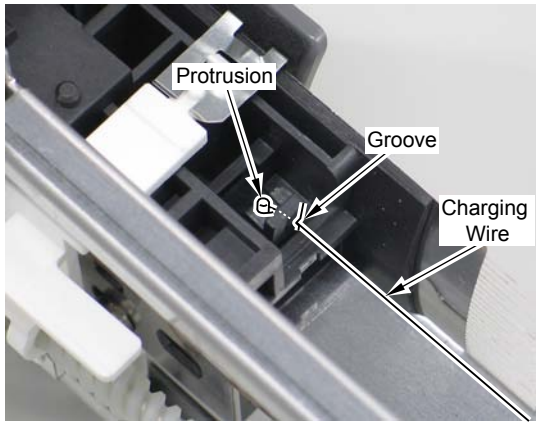
<Installing the Charging Wire>

NOTE:
When installing the Charging Wire set as a service part, steps 4, 5, 7, and 8 are not required.

4) Untie approx. 5cm of the Charging Wire from the 0.06mm (wire-diameter) Charging Wire Reel to make a 2mm-diameter ring at the edge.

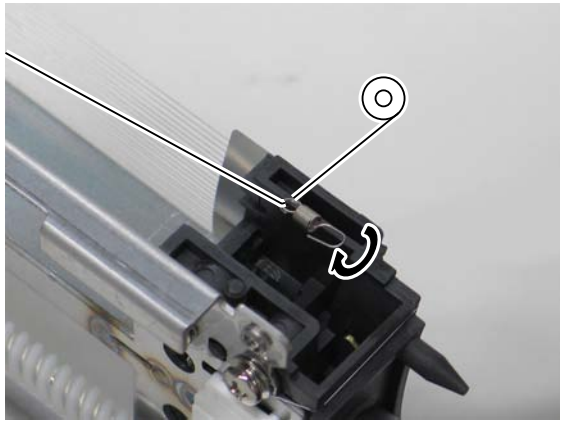
NOTE:
The ring can be easily made by the following procedure: Wrap the Charging Wire around the Hex Key to make a full round, and then turn it for 3 to 4 times to twist the Charging Wire.

5) Cut the edge of the twisted Charging Wire with nippers.
6) Hook the ring to the front protrusion of the Positioning Block to hook the Charging Wire to the groove.



F-4-89

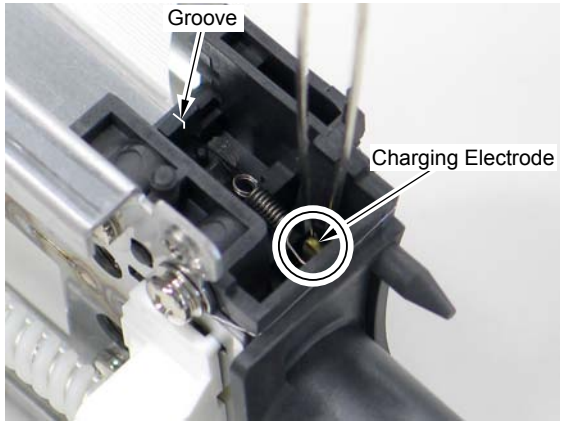
7) Hook the Charging Wire Tension Spring to the Charging Wire to twist with it.



F-4-90

8) Cut extra length of the Charging Wire with nippers.

9) Hook the Charging Wire to the rear groove of the Charging Wire Positioning Block and hold the edge of the Charging Wire Tension Spring with tweezers to hook it to the charging electrode.



F-4-91

CAUTION:
Be sure to keep the following in mind after installation.
- No bend or twist is found with the Charging Wire.
- The Charging Wire is fitted into the groove of the Charging Wire Positioning Block.

10) Clean the Charging Wire with lint-free paper moistened with alcohol.
11) Install the Primary Charging Wire Cleaner (Right).
12) Install the Primary Charging Wire Cleaner Holder (Right).
13) Install the Shield Plate (Right).

<Processing when replacing the parts>
1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PRM-WIRE)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)
3) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
4) Execute the potential control (COPIER>FUNCTION>DPC>DPC). Turn OFF and then ON the main power. (The potential control is executed at startup.)

Cleaning the Primary Charging Assembly Grid Wire

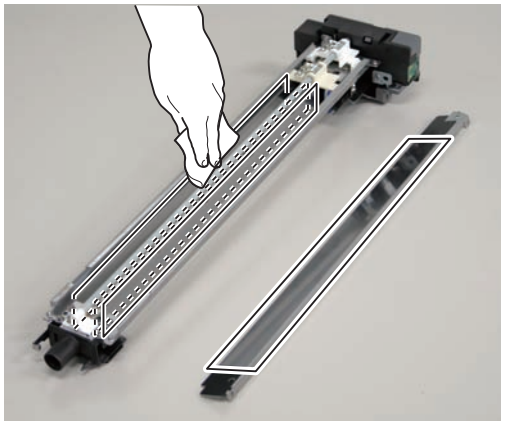
<Preparation>

1. Open the Inner Cover. (Refer to “Removing the Primary Charging Assembly”)
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Primary Charging Wire Cleaner Holder. (Refer to “Removing the Primary Charging Wire Cleaner, Cleaner Holder (Right/Left)”)
4. Remove the Primary Charging Wire. (Refer to page 4-97)

NOTE:
With this machine, discharge products tend to be accumulated inside the Charging Assembly. To remove the discharge products efficiently, clean with lint-free paper moistened with water. (If there is toner stain, clean with lint-free paper moistened with alcohol.)

<Procedure>

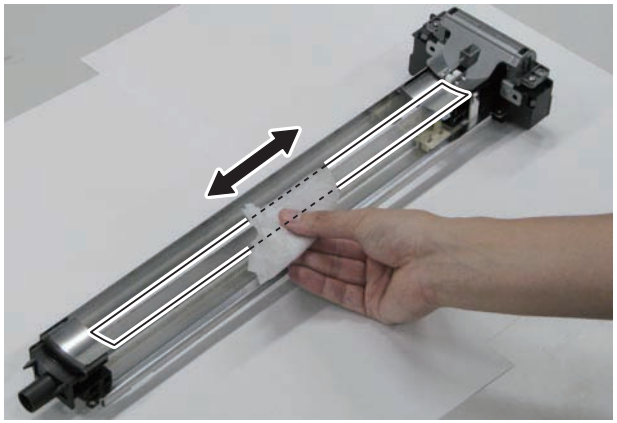
1) Clean the inside of Shield Plate (Right) and Inner Shield Plate (Left) removed from the Primary Charging Assembly with lint-free paper moistened with water.
2) Clean both sides of the Inner Shield Plate (Middle) of the Primary Charging Assembly with lint-free paper moistened with water.



F-4-92

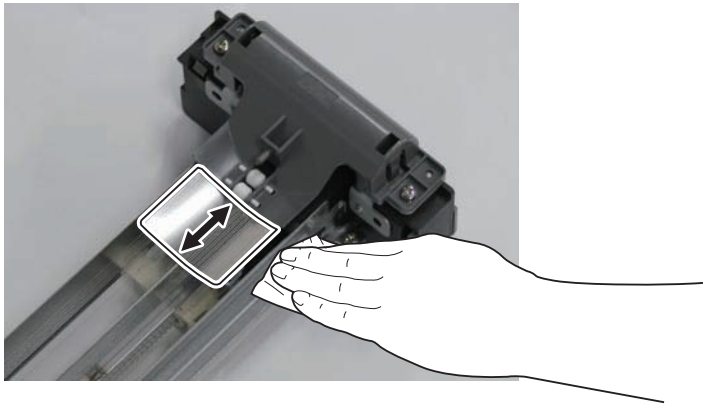
3) Remove the Shield Plate (Left) and pinch the Grid Wire from the left side to clean it on the left side with lint-free paper moistened with water.

CAUTION:
- The frame of the Primary Charging Assembly may be distorted, so be careful not to remove both Left and Right Shield Plates simultaneously.



F-4-93

4) Remove the Shield Plate (Right) and pinch the Grid Wire to clean it on the right side with lint-free paper moistened with water.



F-4-94

Removing the Pre-transfer Charging Assembly

<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")

<Procedure>

CAUTION:

When removing the Primary Charging Assembly and the Pre-transfer Charging Assembly, go through the following procedure while the Charging Shutter is open.

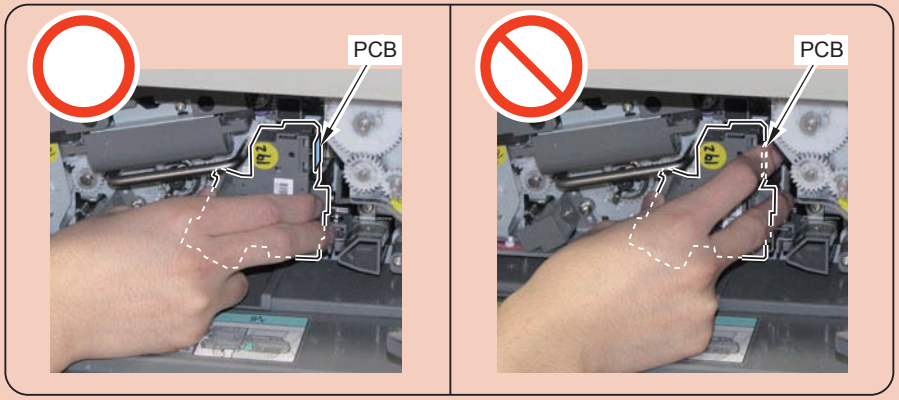
- At sleep mode, press the Power Switch on the Control Panel, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.
- In the case that the condition of the Charging Shutter (open/close) is unknown while the power of the host machine is OFF, turn ON the power, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.

If the above operations are not performed, it may be possible to remove the assembly while the Charging Shutter is closed, which may damage the drum or the shutter.

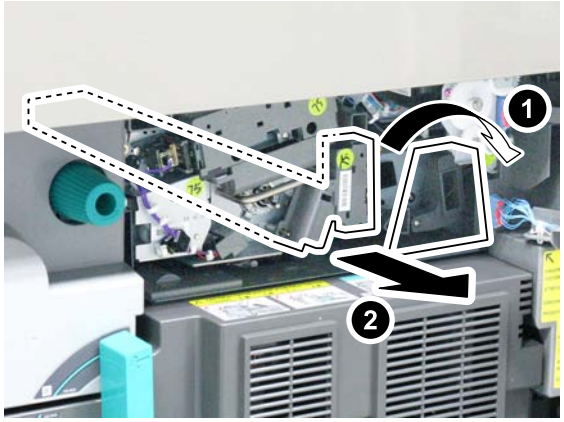
1) Turn the Lock Lever in the direction of the arrow to pull out the Pre-transfer Charging Assembly.

CAUTION:

When removing the Pre-transfer Charging Assembly, be careful not to hold the PCB of the Pre-transfer Charging Assembly.



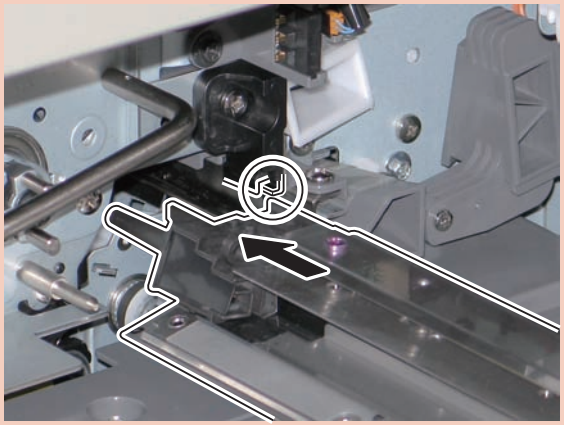
F-4-95



F-4-96

CAUTION:Points to Caution at Installation

Be sure to fit the Transfer Charging Assembly to the groove on the host machine and install it horizontally.



F-4-97

<Processing when replacing the parts>

1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>PO-UNIT)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-EX)

Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder

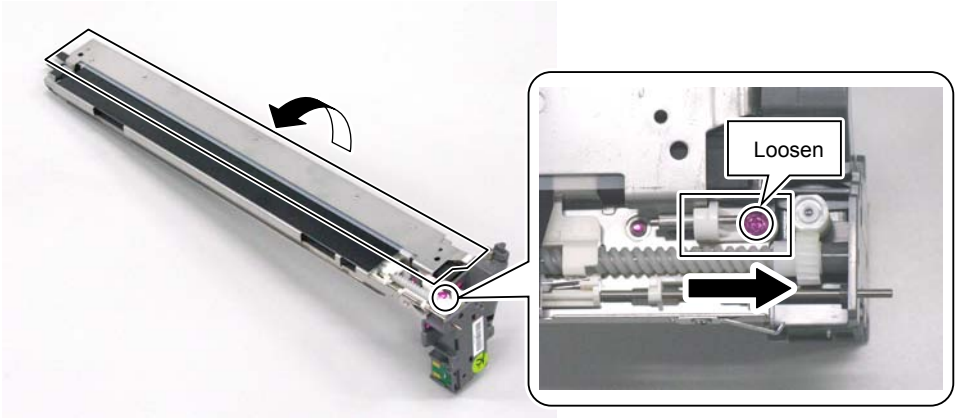
<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)

<Procedure>

1) Displace the Shield Plate Retainer Block to open the Shield Plate in the direction of the arrow.

- 1 Screw (to loosen)

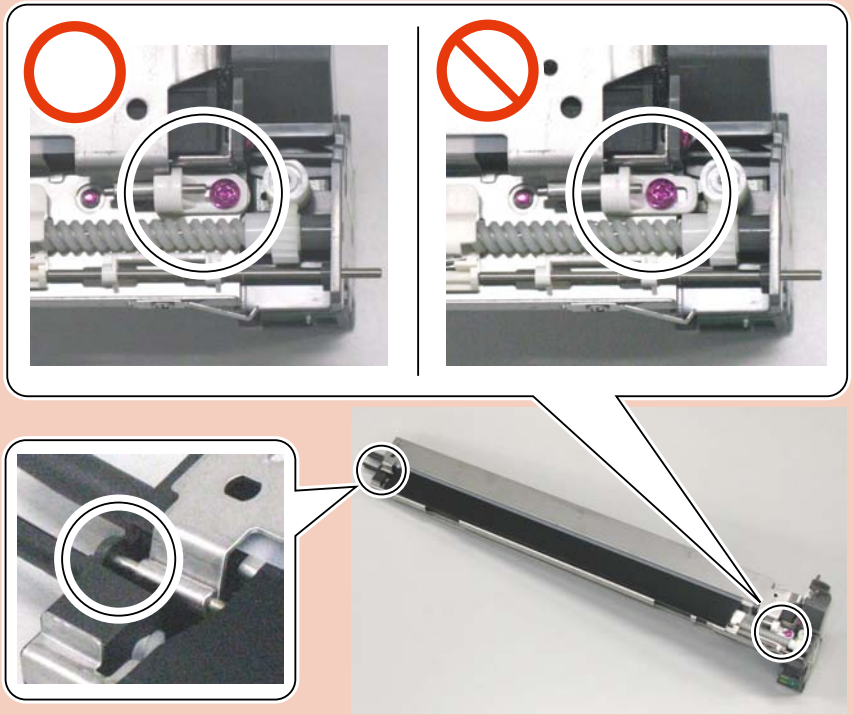


F-4-98

CAUTION:Points to Caution when Securing the Shield Plate

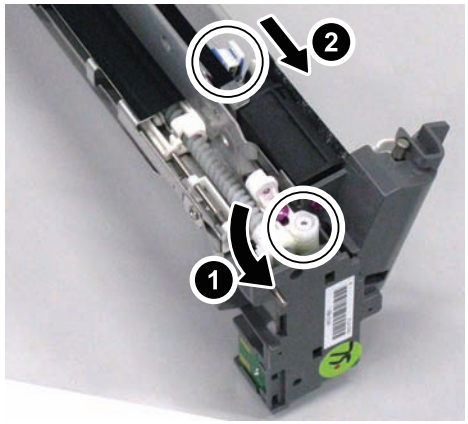
Move the Shield Plate Retainer Block fully to the inside to secure with the screw.

Check that the rear Pin is fitted into the Frame hole, and then move the Shield Plate back and forth to check that the Shield Plate is secured.



F-4-99

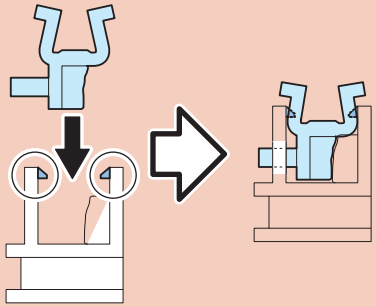
2) Turn the Gear by hand to move the Cleaning Pad Arm to the front.



F-4-100

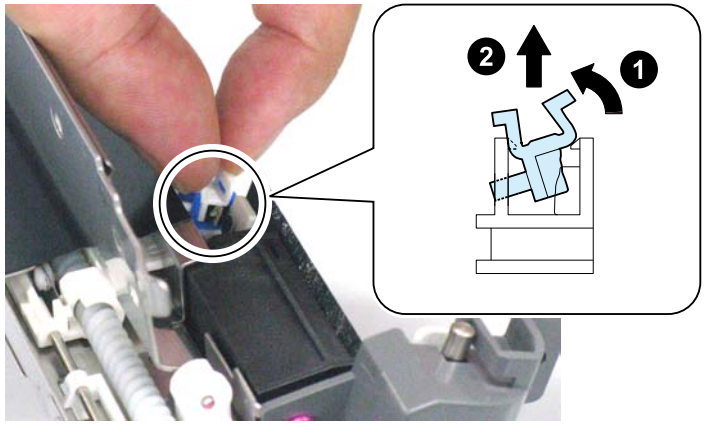
CAUTION:Points to Caution when Installing the Pre-transfer Charging Wire Cleaner Holder

Push in the Pre-transfer Charging Wire Cleaner Holder until it is secured with the Claw.



F-4-101

3) Pinch the Hook and turn it in the direction of the arrow to remove the Pre-transfer Charging Assembly Cleaner Holder.

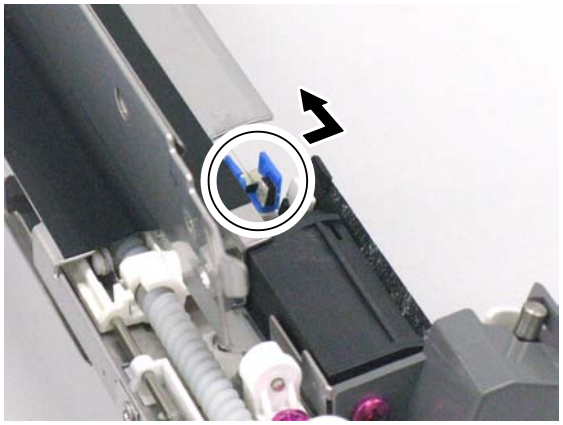


F-4-102

4) Remove the Pre-transfer Charging Wire Cleaner in the direction of the arrow.

CAUTION:

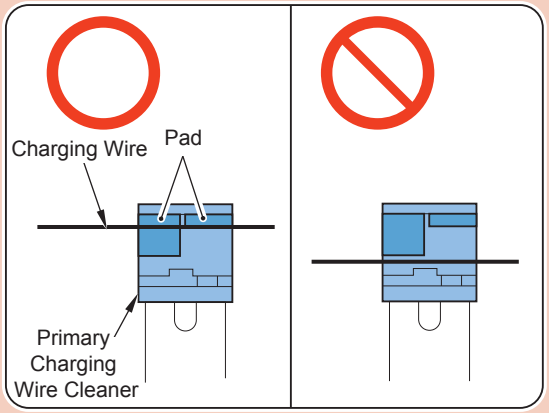
Be careful not to damage the Pre-transfer Charging Wire when removing the Pre-transfer Charging Wire Cleaner.



F-4-103

CAUTION:Points to Caution at Installation

Be sure to push the Charging Wire against the 2 pads of the Pre-transfer Charging Wire Cleaner to install.



F-4-104

Replacing the Pre-transfer Charging Wire

NOTE:
The Primary Charging Wire with spring is set as a service part.

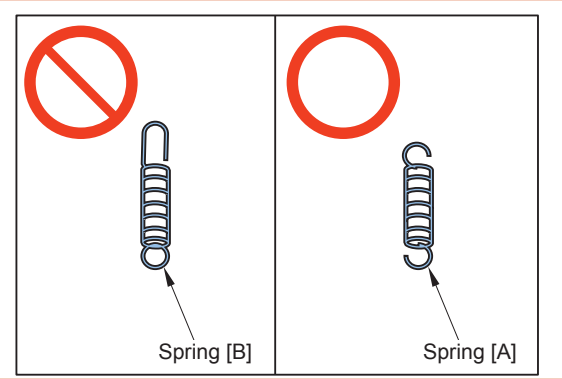
<Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Pre-transfer Charging Wire Cleaner Holder. (Refer to "Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder")
5. Remove the Pre-transfer Charging Wire Cleaner. (Refer to page 4-108)

<Procedure>

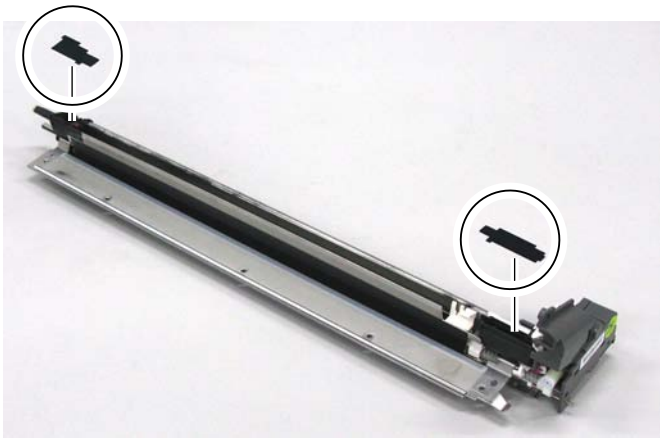
CAUTION:

In the case of replacing the Charging Wire on a Charging Wire basis, be sure to use the dedicated Charging Wire Tension Spring (97-5527) [A]. Do not use the Spring [B] attached to the Charging Wire.



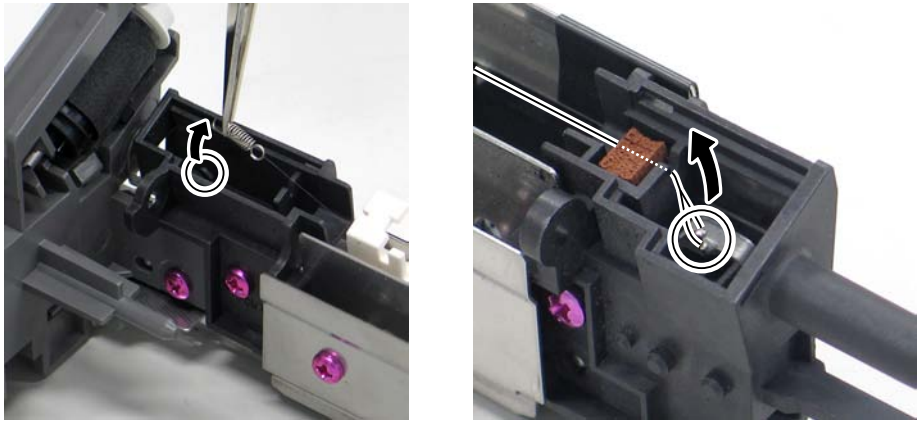
F-4-105

1) Remove the Pre-transfer Charging Assembly Covers (Front and Rear).



F-4-106

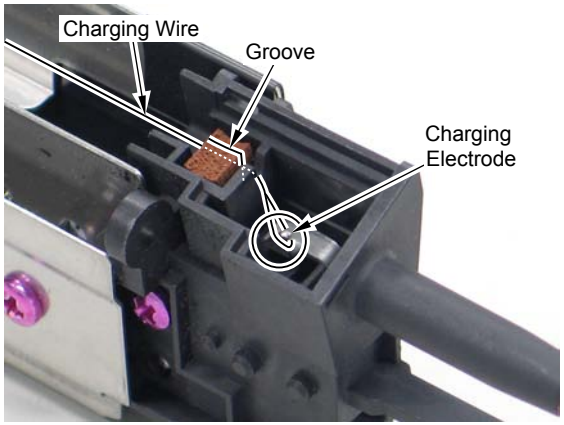
2) Use tweezers to remove the front Spring from the Hook and then remove the Charging Wire from the rear charging electrode.



F-4-107

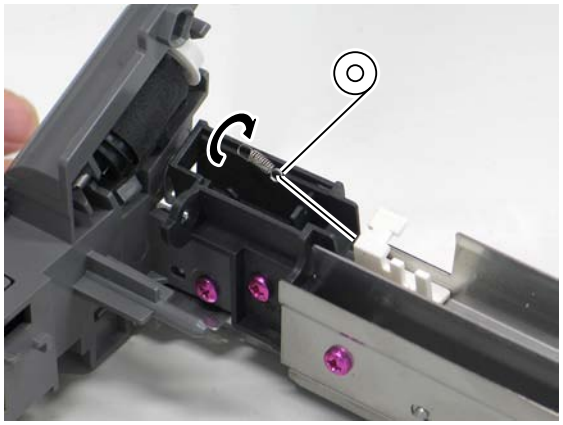
3) Untie approx. 5cm of the Charging Wire from the 0.06mm (wire-diameter) Charging Wire Reel to make a 2mm-diameter ring at the edge.
4) Cut the edge of the twisted Charging Wire with nippers.

5) Hook the ring to the rear charging electrode of the Pre-charging Assembly and put the ring through the rear groove and the sponge groove.



F-4-108

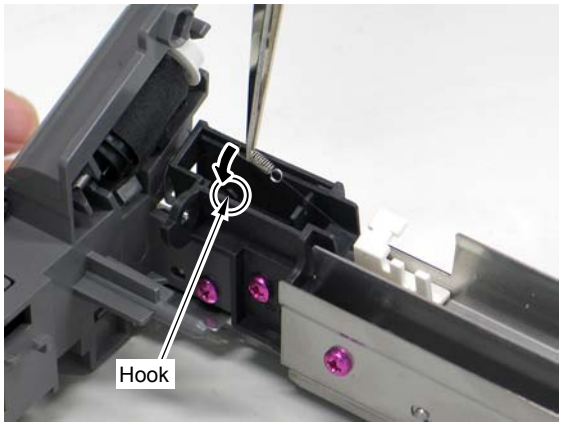
6) On the front side of the Pre-charging Assembly, hook the Charging Wire Tension Spring to the Charging Wire to twist with it.



F-4-109

7) Cut extra length of the Charging Wire with nippers.

8) Hold the tip of the Spring with tweezers and hook the Charging Wire to the groove to hook the Spring to the Hook.



F-4-110

9) Clean the Charging Wire with lint-free paper moistened with alcohol.
10) Install the Pre-transfer Charging Assembly Covers (Front and Rear).
11) Install the Pre-transfer Charging Assembly Cleaner and the Pre-transfer Charging Assembly Cleaner Holder.

<Processing when replacing the parts>

1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PO-WIRE)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-EX)

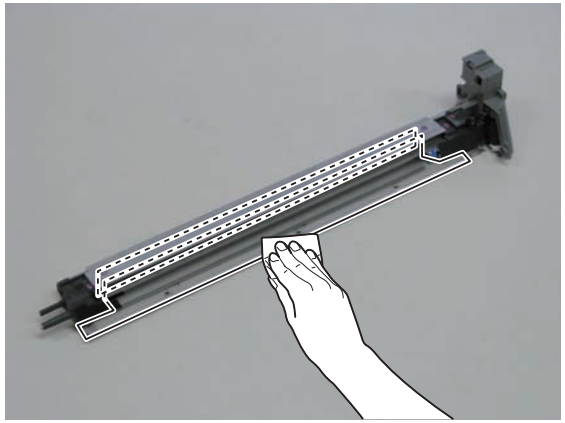
Cleaning the Pre-transfer Charging Wire

<Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to “Removing the Primary Charging Assembly”)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-96)
4. Remove the Pre-transfer Charging Wire Cleaner Holder. (Refer to “Removing the Pre-transfer Charging Wire Cleaner, Cleaner Holder”)
5. Remove the Pre-transfer Charging Wire Cleaner. (Refer to page 4-108)
6. Remove the Pre-transfer Charging Wire. (Refer to page 4-111)

<Procedure>

1) Clean the Shield Plate with lint-free paper moistened with alcohol.



F-4-111

Removing the Process Unit

<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)

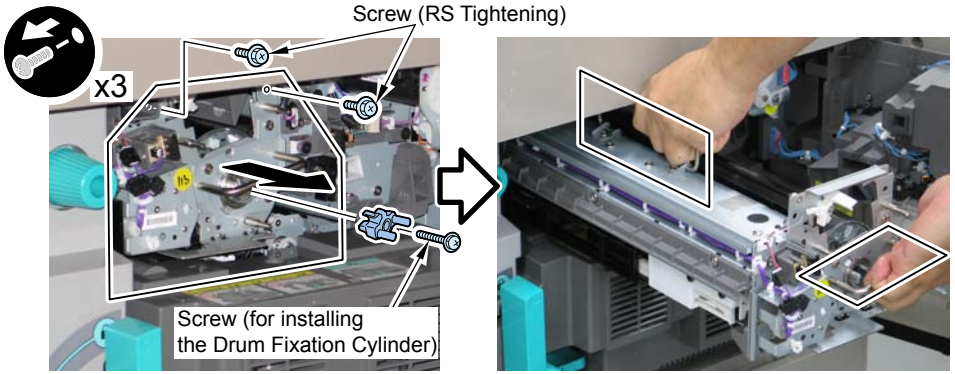
<Procedure>

CAUTION:
Do not touch the surface of the Photosensitive Drum.

1) Remove the Drum Fixation Cylinder to remove the Process Unit.

- 2 Screws
- 1 Screw (for installing the Drum Fixation Cylinder)

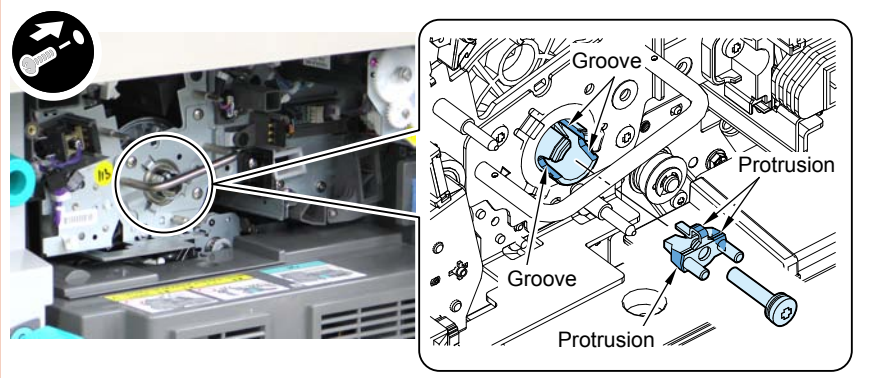
NOTE:
When removing the Process Unit, hold both the upper and front Handles to pull out the Process Unit.



F-4-112

CAUTION:Points to Caution at Installation

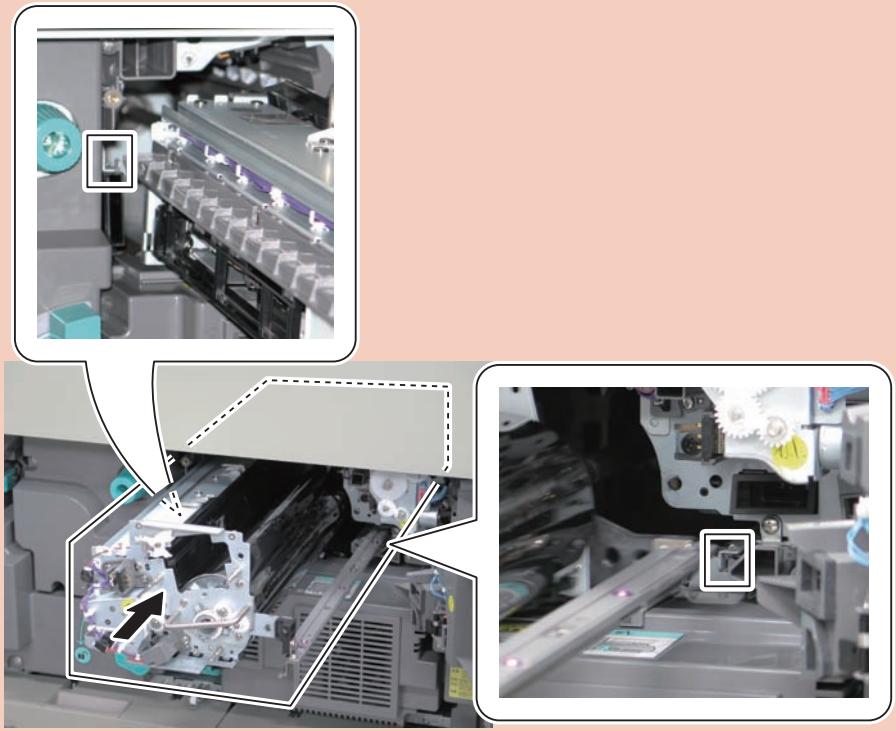
When installing the Process Unit, fit the 3 grooves at the edge of the Drum Shaft with the 3 protrusions of the Drum Fixation Cylinder to install the Drum Shaft Fixing Screw.



F-4-113

CAUTION:Points to Caution at Installation

Be sure to fit the Drum Cleaning Unit to the rail on the host machine and install it horizontally.



F-4-114

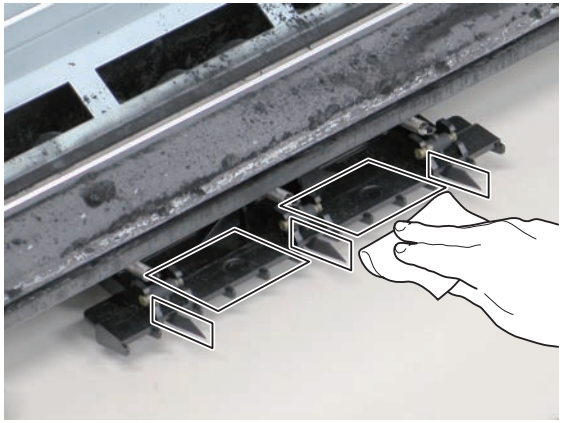
Cleaning the Process Unit

<Preparation>

1. Open the Inner Cover. (Refer to “Removing the Primary Charging Assembly”)
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Remove the Drum Cleaning Unit. (Refer to “Removing the Drum Cleaning Blade”)
6. Remove the Drum Unit. (Refer to page 4-121)

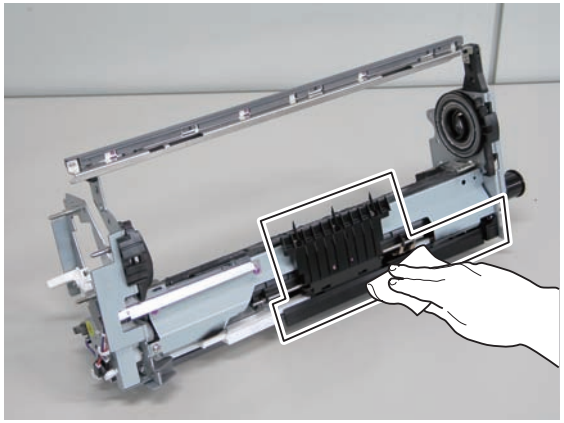
<Procedure>

1) Clean the Separation Claw Mounting Base and Separation Claw with lint-free paper moistened with alcohol.



F-4-115

2) Clean the rear side of the Process Unit with lint-free paper moistened with alcohol.



F-4-116

Removing the Drum Cleaning Unit

<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)

<Procedure>

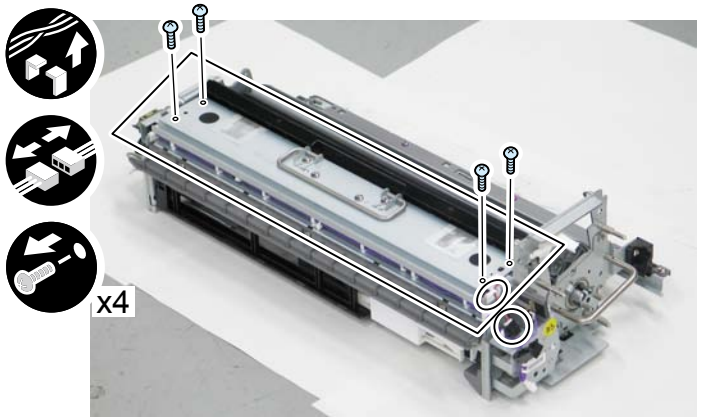
CAUTION:

Do not touch the surface of the Photosensitive Drum.

After removing the Drum Cleaning Unit, place paper over the Photosensitive Drum to block light.

1) Remove the Drum Cleaning Unit.

- Edge Saddle
- 1 Connector
- 4 Screws

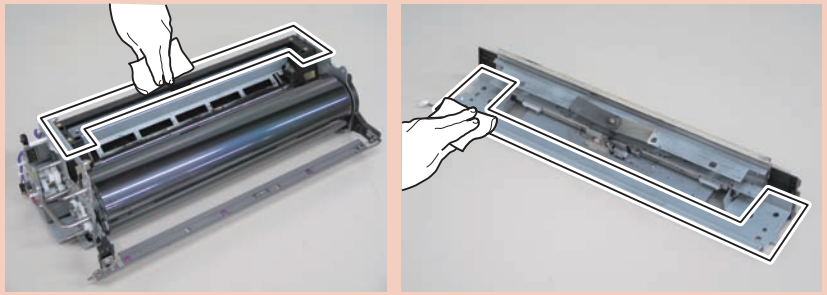


F-4-117

CAUTION:

When installing the Drum Cleaning Unit, clean the area shown with lint-free paper moistened with alcohol.

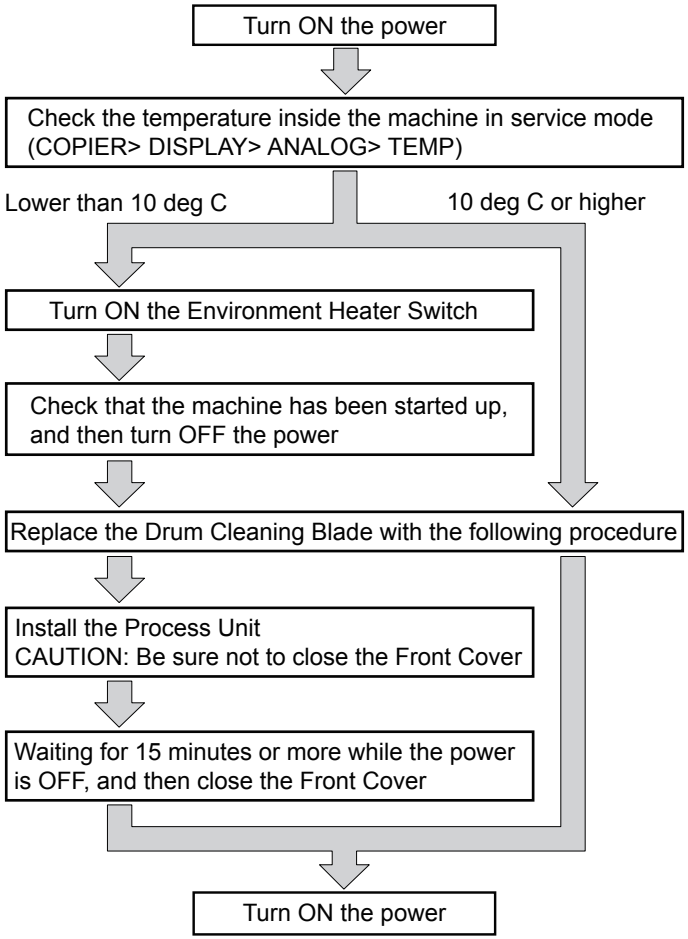
If the Drum Cleaning Unit is installed without removing toner, it cannot be installed in the correct position, causing the cleaning error.



F-4-118

Removing the Drum Cleaning Blade

Procedure differs according to the temperature inside the machine. Be sure to perform the work by following the flow indicated below.



F-4-119

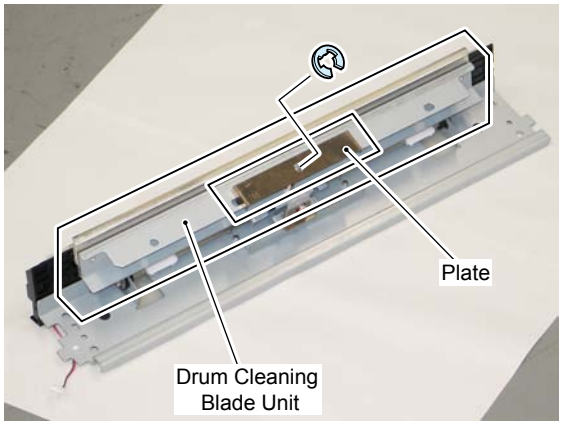
<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Remove the Drum Cleaning Unit. (Refer to page 4-117)

<Procedure>

1) Turn over the Drum Cleaning Unit to remove the Drum Cleaning Blade Unit.

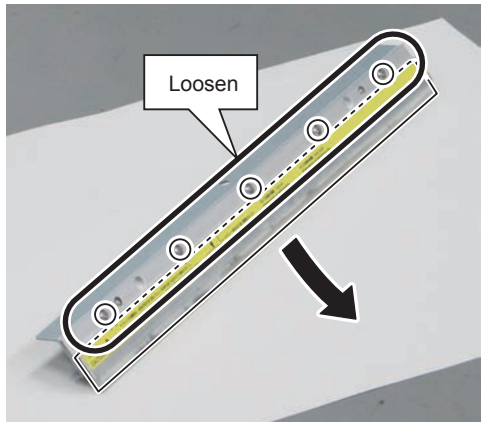
- 1 E-ring
- 1 Plate



F-4-120

2) Remove the Drum Cleaning Blade.

- 5 Screws (to loosen)



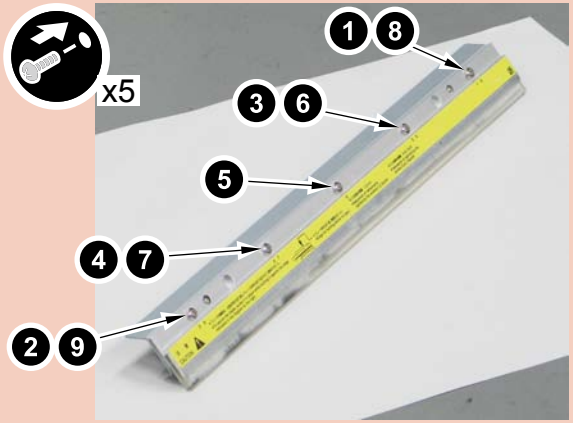
F-4-121

CAUTION:Points to Caution when Installing the Drum Cleaning Blade

Be sure to apply toner on the contact area (edge) on the Drum of the Drum Cleaning Blade. In particular, be sure to apply toner on both edges of the Blade.

CAUTION:Points to Caution when Installing the Drum Cleaning Blade Unit

1. Wipe out the toner on both edges of the Drum Cleaning Unit before installation.
2. Be sure to fit in the center position, and then temporarily tighten the screws following the numeric order (from 1 to 4) and also securely tighten the screws (from 5 to 9).



F-4-122

Cleaning the Drum Cleaning Unit

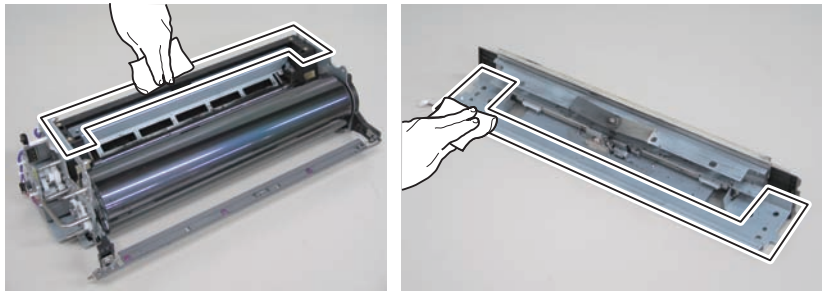
<Preparation>

1. Open the Inner Cover. (Refer to “Removing the Primary Charging Assembly”)
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Remove the Drum Cleaning Unit. (Refer to “Removing the Drum Cleaning Blade”)

<Procedure>

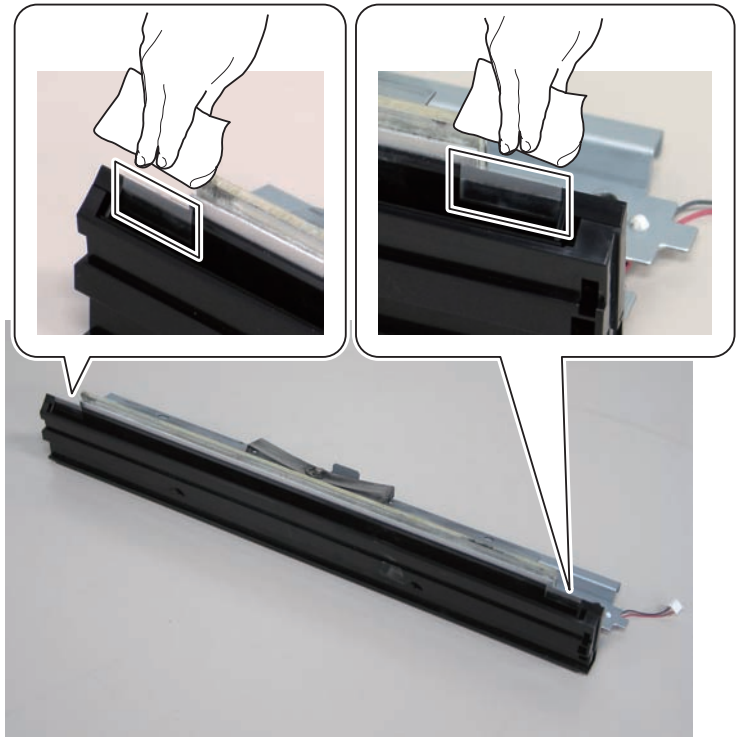
CAUTION:
Do not touch the surface of the Photosensitive Drum.

1) Clean the Drum Cleaning Unit Plate with lint-free paper moistened with alcohol.



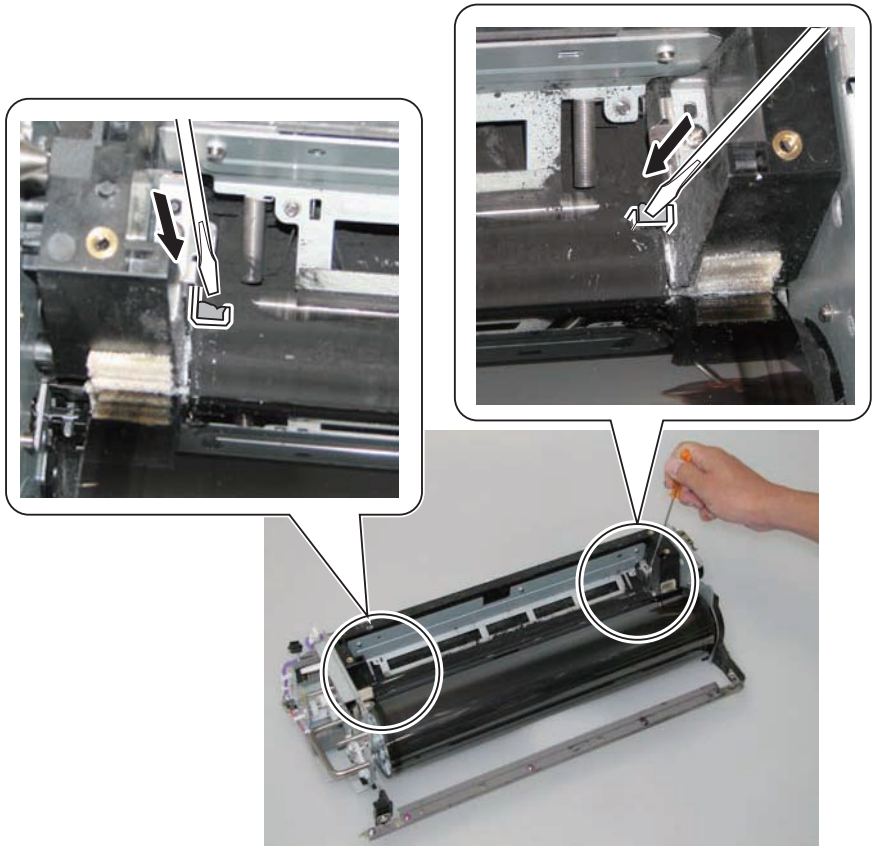
F-4-123

2) Clean the 2 Pre-exposure Plastic Films of the Drum Cleaning Blade Unit with lint-free paper.



F-4-124

3) Crumb toner clusters in the toner collection area and then clean it.



F-4-125

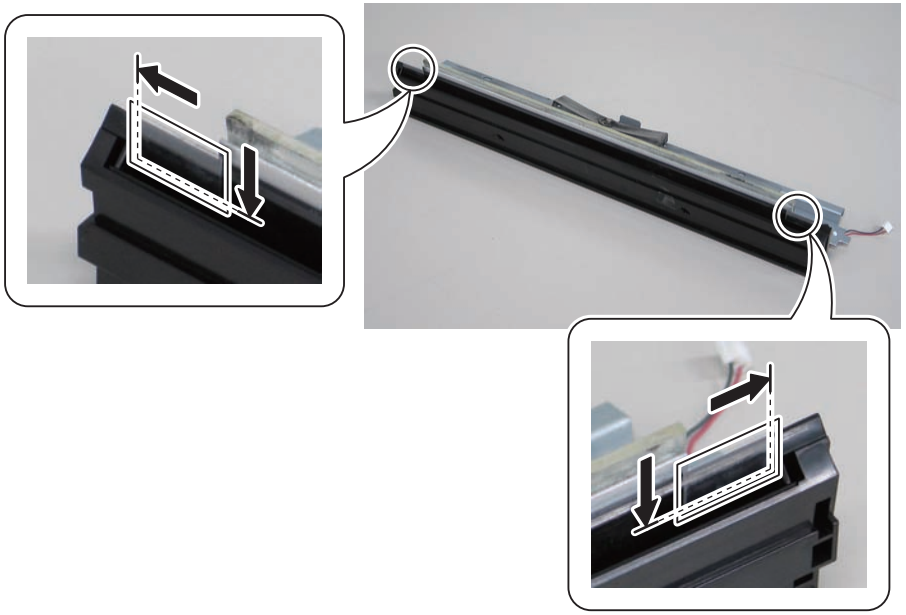
Replacing the Pre-exposure Plastic Film

<Preparation>

1. Open the Inner Cover. (Refer to “Removing the Primary Charging Assembly”)
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Remove the Drum Cleaning Unit. (Refer to “Removing the Drum Cleaning Blade”)

<Procedure>

1) Remove the Pre-exposure Plastic Film.
2) Fit the Pre-exposure Plastic Film to the edge and lower grooves of the Drum Cleaning Unit.



F-4-126

Removing the Drum Unit

<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Put paper on the Photosensitive Drum, so that it is not exposed to direct sunlight.
6. Remove the Drum Cleaning Blade. (Refer to page 4-117)

<Procedure>

CAUTION:

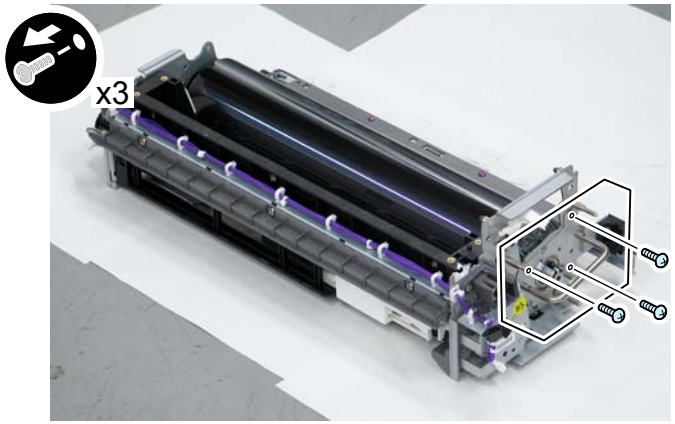
When handling the Process Unit and Photosensitive Drum, be sure to follow the following points to note.

1. When removing the Process Unit, be sure to block light to the Photosensitive Drum. Cover with the Photosensitive Drum Protection Sheet or wrap 5 or more papers around the drum to block light.
2. Do not place the Process Unit and Photosensitive Drum in a location where is exposed to direct rays of the sun (e.g. near the window).
3. Do not store in a location with high/low temperature/humidity, or in a location where temperature or humidity is dramatically changed.
4. Do not store in a dusty area or in a location full of ammonia gas or organic solvent gas.

When installing a new Photosensitive Drum, be sure to remove the Lightproof Sheet after installing the drum to the main body. In addition, be sure to rotate the drum counterclockwise at removal of the Lightproof Sheet. If the drum is rotated clockwise, the Drum Cleaner Blade may be everted.

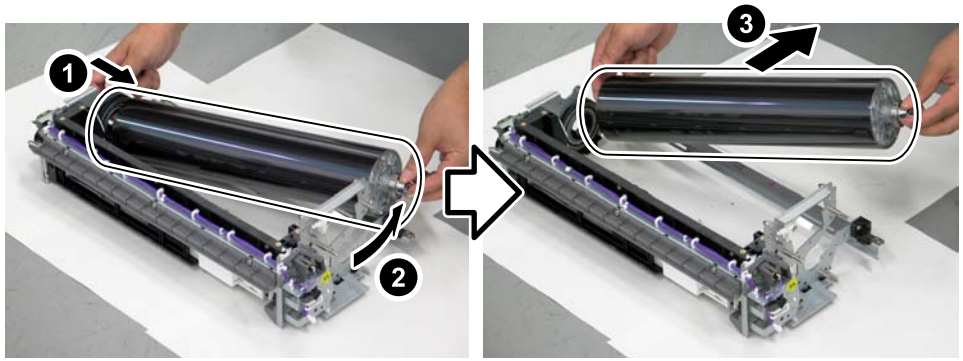
1) Remove the Drum Retainer Plate (tentative name).

- 3 Screws



F-4-127

2) Push to move the rear side of the Photosensitive Drum with your fingers and pull out the Drum Unit to the front to remove.



F-4-128

Removing the Photosensitive Drum

<Preparation>

1. Open the Inner Cover. (Refer to “Removing the Primary Charging Assembly”)
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Put paper on the Photosensitive Drum, so that it is not exposed to direct sunlight.
6. Remove the Drum Cleaning Blade. (Refer to page 4-117)
7. Remove the Drum Retainer Plate.
8. Remove the Drum Unit. (Refer to page 4-121)

<Procedure>

CAUTION:

When handling the Process Unit and Photosensitive Drum, be sure to follow the following points to note.

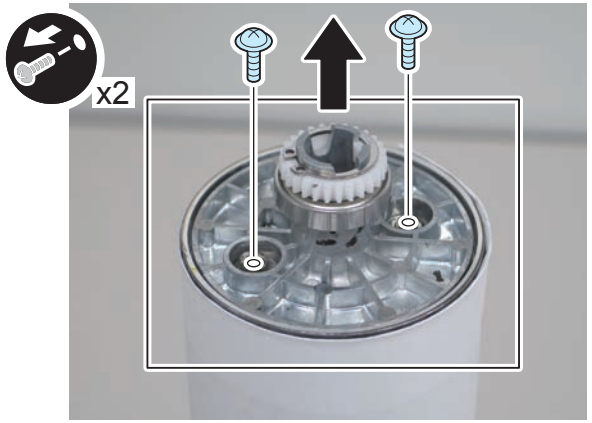
1. When removing the Process Unit, be sure to block light to the Photosensitive Drum. Cover with the Photosensitive Drum Protection Sheet or wrap 5 or more papers around the drum to block light.
2. Do not place the Process Unit and Photosensitive Drum in a location where is exposed to direct rays of the sun (e.g. near the window).
3. Do not store in a location with high/low temperature/humidity, or in a location where temperature or humidity is dramatically changed.
4. Do not store in a dusty area or in a location full of ammonia gas or organic solvent gas.

When installing a new Photosensitive Drum, be sure to remove the Lightproof Sheet after installing the drum to the main body. In addition, be sure to rotate the drum counterclockwise at removal of the Lightproof Sheet. If the drum is rotated clockwise, the Drum Cleaning Blade may be everted.

1) Wrap paper around the Drum Unit to block light.

F-4-129

2) Remove the 2 screws and the Flange.



F-4-130

3) Disconnect the connector and remove the Drum Heater.

F-4-131

4) Remove the Heater Control PCB Unit.

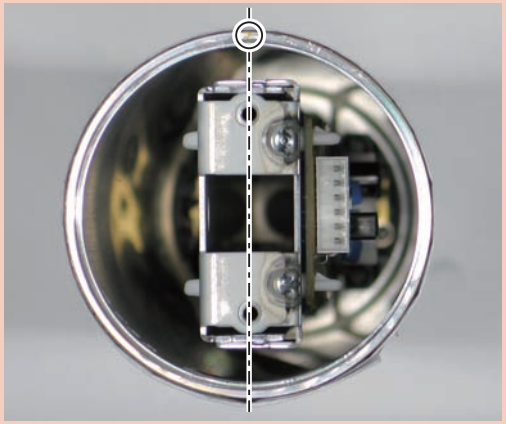
F-4-132

NOTE:
Serial ID of the drum is written on the seal inside the drum.

F-4-133

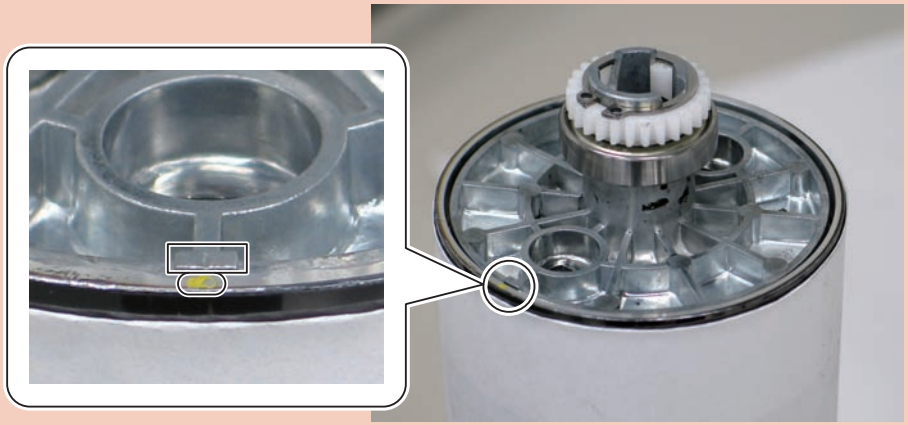
CAUTION:

- Align the yellow marker of the drum with the hole position of the unit when installing the Heater Control PCB Unit to the drum.



F-4-134

- When securing the Flange, align the protrusion of the Flange with the yellow marker to install.



F-4-135

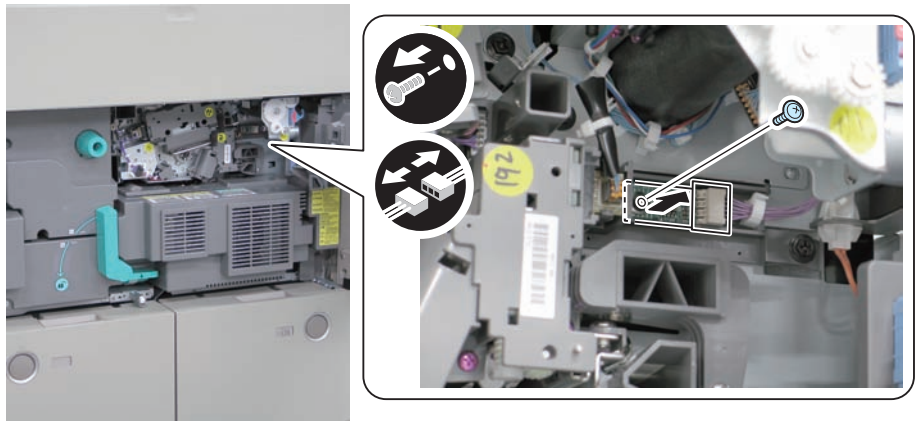
NOTE:
If the yellow marker is not aligned with the protrusion, the following control cannot be executed properly.
1. 2D shading
2. D-MAX control
3. D-half control

<Processing when reaplacing the parts>

<Procedure of adjustment>

1)Remove the EEPROM.

- 1 Screw
- 1 Connector



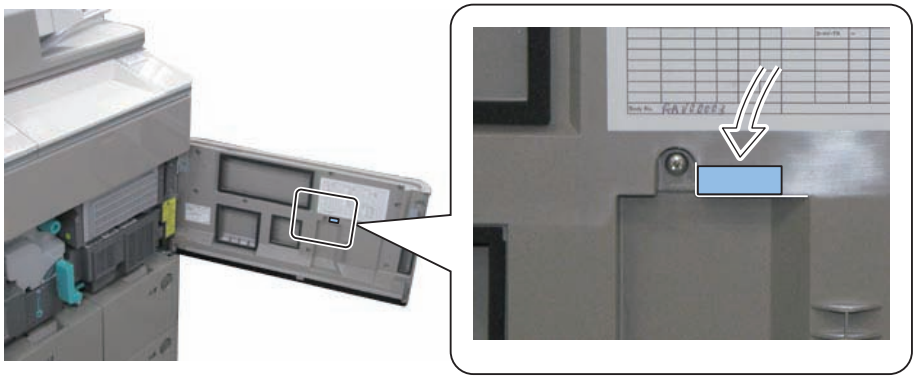
F-4-136

3)Replace with the ROM packaged with the Drum.

CAUTION:

If the ROM is not replaced, the replaced drum and the drum-unique data stored in the ROM are not matched. As a result, the 2D shading is not functioned normally.

4) Affix the ID Label included in the drum to the inside of the Front Cover.

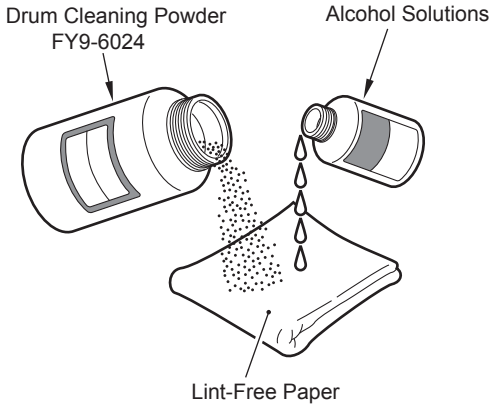


F-4-137

5) Activate the drum replacement mode. (COPIER>FUNCTION>INSTALL>DRM-INIT)
6) Check the 2-dimensional shading ROM. (COPIER>FUNCTION>2D-SHADE>2D-READ)
6) Execute Auto Adjust Gradation.

Cleaning Photosensitive Drum

1) Moisten lint-free paper with 5 to 10 cc of alcohol solutions ; then, pour 0.2 to 0.3 g of the drum cleaning powder (FY9-6024) on the lint-free paper.
2) While butting the lint-free paper relatively strongly against the photosensitive drum, wipe the surface of the drum from the front to the rear and from the rear to the front.

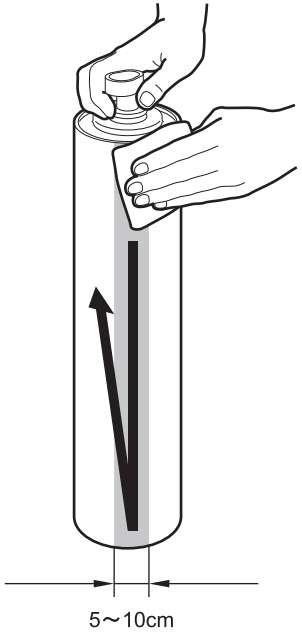


F-4-138

CAUTION:
- Keep the widths of cleaning to 5 to 10 cm in the peripheral direction of the drum.
- Move the lint-free paper back and forth 15 to 20 times over a single area. Forcing the lint-free paper will not affect the life of the drum.

3) After the alcohol has evaporated, dry wipe the surface with the lint-free paper. If the area is uneven, go back to the step 1, and increase the back-and-forth movements.

4) Rotate the drum for the width (5 to 10 cm), and repeat the step 1 through 3 until the entire area of the surface has been cleaned.



F-4-139

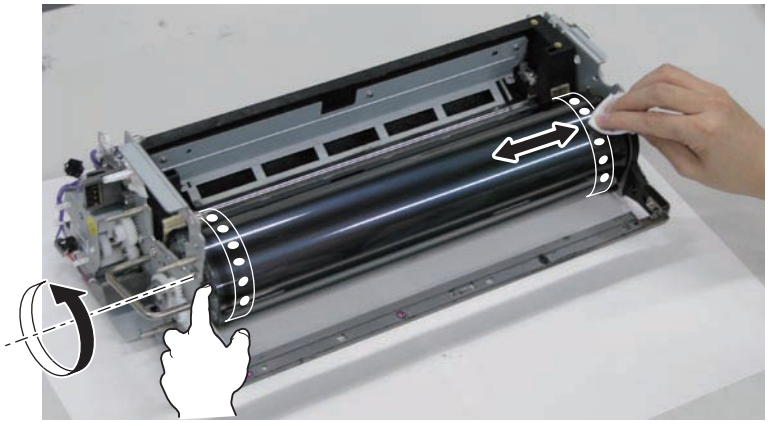
Cleaning the Drum edges

<Preparation>

1. Open the Inner Cover. (Refer to “Removing the Primary Charging Assembly”)
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Put paper on the Photosensitive Drum, so that it is not exposed to direct sunlight.
6. Remove the Drum Cleaning Blade. (Refer to page 4-117)
7. Remove the Drum Retainer Plate.
8. Remove the Drum Unit. (Refer to page 4-121)

<Procedure>

1) Rotate the Drum and dry wipe the soiling on the surface of the Drum edges with lint-free paper.



F-4-140

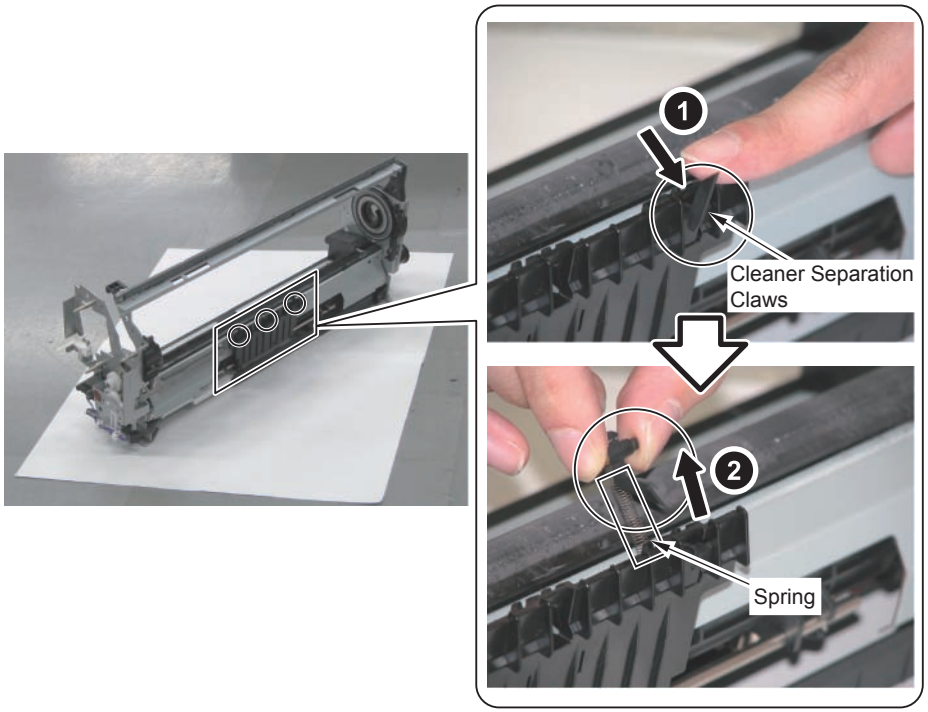
Removing the Cleaner Separation Claw

<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Remove the Drum Cleaning Blade. (Refer to page 4-117)
6. Remove the Drum Unit. (Refer to page 4-121)

<Procedure>

1) Put the Process Unit Frame perpendicularly.
2) Remove the 3 Cleaner Separation Claws.
- 1 Spring each



F-4-141

Removing the Side Seal

<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Remove the Drum Cleaning Blade. (Refer to page 4-117)
6. Remove the Drum Unit. (Refer to page 4-121)

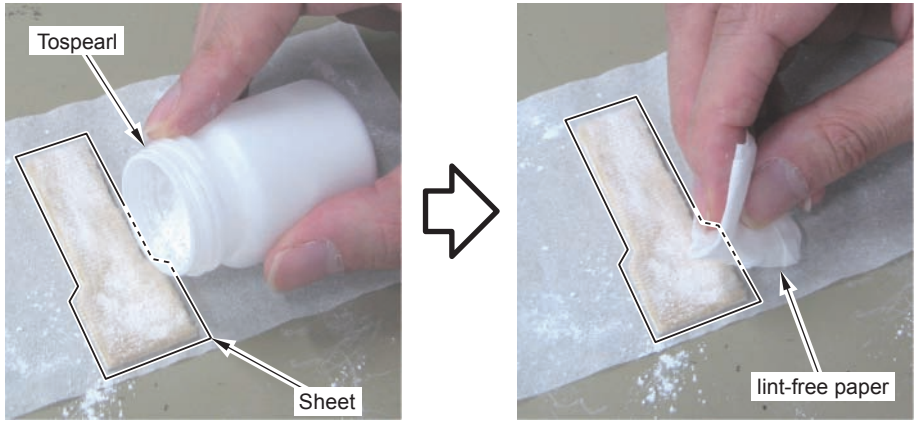
<Procedure>

1) Remove the Side Seals (Front and Rear).

F-4-142

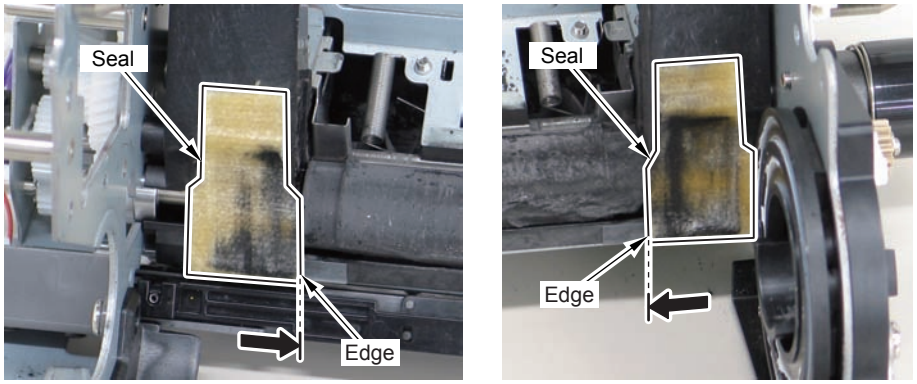
2) Apply Tospearl on the surfaces of the new Drum Side Seals (Front and Rear) and adhere it uniformly with lint-free paper.

NOTE:
In order to reduce adhesion of toner at both ends of the Photosensitive Drum



F-4-143

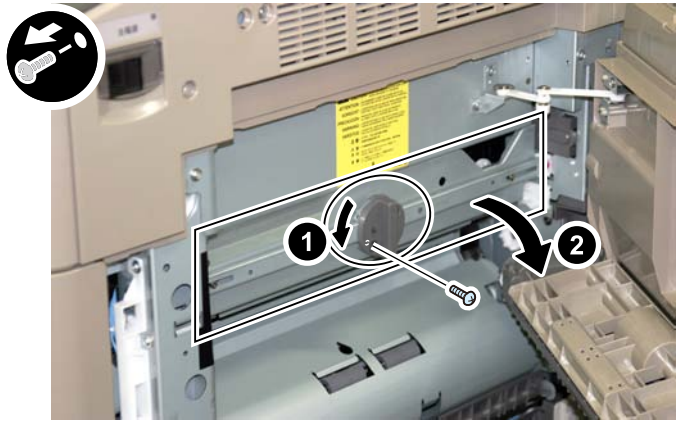
3) Align the Drum Side Seals (Front and Rear) with the edges of the sheets and affix them.



F-4-144

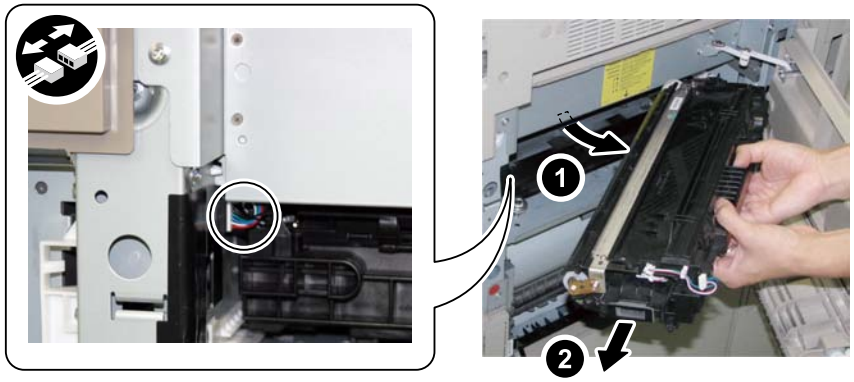
Removing the Developing Assembly

1) Place paper underneath the Developing Assembly.
2) Open the Right Cover.
3) Turn the Tab to open the Plate Cover.
- 1 Screw



F-4-145

4) Remove the Developing Assembly by following the Rail.
- 1 Connector

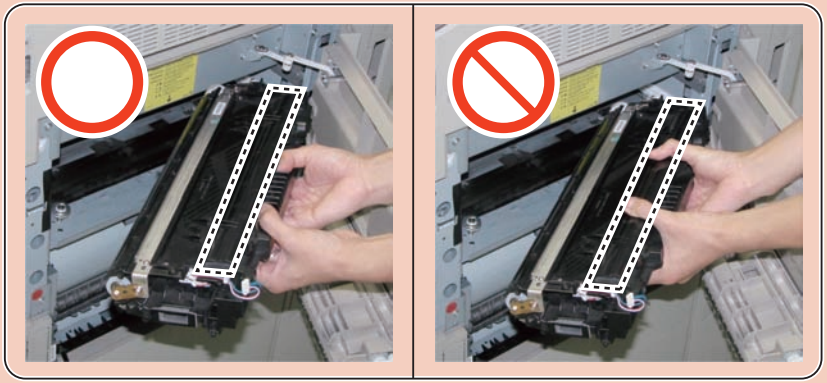


F-4-146

CAUTION:How to Hold the Developing Assembly

When holding the Developing Assembly, be sure to hold the handle of the Developing Assembly as shown in the figure.

Do not touch the shutter area of the Developing Assembly. The shutter area is slippery, so it may cause a fall of the assembly.

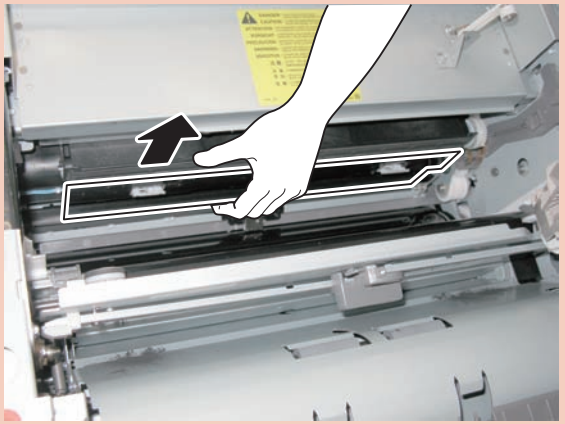


F-4-147

CAUTION:Points to Caution when Installing the Developing Assembly

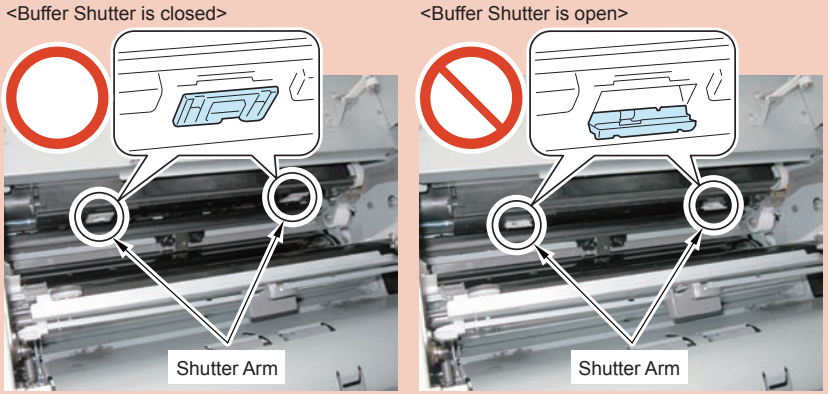
Before installing the Developing Assembly, check that the Buffer Shutter is not open.

If the Developing Assembly is forcibly installed while the Buffer Shutter is open, the shutter may get damage. When the Buffer Shutter is open, pull out the shutter to the front and then close it.



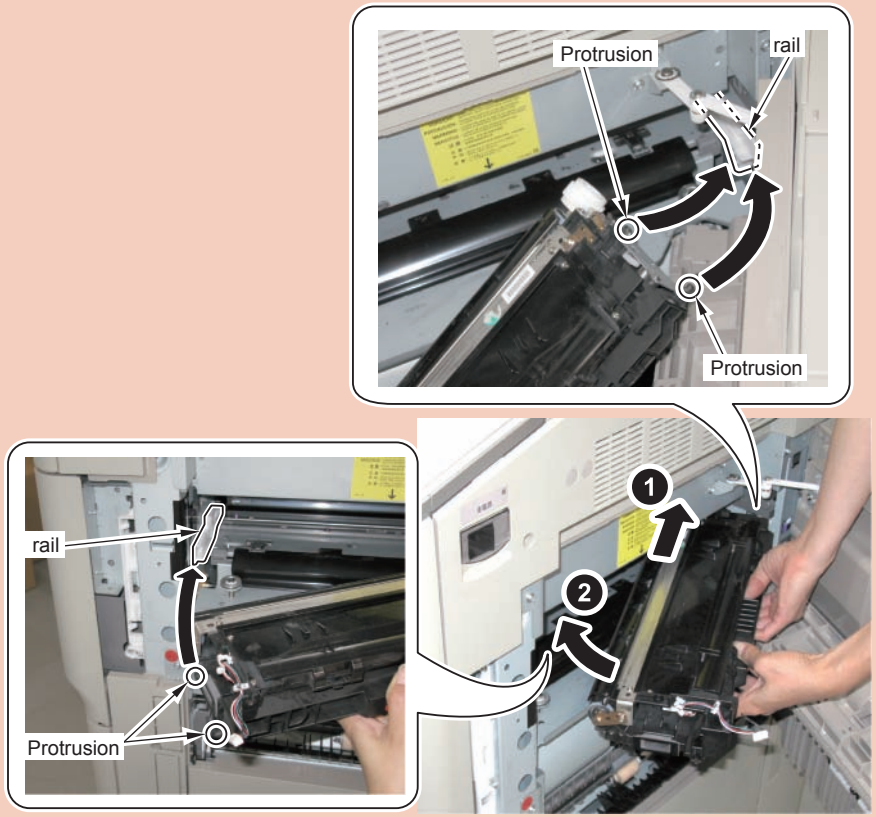
F-4-148

Whether the shutter is open or not can be checked with the Shutter Arm.



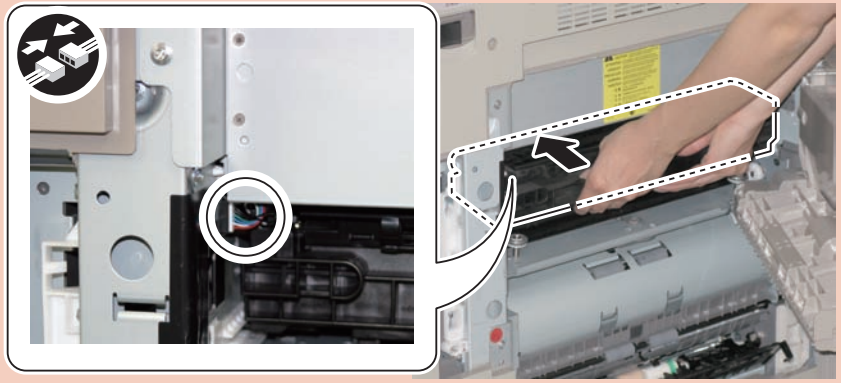
F-4-149

- As shown in the figure, hold the Developing Assembly and fit the protrusions at right and left sides of the Developing Assembly to the rail of the host machine.



F-4-150

- Install the Developing Assembly horizontally by following the rail.



F-4-151

<Processing when replacing the parts>

1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>DVG-CYL)
2) Supplying Developing Assembly toner (COPIER>FUNCTION>INSTALL>TONER-S)

Cleaning the Developing Assembly

<Preparation>

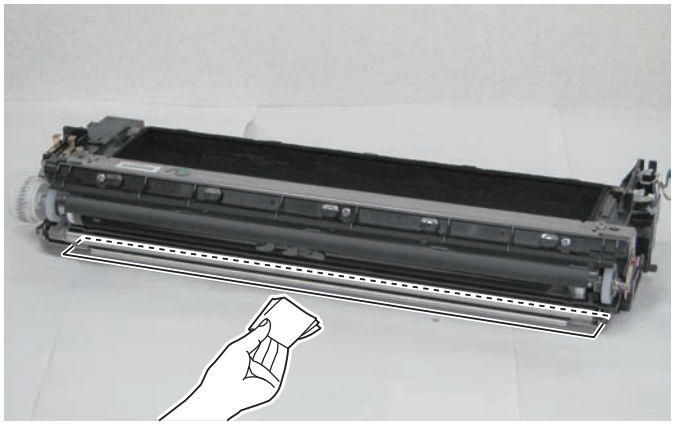
1. Remove the Developing Assembly. (Refer to page 4-128)

<Procedure>

1) Clean the 2 Developing Rollers with lint-free paper moistened with alcohol while rotating them.

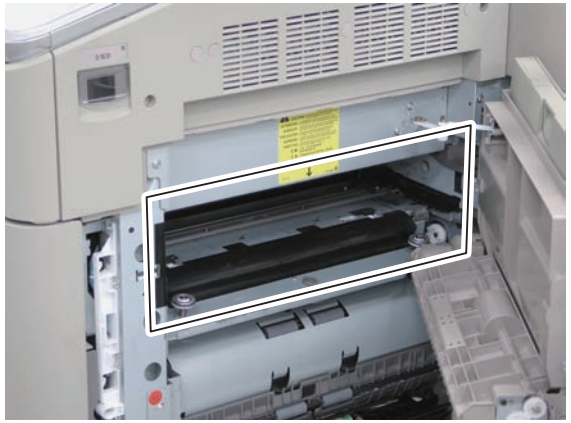
F-4-152

2) Clean the lower side of Cylinder in the Developing Assembly with lint-free paper moistened with alcohol.



F-4-153

3) Remove toner in the main body.



F-4-154

Removing the Developing Cylinder and the Developing Roller

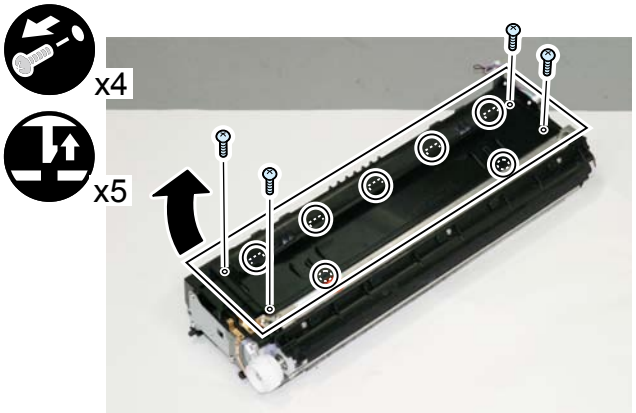
<Preparation>

1. Remove the Developing Assembly. (Refer to page 4-128)
2. Remove the Developing Cylinder Blade.

NOTE:
When the Developing Assembly is put on the floor or the desk, be sure to place paper underneath to work on the Developing Assembly.

2-1) Remove the Developing Assembly Cover.

- 4 Screws
- 5 Claws
- 2 Protrusions

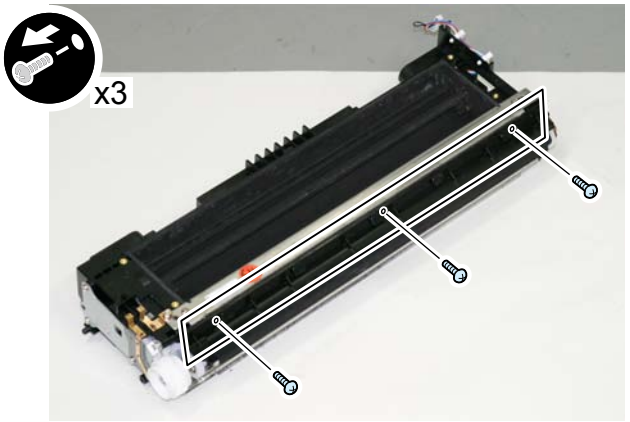


F-4-155

2-2) Empty the toner in the Developing Assembly on the paper.

2-3) Remove the Developing Assembly Front Cover.

- 3 Screws

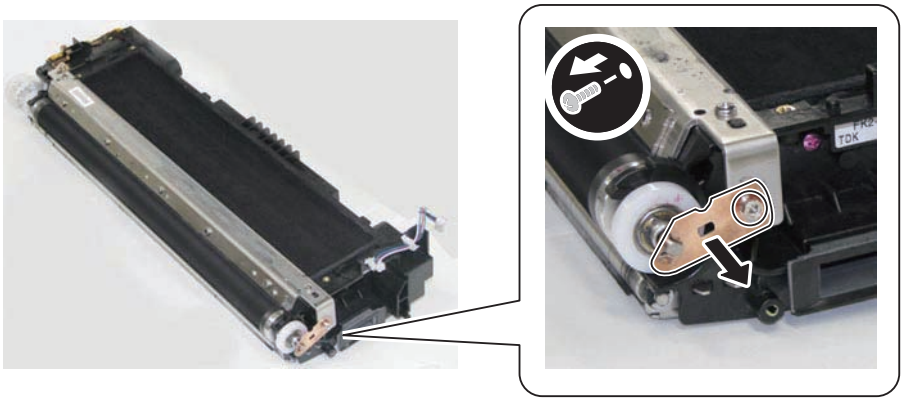


F-4-156

CAUTION:
Be sure to hold the Developing Assembly Front Cover to remove the screw.
Otherwise, the Developing Assembly Front Cover may fall, which can cause damage on the Developing Cylinder.

2-4) Remove the Sleeve Bias Plate.

- 1 Screw

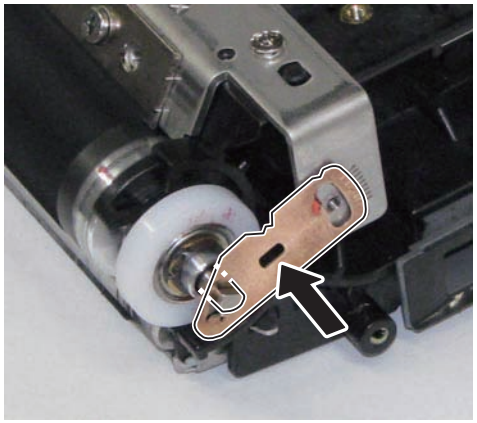


F-4-157

Points to Caution at Installation:

Since white lines may occur on the image, go through the following steps to match the phase of the Sleeve Bias Plate and Developing Cylinder Blade.

Fit the Sleeve Bias Plate with the shaft of the Developing Cylinder to install.

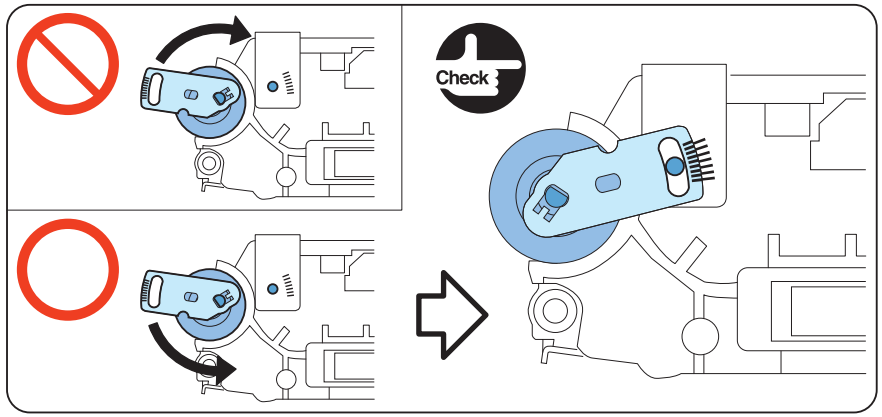


F-4-158

Points to Caution at Installation:

Check that the long hole of the Sleeve Bias Plate is fitted with the hole of the Developing Cylinder Blade. If it is not fitted, rotate the Sleeve Bias Plate counterclockwise to match the phase.

Be careful not to rotate the Sleeve Bias Plate clockwise since this direction is to be a reverse direction of the proper Developing Cylinder rotation.



F-4-159

Points to Caution at Installation:

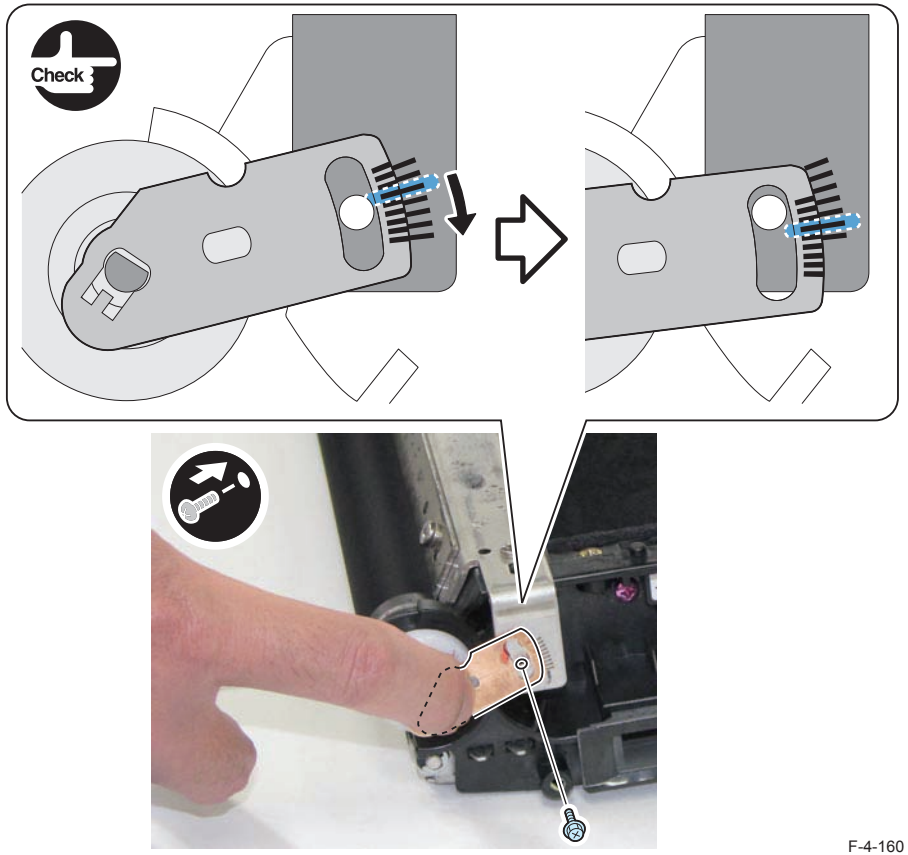
Find the position in which either scale of Sleeve Bias Plate is most matched with one of the Developing Cylinder Blade scales.

(If the Developing Cylinder Blade is not marked with scales, put a mark on the Developing Cylinder Blade at a point that matches one of the scales on the Sleeve Bias Plate and use the point as a reference point.)

See the Sleeve Bias Plate from the front side, and from the most matched position (scales), rotate the plate clockwise by 3 scales of the Developing Cylinder Blade.

With the position where the plate was rotated by 3 scales, hold the Sleeve Bias Plate and secure with the removed screw.

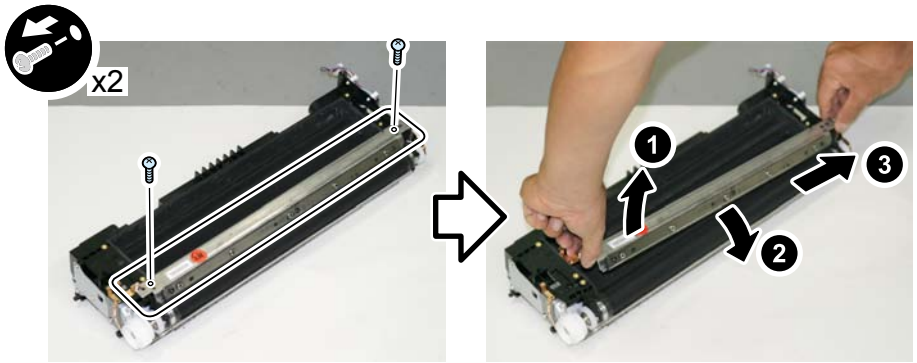
This is a reverse direction of the proper Developing Cylinder rotation, but this would be no problem in this procedure.



F-4-160

2-5) Lift the left side to remove the Developing Cylinder Blade in the direction of the arrow.

- 2 Bosses



F-4-161

CAUTION:

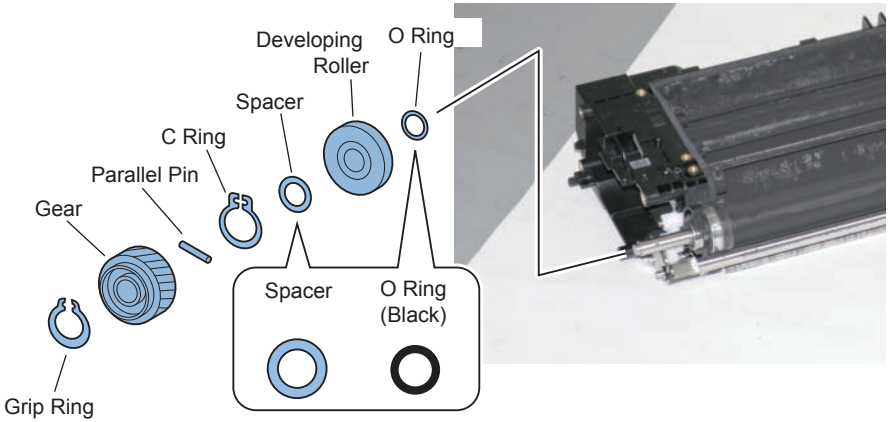
Do not disassemble the Developing Cylinder Blade. Otherwise, cleaning of the Developing Cylinder is not properly executed when removing just the Blade (as a single part).

<Procedure>

1) Remove the Grip Ring, the Gear, the Parallel Pin, the C Ring, the Spacer, the Developing Roller and the O Ring in the rear.

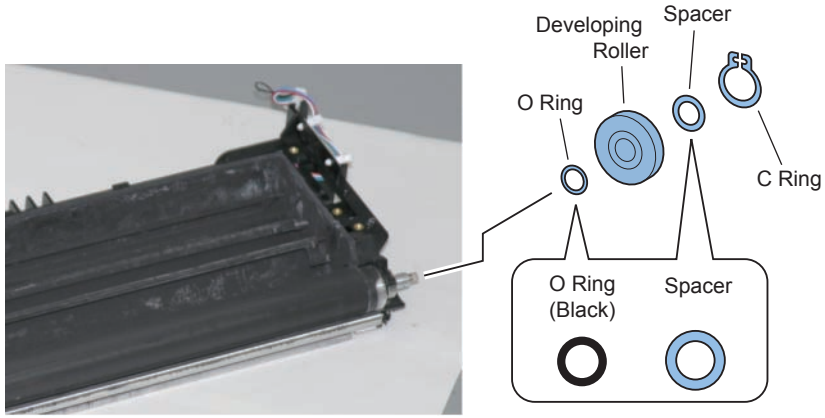
CAUTION: Point to Caution at Installation

- Be sure to install the C Ring and the Spacer correctly.
- Be sure to use a dedicated tool when installing/removing the Grip Ring and C Ring.



F-4-162

2) Remove the C Ring, the Spacer, the Developing Roller and the O Ring.



F-4-163

CAUTION:

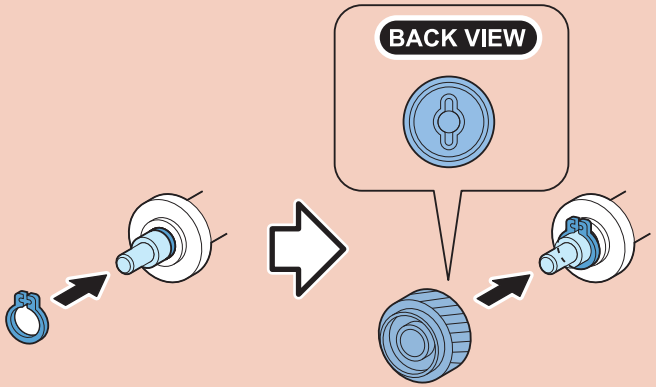
The C Rings and the O Rings removed in step 2 and 3 cannot be reused. Be sure to use the C Rings and the O Rings included in the package.

Be sure to use a dedicated tool when installing/removing the Grip Ring and C Ring.

CAUTION: How to Install the C Ring

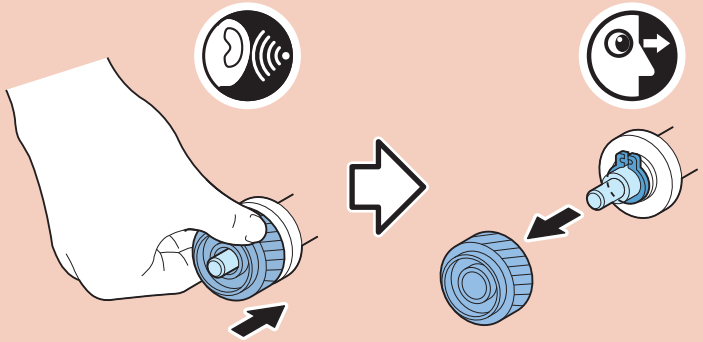
When installing the C Rings removed in step 2 and 3, be sure to perform the following to fit the C Rings into the groove of the Developing Cylinder securely.

1. Fit the C Ring into the groove of the Developing Cylinder Shaft using a dedicated tool.
2. Locate the side of the Gear where the Parallel Pin removed in step 2 was set inside, and install the Gear to the Developing Cylinder Shaft temporarily.



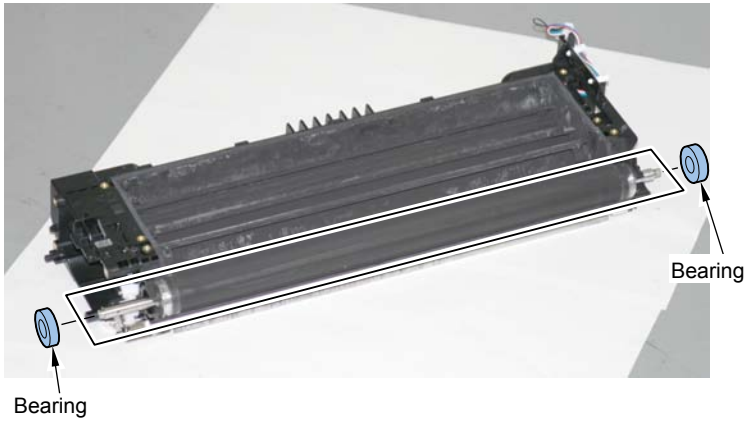
F-4-164

3. Insert the Gear while pushing it against the C Ring, and check that click sound which occurs when the C Ring fits into the groove of the Developing Cylinder Shaft is heard.
4. Pull out the Gear from the Developing Cylinder Shaft, and check visually that the C Ring is fitted into the groove of the shaft.



F-4-165

3) Remove the Bearing to remove the Developing Cylinder.



F-4-166

<Processing when replacing the parts>

1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>DVG-CYL)
2) Supplying Developing Assembly toner (COPIER>FUNCTION>INSTALL>TONER-S)

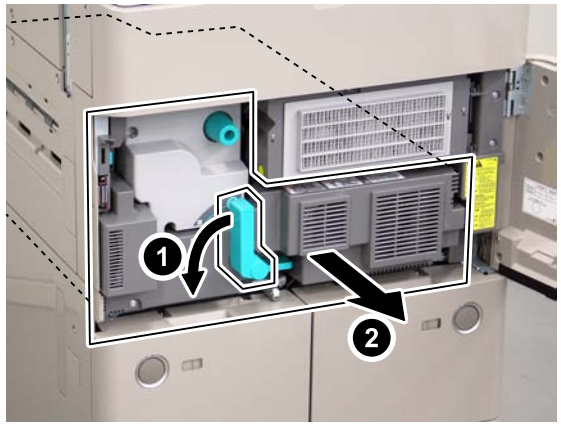
Removing the ETB Unit

<Preparation>

1. Pull out the Fixing Feed Unit.

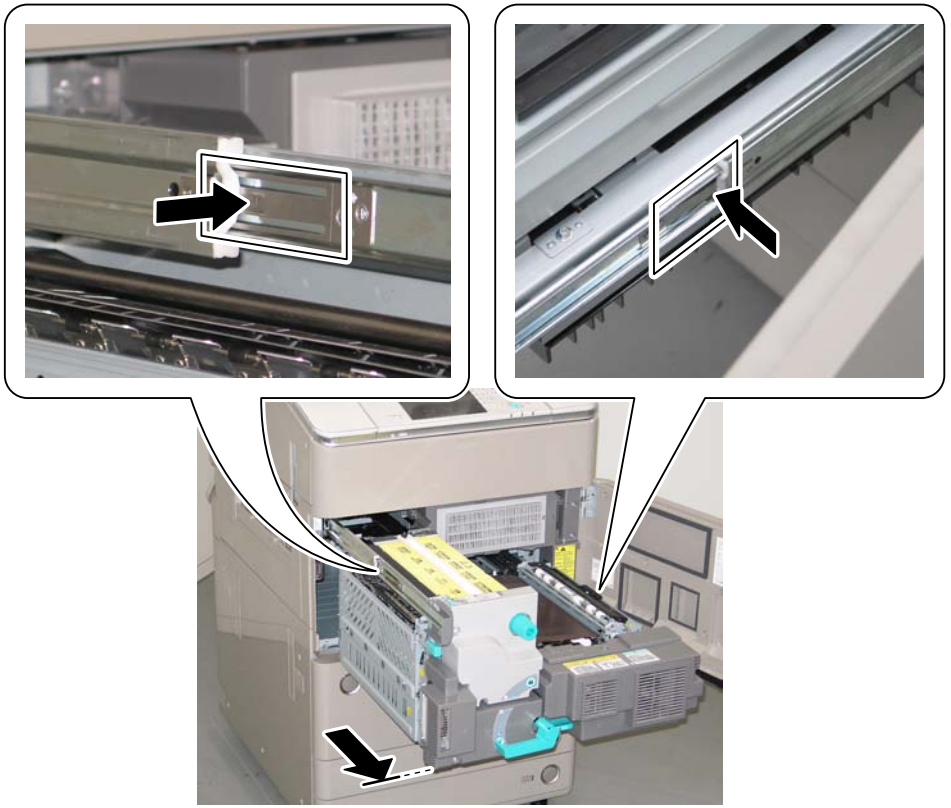
1-1) Open the Front Cover.

1-2) Turn the Fixing Feed Unit Pressure Release Lever in the direction of the arrow to pull out the Fixing Feed Unit.



F-4-167

1-3) Push to release the Release Springs at both sides of the Rail, and then further pull out the Fixing Feed Unit until it stops.



F-4-168

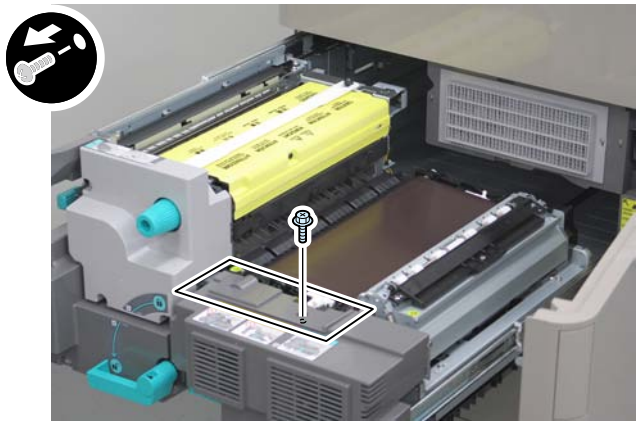
CAUTION:

Do not touch the surface of the ETB when handling the ETB Unit.

<Procedure>

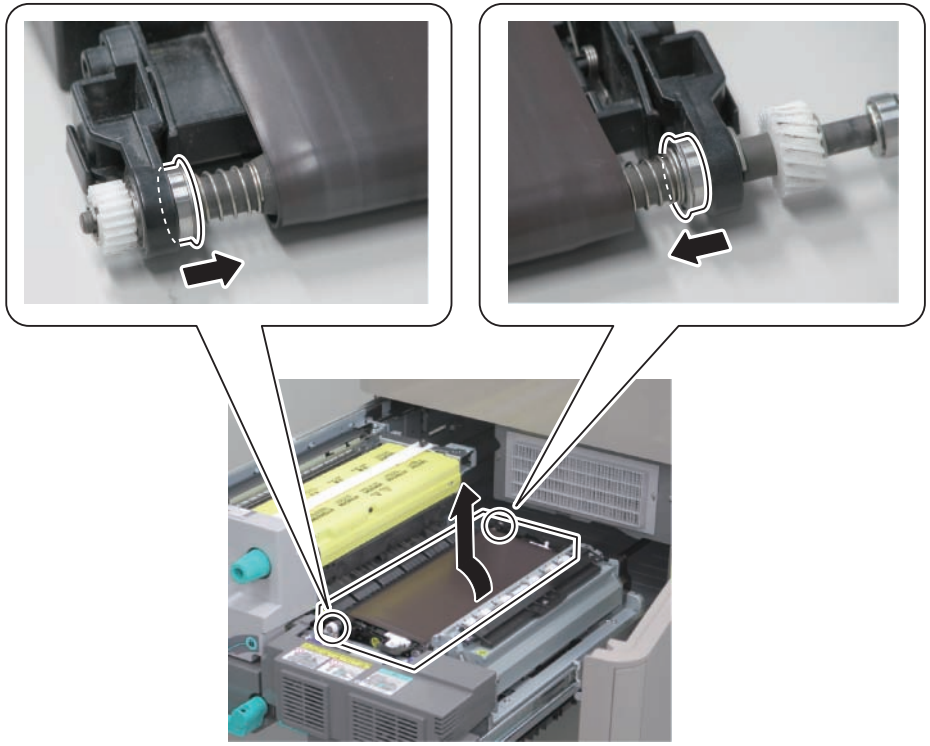
1) Remove the Fixing Feed Right Front Upper Cover.

- 1 Screw



F-4-169

2) Hold the 2 Handles to remove the ETB Unit in the direction of the arrow.



F-4-170

<Processing when replacing the parts>

1) Clear the ETB control counter. (COPIER>FUNCTION>CLEAR>TR-BLT)
   Parts counter (COPIER>COUNTER>DRBL-1>TR-BLT) is also cleared coincidentally.

Removing the ETB

<Preparation>

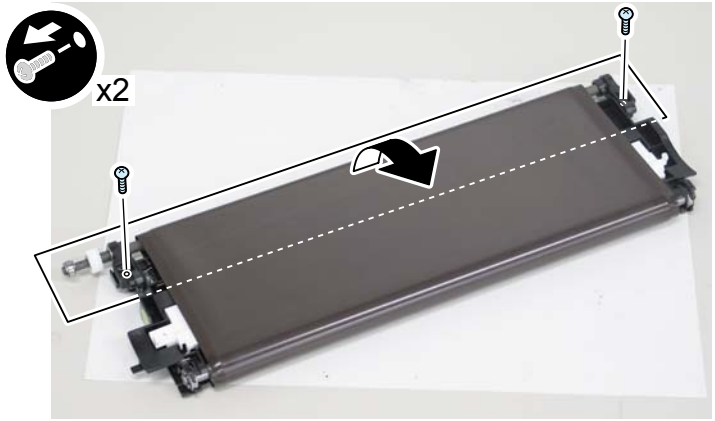
1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-137)

CAUTION:
Do not touch the surface of the ETB when handling the ETB Unit.

<Procedure>

1) Fold the ETB Drive Roller Unit.

- 2 Screws



F-4-171

2) Set up the ETB Unit to remove the Roller Unit from the ETB.

F-4-172

CAUTION:

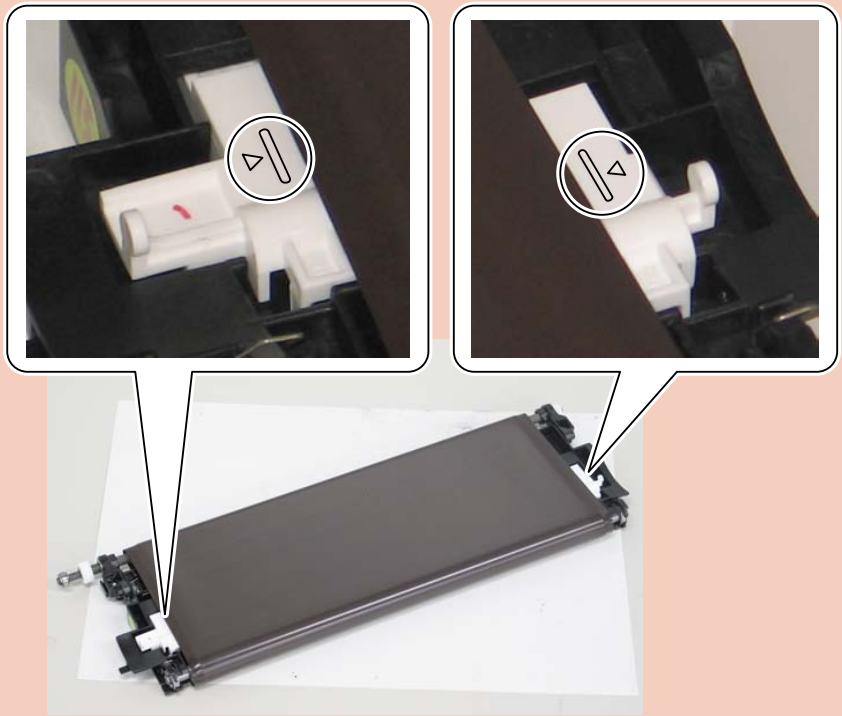
- Be sure to hold within 10mm from both edges of the ETB when handling the ETB.
- Do not touch the surface of the ETB Drive Roller and the Transfer Roller; otherwise, it can cause image faults.

<Processing when replacing the parts>

1) Clear the ETB control counter. (COPIER>FUNCTION>CLEAR>TR-BLT)
   Parts counter (COPIER>COUNTER>DRBL-1>TR-BLT) is also cleared coincidentally.

CAUTION:Points to Caution when Installing the ETB

Set the ETB to make the ETB located inside the Guides at both edges.



F-4-173

Cleaning the ETB

<Preparation>

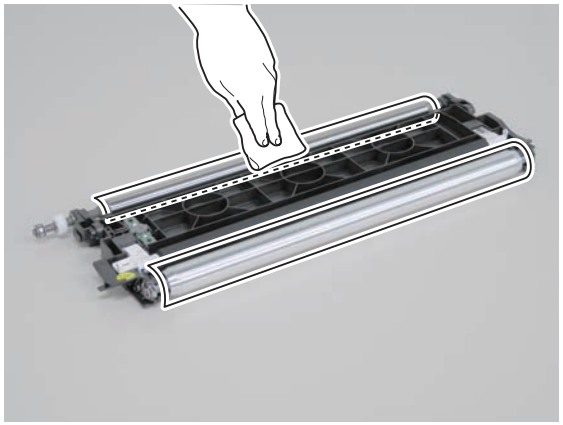
1. Pull out the Fixing Feed Unit. (Refer to “Removing the ETB”)
2. Remove the ETB Unit. (Refer to page 4-137)
3. Remove the Roller Unit from the ETB Unit.

<Procedure>

1) Clean the Transfer Roller and Drive Roller with lint-free paper moistened with alcohol.

CAUTION:

Do not touch the surface of the ETB Drive Roller and the Transfer Roller; otherwise, it can cause image faults.



F-4-174

Removing the Transfer Roller

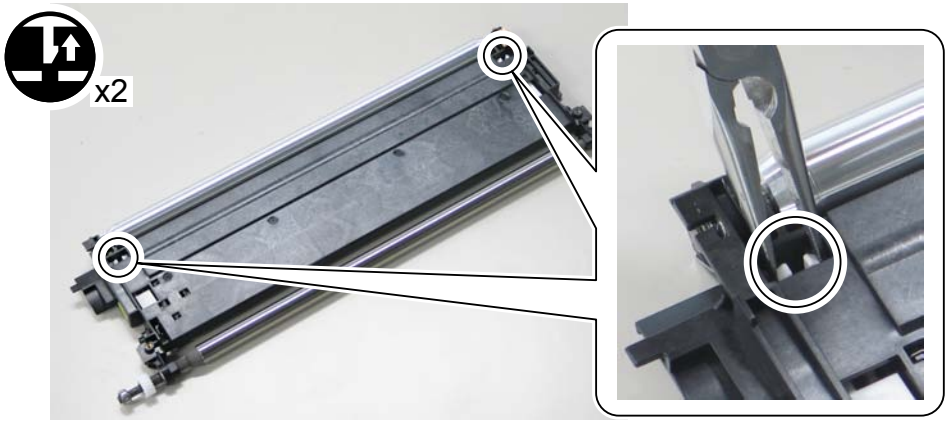
<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-137)
3. Remove the ETB. (Refer to page 4-139)

CAUTION:
Do not touch the surface of the ETB Drive Roller and the Transfer Roller; otherwise, it can cause image faults.

<Procedure>

1) Turn over the Roller Unit to remove the Claw of the Transfer Roller Shaft Support with needlenose pliers.



F-4-175

2) Remove the Transfer Roller Shaft Support from the Transfer Roller.

F-4-176

NOTE:
When installing the Transfer Roller Shaft Support to the Roller Unit, be sure to check that the bosses of the Transfer Roller Shaft Support are fitted into the Springs.

F-4-177

Removing the ETB Cleaning Blade

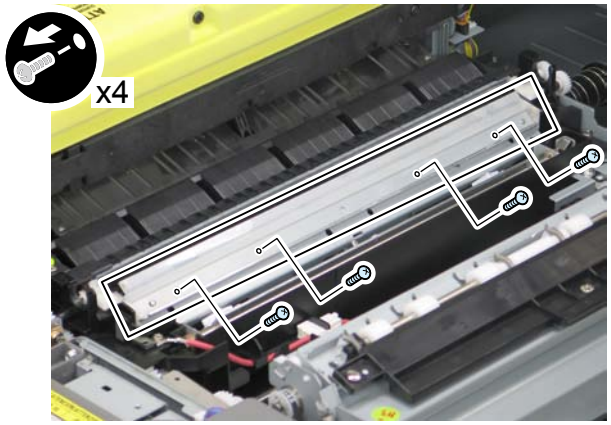
<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-137)

<Procedure>

1) Remove the ETB Cleaning Blade.

- 4 Screws



F-4-178

Removing the ETB Brush Roller

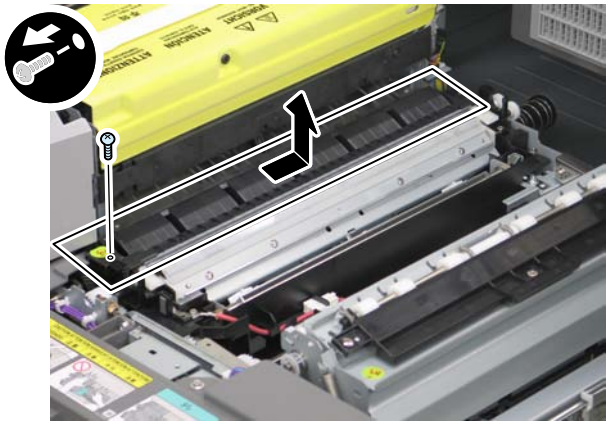
<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-137)

<Procedure>

1) Remove the Post-transfer Guide.

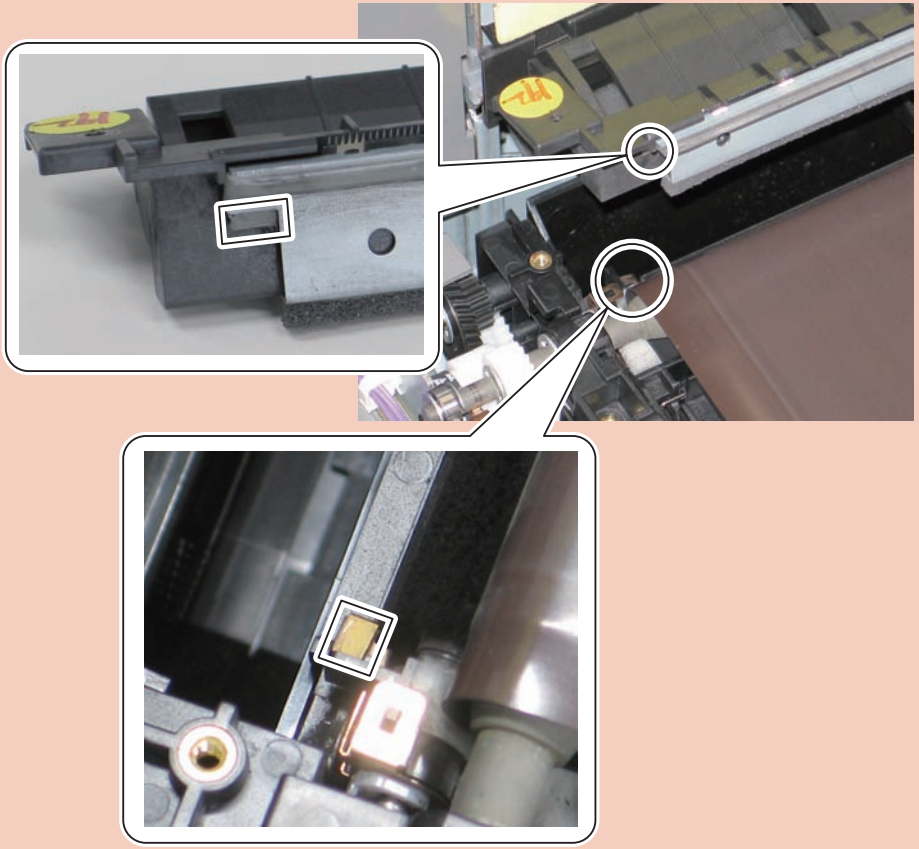
- 1 Screw



F-4-179

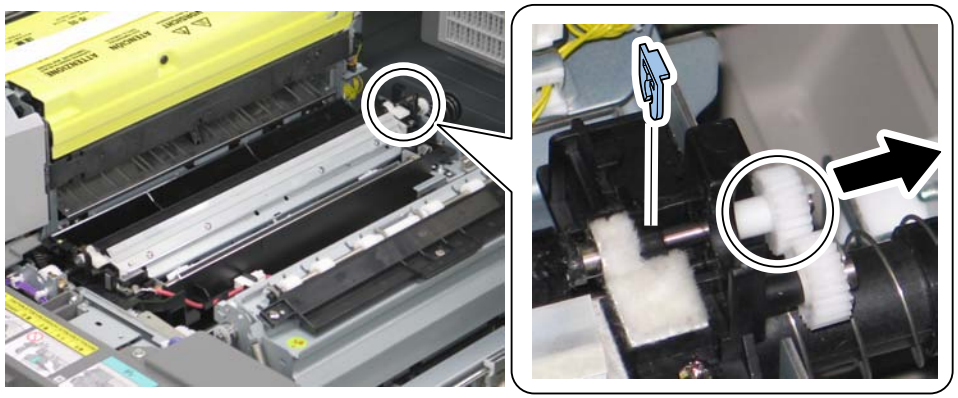
CAUTION:

- Be sure to keep in contact with the Grounding Plate when installing the Post-transfer Guide.
- Do not deform the Grounding Plate when installing the Post-transfer Guide.



F-4-180

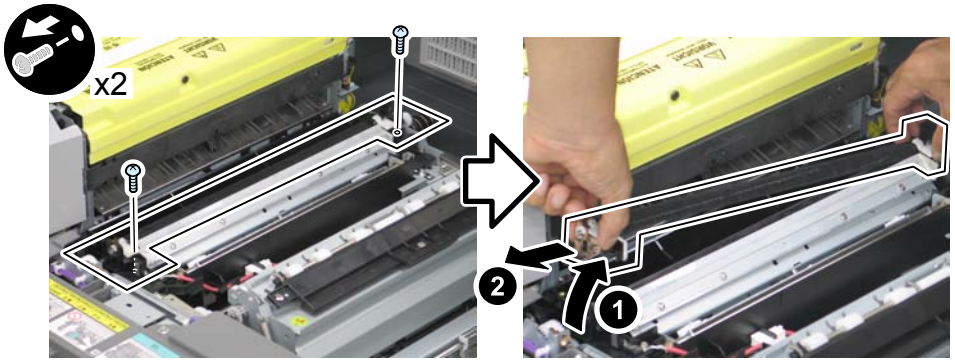
2) Remove the Connection Gear and the N-ring from the ETB Brush Roller.



F-4-181

3) Remove the ETB Brush Roller Unit.

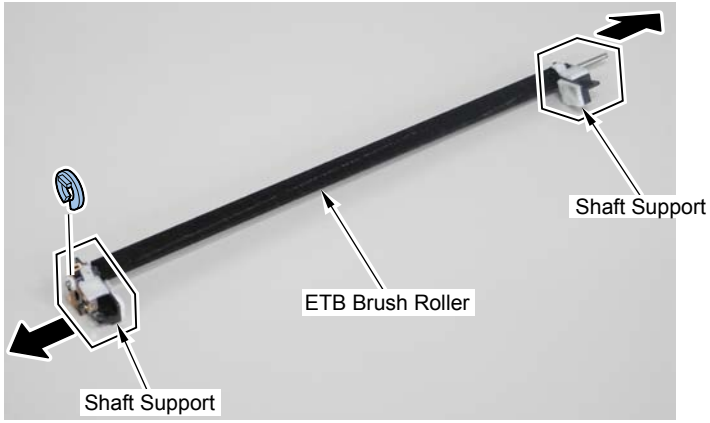
- 2 Screws



F-4-182

4) Remove the Shaft Support from the ETB Brush Roller.

- 1 N-ring



F-4-183

Removing the Waste Toner Container

1) Remove the Right Rear Lower Cover.

- 1 Screw

F-4-184

2) Remove the Waste Toner Container.

F-4-185

NOTE:
In the case of toner spill when removing the Waste Toner Container, be sure to wipe out the spilled toner.
After the Waste Toner Container is removed, be sure to cover the Waste Toner Container with the Cap attached in the side.
When the Waste Toner Container is removed outside the machine, be sure to promptly cover with the Cap to prevent toner scattering.

<Processing when replacing the parts>

1) Set a new Waste Toner Container.
2) Clear the waste toner counter.(COPIER>COUNTER>MISC>WST-TNR)

Removing the Drum Heater

<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Put paper on the Photosensitive Drum, so that it is not exposed to direct sunlight.
6. Remove the Drum Cleaning Blade. (Refer to page 4-117)
7. Remove the Drum Retainer Plate.
8. Remove the Drum Unit. (Refer to page 4-121)

<Procedure>

CAUTION:

When handling the Process Unit and Photosensitive Drum, be sure to follow the following points to note.

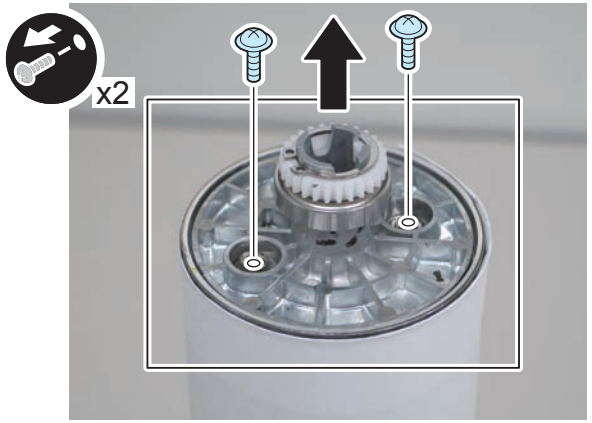
1. When removing the Process Unit, be sure to block light to the Photosensitive Drum. Cover with the Photosensitive Drum Protection Sheet or wrap 5 or more papers around the drum to block light.
2. Do not place the Process Unit and Photosensitive Drum in a location where is exposed to direct rays of the sun (e.g. near the window).
3. Do not store in a location with high/low temperature/humidity, or in a location where temperature or humidity is dramatically changed.
4. Do not store in a dusty area or in a location full of ammonia gas or organic solvent gas.

When installing a new Photosensitive Drum, be sure to remove the Lightproof Sheet after installing the drum to the main body. In addition, be sure to rotate the drum counterclockwise at removal of the Lightproof Sheet. If the drum is rotated clockwise, the Drum Cleaner Blade may be everted.

1) Wrap paper around the Drum Unit to block light.

F-4-186

2) Remove the 2 screws and the Flange.



F-4-187

3) Disconnect the connector and remove the Drum Heater.

F-4-188

Removing the Primary Charging Shutter Unit

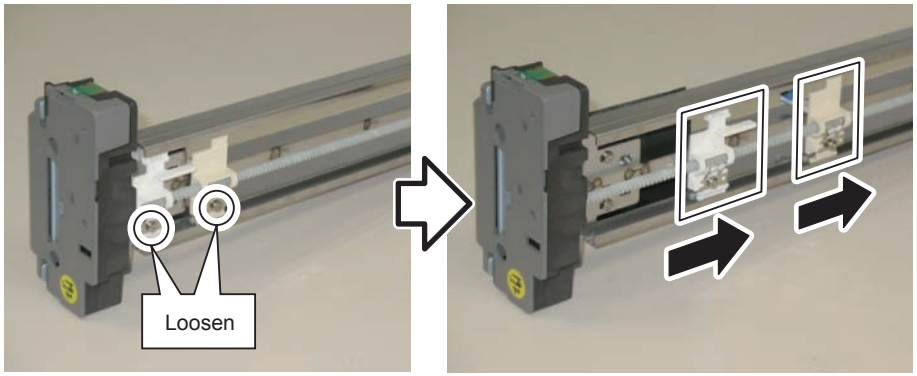
<Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Primary Charging Assembly. (Refer to page 4-96)

<Procedure>

1) Move the Primary Charging Wire Cleaners (Left and Right).

- 2 Screws (to loosen)



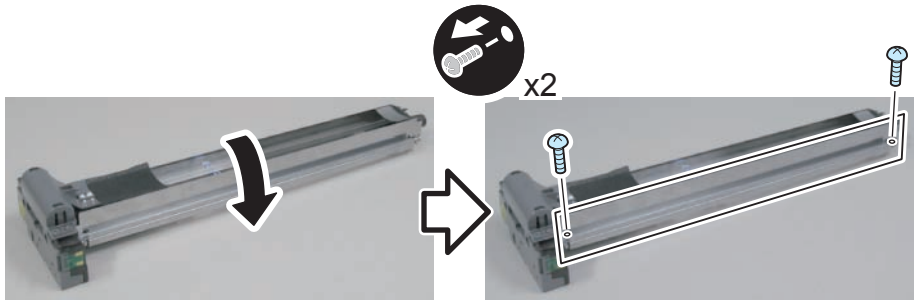
F-4-189

CAUTION:

Do not remove both Shield Plates (Right and Left) of the Primary Charging Assembly at the same time. Be sure to work on one Shield Plate at a time. (Otherwise, the frame of the Primary Charging Assembly can be deformed.)

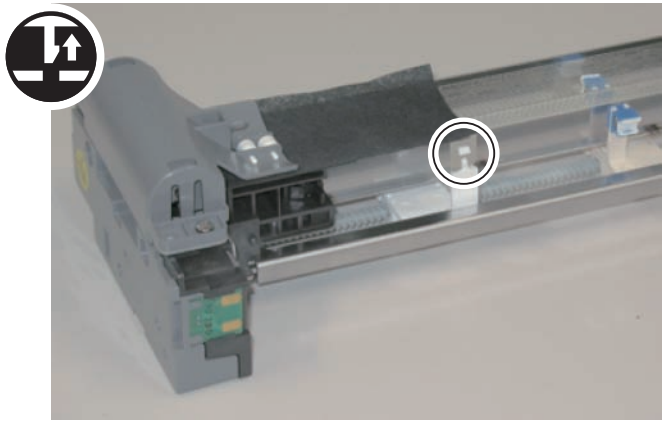
2) Move down the Primary Charging Assembly to remove the Shield Plate (Right).

- 2 Screws



F-4-190

3) Remove the Leaf Spring of the Primary Charging Shutter from the claw.



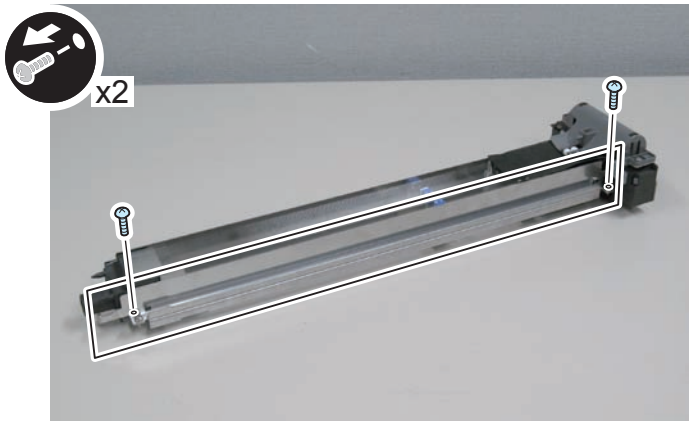
F-4-191

4) Install the Shield Plate (Right).

- 2 Screws

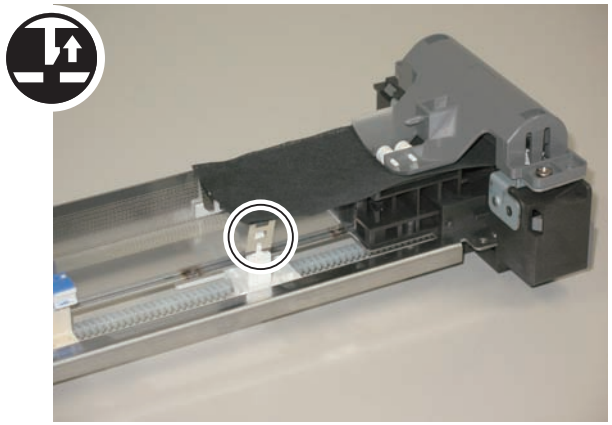
5) Remove the Shield Plate (Left).

- 2 Screws



F-4-192

6) Remove the Leaf Spring of the Primary Charging Shutter from the claw.

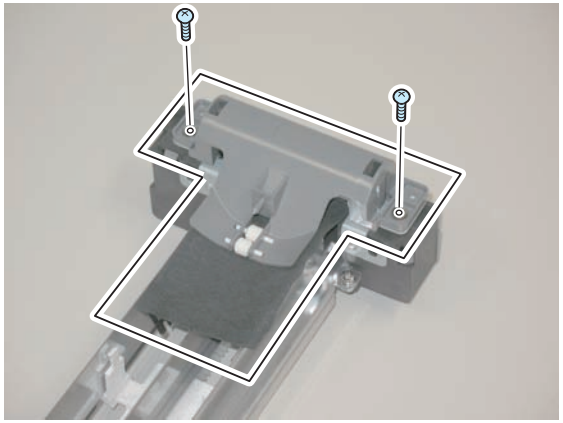


F-4-193

7) Install the Shield Plate (Left).
- 2 Screws

CAUTION:
Do not make the Leaf Spring caught by the Charging Wire when removing the Primary Charging Shutter Unit.

8) Remove the Primary Charging Shutter Unit.
- 2 Screws



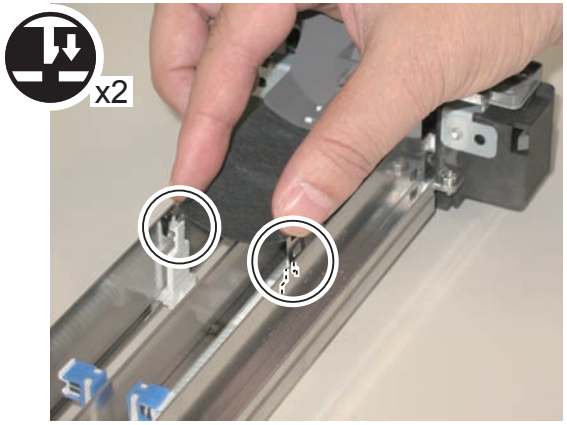
F-4-194

<Installation Method>

CAUTION:Points to Caution at Installation
Be careful not to get the Leaf Spring caught by the Charging Wire to install it to the Cleaner Claw.

NOTE:
The Shield Plate does not need to be removed when installing the Shutter Unit.

1) Set the Leaf Spring of the Primary Charging Shutter to the Cleaner Claw.



F-4-195

2) Install the Primary Charging Shutter Unit.
- 2 Screws

3) Return the Primary Charging Wire Cleaners (Left and Right) to the original position.

Removing the Pre-transfer Charging Assembly Shutter Unit

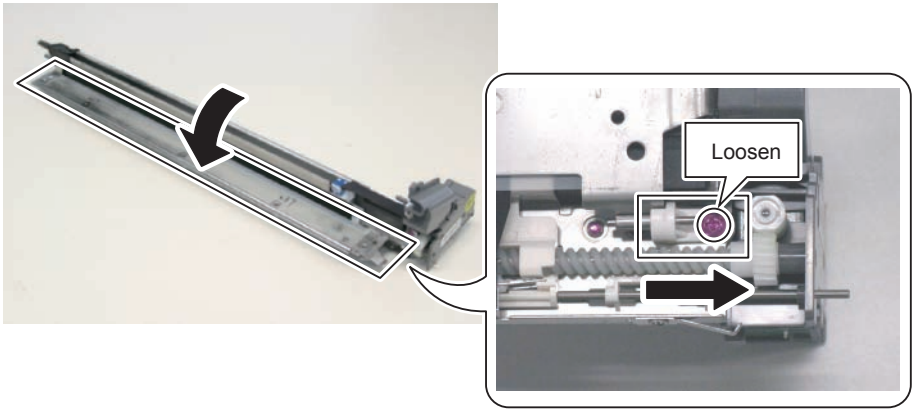
<Preparation>

1. Open the Front Cover.
2. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)

<Procedure>

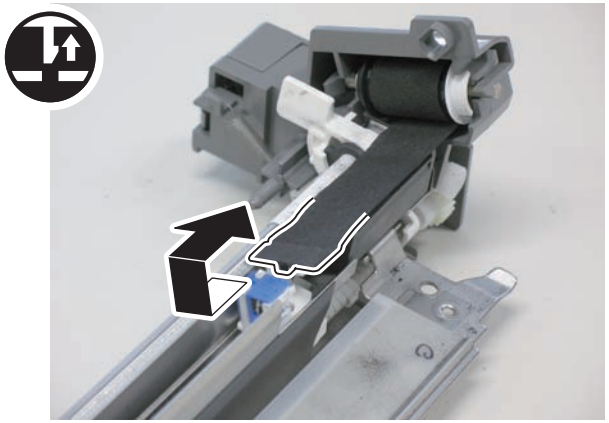
1) Move the Shield Plate Retainer Block to open the Shield Plate in the direction of the arrow.

- 1 Screw (to loosen)



F-4-196

2) Remove the claw at the edge of the Shutter.



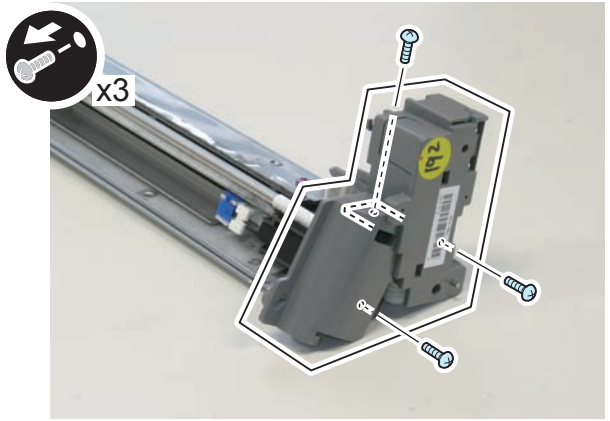
F-4-197

CAUTION:

Be careful not to remove the screw and the Screw Gear when removing the Pre-transfer Charging Assembly Shutter Unit.

3) Hold the screw to remove the Pre-transfer Charging Assembly Shutter Unit while the Motor Unit is installed.

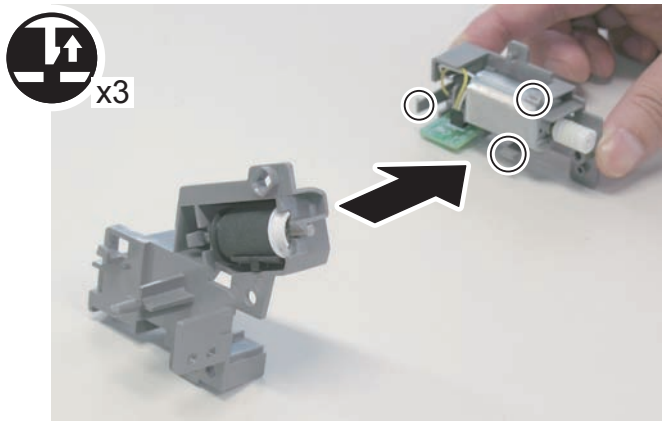
- 3 Screws



F-4-198

4) Remove the Motor Unit from the Pre-transfer Charging Assembly Shutter Unit.

- 3 Claws

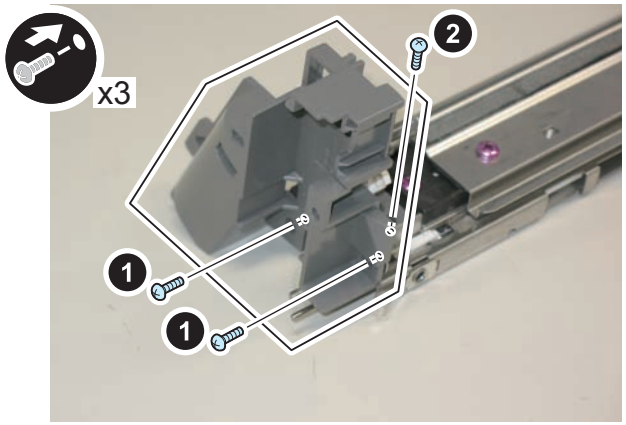


F-4-199

<Installation Method>

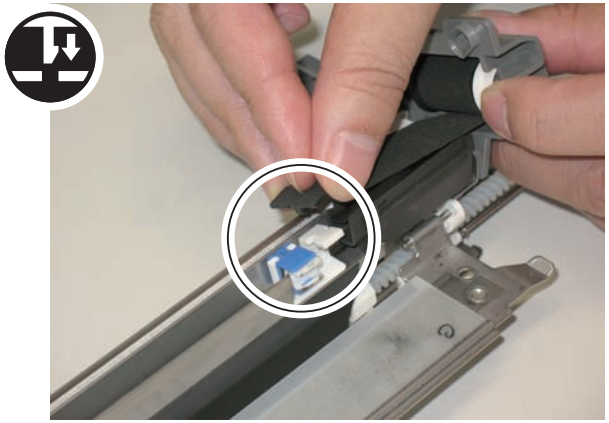
1) Install the Pre-transfer Charging Assembly Shutter Unit.

- 3 Screws



F-4-200

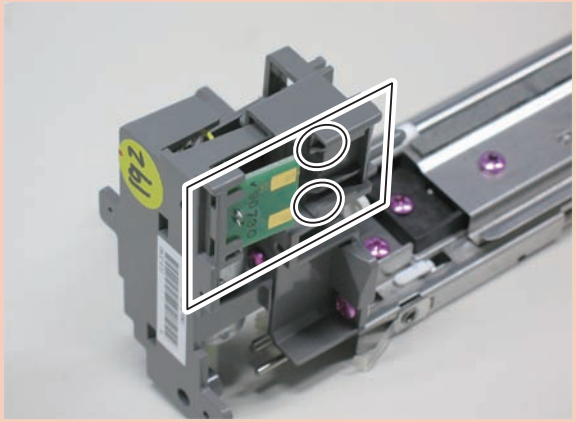
2) Pull the Shutter with your fingers to hook it to the Cleaner Unit.



F-4-201

CAUTION:

When installing the Motor Unit, fit the PCB into the slot.

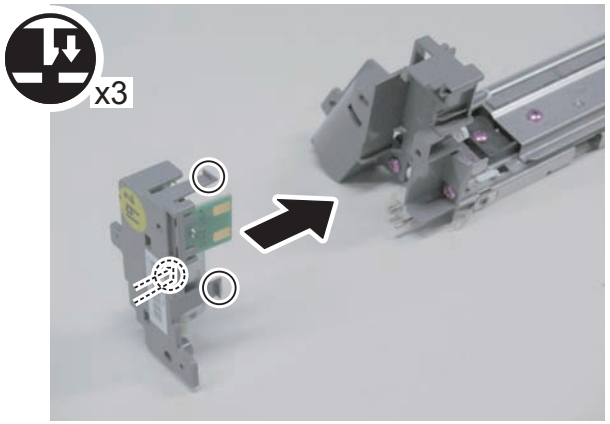


F-4-202

NOTE:
Be sure to check that the rear shaft is secured.

3) Install the Motor Unit.

- 3 Claws



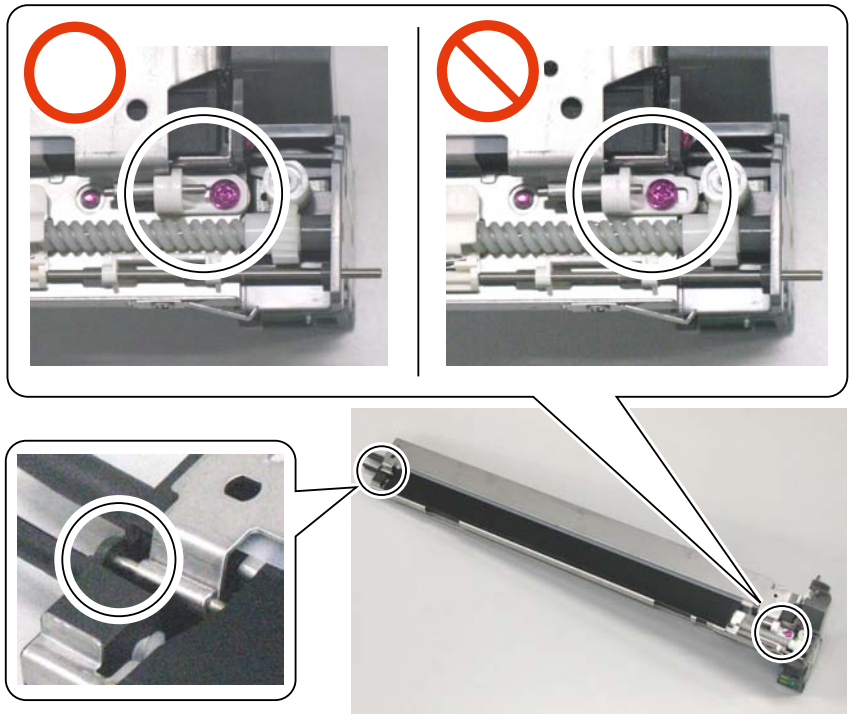
F-4-203

CAUTION:Points to Caution when Securing the Shield Plate

Be sure to check that the rear pin is fit into the frame hole.

4) Move the Shield Plate Retainer Block fully to the inside to secure with the screw.

NOTE:
Move the Shield Plate back and forth to check that the Shield Plate is secured.



F-4-204

Removing the Drum Brush Roller

CAUTION:

- Do not touch the Photosensitive Drum.
- Cover the Photosensitive Drum with paper to avoid direct exposure to light.

<Preparation>

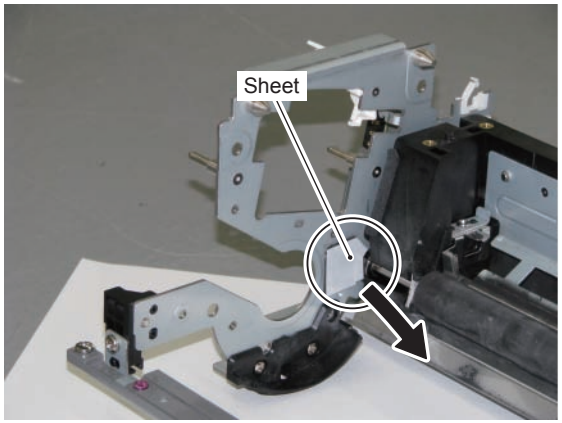
1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Remove the Drum Cleaning Unit. (Refer to page 4-116)
6. Remove the Drum Unit. (Refer to page 4-121)
7. Remove the Side Seal. (Refer to page 4-127)

<Procedure>

1) Remove the sheet.

CAUTION:

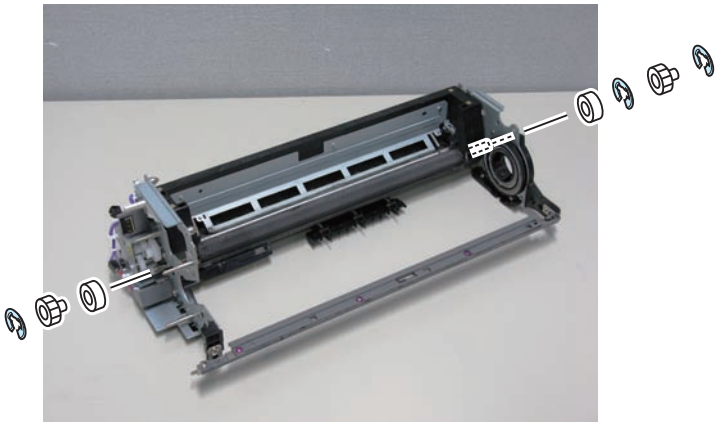
The removed sheet will be used at the time of assembly, so be sure to remove the sheet neatly and keep it in a safe place.



F-4-205

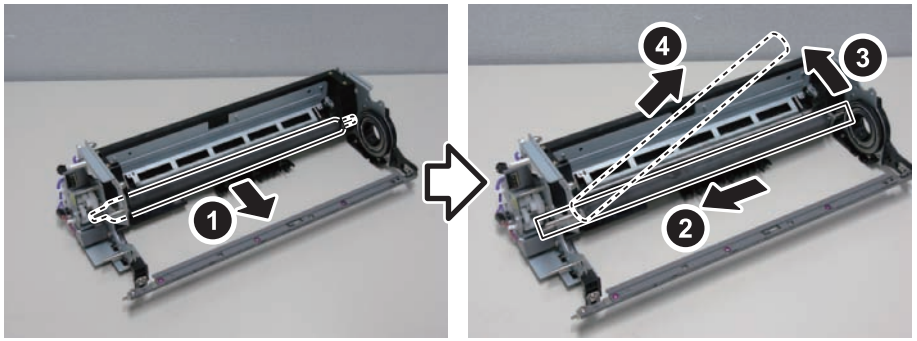
2) Remove the 2 Gears and the 2 Bearings.

- 3 E-rings



F-4-206

3) Remove the Drum Brush Roller by following the procedure as shown in the figure.



F-4-207

Removing the ETB Drive Unit

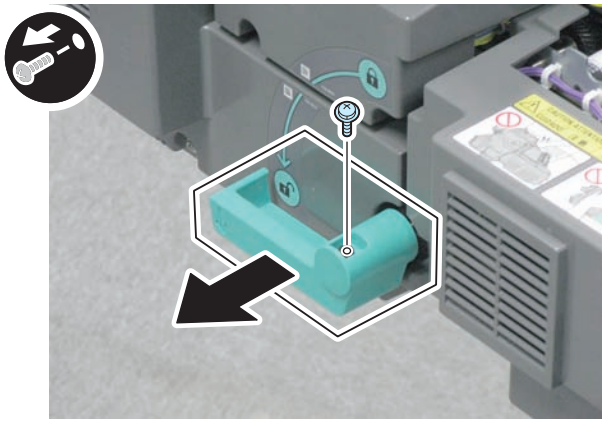
<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-137)

<Procedure>

1) Remove the Fixing Feed Lever.

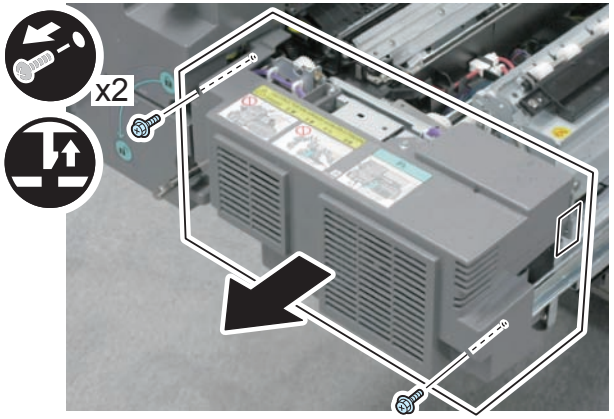
- 1 Screw



F-4-208

2) Remove the Fixing Feed Right Front Cover.

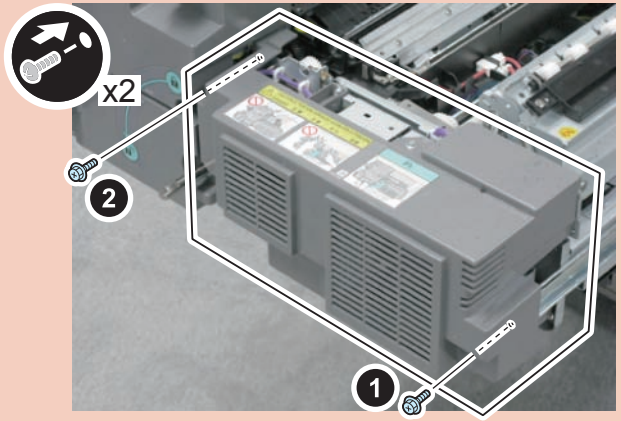
- 2 Screws
- 1 Claw



F-4-209

CAUTION:

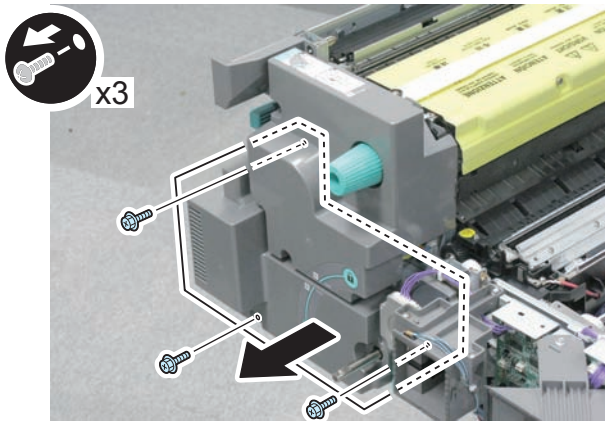
When installing the Fixing Feed Right Front Cover, be sure to follow the order as shown in the figure to tighten screws.



F-4-210

3) Remove the Fixing Feed Left Cover.

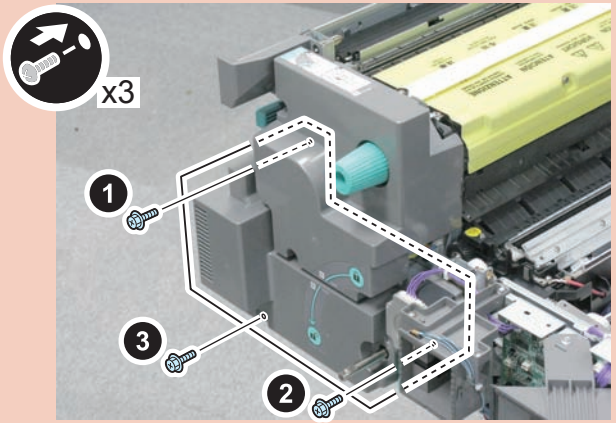
- 3 Screws



F-4-211

CAUTION:

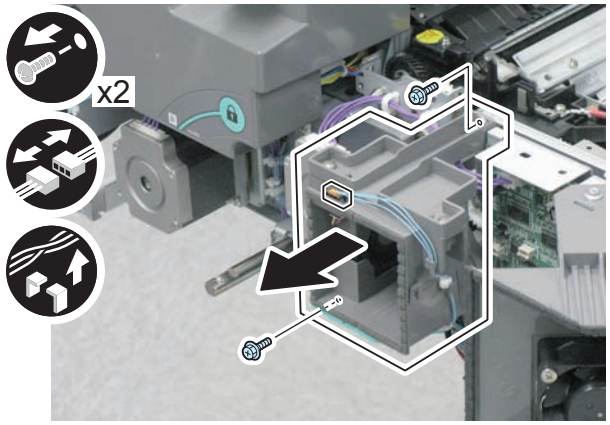
When installing the Fixing Feed Left Cover, be sure to follow the order as shown in the figure to tighten screws.



F-4-212

4) Remove the Duct.

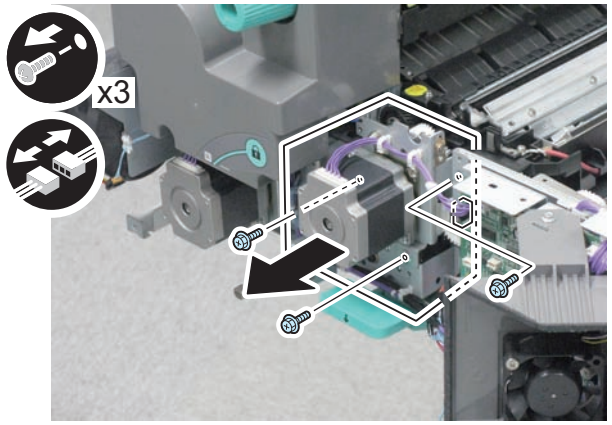
- 2 Screws
- 1 Connector
- Harness



F-4-213

5) Remove the ETB Drive Unit.

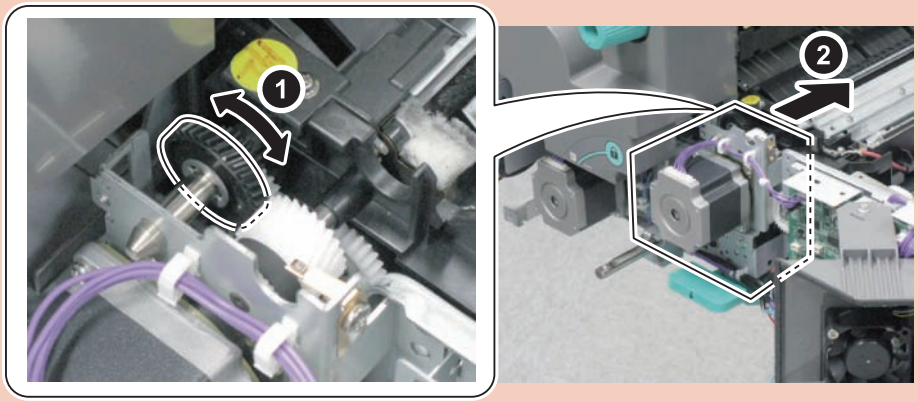
- 3 Screws
- 1 Connector



F-4-214

CAUTION:

When installing, turn the gear so that the gear is engaged.



F-4-215

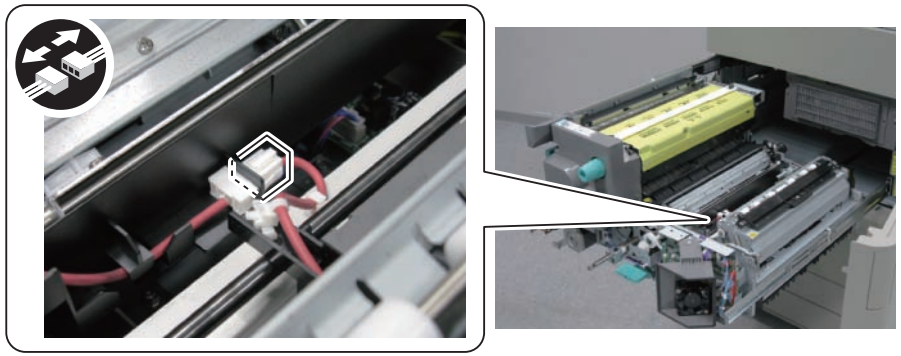
Removing the Transfer Cleaning Unit

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")
2. Remove the ETB Unit. (Refer to page 4-137)
3. Remove the ETB Drive Unit. (Refer to page 4-153)

<Procedure>

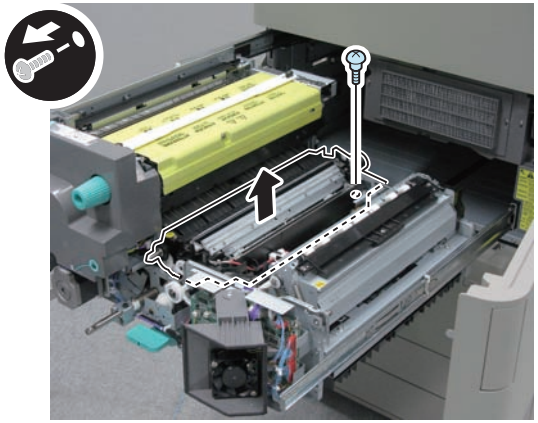
1) Disconnect the connectors.



F-4-216

2) Remove the Transfer Cleaning Unit.

- 1 Stepped Screw



F-4-217

Removing the Post-transfer Static Eliminator

<Preparation>

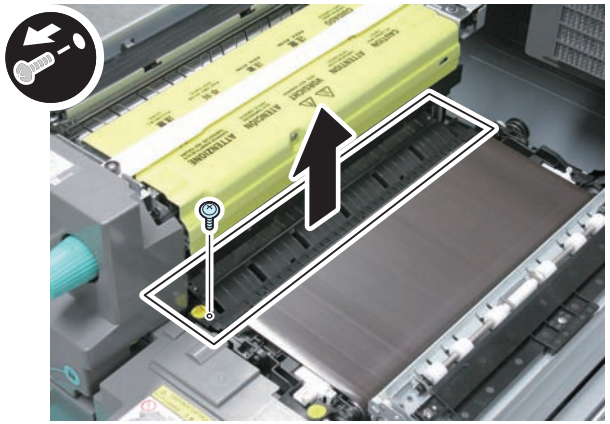
1. Pull out the Fixing Feed Unit. (Refer to "Removing the ETB Unit")

<Procedure>

CAUTION:
Do not touch the surface of the ETB when handling the ETB Unit.

1) Remove the Post-transfer Guide Unit.

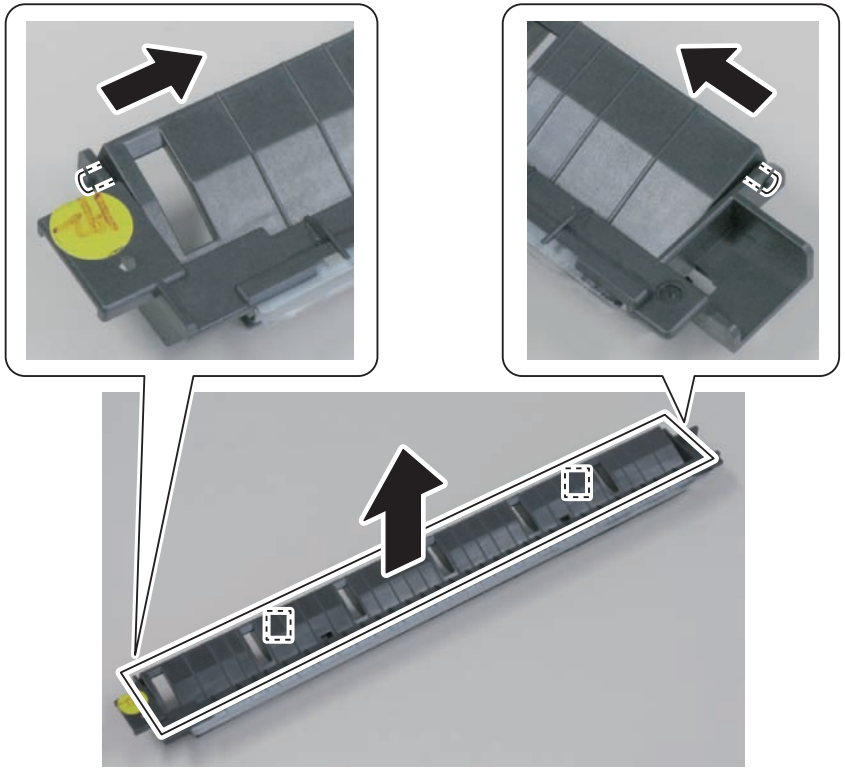
- 1 Screw



F-4-218

2) Remove the Post-transfer Guide.

- 2 Protrusions
- 2 Springs



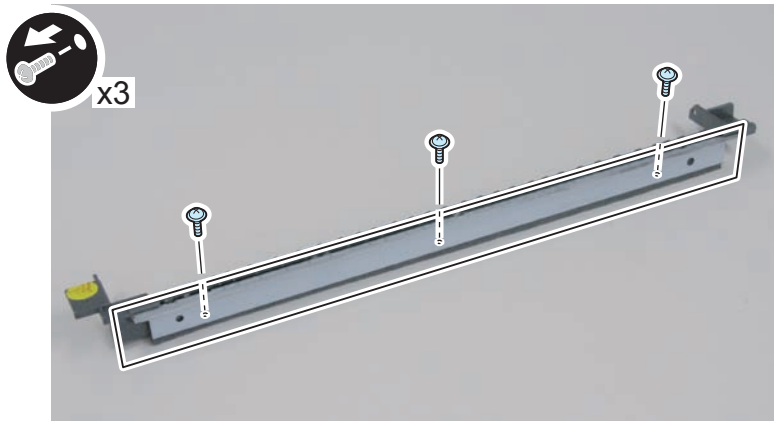
F-4-219

CAUTION:

Be careful not to lose the springs when removing the Post-transfer Guide.

3) Remove the Separation Guide Reinforcing Plate.

- 3 Screws



F-4-220

4) Remove the Post-transfer Static Eliminator.

F-4-221

Removing the Toner Receptacle Tray

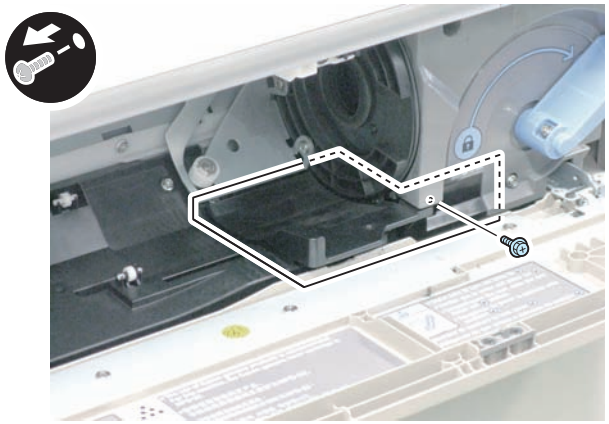
<Preparation>

1. Open the Front Upper Cover.
2. Remove the Toner Bottle.

<Procedure>

1) Remove the Toner Receptacle Tray.

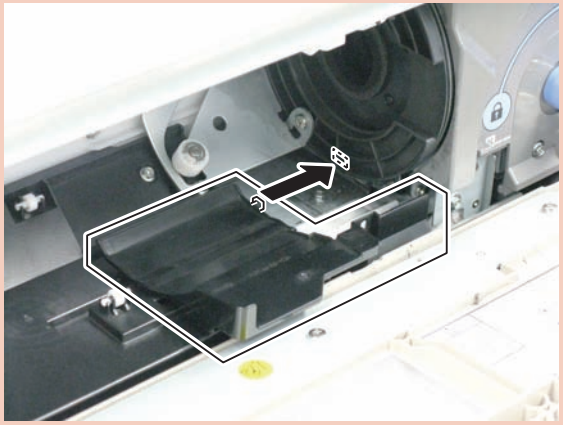
- 1 Screw
- 1 Protrusion



F-4-222

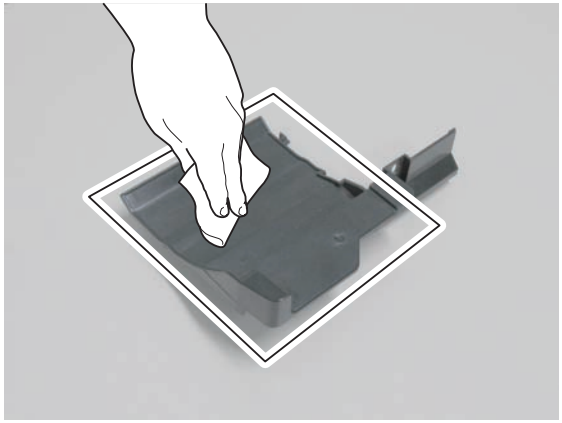
CAUTION:

1. Be sure to fit the protrusion into the groove of the plate to install.
2. Toner can be accumulated in the Toner Receptacle Tray; therefore, be careful not to spill toner when removing.



F-4-223

2) Clean the Toner Receptacle Tray with lint-free paper.

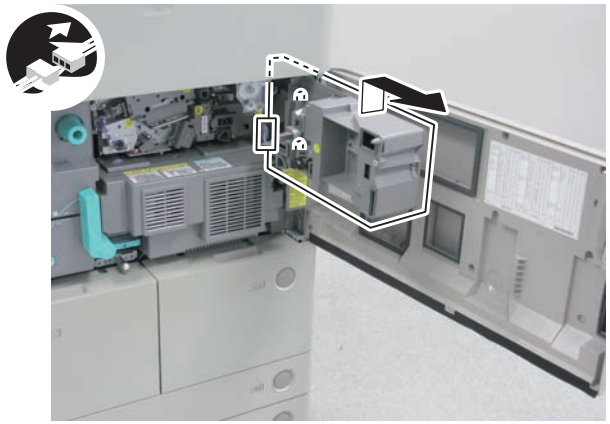


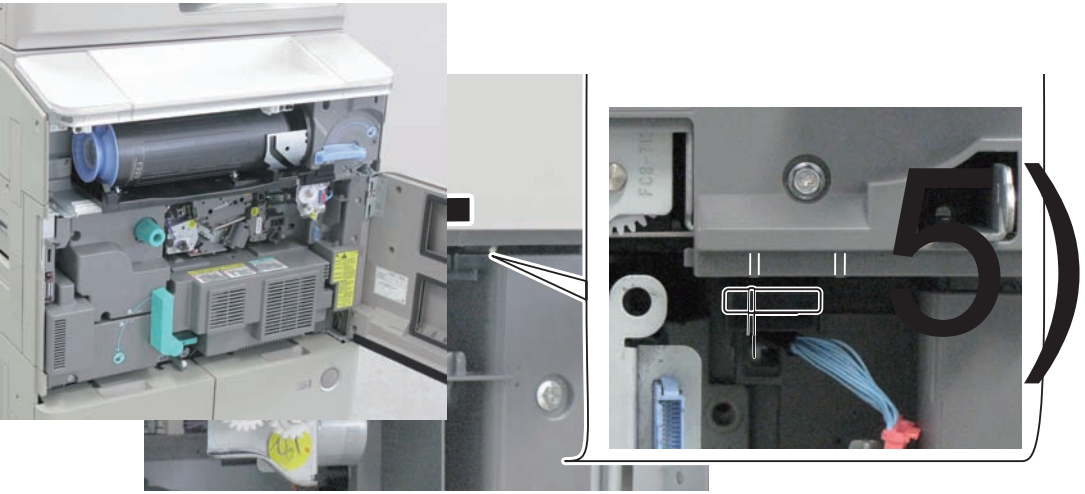
F-4-224

Removing the Hopper Unit

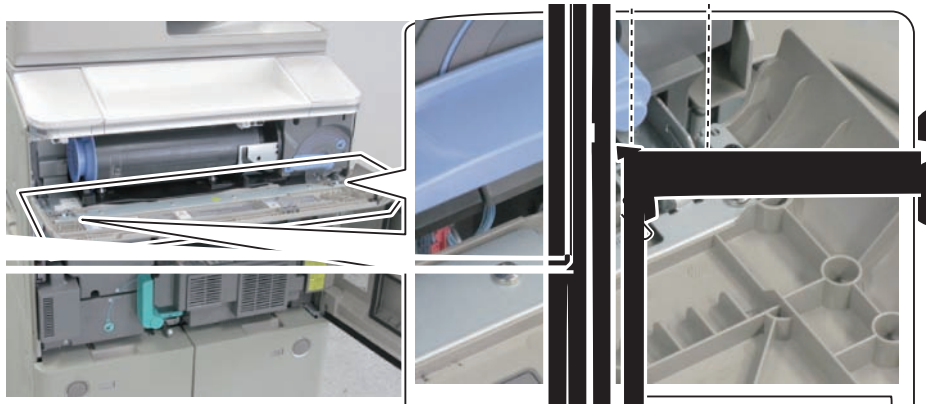
1) Open the Front Cover.
2) Open the Inner Cover (Primary Charging Air Supply Fan Unit).
- 1 Screws (to loosen)

3) Remove the Inner Cover (Primary Charging Air Supply Fan Unit).
- 1 Connector
- 2 Protrusions





F-4-226



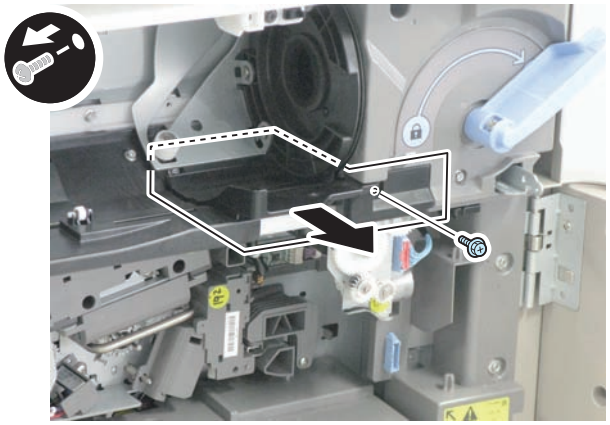
F-4-227

6) oner Bottle.

F-4-228

7) Remove the Toner Receptacle Tray.

- 1 Screw
- 1 Protrusion

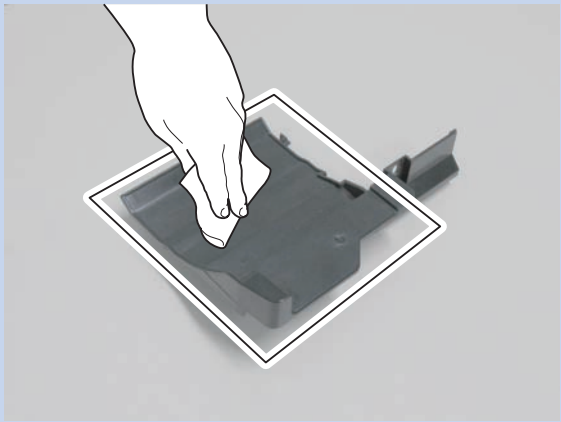


F-4-229

CAUTION:

1. Toner can be accumulated in the Toner Receptacle Tray; therefore, be careful not to spill toner when removing.
2. Be sure to fit the protrusion into the groove of the plate to install.

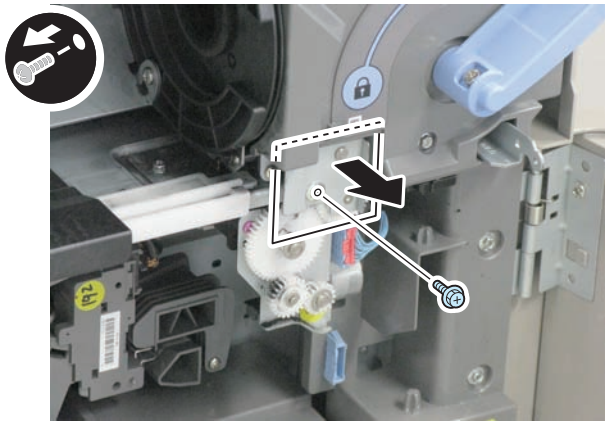
NOTE:
Clean the Toner Receptacle Tray with lint-free paper.



F-4-230

8) Remove the Connecting Drive Unit.

- 1 Screw

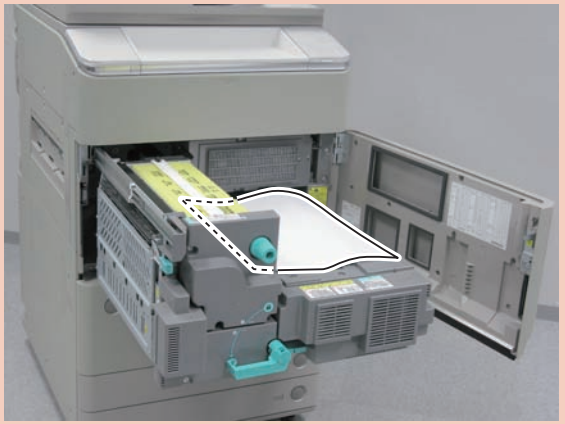


F-4-231

9) Pull out the Fixing Feed Unit.

CAUTION:

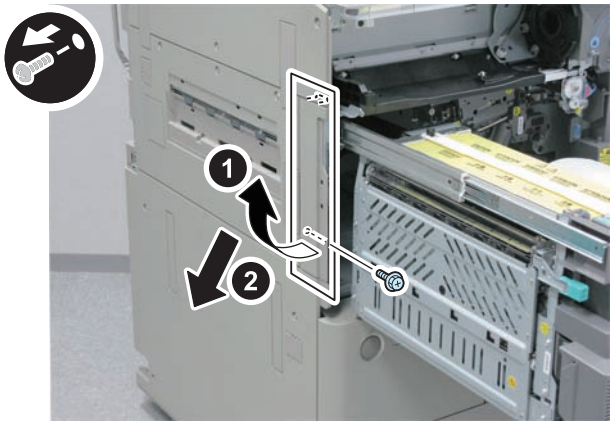
When pulling out the Fixing Feed Unit, be sure to place paper over the ETB Unit for protection.



F-4-232

10) Remove the Left Upper Cover 2.

- 1 Screw
- 1 Protrusion

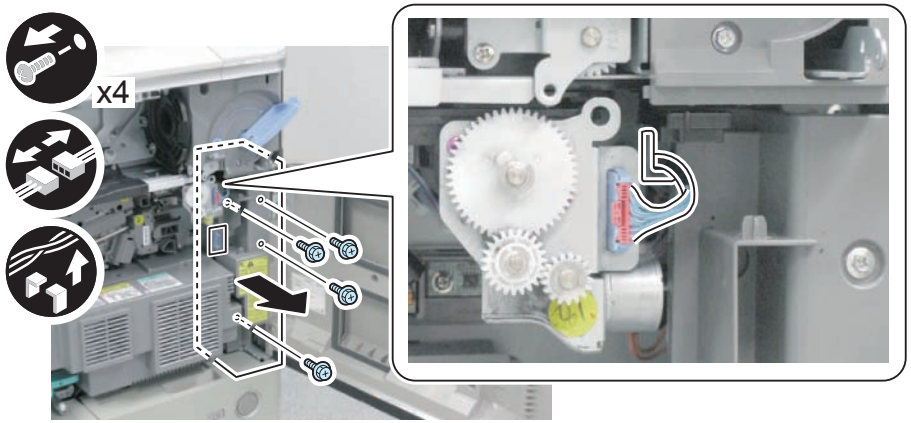


F-4-233

11) Set the Fixing Feed Unit back.

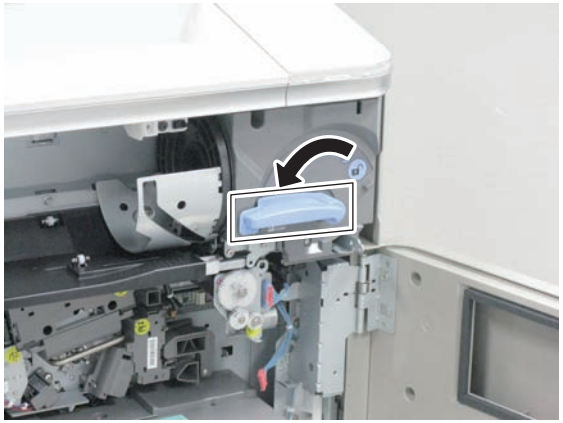
12) Remove the Right Upper Inner Cover.

- 4 Screws
- 1 Connector
- Harness



F-4-234

13) Set the Lock Lever back.



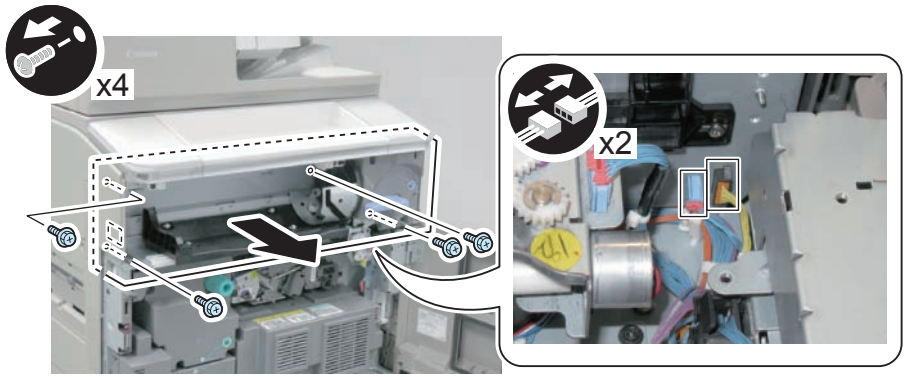
F-4-235

14) Remove the Hopper Unit.

- 4 Screws
- 2 Connectors
- 1 Hook

CAUTION:

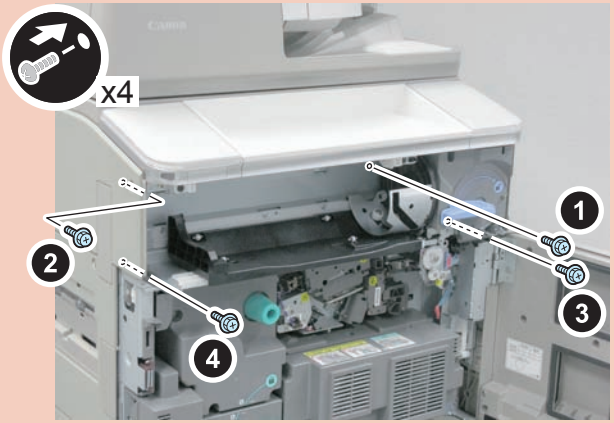
Put the removed Hopper Unit on paper placed on the work space.



F-4-236

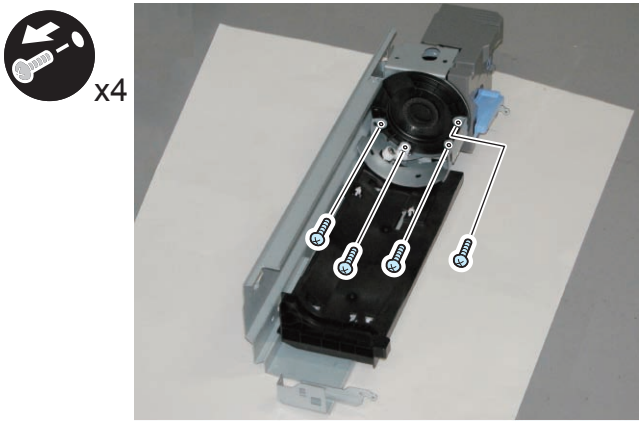
CAUTION:

When installing the Hopper Unit, be sure to follow the order as shown in the figure to tighten screws.



F-4-237

15) Remove the 4 Tapping Screws.



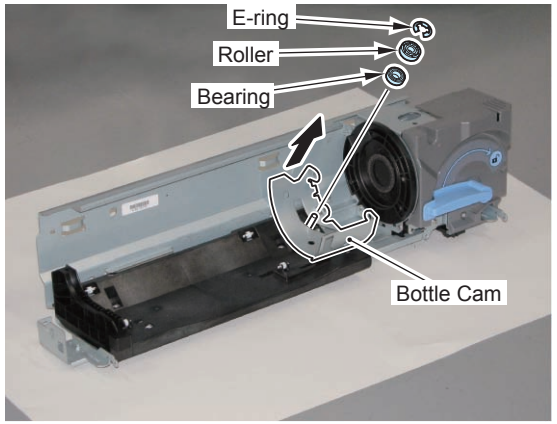
F-4-238

CAUTION: Points to Note when Installing the Tapping Screws

When tightening the Tapping Screws, turn them in the reverse direction to check the screw thread on the Hopper Unit side before tightening them. Otherwise, the screw thread on the Hopper Unit side may be broken, which makes it impossible to tighten the screw.

16) Remove the Bottle Cam.

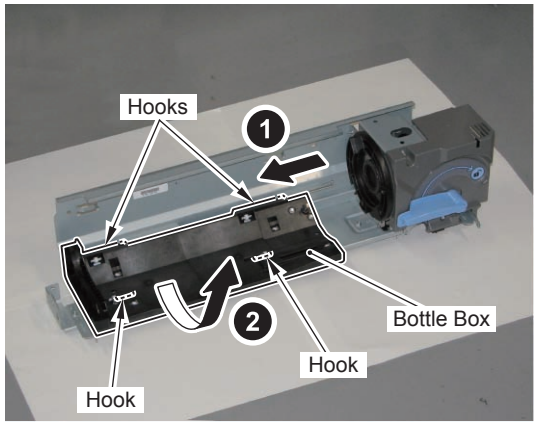
- 1 E-ring
- 1 Roller
- 1 Bearing



F-4-239

17) Remove the Bottle Box.

- 4 Hooks



F-4-240

Removing the Buffer Unit

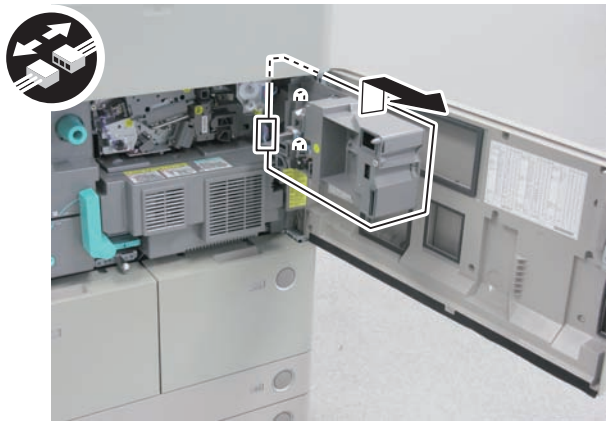
<Preparation>

1. Open the Right Cover.
2. Remove the Developing Assembly. (Refer to page 4-128)

<Procedure>

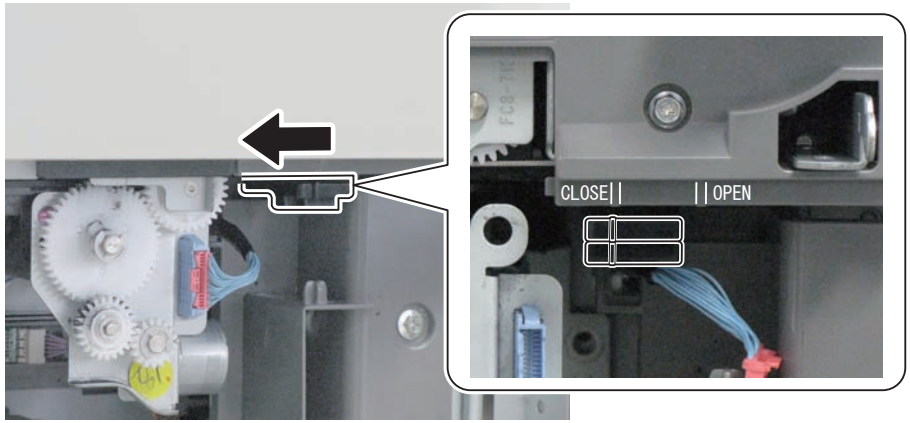
1) Open the Front Cover.
2) Open the Inner Cover (Primary Charging Air Supply Fan Unit).
- 1 Screws (to loosen)

3) Remove the Inner Cover (Primary Charging Air Supply Fan Unit).
- 1 Connector
- 2 Protrusions



F-4-241

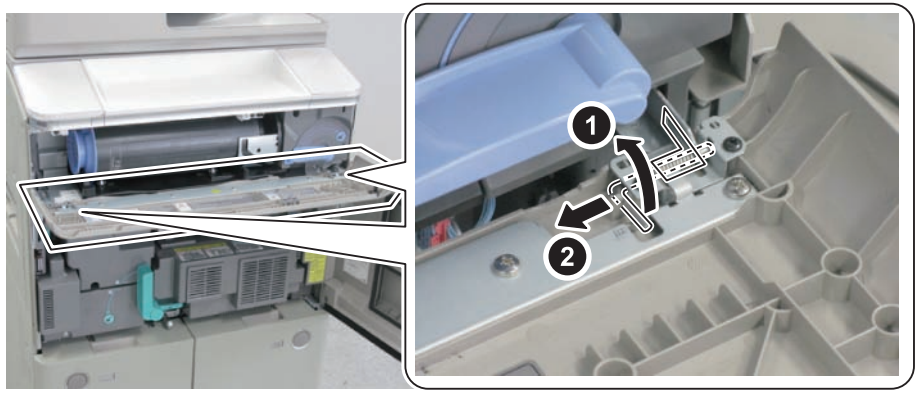
4) Move the lever in the direction of the arrow to close the Shutter.



F-4-242

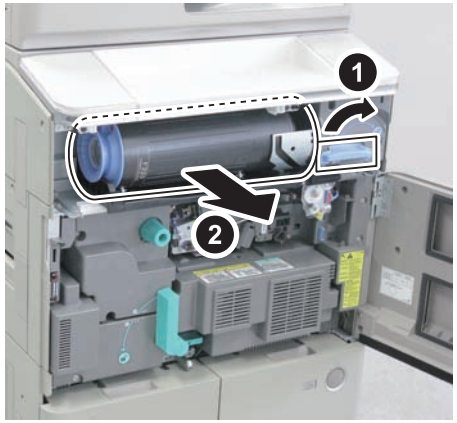
CAUTION:
When starting the host machine, be sure to set the Shutter from CLOSE to OPEN.

5) Remove the Front Upper Cover.
- 2 Hinge Pins
- 2 Springs



F-4-243

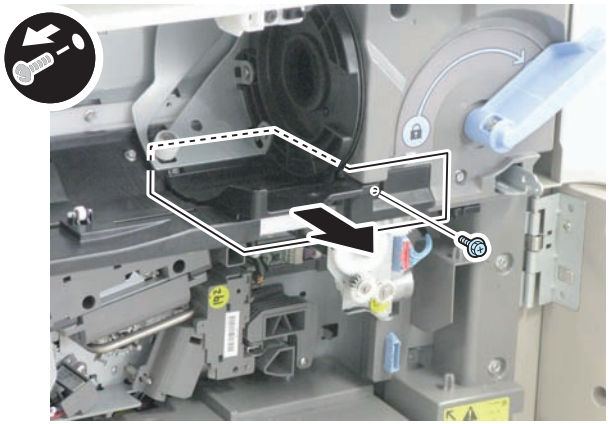
6) Release the Lock Lever to remove the Toner Bottle.



F-4-244

7) Remove the Toner Receptacle Tray.

- 1 Screw
- 1 Protrusion

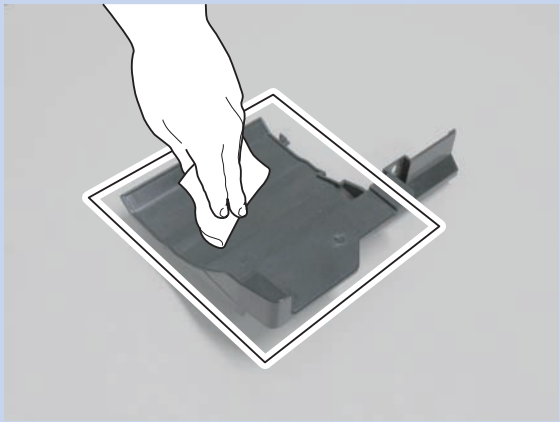


F-4-245

CAUTION:

1. Be sure to fit the protrusion into the groove of the plate to install.
2. Toner can be accumulated in the Toner Receptacle Tray; therefore, be careful not to spill toner when removing.

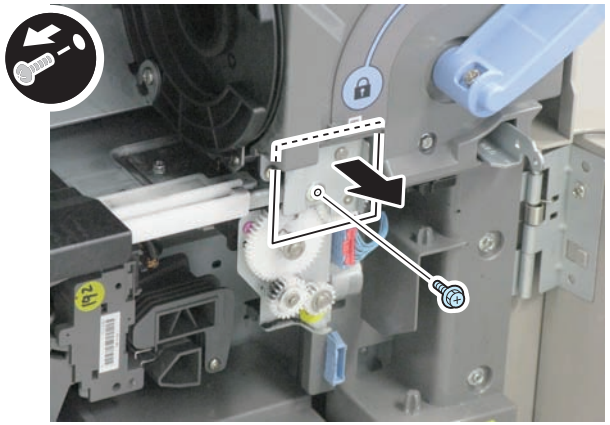
NOTE:
Clean the Toner Receptacle Tray with lint-free paper.



F-4-246

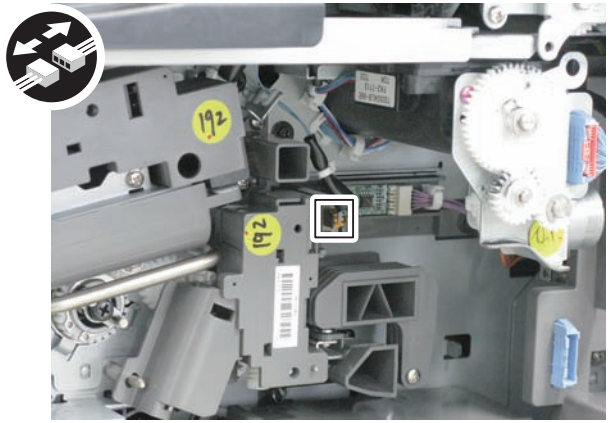
8) Remove the Connecting Drive Unit.

- 1 Screw



F-4-247

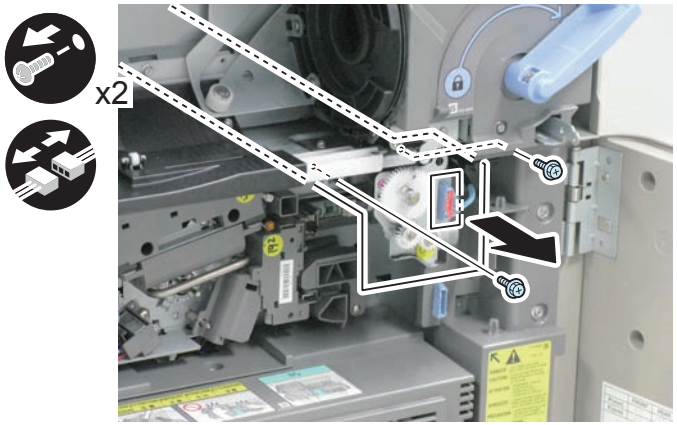
9) Disconnect the connector of the Pre-transfer Charging Assembly.



F-4-248

10) Remove the Buffer Unit.

- 2 Screws
- 1 Connector



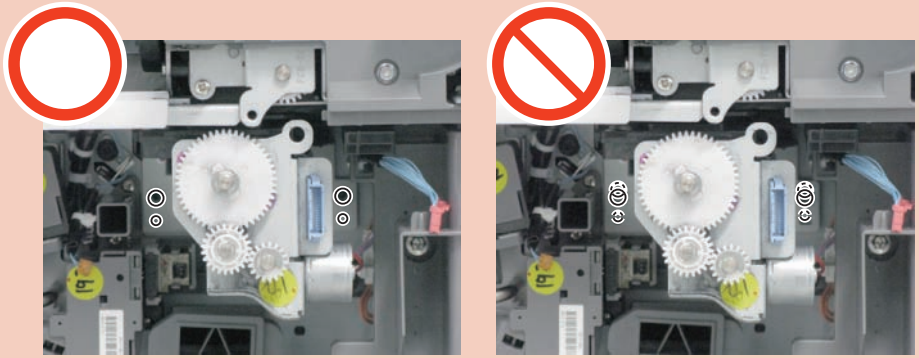
F-4-249

CAUTION:

When removing the Buffer Unit, be sure not to tilt the unit to prevent toner scattering.

CAUTION:Points to Caution When Installing the Buffer Unit

- Be sure to securely set the Buffer Unit on the Rail.
- Do not get the harness caught.
- Fit the emboss into the proper position; otherwise, toner can be scattered.
- Be sure to set the Shutter from CLOSE to OPEN.



F-4-250

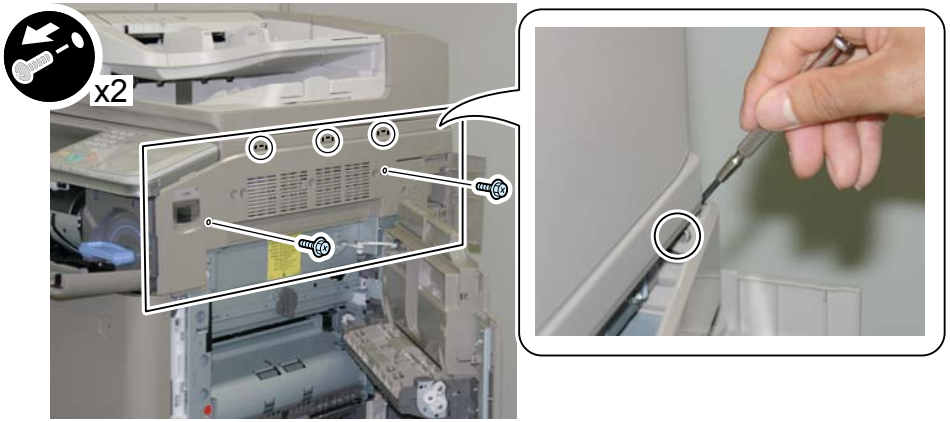
Removing the Potential Control PCB Unit

<Preparation>

1. Remove the Primary Charging Assembly Unit.
2. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
3. Remove the Process Unit. (Refer to page 4-113)
4. Remove the Hopper Unit. (Refer to page 4-159)
5. Open the Right Door.
6. Remove the Right Upper Cover.

6-1) Open the Front Upper Cover.
6-2) Open the Right Door.
6-3) Open the Box Cover (Right).
6-4) Remove the Right Upper Cover.

- 2 Screws
- 1 Boss
- 3 Protrusions

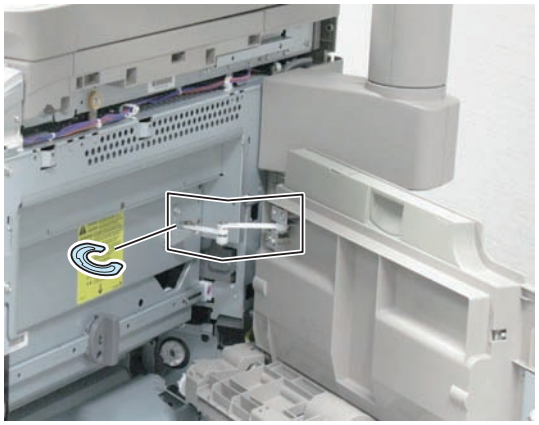


F-4-251

<Procedure>

1) Remove the Right Door Link Unit from the pin.

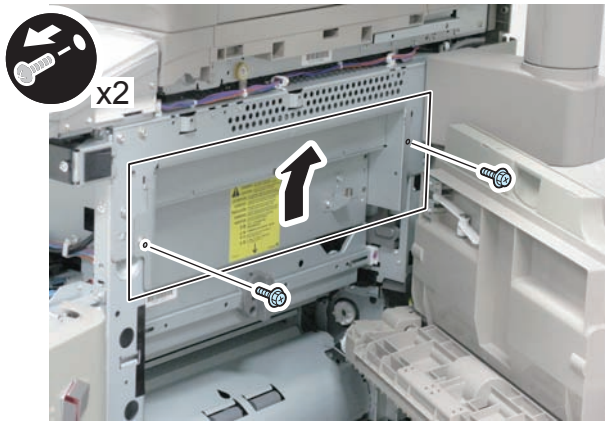
- 1 E-ring



F-4-252

2) Remove the Right Shield Plate.

- 2 Screws



F-4-253

3) Remove the Potential Control Tray.

- 3 Screws
- 2 Connectors
- Wire Saddle

F-4-254

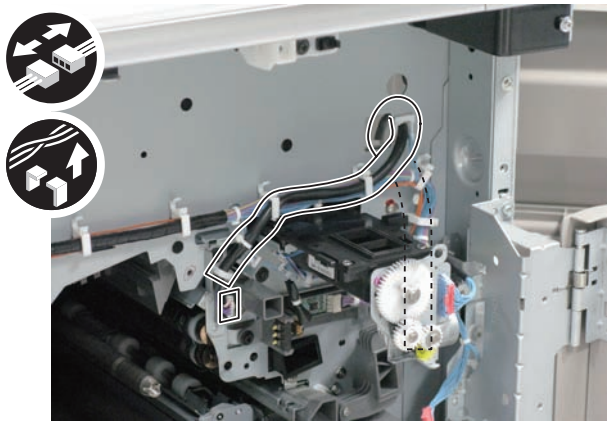
4) Remove the Potential Sensor Control PCB.

- 1 Screw
- 4 Claws
- 2 Connectors

F-4-255

5) Remove the harness.

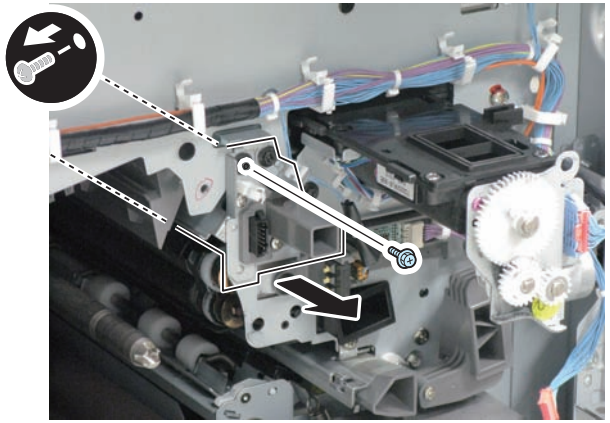
- 1 Connector
- Edge Saddle
- Wire Saddle



F-4-256

6) Remove the Potential Sensor.

- 1 Screw



F-4-257

Removing the Waste Toner Feed Unit

<Preparation>

1. Remove the Box Cover (Left).

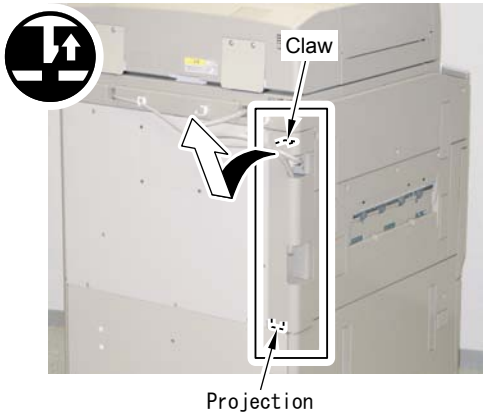
1-1) Remove the Harness.

- 2 Wire Saddles

F-4-258

1-2) Remove the Box Cover (Left).

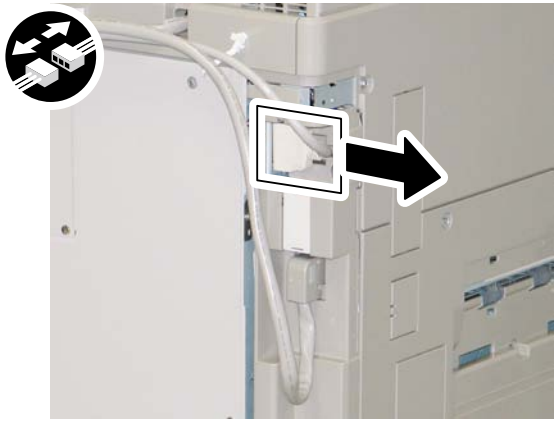
- 1 Claw
- 1 Protrusion



F-4-259

2. Open the Controller Box.

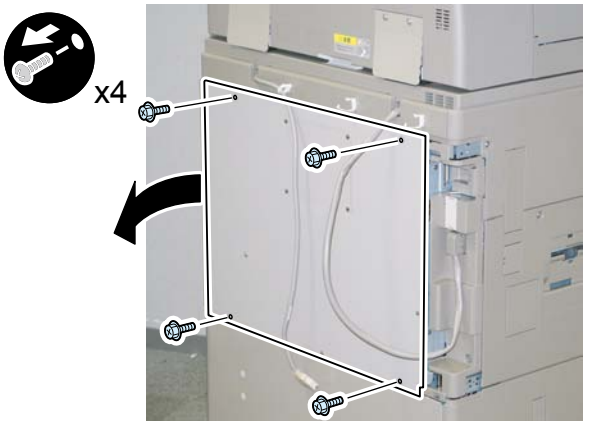
2-1) Disconnect the Reader Communication Cable.



F-4-260

2-2) Open the Controller Box in the direction of the arrow.

- 4 Screws

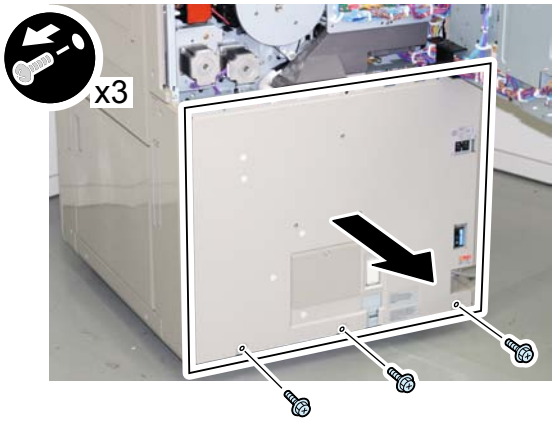


F-4-261

3. Remove the Rear Lower Cover.

3-1) Remove the Rear Lower Cover in the direction of the arrow.

- 3 Screws



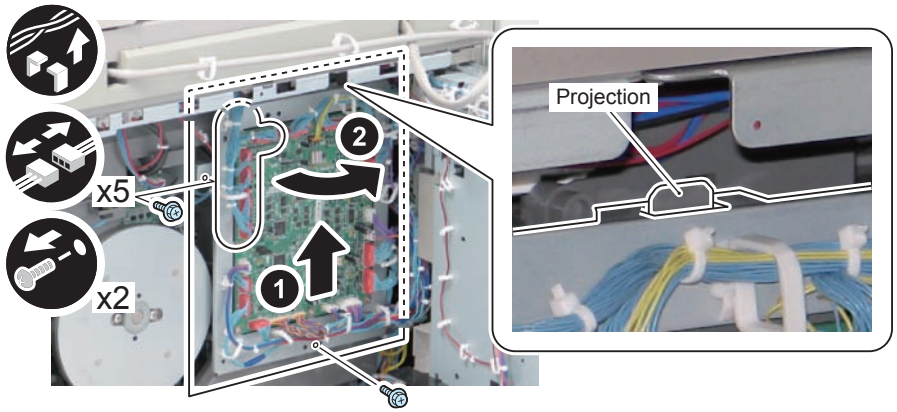
F-4-262

<Procedure>

1) Open the Motor Driver Support Plate.

- 2 Screws
- 5 Connectors
- Wire Saddle
- Reuse Band

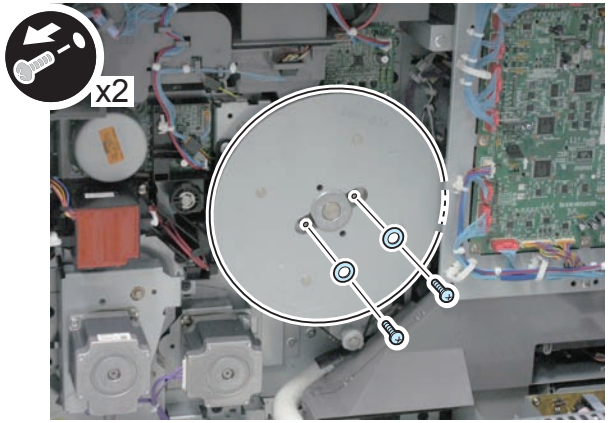
NOTE:
When opening the Motor Driver Support Plate, be sure to free from the protrusion.



F-4-263

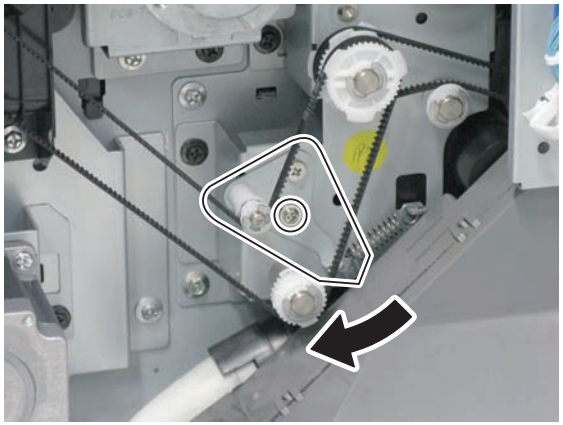
2) Remove the Flywheel.

- 2 Screws



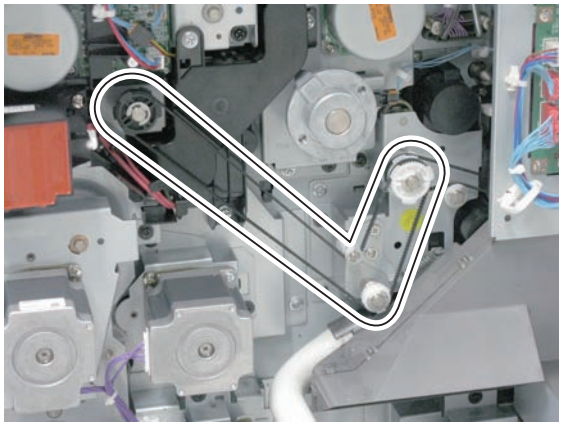
F-4-264

3) Loosen the screw and move the Belt Tensioner in the direction of the arrow, and then again tighten the screw.



F-4-265

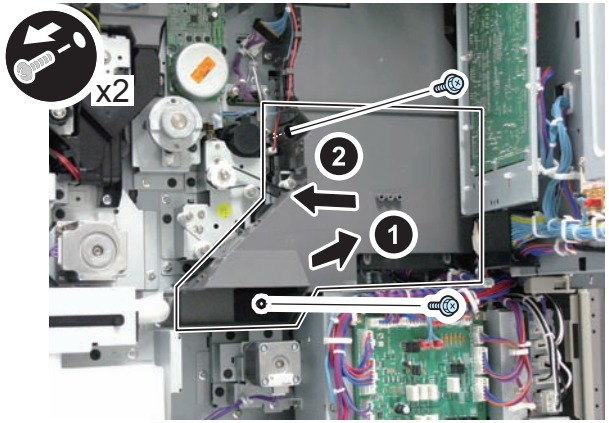
4) Remove the belt from the pully.



F-4-266

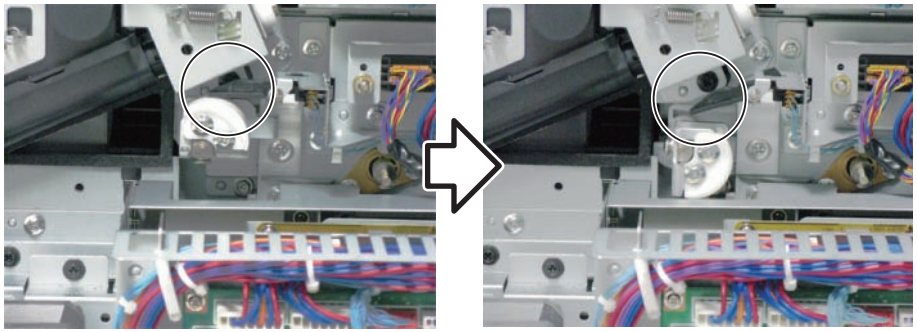
5) Remove the Duct.

- 2 Screws



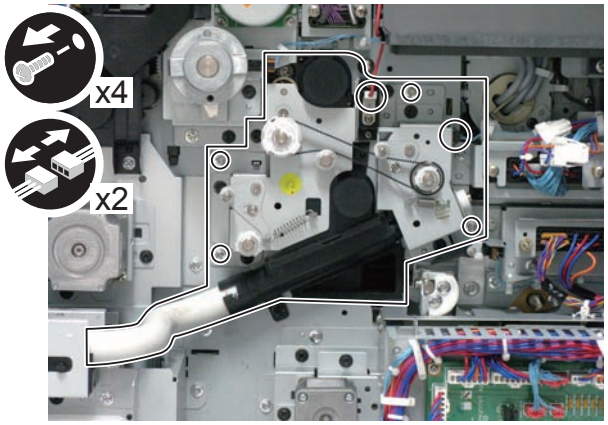
F-4-267

6) Open the Front Cover to move the Fixing Feed Lever down.
(To move the cam at the rear of the Fixing Feed Lever Shaft to the position where it does not interfere with the Waste Toner Feed Unit.)



F-4-268

7) Remove the Waste Toner Feed Unit.
- 2 Connectors
- 4 Screws



F-4-269

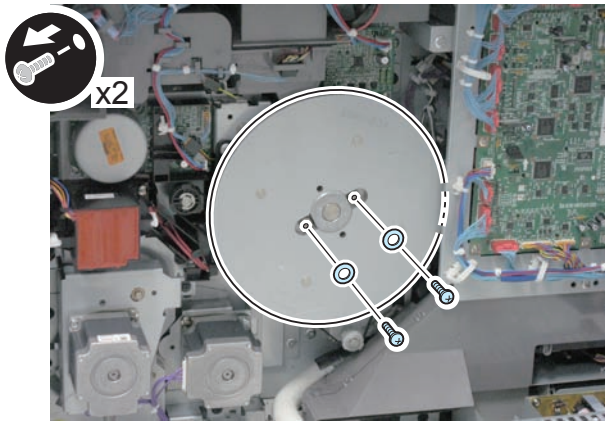
Removing the Drum Drive Unit

<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Primary Charging Assembly")
2. Remove the Primary Charging Assembly. (Refer to page 4-96)
3. Remove the Pre-transfer Charging Assembly. (Refer to page 4-107)
4. Remove the Process Unit. (Refer to page 4-113)
5. Remove the Box Cover (Left). (Refer to "Removing the Waste Toner Feed Unit")
6. Open the Controller Box. (Refer to "Removing the Waste Toner Feed Unit")

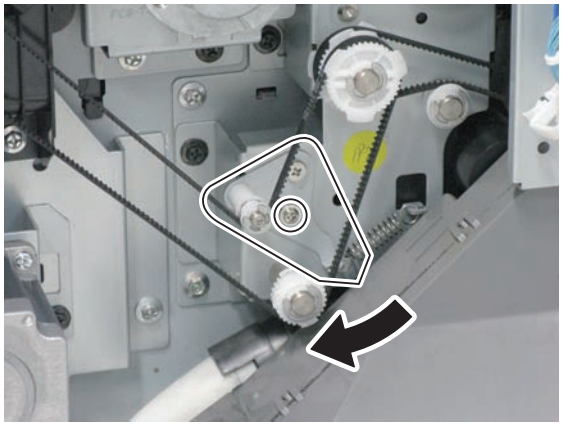
<Procedure>

1) Remove the Flywheel.
- 2 Screws
- 2 Washers



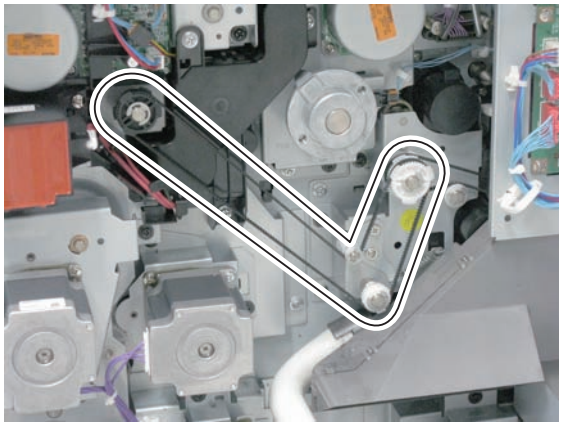
F-4-270

2) Loosen the screw and move the Belt Tensioner in the direction of the arrow, and then again tighten the screw.



F-4-271

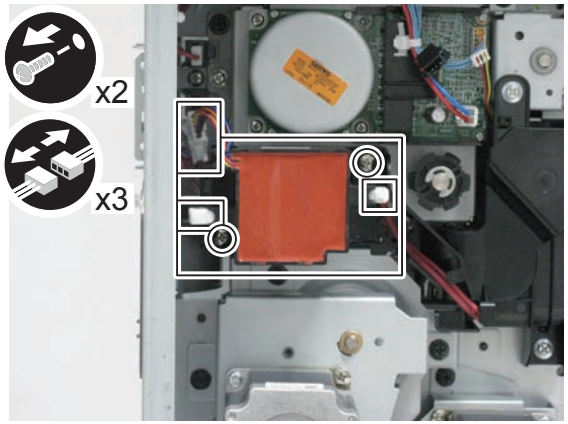
3) Remove the belt from the pully.



F-4-272

4) Remove the transformer.

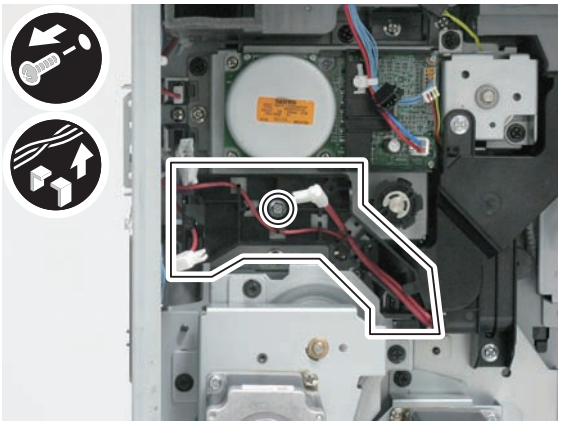
- 2 Screws
- 3 Connectors



F-4-273

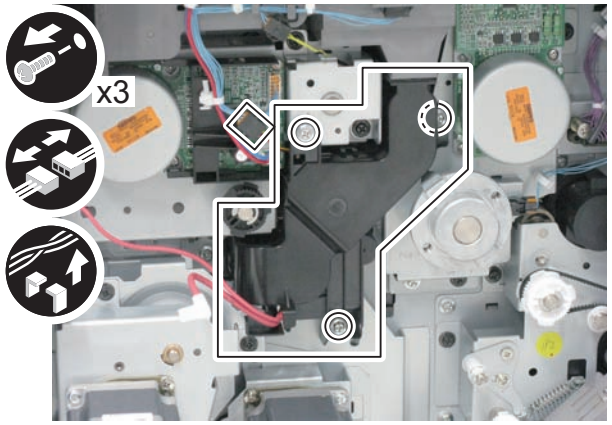
5) Free the harness and remove the Transformer Support Base.

- 1 Screw
- Harness



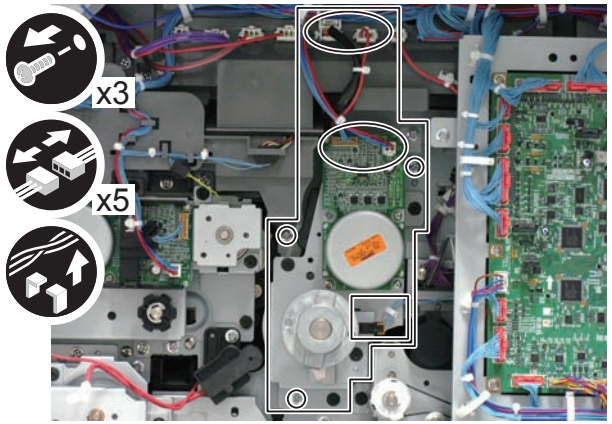
F-4-274

6) Remove the Duct Unit.
- 3 Screws
- 1 Connector
- Harness



F-4-275

7) Remove the Drum Drive Unit.
- 5 Connectors
- 1 Wire Saddle
- 3 Screws



F-4-276

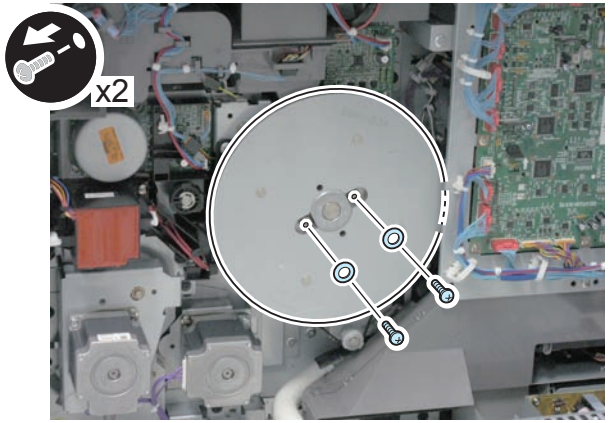
Removing the Developing Drive Unit

<Preparation>

1. Remove the Developing Assembly. (Refer to page 4-128)
2. Remove the Box Cover (Left). (Refer to "Removing the Waste Toner Feed Unit")
3. Open the Controller Box. (Refer to "Removing the Waste Toner Feed Unit")

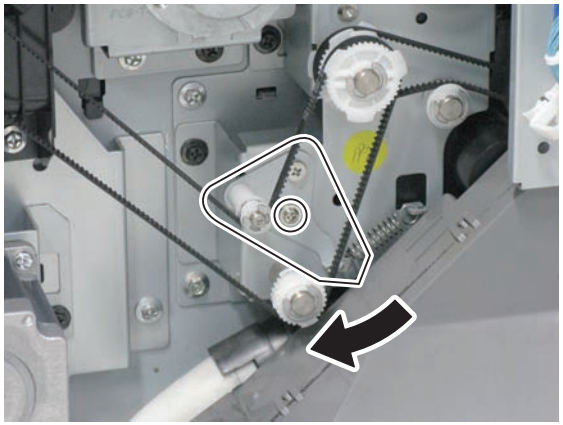
<Procedure>

1) Remove the Flywheel.
- 2 Screws
- 2 Washers



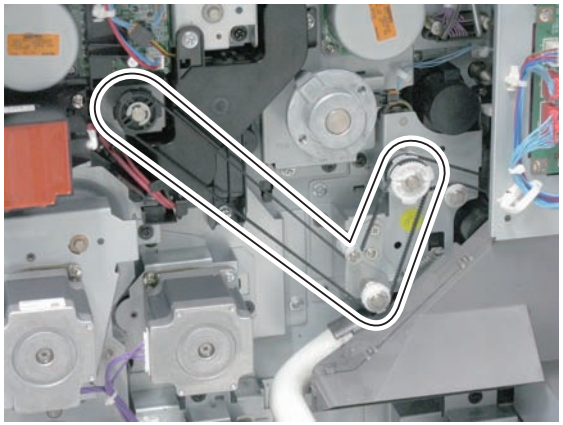
F-4-277

2) Loosen the screw and move the Belt Tensioner in the direction of the arrow, and then again tighten the screw.



F-4-278

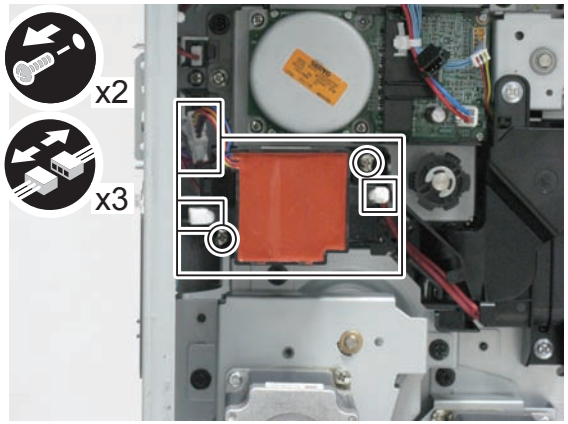
3) Remove the belt from the pully.



F-4-279

4) Remove the transformer.

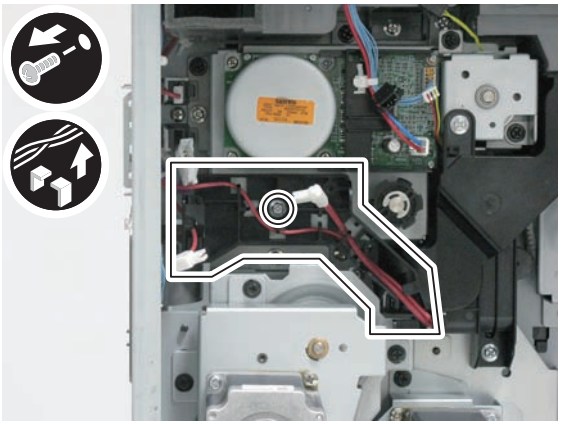
- 2 Screws
- 3 Connectors



F-4-280

5) Free the harness and remove the Transformer Support Base.

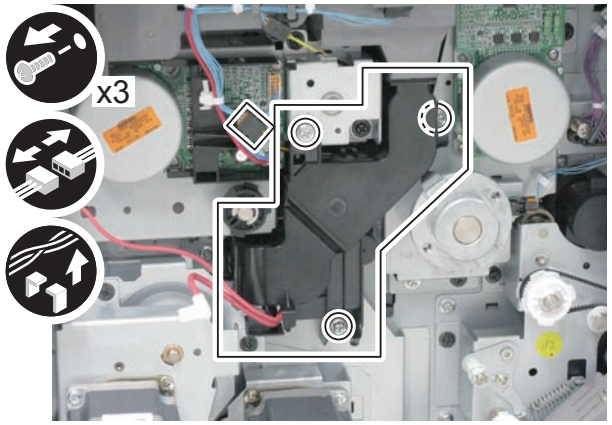
- 1 Screw
- Harness



F-4-281

6) Remove the Duct Unit.

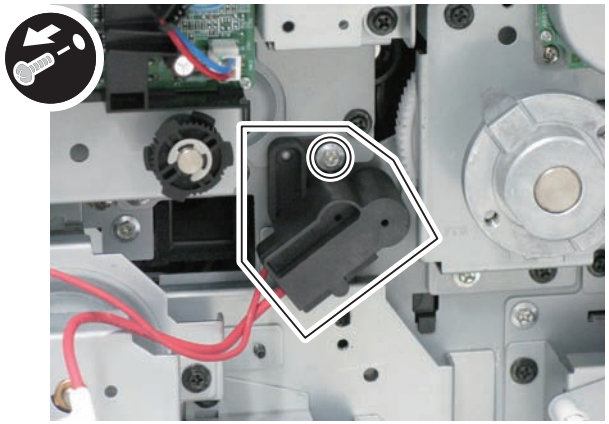
- 3 Screws
- 1 Connector
- Harness



F-4-282

7) Disconnect the Pre-transfer Charging High Voltage Connector.

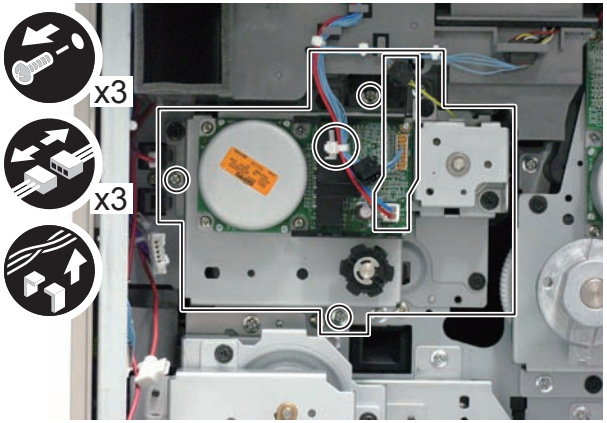
- 1 Screw



F-4-283

8) Remove the Developing Drive Unit.

- 3 Connectors
- 1 Reuse Band
- 3 Screws



F-4-284

Fixing

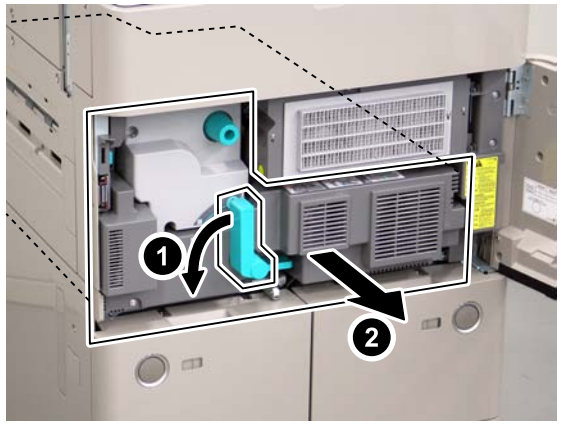
Removing the Fixing Assembly

<Preparation>

1. Pull out the Fixing Feed Unit.

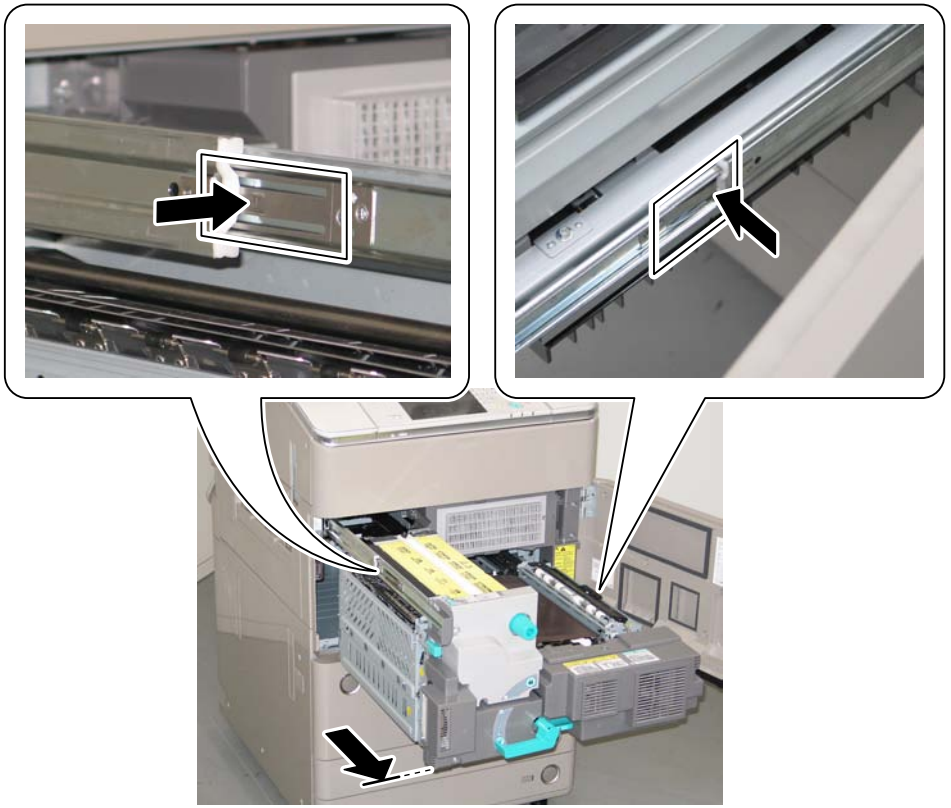
1-1) Open the Front Cover.

1-2) Turn the Fixing Feed Unit Pressure Release Lever in the direction of the arrow to pull out the Fixing Feed Unit.



F-4-285

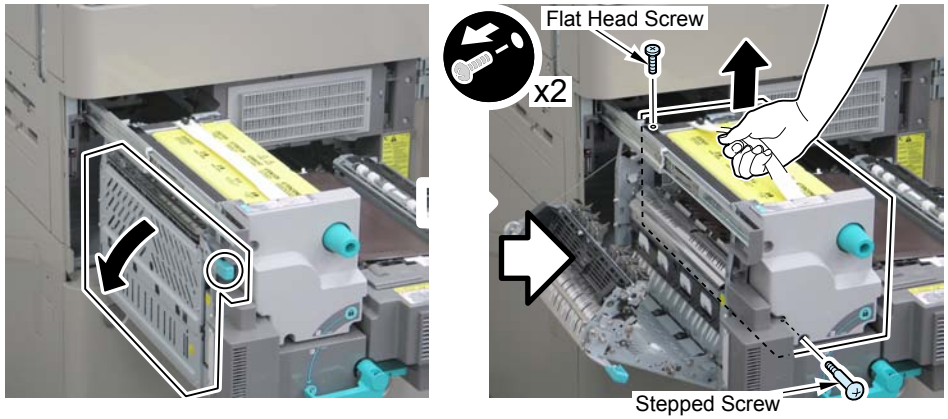
1-3) Push to release the Release Springs at both sides of the Rail, and then further pull out the Fixing Feed Unit until it stops.



F-4-286

<Procedure>

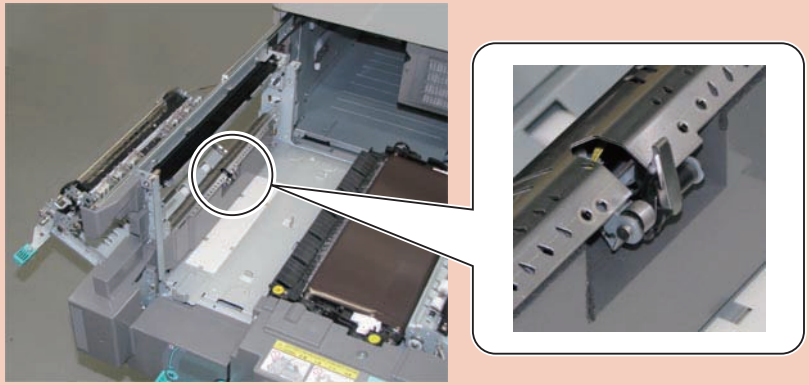
1) Hold the Lever of the Feed Unit to open the Feed Unit.
2) Remove the Fixing Assembly.
- 2 Screws



F-4-287

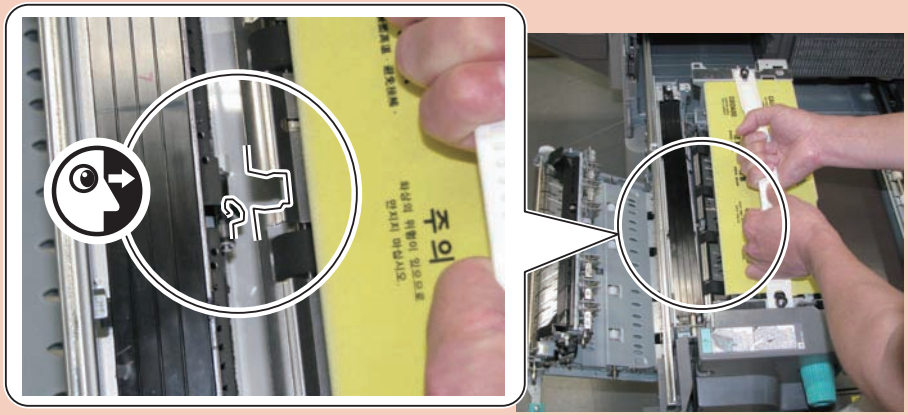
CAUTION: Points to Caution at Installation

- Be careful not to damage the Inner Delivery Sensor Flag.



F-4-288

- When installing the Fixing Assembly, be sure that the Inner Delivery Sensor Flag passes through the cut-off of the Fixing Outlet Guide.



F-4-289

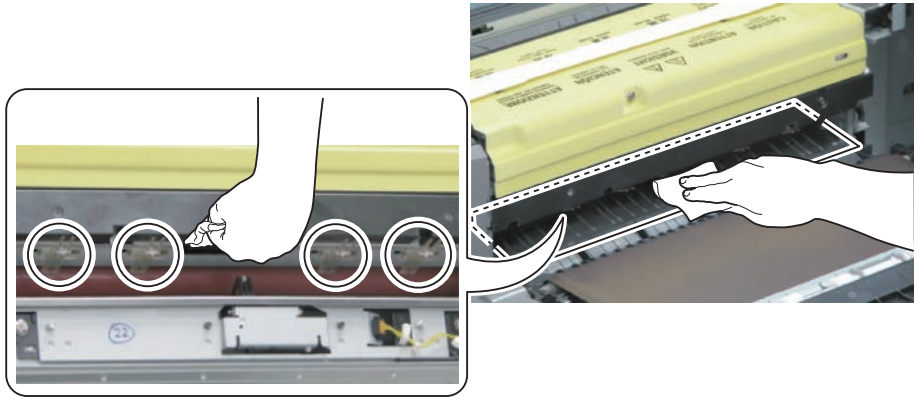
Cleaning the Fixing Inlet Guide,Fixing Inlet Sensor Flag, Fixing Right Stay, Dowel, Dowel Holder

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)

<Procedure>

1) Clean the Fixing Inlet Guide with lint-free paper moistened with alcohol.
2) Clean the Fixing Right Stay, Dowel, Dowel Holder with lint-free paper moistened with alcohol.



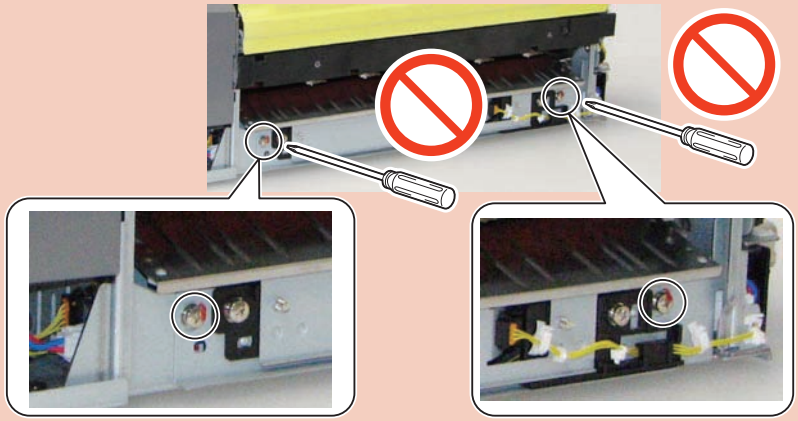
F-4-290

3) Remove the Fixing Inlet Guide Unit.

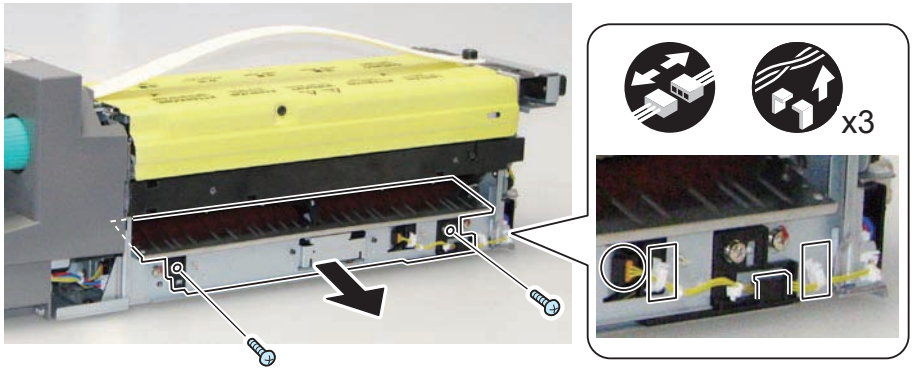
- 1 Connector
- 2 Wire Saddles
- 1 Harness Guide
- 2 Screws

CAUTION:

When removing the Fixing Inlet Guide Unit, be careful no to turn the 2 Adjustment Screws.

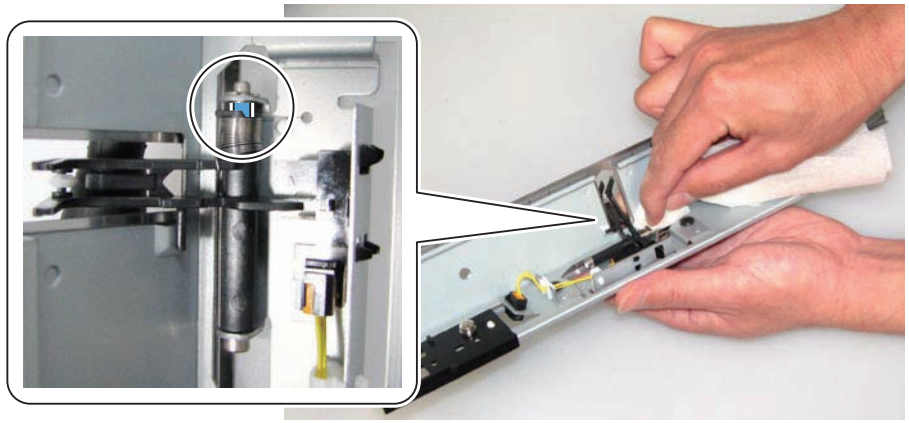


F-4-291



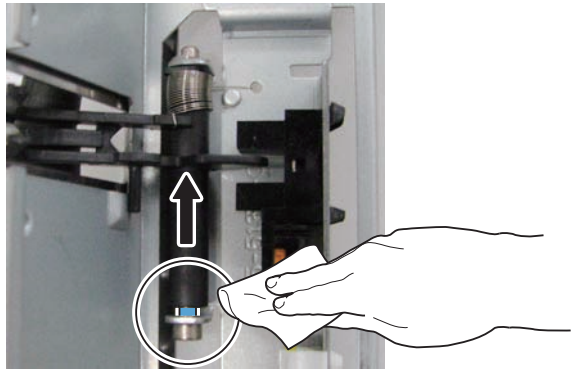
F-4-292

4) Turn over the Fixing Inlet Guide Unit, and insert lint-free paper into the clearance (front side) between the Fixing Inlet Sensor Flag Shaft and the Shaft Support Plate to remove the accumulated paper lint by dry wipe.



F-4-293

5) Slide the sensor flag to the rear side, and insert lint-free paper into the clearance (rear side) between the Fixing Inlet Sensor Flag Shaft and the Shaft Support Plate to remove the accumulated paper lint by dry wipe.



F-4-294

CAUTION:Checking after Cleaning the Fixing Inlet Sensor Flag Shaft

Be sure to check that the sensor flag rotates and moves back and forth smoothly by moving it manually.

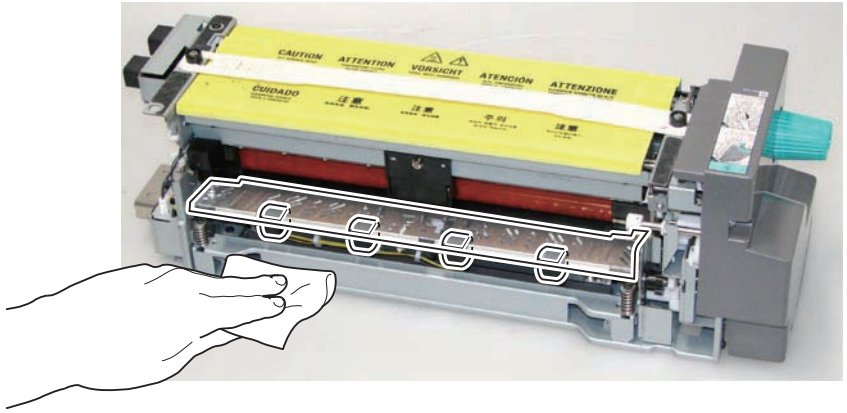
Cleaning the Inner Delivery Roller

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)

<Procedure>

1) Clean the Inner Delivery Roller with lint-free paper moistened with alcohol.



F-4-295

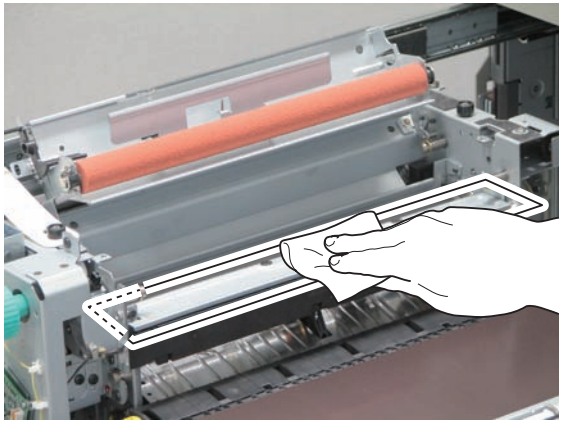
Cleaning the Fixing Oil Pan, Fixing Cleaning Web Guide

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
3. Remove the Fixing Upper Cover. (Refer to "Removing the Fixing Cleaning Web")

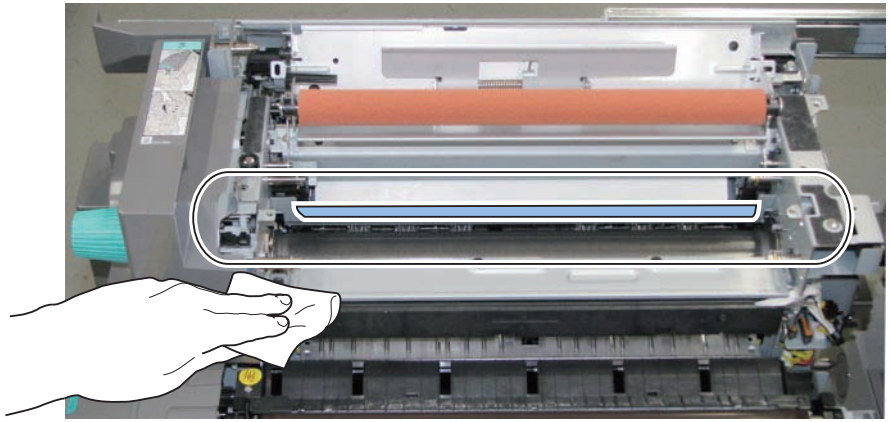
<Procedure>

1) Clean the surface of the Fixing Oil Pan with lint-free paper.



F-4-296

2) Clean the surface of the Fixing Cleaning Web Guide with lint-free paper.



F-4-297

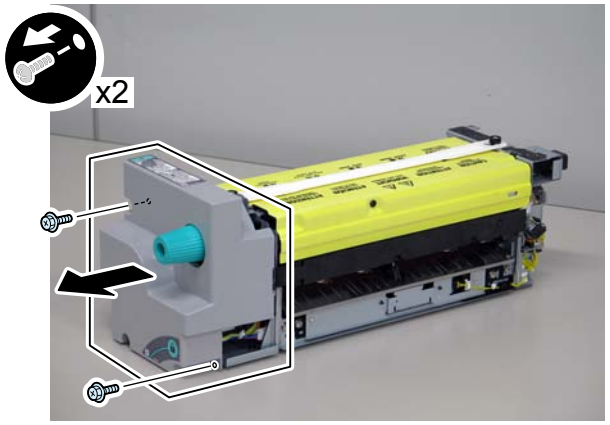
Removing the Fixing Cleaning Web

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover.

3-1) Remove the Fixing Front Cover.

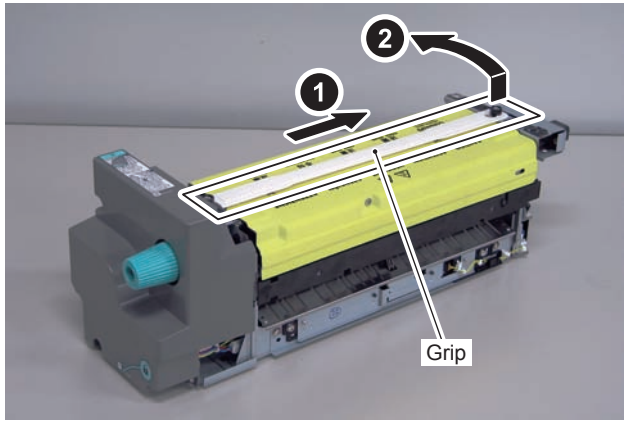
- 2 Screws



F-4-298

4. Remove the Fixing Upper Cover.

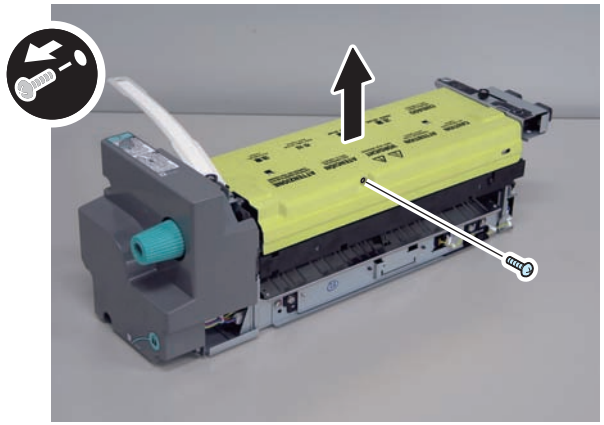
4-1) Remove the Handle by sliding to the rear side.



F-4-299

4-2) Remove the Fixing Upper Cover.

- 1 Screw



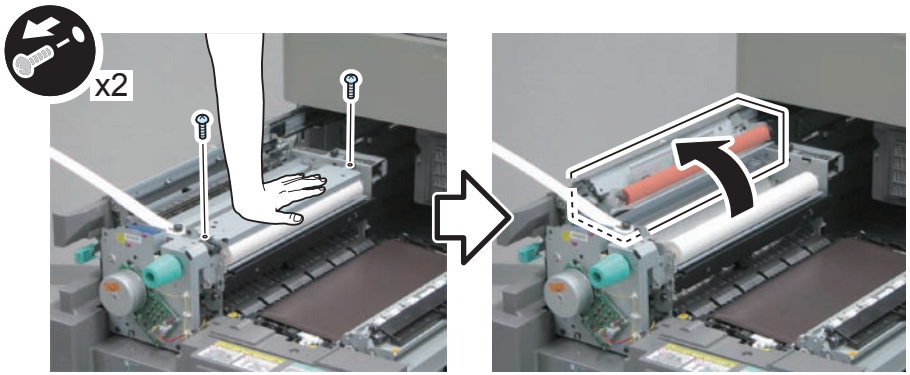
F-4-300

<Procedure>

1) Open the Fixing Cleaning Web Cover.

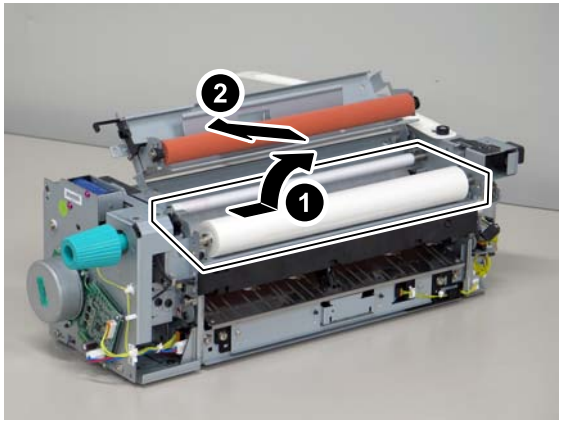
- 2 Screws

NOTE:
Because it is engaged, hold the Fixing Cleaning Web Cover to remove the screws.



F-4-301

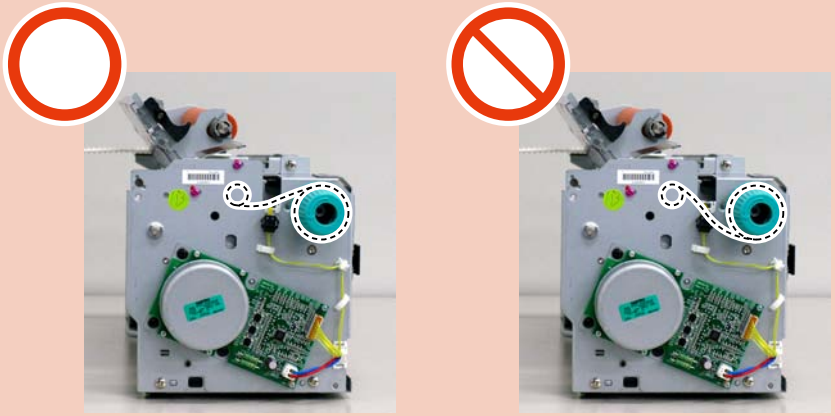
2) Remove the Fixing Cleaning Web.



F-4-302

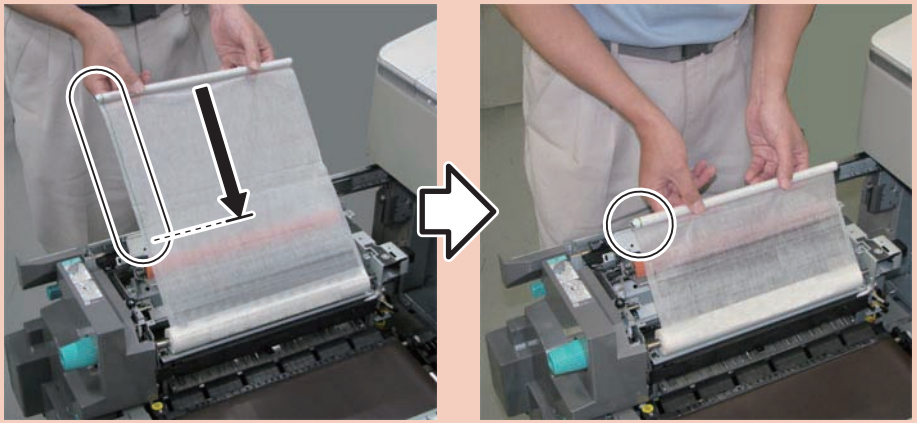
CAUIOTN: Points to Caution at Installation

- Be sure to install the Fixing Cleaning Web in the correct direction.



F-4-303

- When installing the Fixing Cleaning Web, be sure to wind the web around the Web Take-up Roller until the green line on the web disappears from view.



F-4-304

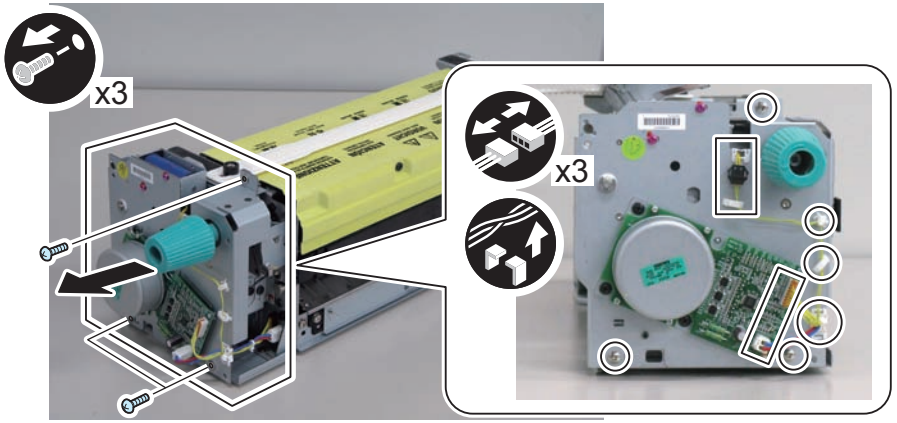
Separating the Fixing Upper Unit from the Fixing Lower Unit

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Remove the Fixing Drive Unit 1.

4-1) Remove the Fixing Drive Unit 1.

- Wire Saddle
- Edge Saddle
- Reuse Band
- 3 Connectors
- 3 Screws

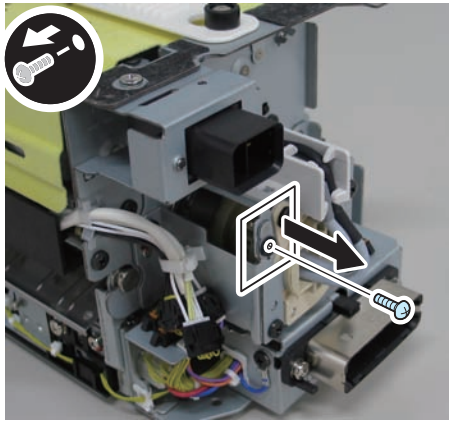


F-4-305

5. Secure the Shutter Drive Gear.

5-1) Remove the Fixing Pin for the Shutter Drive Gear (Rear).

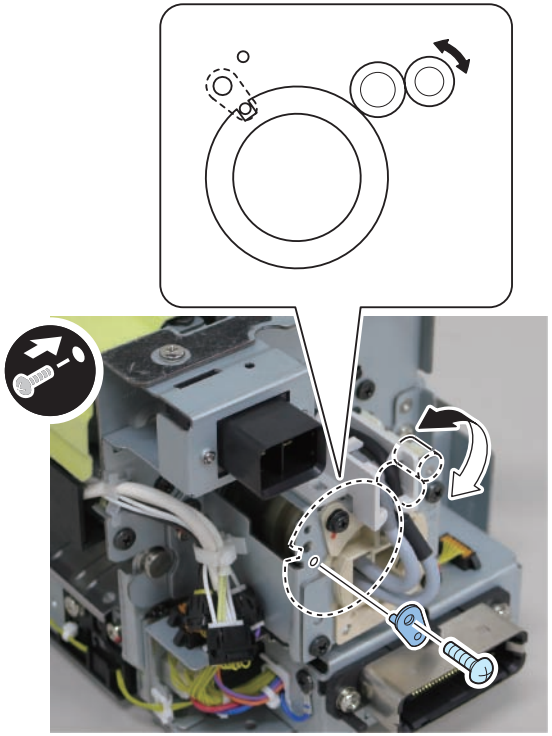
- 1 Screw



F-4-306

5-2) Rotate the Shutter Drive Gear (Rear) with fingers. Then, align the cut-off of the Shutter Gear with the hole position, and secure with the Fixing Pin removed in step 5-1.

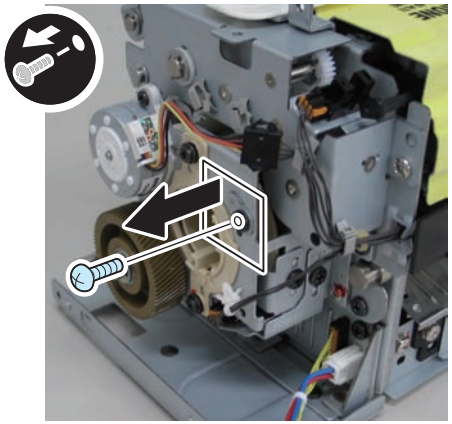
- 1 Screw



F-4-307

5-3) Remove the Fixing Pin for the Shutter Drive Gear (Front).

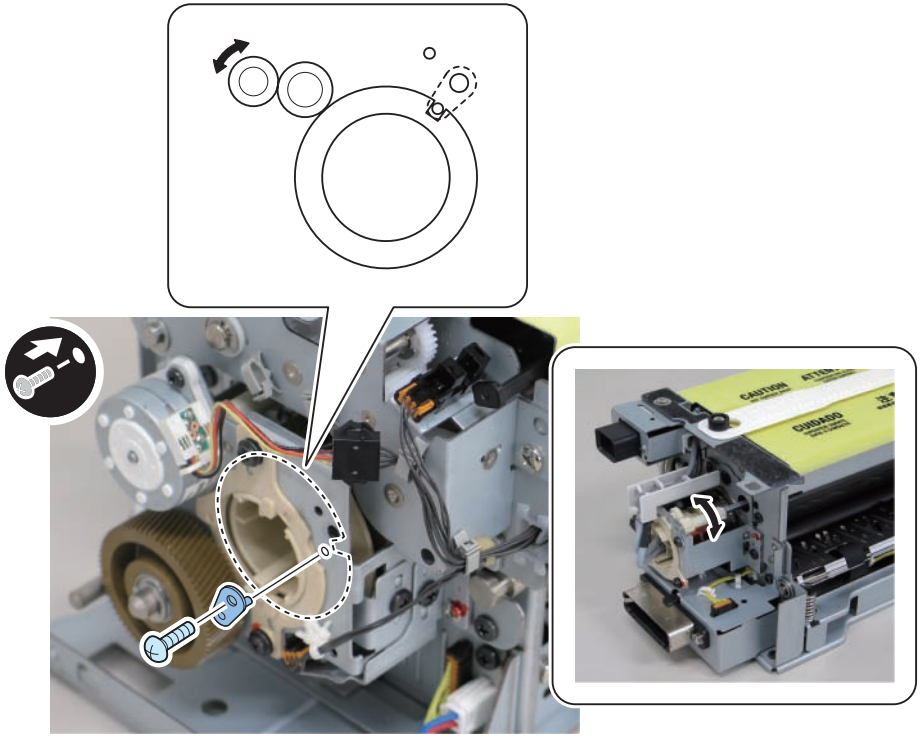
- 1 Screw



F-4-308

5-4) Align the cut-off of the Shutter Drive Gear (Front) with the hole position of the Plate, and then secure with the Fixing Pin removed previously.

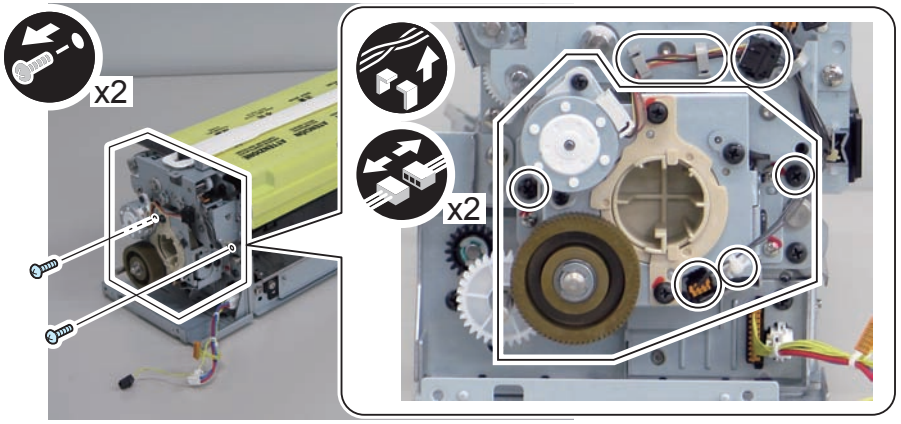
- 1 Screw



F-4-309

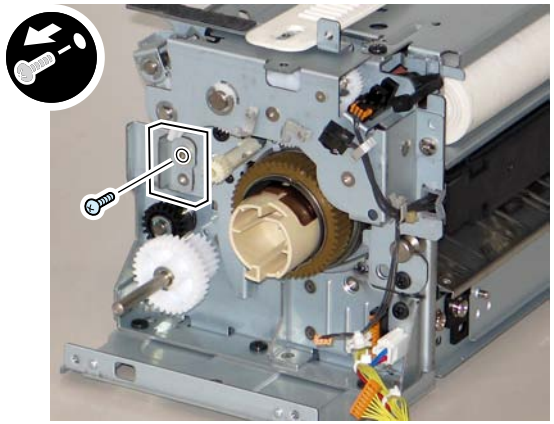
<Procedure>

1) Remove the Fixing Drive Unit 2.
- Wire Saddle
- Reuse Band
- 2 Connectors
- 2 Screws



F-4-310

2) Remove the Fixing Pin.
- 1 Screw

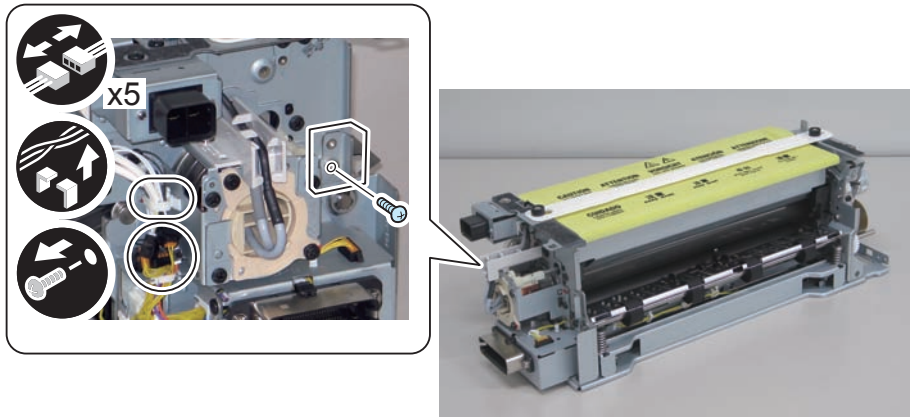


F-4-311

3) Disconnect the 5 Connectors on the other side of the Fixing Assembly.
- Wire Saddle

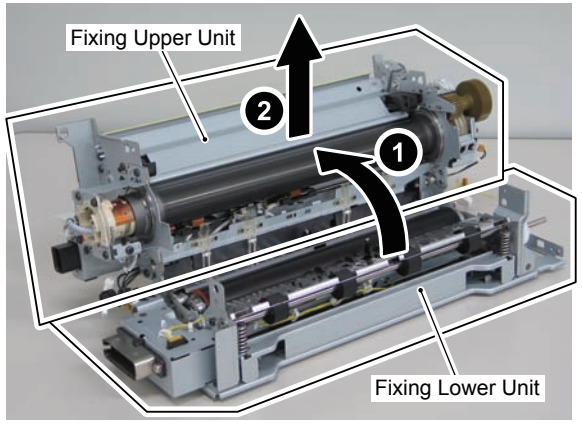
4) Remove the Fixing Pin.
- 1 Screw

NOTE:
Because it is engaged, hold the Fixing Upper Unit to remove the Fixing Pin.



F-4-312

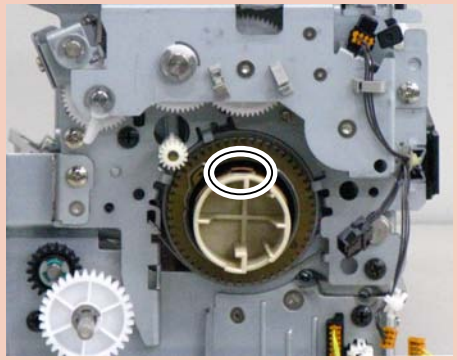
5) Separate the Fixing Upper Unit from the Fixing Lower Unit.

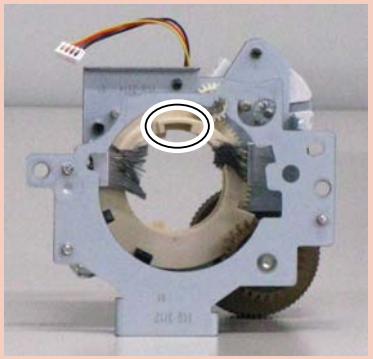


F-4-313

CAUTION: Points to Caution at Installation of the Fixing Drive Unit 2

- Be sure to fit the protrusion of the Fixing Shutter to the groove of the Fixing Shutter Drive Gear (Front) to install.





F-4-314

- Remove the Fixing Pin for the Shutter Drive Gear (Front) and return to the original position. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")

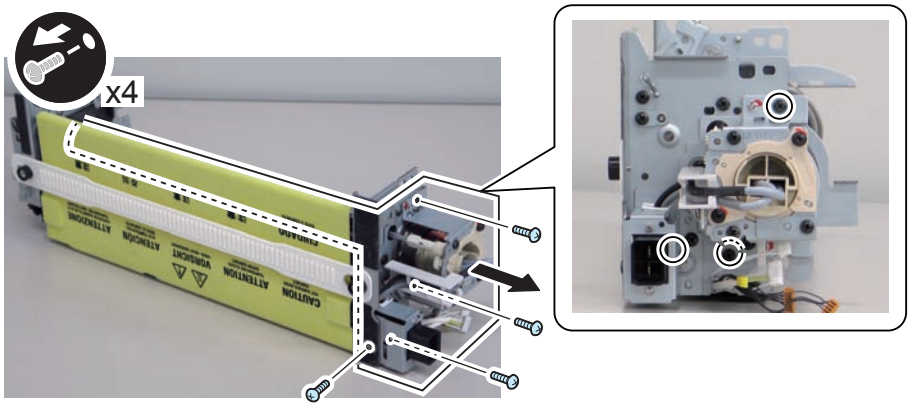
Removing the Fixing Roller, Insulating Bush and Thrust Stopper

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Remove the Fixing Drive Unit 1. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
5. Secure the Shutter Drive Gear. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
6. Separate the Fixing Upper Unit from the Fixing Lower Unit. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
7. Remove the Heater Unit.

7-1) Remove the Heater Unit.

- 4 Screws



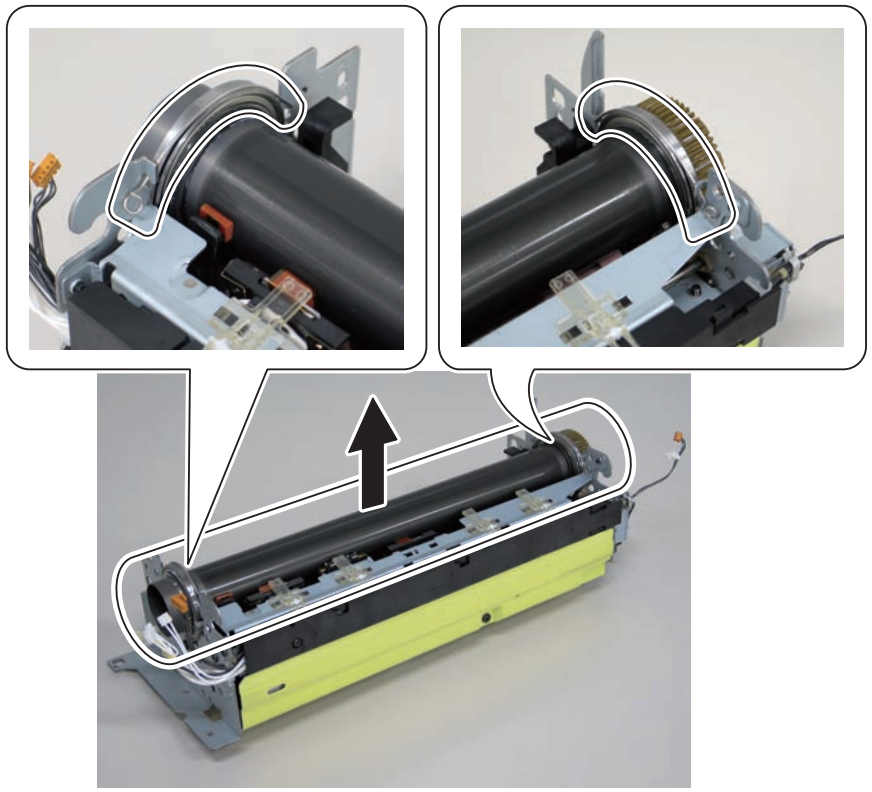
F-4-315

CAUTION: Points to Caution at Installation of the Heater Unit

Remove the Fixing Pin for the Shutter Drive Gear (Rear) and return to the original position. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")

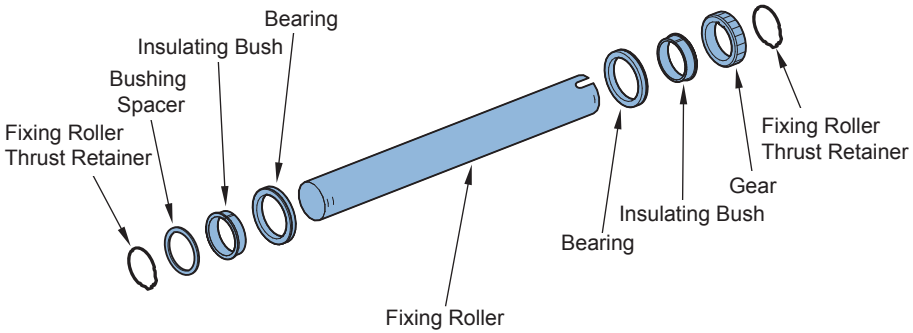
<Procedure>

1) Place the Fixing Upper Unit as shown in the figure and remove the Fixing Roller Bearing Retainer.
2) Remove the Fixing Roller Unit.



F-4-316

3) Remove the Thrust Stopper from the Fixing Roller Unit to remove the Fixing Roller.



F-4-317

CAUTION: Points to Caution at Installation

Be sure to locate the groove of the Fixing Roller Bearing inside the Fixing Upper Unit to install.

F-4-318

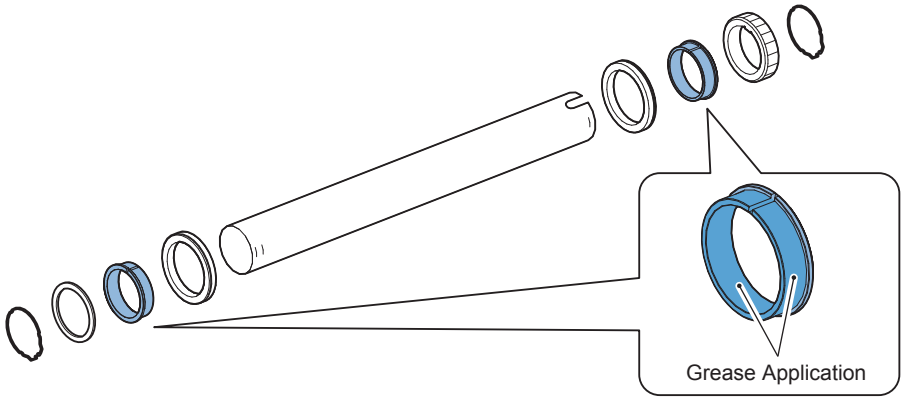
CATION: Points to Caution when Replacing the Fixing Roller

Do not reuse the once removed Thrust Stopper.

If the Thrust Stopper is reused, it may come off during printing.

<Processing after replacing the parts>

- Grease Application
  Apply approx. 20mg of grease (MOLYKOTE HP-300; CK-8012) to inner circumference and outer circumference of the Bushing so that all circumferences are covered with white film; otherwise, abnormal noise can occur (squeaking).



F-4-319

- Clear the counter
  COPIER >COUNTER > DRBL-1 > FX-UP-RL

Removing the Pressure Roller

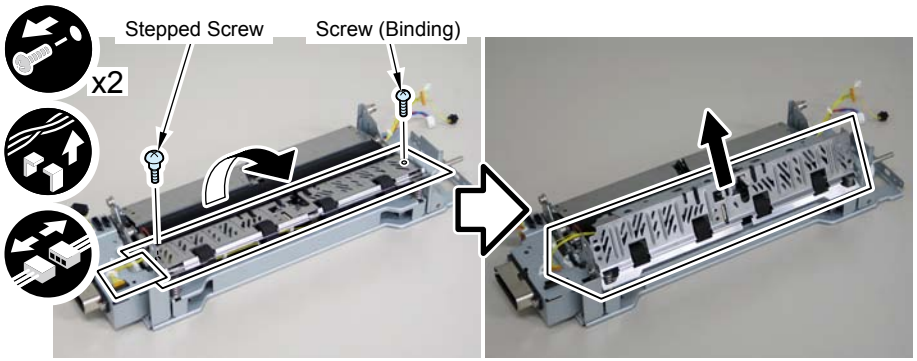
<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Remove the Fixing Drive Unit 1. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
5. Secure the Shutter Drive Gear. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
6. Separate the Fixing Upper Unit from the Fixing Lower Unit. (Refer to page 4-182)

<Procedure>

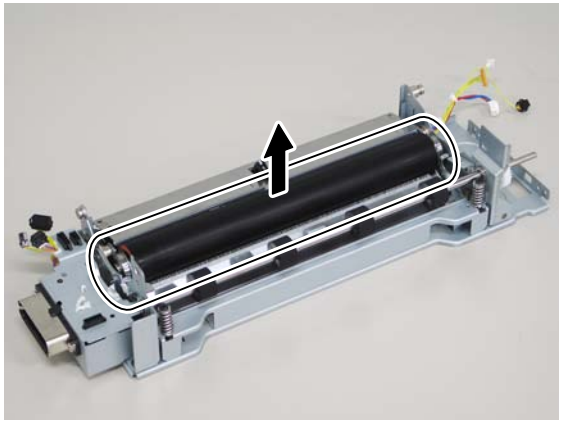
1) Remove the Fixing Inlet Guide.

- 2 Screws
- Wire Saddle
- Edge Saddle
- 1 Connector



F-4-320

2) Remove the Pressure Roller Unit.



F-4-321

Removing the Pressure Roller Static Eliminator Unit

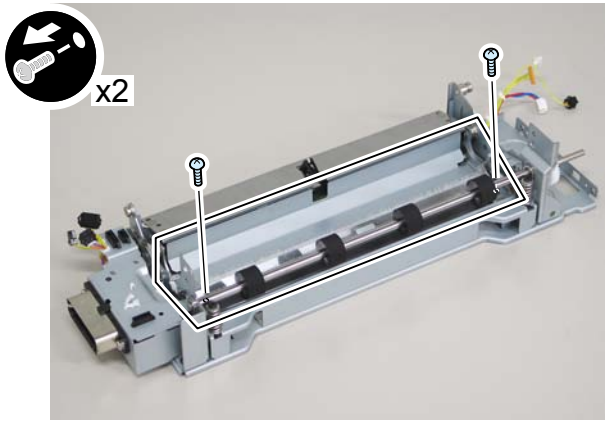
<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Remove the Fixing Drive Unit 1. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
5. Secure the Shutter Drive Gear. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
6. Separate the Fixing Upper Unit from the Fixing Lower Unit. (Refer to page 4-182)
7. Remove the Pressure Roller Unit. (Refer to page 4-188)

<Procedure>

1) Remove the Pressure Roller Static Eliminator Unit.

- 2 Screws



F-4-322

2) Remove the Pressure Roller Static Eliminator.

- 1 Screw

F-4-323

Removing the Main Thermistor, Sub Thermistor2

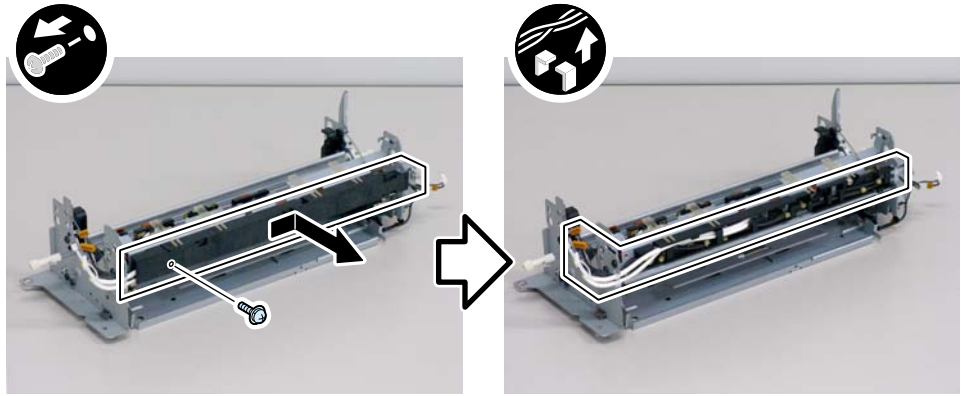
<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Front Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Remove the Fixing Upper Cover. (Refer to "Removing the Fixing Cleaning Web")
5. Remove the Fixing Cleaning Web. (Refer to page 4-180)
6. Remove the Fixing Drive Unit 1. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
7. Secure the Shutter Drive Gear. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
8. Remove the Heater Unit. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
9. Separate the Fixing Upper Unit from the Fixing Lower Unit. (Refer to page 4-182)
10. Remove the Fixing Roller. (Refer to page 4-186)

<Procedure>

1) Remove the Harness Guide Cover and free the Harness from the Guide.

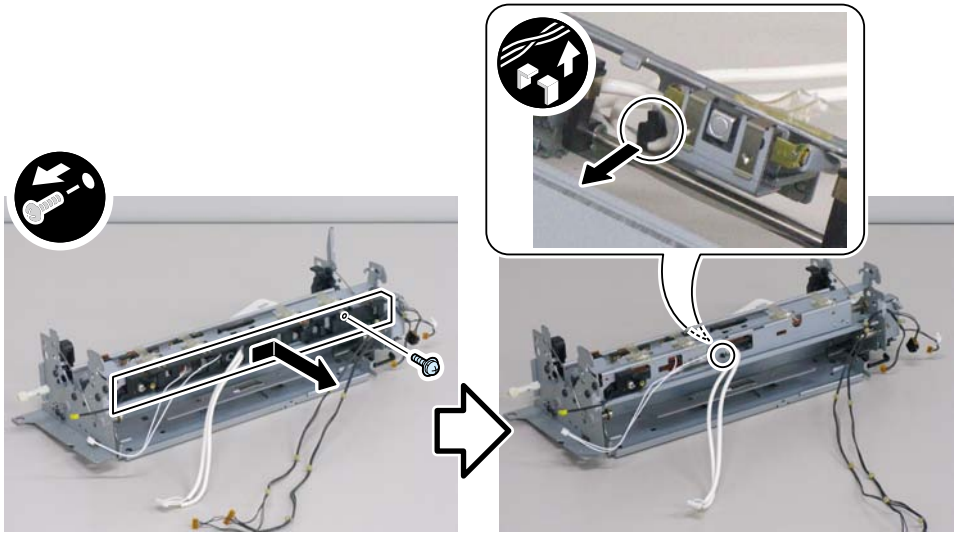
- 1 Screw
- Edge Saddle
- Harness Guide



F-4-324

2) Remove the Harness Guide and remove the Harness Band.

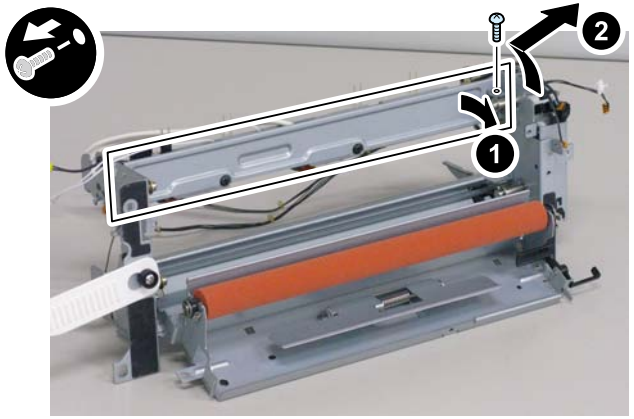
- 1 Screw



F-4-325

3) Place the Fixing Upper Unit as shown in the figure and remove the Fixing Oil Pan.

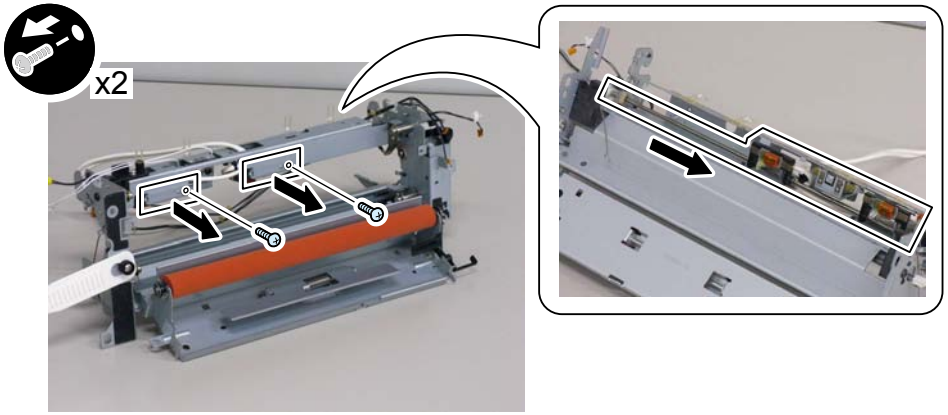
- 1 Screw



F-4-326

4) Remove the Thermistor Unit Support Plate to remove the Thermistor Reciprocating Shaft from the Fixing Upper Unit.

- 2 Screws



F-4-327

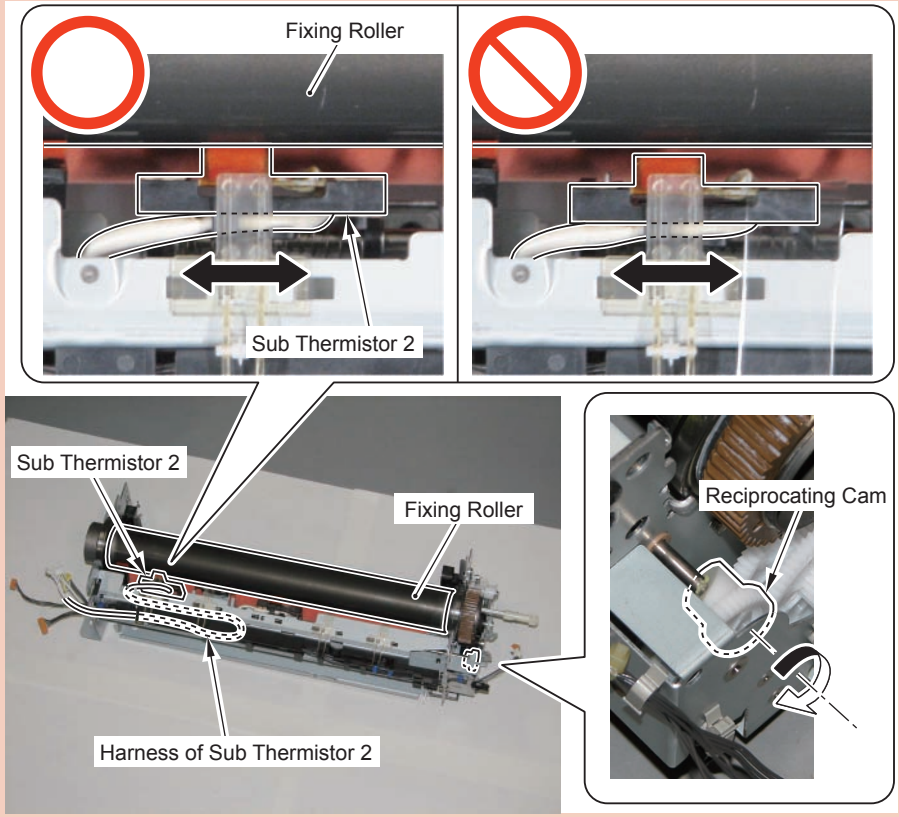
5) Remove the Leaf Spring and remove the Main Thermistor and the SubThermistor 2 from the Thermistor Holder.

F-4-328

CAUTION: Points to Note when Installing the Main Thermistor and the Sub Thermistor 2

When the harness on the Thermistor side is short, the Sub Thermistor 2 may not be engaged with the Fixing Roller. Perform the following procedure to check the engagement.

1) After installing the Thermistor, temporarily place the Fixing Roller.
2) While sliding the Thermistor for at least one reciprocation by rotating the Reciprocating Cam, check that there is no gap between the Sub Thermistor 2 and the Fixing Roller. If a gap is found, perform the following procedure.
3) Remove the Fixing Roller.
4) Arrange the harness of the Sub Thermistor 2 so as to give the harness some slack on the Thermistor side.
5) Perform steps 1 and 2 for double check.



F-4-329

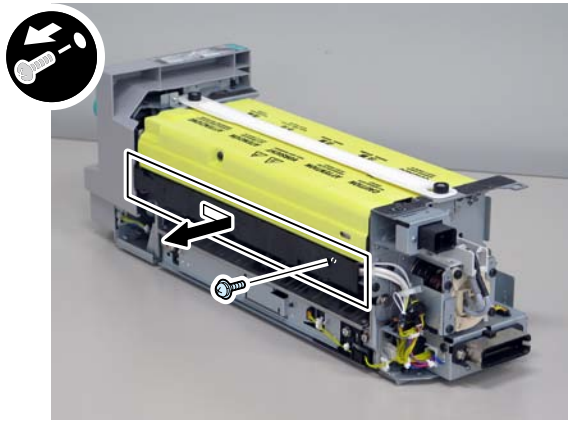
Removing the Sub Thermistor1

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)

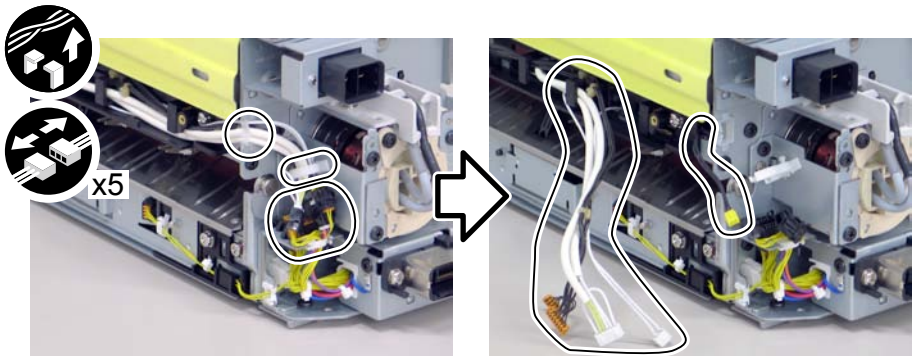
<Procedure>

1) Remove the Harness Guide Cover.
- 1 Screw



F-4-330

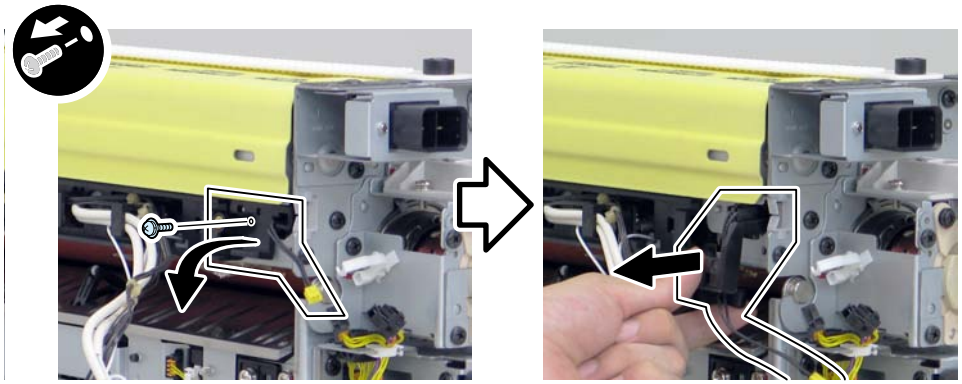
2) Remove the Harness to free as shown in the figure.
- 5 Connectors
- Edge Saddle
- Wire Saddle



F-4-331

3) Remove the Sub Thermistor Holder.

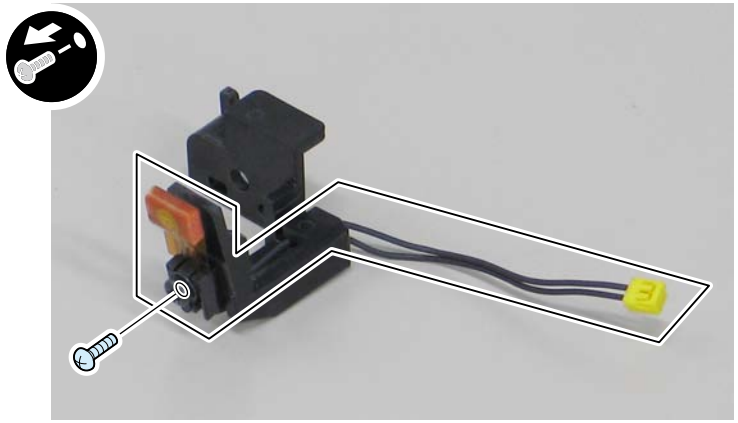
- 1 Screw



F-4-332

4) Remove the Sub Thermistor 1.

- 1 Screw



F-4-333

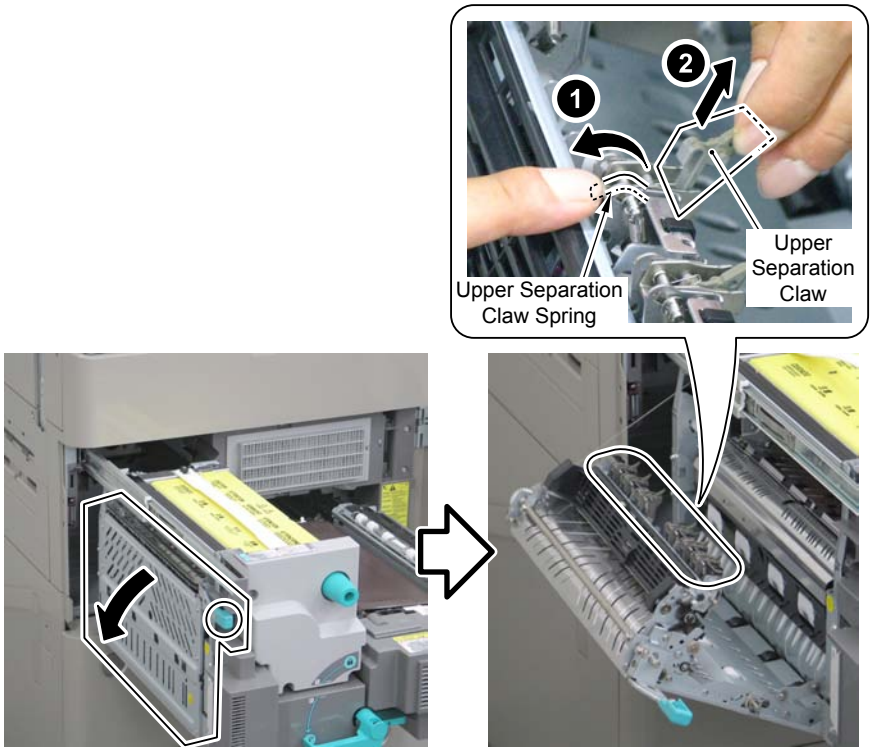
Removing the Upper Separation Claw

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")

<Procedure>

1) Hold the Lever of the Left Guide to open the Left Guide.
2) While holding the Upper Separation Claw Retaining Spring, remove the Upper Separation Claw.



F-4-334

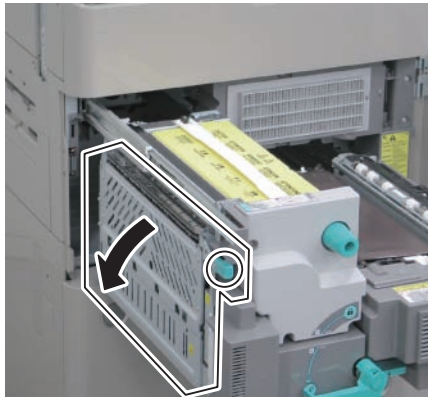
Cleaning the Upper Separation Claw

<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")

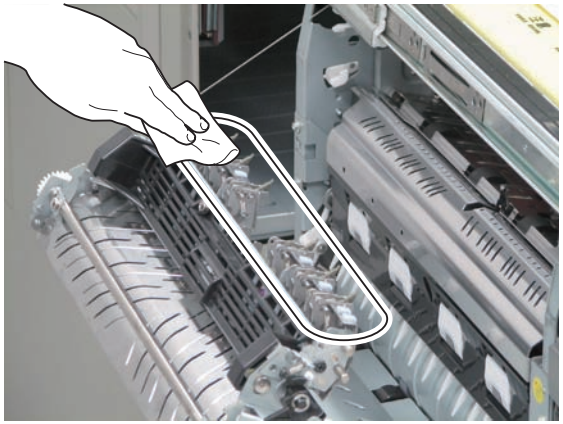
<Procedure>

1) Hold the Lever of the Feed Unit to open the Feed Unit.



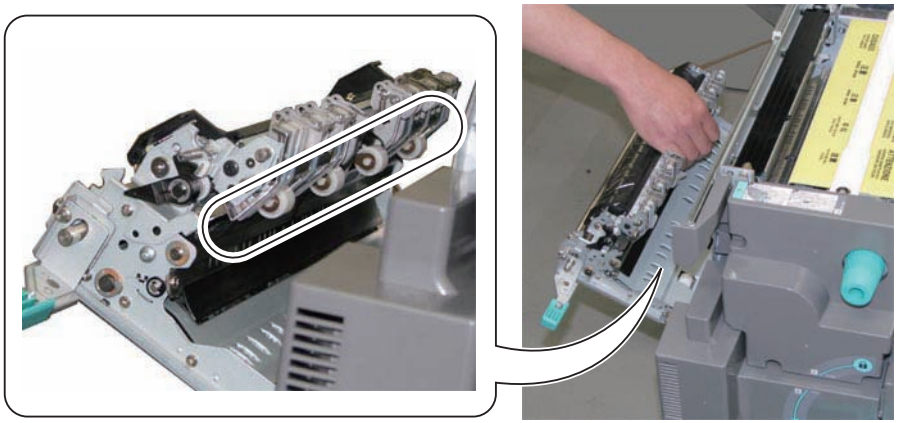
F-4-335

2) Clean the Upper Separation Claw with lint-free paper moistened.



F-4-336

3) Wipe toner off the 4 Inner Delivery Rollers with lint-free paper moistened with alcohol.



F-4-337

Removing the Thermoswitch

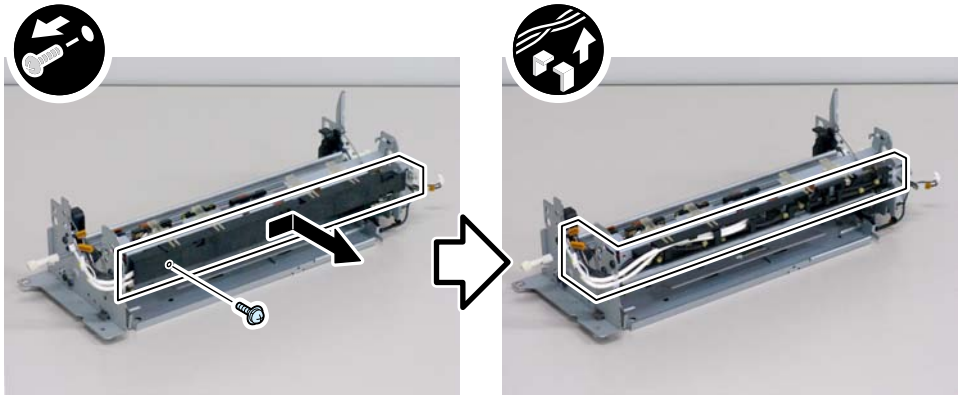
<Preparation>

1. Pull out the Fixing Feed Unit. (Refer to "Removing the Fixing Assembly")
2. Remove the Fixing Assembly. (Refer to page 4-176)
3. Remove the Fixing Upper Cover. (Refer to "Removing the Fixing Cleaning Web")
4. Remove the Fixing Cleaning Web. (Refer to page 4-180)
5. Remove the Fixing Drive Unit 1. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
6. Secure the Shutter Drive Gear. (Refer to "Separating the Fixing Upper Unit from the Fixing Lower Unit")
7. Separate the Fixing Upper Unit from the Fixing Lower Unit. (Refer to page 4-182)
8. Remove the Heater Unit. (Refer to "Removing the Fixing Roller, Insulating Bush and Thrust Stopper")
9. Remove the Fixing Roller. (Refer to page 4-186)

<Procedure>

1) Remove the Harness Guide Cover and free the harness from the Harness Guide.

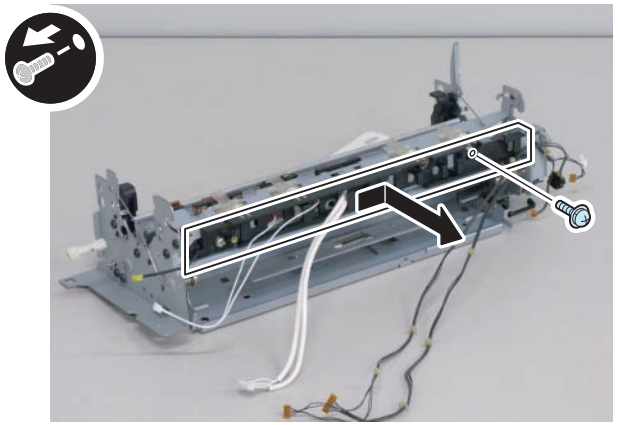
- 1 Screw
- Edge Saddle
- Harness Guide



F-4-338

2) Remove the Harness Guide.

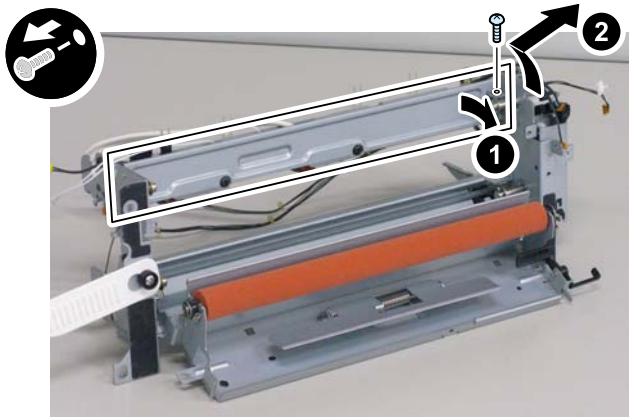
- 1 Screw



F-4-339

3) Place the Fixing Upper Unit as shown in the figure and remove the Web Lower Cover.

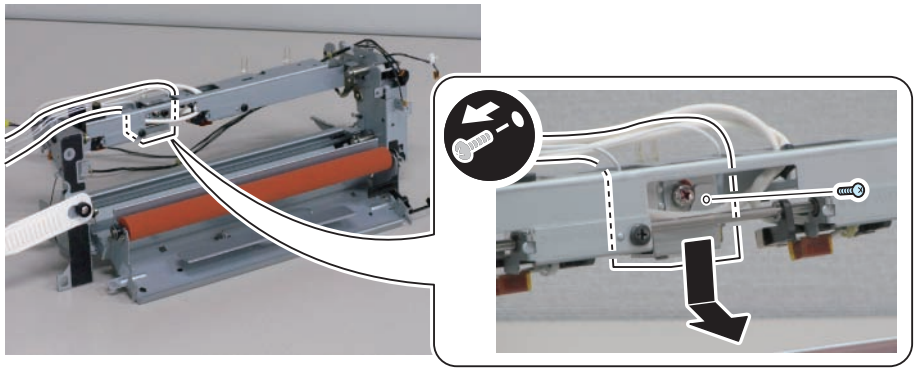
- 1 Screw



F-4-340

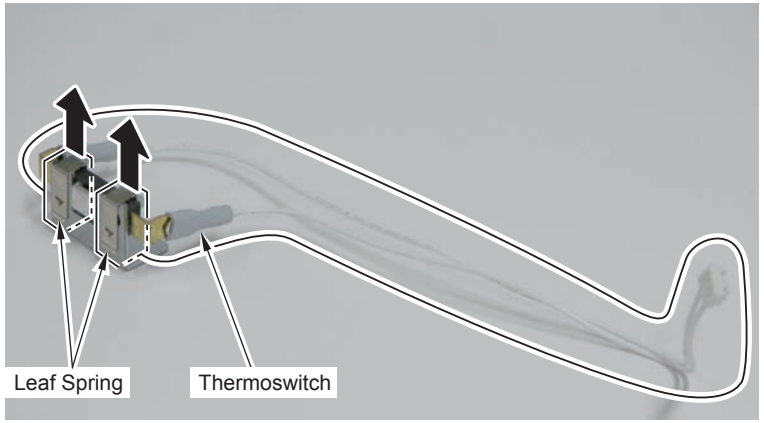
4) Remove the Thermoswitch Unit.

- 1 Screw



F-4-341

5) Remove the Retainer Plate and Thermoswitch.

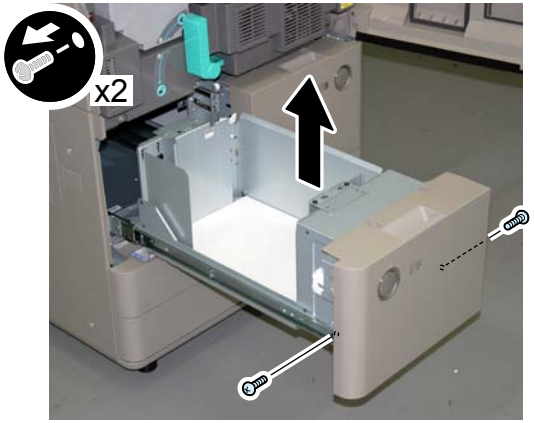


F-4-342

Pickup/Feed System

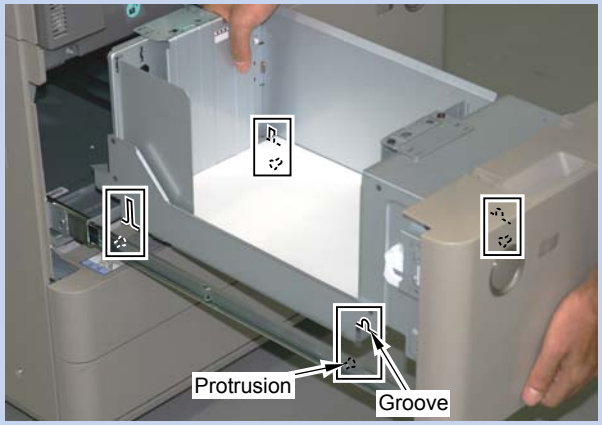
Removing the Left Pickup Deck

1) Open the Front Cover.
2) Pull out the Left Pickup Deck to remove.
- 2 Screws



F-4-343

NOTE:
When installing the Left Pickup Deck, be sure to fit the 4 protrusions on the Rail into the 4 grooves of the Left Pickup Deck to install.

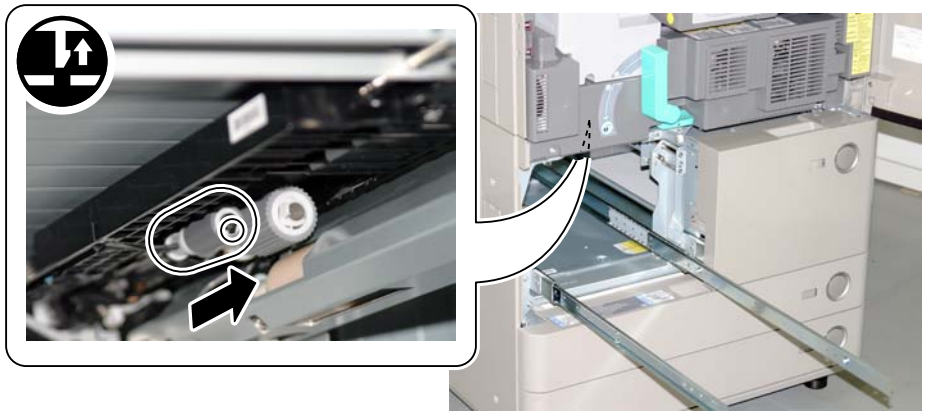


F-4-344

Removing the Left Deck Pickup Roller

<Preparation>
1. Open the Front Cover.
2. Remove the Left Pickup Deck. (Refer to page 4-197)

<Procedure>
1) Remove the Left Deck Pickup Roller.
- 1 Claw



F-4-345

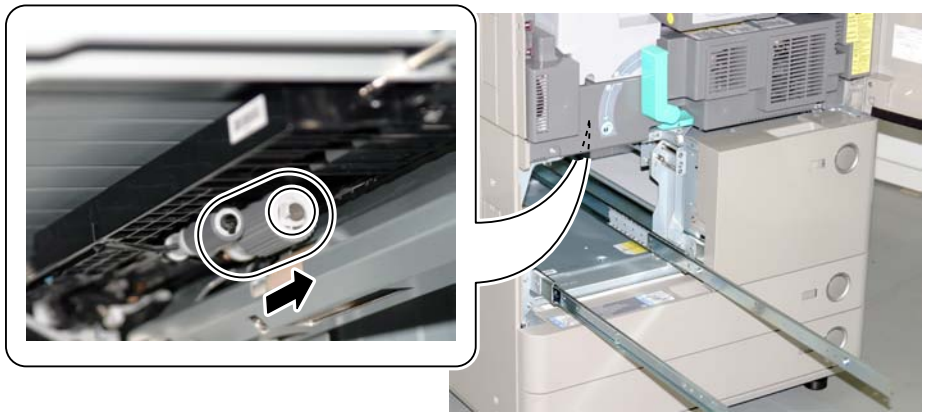
Removing the Left Deck Feed Roller

<Preparation>

1. Open the Front Cover.
2. Remove the Left Pickup Deck. (Refer to page 4-197)

<Procedure>

1) Remove the Stopper to remove the Left Deck Feed Roller.

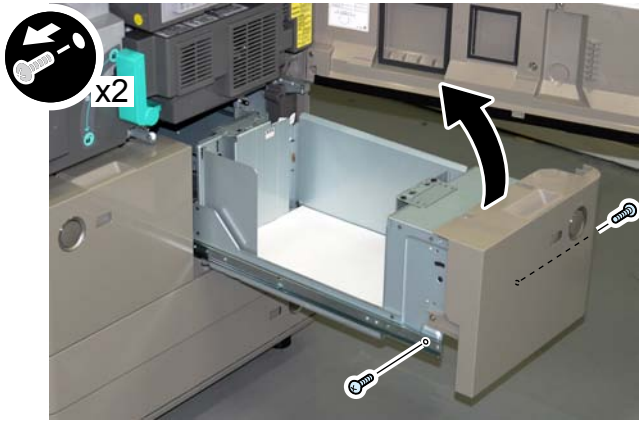


F-4-346

Removing the Right Pickup Deck

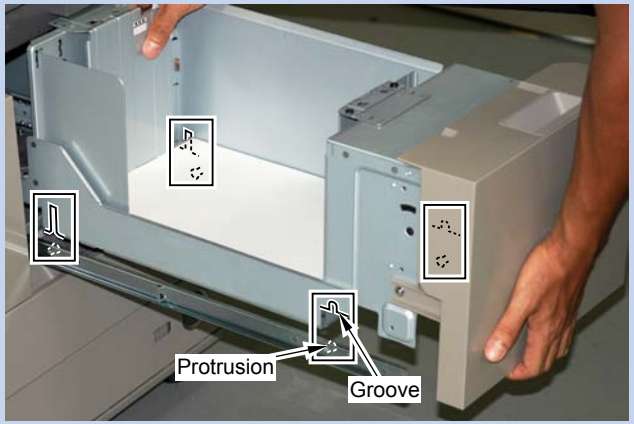
1) Open the Front Cover.
2) Pull out the Right Pickup Deck to remove.

- 2 Screws



F-4-347

NOTE:
When installing the Right Pickup Deck, be sure to fit the 4 protrusions on the Rail into the 4 grooves of the Right Pickup Deck to install.



F-4-348

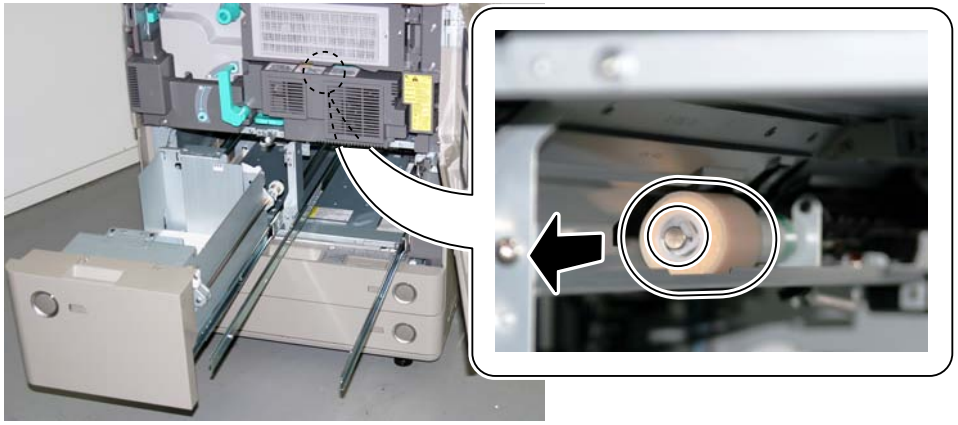
Removing the Left Deck Separation Roller

<Preparation>

1. Open the Front Cover.
2. Remove the Right Pickup Deck. (Refer to page 4-198)

<Procedure>

1) Pull out the Left Pickup Deck.
2) Remove the Stopper to remove the Left Deck Separation Roller.



F-4-349

Removing the Right Deck Pickup Roller

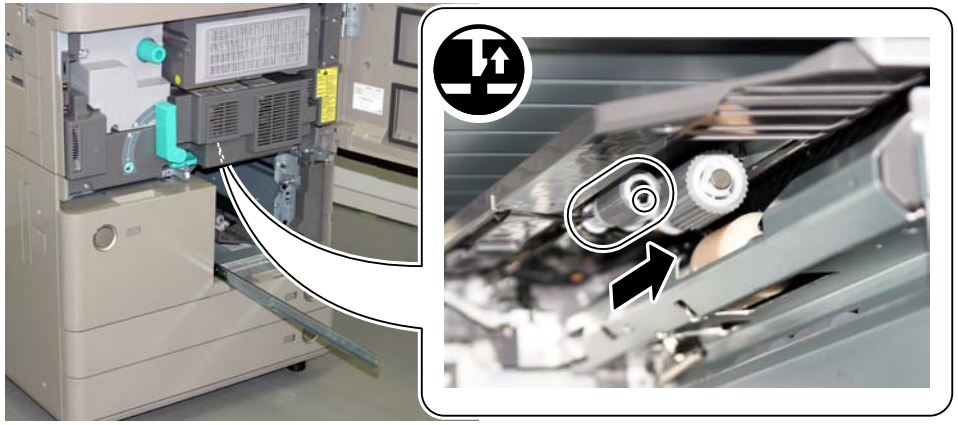
<Preparation>

1. Open the Front Cover.
2. Remove the Right Pickup Deck. (Refer to page 4-198)

<Procedure>

1) Remove the Right Deck Pickup Roller.

- 1 Claw



F-4-350

Removing the Right Deck Feed Roller

<Preparation>

1. Open the Front Cover.
2. Remove the Right Pickup Deck. (Refer to page 4-198)

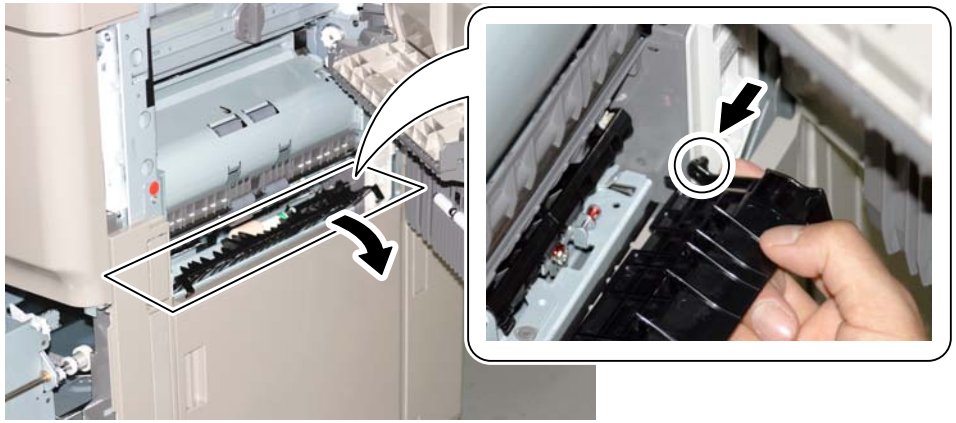
<Procedure>

1) Remove the Stopper to remove the Right Deck Feed Roller.

F-4-351

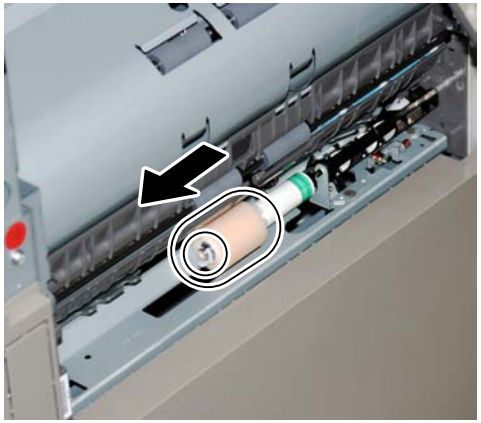
Removing the Right Deck Separation Roller

1) Open the Right Upper Cover.
2) Pull out the Right Pickup Deck.
3) Remove the Feed Guide.
- 1 Boss



F-4-352

4) Remove the Stopper to remove the Right Deck Separation Roller.

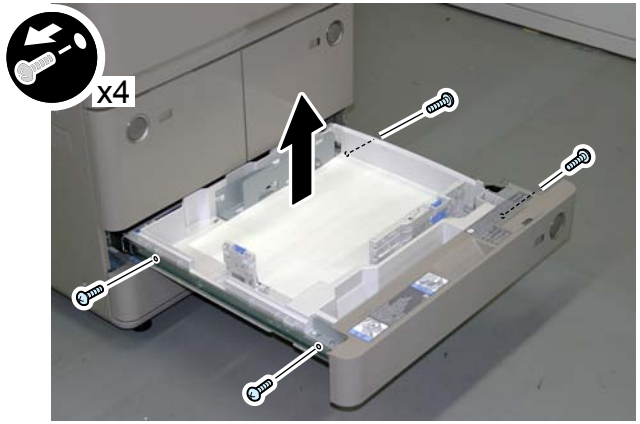


F-4-353

Removing the Upper Cassette

1) Pull out the Upper Cassette to remove.

- 4 Screws



F-4-354

Removing the Upper Cassette Pickup Roller

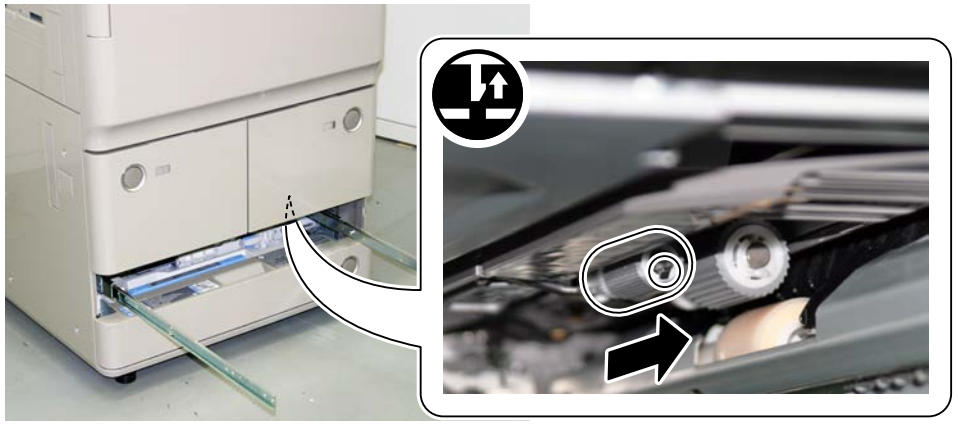
<Preparation>

1. Remove the Upper Cassette. (Refer to page 4-201)

<Procedure>

1) Remove the Upper Cassette Pickup Roller.

- 1 Claw



F-4-355

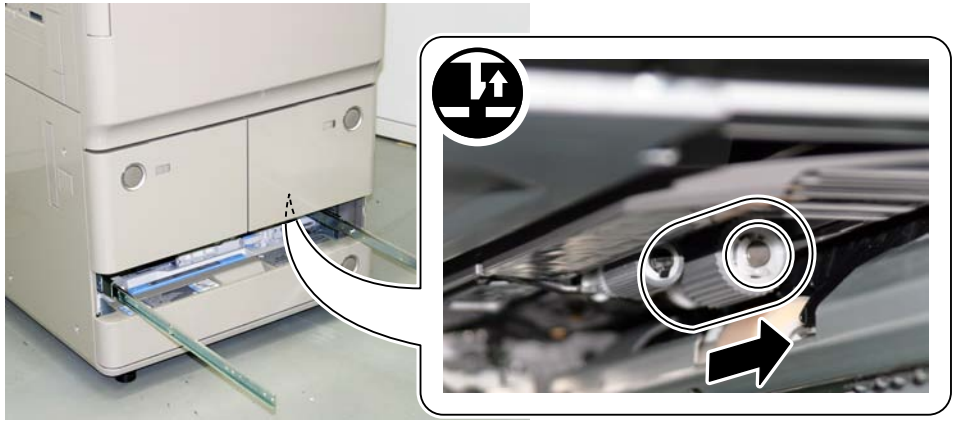
Removing the Upper Cassette Feed Roller

<Preparation>

1. Remove the Upper Cassette. (Refer to page 4-201)

<Procedure>

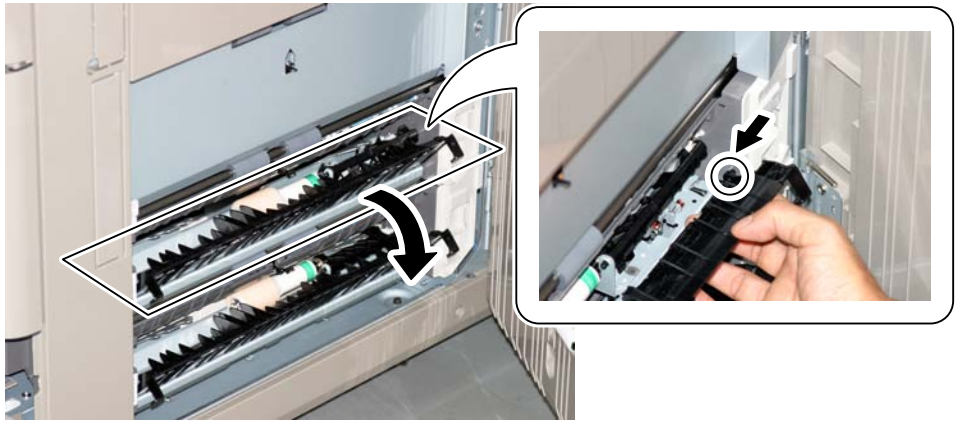
1) Remove the Stopper to remove the Upper Cassette Feed Roller.



F-4-356

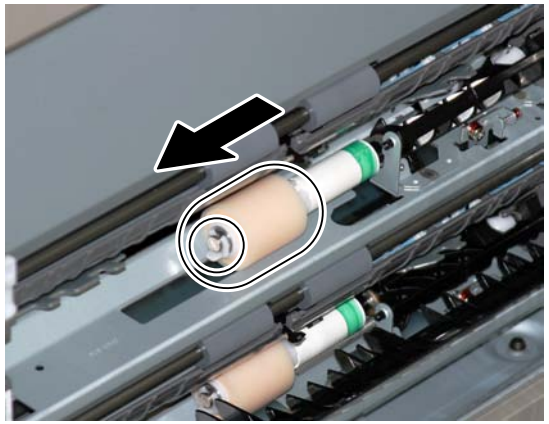
Removing the Upper Cassette Separation Roller

1) Open the Right Lower Cover.
2) Remove the Upper Cassette.
3) Remove the Feed Guide.
- 1 Boss



F-4-357

4) Remove the Stopper to remove the Upper Cassette Separation Roller.

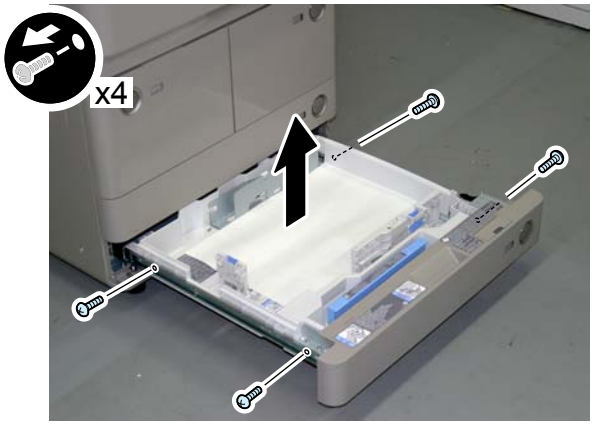


F-4-358

Removing the Lower Cassette

1) Pull out the Lower Cassette to remove.

- 4 Screws



F-4-359

Removing the Lower Cassette Pickup Roller

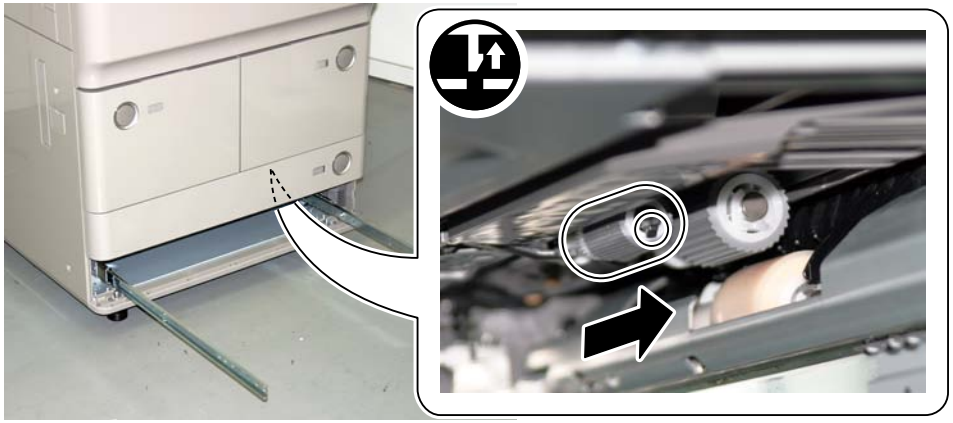
<Preparation>

1. Remove the Lower Cassette. (Refer to page 4-203)

<Procedure>

1) Remove the Lower Cassette Pickup Roller.

- 1 Claw



F-4-360

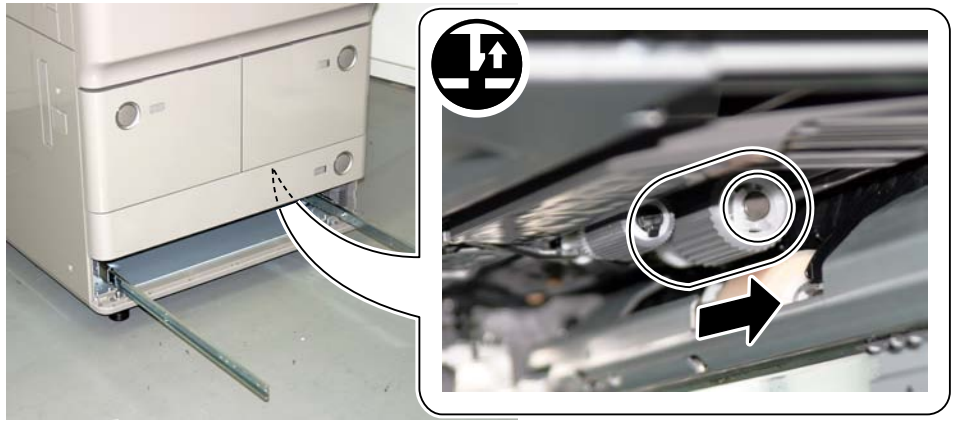
Removing the Lower Cassette Feed Roller

<Preparation>

1. Remove the Lower Cassette. (Refer to page 4-203)

<Procedure>

1) Remove the Stopper to remove the Lower Cassette Feed Roller.

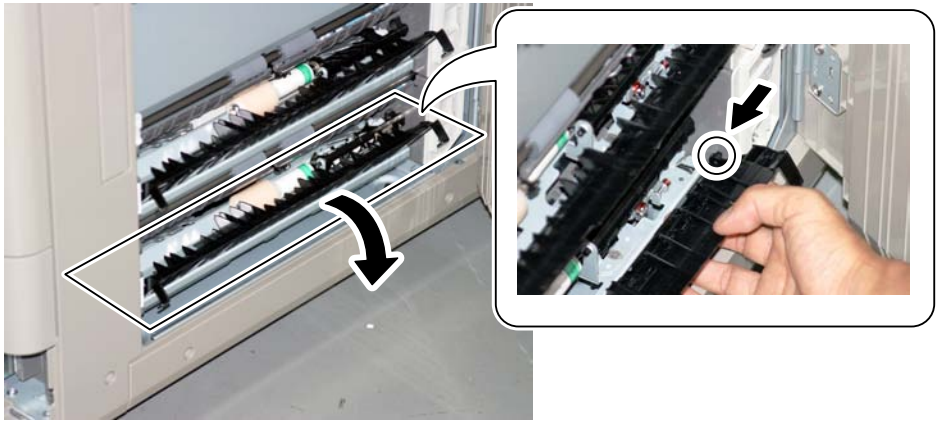


F-4-361

Removing the Lower Cassette Separation Roller

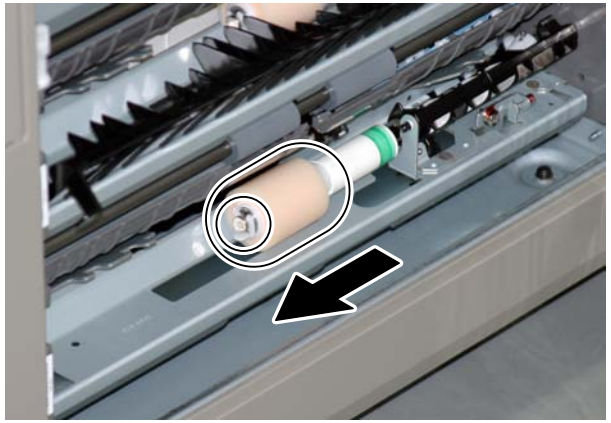
1) Open the Right Lower Cover.
2) Remove the Lower Cassette.
3) Remove the Feed Guide.

- 1 Boss



F-4-362

4) Remove the Stopper to remove the Lower Cassette Separation Roller.



F-4-363

Removing the Multi-purpose Tray Feed Roller

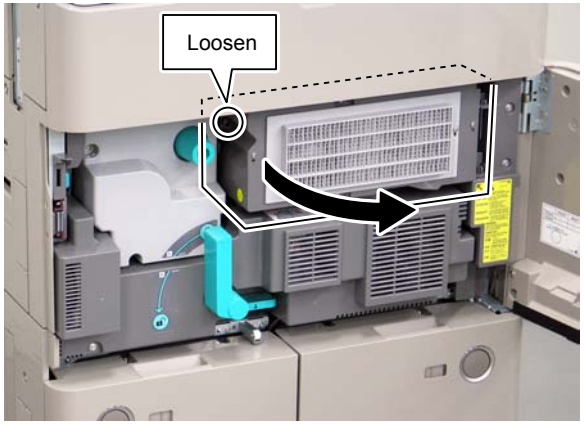
<Preparation>

1. Open the Inner Cover.

1-1) Open the Front Cover.

1-2) Open the Inner Cover.

- 1 Screw (to loosen)

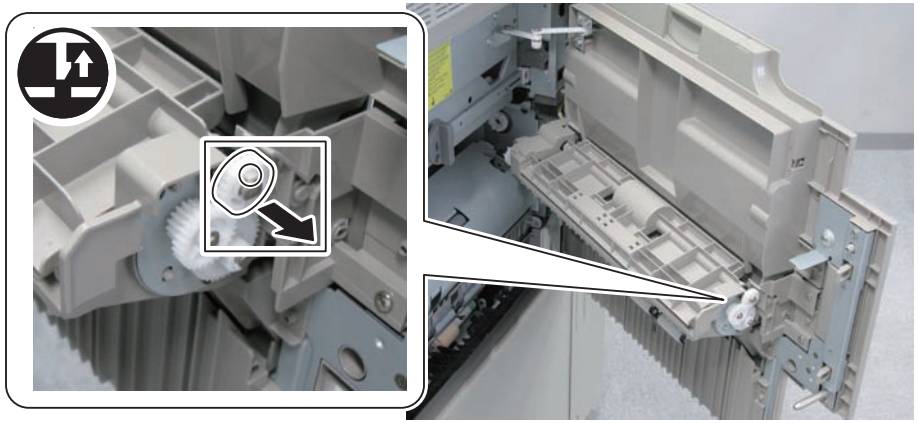


F-4-364

<Procedure>

1) Remove the gear.

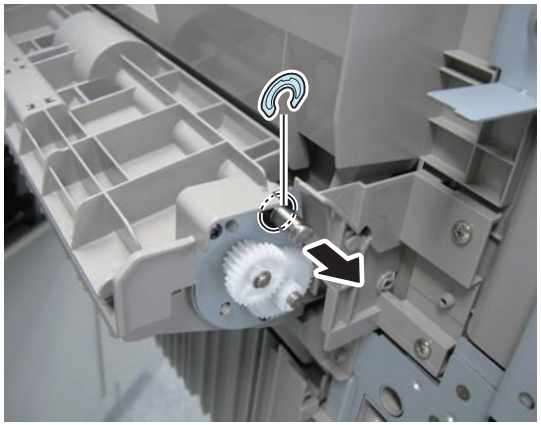
- 1 Claw



F-4-365

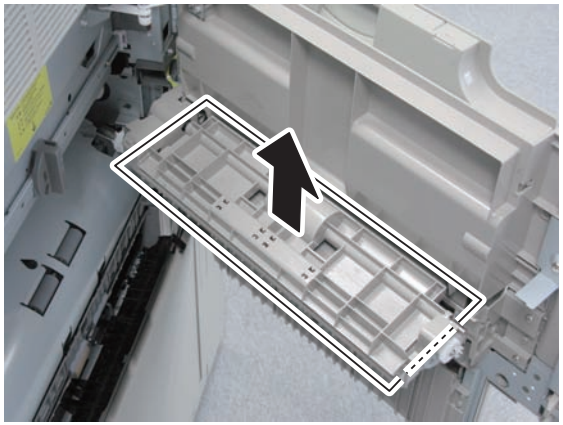
2) Remove the bushing.

- 1 E-ring



F-4-366

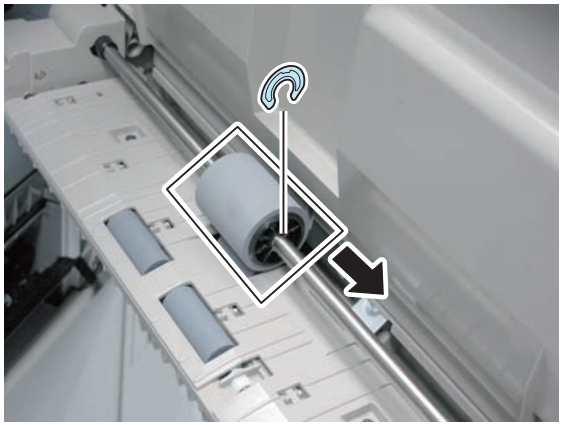
3) Remove the Multi-purpose Tray Pickup Guide.



F-4-367

4) Remove the Multi-purpose Tray Feed Roller.

- 1 E-ring



F-4-368

Removing the Multi-purpose Tray Separation Roller

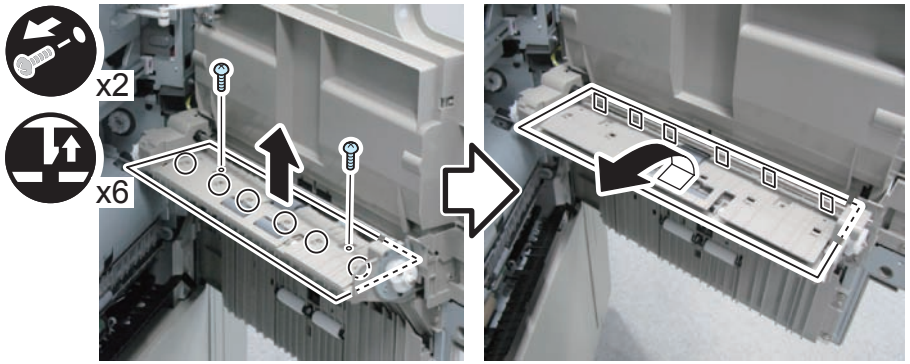
<Preparation>

1. Open the Inner Cover. (Refer to "Removing the Multi-purpose Tray Feed Roller")
2. Remove the Multi-purpose Tray Feed Roller. (Refer to page 4-205)

<Procedure>

1) Remove the Multi-purpose Tray Lower Guide.

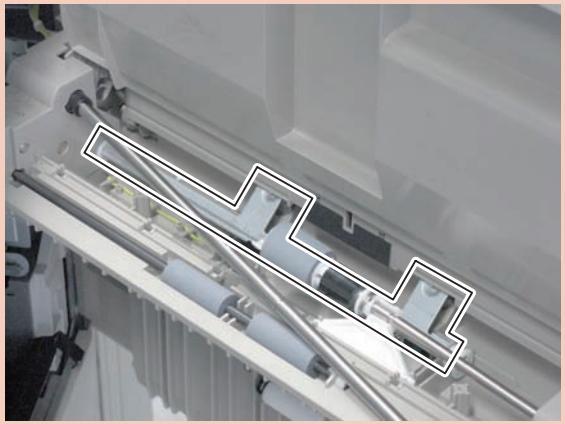
- 2 Screws
- 6 Claws
- 6 Protrusions



F-4-369

CAUTION:

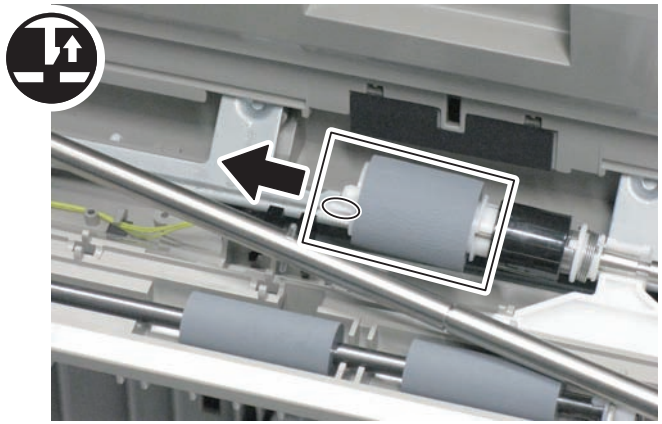
Installation work gets difficult if the plate and the spring (as shown in the figure) are removed when removing the cover; therefore, be careful not to remove them.



F-4-370

2) Remove the Multi-purpose Tray Separation Roller.

- 1 Claw



F-4-371

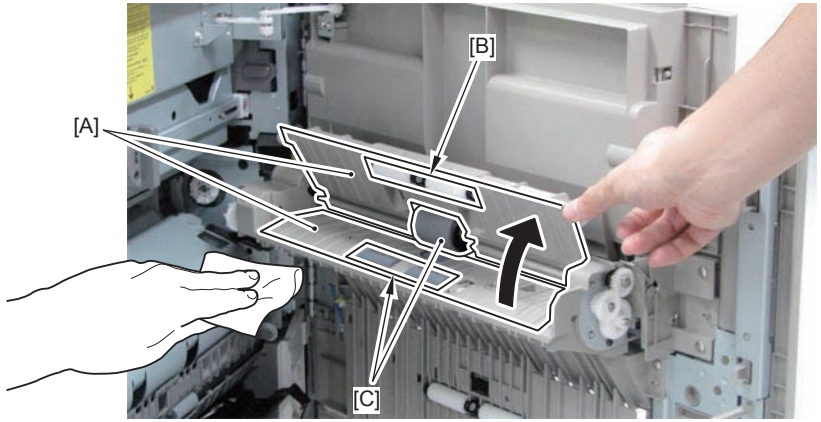
Cleaning the Pickup and Fixing Feed Assembly

<Cleaning the Vertical Path Assembly>

1) Open the Right Cover.
2) Open the Right Lower Cover.
3) Open the Multi-purpose Tray Pickup Guide Unit, and clean the 2 areas of the Feed Guide [A]. (Remove paper lint.)
4) Clean a whole circumference of 2 Rollers [B] and the 3 Rollers [C] by manually rotating them with lint-free paper moistened with alcohol.

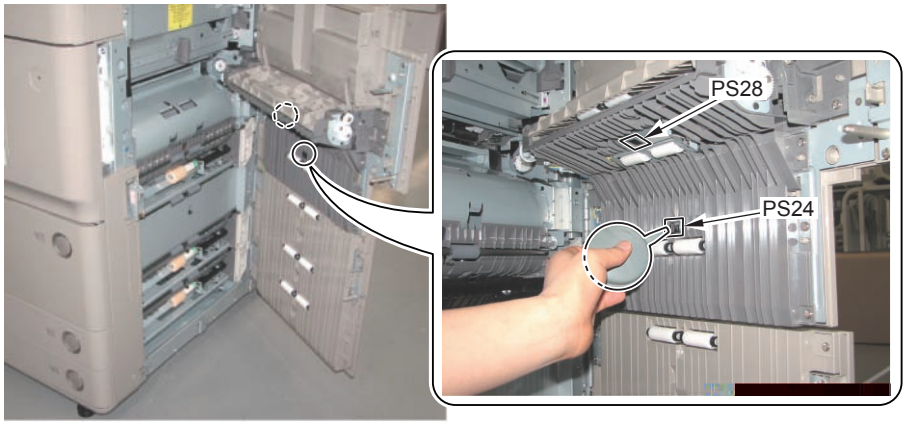
CAUTION:

When rotating the Roller by hand, do not touch the surface of the Roller. Be sure to hold the side of the Roller to rotate manually.



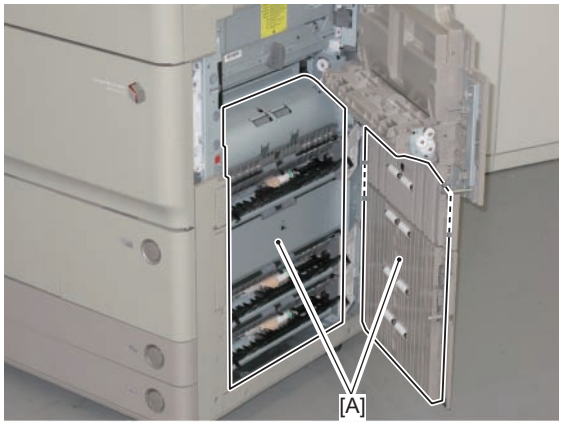
F-4-372

5) Clean paper dust on the Vertical Path Sensor 1 (PS24) and the Multi-purpose Tray Last Paper Sensor (PS28) with a blower.



F-4-373

6) Clean paper dust on the Feed Guide [A] with lint-free paper.



F-4-374

7) Clean a whole circumference of 10 Rollers by manually rotating them with lint-free paper moistened with alcohol.

CAUTION:

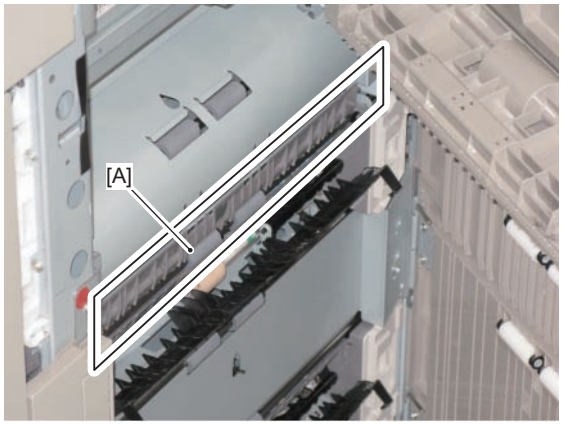
When rotating the Roller by hand, do not touch the surface of the Roller. Be sure to hold the side of the Roller to rotate manually.

F-4-375

8) Clean a whole circumference of 10 Rollers by manually rotating them with lint-free paper moistened with alcohol.

F-4-376

9) Open the Duplex Merging Guide and clean paper dust on the Feed Guide [A] with lint-free paper.

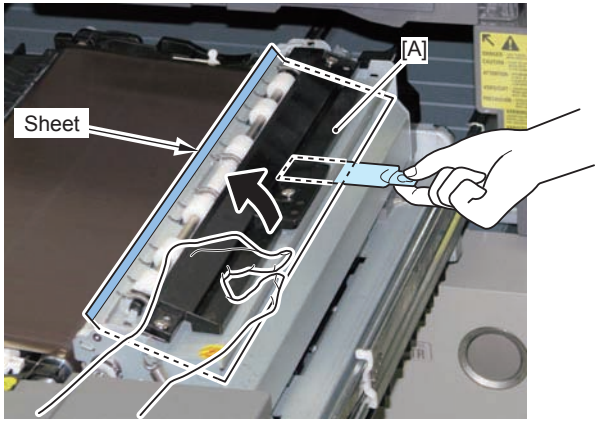


F-4-377

<Cleaning the Fixing Feed Assembly>

1) Open the Fixing Feed Unit fully.
2) Open the Registration Upper Guide, insert the paper lint cleaning tool into the clearance between the Registration Upper Guide and the Registration Lower Guide, and clean the feed area [A].

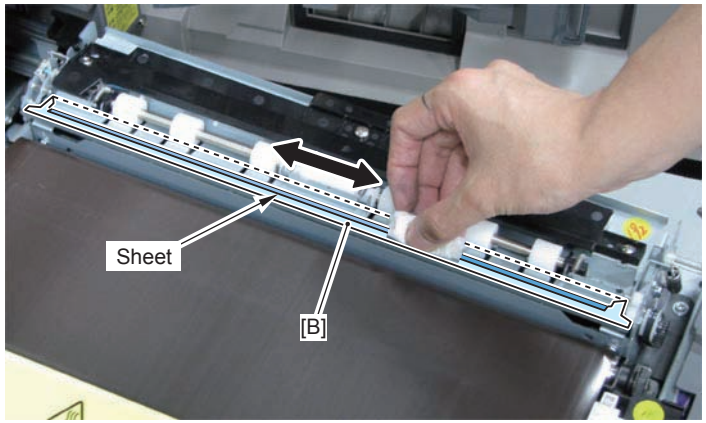
CAUTION:
Be careful not to damage the sheet on the edge of the Registration Upper Guide.



F-4-378

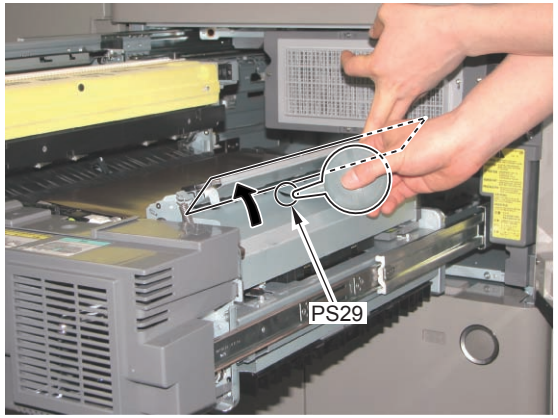
3) Insert lint-free paper into the clearance between the Registration Upper Guide and the Registration Lower Guide, and clean the feed area [B] and the sheet on the edge of the Registration Upper Guide.

CAUTION:
Be careful not to damage the sheet on the edge of the Registration Upper Guide.



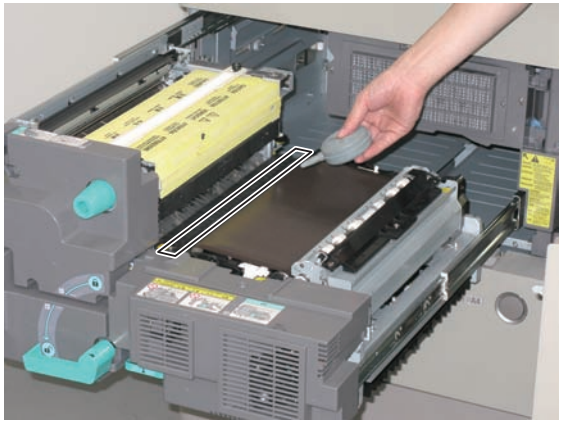
F-4-379

4) Open the Registration Upper Guide and clean paper dust on the Registration Sensor (PS29) with a blower.



F-4-380

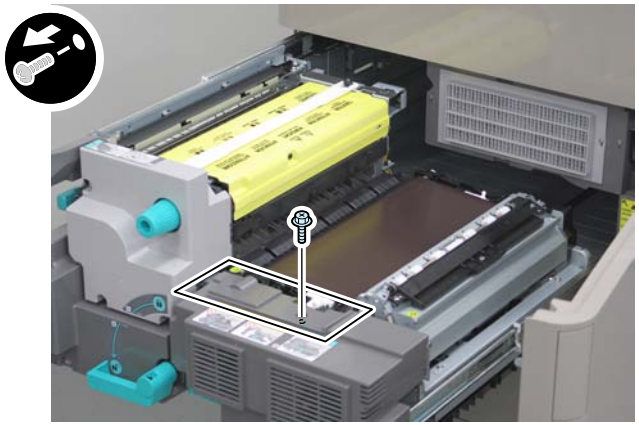
5) Point the leading edge of Blower to the Static Eliminator and clean adhered soiling.



F-4-381

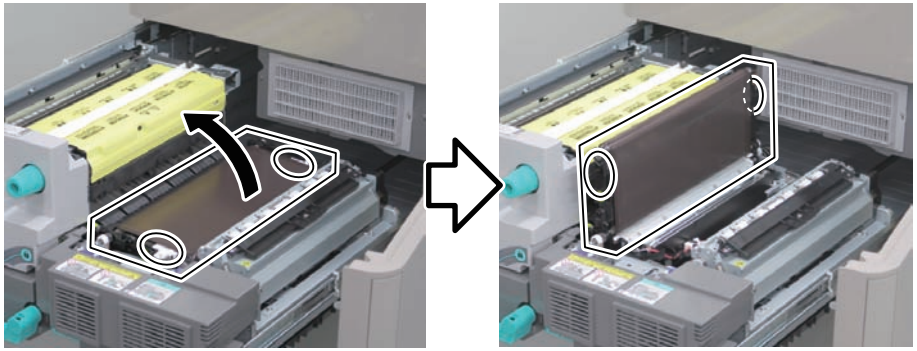
6) Remove the Fixing Feed Cover (Upper).

- 1 Screw



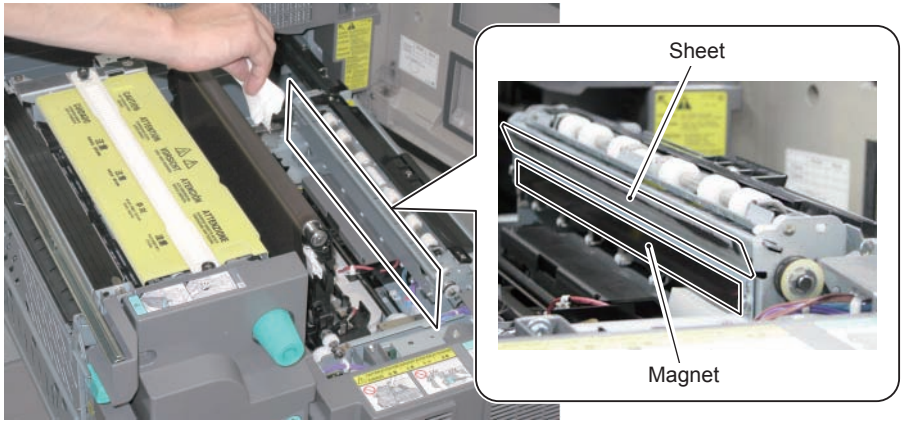
F-4-382

7) Hold the 2 handles to lift the ETB Unit in the direction of the arrow.



F-4-383

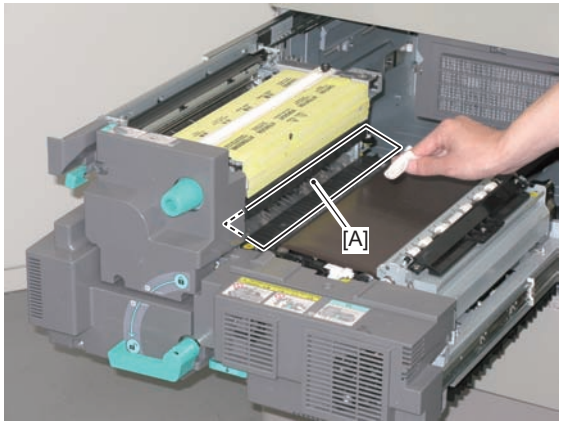
8) Clean the soiling adhered on the Magnet and the Sheet with lint-free paper moistened with alcohol.



F-4-384

9) I return an ETB unit to the original position.

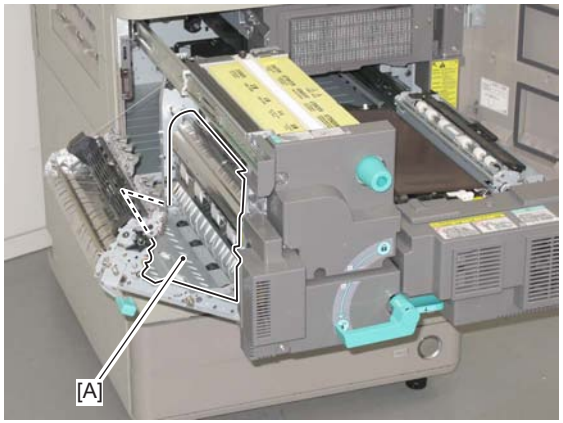
10) Clean the Fixing Inlet Guide [A] with lint-free paper moistened with alcohol.



F-4-385

11) Hold the lever of the Feed Unit to open the Feed Unit.

12) Clean paper dust on the Feed Guide [A] with lint-free paper.

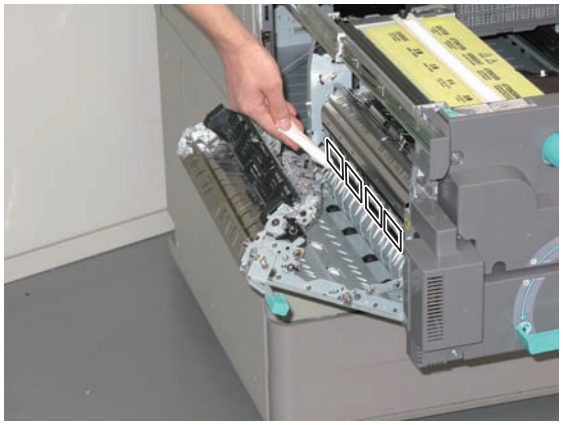


F-4-386

13) Clean a whole circumference of 4 Rollers by manually rotating them with lint-free paper moistened with alcohol.

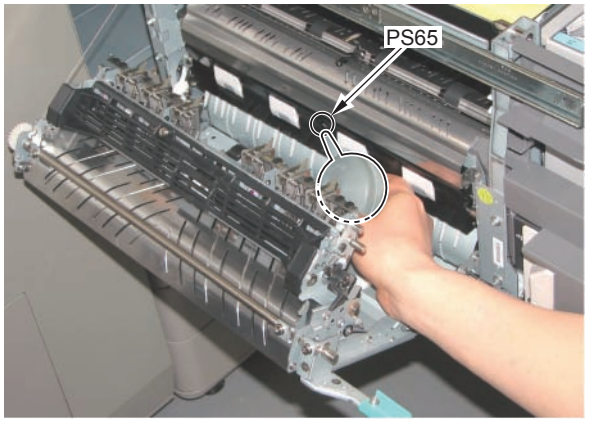
CAUTION:

When rotating the Roller by hand, do not touch the surface of the Roller. Be sure to hold the side of the Roller to rotate manually.



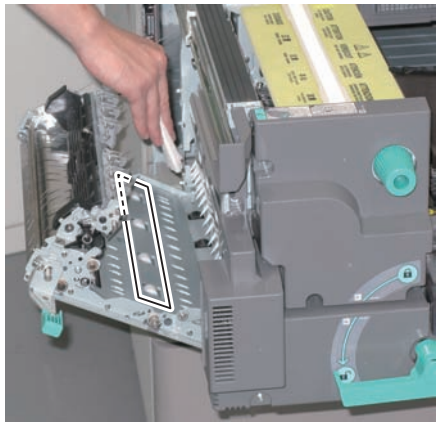
F-4-387

14) Clean paper dust on the Reverse Vertical Path Sensor (PS65) with a blower.



F-4-388

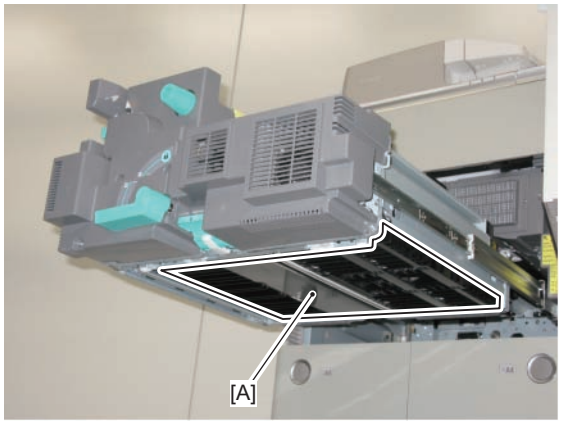
15) Clean a whole circumference of 4 Rollers by manually rotating them with lint-free paper moistened with alcohol.



F-4-389

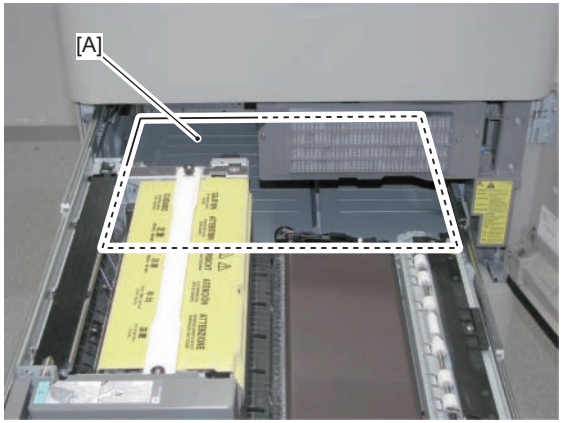
16) Hold the lever of the Feed Unit to close the Feed Unit.

17) Clean paper dust on the feed area [A] of the Reverse Path with lint-free paper.



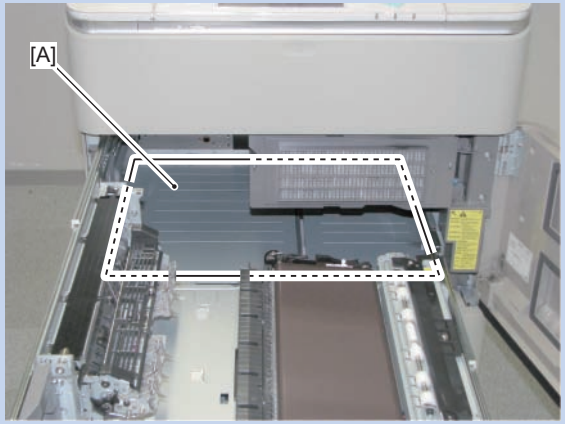
F-4-390

18) Clean paper dust on the feed area [A] inside the equipment with lint-free paper.



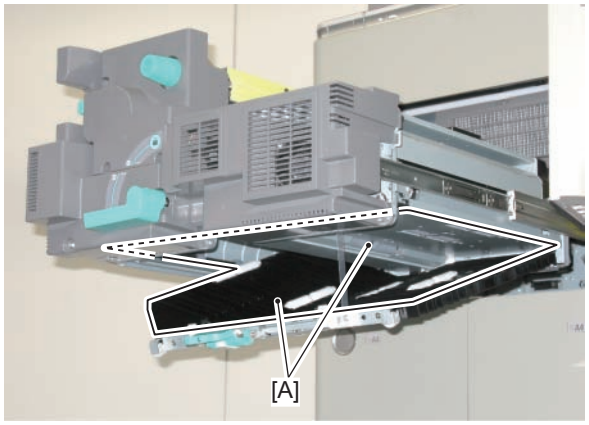
F-4-391

NOTE:
To clean the feed area [A] inside main body, removing the Fixing Assembly can improve the operability.



F-4-392

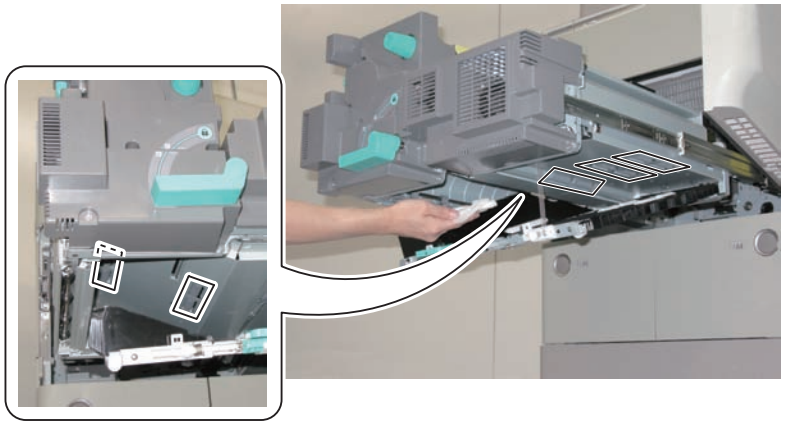
19) Open the Duplex Path.
20) Clean paper dust on the feed area [A] of the Duplex Path (Upper/Lower) with lint-free paper.



F-4-393

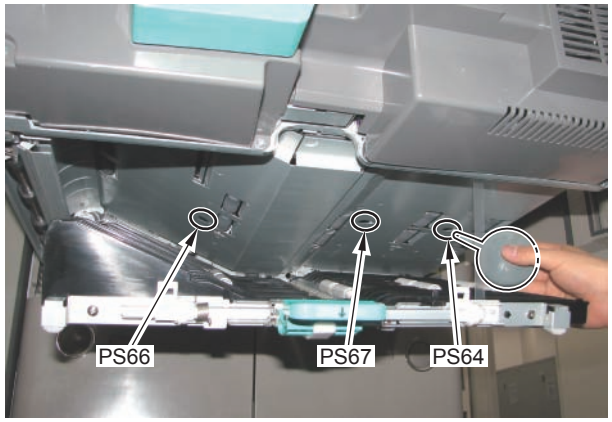
21) Clean a whole circumference of 10 Rollers by manually rotating them with lint-free paper moistened with alcohol.

CAUTION:
When rotating the Roller by hand, do not touch the surface of the Roller. Be sure to hold the side of the Roller to rotate manually.



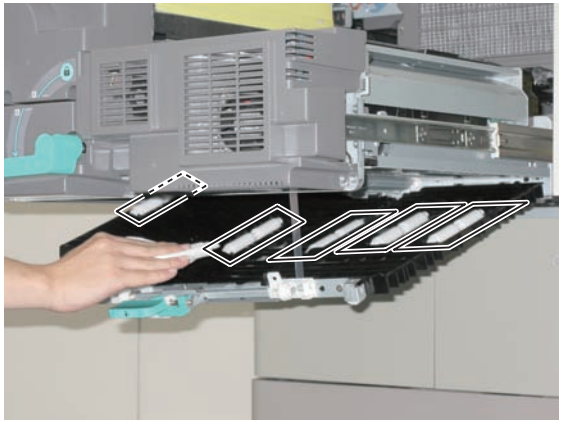
F-4-394

22) Clean paper dust on the Duplex Outlet Sensor (PS64), Duplex Merge Sensor (PS67), and Duplex Left Sensor (PS66) with a blower.



F-4-395

23) Clean a whole circumference of 5 Rollers by manually rotating them with lint-free paper moistened with alcohol.



F-4-396

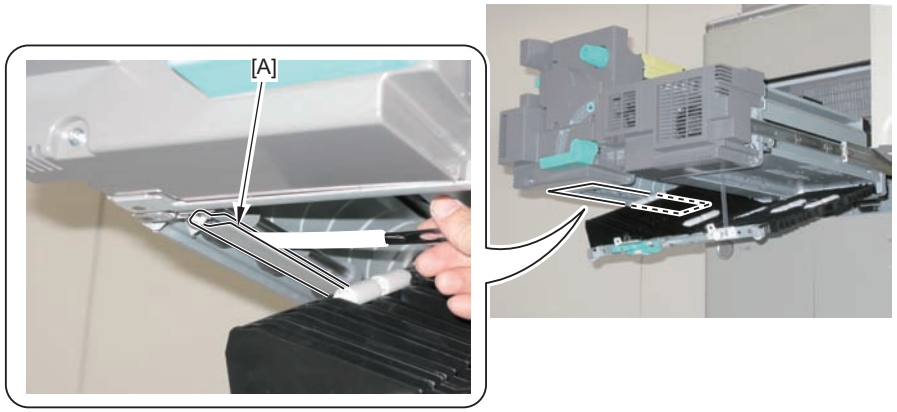
24) Place a paper on the Duplex Path. Then, point the leading edge of Blower to the Roller frame to remove paper lint.

NOTE:

The Cleaning Brush is engaged with 4 Rollers, causing accumulation of paper lint. By blowing air with the Blower, paper lint can be fallen down.

F-4-397

25) Insert the paper lint cleaning tool to the gap of Reverse Path [A] to remove paper lint.



F-4-398

26) Close the Duplex Path.
27) Install the Fixing Feed Cover (Upper).
28) Push in the Fixing Feed Unit.

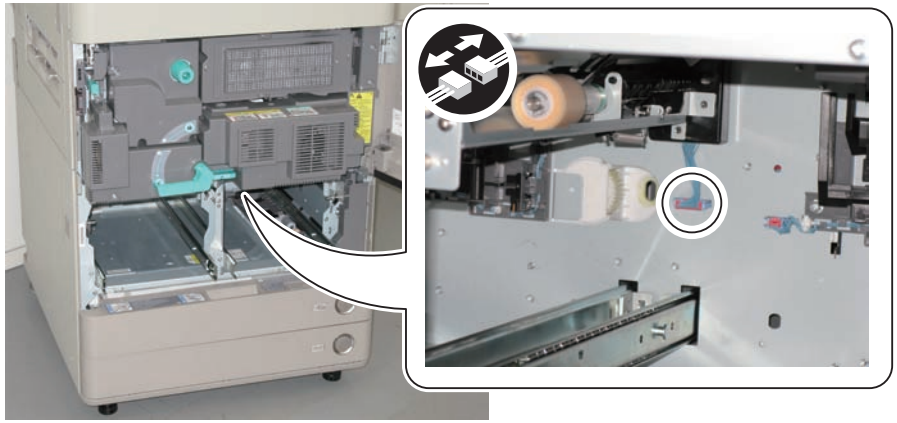
Removing the Left Deck Pickup Unit

<Preparation>

1. Remove the Right Deck. (Refer to page 4-198)
2. Remove the Left Deck. (Refer to page 4-197)

<Procedure>

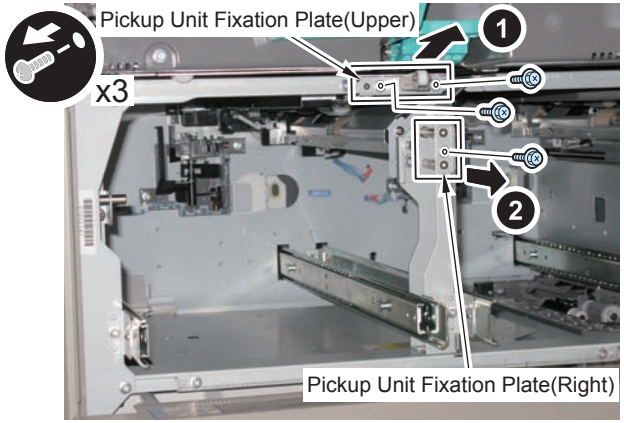
1) Disconnect the Connectors.



F-4-399

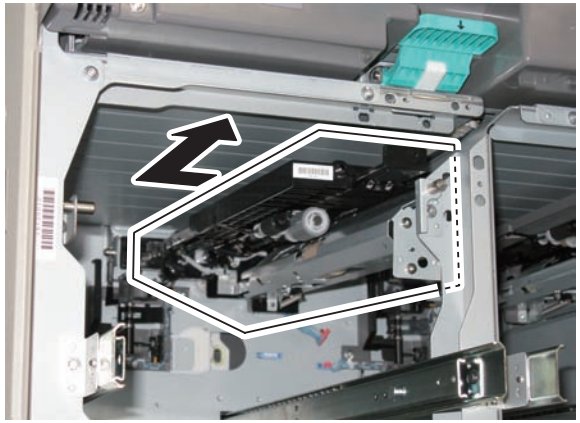
2) Remove the Pickup Unit Fixation Plate (Upper/Right).

- 3 Screws



F-4-400

3) Remove the Left Deck Pickup Unit.

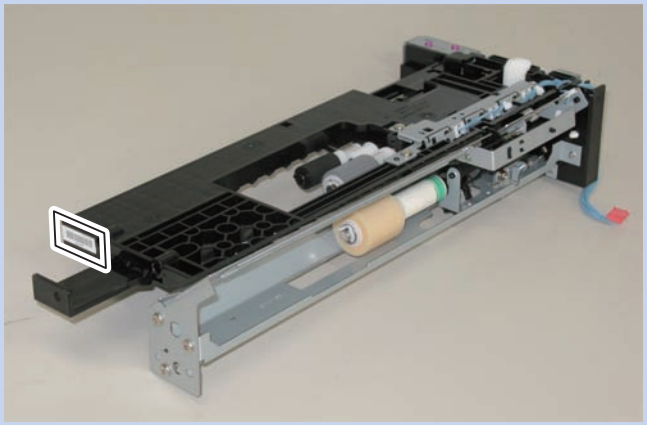


F-4-401

CAUTION:Points to Caution at Installation

When installing the Left Deck Pickup Unit, pull out the Fixing Feed Unit for approx. 10cm to install, and then return the unit to its original position after installation.

NOTE:
Be sure to check that the parts number of Pickup Unit is correct.



F-4-402

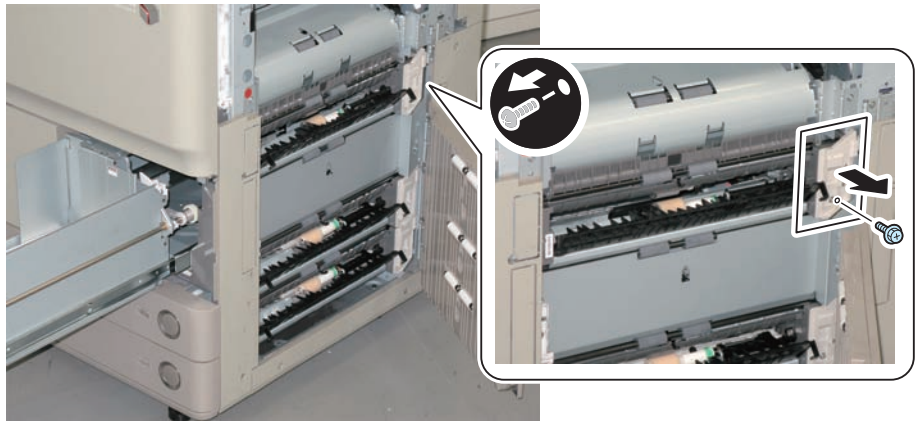
Removing the Right Deck Pickup Unit

<Preparation>

1. Remove the Right Cover.(Refer to page 4-92)
2. Pull out the Right Deck.(Refer to page 4-198)

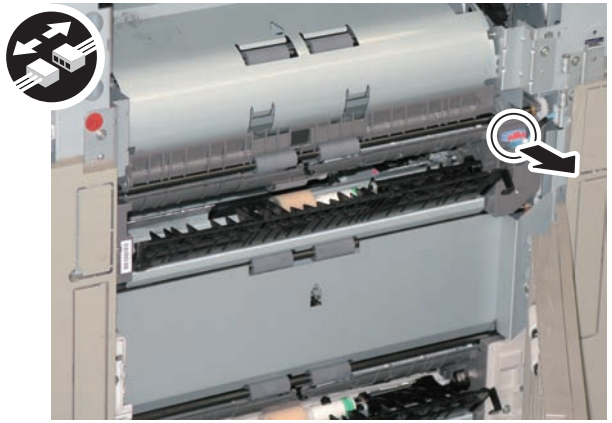
<Procedure>

1) Open the Right Lower Cover.
2) Remove the Connector Cover.
- 1 Screw



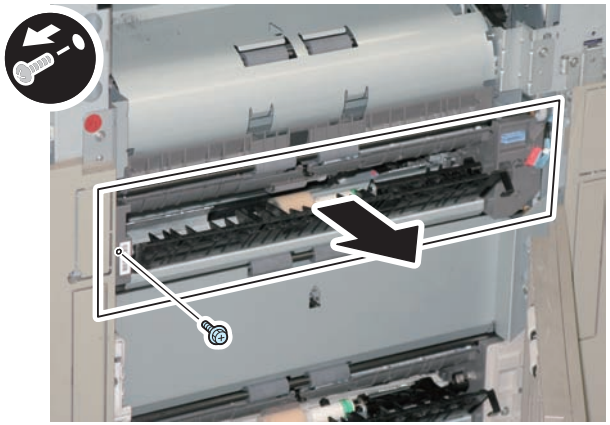
F-4-403

3) Disconnect the Connectors.



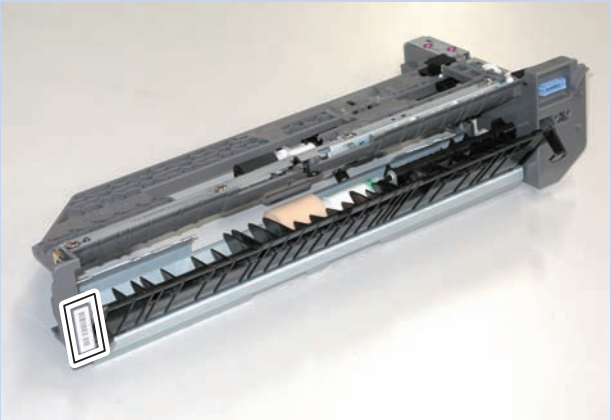
F-4-404

4) Remove the Right Deck Pickup Unit.
- 1 Screw



F-4-405

NOTE:
Be sure to check that the parts number of Pickup Unit is correct.



F-4-406

Removing the Cassettes 3 and 4 Pickup Unit

<Preparation>

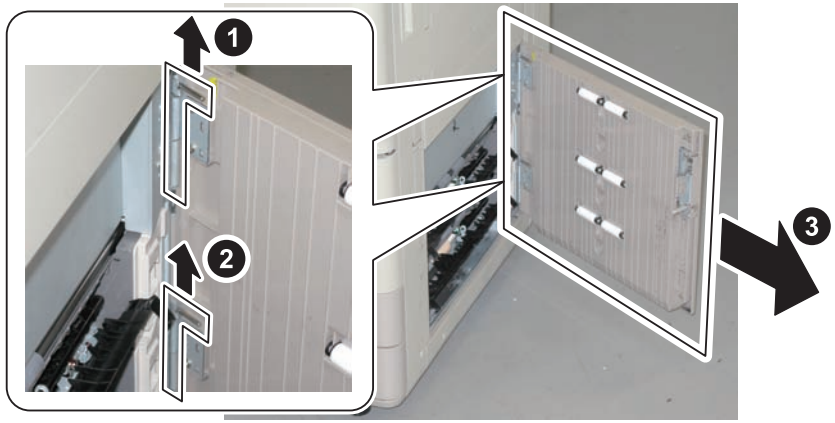
1. Remove the Right Lower Cover.

1-1) Open the Right Lower Cover.

F-4-407

1-2) Remove the Right Lower Cover.

- 2 Hinge Pins



F-4-408

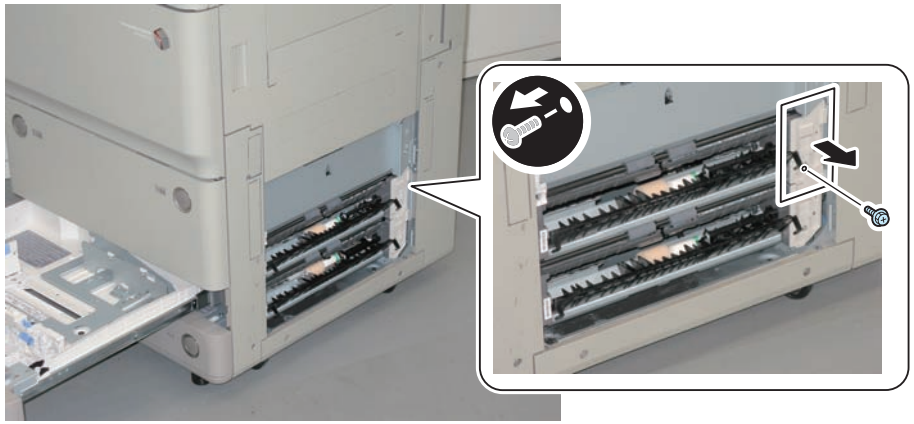
2. Pull out the Cassettes 3 and 4.

<Procedure>

NOTE:
This procedure explains the case for Cassette 3 Pickup Unit.
Be sure to perform the same procedure when the Cassette 4 Pickup Unit is used.

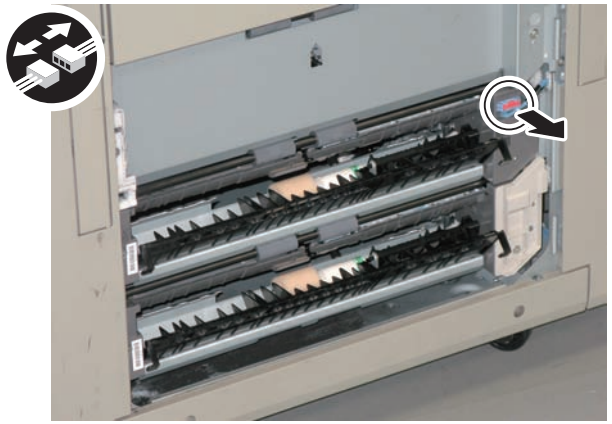
1) Remove the Connector Cover.

- 1 Screw



F-4-409

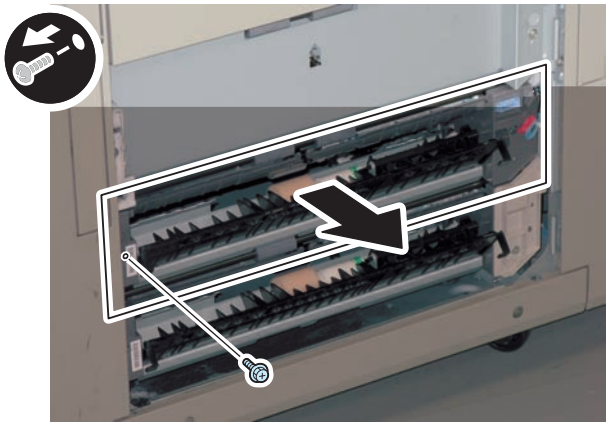
2) Disconnect the Connectors.



F-4-410

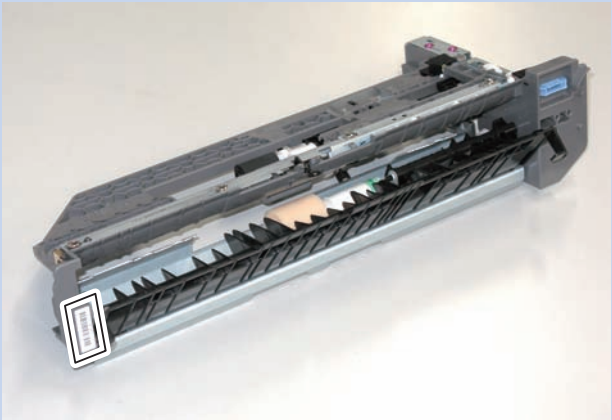
3) Remove the Pickup Unit.

- 1 Screw



F-4-411

NOTE:
Be sure to check that the parts number of Pickup Unit is correct.



F-4-412

Removing the Vertical Path Cassette Pickup Drive Unit

<Preparation>

1. Remove the Box Cover (Left).

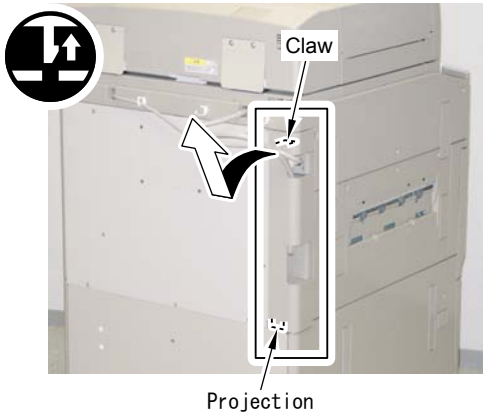
1-1) Remove the Harness.

- 2 Wire Saddles

F-4-413

1-2) Remove the Box Cover (Left).

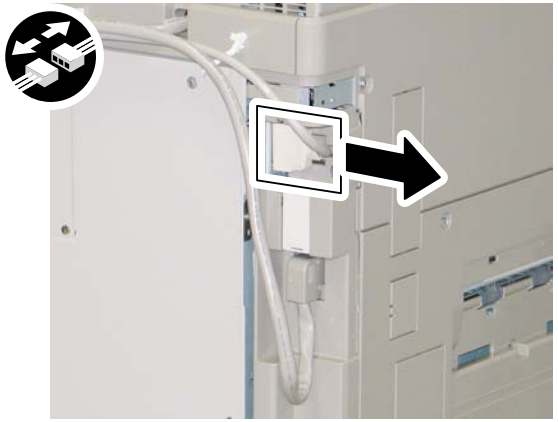
- 1 Claw
- 1 Protrusion



F-4-414

2. Open the Controller Box.

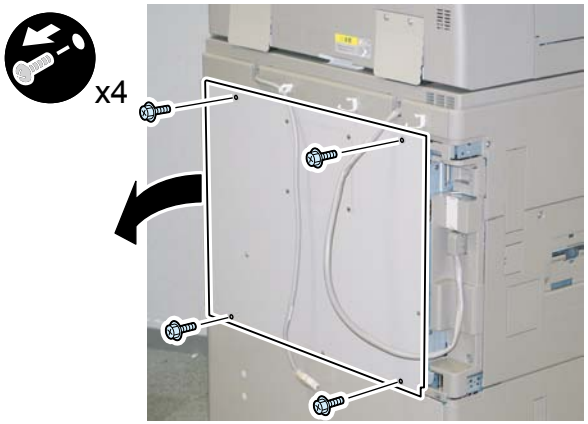
2-1) Disconnect the Reader Communication Cable.



F-4-415

2-2) Open the Controller Box in the direction of the arrow.

- 4 Screws

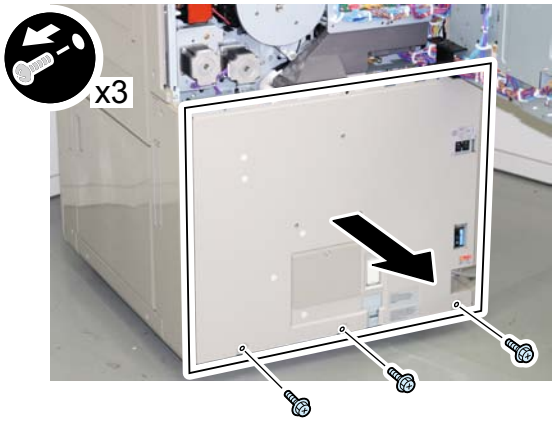


F-4-416

3. Remove the Rear Lower Cover.

3-1) Remove the Rear Lower Cover in the direction of the arrow.

- 3 Screws

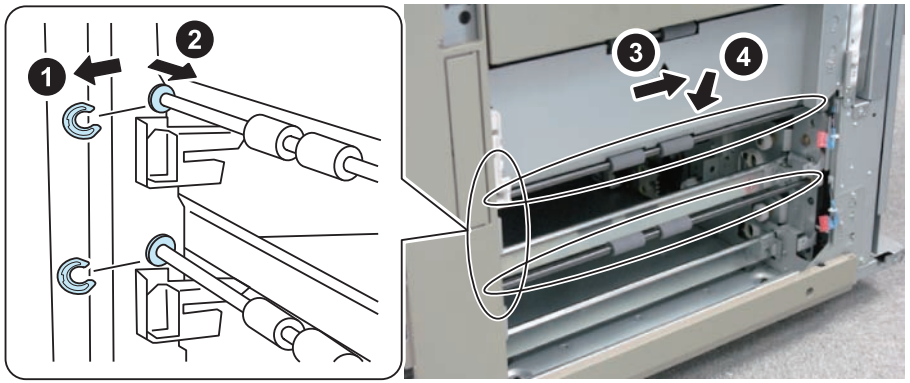


F-4-417

4. Remove the Waste Toner Container. (Refer to page 4-145)
5. Remove the Cassette 3 and Cassette 4 Pickup Units. (Refer to page 4-217)

<Procedure>

1) Remove the 2 E-rings and move the bushings to remove the Vertical Path Rollers 3 and 4 in the direction of the arrow.

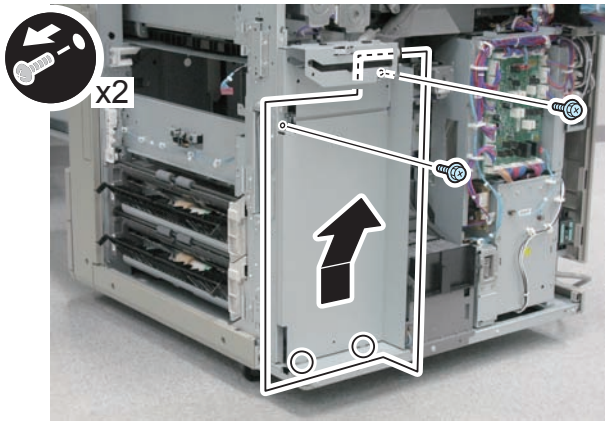


F-4-418

CAUTION:

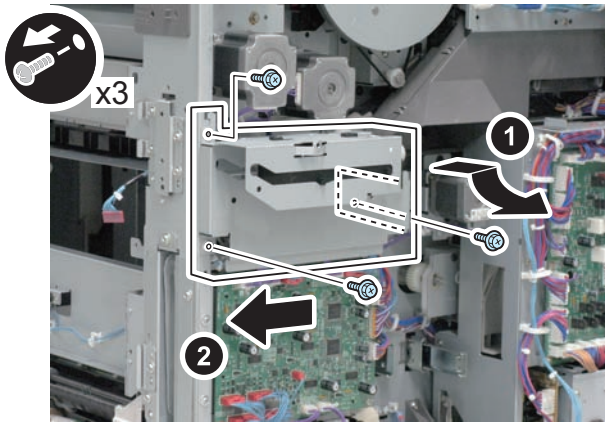
Do not lose the bushings when removing the Roller Shaft.

2) Remove the Shield Plate.
- 1 Screw
- 2 Protrusions



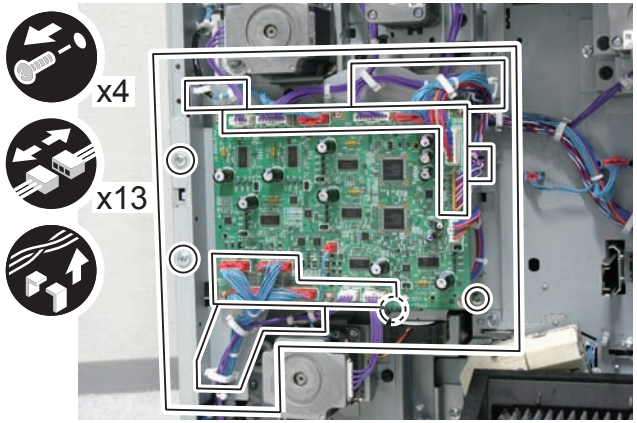
F-4-419

3) Remove the Waste Toner Container Shutter Unit.
- 3 Screws
- 1 Hook



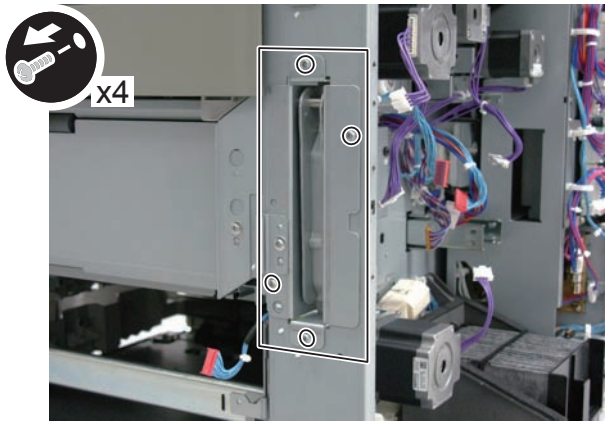
F-4-420

4) Remove the Feed Driver PCB Unit.
- 4 Screws
- 13 Connectors
- 9 Wire Saddles
- 1 Reuse Band
- Harness



F-4-421

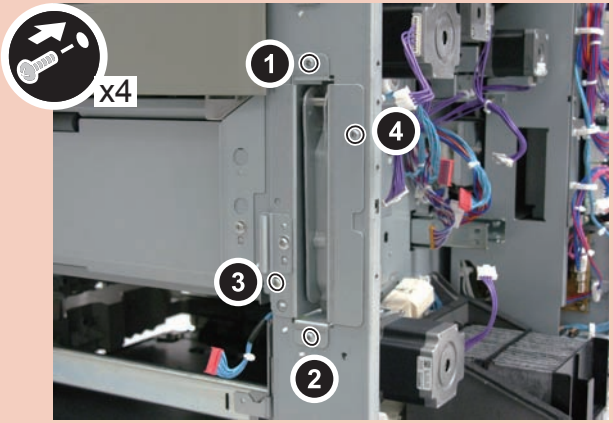
5) Remove the Right Rear Handle.
- 4 Screws



F-4-422

CAUTION:

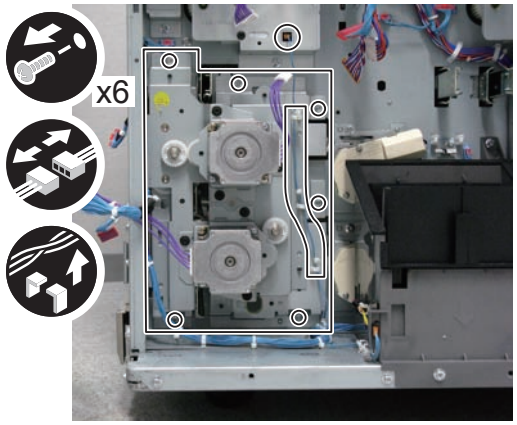
When installing the handle, be sure to follow the order as shown in the figure to tighten screws.



F-4-423

6) Free the harness and remove the Vertical Path Cassette Drive Unit.

- 1 Connector
- 3 Wire Saddles
- 6 Screws



F-4-424

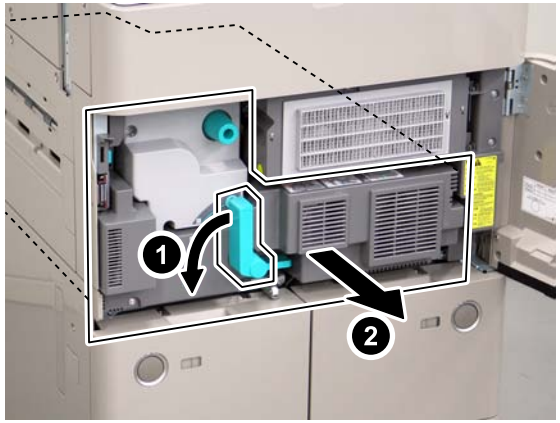
Removing the Registration Unit

<Preparation>

1. Pull out the Fixing Feed Unit.

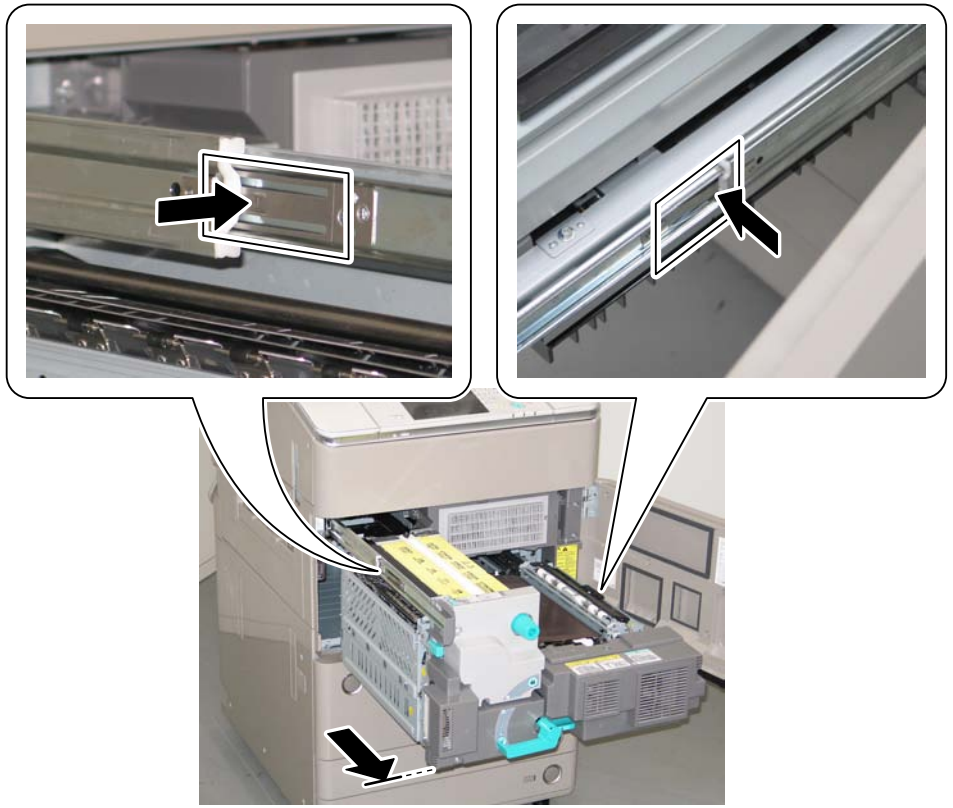
1-1) Open the Front Cover.

1-2) Turn the Fixing Feed Unit Pressure Release Lever in the direction of the arrow to pull out the Fixing Feed Unit.



F-4-425

1-3) Push to release the Release Springs at both sides of the Rail, and then further pull out the Fixing Feed Unit until it stops.

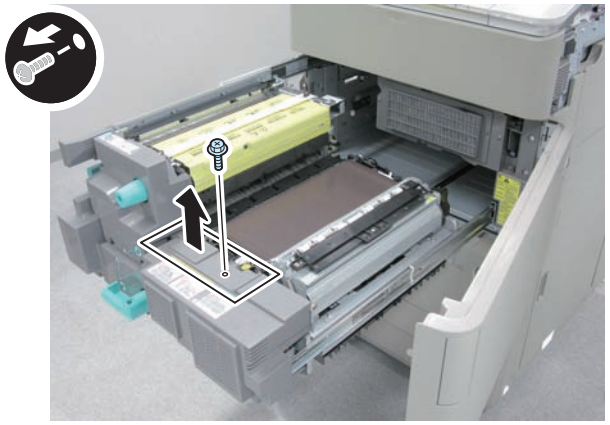


F-4-426

<Procedure>

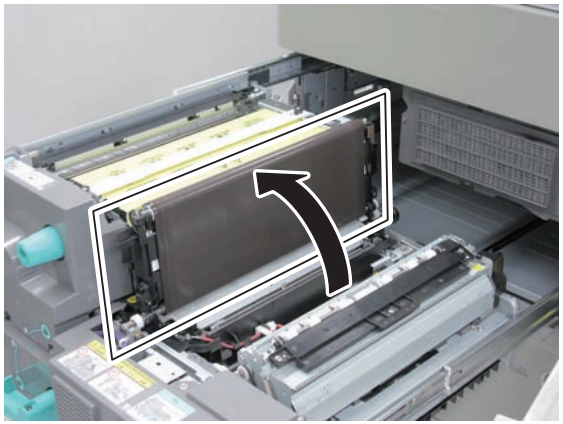
1) Remove the Fixing Feed Right Front Upper Cover

- 1 Screw



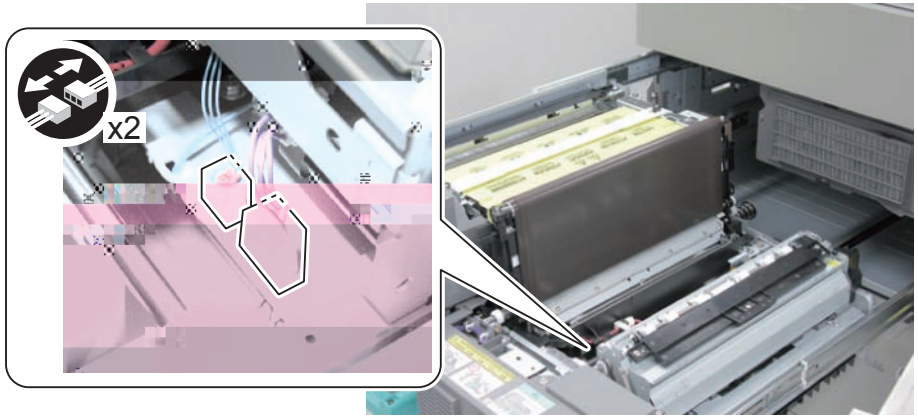
F-4-427

2) Lift the ETB Unit in the direction of the arrow.



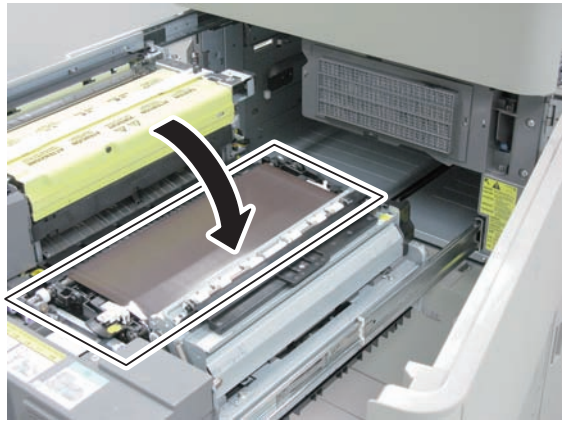
F-4-428

3) Disconnect the 2 connectors.



F-4-429

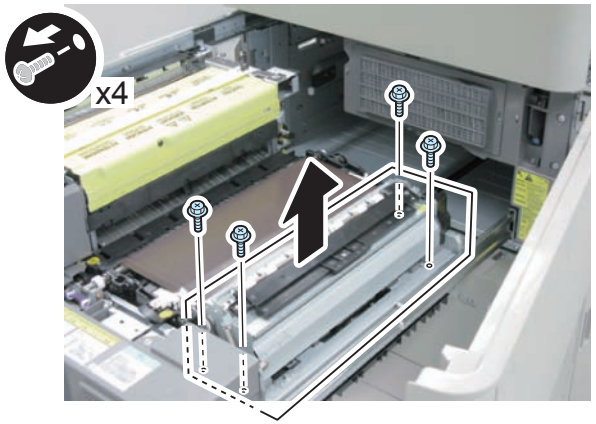
4) Set the ETB Unit back.



F-4-430

5) Remove the Registration Unit.

- 4 Screws



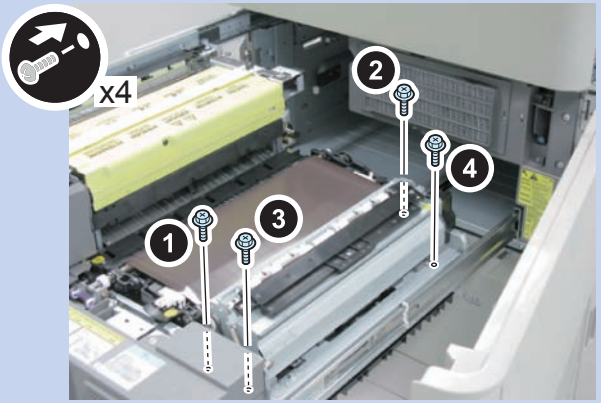
F-4-431

CAUTION:

When installing, be sure to check that the 2 Positioning Pins are secured.

F-4-432

NOTE:
When installing the Registration Unit, be sure to follow the order as shown in the figure to tighten screws.



F-4-433

Removing the Left Deck Pickup Drive Unit

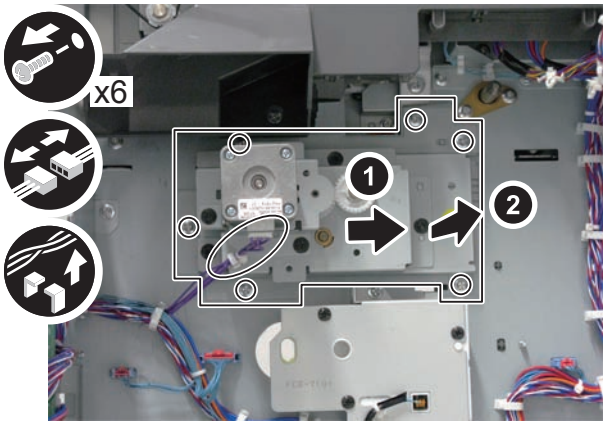
<Preparation>

1. Remove the Box Cover (Left). (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
2. Open the Controller Box. (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
3. Remove the Rear Lower Cover. (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
4. Remove the Power Supply Assembly.(Refer to page 4-234)
5. Remove the Left Deck Pickup Unit. (Refer to page 4-215)

<Procedure>

1) Remove the Left Deck Pickup Drive Unit in the direction of the arrow.

- 6 Screws
- 1 Connector
- 1 Wire Saddle



F-4-434

Removing the Main Drive Unit

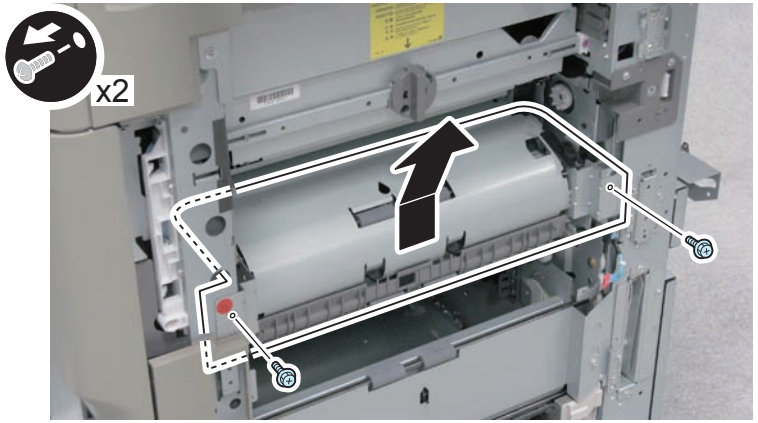
<Preparation>

1. Remove the Box Cover (Left). (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
2. Open the Controller Box. (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
3. Remove the Rear Lower Cover. (Refer to "Removing the Vertical Path Cassette Pickup Drive Unit")
4. Remove the Waste Toner Container. (Refer to page 4-145)
5. Remove the Right Lower Cover. (Refer to "Removing the Cassettes 3 and 4 Pickup Unit")
6. Remove the Right Deck Pickup Unit. (Refer to page 4-216)

<Procedure>

1) Remove the Pre-registration Guide Unit.

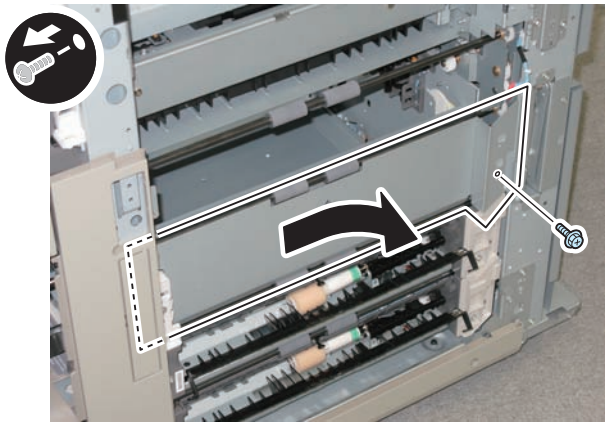
- 2 Screws



F-4-435

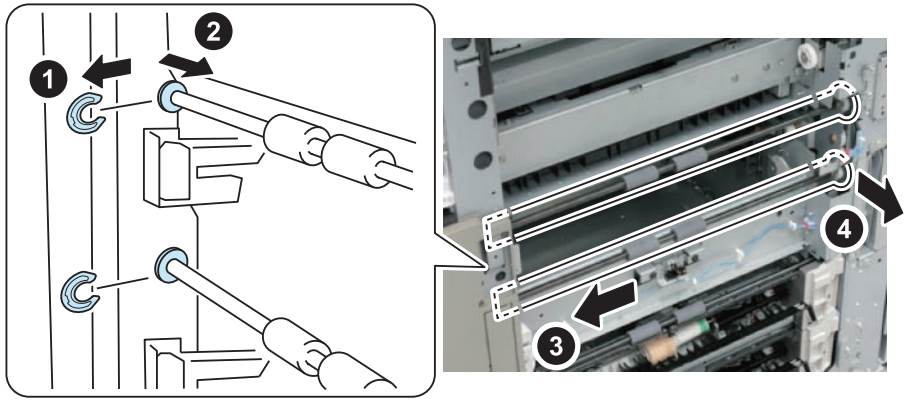
2) Remove the Middle Vertical Path Guide.

- 1 Screw



F-4-436

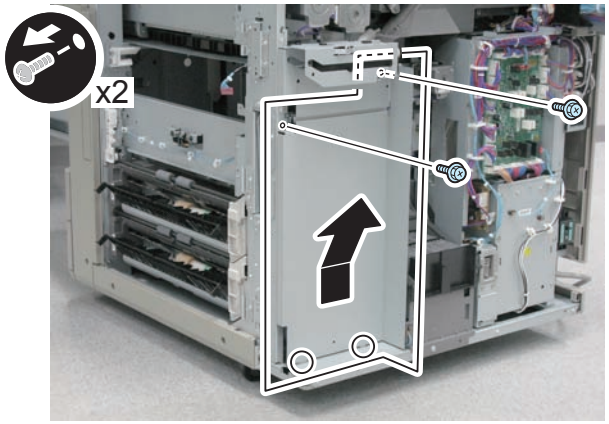
3) Remove the 2 E-rings and move the bushings to remove the Vertical Path Rollers 1 and 2 in the direction of the arrow.



F-4-437

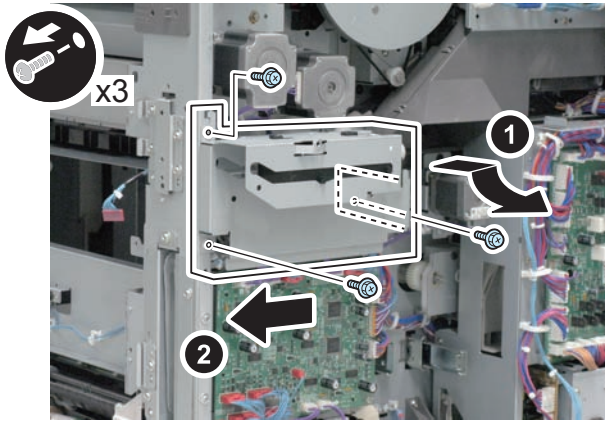
CAUTION:
Do not lose the bushings when removing the Vertical Path Rollers 1 and 2.

4) Remove the Shield Plate.
- 2 Screws
- 2 Protrusions



F-4-438

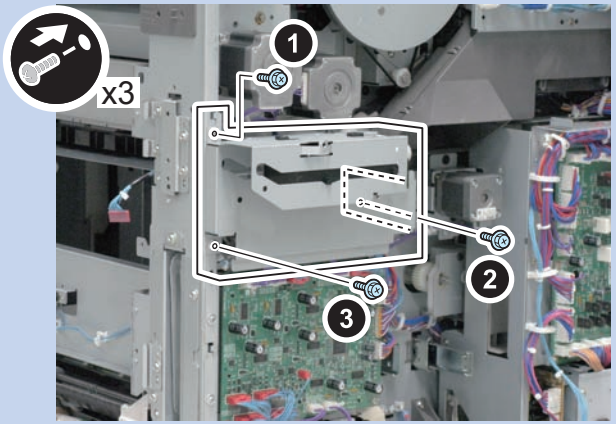
5) Remove the Waste Toner Container Shutter Unit.
- 3 Screws



F-4-439

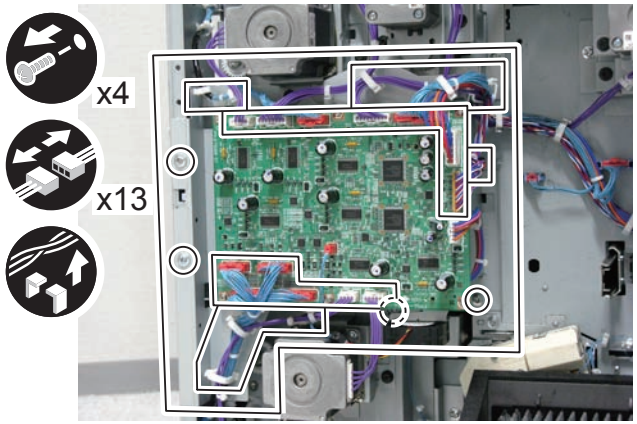
CAUTION:
When removing the Waste Toner Container Shutter Unit, be careful of toner scattering.

NOTE:
When installing the Waste Toner Container Shutter Unit, be sure to follow the order as shown in the figure to tighten screws.



F-4-440

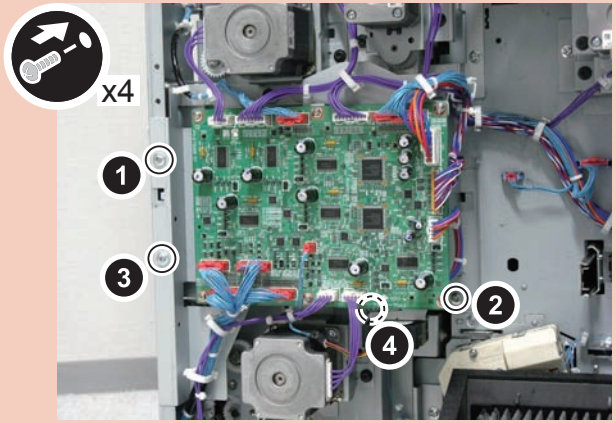
6) Remove the Feed Driver PCB Unit.
- 4 Screws
- 13 Connectors
- 9 Wire Saddles
- 1 Reuse Band
- Harness



F-4-441

CAUTION:

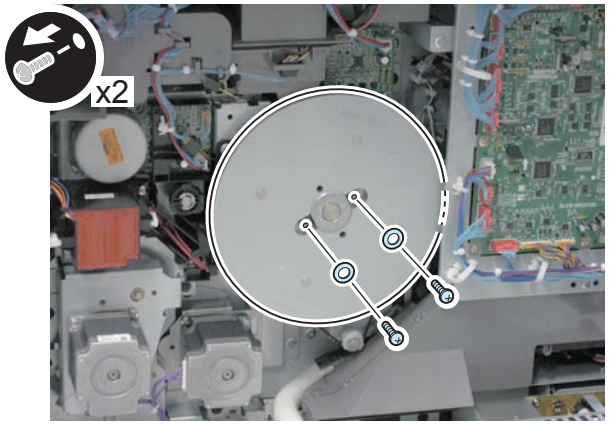
When installing the Feed Driver PCB Unit, be sure to follow the order as shown in the figure to tighten screws.



F-4-442

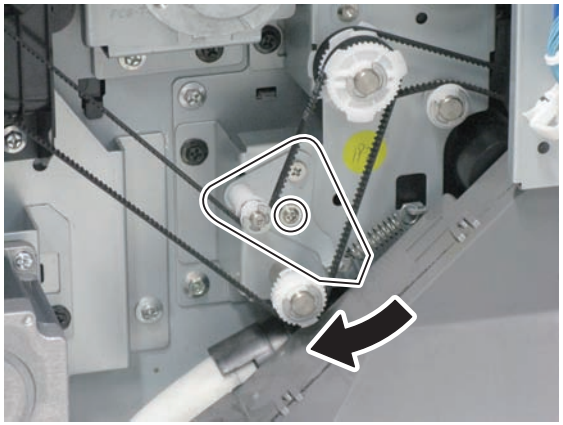
7) Remove the Flywheel.

- 2 Screws
- 2 Washers



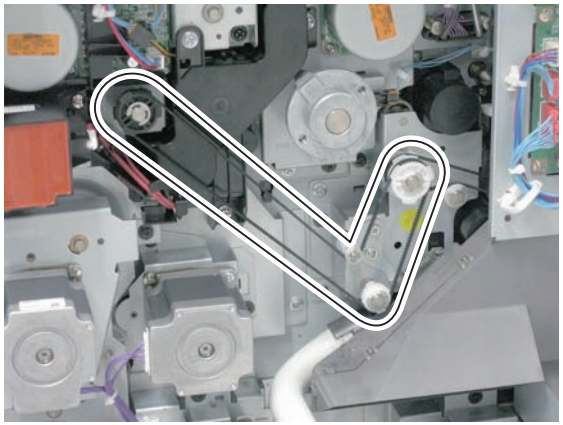
F-4-443

8) Loosen the screw and move the Belt Tensioner in the direction of the arrow, and then again tighten the screw.



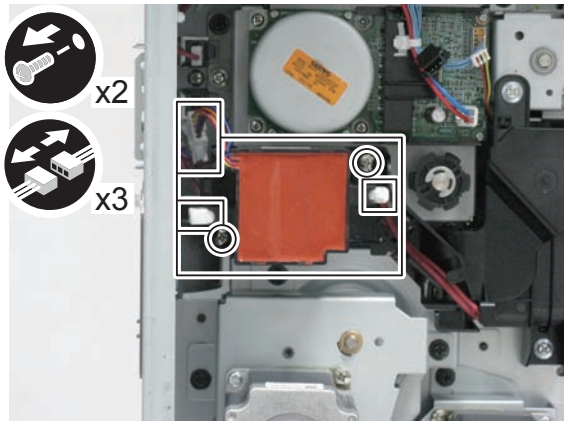
F-4-444

9) Remove the belt from the pully.



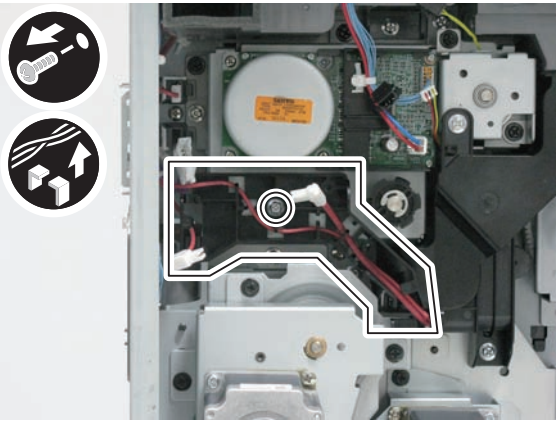
F-4-445

10) Remove the transformer.
- 2 Screws
- 3 Connectors



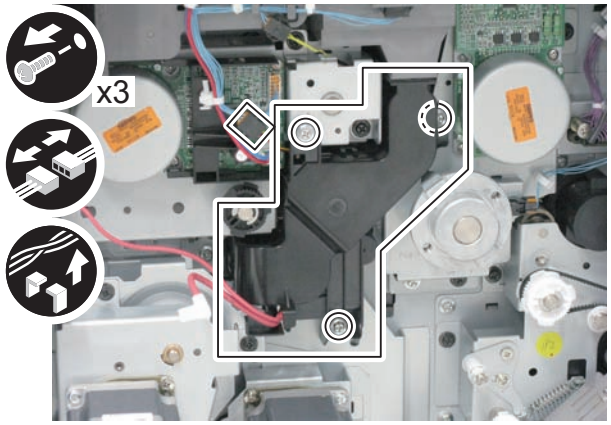
F-4-446

11) Free the harness and remove the Transformer Support Base.
- 1 Screw
- Harness



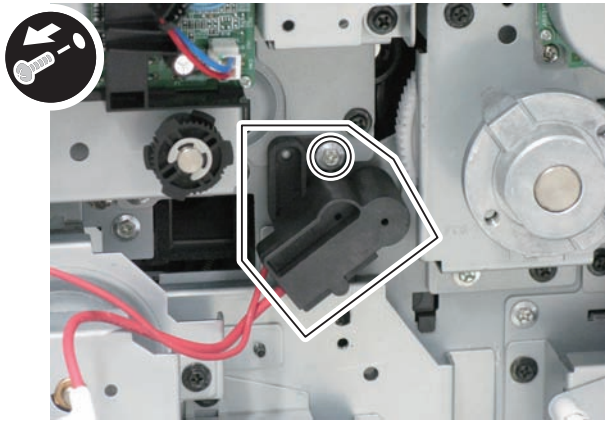
F-4-447

12) Remove the Duct Unit.
- 3 Screws
- 1 Connector
- Harness



F-4-448

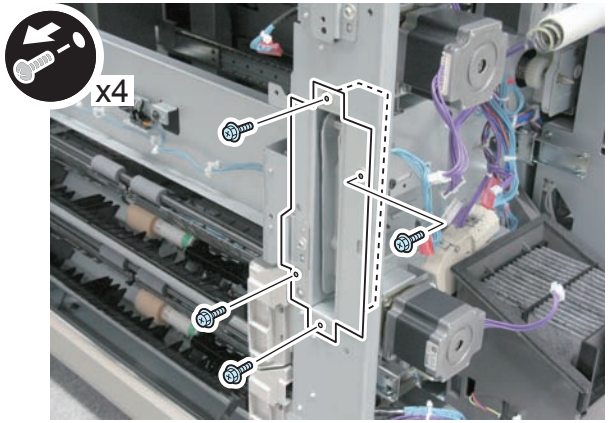
13) Disconnect the Pre-transfer Charging High Voltage Connector.
- 1 Screw



F-4-449

14) Remove the Right Rear Handle.

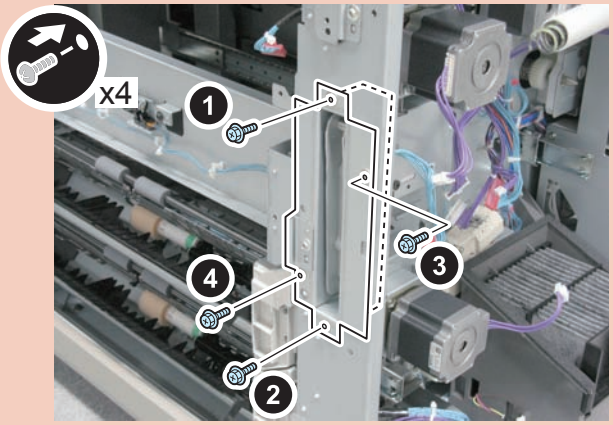
- 4 Screws



F-4-450

CAUTION:

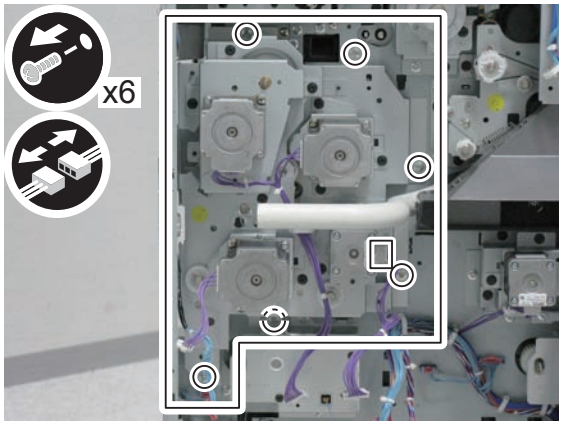
When installing the Right Rear Handle, be sure to follow the order as shown in the figure to tighten screws.



F-4-451

15) Remove the Main Drive Unit.

- 6 Screws
- 1 Connector

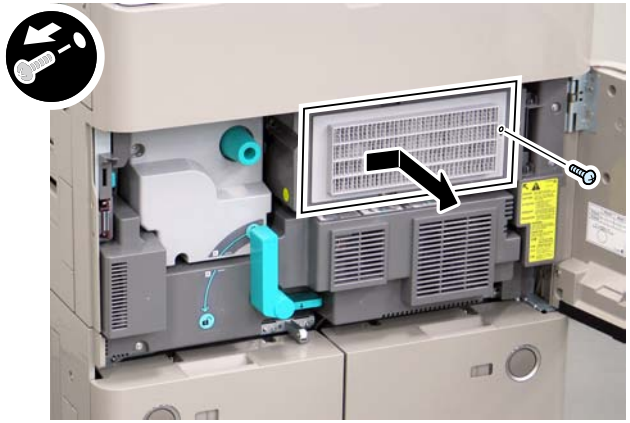


F-4-452

External Auxiliary System

Removing the Filter (for primary charging)

1) Open the Front Cover.
2) Remove the Filter (for primary charging).
- 1 Screw



F-4-453

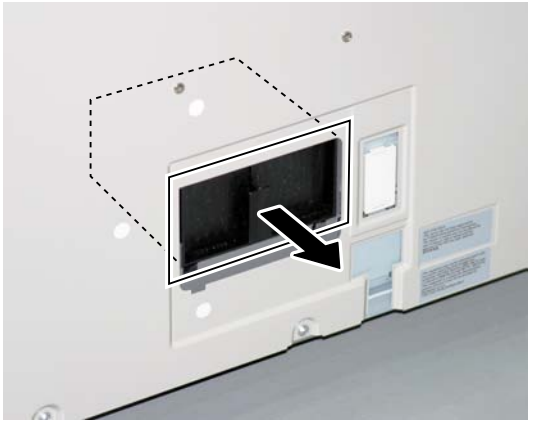
Removing the Ozone Filter

1) Remove the Filter Cover.
- 1 Screw

F-4-454

NOTE:
To prevent falling of the Filter Cover, be sure to hold the Filter Cover to remove the screw.

2) Remove the Ozone Filter.



F-4-455

Removing the DC Controller PCB

<Preparation>

1. Remove the Box Cover (Left).

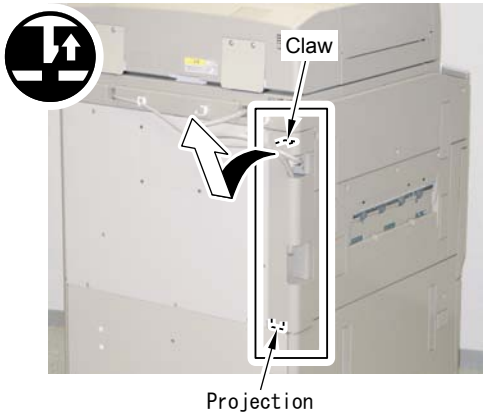
1-1) Remove the Harness.

- 2 Wire Saddles

F-4-456

1-2) Remove the Box Cover (Left).

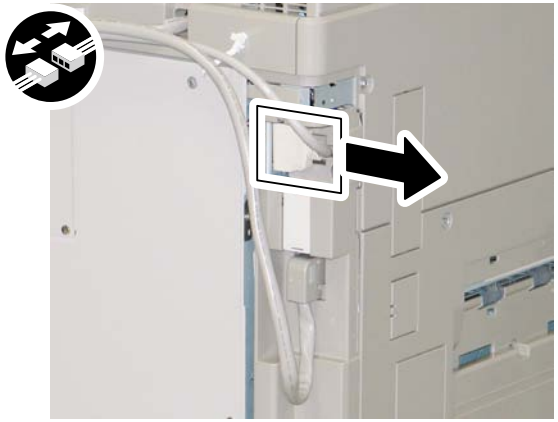
- 1 Claw
- 1 Protrusion



F-4-457

2. Open the Controller Box.

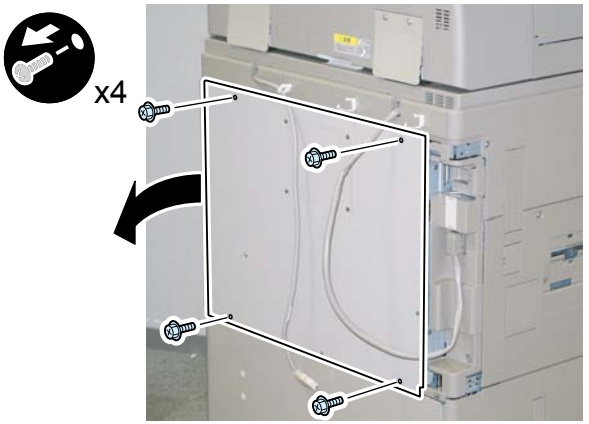
2-1) Disconnect the Reader Communication Cable.



F-4-458

2-2) Open the Controller Box in the direction of the arrow.

- 4 Screws

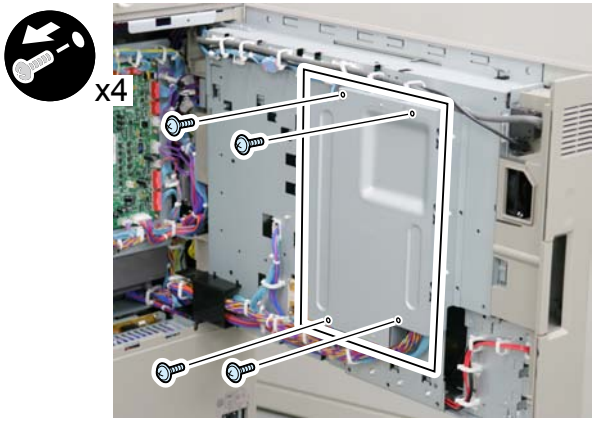


F-4-459

<Procedure>

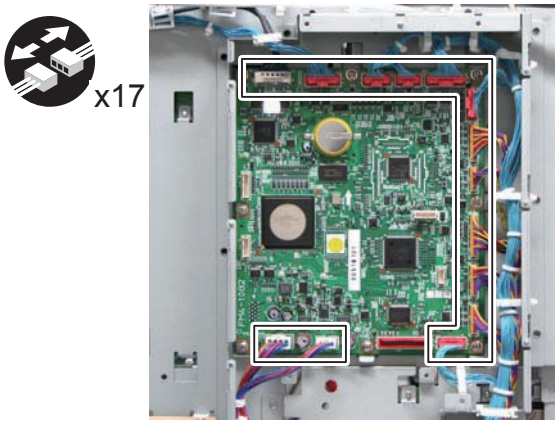
1) Remove the Controller Box Inner Cover.

- 4 Screws (TP)



F-4-460

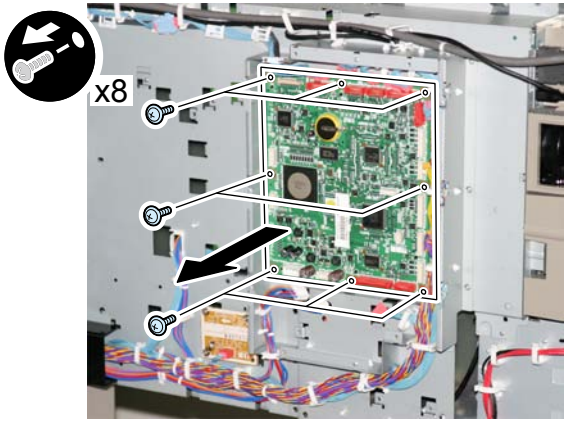
2) Disconnect the 17 Connectors.



F-4-461

3) Remove the DC Controller PCB in the direction of the arrow.

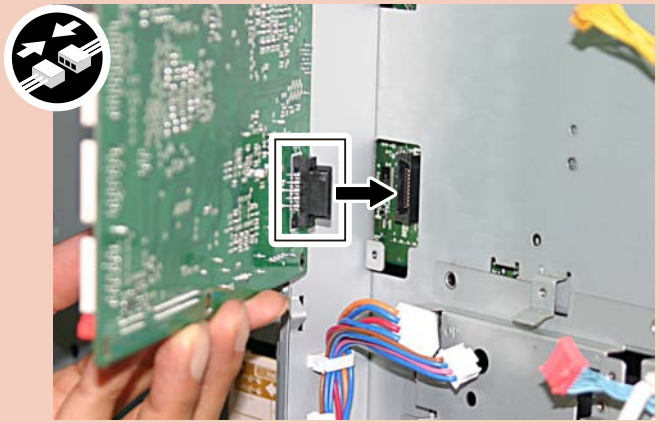
- 8 Screws



F-4-462

CAUTION:Points to Caution at Installation

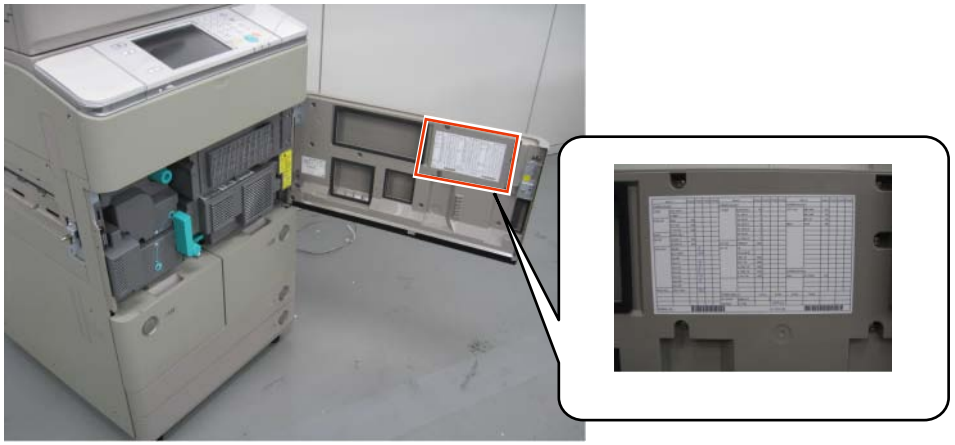
Be sure to securely connect the Connector at the back of the DC Controller PCB.



F-4-463

<Processing after replacing the parts>

- Get in service mode to enter all the latest service mode values written on the label at the back of the Front Cover.



F-4-464

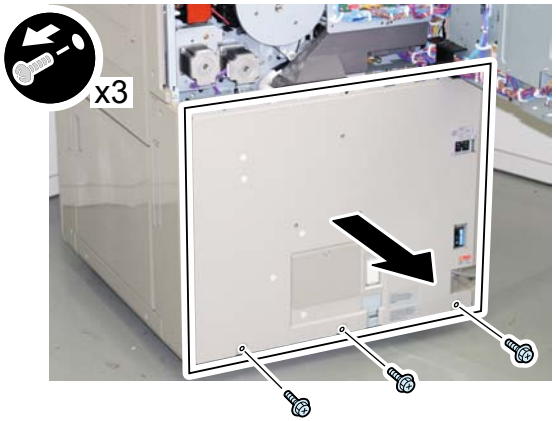
Removing the Power Supply Assembly

<Preparation>

1. Remove the Box Cover (Left). (Refer to "Removing the DC Controller PCB")
2. Open the Controller Box. (Refer to "Removing the DC Controller PCB")
3. Remove the Rear Lower Cover.

3-1) Remove the Rear Lower Cover in the direction of the arrow.

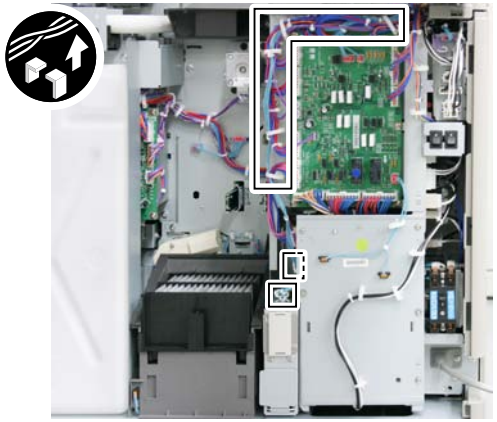
- 3 Screws



F-4-465

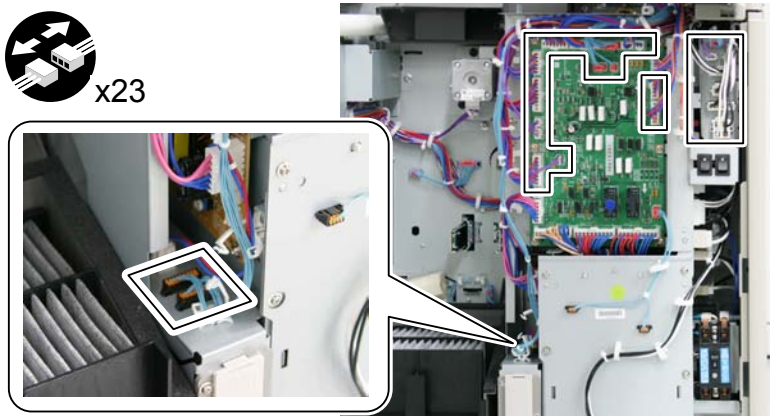
<Procedure>

1) Free the Harness from the Wire Saddle.



F-4-466

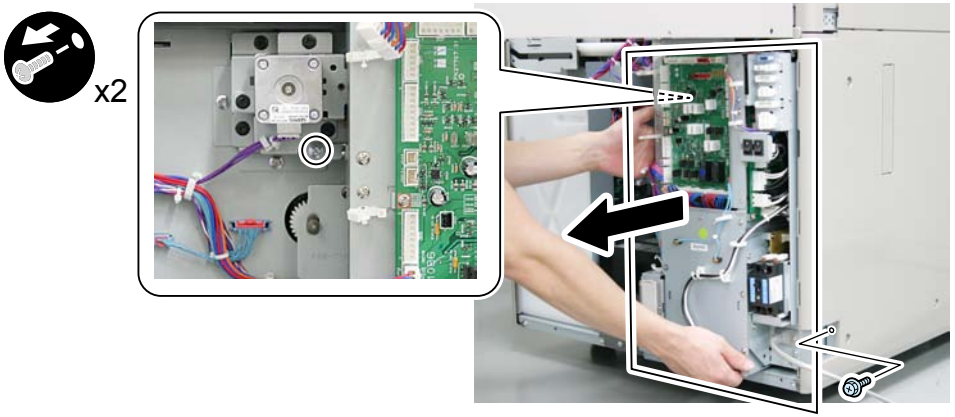
2) Disconnect the 23 Connectors and free the Harness to the top of the Power Supply Assembly.



F-4-467

3) Remove the Power Supply Assembly in the direction of the arrow.

- 2 Screws

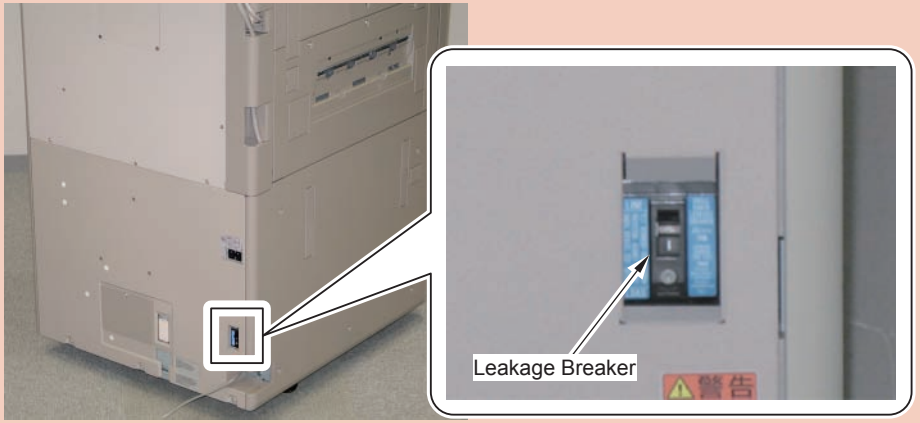


F-4-468

Removing the Fixing Power Unit

CAUTION:Points to Caution before Operation

When executing this procedure, be sure to turn OFF the breaker beforehand.



F-4-469

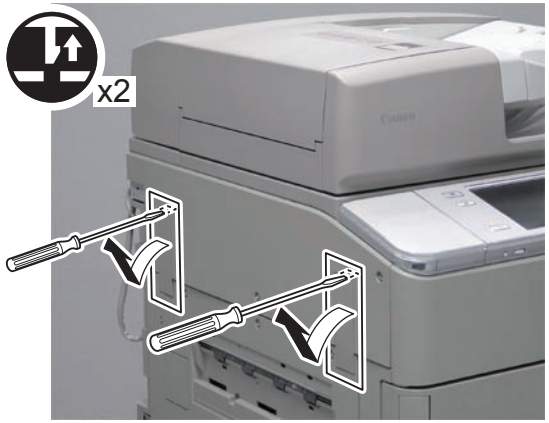
<Preparation>

1. Remove the Box Cover (Left). (Refer to "Removing the DC Controller PCB")

<Procedure>

1) Open the 2 Finisher Connector Covers.

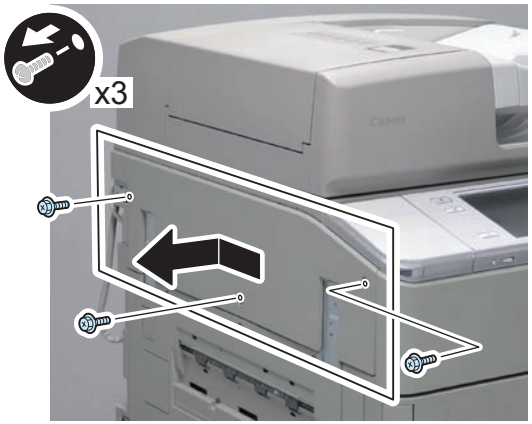
- 2 Claws



F-4-470

2) Remove the Left Upper Cover.

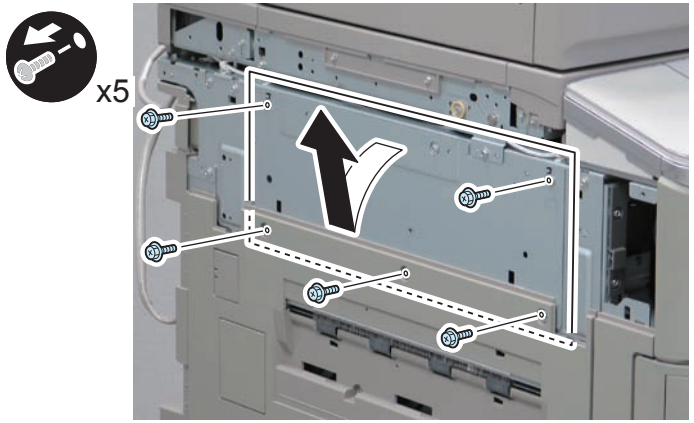
- 3 Screws



F-4-471

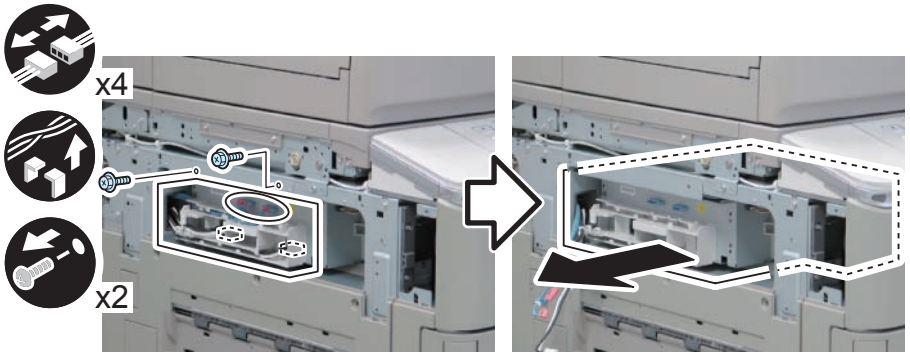
3) Remove the Left Upper Frame.

- 5 Screws



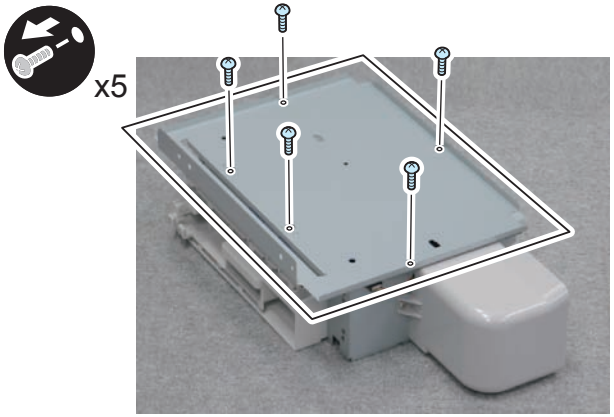
F-4-472

4) Free the harness and remove the Fixing Power Unit.
- 4 Connectors
- 2 Screws



F-4-473

5) Remove the Fixing Power Unit Plate.
- 5 Screws



F-4-474

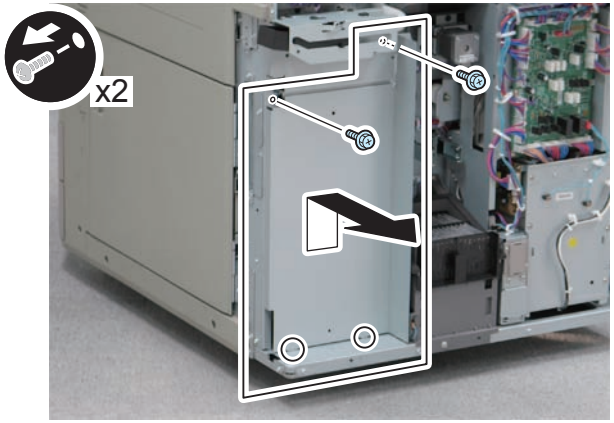
Removing the Feed Driver PCB

<Preparation>

1. Remove the Waste Toner Container. (Refer to page 4-145)
2. Remove the Box Cover (Left). (Refer to "Removing the DC Controller PCB")
3. Open the Controller Box. (Refer to "Removing the DC Controller PCB")
4. Remove the Rear Lower Cover. (Refer to "Removing the Power Supply Assembly")

<Procedure>

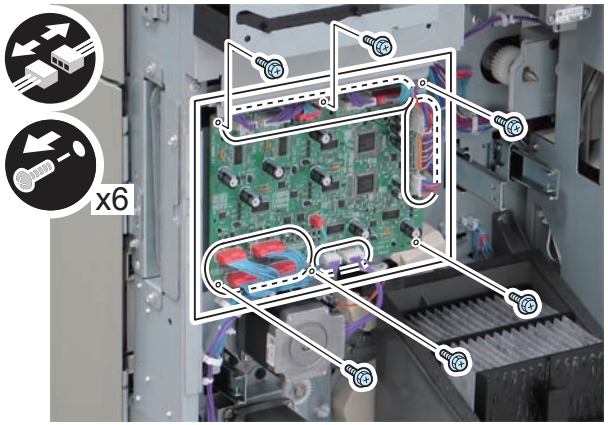
1) Remove the frame of Waste Toner Container.
- 2 Screws
- 2 Protrusions



F-4-475

2) Remove the Feed Driver PCB.

- 6 Screws
- 15 Connectors



F-4-476

Removing the Upper High Voltage Unit

<Preparation>

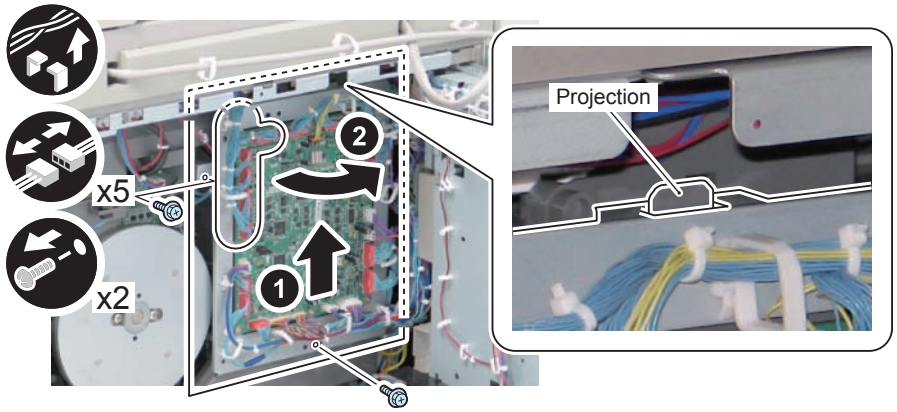
1. Remove the Box Cover (Left). (Refer to "Removing the DC Controller PCB")
2. Open the Controller Box. (Refer to "Removing the DC Controller PCB")

<Procedure>

1) Open the Motor Driver PCB Unit.

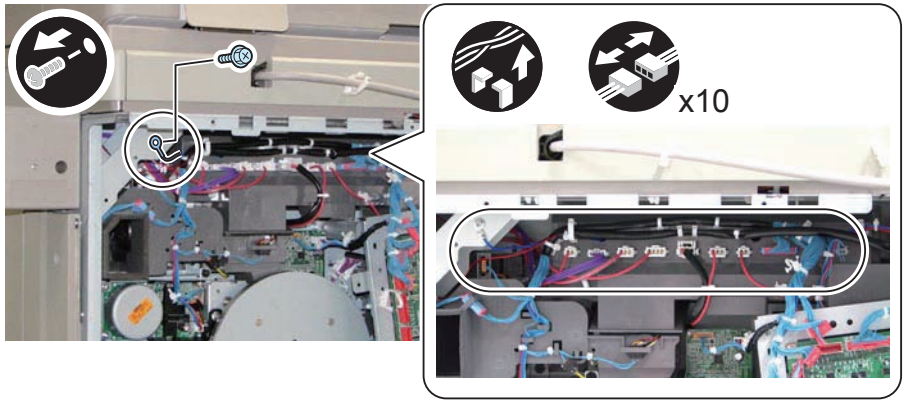
> NOTE:
> When opening the Motor Driver PCB Unit, free the top side from the protrusion.

- 5 Connectors
- Wire Saddle
- Reuse Band



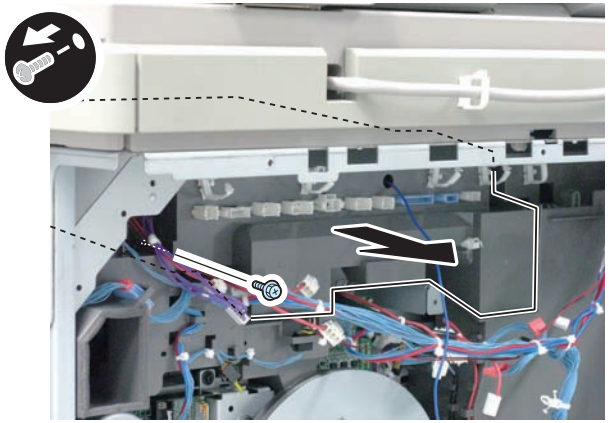
F-4-477

2) Disconnect the connector and Grounding Wire.
- 1 Screw



F-4-478

3) While avoiding the harness and Motor Driver PCB Unit, remove the Upper High Voltage Unit.
- 1 Screw

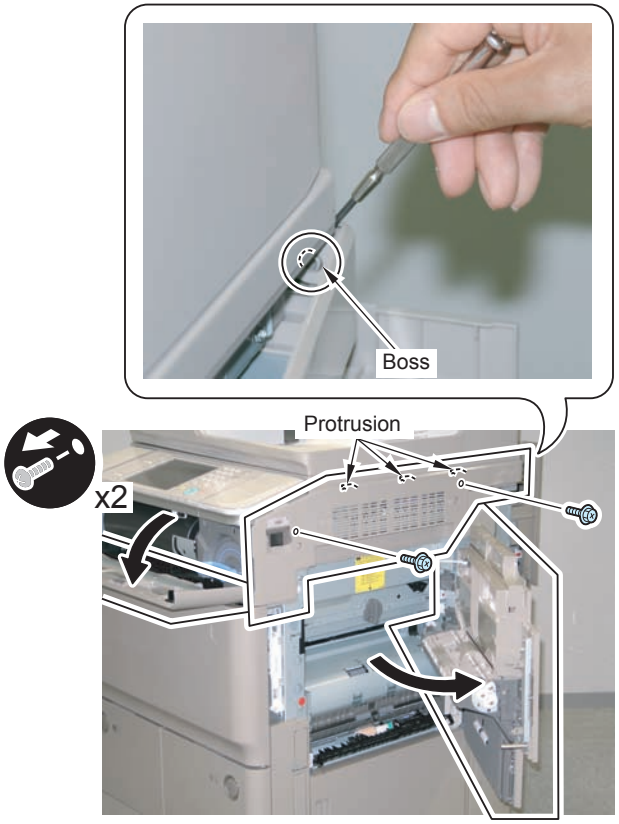


F-4-479

Removing the Flat Control Panel

NOTE:
The same procedure is applied to both copier model and printer model.

1) Open the Toner Replacement Cover.
2) Open the Right Cover.
3) Remove the Right Upper Cover.
- 2 Screws
- 3 Protrusions
- 1 Boss

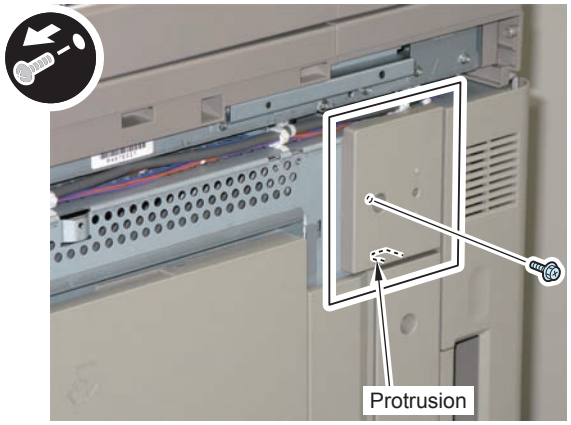


F-4-480

4) Close the Right Cover.

5) Remove the Right Rear Cover 2. (The removed cover and screws are no longer used.)

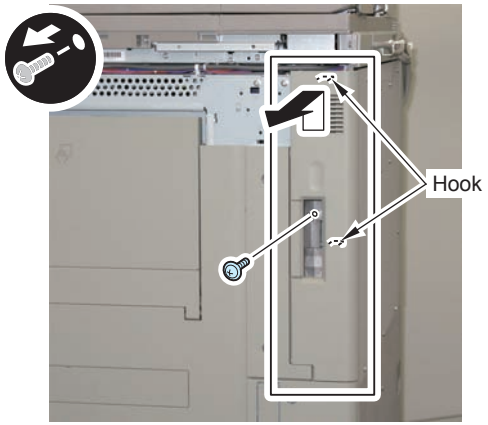
- 1 Screw



F-4-481

6) Remove the Side Cover.

- 1 Screw
- 2 Hooks



F-4-482

7) Open the Upper Right Cover.

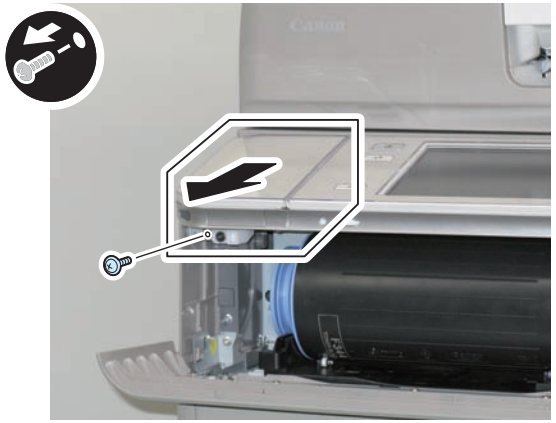
8) Remove the Upper Right Cover.

- 1 Screw

F-4-483

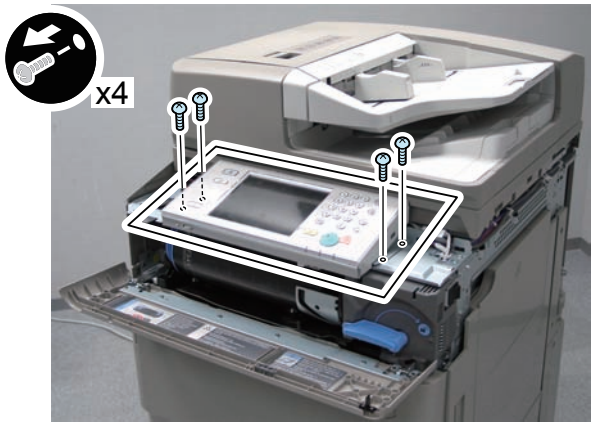
9) Remove the Upper Left Cover.

- 1 Screw



F-4-484

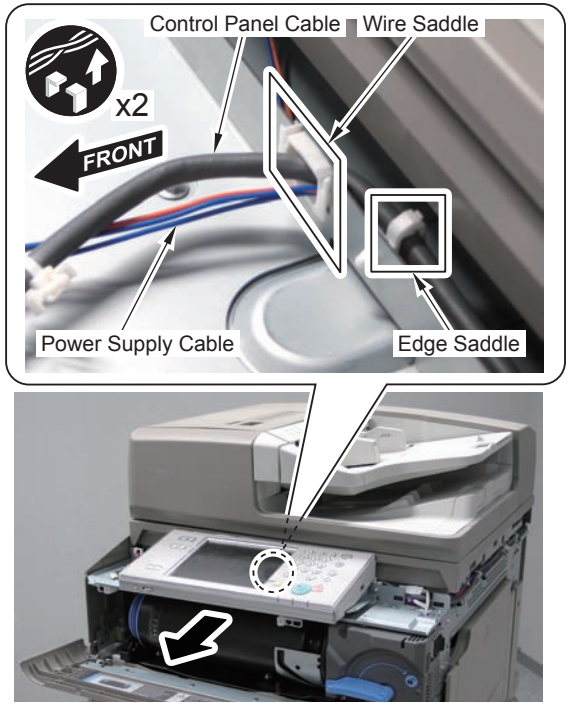
10) Remove the 4 screws which secure the Flat Control Panel.
(The removed screws will be used when installing the Front Upper Cover (Middle).)



F-4-485

11) Move the Flat Control Panel to the front and disconnect the Control Panel Cable and Power Supply Cable.

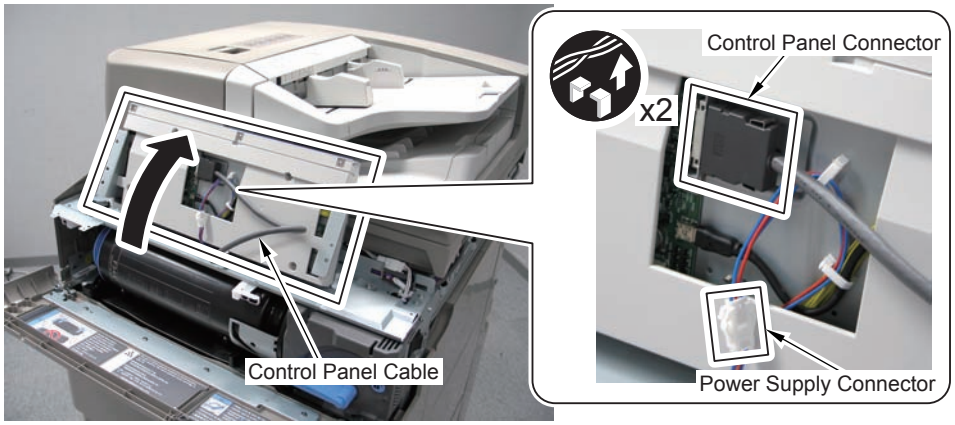
- 1 Edge Saddle
- 1 Wire Saddle



F-4-486

12) Lift up the Flat Control Panel in the direction of the arrow and pull out the Control Panel Cable.

13) Disconnect the Control Panel Connector and Power Supply Connector, and then remove the Flat Control Panel from the machine.

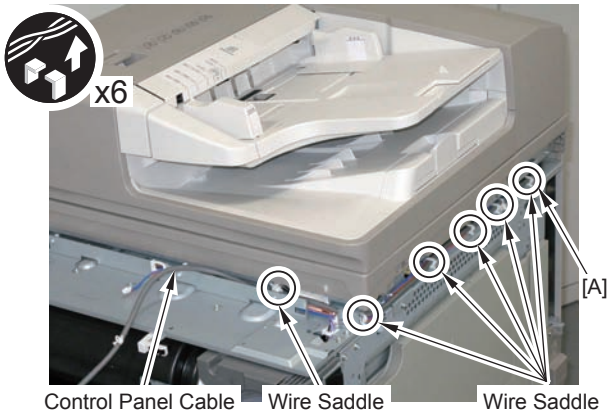


F-4-487

14) Secure the Power Supply Cable removed in step 11 with the Wire Saddle again.

15) Disconnect the Control Panel Cable.

- 6 Wire Saddles
- 1 Connector

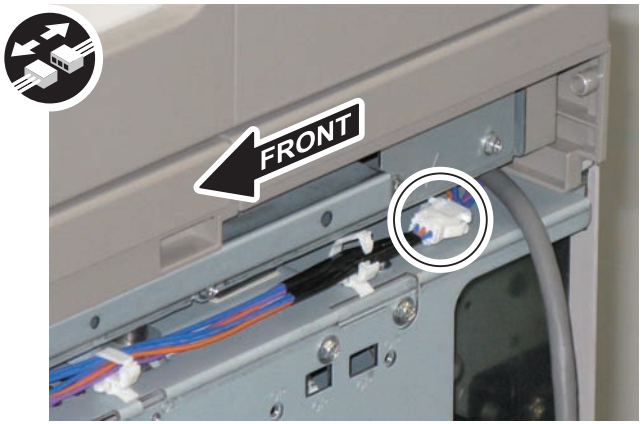


F-4-488

CAUTION:

- Do not disconnect the Power Supply Cable.
- Be sure to close the Wire Saddles except for the open one [A].

16) Disconnect the Power Supply Connector.



F-4-489

5 Adjustment

- Overview
- When replacing parts

Overview

In this chapter, measures of adjustment when replacing parts in servicing operation are mentioned. Parts to be replaced are categorized into 4 blocks based on their related technology as shown below.

Parts Name	Actions at Parts Replacement	
Controller System	HDD	p. 5-2
	Main Controller PCB1	p. 5-4
	Main Controller PCB2	p. 5-5
	TPM PCB	p. 5-7
Image Formation System	Primary Charging Wire	p. 5-7
	Primary Charging Assembly	p. 5-7
	Pre-Transfer Charging Assembly	p. 5-9
	Pre-Transfer Charging Wire	p. 5-9
	Drum	p. 5-10
	Drum Side Seals (Front and Rear)	p. 5-11
	Developing Assembly	p. 5-11
	Potential Sensor / Potential Control PCB	p. 5-11
	ETB	p. 5-11
	Waste Toner Container	p. 5-11
Fixing System	Fixing Roller	p. 5-12
External Auxiliary System	DC Controller PCB	p. 5-12

T-5-1

When replacing parts

Controller System

HDD

<Procedure of parts replacement>

Refer to Removing HDD

<Procedure of adjustment>

1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

2) Printing the set/registered data

Use the service mode.

(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

2. After Replacing

1) HDD format

1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main powerswitch.)

1-2) Use SST to format all partitions.

2) Downloading system software

2-1) Use SST to download the system software (System, LANG, RUI and others).

3) Initializing the key, certificate and CA certificate

(Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY

4) Turning OFF and ON the main power switch

5) Restoring the backup data

Use the Remote UI.

Management Settings > Data Management > Import/Export

6) Resetting/registering the data

While referring to the list of set/registered data which was printed before replacement, reset/register the data.

7) When the user generates and adds the encryption key, certificate and/or CA ertificate, request the user to generate them again.

8) Executing “Auto Adjust Gradation (Full Adjust)”

Settings/Registration mode: Adjustment/Maintenance > Adjust Image Quality > Auto Adjust Gradation

When using the Card Reader and imageWARE Accounting Manager

Card ID used for imageWARE Accounting Manager is stored in the HDD, so NSA collection control is not enabledafter the HDD replacement. After the HDD is replaced, reinstall the card ID from imageWARE Accounting Manager using the following procedures.

1) Go to COPIER > FUNCTION> INSTALL > CARD and enter the numerical value of the leading card which is used for Department ID. Then, press “OK” button.(e.g.: If No.1 to No.1000 cards are used for Department ID, enter “1” of the leading card.)

2) After turning OFF and ON the main power switch, perform the following operations from Settings/Registration mode.
In Management Settings > User Management > Department ID Management > Page Totals, be sure that “ID00000001” to “ID00001000” are created.
Set the following: Preferences > Network > TCP / IP Settings > IPv4 Settings> IP Address Settings > IP Address, Gateway Address, Subnet Mask
In Management Settings > User Management> System Manager Information Settings> System Manager ID and System PIN, register any number for them. Then, turn OFF and ON the main power switch.
If “System Manager ID” and “System PIN” are not registered, “card registration to device” cannot be executed for the imageWARE Accounting Manager setting operation.

3) Download the card ID from imageWARE Accounting Manager to the Main Body again.

4) After downloading is completed, go to Management Settings > User Management > Department ID Management > Page Totals. Be sure that only the downloaded card ID is displayed.

5) Print using the user card registered from imageWARE Accounting Manager. Be sure that the card information used for the target devices of imageWARE Accounting Manager is collected.

CAUTION:Points to Caution when Using the System Software-installed HDD

When using the HDD which was installed the system software of the other achine (different serial number), be sure to format the HDD after the installation. If the HDD is not formatted, the operation cannot be guaranteed.

Main Controller PCB 1

<Procedure of parts replacement>

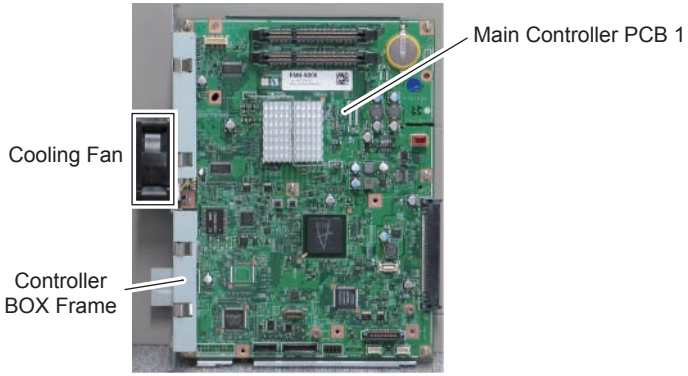
see "Removing Main Controller PCB 1," on p. 4-80.

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 1 + Controller Box Frame + Cooling Fan

Parts number differs on a model basis (speed basis).

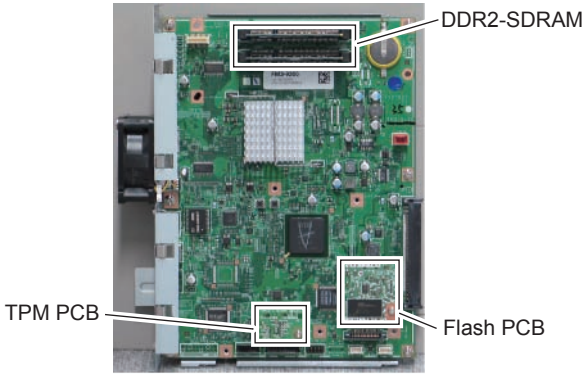


F-5-1

In order to secure the accuracy of connector connection when slotting in, this service part is provided with the PCB being installed to the frame.

1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (2 pc.)
- Flash PCB
- TPM PCB



F-5-2

NOTE:
Resetting/registering the data is not necessary after Main Controller PCB 1 is replaced.

Main Controller PCB 2

<Procedure of parts replacement>

see "Removing Main Controller PCB 2," on p. 4-82.

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 2 + Controller Box Frame

F-5-3

1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Settings/Registration
- Web Access Favorites
- Printer Settings
- Paper Information

2) Printing the set/registered data Use the service mode.

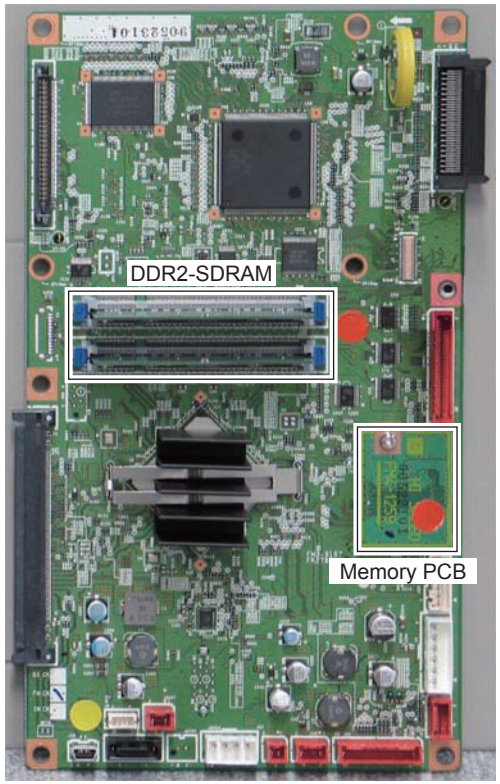
(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

2. When Replacing

1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (1 pc.) (When option DDR2-SDRAM is installed: 2 pc.)
- Memory PCB



F-5-4

Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number).If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)
- Memory PCB

3. After Replacing

1) After installing the parts, turn ON the main power switch.

2) Restoring the backup data

Use the Remote UI.

Management Settings > Data Management > Import/Export

3) Resetting/registering the data

While referring to the list of set/registered data which was printed out before replacement, reset/register the data.

4) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again

TPM PCB

<Procedure of parts replacement>

see "Removing Main Controller PCB 1," on p. 4-80.

<Procedure of adjustment>

When TPM setting is “OFF”

Any operation is not necessary at replacement.

When TPM setting is “ON”

It is necessary to restore the TPM key which was backed up after changing the setting to “ON”.

1) Removing the network cable
   Until the TPM key is restored, information might be leaked due to the inappropriate access via network, so be sure to perform this operation appropriately.
2) Connecting the USB Memory after turning ON the main power switch
3) Restoring the TPM key
   Management Settings > Data Management >TPM Settings> Restore of TPM Key
4) Turning OFF and ON the main power switch

Image Formation System

Primary Charging Wire

<Procedure of parts replacement>

see "Replacing the Primary Charging Wire," on p. 4-103.

<Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PRM-WIRE)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)
3) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
4) Execute the potential control (COPIER>FUNCTION>DPC>DPC). Turn OFF and then ON the main power. (The potential control is executed at startup.)
5) Execute the potential control. (COPIER>FUNCTION>DPC>DPC)

Primary Charging Assembly

<Procedure of parts replacement>

see "Removing the Primary Charging Assembly," on p. 4-96.

<Procedure of adjustment>

1) Output a halftone image using the service mode.
   - TEST > PG > TYPE : 5
2) Execute the following procedure according to the density difference on the front and rear sides of the test print image.
   - When the front side test print image is dark, execute step 3.
   - When the rear side test print image is dark, execute step 4.
   - When there is no uneven density, execute step 5 and the following.

When the front side test print image is dark

NOTE:
- When the front side test print image is dark [1], execute step 3 until the density becomes even. When the density becomes even, execute step 5 and the following.
- When the adjustment screw is turned clockwise, the Charging Wire goes down and up (gap between grid and Charging Wire becomes narrow and wide). As a result, the density of output image becomes light.

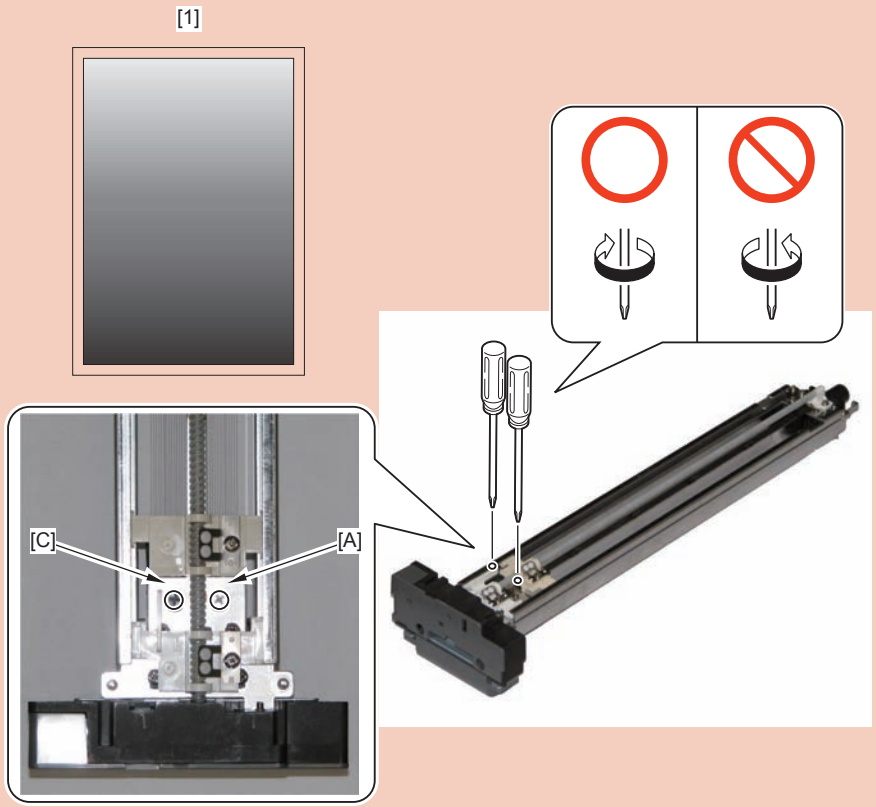
CAUTION:

Be sure to adjust the dark side (density of the test print image) to be the light side.

3) Make the resin screws [A] and [C] a full turn clockwise. While referring to the replacement procedure of the Primary Charging Assembly, install it to the main body, output a test print and check the image.

CAUTION:

Since uneven density might occur, be sure to adjust by turning the 2 adjustment screws with the same amount.



F-5-5

When the rear side test print image is dark

NOTE:

- When the rear side test print image is dark [2], execute step 4 until the density becomes even. When the density becomes even, execute step 5 and the following.
- When the adjustment screw is turned clockwise, the Charging Wire goes down and up (gap between grid and Charging Wire becomes narrow and wide). As a result, the density of output image becomes light.

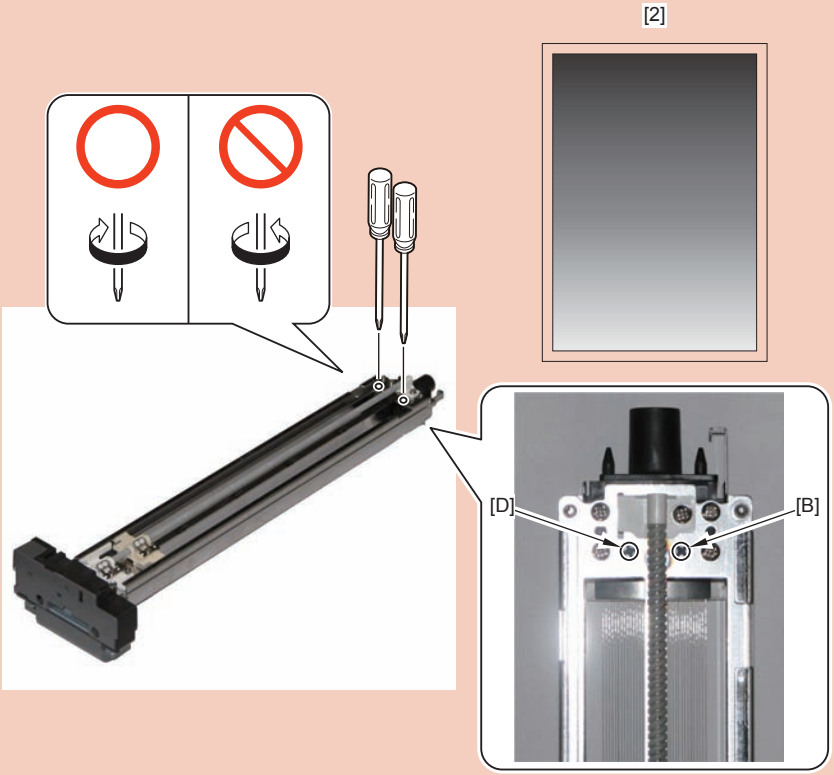
CAUTION:

Be sure to adjust the dark side (density of the test print image) to be the light side.

4) Make the resin screws [B] and [D] a full turn clockwise. While referring to the replacement procedure of the Primary Charging Assembly, install it to the main body, output a test print and check the image.

CAUTION:

Since uneven density might occur, be sure to adjust by turning the 2 adjustment screws with the same amount.



F-5-6

5) Clean the Charging Wire using the service mode.
(FUNCTION > CLAENING > WIRE-CLN) Time required: Approx. 30 sec.
6) Init of Primary Charging Wire current VL(COPIER>ADJUST>HV-PRI>PRI-GRID)
7) Execute the potential control. (COPIER>FUNCTION>DPC>DPC
8) Execute the density correction using the user mode.
("Settings/Registration" > "Adjustment/Maintenance" > "Adjust Image Quality" > "Correct Density")

Pre-transfer Charging Assembly

<Procedure of parts replacement>

see "Removing the Pre-transfer Charging Assembly," on p. 4-107.

<Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>PO-UNIT)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)

Pre-transfer Charging Wire

<Procedure of parts replacement>

see "Replacing the Pre-transfer Charging Wire," on p. 4-111.

<Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>PRDC-1>PO-WIRE)
2) Clean the Charging Wire. (COPIER>FUNCTION>CLEANING>WIRE-CLN)

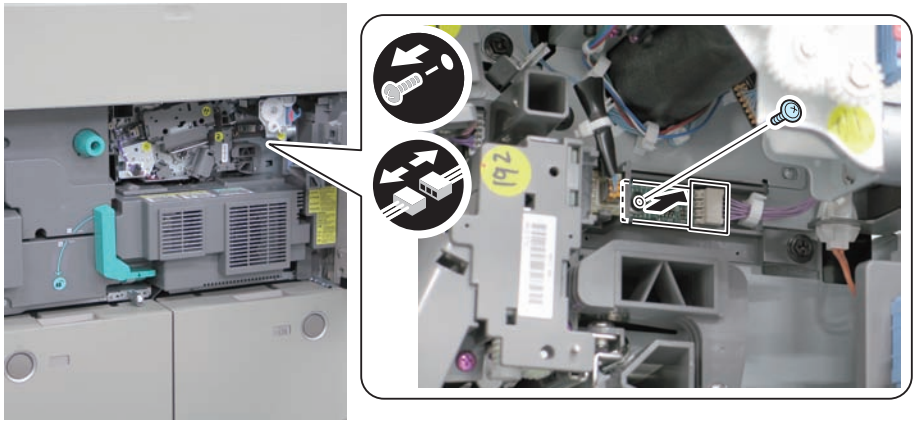
Photosensitive Drum

<Procedure of parts replacement>

see "Removing the Photosensitive Drum," on p. 4-122.

<Procedure of adjustment>

1) Remove the EEROM.
   - 1 Screw
   - 1 Connector

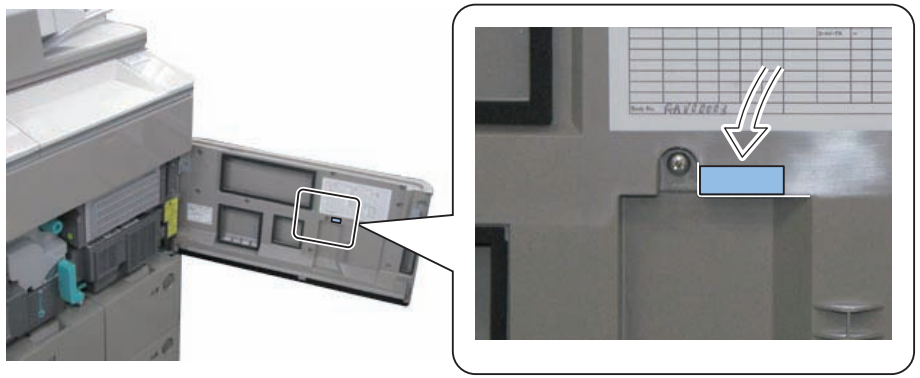


F-5-7

3) Replace the ROM connected to the host machine with the drum ROM included in the drum.

> CAUTION:
> If the ROM is not replaced, the replaced drum and the drum-unique data stored in the ROM are not matched. As a result, the 2D shading is not functioned normally.

4) Affix the ID Label included in the drum to the inside of the Front Cover.



F-5-8

5) Activate the drum replacement mode. (COPIER>FUNCTION>INSTALL>DRM-INIT)
6) Check the 2-dimensional shading ROM. (COPIER>FUNCTION>2D-SHADE>2D-READ)
6) Execute Auto Adjust Gradation.

Drum Side Seals (Front and Rear)

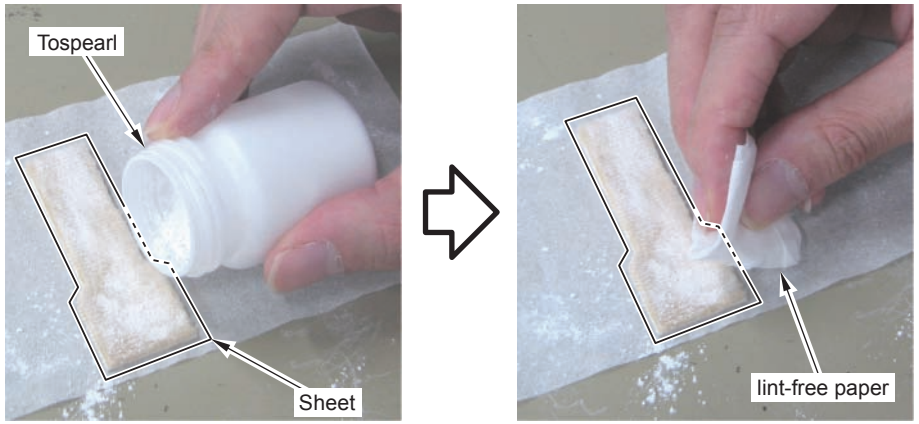
<Procedure of parts replacement>

see "Removing the Side Seal," on p. 4-127.

<Procedure of adjustment>

1) Applying Tospearl

Apply Tospearl on the surfaces of the Drum Side Seals (Front and Rear) and adhere it uniformly with lint-free paper. In order to reduce adhesion of toner at both ends of the Photosensitive Drum



F-5-9

Developing Assembly, Developing Cylinder

<Procedure of parts replacement>

see "Removing the Developing Assembly," on p. 4-128.

<Procedure of adjustment>

1) Clear the parts counter. (COPIER>COUNTER>DRBL-1>DVG-CYL)

2) Supplying Developing Assembly toner. (COPIER>FUNCTION>INSTALL>TONER-S)

Potential Sensor / Potential Control PCB

<Procedure of parts replacement>

see "Removing the Potential Control PCB Unit," on p. 4-166.

<Procedure of adjustment>

1) Adjust the Potential Sensor offset. (COPIER > FUNCTION > DPC > OFST)

ETB Unit / ETB

<Procedure of parts replacement>

- see "Removing the ETB Unit," on p. 4-137.
- see "Removing the ETB," on p. 4-139.

<Procedure of adjustment>

1) Clear the ETB control counter. (COPIER>FUNCTION>CLEAR>TR-BLT)

Parts counter (COPIER>COUNTER>DRBL-1>TR-BLT) is also cleared coincidentally.

Waste Toner Container

<Procedure of parts replacement>

see "Removing the Waste Toner Container," on p. 4-145.

<Procedure of adjustment>

1) Set the new Waste Toner Container.

2) Clear the waste toner counter. (COPIER>COUNTER>MISC>WST-TNR)

Fixing System

Fixing Roller

<Procedure of parts replacement>

see "Removing the Fixing Roller, Insulating Bush and Thrust Stopper," on p. 4-186.

<Procedure of adjustment>

1) Grease Application
   Apply approx. 20mg of grease (MOLYKOTE HP-300; CK-8012) to inner circumference and outer circumference of the Bushing so that all circumferences are covered with white film; otherwise, abnormal noise can occur (squeaking).
2) Clear the counter
   COPIER >COUNTER > DRBL-1 > FX-UP-RL

External Auxiliary System

DC Controller PCB

<Procedure of parts replacement>

see "Removing the DC Controller PCB," on p. 4-231.

<Procedure of adjustment>

1. Before Replacing
   1)Backup of the Service Mode data
   COPIER>FUNCTION>SYSTEM>DSRAMBUP

2. After Replacing
   1)Restoring the backup data
   COPIER>FUNCTION>SYSTEM>DSRAMRES
   2)Switch OFF and then ON the main power.
   3)Execute auto gradation adjustment.
   4)Test print

6 Troubleshooting

- Test Print
- Image Faults
- Feed Faults
- Other
- Version upgrade
- Making Initial Checks
- Error Messages
- Error Codes

Test Print

Overview

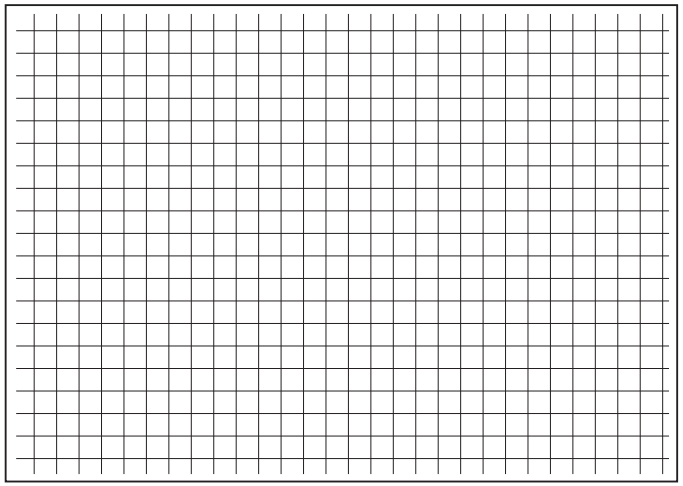
PG TYPE	Pattern	Image check item											PCB to generate PG
		Gradation	Fogging	Transfer failure	Black line	White line	Uneven pitch	Uneven density (rear/ front)	Right angle accuracy Straight line accuracy	Side registration	Shock	Magnification ratio	
0	Normal copy/print												---
1	Grid								Yes	Yes		Yes	Main Controller PCB 2
2	17 gradations Tbic rank 2	Yes			Yes	Yes							Main Controller PCB 2
3	17 gradations 600dpi (134-line screen or 141-line screen)	Yes			Yes	Yes							Main Controller PCB 2
4	Solid white		Yes										Main Controller PCB 2
5	Halftone (density: 80H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
6	Halftone (density: 80H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
7	Solid black			Yes		Yes	Yes	Yes					Main Controller PCB 2
8	Horizontal line (4 dots, 27 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2
9	Horizontal line (6 dots, 50 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2
10	Horizontal line (2 dots, 3 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2
11	Halftone (density: 60H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes		Yes	Yes		Main Controller PCB 2
12	Halftone (density: 60H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
13	Halftone (density: 30H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
14	Halftone (density: 30H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
15	15 to 50: For development												---

T-6-1

NOTE:
When outputting a halftone test print, be sure to use PG TYPE:6 except in the following cases.
1. When checking the image of side registration adjustment, use PG TYPE:11.
2. When the setting value of the following service mode is "2" (TBIC is used for both the photo part and the text part), use PG TYPE:5.
COPIER > OPTION > USER > PH-D-SL2

How to View the Test Print

Grid (TYPE=1)

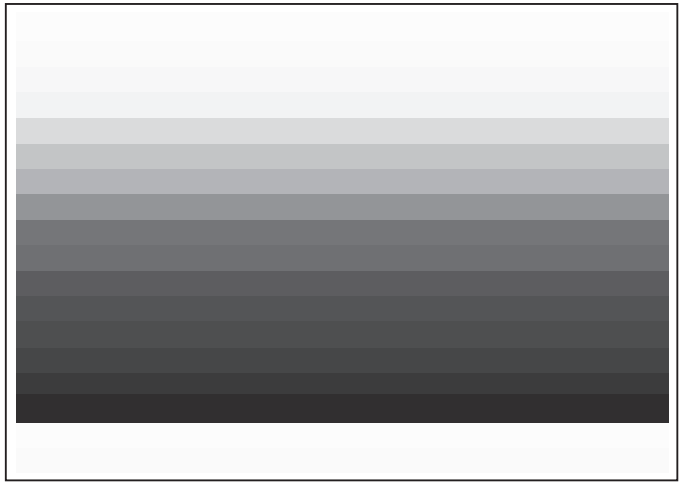


F-6-1

Check item	Check method	Assumed cause
Right angle accuracy/ Straight line accuracy	Check whether lines in the horizontal/ vertical scanning directions are paralleled to the paper and these lines are at right angles to one another.	Feed system failure or Laser Scanner Unit failure is considered.
Side registration	Check the left margin.	Floor at the installation site is extremely distorted, or the feed system failure is considered.
Magnification ratio	Check whether the grid is printed at 9.99mm intervals. (Check the image on the second side at duplex printing.)	ETB and rollers' feed system failure or laser exposure system failure (drum, Laser Scanner) is considered.

T-6-2

17 gradations (TYPE=2/3)

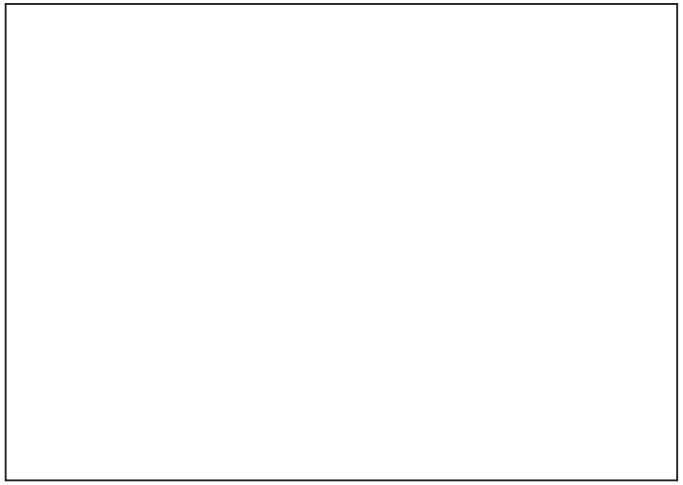


F-6-2

Check item	Check method	Assumed cause
Gradation	Check whether gradation in density is made appropriately.	Drum failure, laser exposure system failure or developing system failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, grid failure, developing system failure, cleaning (drum, ETB) failure or Pre-transfer Charging Assembly failure is considered.
White line	Check whether white lines appear on the image.	Primary Charging Wire failure or developing system failure is considered.

T-6-3

Solid white (TYPE=4)



F-6-3

Check item	Check method	Assumed cause
Fogging	Check whether foggy image appears in the blank area.	Drum failure, laser exposure system failure or developing system failure is considered.

T-6-4

Halftone (TYPE=5/6/11/12/13/14)

F-6-4

NOTE:
- When outputting a halftone test print, be sure to use PG TYPE:6 except in the following cases.
  1. When checking the image of side registration adjustment, use PG TYPE:11.
  2. When the setting value of the following service mode is "2"
     (TBIC is used for both the photo part and the text part), use PG TYPE:5.
     COPIER > OPTION > USER > PH-D-SL2
- When changing the density of the test print, use the following service mode to change the density: TEST>PG>K.

Check item	Check method	Assumed cause
Transfer failure	Check the evenness of halftone density. Check whether uneven image or foggy image appears.	Transfer system failure or Pre-transfer Charging Assembly failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, grid failure, developing system failure, cleaning (drum, ETB) failure or Pre-transfer Charging Assembly failure is considered.
White line	Check whether white lines appear on the image.	Primary Charging Wire failure or developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Primary Charging Assembly failure, drum failure or developing system failure is considered.
Side registration	Check the left margin.	Floor at the installation site is extremely distorted, or the feed system failure is considered.
Shock	Check whether horizontal lines appear on the image.	ETB and rollers' feed system failure or laser exposure system failure (drum, Laser Scanner) is considered.

T-6-5

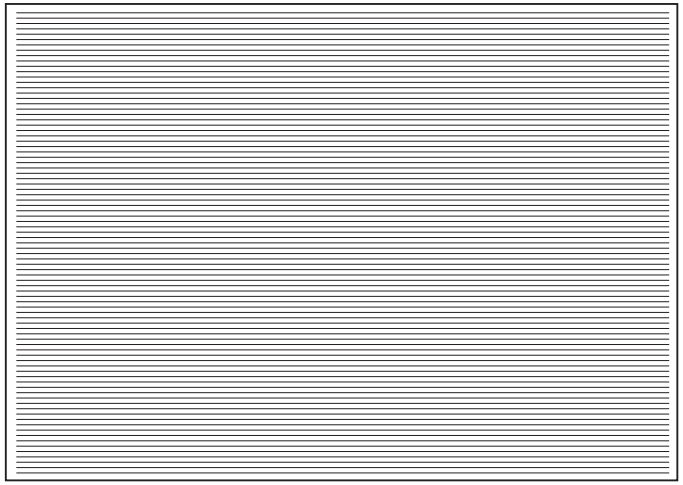
Solid black (TYPE=7)

F-6-5

Check item	Check method	Assumed cause
Transfer failure	Check the evenness of halftone density. Check whether uneven image or foggy image appears.	Transfer system failure or Pre-transfer Charging Assembly failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Primary Charging Assembly failure, drum failure or developing system failure is considered.

T-6-6

Horizontal line (TYPE=8/9/10)



F-6-6

Check item	Check method	Assumed cause
Black line	Check whether black lines appear on the image.	Laser light path failure, grid failure, developing system failure, cleaning (drum, ETB) failure or Pre-transfer Charging Assembly failure is considered.
White line	Check whether white lines appear on the image.	Primary Charging Wire failure or developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Primary Charging Assembly failure, drum failure or developing system failure is considered.

T-6-7

Image Faults

Trailing Edge Shock Imaget

[Location]
.ETB

[Cause]
Lines occur on the image due to shock when distortion on the belt is released while rotation speed between the ETB and drum differs

[Condition]
When replacing the ETB

[Field Remedy]
1) Output a halftone image with the following conditions and check the output image
   COPIER>TEST>PG>TYPE 6
   Select the cassette which the following paper is set: COPIER>TEST>PG>PG-PICK A3 (LDR) or larger.

   With shock image: go to step 2
   Without shock image: End

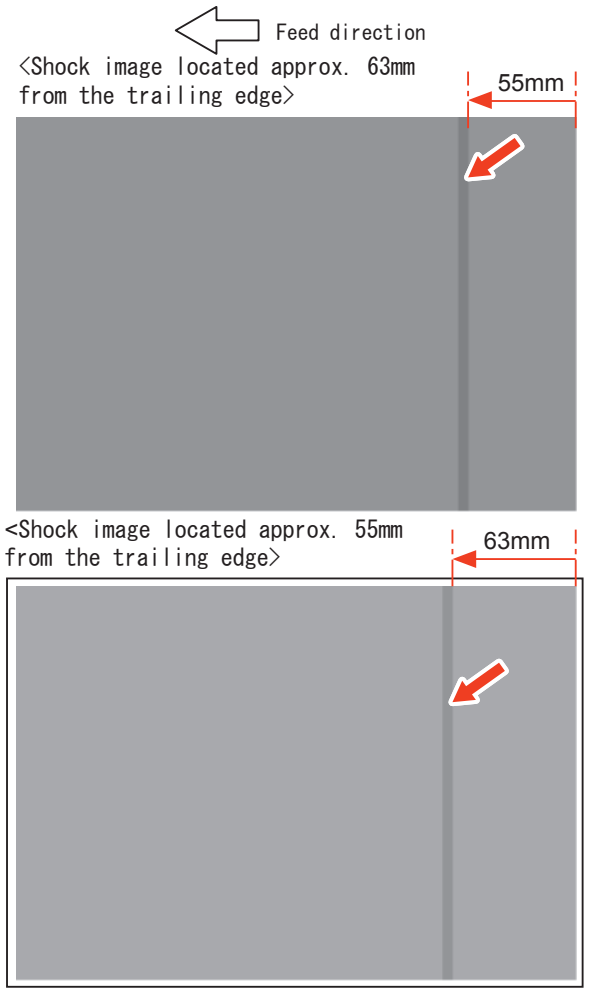
2) Measure a distance from the trailing edge of the shock image.

3) Adjust using the following service mode. COPIER > ADJUST > FEED-ADJ > TBLT-SPD: Adjust the Transfer Belt speed

   Shock image is located approx. 55mm from the trailing edge: Adjust the value by +10 gradually.
   Shock image is located approx. 63mm from the trailing edge: Adjust the value by -10 gradually

4) Output a halftone image with the condition described in step 1 again and check the image.
   With shock image: go to step 3.
   Without shock image: End

[Image Sample]



F-6-7

Uneven density correction by 2D shading

To correct uneven image density caused by uneven potential on the surface of the Drum.

NOTE:
This machine performs two dimensional shading which replaces uneven potential of the Photosensitive Drum to the exposure amount to correct. (Default: two dimensional shading is disabled.) As the data of Drum's uneven potential, the data measured at the shipment of the Drum is used. Therefore, as the life of the Photosensitive Drum advances, it gets deteriorated, so the uneven potential becomes different from the one at the shipment of the Drum. Although the uneven potential of the Drum is changed due to the deterioration, the data can be corrected per horizontal/vertical scanning direction line by outputting a test pattern image with the following procedure.

CAUTION:
This adjustment is executed when the preferred image is not output even if the Primary Charging Wire height adjustment and secure watermark adjustment * are performed.
* Secure watermark adjustment: Function Settings>Common>Print Settings>Secure Watermark Settings>Adjust Background/Character Contrast

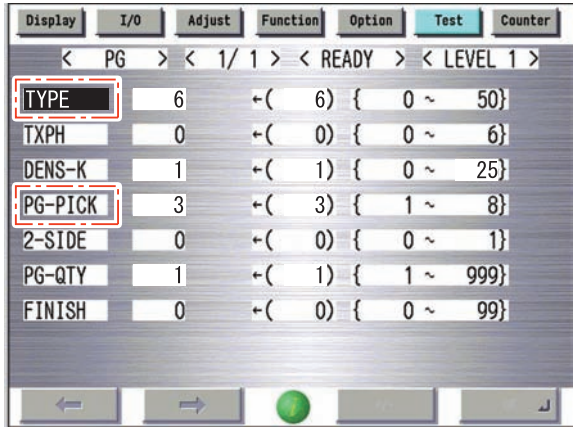
1) Check that the two dimensional shading is enabled.
COPIER>OPTION>IMG-LSR>2D-SHADE 1: Enabled

2) Read the two dimensional shading ROM data.
COPIER>FUNCTION>2D-SHADE>2D-READ

3) Turn OFF and then ON the main power switch.

CAUTION:
Be sure to turn OFF and then ON the main power switch after step 2. Uneven density may be reduced by the two dimensional shading correction at the startup.

4) Output a halftone image with the following conditions and check if uneven density occurs.
COPIER>TEST>PG>TYPE 6
Select the cassette which the following paper is set: COPIER>TEST>PG>PG-PICK A3 (LDR) or larger.
When uneven density is seen: Go to step 5.
When uneven density is not seen: Procedure is ended.

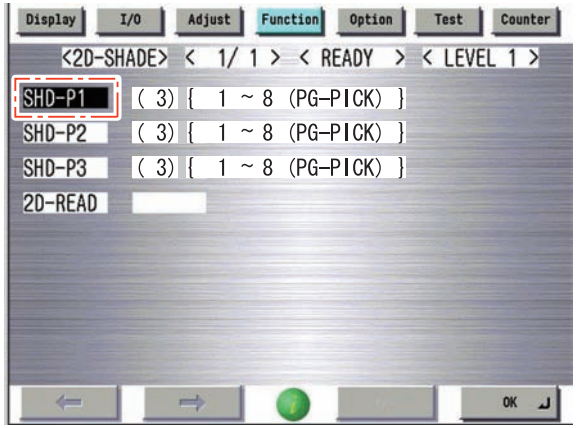


F-6-8

5) Output a test pattern for two dimensional shading.
COPIER>FUNCTION>2D-SHADE>SHD-P1

5-1) Set the cassette.Select the cassette which A3 (LDR) or larger paper is set.
Select "SHD-P1" and cassette using "numeric keypad".

5-2) Output 3 sheets of the test pattern.



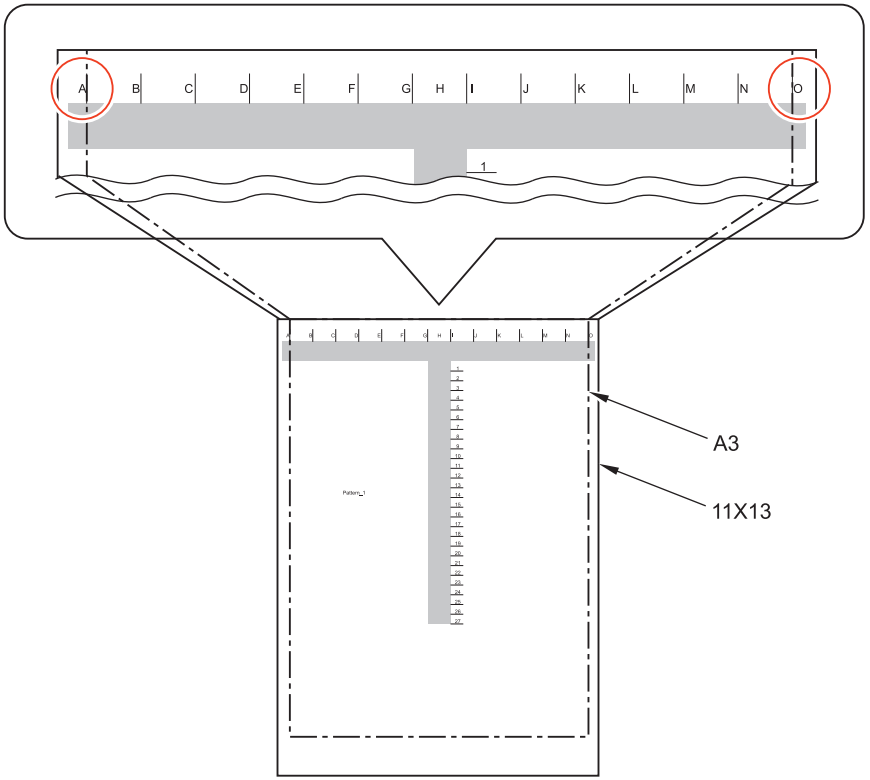
F-6-9

CAUTION:

It is difficult to judge whether uneven potential of the Photosensitive Drum causes uneven density of the output image, so output 3 sheets of the test print and adjust the area where all.

(If the same symptom is seen on the same spot of all 3 sheets, it is possibly caused from the Drum.)

<Test pattern>



F-6-10

NOTE:
For the test print, the following 3 types can be output, but basically set SHD-P1 to output. The following shows the use case of each test print.
COPIER>FUNCTION>2D-SHADE>SHD-P1
: When the image which uneven density occurs is the halftone image with light density
COPIER>FUNCTION>2D-SHADE>SHD-P2
: When the image which uneven density occurs is the halftone image with dark density
COPIER>FUNCTION>2D-SHADE>SHD-P3
: In case of the secure watermark image with uneven density

6) Check (T-shaped) halftone area of the output test print visually and adjust the area of uneven density.

6-1) Take a note to write down the values of the following service mode.
When the adjustment cannot be performed appropriately, these values are required to return to the initial values.

COPIER>FUNCTION>2D-SHADE>M-LINE1 (Level 2)
COPIER>FUNCTION>2D-SHADE>M-LINE2 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE1 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE2 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE3 (Level 2)
COPIER>FUNCTION>2D-SHADE>S-LINE4 (Level 2)

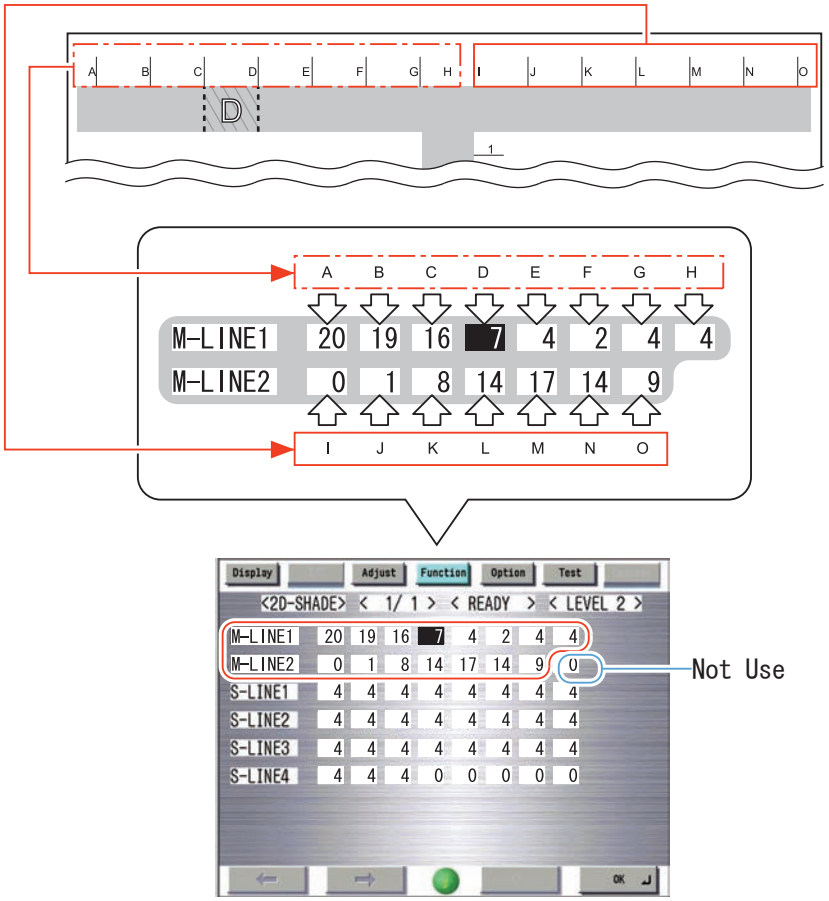
6-2) Adjust the target horizontal scanning direction (A to O) which uneven density is seen.
After selecting "M-LINE1/M-LINE2", select the target horizontal scanning window (A to O), and enter the numerical value using "numerical keypad".

COPIER>FUNCTION>2D-SHADE>M-LINE1 (Level 2) Horizontal scanning direction A to H
COPIER>FUNCTION>2D-SHADE>M-LINE2 (Level 2) Horizontal scanning direction I to O

CAUTION:

- Be sure to switch the screen after entering the value. Unless the screen is switched, the numerical value is not reflected. (Actually, the value is not reflected on the screen, but it is retained internally.)
- When the horizontal scanning direction (H line) is adjusted, the adjustment value of the vertical scanning direction (1 to 27) is also changed.
- Be sure to make adjustment in order of horizontal and vertical scanning directions. If the adjustment is executed in the inverse order, it may not be executed correctly.
- Entering 96 or larger value can generate an error in potential control (E061). In the case of an error, adjust the setting value between 0 and 95.

As the value is larger, the density becomes lighter. As the value is smaller, the density becomes darker.
Enter the adjustment value in a unit of +/- 30 gradually, output the test pattern and make adjustment while checking the test pattern. If the value is changed dramatically, the image error (while line) may occur.



F-6-11

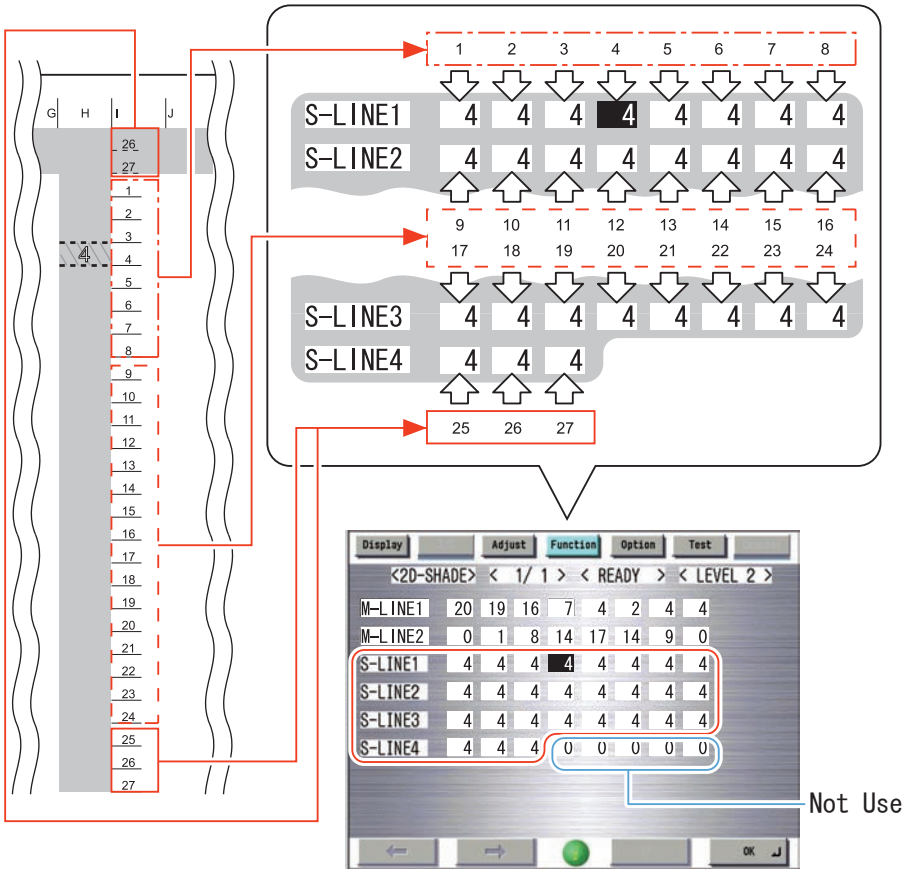
6-3) After the adjustment, output a test print and check the image.
When uneven density is seen: Go to 6-4).
When uneven density is not seen: Procedure is ended.

6-4) Adjust the target vertical scanning direction (1 to 27) which uneven density is seen.
After selecting "S-LINE1 to 4", select the target vertical scanning window (1 to 27), and enter the numerical value using "numerical keypad".

COPIER>FUNCTION>2D-SHADE>S-LINE1 (Level 2) Vertical scanning direction 1 to 8
COPIER>FUNCTION>2D-SHADE>S-LINE2 (Level 2) Vertical scanning direction 9 to 16
COPIER>FUNCTION>2D-SHADE>S-LINE3 (Level 2) Vertical scanning direction 17 to 24
COPIER>FUNCTION>2D-SHADE>S-LINE4 (Level 2) Vertical scanning direction 25 to 32

CAUTION:
- Be sure to switch the screen after entering the value. Unless the screen is switched, the numerical value is not reflected. (Actually, the value is not reflected on the screen, but it is retained internally.)
- When the vertical scanning direction (25 and 26 lines) is adjusted, the adjustment value of the horizontal scanning direction (A to P) is also changed.

As the value is larger, the density becomes lighter. As the value is smaller, the density becomes darker.
Enter the adjustment value in a unit of +/- 30 gradually, output the test pattern and make adjustment while checking the test pattern. If the value is changed dramatically, the image error (while line) may occur.



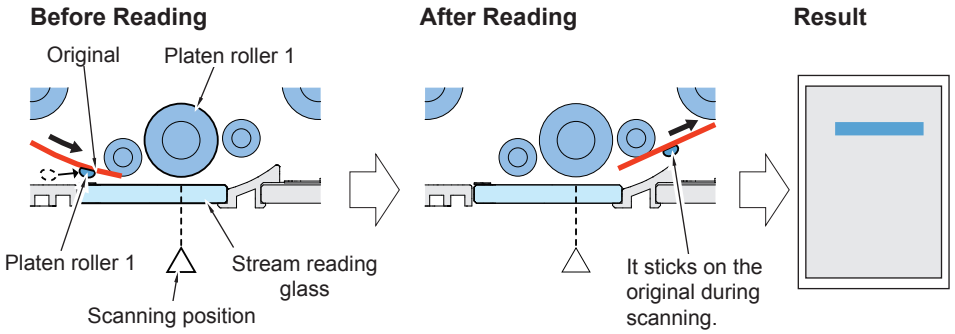
F-6-12

6-5) After the adjustment, output a test print and check the image to complete the procedure.

CAUTION:
If the image cannot be adjusted correctly even with this adjustment procedure, reenter the values written in step 6-1.

ADF black line

Image processing has been improved with this equipment, which applies optimal image processing to the text part and the photo part respectively. Improvement in image processing, however, highlights imperceptible dusts at the original scanning position, which may appear as a line on the image.



F-6-13

[Location]
ADF

[Cause]
At stream reading with the ADF, imperceptible dusts (paper dust, toner, dust, etc.) adhere and remain at the original scanning position, which causes a black line on the original image. (Occurrence frequency is roughly 3/10,000 of scanning documents)
The dusts causing a black line are delivered outside the ADF together with the scanning original; therefore, there will be no black line with the next original.

[Remedy]
Changing the setting value in the following service mode improves the problem of a black line.

COPIER > ADJUST > AE > AE-TBL: Text density adjustment when adjusting image density
Setting value: Change the default (5) to 3

COPIER > OPTION > IMG-MCON > SHARP: Setting of the sharpness level on the image
Setting value: Change the default (3) to 1

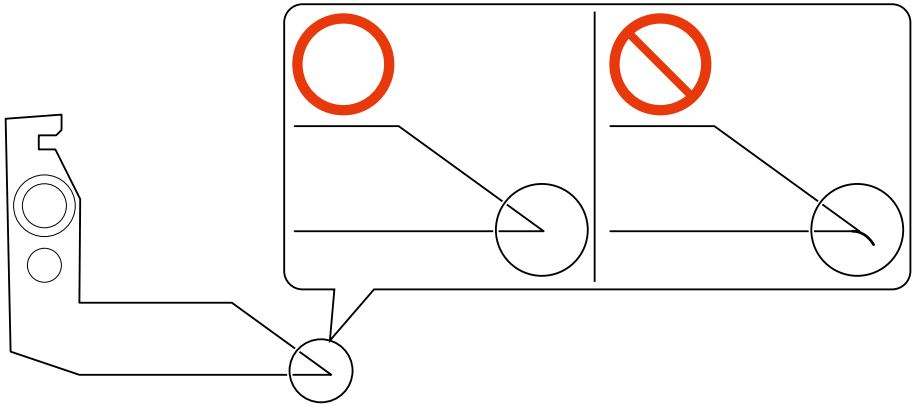
COPIER > OPTION > USER > PH-D-SL2: Setting of the halftone processing in text/photo mode
Setting value: Change the default (0) to 2

CAUTION:
When performing a field remedy, remind that the scan result changes as follows:

- Scanning of light halftone base is skipped (to be scanned as white color)
- Blur text outline due to reduced edge emphasis level with the text
- Photo part appears coarsely

Separation Failure Jam due to Deformation of Separation Claw

[Location]
Drum Separation Claw
[Cause]
When the paper enters to the drum at separation failure, the Separation Claw may be deformed. When the Separation Claw is deformed, the paper is easily caught by the leading edge of the Separation Claw when the paper (especially curled paper) is fed, and a jam (Jam Code: 0205) is likely to occur.



F-6-14

[Condition]
Job after a jam which occurs when the paper enters to the drum
When using curled paper (when using backside of printed paper, etc.)

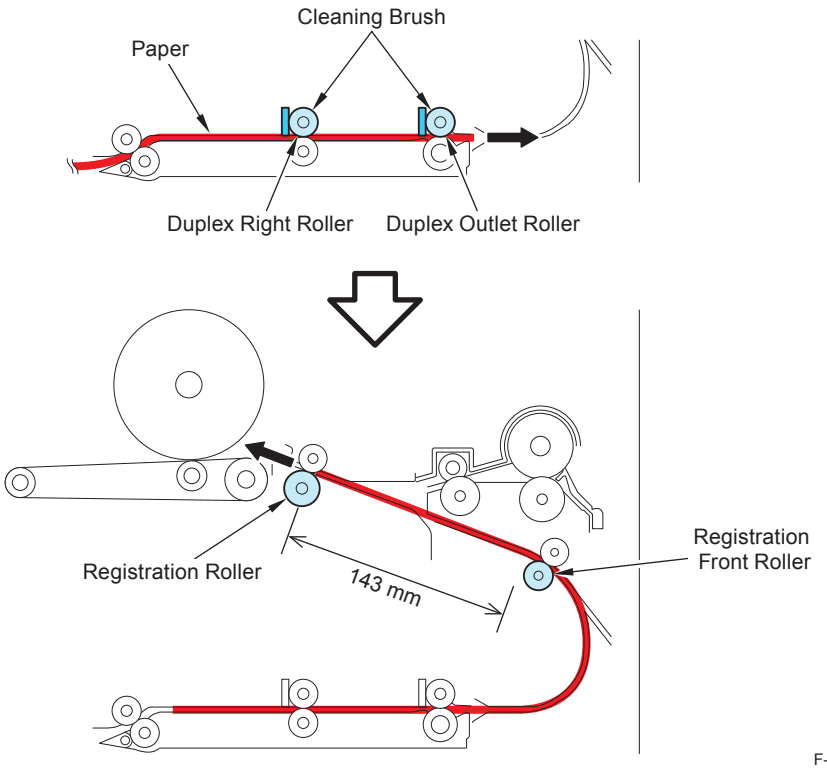
[Field Remedy]
Replace the Separation Claw.

NOTE:
Replace the Separation Claw when a separation failure jam occurs even once..

Image error due to soil attached to the Cleaning Brushes for the Duplex Right Roller and the Duplex Outlet Roller

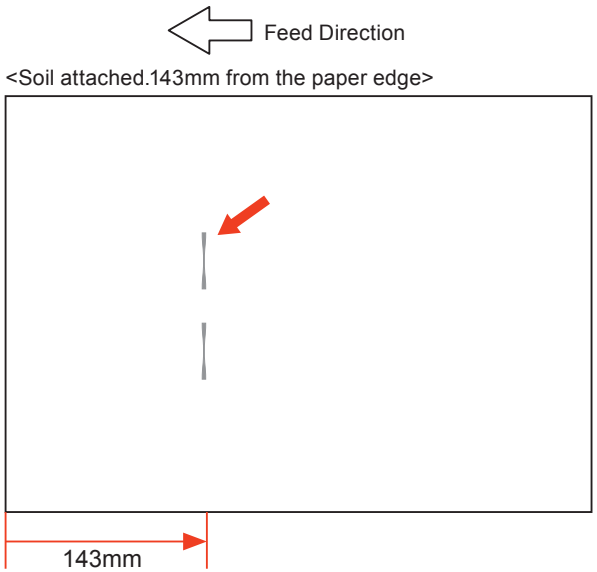
[Location]
Fixing Feed Unit
[Cause]
Soil attached to the 4 Cleaning Brushes contacting the Duplex Right Roller and the Duplex Outlet Roller

[Condition]
When soil is attached to the 4 Cleaning Brushes contacting the Duplex Right Roller and the Duplex Outlet Roller, paper is fed with minor soil (paper dust and toner) attached to it, and the soil is gradually attached to the Registration Front Roller. When the paper stops at the time of registration, the rotating Registration Front Roller contacts the paper, which causes two trails of soil of the roller width at 143mm from the paper edge.



F-6-15

[Image Sample]



F-6-16

[Field Remedy]

Follow the following procedure to replace the Cleaning Brushes contacting the Duplex Right Roller and the Duplex Outlet Roller and clean the relevant parts.

<Preparation>

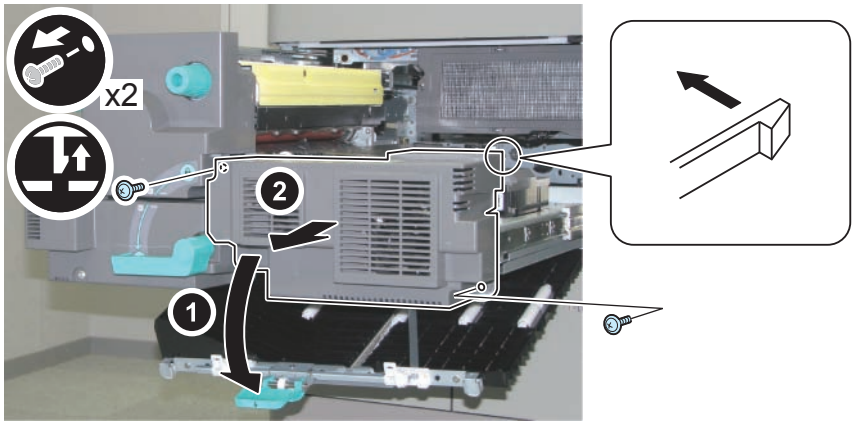
Remove the Registration Unit. (See Chapter 4, "Removing the Registration Unit.")

<Procedure>

1) Open the Duplex Path.

2) Remove the Fixed Feed Cover 1.

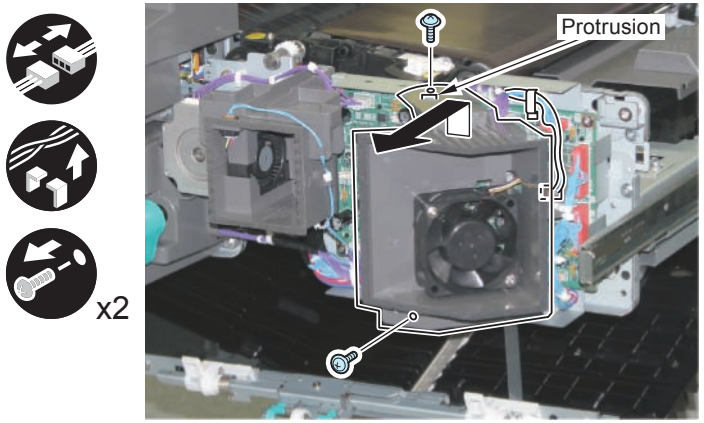
- 2 Screws
- 1 Claw



F-6-17

3) Remove the right side Duct.

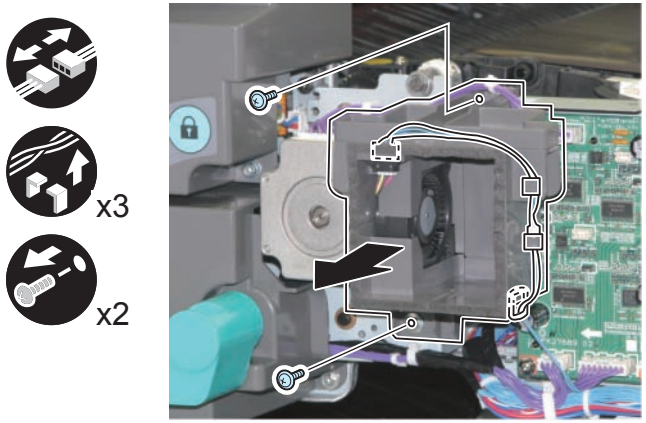
- 1 Connector
- 1 Wire Saddle
- 2 Screws
- 1 Protrusion



F-6-18

4) Remove the left side Duct.

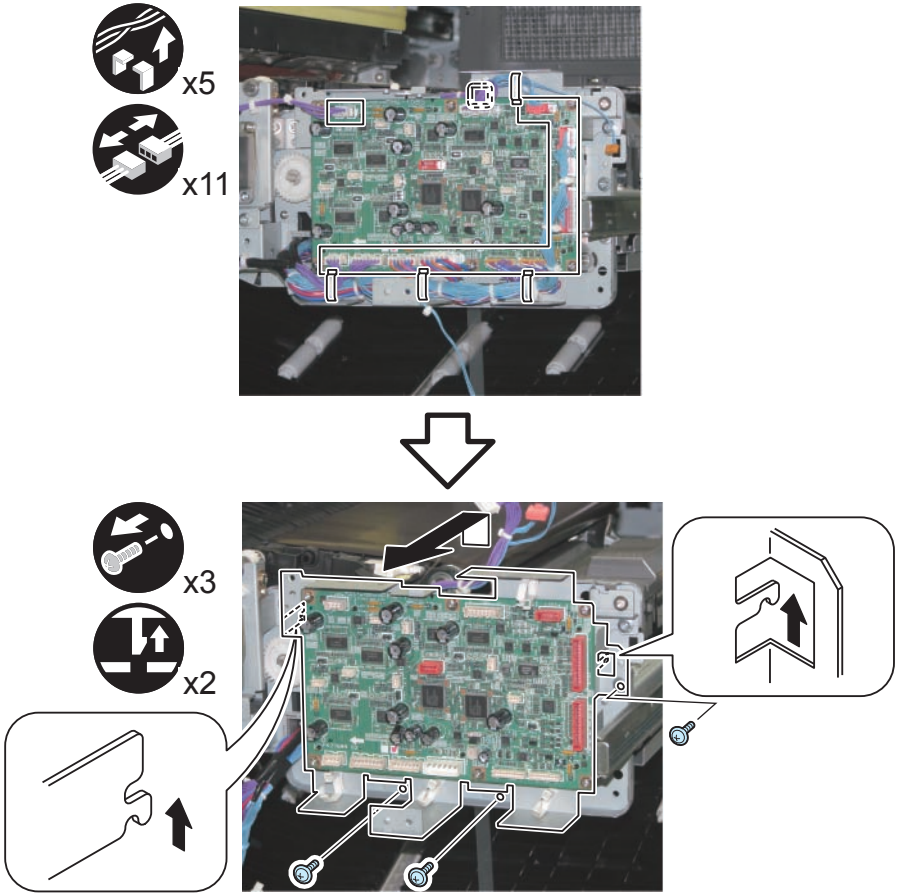
- 1 Connector
- 2 Harness Guide
- 1 Wire Saddle
- 2 Screws



F-6-19

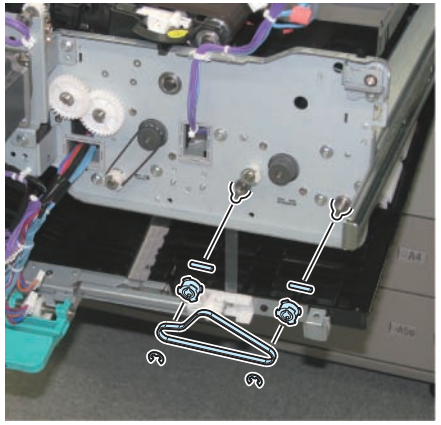
5) Remove the Duplex Driver PCB and the Mounting Base.

- 4 Wire Saddles
- 1 Edge Saddle
- 11 Connectors
- 3 Screws
- 2 Claws



F-6-20

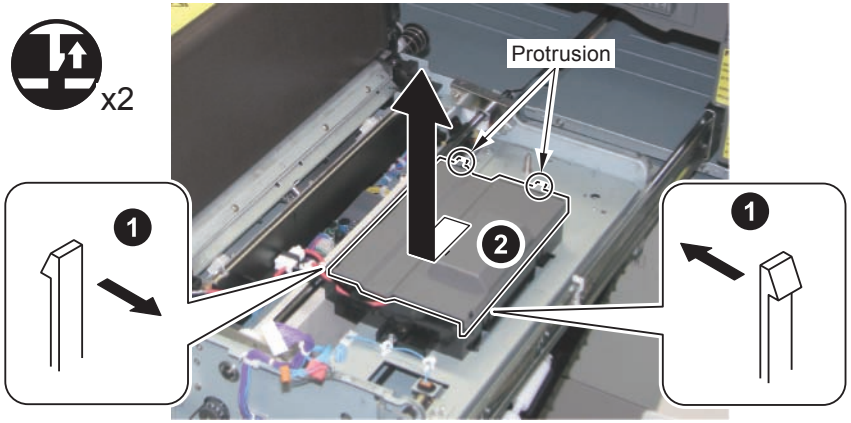
6) Remove the following parts.
- 2 E-rings
- 1 Timing Belt
- 2 Pulleys
- 2 Parallel Pin



F-6-21

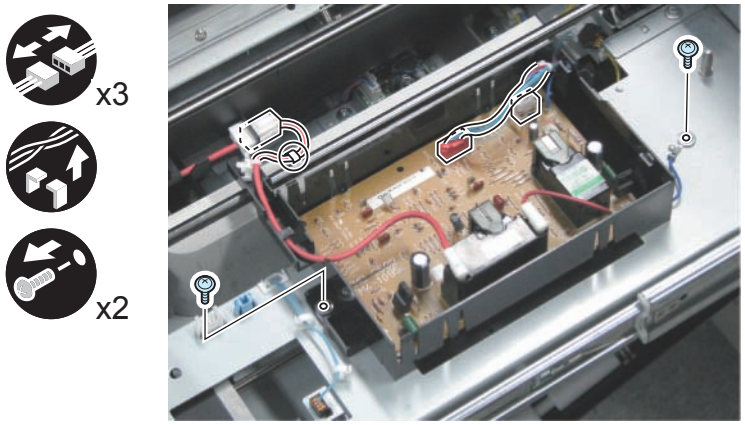
7) Lift the ETB Unit in the direction of the arrow.

8) Free the 2 claws, and remove the Transfer High Voltage PCB Unit Upper Cover in the direction of the arrow.
- 2 Protrusions



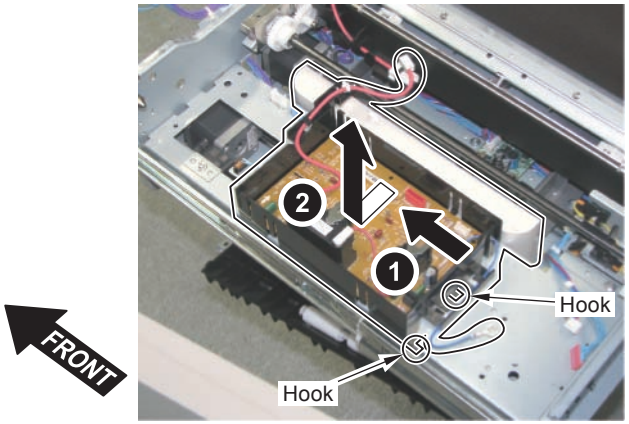
F-6-22

9) Remove the following parts.
- 3 Connectors
- 1 Wire Saddle
- 2 Screws



F-6-23

10) Remove the Transfer High Voltage PCB Unit in the direction of the arrow.
- 2 Hooks

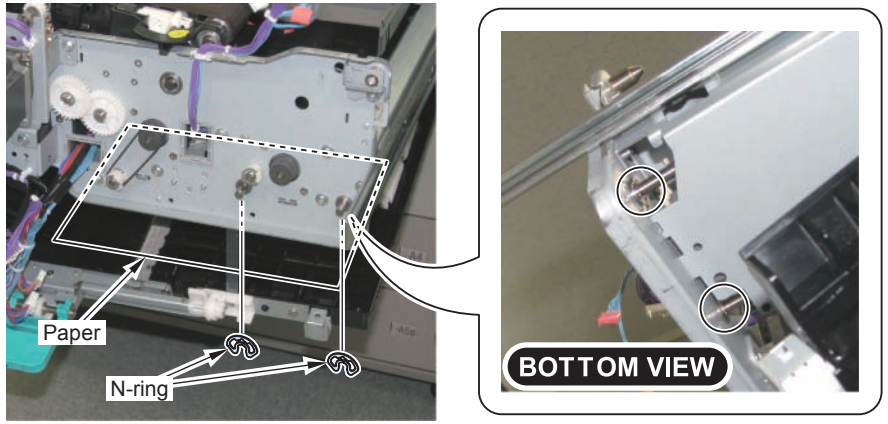


F-6-24

11) Place a sheet of paper on the Duplex Path, and remove a N-ring each from the Duplex Right Roller and the Duplex Outlet Roller.

CAUTION:

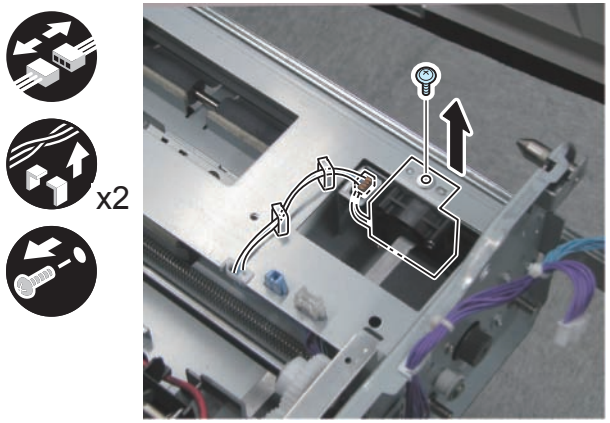
Be sure to place a sheet of paper on the Duplex Path because paper dust drops during the following work.



F-6-25

12) Remove the Fan Unit.

- 2 Wire Saddles
- 1 Connector
- 1 Screws



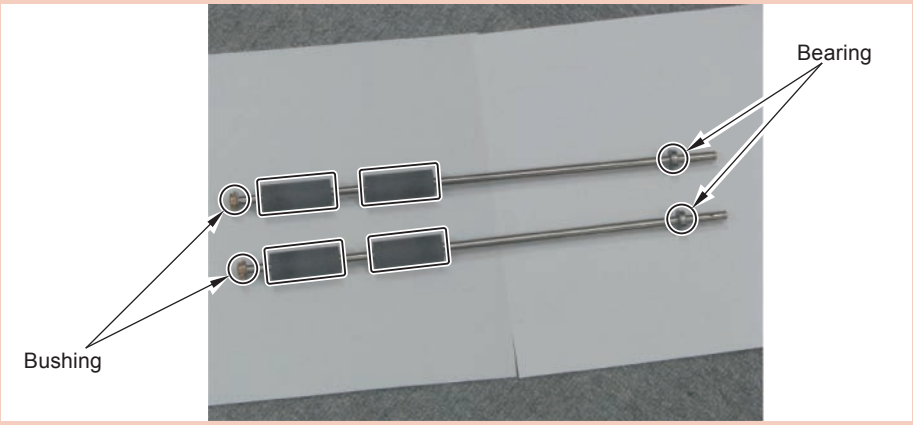
F-6-26

13) Pull out the Duplex Right Roller and remove the shaft at the rear.

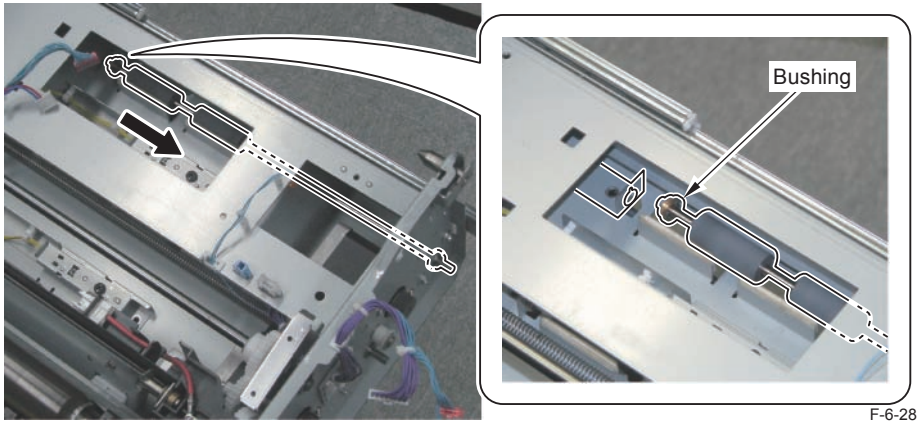
NOTE:
In this procedure, the procedure for removing the Duplex Right Roller is shown in steps 13 and 14. When removing the Duplex Outlet Roller, check the installation position in step 15 and remove the Duplex Outlet Roller by a similar procedure.

CAUTION: Points to Caution at Work

- Be careful not to damage the surfaces of the Duplex Right Roller and the Duplex Outlet Roller.
- The bearing at the front and the bushing at the rear of the Duplex Right/Duplex Outlet Roller are not fixed, so be careful not to drop them.

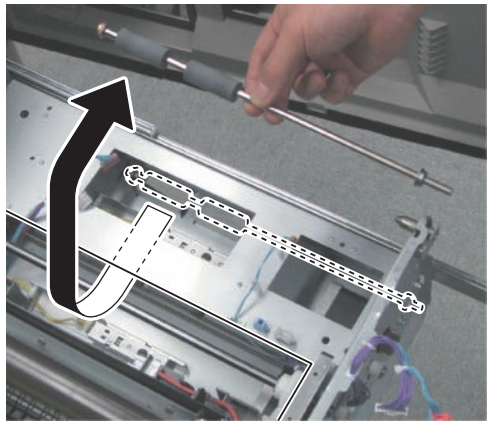


F-6-27



F-6-28

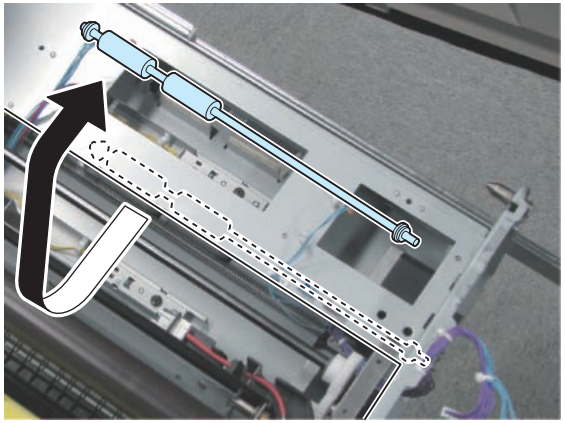
14) Move the Duplex Right Roller toward the rear and remove the shaft from the Fixing Feed Unit Side Plate. Then, move the Duplex Right Roller in the direction of the arrow and take it out from the opening on the top of the Fixing Feed Unit.



F-6-29

15) Remove the Duplex Outlet Roller in a similar procedure referring to the procedure for removing the Duplex Right Roller in steps 13 and 14.

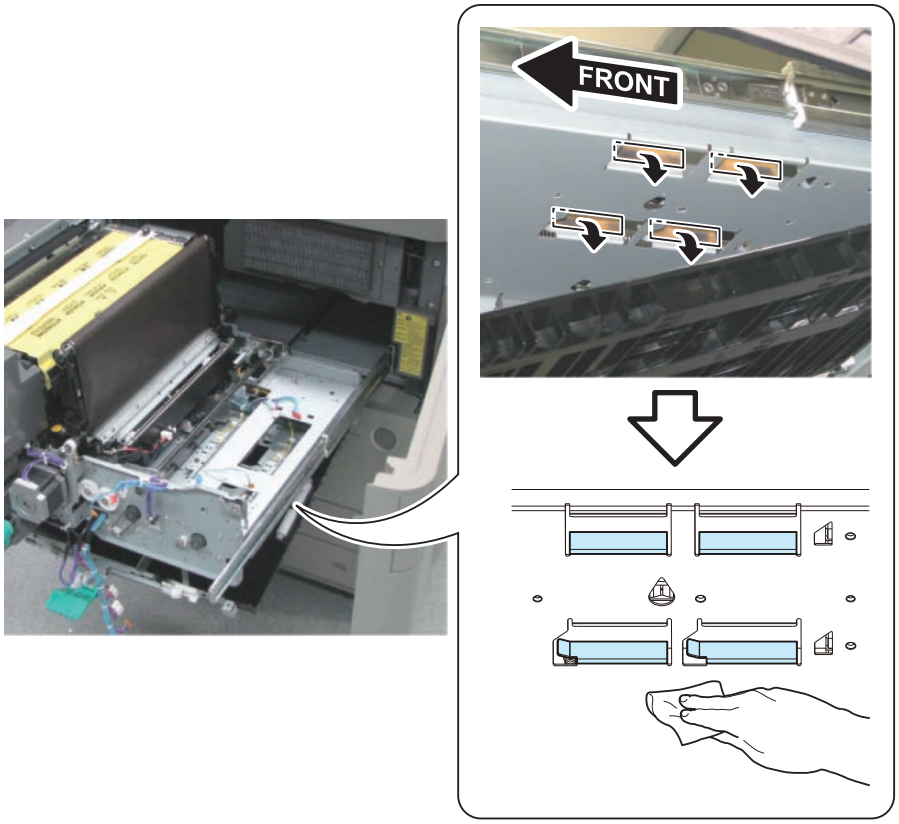
NOTE:
The installation position of the Duplex Outlet Roller is shown in the following figure.



F-6-30

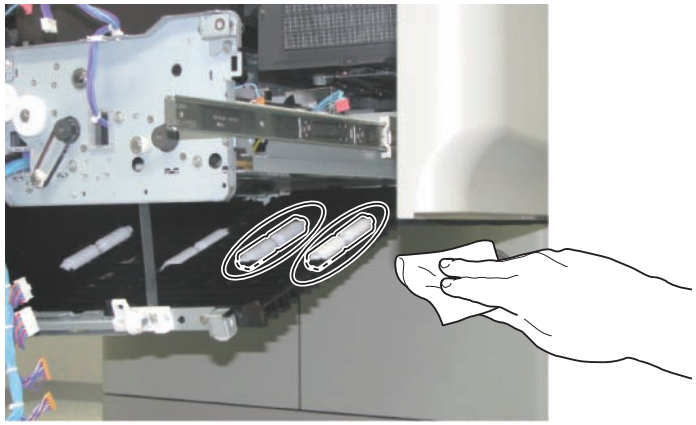
16) Remove the 4 Cleaning Brushes contacting the Duplex Right Roller and the Duplex Outlet Roller.

17) Clean the four areas where the Cleaning Brushes are attached with lint-free paper moistened with alcohol.



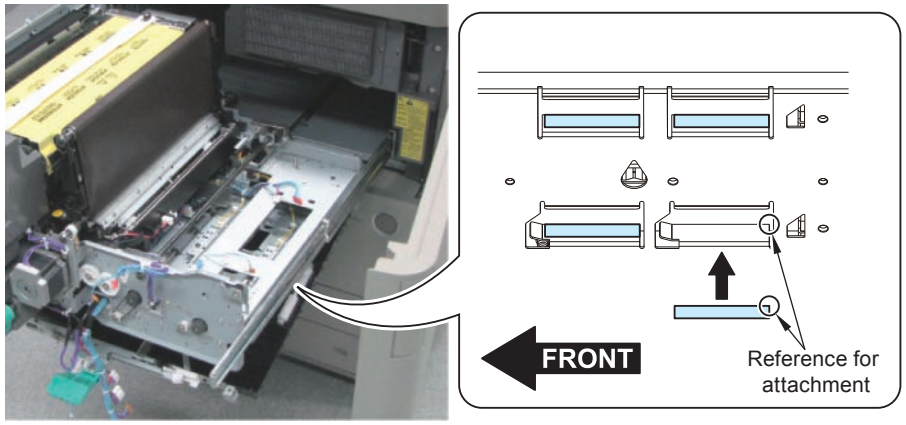
F-6-31

18) Remove the paper on the Duplex Path, and clean the entire perimeter of each of the 4 rollers with lint-free paper moistened with alcohol while rotating the roller by hand.



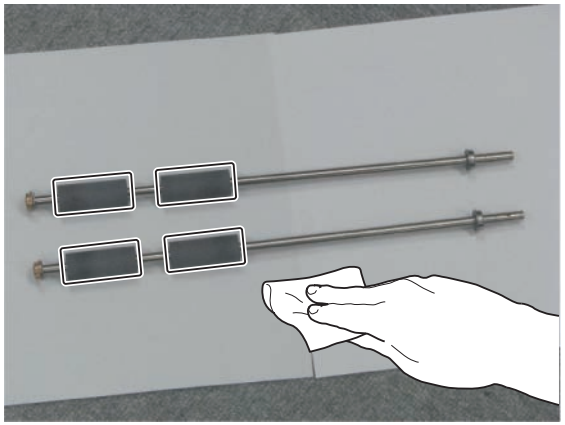
F-6-32

19) Attach new 4 Cleaning Brushes with reference to the upper right of the plate where they are going to be attached.



F-6-33

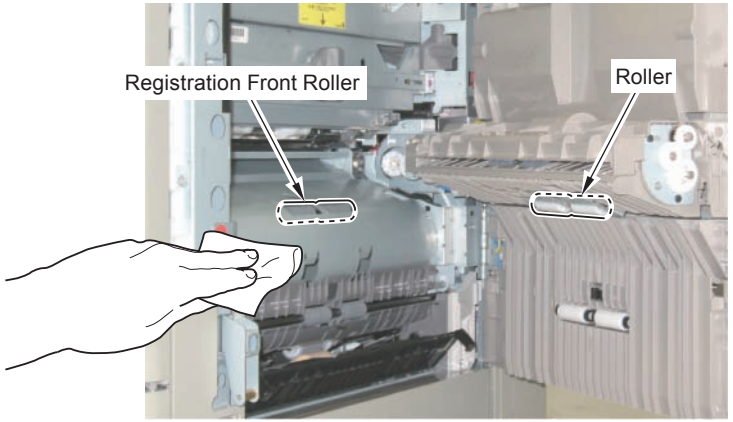
20) Clean the four areas on the removed Duplex Right Roller and the Duplex Outlet Roller with lint-free paper moistened with alcohol.



F-6-34

21) Install the removed parts in reverse order.
22) Open the Right Door.
23) Open the Right Lower Cover.
24) Clean the entire perimeter of each of the 2 rollers and Registration Front Roller with lint-free paper moistened with alcohol while rotating the roller by hand.

CAUTION:
When rotating the roller by hand, be sure not to touch the surface of the roller but to hold a side face.

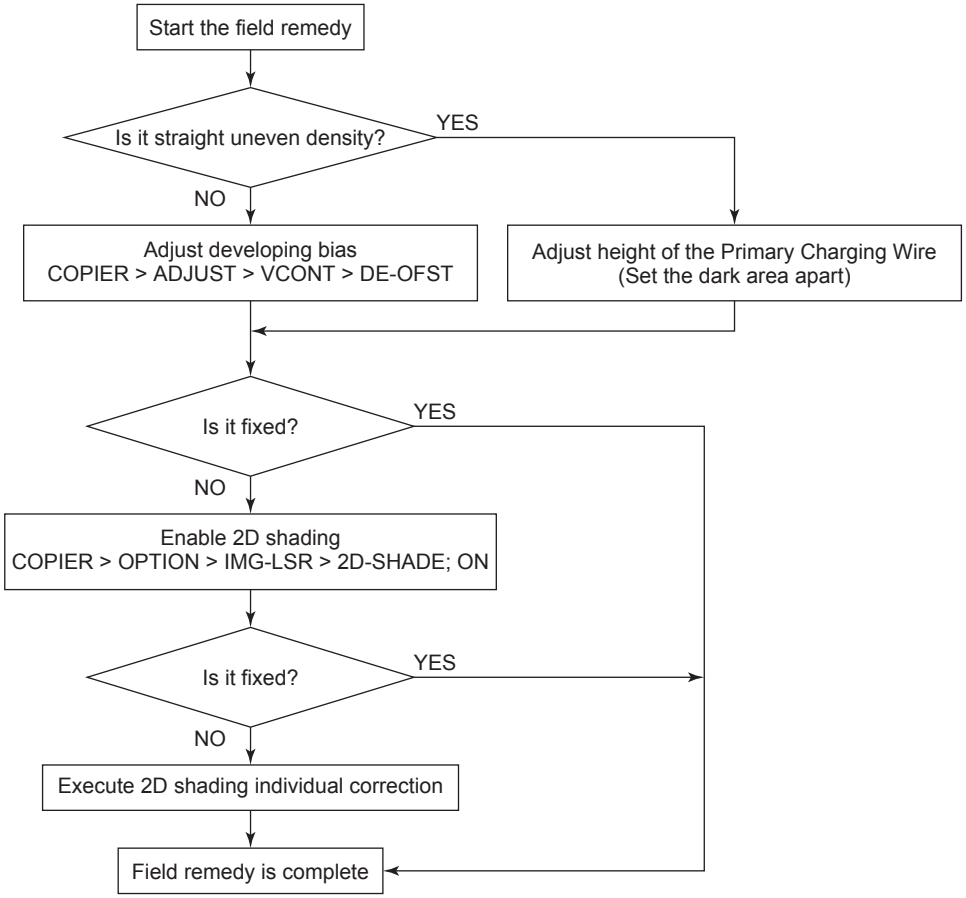


F-6-35

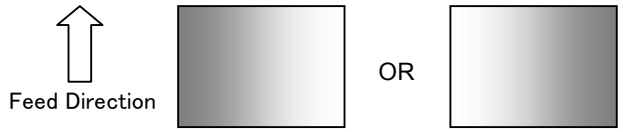
Uneven density

[Cause]
Uneven density occurs on the image because of uneven developing performance or change in drum characteristics due to wear.

[Field Remedy]

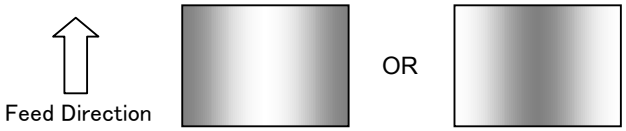


F-6-36



F-6-37

In the case of dark/light image at either the left or right side on the image in horizontal direction, adjust height of the Primary Charging Wire and check the output result. When making adjustment, execute the work while keeping the wire at dark area apart.



F-6-38

If it is not a straight uneven density, change the value of the following service mode in decrement of -10 and check the output result.
COPIER > ADJUST > VCONT > DE-OFST
(Setting value: default 0, -10, -20, …-50)

CAUTION :
Executing the above setting can generate smeared image or foggy image.

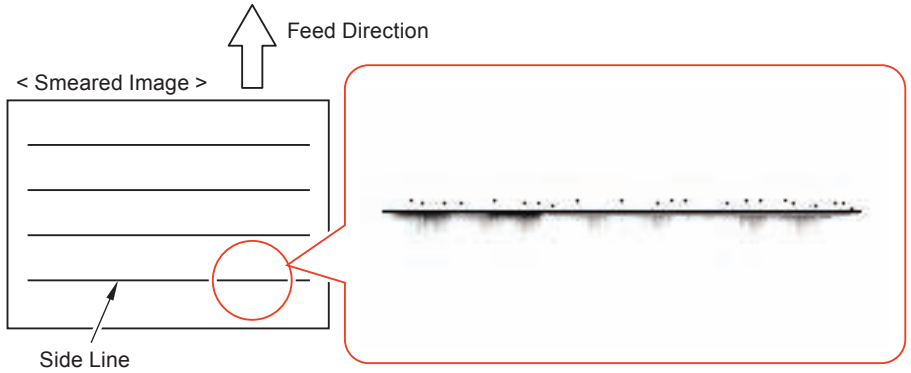
After switching the mode to enable 2D shading in the following service mode, turn OFF/ON the main power and check the output result.
(For detailed procedure, see “Troubleshooting > Uneven density correction by 2D shading > Step 1) to 3) (Refer to page 6-7)
COPIER > OPTION > IMG-LSR > 2D-SHADE Setting value: 1 (ON)

Output the test pattern for 2D shading and adjust the uneven density area individually.
(For detailed procedure, see “Troubleshooting > Uneven density correction by 2D shading > Step 4) to 5) (Refer to page 6-7)

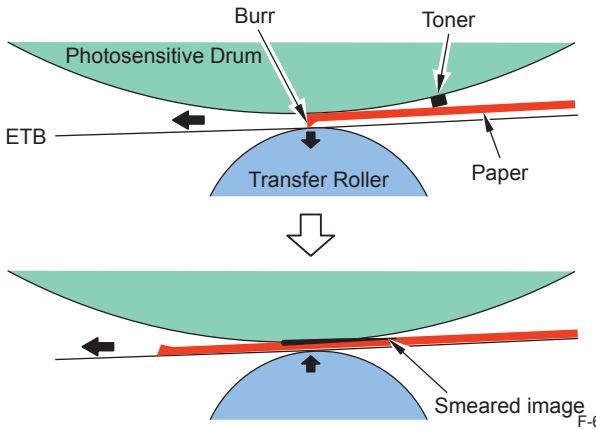
Smeared image

[Cause]
Excess toner is transferred on the paper that causes toner collapse at the time of fixing, which can generate smeared image on the image. The following are assumed causes of smeared image:

- When the paper type is changed
- Toner deterioration
- Rapid change in environment (High temperature <- -> Low temperature)

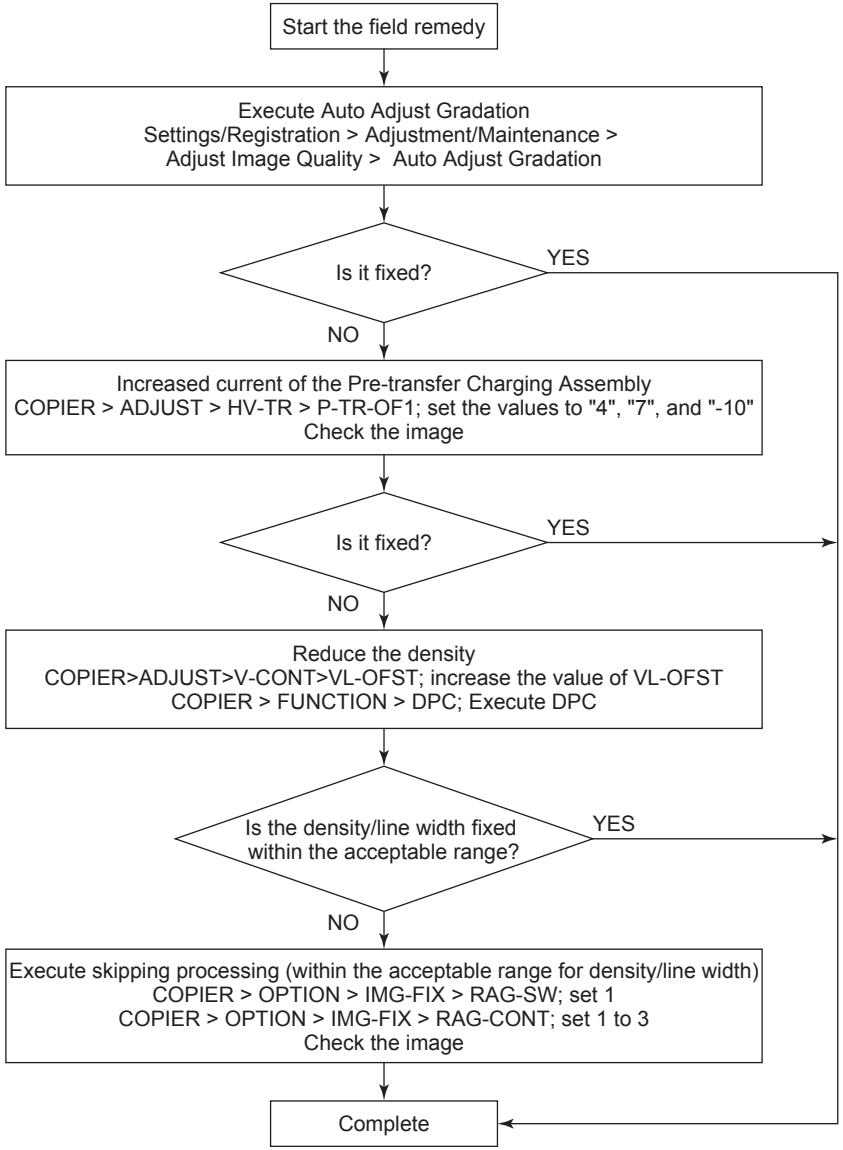


Smeared image may also occur exclusively in the area 5 to 10 mm from the leading edge of the paper when there is burr on the leading edge of the paper (jagged edge formed when the paper was cut by a cutter).
It is caused by toner being pushed backward by the power of the ETB, which is pushed down by the burr when it passes through the transfer nips, to go back to the original position.



F-6-39

[Field Remedy]



F-6-40

Select the following: “Settings/Registration > Adjustment Maintenance > Adjust Image > Auto Adjust Gradation; and check the output result.

1) In COPIER > ADJUST > HV-TR > P-TR-OF1, set the values to "4", "7", and "-10" in that order from the left, and check the output result.

> CAUTION :
> Executing the above setting may cause the Pre-transfer Charging Wire to be easily soiled. Be sure to check for soiling of the Charging Wire at the time of inspection since heavy soiling may cause vertical lines to occur on the rear side of the image.

1) COPIER > ADJUST > V-CONT > VL-OFST; set the value of VL-OFST to 10
2) Select the following: COPIER > FUNCTION > DPC; execute DPC and then check the output result.
3) If the symptom is not improved, further increase the value in step 1) to 20, 30…and then execute step 2).

> CAUTION :
> Changing the above setting can cause reduced density or thinner line

If the smeared image is not improved within the acceptable range for density and line width, execute skipping process in the following procedure:

1) COPIER > OPTION > IMG-FIX > RAG-SW; change the value to 1
2) COPIER > OPTION > IMG-FIX > RAG-CONT; change to 1 and check the output result.
3) If the symptom is not improved, change the value in step 2) to 2, 3…and check the output result.

> CAUTION :
> Changing the above setting can cause minor skipping in the text part.

Adjusting the Edge Emphasis Level

The edge emphasis level of image can be adjusted in both user mode and service mode, but the use conditions differ.

	User mode	Service mode
Item code	Other Functions > Sharpness	COPIER> OPTION> IMG-MCON> SHARP
Operator	User	Service technician
Purpose	To make adjustment for each original to be copied	To set the central value of edge emphasis to control individual variability or environmental change during transportation/after installation.
Text/photo area	Individual	Batch
Setting range	-3 to +3 level	1 to 5
Default value	0 level	3
Setting value at power OFF/ON or at reset	Canceled (Default value can be retained.)	Retained

T-6-8

The following table shows the edge emphasis level by the combination of "SHARP" and "Sharpness" settings, using the relative value when the default is 100.

		User mode "Sharpness"						
		-3	-2	-1	0	+1	+2	+3
Service mode "SHARP"	1	25	40	50	60	100	140	175
	2		45	65	85	115	145	
	3		50	75	100	125	150	
	4		55	85	115	135	155	
	5		65	100	140	150	160	

T-6-9

Images become smoother as values in the table become smaller, while they become sharper as values become larger.
Note that, when "Sharpness" is the upper limit or lower limit, the relative value stays constant regardless of the "SHARP" setting, therefore the edge emphasis effect does not change even if the settings are changed.

Normally, adjustment is made for each copy on the Touch Panel based on the service mode setting, but depending on the environment or paper type (coarse surface, etc.), edge emphasis may not turn out the way the user expected.
In this case, edge emphasis level customized for the user can be set by setting the current value of "Sharpness" as the default value.

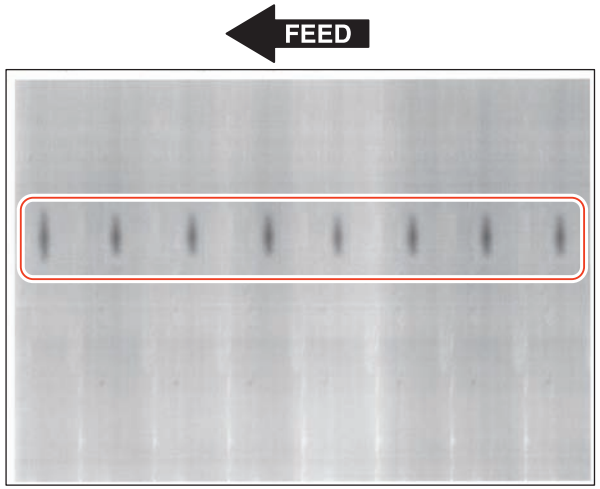
Example: In the case of the environment where the relative value "135" is suitable as the default value.

1) Set "SHARP" to "4".
2) Set "Sharpness", which is set to "+1" level, as the default in the user mode (Function Settings > Copy > Change Default Settings).

Soiling at an interval equal to the circumference of the Developing Sleeve

[Location]
Developing Sleeve

[Cause]
If the surface of the sleeve is soiled, uneven toner coating occurs, causing the soiling of the same shape to appear at intervals equal to the circumference of the sleeve (approx. 53 mm) in the vertical scanning direction.



F-6-41

[Field Remedy]
1) Rotate the sleeve in the normal direction and identify the location where the soiling occurs.

> CAUTION:
> Do not turn the sleeve in the reverse direction.

2) Remove the toner found at that location using a blower, etc.

> CAUTION:
> If toner is dry wiped instead of removed, it may be fixed on the surface of the sleeve.

3) Wipe the surface of the sleeve with dry lint-free paper.

> CAUTION:
> Do not use water or alcohol.

4) Execute service mode > COPIER > TEST > PG > TYPE to output a halftone image (PG12), and check the image.
If white spots occur, go to step 5.
5) Execute service mode > COPIER > FUNCTION > MISC-P > DEV-ROT.
6) Check the image.
If the white spots persist, execute step 5 again.

> CAUTION:
> Heavy use of DEV-ROT can result in deterioration of developer or toner scattering.

MTF Adjustment

The MTF value of the Reader Unit may differ from the factory setting value depending on the condition of transportation/storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, readjust the MTF value by reading the MTF adjustment chart at installation as needed.

○: Need adjustment, -: Not need adjustment

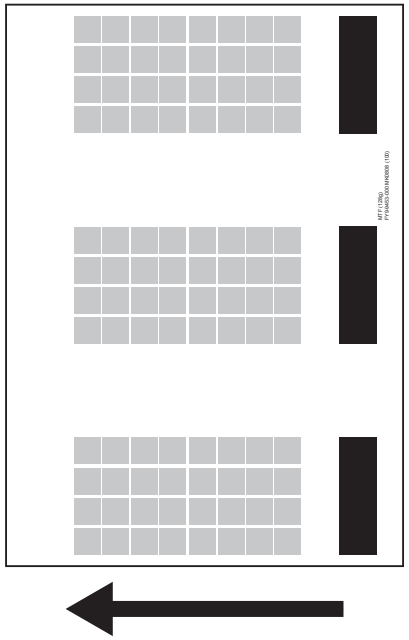
Series	Model	MTF Adjustment Type					
		Copyboard reading		Front side stream reading		Back side stream reading	
		Color	B&W	Color	B&W	Color	B&W
imagePRESS 1135/1125/1110 Series	Simultaneous duplex reading *1	-	-	-	-	-	-
imageRUNNER ADVANCE C5051/C5045/ C5035/C5030 Series	Copyboard reading	○	-*2	-	-	-	-
	Reverse duplex reading	-	-	○	-	-	-
	Simultaneous duplex reading	-	-	○	○	○	○
imageRUNNER ADVANCE C9075 PRO/9070 PRO/9065 PRO/ 9060 PRO/C7065/7055 Series	Reverse duplex reading	-	-	○	○	-	-
	Simultaneous duplex reading	-	-	○	○	○	○
imageRUNNER ADVANCE 8105/8095/8085 Series	Simultaneous duplex reading	-	-	○	○	○	○
imageRUNNER ADVANCE 6075/6065/6055 Series	Reverse duplex reading	-	-	○	○	-	-
	Simultaneous duplex reading	-	-	○	○	○	○

T-6-10

*1: Respond by another adjustment (Refer to the Service Manual).
*2: In the case of using a simultaneous duplex reading model as a copyboard model, B&W adjustment is also required.

Adjustment Procedure

1) Obtain the MTF adjustment chart.



F-6-42

NOTE:
The end with a dark color square will be the trailing edge at reading. When adjusting the copyboard reading, place the chart on the Copyboard Glass to make the dark color square comes at the right side.

2) Set the MTF adjustment chart.

Description of adjustment	Location to set the chart
Copyboard reading	Copyboard Glass
Front side stream reading	DADF Document Pickup Tray
Back side stream reading	DADF Document Pickup Tray (turn over the chart when setting)

T-6-11

3) Execute sampling of the MTF value.

Description of adjustment	Color/B&W	(Lv.1) COPIER > FUNCTION > MISC-R >
Copyboard reading	Color	CLM-PLTN
	B&W	BWM-PLTN
Front side stream reading	Color	CLM-DF1
	B&W	BWM-DF1
Back side stream reading	Color	CLM-DF2
	B&W	BWM-DF2

T-6-12

NOTE:
In the case of executing sampling of the MTF value several times, execute in arbitrary order.

4) During the adjustment, “START” is indicated, and once it is terminated normally, “OK!” is indicated.
At abnormal termination, “NG1 to 3” is indicated.

NOTE:
If “NG1 to 3” is indicated, check the location to set the chart and direction of the chart, and then executed the adjustment again.

5) Check that the initial setting of the MTF value is set to “1”.

Description of adjustment	Color/B&W	(Lv.1) COPIER > FUNCTION > MISC-R >
Copyboard reading	Color	CLPLT-EN
	B&W	BWPLT-EN
Front side stream reading	Color	CLDF1-EN
	B&W	BWDF1-EN
Back side stream reading	Color	CLDF2-EN
	B&W	BWDF2-EN

T-6-13

NOTE:
- The initial value of the MTF value is updated by switching the Control Panel screen.
- After the adjustment, the corresponding MTF value is corrected.
  (Lv.1) COPIER > ADJUST > CCD > MTF-xx, MTF2-xx
- When replacing the Reader Controller PCB or the Scanner Unit, check the initial value of the MTF value. If the value is “1”, it will be necessary to execute the adjustment.

6) Print the image with moiré, and check that moiré is not appeared on the image.
If moiré appears, make a fine adjustment.

When Making Fine Adjustment After Sampling the MTF Value

1) Set the MTF value for fine adjustment to “1”.

Color/B&W	(Lv.1) COPIER > FUNCTION > MISC-R >
Color	CLM-TGT
B&W	BWM-TGT

T-6-14

NOTE:
The MTF value for fine adjustment can be set only after executing sampling of the MTF value.

2) Recalculate the MTF filter coefficient.

(Lv.1) COPIER > FUNCTION > CCD >
MTF-CLC

T-6-15

3) Print the image with moiré, and check that moiré is not appeared on the image.
If moiré appears, determine the image quality by asking the user to compare the images before adjustment, after sampling of the MTF value, and after making a fine adjustment.

4) If using the MTF value after sampling as the MTF value, set the MTF value for fine adjustment to “0” and recalculate the MTF filter coefficient.
If using the MTF value before the adjustment, it disables the MTF adjustment.

When Disabling the MTF Adjustment

1) By setting the initial setting of the MTF value to “0”, the MTF value is initialized to the factory setting value.

Description of adjustment	Color/B&W	(Lv.1) COPIER > FUNCTION > MISC-R >
Copyboard reading	Color	CLPLT-EN
	B&W	BWPLT-EN
Front side stream reading	Color	CLDF1-EN
	B&W	BWDF1-EN
Back side stream reading	Color	CLDF2-EN
	B&W	BWDF2-EN

T-6-16

Feed Faults

Paper wrinkle

<Location>

Fixing Roller, Pressure Roller

<Cause>

Right after the startup, temperature is different between the center and the edge of the Fixing Roller (temperature: center > edge).

Because a slippery solid black image does not match to the nip shape when it is fed, the center of paper is pulled toward the feeding direction, causing paper wrinkle.

<Condition>

Timing: Approx. 20 sheets immediately after the startup first time for the day

Paper size: Paper size larger than B4

<Field Remedy>

If 2 is set, control temperature is increased by performing idle rotation when printing to A3/LDR or larger size paper at the start of printing in a normal humidity/high humidity environment. Paper wrinkle which occurs at this time can be decreased, but first copy time becomes longer. In other cases, idle rotation is not performed.

If paper wrinkle occurs on paper larger than B4, increase the setting value from 2 in increments of 1 until paper wrinkle is alleviated.

If paper wrinkle occurs on B4 size paper, increase the setting value from 4 in increments of 1 until paper wrinkle is alleviated.

COPIER>OPTION>BODY>FX-WNKL

[Setting values]

0: OFF

1: OFF (Default)

2: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 10 seconds.

3: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 20 seconds.

4: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 10 seconds.

5: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 20 seconds.

6: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 30 seconds.

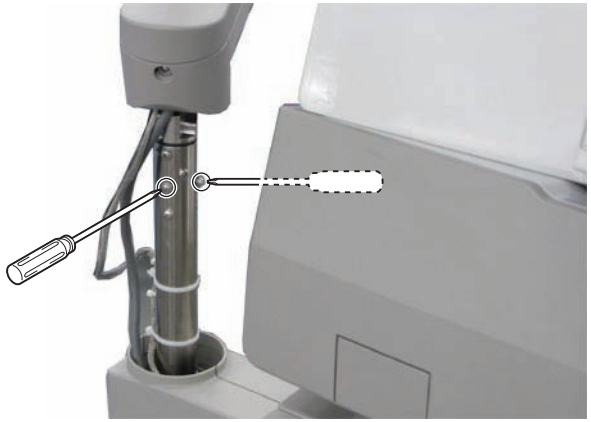
Other

Adjusting rotation of the Upright Control Panel Arm

If rotation of the Upright Control Panel Arm has become loose, retighten the Fixation Screws securing the Arm Rotation Adjustment Ring according to the following procedure.

<Procedure>

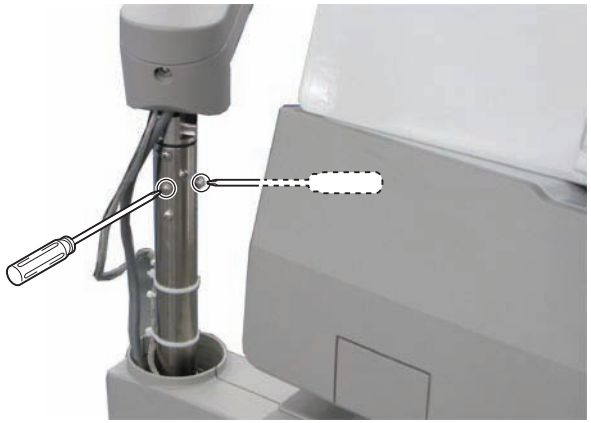
1) Remove the Shaft Support Cover (Left) and the Shaft Support Cover (Right).
2) Open the DADF and retighten the 2 Fixation Screws securing the Arm Rotation Adjustment Ring.



F-6-43

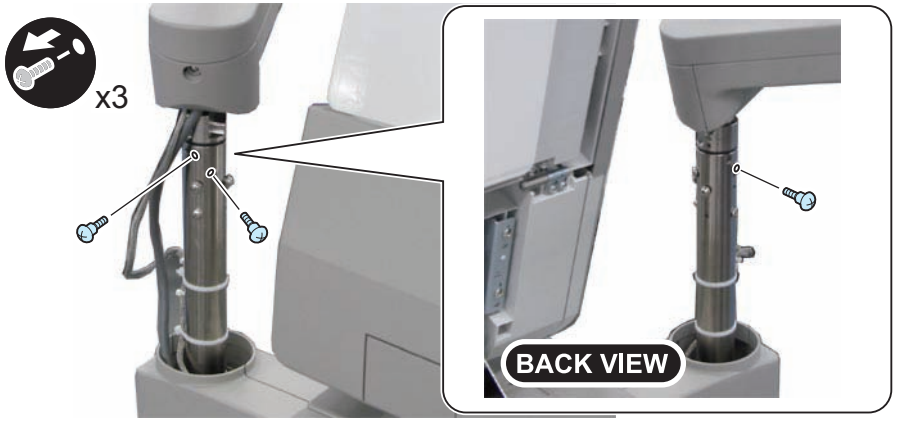
NOTE:
If rotation of the arm is still loose after retightening the Fixation Screws according to "●Adjusting rotation of the Upright Control Panel Arm", change the phase difference between the Arm Rotation Adjustment Ring and the Fixation Screws according to the following procedure.

1) Open the DADF and loosen the 2 Fixation Screws securing the Arm Rotation Adjustment Ring.



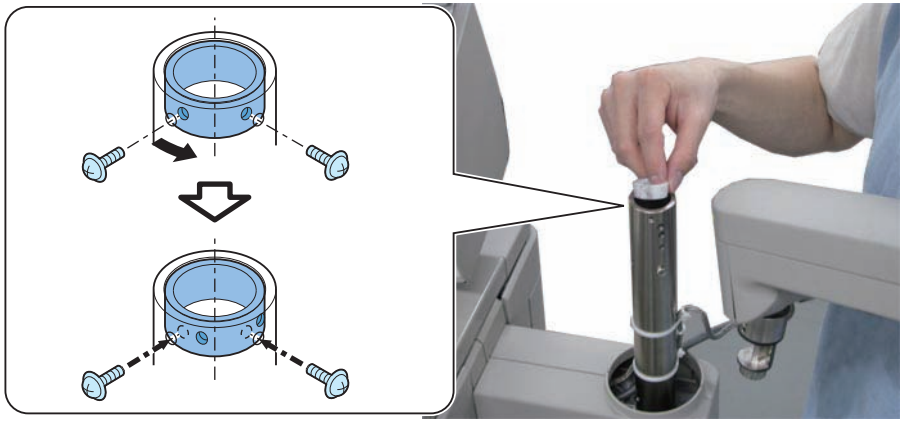
F-6-44

2) Remove the 3 Stepped Screws securing the Arm Shaft.



F-6-45

3) Pull out the Upright Control Panel and the Arm Shaft, and rotate the Arm Rotation Adjustment Ring to change the phase so that the Fixation Screws do not contact with the dents formed by tightening the screws.



F-6-46

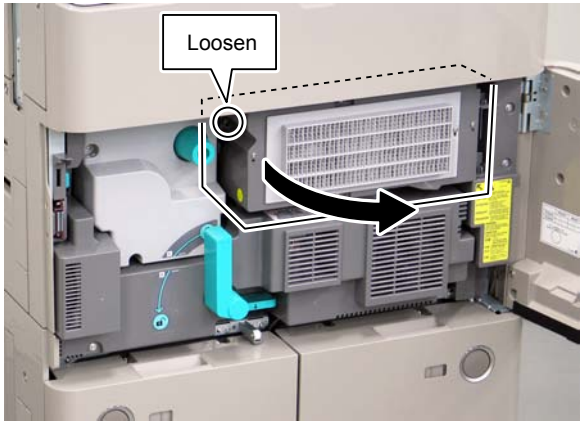
4) Insert the Upright Control Panel and the Arm Shaft, and retighten the 2 screws loosened in step 3.

Remedy to be implemented when the ETB Disengage Member (Transfer Frame Stopper) is left unremoved

When the power is turned ON after installation, E017-0003 may occur due to the ETB Disengage Member (Transfer Frame Stopper) left unremoved.
When this error occurs, the ETB Disengage Member (Transfer Frame Stopper) is caught between the ETB Unit and the plate of the machine and cannot be removed. Moreover, one side of the Photosensitive Drum is in contact with the ETB Unit, so pulling out the Fixing Feed Unit by sheer force may result in damage to the ETB Unit.
When the ETB Disengage Member (Transfer Frame Stopper) is left unremoved, follow the following steps to implement remedy.

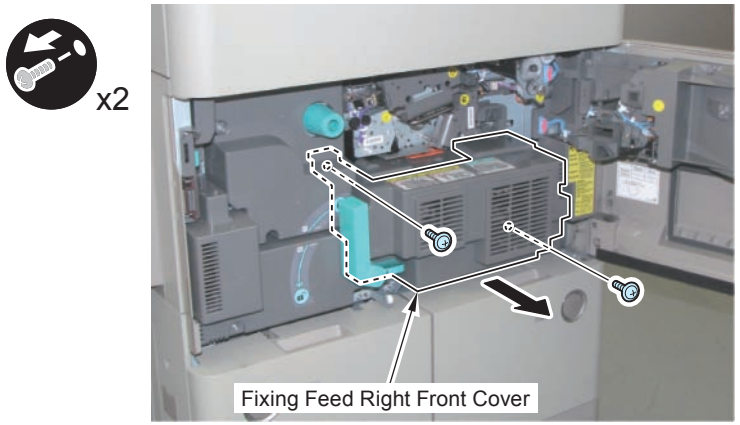
<Field Remedy>

1) Turn OFF the power.
2) Open the Inner Cover.



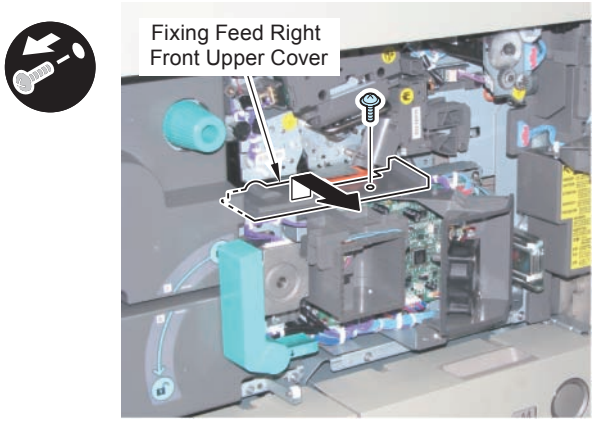
F-6-47

3) Remove the Fixing Feed Right Front Cover.
- 2 Screws



F-6-48

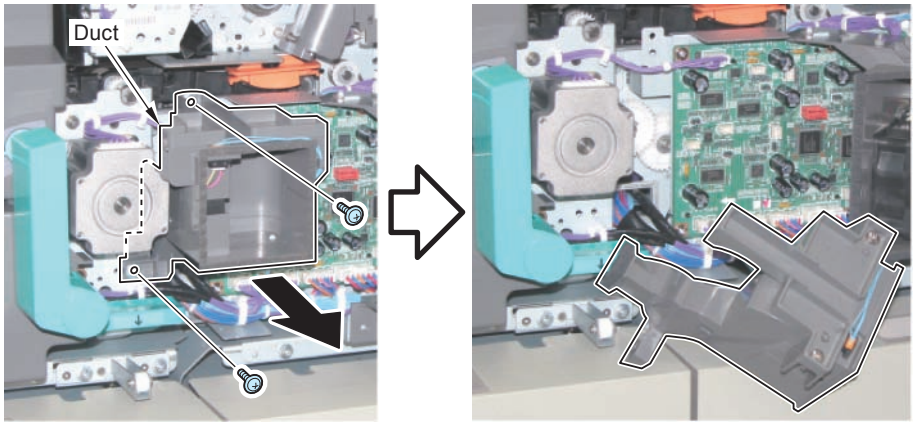
4) Remove the Fixing Feed Right Front Upper Cover.
- 1 Screw



F-6-49

5) Remove the Fan Duct.

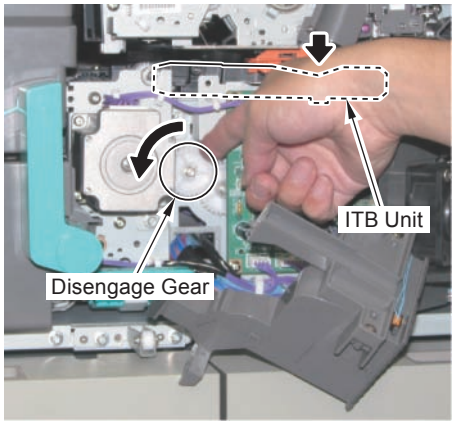
- 2 Screws



F-6-50

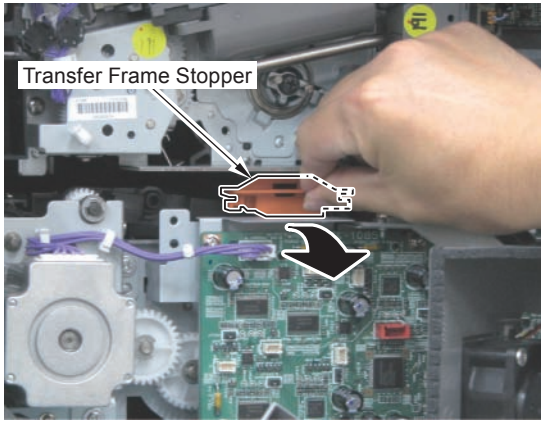
6) Rotate the Disengage Gear about 90 degrees counterclockwise by hand and lower the ITB Unit.

CAUTION:
The load of rotating the gear is heavy, so be careful not to get injured.



F-6-51

7) Remove the Transfer Frame Stopper.



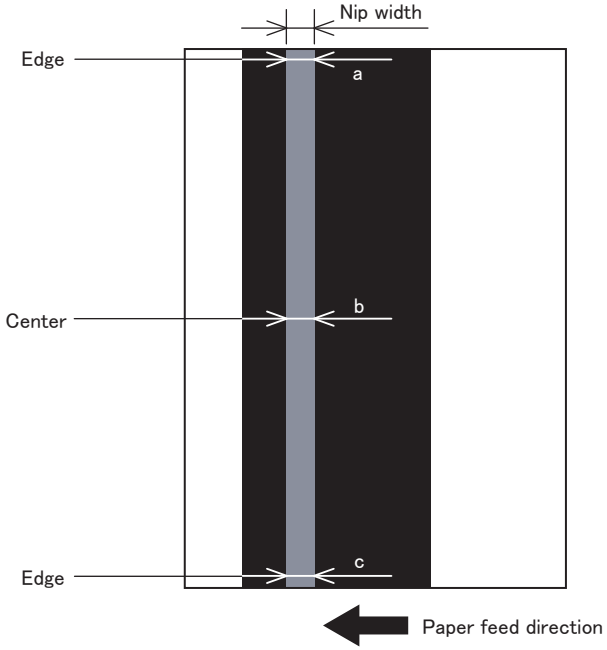
F-6-52

Checking nip width

In the case of paper wrinkle or fixing failure, check that the fixing nip width is within the specified range. Note that the fixing nip width of this equipment cannot be adjusted in the field.

1) Print approx. 20 sheets of A4 size paper.
2) Set A4 size plain paper/recycled paper on the Multi-purpose Tray.
3) COPIER > FUNCTION > FIXING > NIP-CHK
   A sheet is stopped once in a state held by the Fixing Nip area, and is delivered approx. 20 seconds later.
4) Measure the nip width of delivered sheet.
   If the nip widths are as follow it is judged as normal: 5.0 to 6.0 mm at the center (b), and difference between front (a) and rear (b) is within 0.5 mm.

In the case of failure, check if there are any damaged parts (*), and replace the damaged parts (if any).
* Gear, Bearing, Fixing Roller, Pressure Roller and Fixing Assembly



F-6-53

Controller Self Diagnosis

Introduction

Operation of the (2 types of) error diagnosis tools added to the main body and remedy for errors are described. These tools can reduce time to determine cause of errors occurred in field and improve the accuracy of specifying error locations.
This manual can be applied when the main body is placed in the following conditions.

- The main body does not boot. (In such a case that the Control Panel is not displayed or the progress bar does not work, etc.)
- An error is suspected to have occurred in the Main Controller PCB 1/2 and other related PCBs (child PCBs such as SDRAM or TPM mounted in the Main Controller PCB 1/2).

PCBs and units diagnosed by each tool are as follow:

Boot System Error Diagnosis Tool

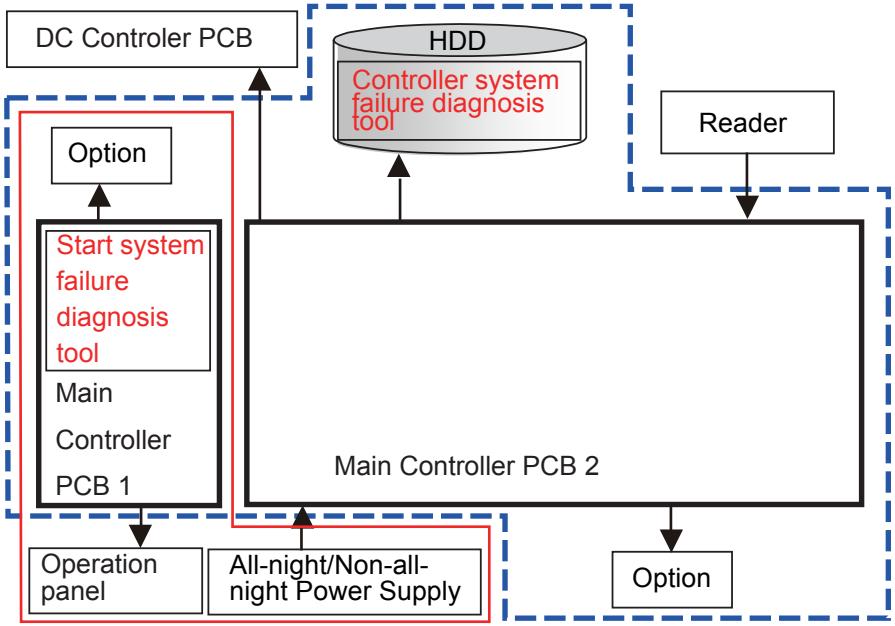
- Main Controller PCB 1 side <Main Controller PCB 1, SDRAM, FLASH Memory PCB>
- Control Panel
- All-night Power Supply, Non-all-night Power Supply

Controller System Error Diagnosis Tool

- Main Controller PCB 1 side <Main Controller PCB 1, SDRAM, TPM PCB>
- Main Controller PCB 2 side <Main Controller PCB 2, SDRAM, Memory PCB>
- HDD>

Overview

Two types of error diagnosis tools are installed in this machine, and stored in the locations shown below.



F-6-54

Boot System Error Diagnosis Tool covers the components shown in the red frame (solid line) in the figure. Controller System Error Diagnosis Tool covers the components shown in the blue frame (dotted line).

Boot System Error Diagnosis Tool

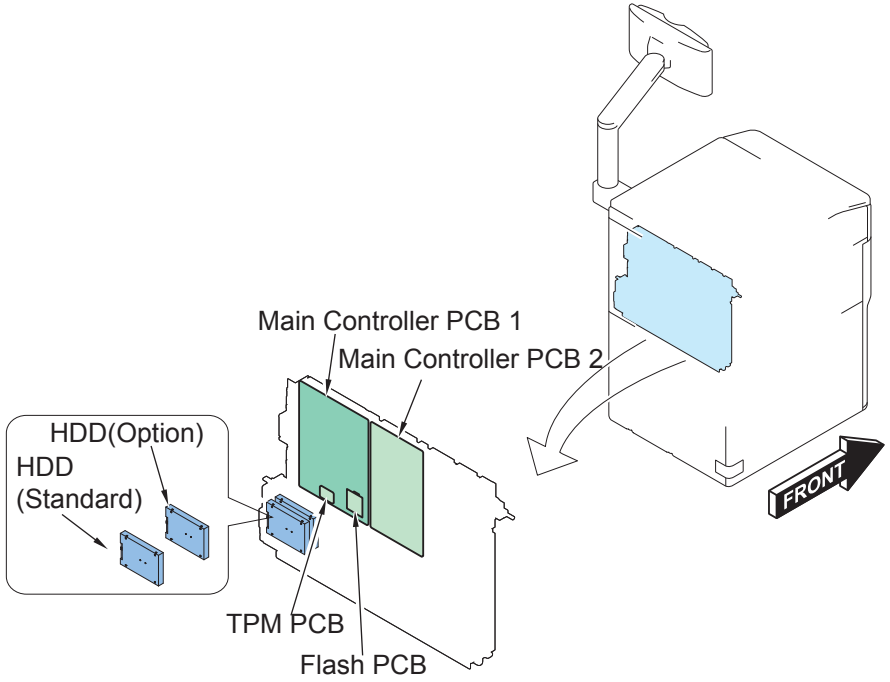
This tool automatically checks the Control Panel, Main Controller PCB 1, All-night Power Supply, and Non-all-night Power Supply, and notifies the result by the number of light-out and blinking interval of the lamp on the Control Panel.
This tool is installed in the ROM of Main Controller PCB 1.
Therefore, regardless the version of MN-CNT, this tool can be used even when an error occurs in child PCBs or when the Controller System Error Diagnosis Tool cannot be booted.

Controller System Error Diagnosis Tool

This tool automatically checks the Main Controller PCB 1/2, child PCBs mounted on the Main Controller PCB 1/2, and HDD, and display the result on the Control Panel.
This tool is installed in HDD.
Therefore, this tool cannot be used when an error occurred in HDD or HDD cannot be accessed.

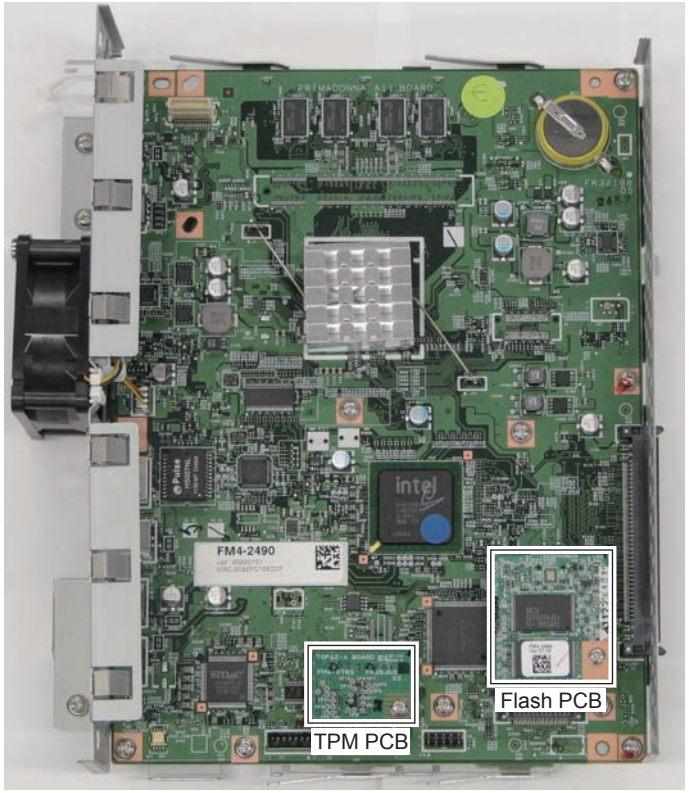
Layout Drawing

Layout Drawing of PCBs Subject to Diagnosis



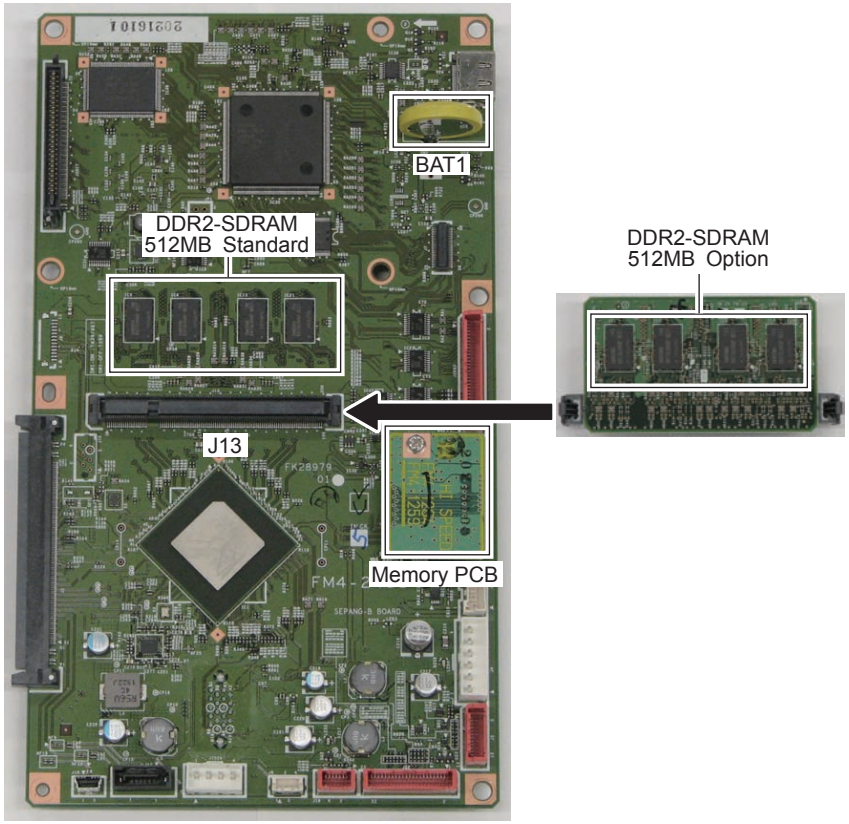
F-6-55

Main Controller PCB 1



F-6-56

Main Controller PCB 2

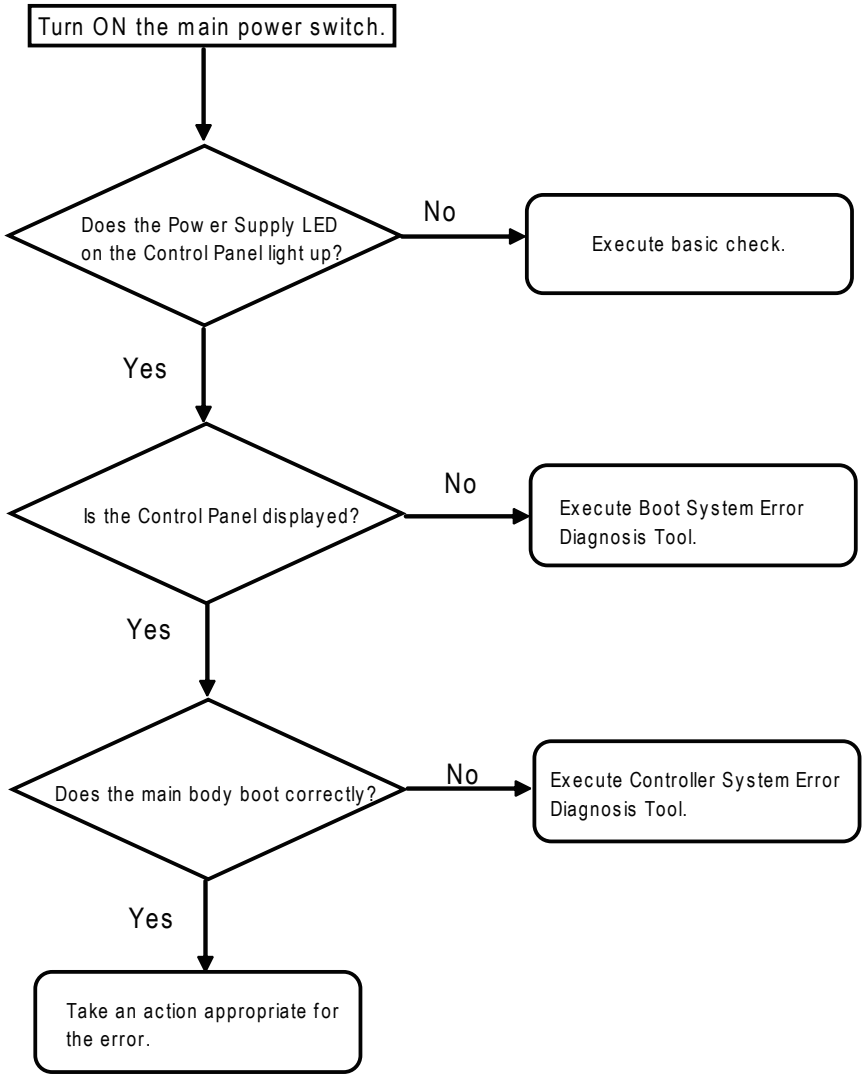


F-6-57

Basic Flowchart

Basic Check Items

Check all of the items shown below.



F-6-58

Basic Check Items

1. Check if the Leakage Breaker is turned OFF.
2. Check if the Power Supply Plug is disconnected.
3. Check if the Connection Cable between the Main Controller PCB 1 and Control Panel is disconnected.
4. Check if the Connection Main Controller PCB 1 and Main Controller PCB 2 definitely?
5. Check if the Connection An All-night Power Supply.

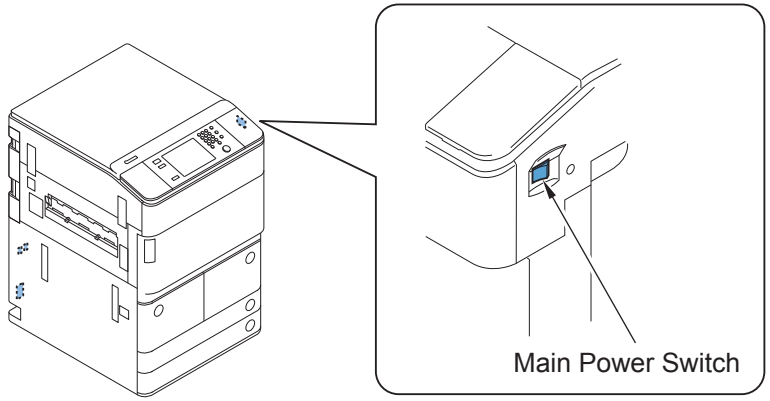
Operation

Operations of the two diagnosis tools are explained below.
Use each tool according to the following purposes.

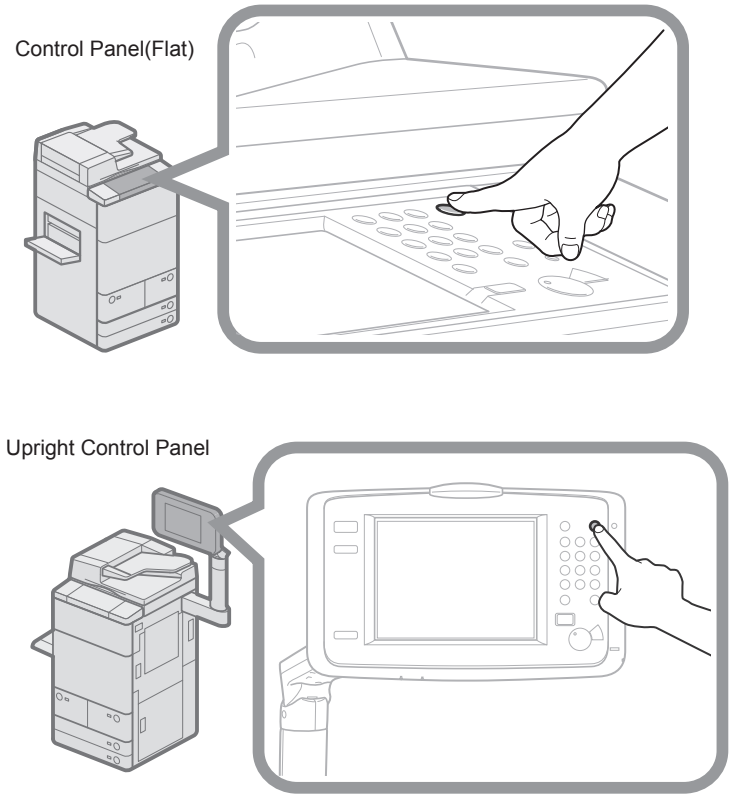
- When the main body does not boot (the Control Panel is not displayed): Execute Boot System Error Diagnosis.
- When an error is suspected to have occurred in the Main Controller PCB 1/2 or child PCBs mounted on the Main Controller PCB 1/2: Execute Controller System Error Diagnosis.

Boot System Error Diagnosis

1) Turn ON the Main Power Supply Switch while pressing the Control Panel Energy Saver Switch.

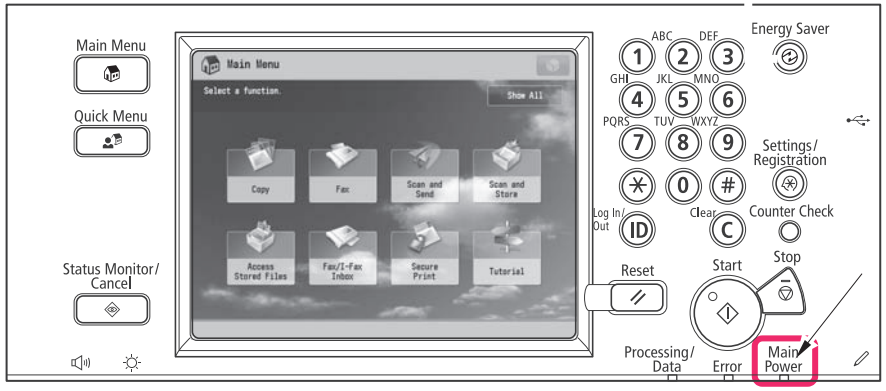


F-6-59



F-6-60

2) Right after the Main Power Supply Lamp lights up once, it lights out instantly, and diagnosis starts.
(When the Main Power Supply Lamp lights out, you can release your finger from the Control Panel Switch.)



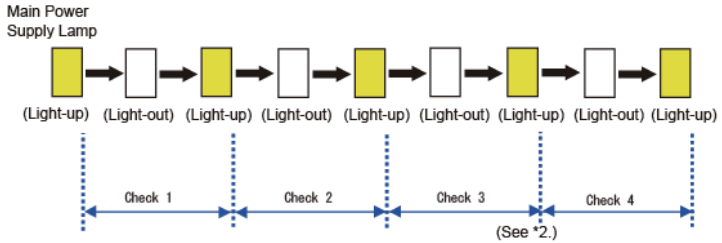
F-6-61

Diagnosis Time

Diagnosis is completed in approx. 1 minute.

<When the diagnosis result is normal>

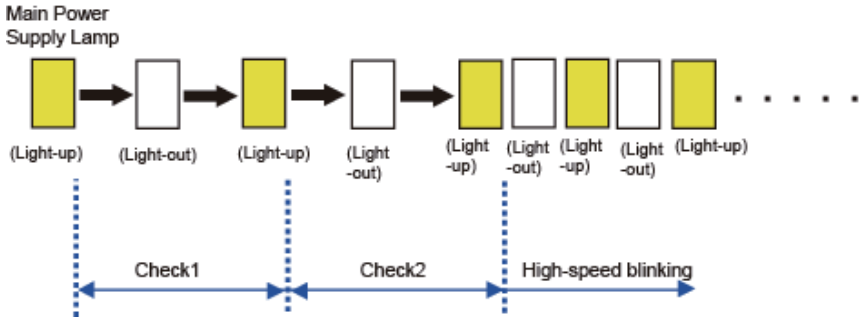
After the Main Power Supply Lamp repeatedly lights out 5 times, it lights up and the diagnosis is completed.
After completion of the diagnosis, this machine executes normal boot sequence.



F-6-62

<When an error is detected by diagnosis>

The Main Power Supply Lamp repeats high-speed blinking after completion of a check in which an error is detected. (See *1.)
For example, when an error is detected in Check 2, the Main Power Supply Lamp lights out twice and repeats high-speed blinking (ON/OFF in 0.3 seconds interval).
When an error is detected, be sure to count the number of times the Main Power Supply Lamp lights out.
For detailed results, see "Error Diagnosis".



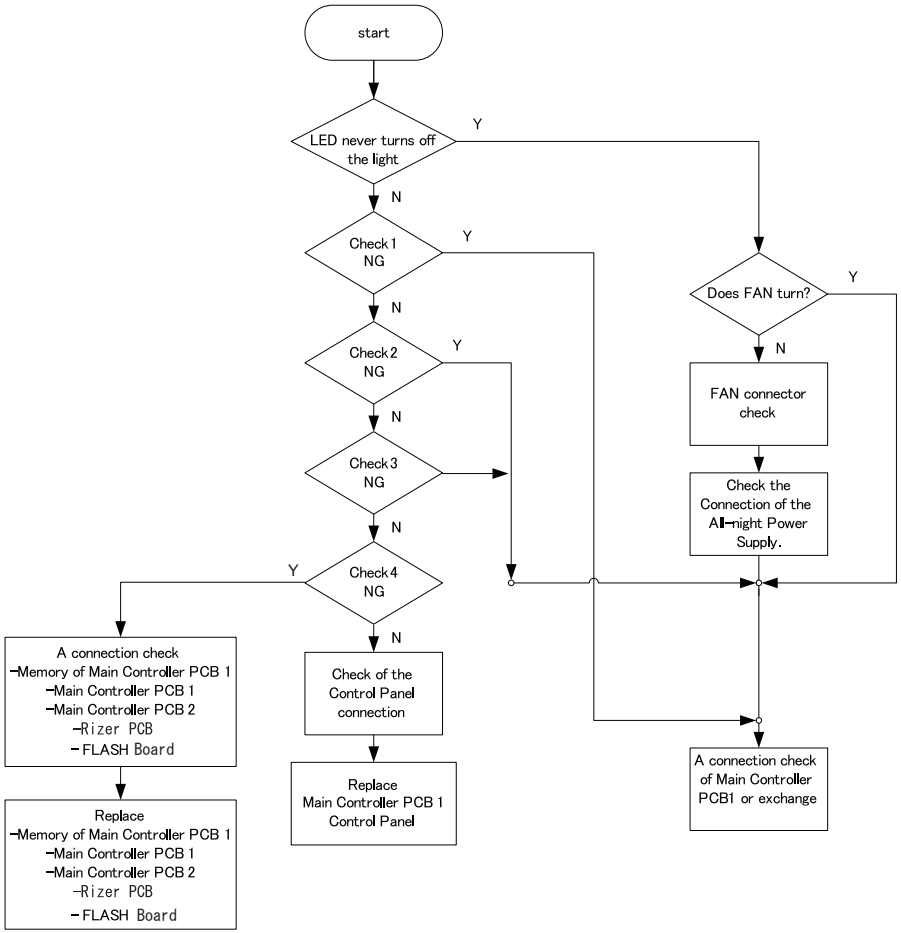
F-6-63

*1: When an error is detected, there is a possibility that the Main Power Supply Lamp may not perform high-speed blinking but perform other operation (continuous light-up, light-out). In this case, remove and then install the SDRAM on the Main Controller PCB 1.
If the error is not resolved, execute the remedy of the Check No. which is not completed normally. (For details, see "Error Diagnosis".)
*2: Although diagnosis time for Check 3, and Check 4 is longer than that of other Checks, it is correct operation.

Error Diagnosis

<Boot System Error Diagnosis Table>

The error locations are identified according to the following table.

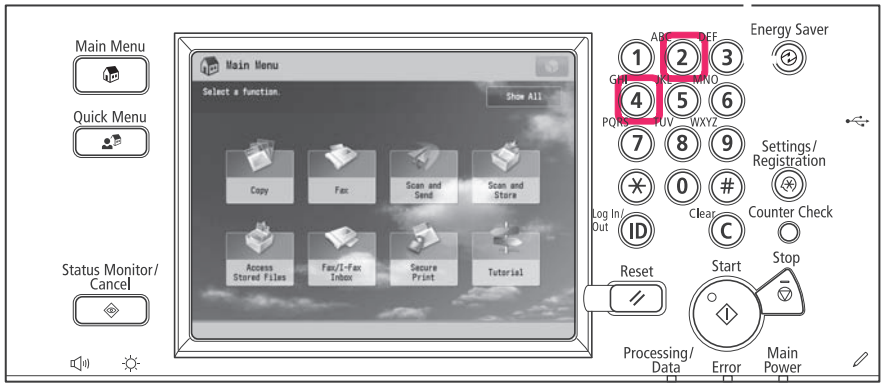


F-6-64

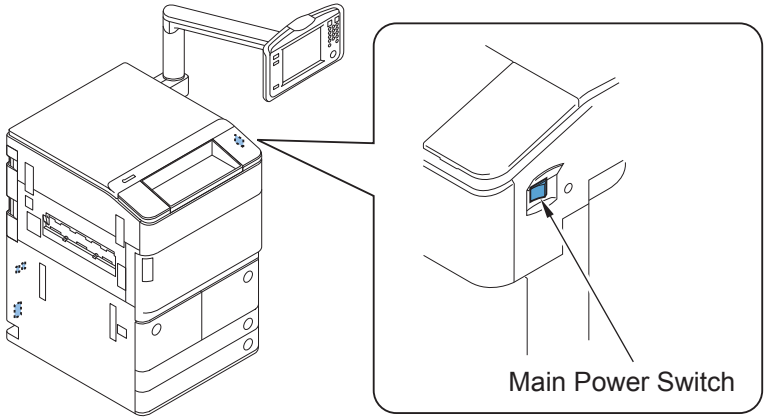
Controller System Error Diagnosis

Boot Method

1) Turn ON the Main Power Supply Switch while pressing the numeric keys '2' and '4' simultaneously.

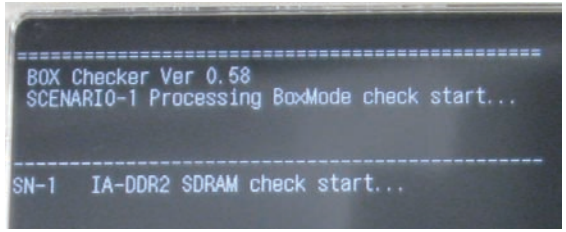


F-6-65



F-6-66

2) Keep pressing the numeric keys (for approx. 20 seconds) until the following screen appears on the Control Panel.



F-6-67

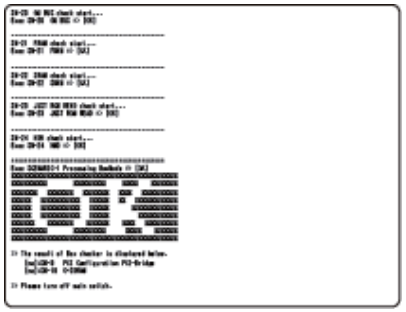
Note:
When this tool is not installed correctly, the following regular screen is displayed.
In this case, perform the following remedy.
Turn OFF the Main Power Supply Switch again, and execute step 1 and 2 shown above.
If this tool still does not boot, it means that BCT is deleted. So, install BCT.
If BCT is not installed correctly, "--.--" is displayed in Service Mode (COPIER>DISPLAY>VERSION>BCT) in the main body.

F-6-68

Diagnosis Time

Diagnosis is completed in approx. 3 minutes.
The result is displayed on the Control Panel.

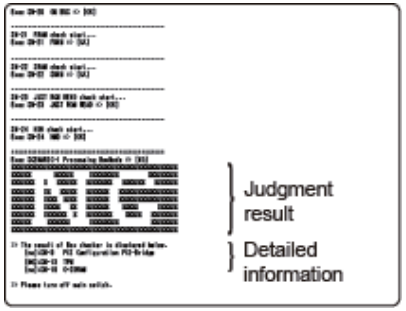
<When the diagnosis result is normal>



F-6-69

<When an error is detected by diagnosis>

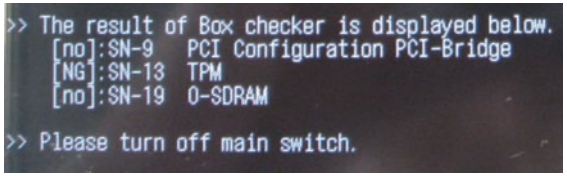
Detailed information is displayed under the judgment result. In detailed information, the name of the test where an error was detected is indicated.



F-6-70

<How to view the error result>

The following screen is an enlarged view of the detailed information indicated above.
Explanation of the detailed error information is described.



F-6-71

[no] means that optional PCBs are not mounted.
When [no] is displayed although an optional PCB is mounted, it means that an error has been occurring.
[NG] means that an error occurred to PCBs mounted as standard.

Note:
Once the tool is activated, this machine reboots after approx. 2 minutes.
After completion of the diagnosis, be sure to turn OFF and then ON the main power.
By turning the power OFF, the operation of this tool completes.

<Controller System Error Diagnosis Table>

The error locations are identified according to the following table.

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-1 IA-DDR2 SDRAM	Check an error between the Main Controller PCB 1 and SDRAM on the Main Controller PCB 1	Main Controller PCB 1 SDRAM on Main Controller PCB 1	Replace the Main Controller PCB 1.	-
SN-2 SM BUS IA DIMM0	Check an SM bus error in SDRAM on the Main Controller PCB 1	Main Controller PCB 1	Replace the Main Controller PCB 1.	-
SN-3 SM BUS IA DIMM1	Check an SM bus error in SDRAM on the Main Controller PCB 1	Main Controller PCB 1	Replace the Main Controller PCB 1.	-
SN-4 SM BUS IA Clock Gen	Check an SM bus error in Clock Generator on the Main Controller PCB 1	Main Controller PCB 1	Replace the Main Controller PCB 1.	-
SN-5 SM BUS SOC DIMM	Check an SM bus error in the Main Controller PCB 1 and SDRAM on the Main Controller PCB 2	Main Controller PCB 1 Main Controller PCB 2 SDRAM on Main Controller PCB 2	1. Check the connection of the Main Controller PCB 1, and the Main Controller PCB 2. 2. Check the installation of SDRAM on the Main Controller PCB 2. 3. Replace SDRAM on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. 5. Replace the Main Controller PCB 1.	-
SN-6 PCI Config SOC	Check a PCI bus error in the Main Controller PCB 1 and the Main Controller PCB 2	Main Controller PCB 1 Main Controller PCB 2 SDRAM on Main Controller PCB 2	• 1. Check the connection of the Main Controller PCB 1, and the Main Controller PCB 2. • 2. Replace the Main Controller PCB 1. • 3. Replace the Main Controller PCB 2.	-
SN-7 PCI Config LANC	Check a LAN chip error on the Main Controller PCB 1	Main Controller PCB 1	Replace the Main Controller PCB 1.	-
SN-8 CPLD	Check failure of CPLD chip on the Main Controller PCB 1	Main Controller PCB 1	Replace the Main Controller PCB 1.	-
SN-9 LANC SPI	Check failure of LANC SPI on the Main Controller PCB 1	Main Controller PCB 1	Replace the Main Controller PCB 1.	-
SN-10 RTC CHECK	Check failure of RTC on the Main Controller PCB 1	Main Controller PCB 1	Replace the Main Controller PCB 1.	-
SN-11 TPM	Check failure of the TPM PCB on the Main Controller PCB 1 * TPM PCB is not installed in products for China. So, the diagnosis results NG.	Main Controller PCB 1 TPM PCB	1. Check the installation of the TPM PCB. 2. Replace the TPM PCB. 3. Replace the Main Controller PCB 1.	E746
SN-12 SOC-DDR2 SDRAM	Check an error between SDRAMs on the Main Controller PCB 2	Main Controller PCB 2 SDRAM on Main Controller PCB 2	1. Check the installation of SDRAM on the Main Controller PCB 2. 2. Replace SDRAM on the Main Controller PCB 2. 3. Replace the Main Controller PCB 2.	E748
SN-13 SRI CHECK	Check On-board BUS on the Main Controller PCB 2	Main Controller PCB 2	Replace the Main Controller PCB 2.	-
SN-14 JUST ROM READ	Check On-board ROM on the Main Controller PCB 2	Main Controller PCB 2	It is always no indication. A result become NG Replace the Main Controller PCB 2.	
SN-15 FRAM	Check Main Controller PCB 2 and the connection of the memory PCB	Main Controller PCB 2 Memory PCB	1. Check the installation of Memory PCB on the Main Controller PCB 2. 2. Replace Memory PCB on the Main Controller PCB 2. 3. Replace the Main Controller PCB 2.	E355

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-16 SRAM	Check failure of SRAM on the Main Controller PCB 2. A battery emptied check	Main Controller PCB 2	Replace the Main Controller PCB 2.	E246 E350 E355
SN-17 GS	Check On-board BUS on the Main Controller PCB 2	Main Controller PCB 2	Replace the Main Controller PCB 2.	-
SN-18 HDD	Check an HDD I/F error	Main Controller PCB 2 HDD Cable HDD	1. Check the cable connection of the HDD. 2. Check the connection between the Main Controller PCB 2 and the Main Controller PCB 1. 3. Replace the HDD.	E602
SN-19 BOARD CONNECT IA-SOC	Check failure between the Main Controller PCB 2 and the Main Controller PCB 1	Main Controller PCB 1 Main Controller PCB 2	1. Check failure between the Main Controller PCB 2 and the the Main Controller PCB 1. 2. Replace the Main Controller PCB 2. 3. Replace the Main Controller PCB 1.	E748
SN-20 BOARD CONNECT SOC-DCON	Check failure between the Main Controller PCB 2 and the DC controller PCB	Main Controller PCB 2 DC controller PCB	1. Check failure between the Main Controller PCB 2 and DC controller PCB. 2.Replace the DC controller PCB 3. Replace the Main Controller PCB 2.	-

T-6-17

■ Restrictions

<Boot System Error Diagnosis>

- If an error cannot be resolved by executing remedy according to the error diagnosis table described above, consider boot failure of the main power supply and take appropriate actions.

<Controller System Error Diagnosis>

- Regarding the diagnosis for the test names (SN-1, 2, 3,6,12,18,19), if an error occurs in the diagnosis under the test names, this diagnosis tool will not boot.
- When no PCBs are installed on the Main Controller PCB 1/2, the following judgment results are displayed.

Standard PCB: [NG]
Optional PCB: [OK]
However, [no] is displayed in detailed error information for optional PCBs.

Version upgrade

Overview

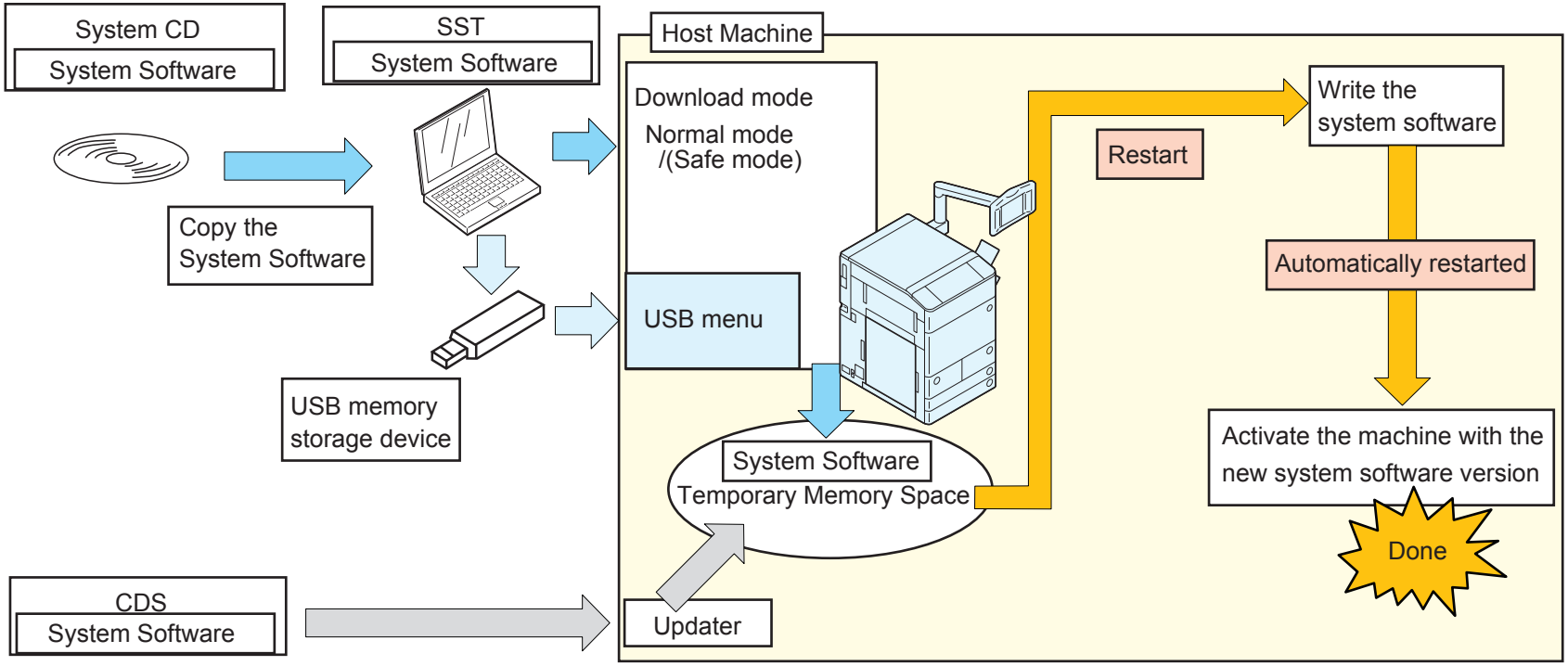
Overview of Version Upgrade

The system software version is upgraded in 2 steps, downloading and writing the new version of the system software.

Downloading System Software

This machine supports the following 3 downloading methods.

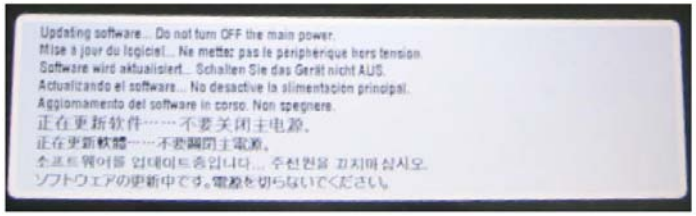
1. Download via the service support tool (hereinafter “SST”)
   Connect this machine to the PC by the cross cable to download the system software using SST installed in the PC.
2. Download using the USB memory storage device
   Insert the USB memory storage device storage device to the slot of the machine and download the system software stored in the device.
3. Download via Contents Delivery System (hereinafter “CDS”)
   Access to CDS via Internet to download the system software directly to the machine.



F-6-72

Writing System Software

The system software downloaded in either of the above-mentioned methods is stored in the temporary memory space.
After the system software is successfully downloaded, restart the machine to write the software in the machine.
In case the main power switch is turned OFF during the writing process, the machine may not be started.
This machine supports the remote version upgrade via CDS. When upgrading the system software via CDS, the warning message is shown on the control panel to alert the user not to turn OFF the power switch.



F-6-73

When the system software is successfully written, the machine is automatically restarted to activate the downloaded system software.
If any error occurs during the writing process, the error code, E753-0001, is shown.
The name of the system software component is shown to the left of the error log message, “version up…..error”. Check the name if the software is for the option not attached to the machine. If so, turn OFF / ON the machine to recover the error (see Troubleshooting for details).

F-6-74

Download Mode

When the version is upgraded via SST or with the USB memory storage device storage device, start the machine in Download mode. This machine has the following 2 Download modes similarly with other iR-series models.

Normal mode(recommend):

- Start from Copier > FUNCTION > SYSTEM > Download.
- Conventionally, the main power switch of this machine was turned ON while pressing 1 and 7 keys. However, the procedure above automatically assigns a static IP address and enables the download same as before.
- You can obtain the version information and avoid unnecessary download and errors.

NOTE:
When entering Download mode, be sure to go into Service mode after all items of main menu have been displayed.
This machine reads the version information of system software when it starts. You must start Download mode after the version information has been obtained.

Safe mode:

- Press 2 and 8 keys simultaneously on the numeric keypad when turning on the power.
- Be sure to use normal mode when using download mode except in a case where it is not possible to start this machine and enter service mode or where format of the HDD is going to be executed.

System Software Components

The table below shows the system software components for this machine.

Software to be upgraded		Display on SST		How to upgrade versions			Remarks
		Registered name of product	Name of system software	SST	USB memory	Others	
Host Machine	Main Controller	iA6075	SYSTEM	○	○	-	
	MEAP Controller		MEAPCON	○	○	-	
	Language Module		LANGUAGE	○	○	-	
	Remote UI Contents		RUI	○	○	-	
	RUI portal		RPTL	○	○	-	
	Mobile print		MOBPR	○	○	-	
	UI-BOX		BOX	○	○	-	
	UI-COPY		COPY	○	○	-	
	UI-Intro		INTRO	○	○	-	
	UI-SEND		SEND	○	○	-	
	Voice Synthesis Dictionary		TTS	○	○	-	
	Paper Type Information File		MEDIA	○	○	-	
	Service Mode Contents		SMCNT	○	○	-	
	Printer Controller		DCON	○	○	-	
	WebDAV Contents		WEBDAV	○	○	-	
	Resources for Web Browser		BROWSER	○	○	-	
	Reader Controller(2-sided Single Pass)		RCOND	○	○	-	Duplex Color Image Reader Unit-C1
	Reader Controller(2-sided Double Pass)		RCONS	○	○	-	Color Image Reader Unit-C1
	FAX Board Boot Program		G3CCB	○	○	-	Super G3 FAX Board-AF1/Super G3 2nd Line Fax Board-AF1/Super G3 3rd/4th Line Fax Board-AE1
	Fax Board Main Program		G3CCM	○	○	-	Super G3 FAX Board-AF1/Super G3 2nd Line Fax Board-AF1/Super G3 3rd/4th Line Fax Board-AE1
	Key/Certificatefor Encrypted Communication	iAxxxx	KEY	○	○	-	
	OCR Libraly		SDICT	○	○	-	
Staple Finisher-E1/Booklet Finisher-E1	Finisher Controller	FIN_E1	FIN_CON	○	○	-	Staple Finisher-E1/Booklet Finisher-E1
	Saddle Controller		SDL_CON	○	○	-	Booklet Finisher-E1
Document Insertion Unit-L1/Document Insertion / Folding Unit-H1	Inserter Controller	INF_LH	INF_CON			○	Document Insertion Unit-L1/Document Insertion / Folding Unit-H1
External 2-hole Puncher A1	Punch Controller	EXP_A1	EXP_CON	-	-	○	External 2-hole Puncher A1

This machine holds the increased number of system software components compared to conventional iR machines to meet vastly extended functionality.

T-6-18

The Image Reader for this machine consists of 2-sided Single Pass and 2-sided Double Pass, requiring specific system software for each.

- The name of the system software for the 2-sided Single Pass Image Reader (Duplex Color Image Reader Unit – C1): RCOND
- The name of the system software for the 2-sided Double Pass Image Reader (Color Image Reader Unit – C1): RCONS

The finisher for this machine supports version upgrade via the host machine in any of the above-mentioned methods, i.e., via SST, USB memory storage device storage device or CDS. Note that the External 2-hole Puncher A1, Document Insertion / Folding Unit-H1, Document Insertion Unit-L1, does not support version upgrade via the host machine. To upgrade versions, connect the option with the PC using the downloader PCB to download the system software via SST..

Note on Download Process

Warning: Never turn OFF the power during the download / writing process.

Turning off the power during the download / writing process may cause a failure of machine start-up at power-on.

If this occurs, start the machine in Safe mode (by pressing 2 and 8 keys simultaneously on the numeric keypad).

When the machine is successfully started in Safe mode, execute formatting of BOOTDEV partition, retry downloading the system software.

CAUTION:

Be sure to use normal mode when using download mode except in a case where it is not possible to start this machine and enter service mode.

In safe mode, version information of SYSTEM, MEAPCONT, LANGUAGE, RUI, and SDICT can be obtained, but version information of other system software such as DCON and RCON cannot be obtained. Therefore the following points to note are required when downloading in safe mode.

[RCON]

The version is not upgraded except in a case where Single mode of SST is used or when "Overwrite all" of USB download menu is used.

[DCON and others]

The following symptoms occur when SST (Single mode) or USB download menu (Auto) is used.

- The time for download/write becomes longer because the software is overwritten even when system software of the same version is being written.
- A confirmation message is not displayed when a lower version is going to be downloaded.

CAUTION: error code E753-0001

When an error occurs during writing process of the system software downloaded using SST or USB memory, error code E753-0001 is displayed.

Check if the target option is properly installed and see if the software to download is for the correct target option, and then execute downloading again.

Version Upgrade via SST

Overview

The system software can be downloaded either of the two modes below via SST.

- Assist mode(recommended)
- Single mode

Assist mode provides the following features.

- Attached option types are automatically recognized.
- The new versions of the system software for attached option types are automatically searched.
- The set of system software with interactive behavior confirmed is automatically downloaded.
- The accessories attached to the host machine are automatically recognized to download the system software for each accessory.

This machine holds a number of system software components that mutually interacts during operation. Behaviors of such system software should be confirmed when these are downloaded as the set. Thus, Assist mode is basically recommended to download the system software for this machine.
Use Single mode only when any of the following conditions is met.

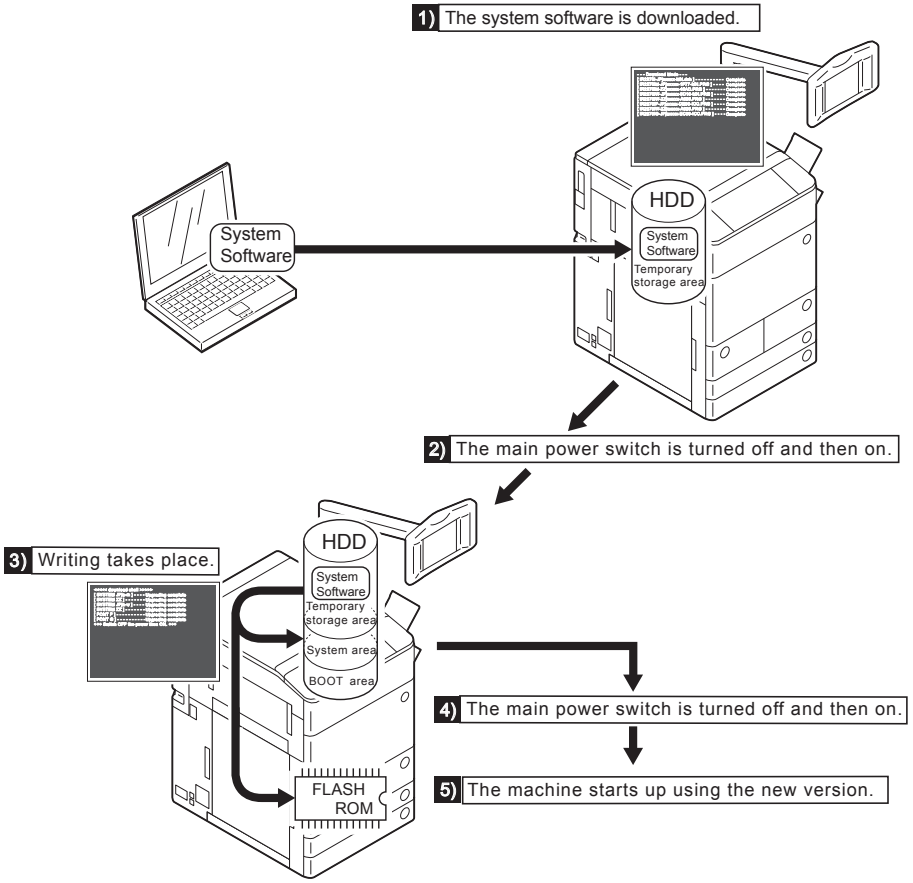
- When downloading some the system software components, i.e. DCON, RCON or options.
- When reloading the system software after HDD is formatted

NOTE:
Use Single mode only when any of the following conditions is met.

- When downloading some the system software components, i.e. DCON, RCON or options.
- When reloading the system software after HDD is formatted

Downloading the System Software

System software is saved in the temporary storage area on HDD after downloaded with SST. Restart the machine after download so that it will be written to the system area, and the flash ROM.
After the writing has been completed normally, this machine automatically restarts with the new system software.



F-6-75

Copying System Software

System CD -> SST

Copy the system software stored in the system CD to SST.

> NOTE:
> The system software is compressed if the file size exceeds the CD memory capacity.
> If the above is the case, decompress the file before copying it to SST.

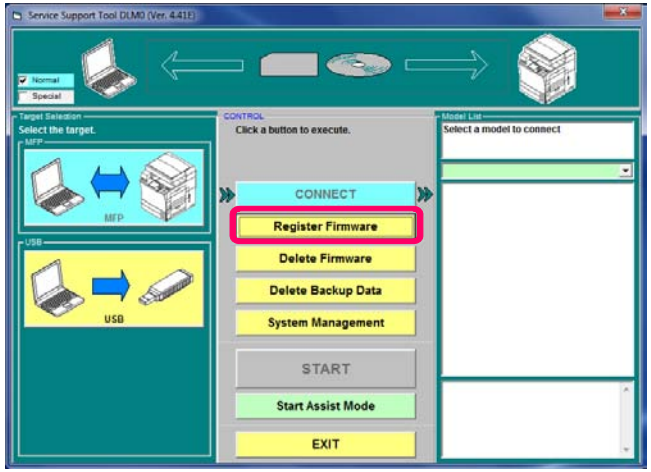
Preparation

Requirements:

- PC with SST Ver.4.41 or later installed
- The system CD for this machine

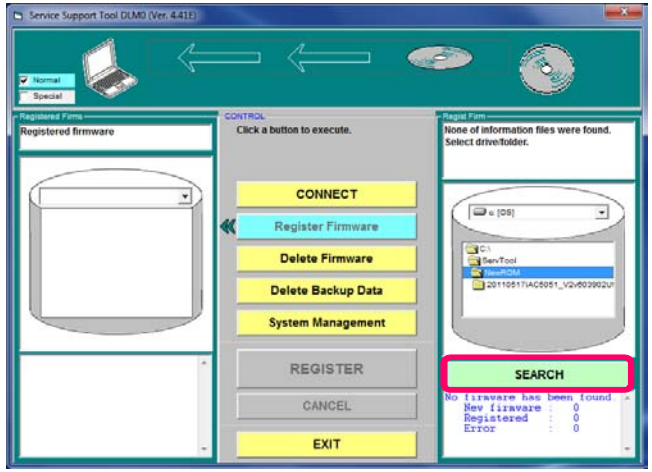
Steps to copy the system software

1) Start the PC
2) Set the system CD in the PC
3) Start SST
4) Click “Register Firmware” button.



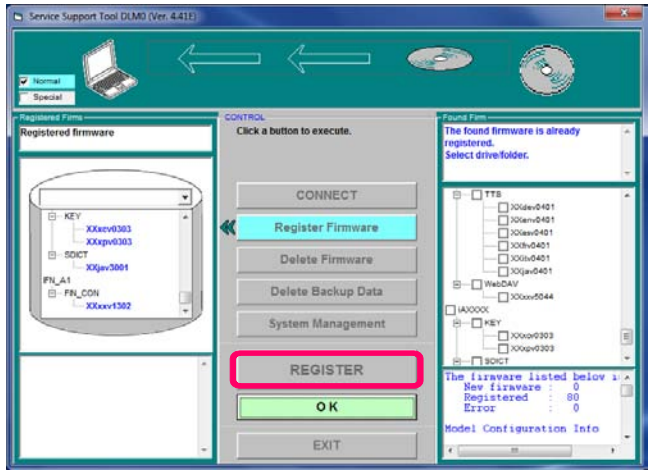
F-6-76

5) Select the drive where the system CD is set and click “Search” button.



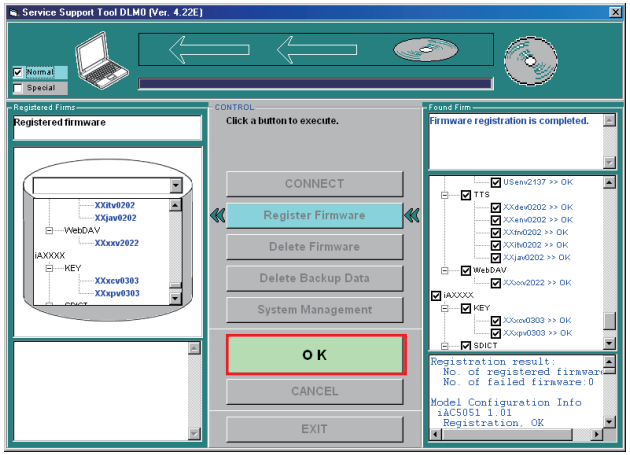
F-6-77

6) The system software stored in the system CD is listed.
Uncheck the box(es) for unnecessary folder(s) and/or system software and click “Copy” button.



F-6-78

7) The message is shown when the system software is successfully copied. Click “OK” button.



F-6-79

Connection

The following IP address is automatically set for this machine at start-up in Download mode.

- IP address:172.16.1.100
- Subnet mask:255.255.255.0

When the PC with SST installed is connected to this machine, change the PC network address to the following.

- IP address:172.16.1.160
- Subnet mask:255.255.255.0
- Default gateway: arbitrary

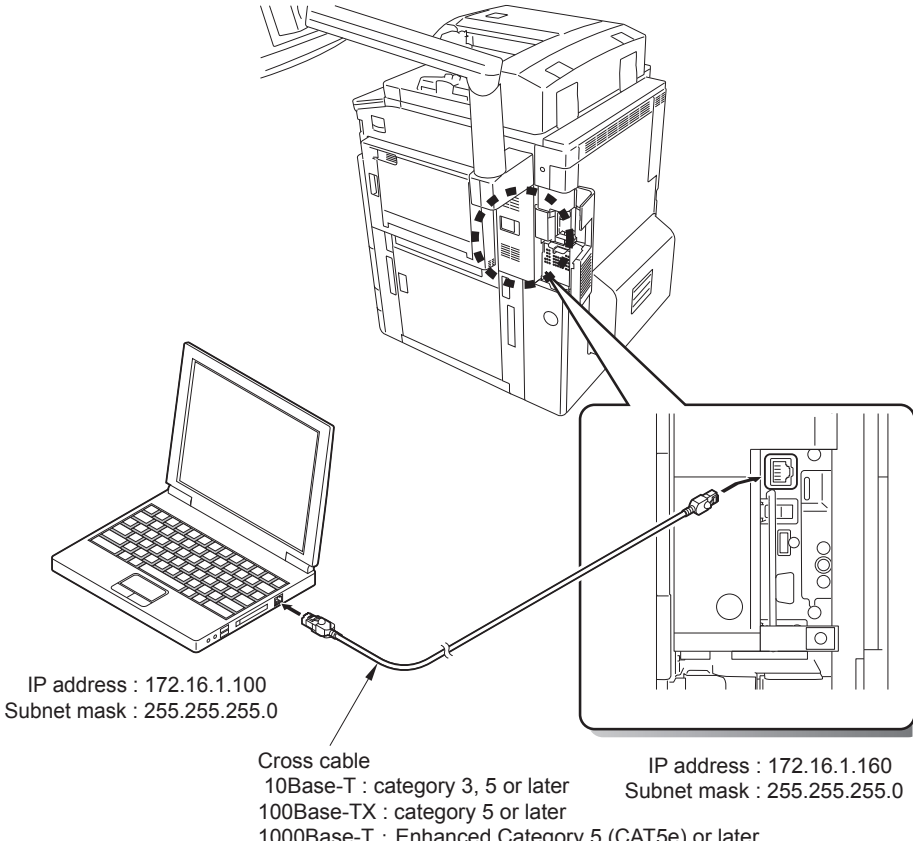
> CAUTION:
>
> If the PC has the connection to the network, the settings changed to the above-mentioned may cause network failures due to redundant IP addresses, etc. Ensure that the PC is disconnected from the network when you change the PC network settings. Alternatively use the cross cable to connect the PC to this machine.

Preparation

Requirements

- PC with SST Ver. 4.41 or later installed and the system software for this machine is stored
- Cross cable
  10Base-T: Category 3 or 5
  100Base-T: Category 5
  1000Base-T: Enhanced Category 5 (CAT5e) or later

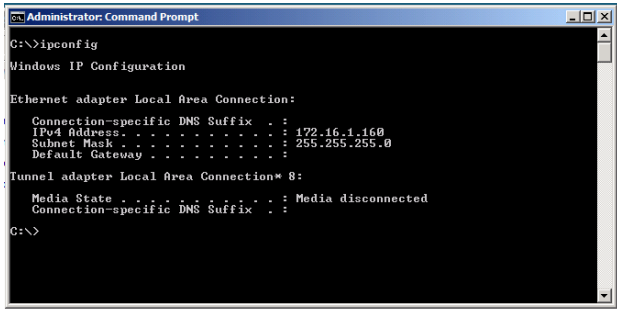
> CAUTION:
>
> Disconnect USB memory storage device storage devices if connected.
>
> Communication to SST is disabled in this machine if any USB memory storage device storage device is recognized. SST and the USB memory storage device storage device cannot be used concurrently.



F-6-80

Steps

1) Use the cross cable to connect the machine to the PC with SST installed.
2) Turn on the main power switch of this machine.
3) Enter Service mode to start the machine in Download mode.
   Select COPIER > FUNCTION > SYSTEM > DOWNLOAD and press [OK].
4) Check the IP address of the PC.
   Go to Start menu to select Program > Accessory > Command Prompt.
   Type IPCONFIG and press [Return] to see the network settings of the PC.
   If any discrepancies from the description in the figure below are found, change the network settings of the PC.



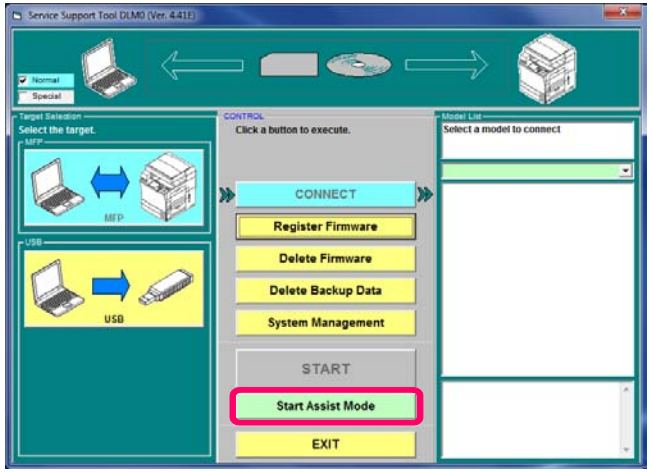
F-6-81

CAUTION:

The network settings are not shown with IPCONFIG if the PC is disconnected from the network. To check the settings, connect the PC to this machine at power-on by the cross cable.

Downloading System Software (Assist mode)

1) Start this machine and enter Download mode (COPIER > FUNCTION > SYSTEM > DOWNLOAD).
2) Connect the PC to this machine and start SST.
3) Click “Start Assist mode” button.
   Skip this step when starting SST in Assist mode.

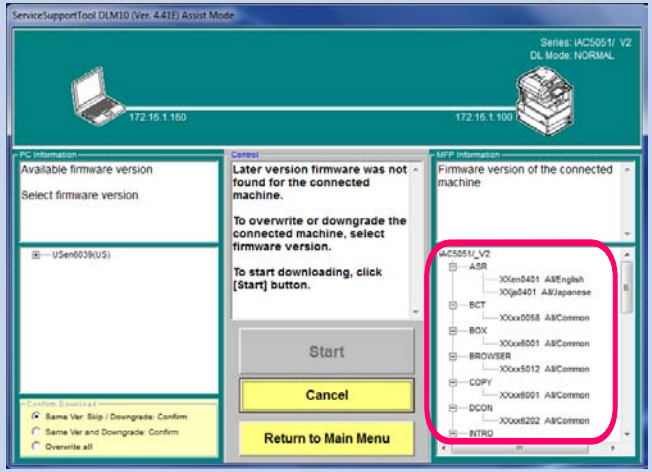


F-6-82

If the upgraded set of the system software is stored in SST, the new set is automatically selected.

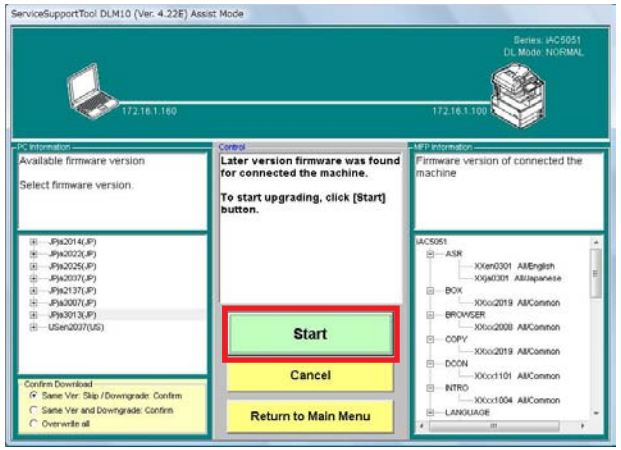
NOTE:
If no upgrade is stored, the existing system software set is unchanged. At any rate, any versions of the system software can be downloaded by manual selection.

NOTE:
When You was connected to the main body of Safe mode in Assist mode:
A system software of LANGUAGE, RUI, MEAPCONT, SDICT can acquire version information.



F-6-83

4) Click “Start” button



F-6-84

When download is completed, the machine is automatically restarted to initiate the writing process. The machine may repeat restarting several times depending on option configuration. Upon the system software written, the machine is restarted again and the main menu is

displayed.

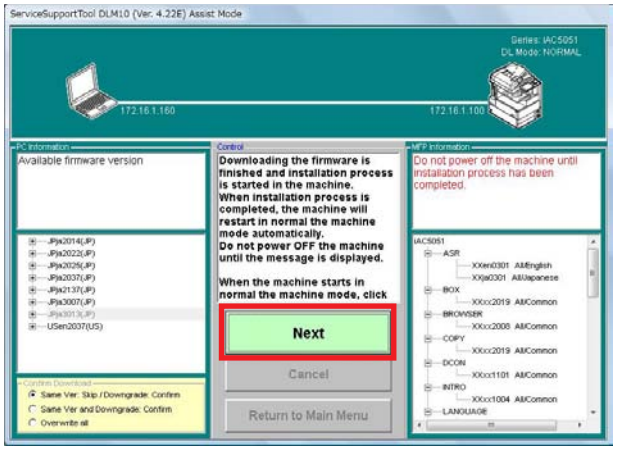
NOTE:Download Confirmation Message Modes
Download is confirmed in any of the three message modes.

- Skip the existing versions and confirm whether to download downgraded versions
  Upgraded versions are downloaded without message.
  Skip download of the existing versions.
  Confirm whether to download downgraded versions.

- Confirm whether to download the existing versions / downgraded versions
  Upgraded versions are downloaded without message.
  Confirm whether to download and overwrite the existing versions.
  Confirm whether to download downgraded versions.
- Overwrite all versions
  Regardless of version upgrade or downgrade, all versions of the system software are downloaded without message.

By default, “Skip the existing versions and confirm whether to download downgraded versions” is selected.

5) Click"Next"button.



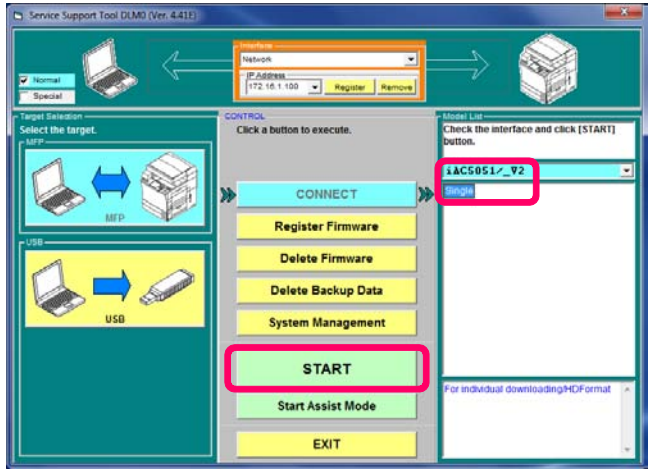
F-6-85

6) Disconnect the cross cable from the machine.
7) Enter Service mode to check the system software versions.
8) Click"OK"button.
The main menu is displayed.

Downloading System Software (Single mode)

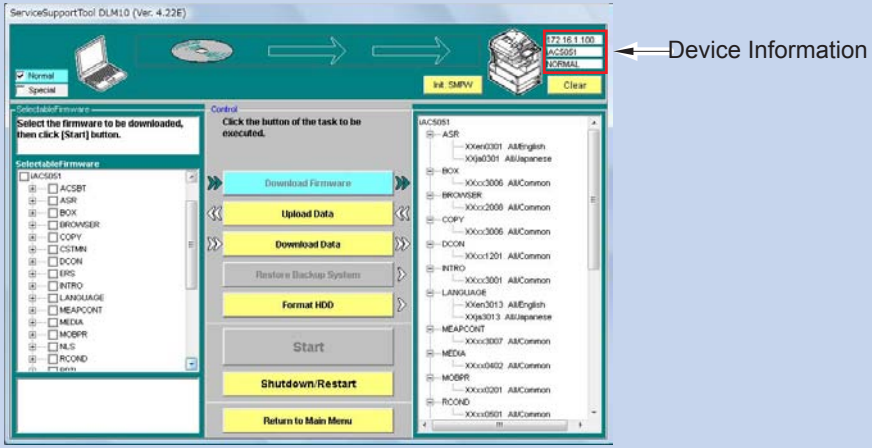
The following is the sample steps to download DCON (the other components of the system software can be downloaded similarly).

1) Start the machine in an appropriate Download mode.
2) Connect the PC to this machine to start SST.
3) Select the model to be connected and “Single”, check the network settings. Click “Start” button.



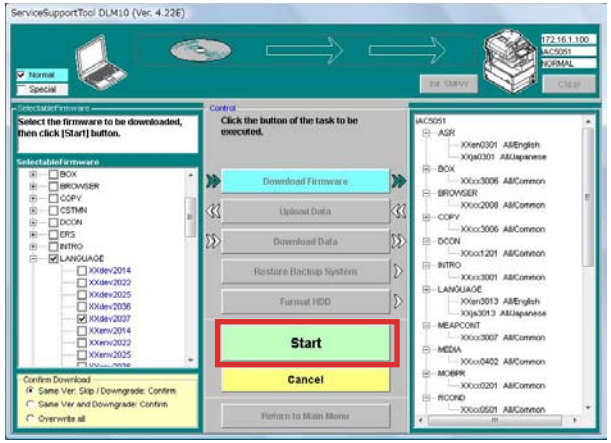
F-6-86

NOTE:
The following device information is shown at the right top of SST screen.
- IP address
- Model name
- Download mode



F-6-87

4) Select the DCON version to be downloaded and click “Start” button.
Multiple files can be selected in this step.

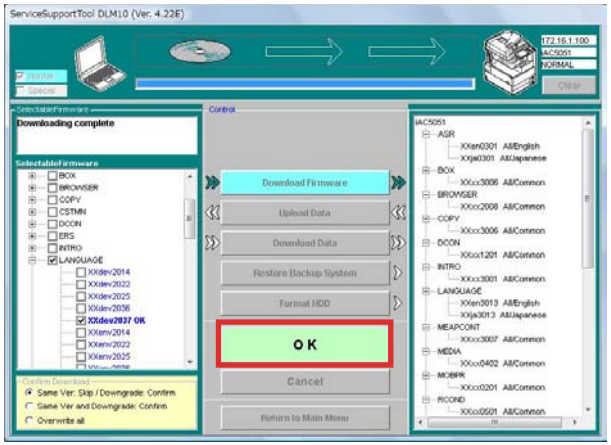


F-6-88

NOTE:Download Confirmation Message Modes
Download is confirmed in any of the three message modes.
- Skip the existing versions and confirm whether to download downgraded versions
  Upgraded versions are downloaded without message.
  Skip download of the existing versions.
  Confirm whether to download downgraded versions.
- Confirm whether to download the existing versions / downgraded versions
  Upgraded versions are downloaded without message.
  Confirm whether to download and overwrite the existing versions.
  Confirm whether to download downgraded versions.
- Overwrite all versions.
  Regardless of version upgrade or downgrade, all versions of the system software are downloaded without message.

By default, “Skip the existing versions and confirm whether to download downgraded

5) When download is completed, click “OK” button.

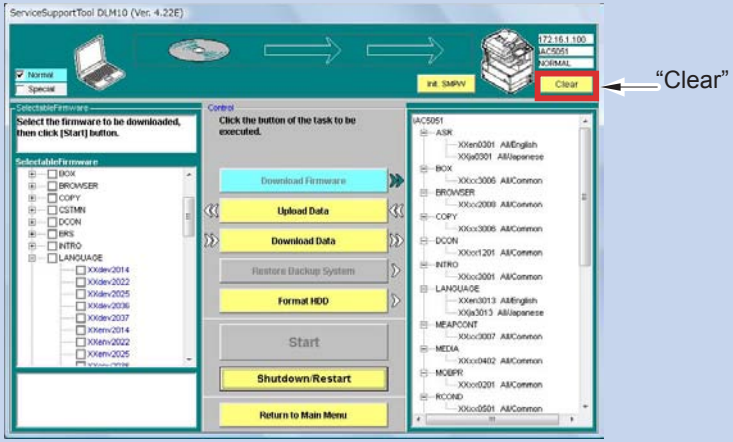


F-6-89

The main menu is displayed.

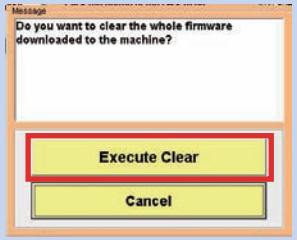
NOTE:
If it is before restarting the machine, the downloaded system software can be deleted not written on HDD or Flash ROM.

1) Click “Clear” button.



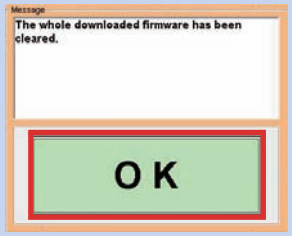
F-6-90

2) Click “Execute Clear” button.
The system software, which is stored in the temporary memory space of HDD, is deleted.



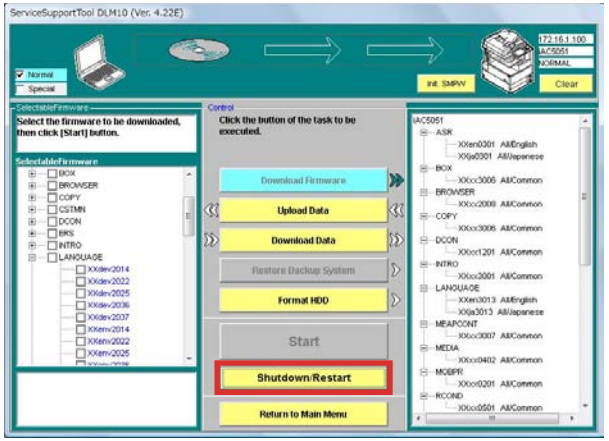
F-6-91

3) Click“OK”button.
Return to the previous screen.



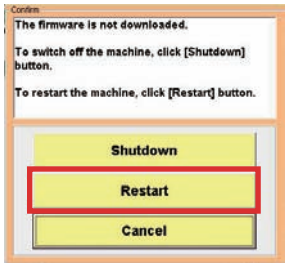
F-6-92

6) Click “Shutdown / Restart” button.



F-6-93

7) Click “Restart” button.



F-6-94

The machine is restarted.
The downloaded system software is written on HDD or Flash ROM.

8) Click"OK"button.

9) Enter Service mode to check the versions.

Formatting HDD

Overview

This machine probides the following two types of HDD Formatting.

- ALL:to format the whole HDD
  - When HDD set as the service parts (the new HDD) is mounted
  - When clearing the system software and data completely from HDD and reloading the system software.

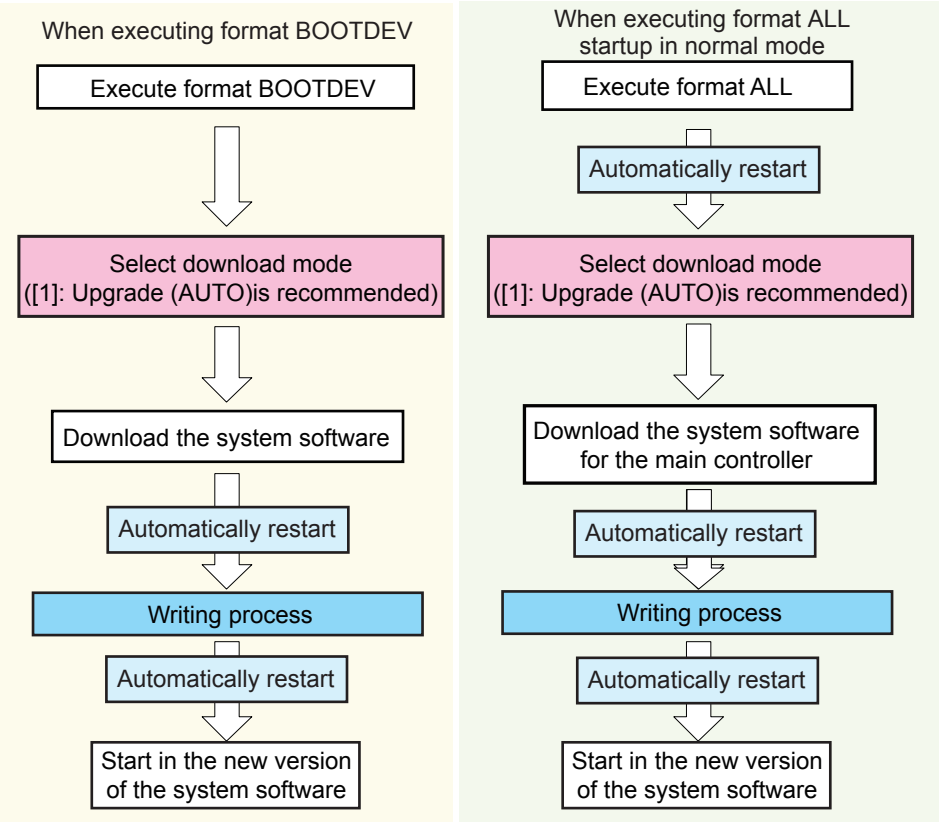
  Once Format ALL is executed in your machine, all the user data and MEAP applications held in HDD will be cleared. Ensure to gain an agreement from the user before formatting.

- BOOTDEV: to format the system software storage area on HDD.
  - When clearing the system software storage area and reloading the system software

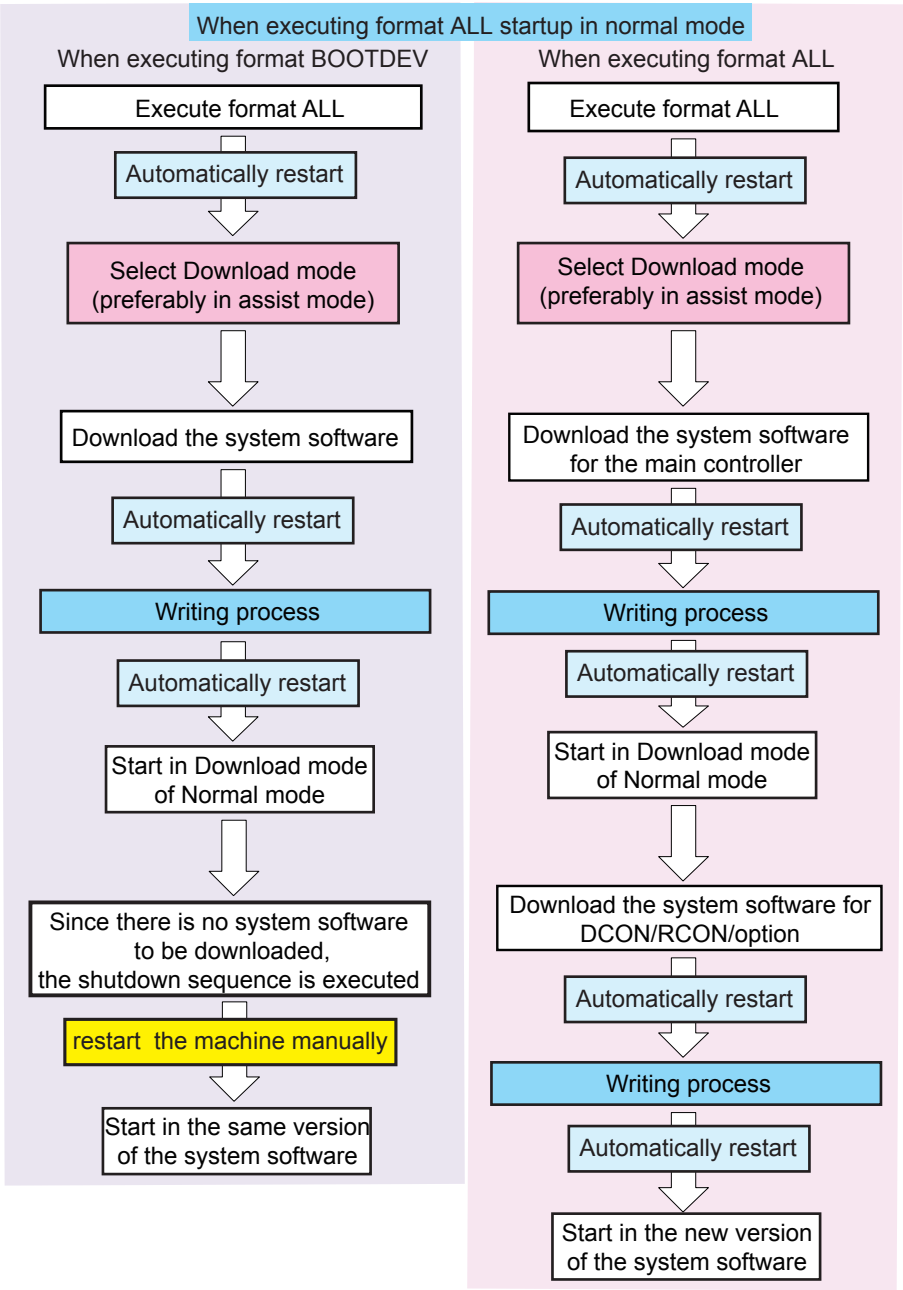
HDD needs not to be formatted at version upgrade.

HDD can be formatted only in Single mode.
After HDD is formatted, the machine cannot be started before the system software is downloaded.

After Format ALL is executed, the machine is automatically restarted to reflect formatting to HDD. At this time, the machine automatically starts in Download mode. For BOOTDEV format, the machine is ready to download the system software without restarting.
After formatting, enter either Assist mode(recommended) or Single mode to download the system software.

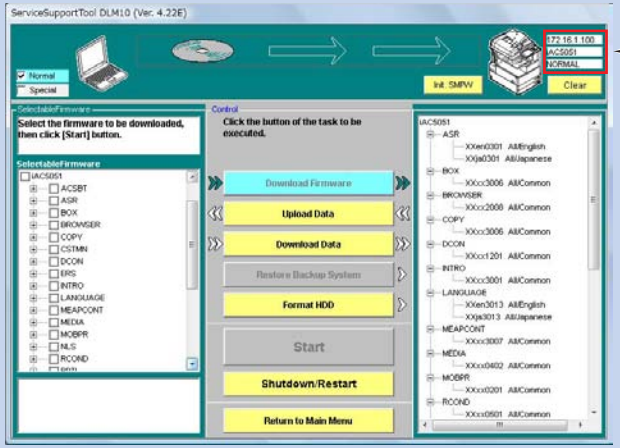


F-6-95



F-6-96

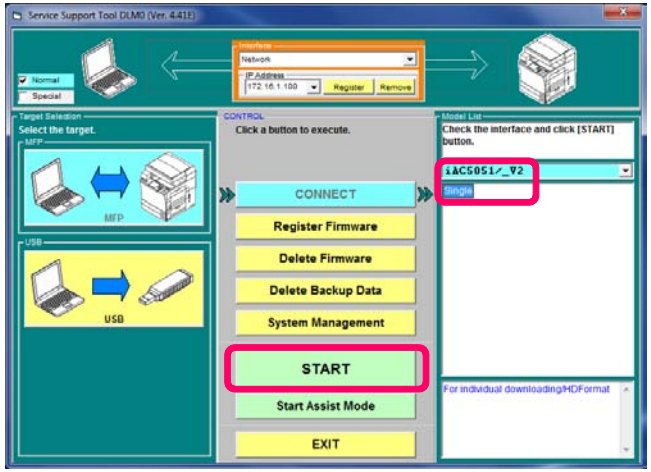
NOTE:
With SSTv4.41, due to sharing the simple mode processing with the existing models, the following screen is displayed.
As for the iR ADVANCE series models (or this machine), the procedure displayed on the screen is not necessary; thus, click the “Next” button to go on to the next screen.



F-6-97

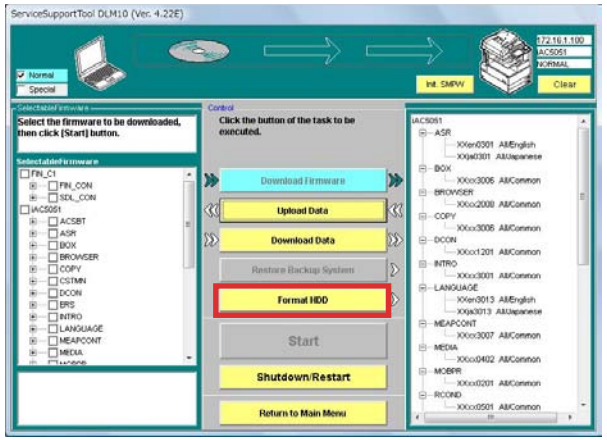
Steps of Formatting

1) Enter Download mode. (Enter Safe mode when you mount the new HDD or when the machine is unable to start normally due to HDD failures, etc.)
2) Connect the PC to the machine to start SST.
3) Select the model to be connected and the information file (“single”) for individual download. Check the network settings and click “Start” button.



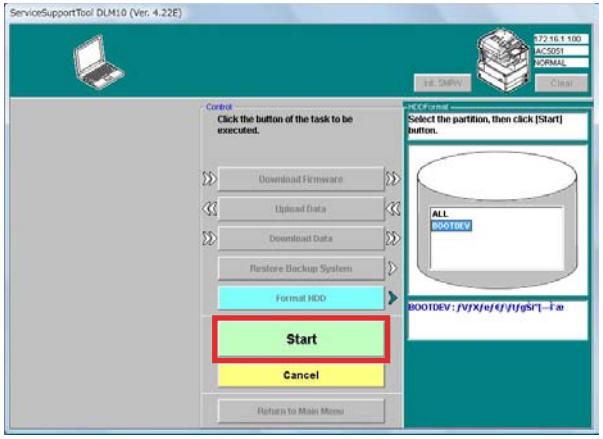
F-6-98

4) Click“Format HDD”button



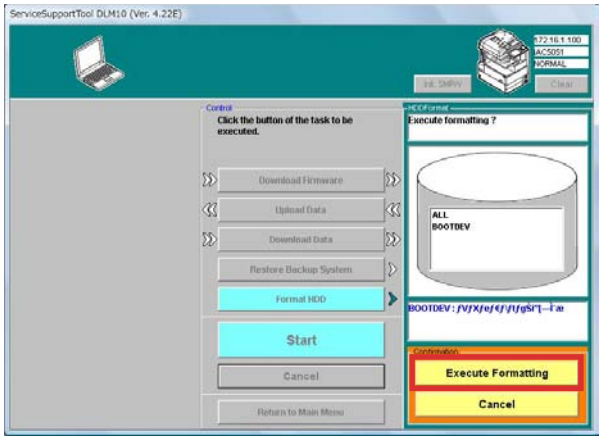
F-6-99

5) Select "BOOTDEV" or "ALL" to click "Start".



F-6-100

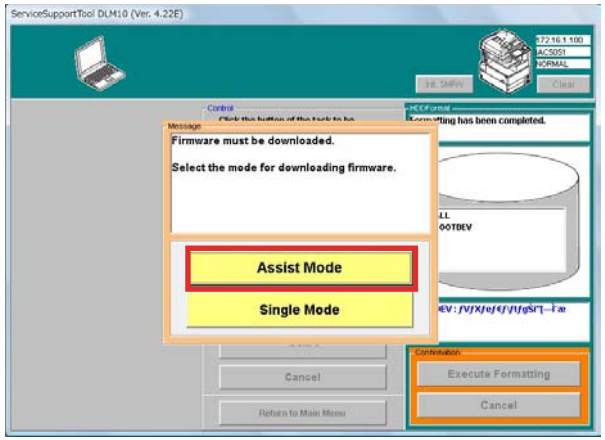
6) Click "Execute Format" button.



F-6-101

HDD is formatted.

7) Download the system software in any Download mode (Assist mode recommended). See the steps to download the system software for details.



F-6-102

CAUTION:

After HDD is formatted, ensure to download the system software. If the system software is not downloaded, E602 error is triggered at power-on.

CAUTION:

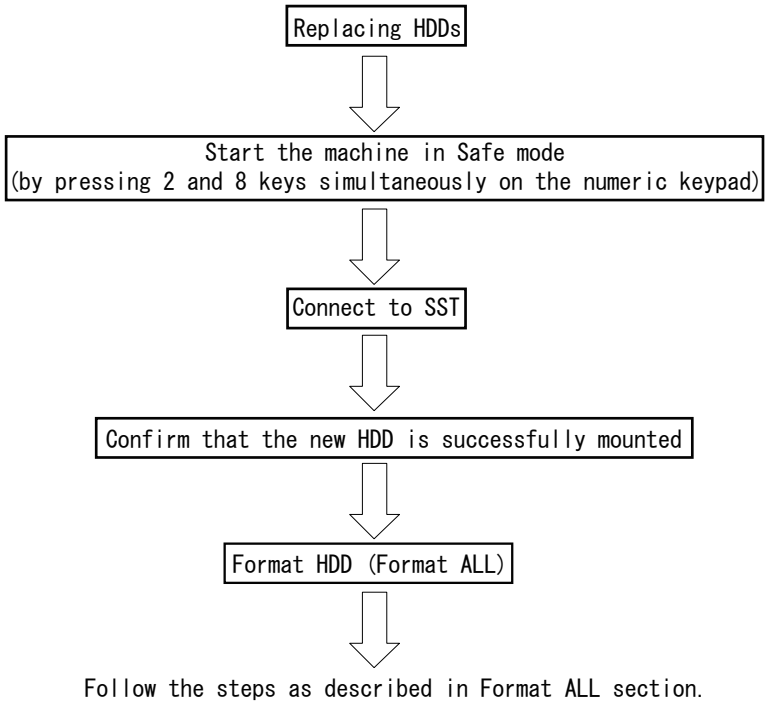
Restarting takes more time after HDD is formatted and the system software is downloaded (to write the downloaded software).

Down time may be approx. 5 minutes in maximum to proceed the writing process. Never turn OFF the machine while Starting screen is shown.

Mounting New HDD

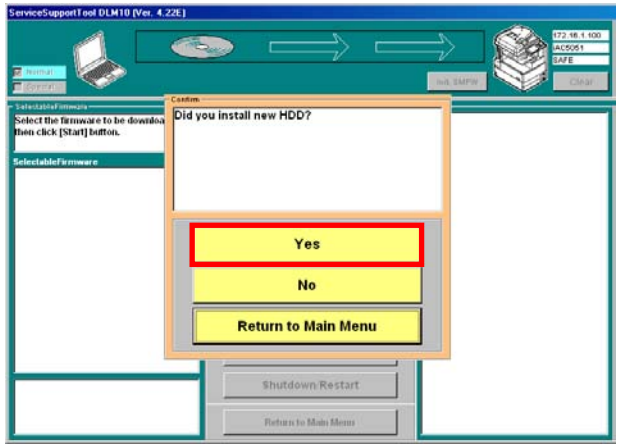
After HDD set as the service parts is mounted, the new HDD should be formatted initially. In this case, the message is shown to confirm if the new HDD is mounted.

The figure below shows the abbreviated steps.



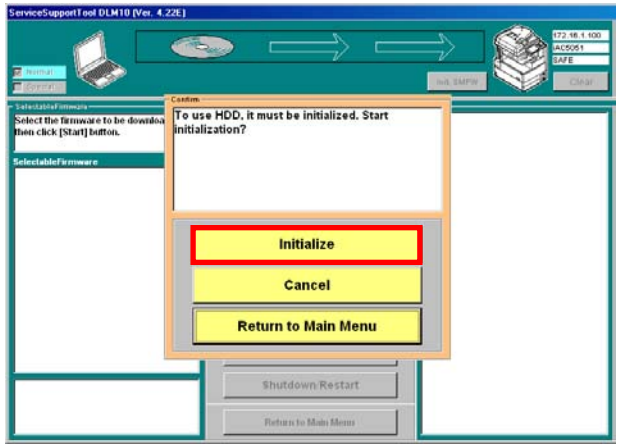
F-6-103

When the new HDD is mounted, the machine cannot be started in the normal procedure. Start the machine in Safe mode as Download mode. When gaining connection to SST, the message is shown to confirm if the new HDD is mounted.



F-6-104

Click "Yes" and the message is shown, confirming whether to format HDD.



F-6-105

Click “Initialize” button to initialize HDD (Format ALL). Follow the steps described in Format ALL section to download the system software.

Backup

Overview

At the time of replacing controller PCBs, the backup function enables to save data held in the PCB to migrate them to the new PCB.

- Backup via SST

Backup data	Downloaded/Uploaded file names
Backup data RAM	SramImg.bin(to be uploaded / downloaded)
MEAP applications	MeapBack.bin(to be uploaded / downloaded)
For investigation in Dev	Sublog.bin(Downloadable)
Service Print	The text file of the contents which You output to paper with a service mode(Downloadable).

T-6-19

- Backup RAM holds the data from Backup RAM of the Main Controller PCB 2. (Before replacing the Main Controller PCBs, DC Controller PCB, be sure to back up the data because Backup RAM holds the parts durable counter data and service mode setting data in the Main Controller.)
- MeapBack holds MEAP applications and their data stored in HDD

- Backup via Service mode

Backup data	Service mode
Backup of Reader Controller PCB	COPIER > FUNCTION > SYSTEM RSRAMBUP (Backup) COPIER > FUNCTION > SYSTEM RSRAMRES (Restore)
Backup of DC Controller PCB	COPIER > FUNCTION > SYSTEM DSRAMBUP (Backup) COPIER > FUNCTION > SYSTEM DSRAMRES (Restore)

T-6-20

Data is stored in HDD

NOTE:
Before replacing the Reader Controller PCBs, back up the data from Service mode. The backup data can be restored from Service mode when the PCBs are replaced. This enables to maintain the setting data including Service mode stored in the old Reader Controller PCB.

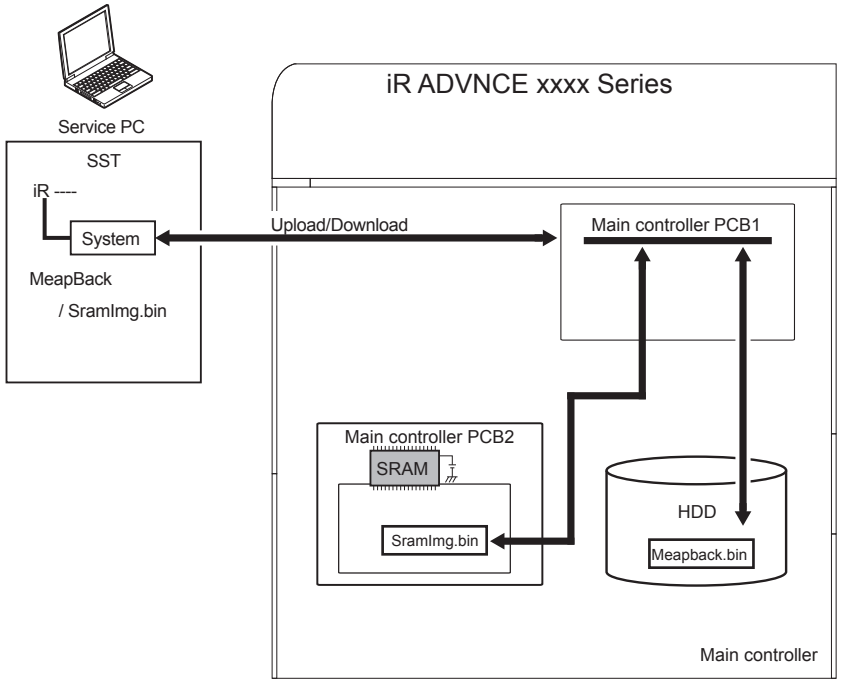
Before replacing the DC controller PCBs, back up the data from Service mode. The backup data can be restored from Service mode when the PCBs are replaced. This enables to maintain the setting data including Service mode stored in the old Controller PCB.

Before replacing the Main Controller PCB 2, upload SramImg.bin. By downloading SramImg.bin after replacement, the new Main Controller PCB 2 inherits the data including Service mode stored in the old PCB

Steps to Upload Data

CAUTION:

- When the Canon quality-appointed staff determines the need for an analysis of debug log by the R&D department, we ask the field to collect log for an investigation to determine the cause.
- The backup data can be downloaded only on the machine from which the data were uploaded.
- This machine does not use SramRCON and SramDcon



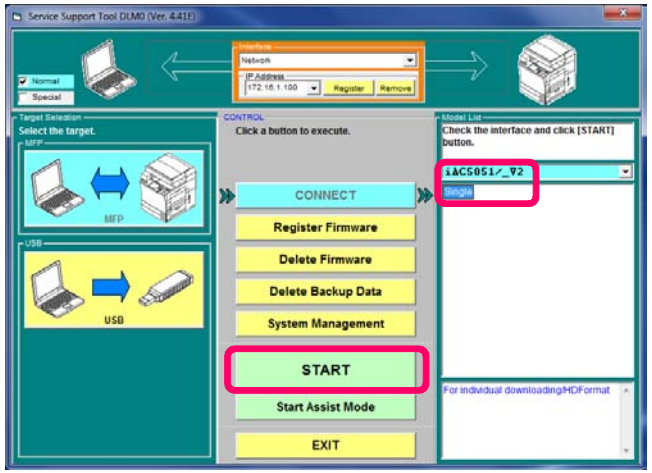
F-6-106

Listed below are the sample steps to upload MeapBack.

1) Enter Download mode.

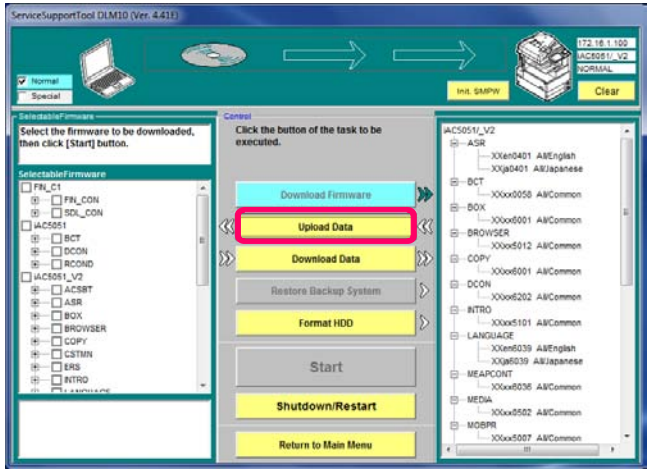
2) Connect the PC to the machine to start SST.

3) Select the model to be connected and the information file for individual download ("Single").
Check the network settings and click "Start".



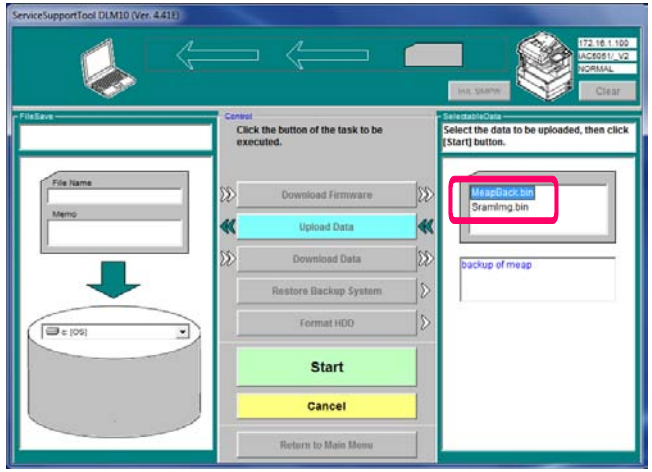
F-6-107

4) Click "Upload Data" button.



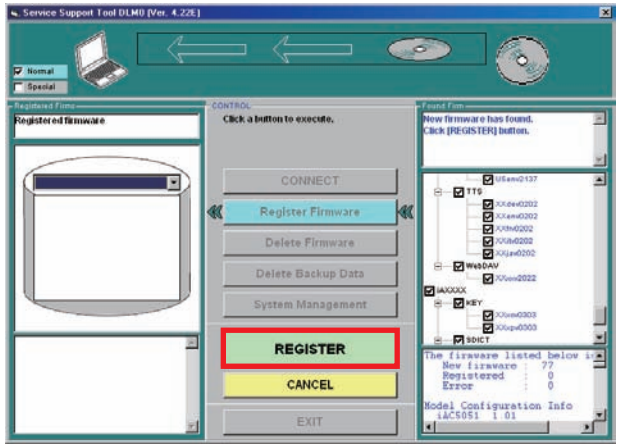
F-6-108

5) Select "MeapBack.bin" to click "Start" button.



F-6-109

6) Enter the file name to be saved and comments when necessary. Click "Save" button.



F-6-110

7) Click "OK" button

.

Steps to Download Data

CAUTION:

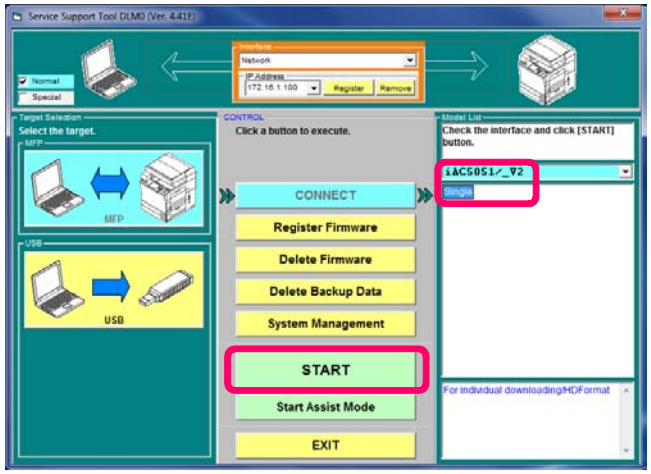
The backup data can be downloaded to the machine from which the data were uploaded

Store Meapbackup.bin; and "Settings/Registration > Data Management> Initialize All Data/Setings"; Restore it; even if it, cannot log in to SMS.

Restore Meapbackup.bin which backed up after "Initialize All Data/Setings"; store it.

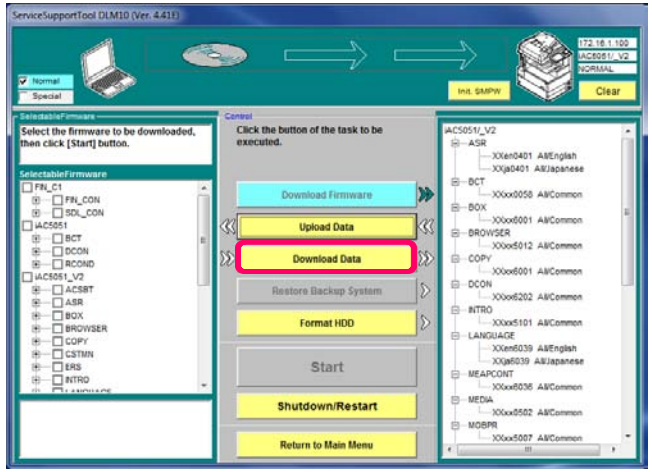
Listed below were the sample steps to download MeapBack.

1) Enter Download mode
2) Connect the PC to the machine and start SST.
3) Select the model to be connected and “Single”. Check the network setting and click “Start” button.



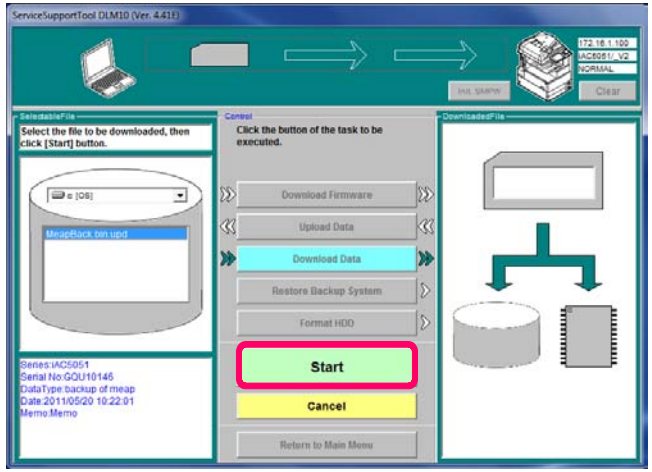
F-6-111

4) Click “Download Data” button.



F-6-112

5) Select the data to be downloaded and click “Start” button.



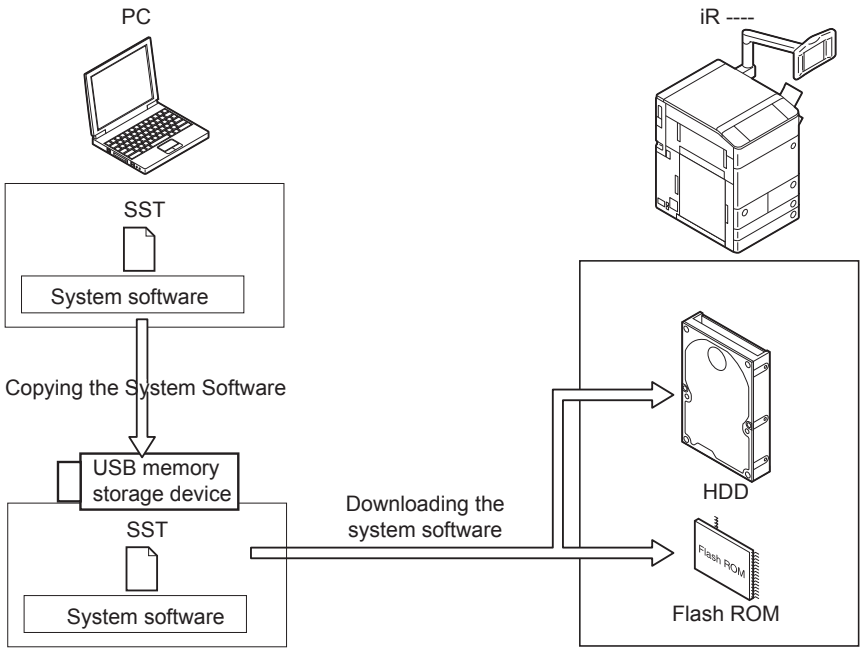
F-6-113

6) When the data are successfully downloaded, click “OK” button.
7) Restart the machine

Version Upgrade using USB memory Storage Device

Relation between SST and USB memory Storage Device

When using the USB memory storage device storage device for version upgrade, the system software should be copied to the USB memory storage device storage device. By inserting the USB memory storage device storage device to the slot of the machine, the system software can be upgraded.
The figure below shows the relation between SST and USB memory storage device storage device.



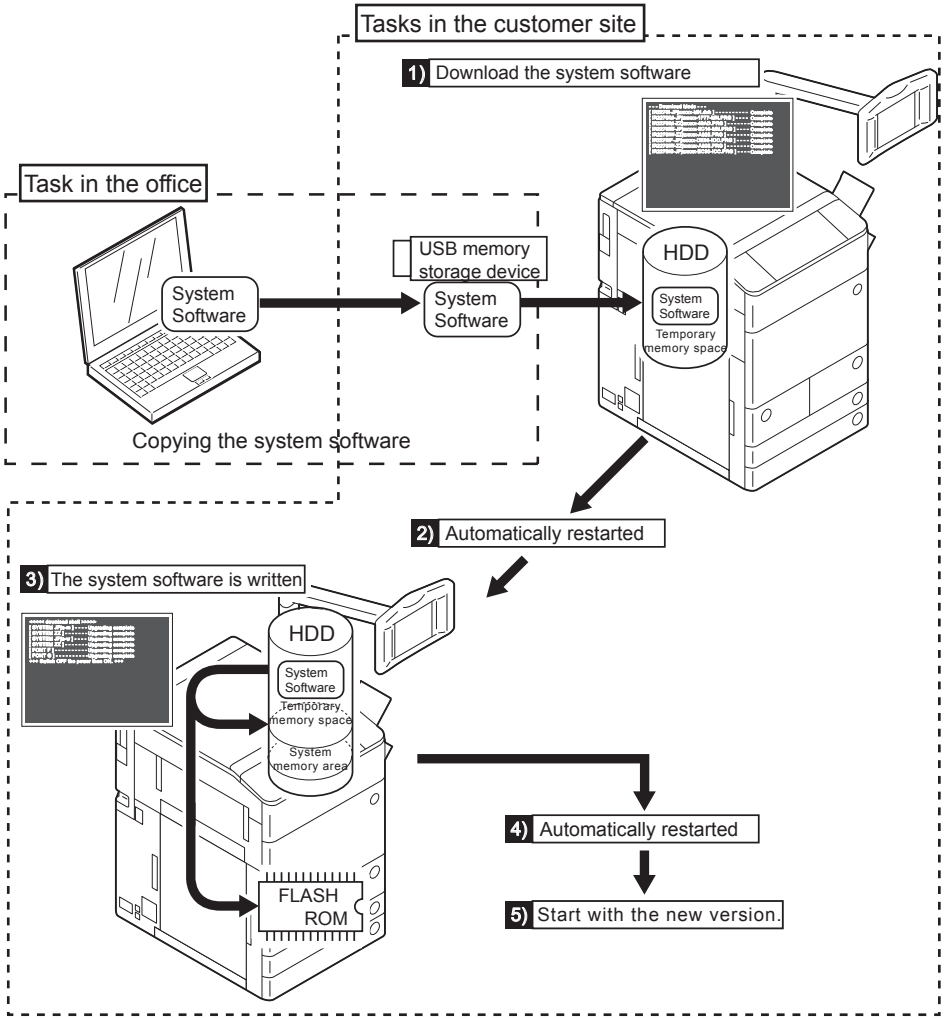
F-6-114

When downloading the system software, enter any of Download modes below.

- Normal mode (recommended)
  Select COPIER > FUNCTION > SYSTEM > Download in Service mode and press [OK].
- Safe mode (only when any system error occurs or the machine is unable to start normally; turn ON the main power switch by pressing 2 and 8 keys simultaneously on the numeric keypad)

Downloading System Software

Copy the system software from SST to the USB memory storage device storage device.
Right after download from the USB memory storage device storage device, the system software is stored in the temporary memory space in HDD.
The system software is written in the system memory area, Boot area and Flash ROM upon the machine restarted.
When the writing process is successfully completed, the machine is automatically restarted with the new version of the system software.



F-6-115

Copying System Software

System CD to SST

Copy the system software stored in the system CD to SST.

> NOTE:
> The system software is compressed if the file size exceeds the CD memory capacity.
> If the above is the case, decompress the file before copying it to SST.

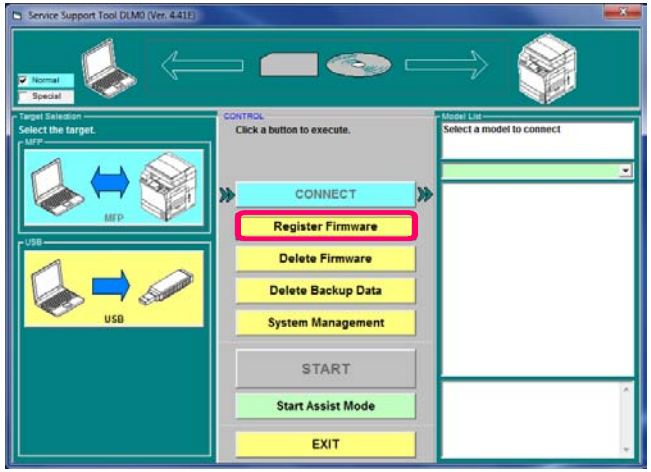
Preparation

Requirements:

- PC with SST Ver. 4.41 or later installed
- The system CD for this machine

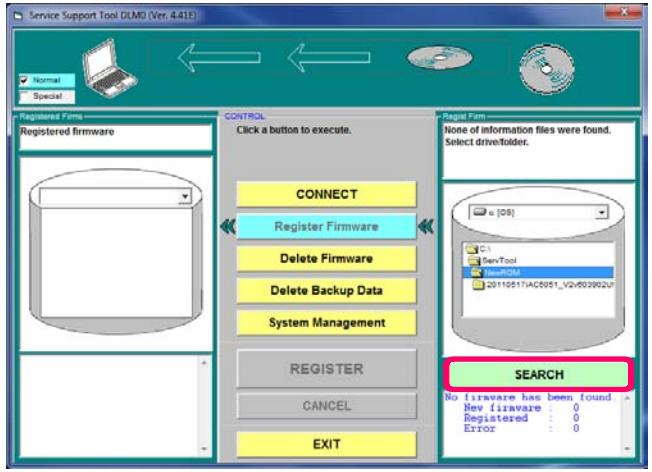
Steps to copy the system software

1) Start the PC.
2) Set the system CD to the PC.
3) Start SST.
4) Click “Register Firmware” button.



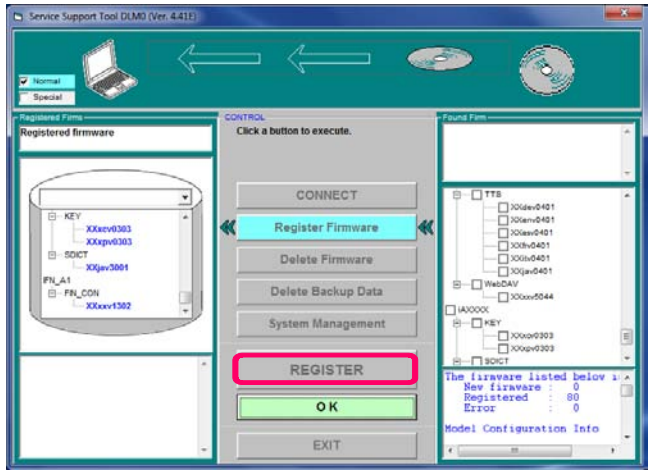
F-6-116

5) Select the drive where the system CD is set and click “Search” button.



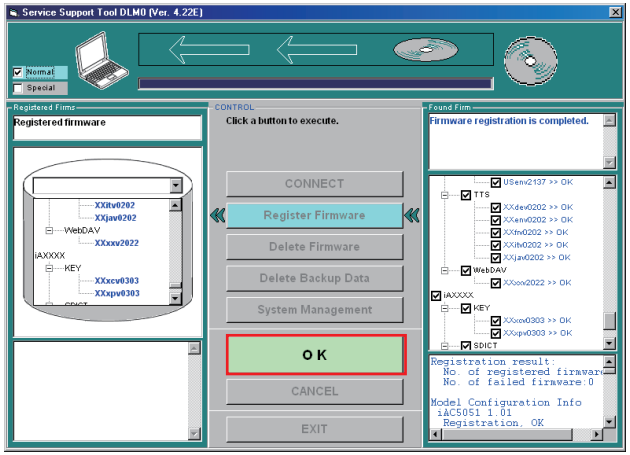
F-6-117

6) The list of the system software components stored in the system CD is shown on the screen.
Uncheck the box(es) of unnecessary folder(s) and/or system software component(s) and click “Copy” button.



F-6-118

7) The message is shown when the system software is copied. Click “OK” button.



F-6-119

SST to USB memory Storage Device

Copy the system software stored in SST to the USB memory storage device storage device.

Preparation

Requirements:

- PC with SST Ver. 4.41 or later installed
- USB memory storage device (*)

Requirements for USB memory storage device:

Interface: USB 1.1 or later (USB 2.0 is recommended)

Memory capacity: 1GB or more is recommended (the total file size of the system software is approx. 500MB).

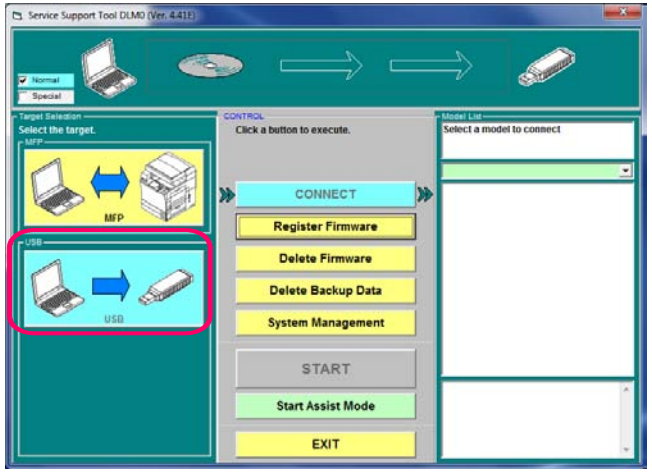
Format: FAT (FAT 16), FAT32 (NTFS and HFS are not supported). The memory is formatted in a partition (multiple partitions are not supported)

Unavailable USB memory: memory that is protected by a password or the encryption technology.

Steps to copy the system software

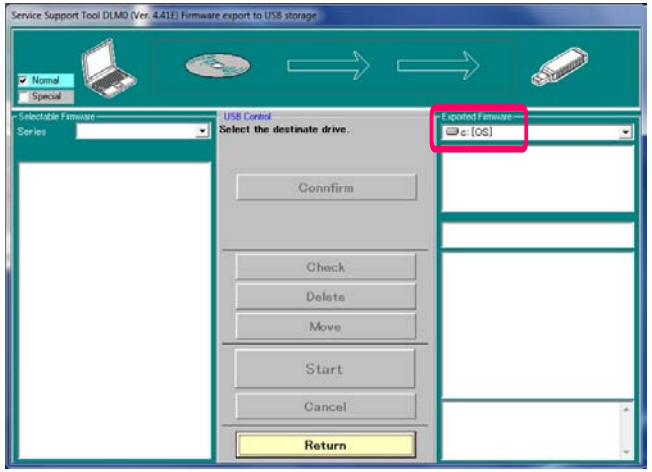
1) Start the PC.
2) Insert the USB memory storage device storage device to the slot of the PC.
3) Start SST.

4) Click the USB icon shown in "Select the target" Screen.



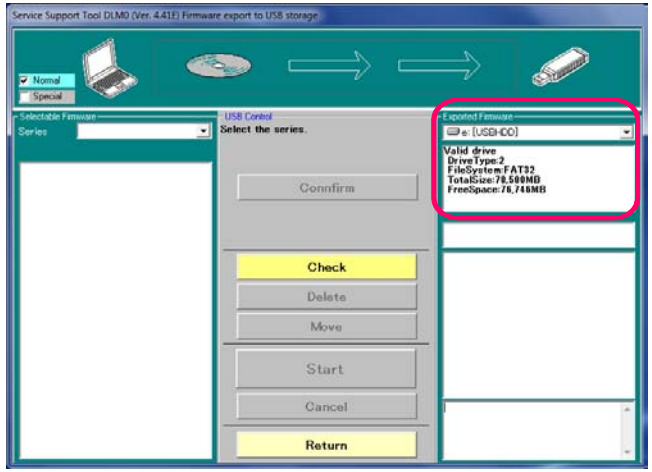
F-6-120

5) Select the drive (removable disk) where the USB memory storage device storage device is inserted.



F-6-121

6) Select “Series” and “Version” (the System Version).

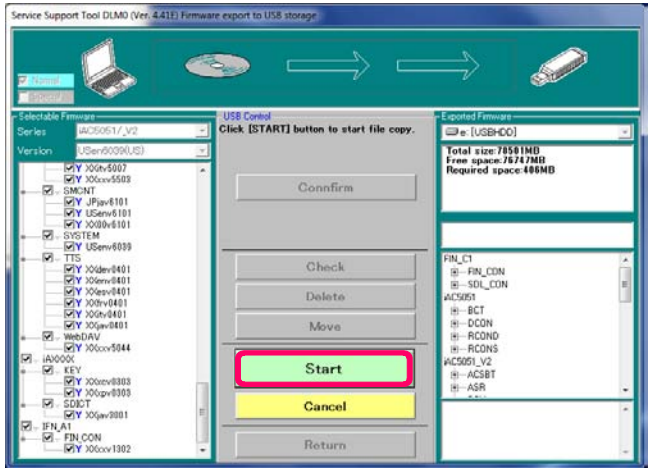


F-6-122

NOTE:
The signs shown in the field of “Firmware registration static” indicate the following:
Y: Stored in SST
N: Not stored in SST

7) Click “Start” button.

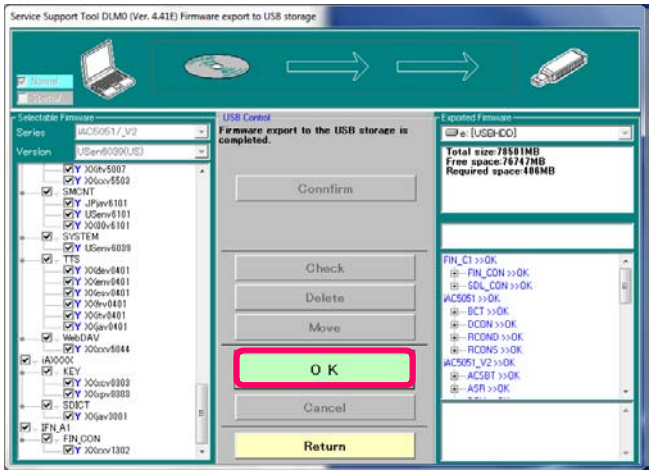
Start copying the system software to the USB memory storage device storage device.



F-6-123

NOTE:
When the accessory configuration is known for the machine where the system software is to be downloaded, uncheck the boxes of unnecessary accessories. E753-0001 is triggered if the software for an unnecessary accessory is downloaded. (If this occurred, turn OFF/ON the power to recover the error.)

8) Click “OK” when the system software is successfully copied in the USB memory storage device storage device.

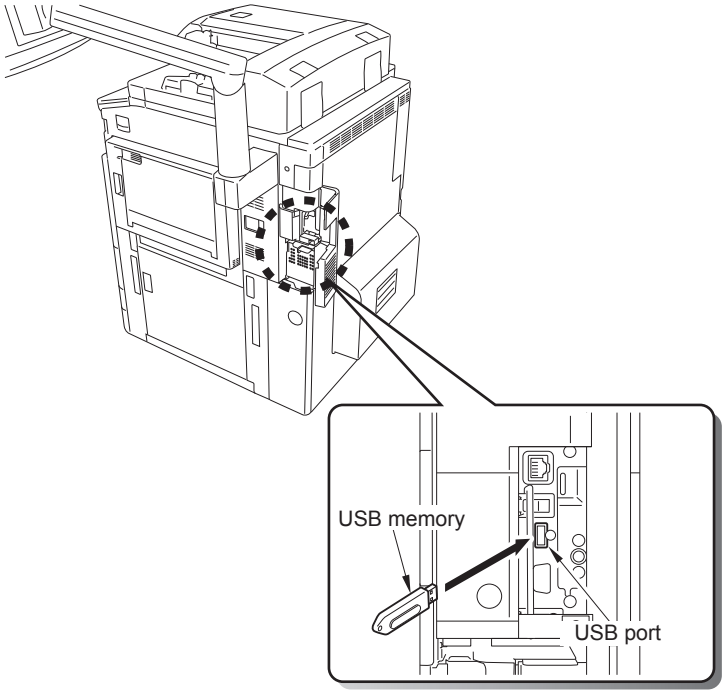


F-6-124

Connection

CAUTION:
This machine does not communicate with SST once it recognizes a USB memory storage device; therefore, SST and a USB memory storage device cannot be used at the same time.

Preparation
Item to prepare: a USB memory storage device, which the system software for this machine is stored.
Procedure
1) If a cross cable is connected to this machine, remove the cross cable.
2) Connect the USB memory storage device to the USB port.



F-6-125

3) Switch to the download mode to use.

- In the case of normal mode (Recommended)
  Select the following in Service Mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and then press [OK].
- In the case of safe mode (This mode should not be used as general rule. To be used only when normal startup fails, such as a system error, etc.)
  While pressing 2 + 8 keys at the same time, turn ON the Main Power Switch.
  Once this machine recognizes the USB memory storage device, the following menu is displayed on the Control Panel.

```
[[[[[ download Menu (USB) ]]]]]]]]]]]
-------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 [Reset]: Shutdown
```

F-6-126

CAUTION:

Depending on the manufacturer or the model, this machine may not recognize the USB memory storage device.

This machine retries the detection of a USB memory storage device for up to 60 seconds after power-ON. The above menu is not displayed if the recognition of a USB memory storage device is failed within the time period.

In such a case, use another USB memory storage device.

Upgrading System Software

Menu/Function Overview

```
[[[[[ download Menu (USB) ]]]]]]]]]]]
-------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 [Reset]: Shutdown
```

F-6-127

Downloading System Software

[1]: Upgrade(Auto)
To download/write the system software (automatic)

[2]: Upgrade (w Confirmation)
To download the system software (confirmation)

[3]: Upgrade (Overwrite all)
To download the system software (overwriting)

[4]: Format HDD
To format the HDD/BOOTDEV partition

[5]: Backup
Collection of debug Log or Service Print(Because You are for R&D review, do not use it other than the following.)

[7]: Clear downloaded files
To clear the system software immediately after downloading (before writing)

[8]: Download Menu 2
To move to Download Menu 2

[9]: Other Menu
Others (e.g.: version information)

[Reset]: Shutdown
To execute shutdown sequence

Press the key on the Control Panel to select/execute the functions.

Points to Note When Operating/Using System Software

NOTE:
The following download method is recommended to execute normal download of the system software (any download work other than downloading after replacing/formatting the HDD):
Download mode --- Normal mode
Download menu --- [1]: Upgrade (Auto)

CAUTION:Prohibition to turn OFF the power during downloading/writing

Do not turn OFF the power during downloading or writing of the system software; otherwise, this machine may not be started even if the power is turned ON.

If the machine fails to be started even if the power is turned ON, start the machine in safe mode (pressing 2 + 8 keys).

When the machine can be started in safe mode, be sure to download the system software once again.

If the machine fails to be started, replace the HDD and then download the system software.

CAUTION:Caution when the power is turned OFF

Be sure to execute shutdown sequence to quit download mode.

Pressing the [Reset] key and then the [0] key on the menu screen executes the shutdown sequence.

Once the message on the touch panel disappears, turn OFF the Main Power Switch.

F-6-128

■ Downloading/Writing System Software (Automatic)

● [1]: Upgrade (Auto)

The version is compared between the host machine/option and the system software in the USB memory storage device to download only the system software with newer version in the USB memory storage device to the temporary storage area of the HDD.
In safe mode, only the following system software can retrieve the version information (the version is compared).

SYSTEM, LANGUAGE, RUI, MERAPCONT, SDICT

As for system software of the host machine whose version information cannot be obtained, the software for RCON is not downloaded, but other software are downloaded.

For the system software of the option that is not connected, it is handled as follows:
<In the case of startup in normal mode (Recommended)>

For the option that is not connected, the system software is not to be downloaded.

<In the case of startup in safe mode>

The system software of the options which are not connected are not downloaded.

After downloading is complete, this machine is automatically restarted to write the downloaded system software to the HDD system area/flash ROM.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.

[1] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

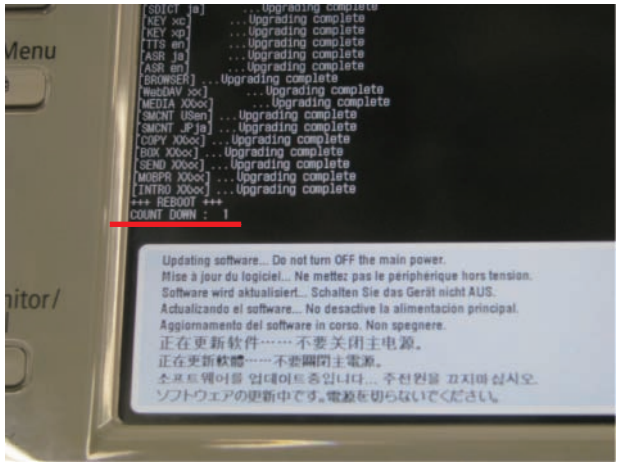
```
[[[[[ download Menu (USB) ]]]]]]]]]]
-------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 [Reset]: Shutdown
```

F-6-129

During downloading, download status is displayed on the Control Panel.

F-6-130

Once downloading is complete, this machine is automatically restarted to start writing to the HDD system area/flash ROM.
The screen shows the countdown once writing process is properly complete.



F-6-131

Once the countdown shows 0, this machine is automatically restarted.

4) When the main menu is displayed, press the removal key at the lower right on the touch panel and select removal of the memory media, and then remove the USB memory storage device.

CAUTION:
After HDD formatting and downloading, this machine takes a long time (for writing the software).
This machine, in some cases, stays in standby screen up to 10 min during writing. At this time, do not turn off the main power switch.

Downloading System Software (Confirmation)

[2]: Upgrade (w Confirmation)

The version is compared between the host machine/option and the system software in the USB memory storage device to download the system software with newer version in the USB memory storage device to the temporary storage area of the HDD.
When the system software version in the USB memory storage device is the same or older, a confirmation message is displayed on the Control Panel so that the user can select whether to overwrite or not.

In safe mode, only the following system software can retrieve the version information (the version is compared).
SYSTEM, LANGUAGE, RUI, MERAPCONT, SDICT
As for system software of the host machine whose version information cannot be obtained, the software for RCON is not downloaded, but other software are downloaded.

For the system software of the option that is not connected, it is handled as follows:
<In the case of startup in normal mode (Recommended)>
For the option that is not connected, the system software is not to be downloaded.

<In the case of startup in safe mode>
The system software of the options which are not connected are not downloaded.

Unlike menu [1], this machine is not automatically started despite completion of downloading. By manually turning OFF/ON the power, the system software is written at the time of startup. In this case, starting the machine in safe mode deletes the downloaded system software saved in the temporary storage area; therefore, do not press the numeric keys (2 + 8), but execute normal startup to execute writing.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [2] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

```
[[[[[ download Menu (USB) ]]]]]]]]]]
----------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 /[2] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

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During downloading, download status is displayed on the Control Panel.

NOTE:
When the system software version in the USB memory storage device is the same or older than the system software in the HDD, a message is displayed in each case to confirm whether to overwrite or not.
Press the key on the Control Panel.
[0]: To overwrite/Any key other than [0]: Not to overwrite

```
////Copying files from USB-dev.///
[Warning] Same version or old version.
-------------------------------
[BOOT XXxx]...Same. OVERWRITE?
   -- (YES):0 /(NO):The other keys—
```

F-6-133

Once downloading is complete, a message is displayed to encourage pressing the “Reset” key.

F-6-134

4) Press the “Reset” key.
   Shutdown sequence is executed.
5) Once the message on the touch panel disappears, turn OFF the Main Power Switch.
6) Remove the USB memory storage device.
7) Ensure the LED at the lower right on the Control Panel is turned OFF, and turn ON the Main Power Switch.
   Writing to the HDD system area/flash ROM is started after the startup. The screen shows the countdown once the writing process is properly completed.
   The screen shows the countdown once the writing process is properly completed. This machine is restarted with the downloaded system software at the count of 0.

Downloading System Software (Overwriting)

[3]: Upgrade (Overwrite all)

Regardless of the system software version in the host machine, all the system software in the USB memory storage device is downloaded.
Regardless of the system software version in the host machine, all the system software in the USB memory storage device is downloaded.
Unlike menu [1], this machine is not automatically started despite completion of downloading.
By manually turning OFF/ON the power, the system software is written at the time of startup.
In this case, starting the machine in safe mode deletes the downloaded system software saved in the temporary storage area; therefore, do not press the numeric keys (2 + 8), but execute normal startup to execute writing.

Operation procedure
1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
[3] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

```
[[[[[ download Menu (USB) ]]]]]]]]]]]
-------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 /[3] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

F-6-135

During downloading, download status is displayed on the Control Panel.

CAUTION:

In overwriting download mode of the USB memory storage device, all the system software stored in the USB memory storage device is downloaded as well. Therefore, be sure to keep the following in mind: If the USB memory storage device includes the system software of non-connecting option, E753-0001 is displayed when the writing process is completed.

In the case of an error in downloading of the non-connecting option, the machine can be recovered by turning OFF/ON the power.

To prevent such error, uncheck the applicable system software so that the system software of the non-connecting option is not downloaded when downloading the system software from SST to USB.

Once downloading is complete, a message is displayed to encourage pressing the “Reset” key.

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4) Press the “Reset” key.
Shutdown sequence is executed.
5) Once the message on the touch panel disappears, turn OFF the Main Power Switch.
6) Remove the USB memory storage device.
7) After checking that the LED is turned OFF at the lower right on the Control Panel, turn ON the Main Power Switch.
Writing to the HDD system area/flash ROM is started after the startup. The screen shows the countdown once the writing process is properly complete.
When the countdown shows 0, this machine is restarted with the downloaded system software.

Formatting HDD

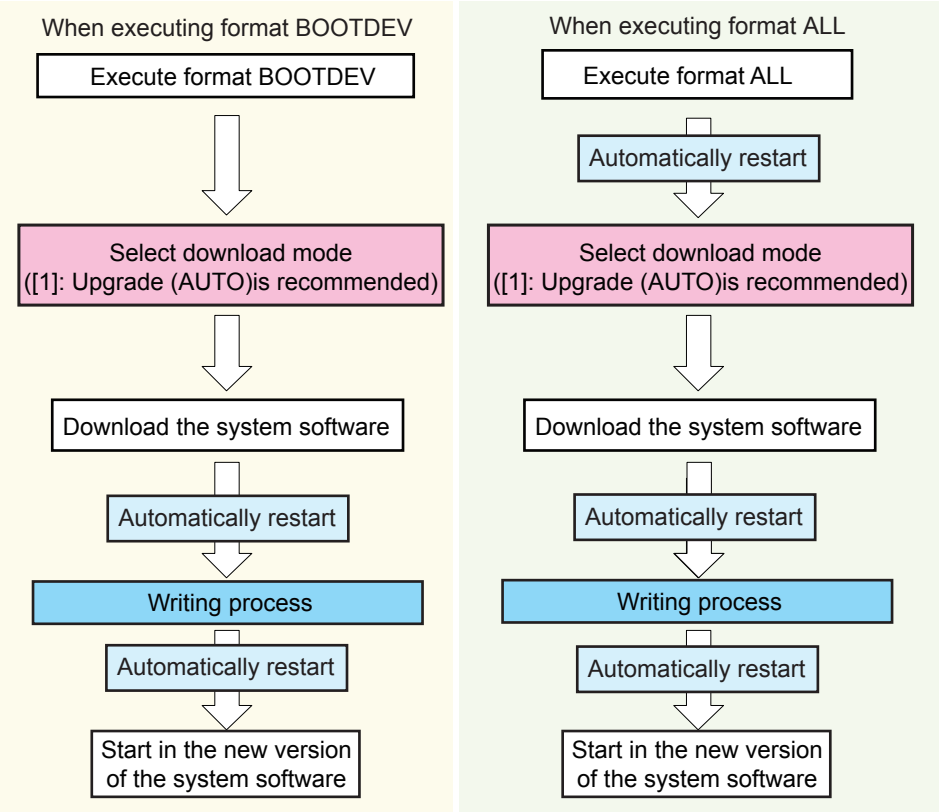
HDD Format Overview

The following 2 types of formatting methods are available with this machine:

- ALL: To initialize the entire HDD
  - In the case of installing the HDD provided as a service part (a new HDD).
  - In the case of cleaning the entire software and data in the HDD to reinstall the system software.

  All the user data and MEAP application in the HDD is deleted when executing Format ALL with the machine in use; therefore, be sure to obtain agreement from the user to execute Format ALL.
- BOOTDEV: to format the system software storage area on HDD.
  - In the case of normal upgrading by cleaning the storage area of the system software to reinstall the system software, HDD formatting is not required.
  - User data is not erased.

After formatting, this machine cannot be started unless the system software is downloaded. When Format ALL is executed, initialization process is reflected to the HDD so that this machine is automatically restarted to automatically enter download mode. In the case of formatting BOOTDEV, the machine is not automatically restarted, but the system software can be downloaded.
After formatting is executed, be sure to download the system software by “[1]: Upgrade (AUTO)” in main menu.



F-6-137

[4]: Format HDD

This mode executes formatting of BOOTDEV partition or the entire HDD.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [4] -> [0]: To execute formating /Any key other than [0] key: To return to the menu screen.

```
[[[[[ download Menu (USB) ]]]]]]]]]]]
-------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 /[4] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

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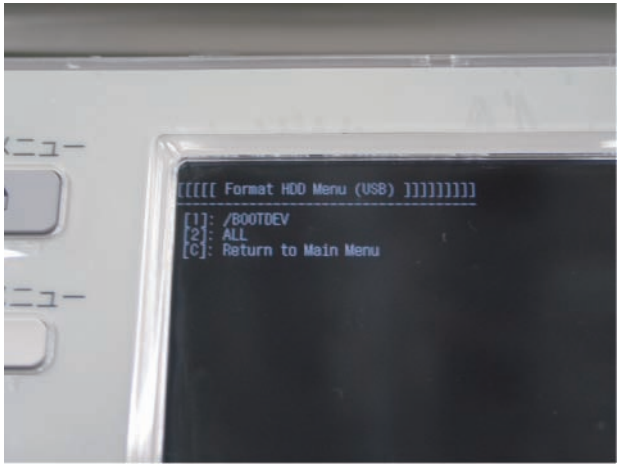
4) Press the key on the Control Panel.
   [1] -> [0]: To execute formatting BOOTDEV/Any key other than [0]: To return to the menu screen.
   [2] -> [0]: To execute formatting the entire HDD/Any key other than [0]: To return to the menu screen.
   [C]: To return to the menu screen.



F-6-139

Once downloading is complete, a message is displayed to encourage pressing the “Reset” key.

5) Press any key to return to the menu screen.
6) Download the system software.
   Refer to “Separate Download” for details.

Backup

[5]: Backup

CAUTION:

This function includes R&D review.Do not usually use it other than the following function.

The USB memory collecting log uses the USB memory where You registered a system software for this Host machine with by SST.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [5] -> [0]: To execute formating /Any key other than [0] key: To return to the menu screen.
4) SRAM backup of Main Controller PCB 2
   [1] Sublog -> Collect debugging log.
   [4] ServicePrint -> Save the service data which P-PRINT or etc. output to paper with a text format.

```
[[[[[ Backup Menu (USB) ]]]]]]]]]]]
――――――――――――――――――――

[1]: Sublog
[4]: ServicePrint
[5]: Netcap
[C]: Return to Main Menu
```

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Clearing Download File

[7]: Clear downloaded files

This menu clears the system software stored in the temporary storage area of the HDD.

This function is used to clear the downloaded file without writing it after downloading the system software in menu [2] or [3].

Operation procedure

1) After downloading by menu [2] or [3], press the “Reset” key to execute shutdown sequence, and then turn OFF the main power once the screen display disappears.
2) Start the machine in safe mode (while pressing 2 + 8 keys at the same time, turn ON the Main Power Switch).

If the system software is stored in the HDD temporary storage area when starting the machine in safe mode, the system software is deleted. In such a case, the following message is displayed on the touch panel.

“All downloaded file is deleted.”

3) Turn OFF the Main Power Switch.
4) Remove the USB memory storage device.

Download Menu 2

[8]: Download Menu 2

[8]: Download Menu 2

[1]: Service Mode Password Clear

```
[[[[[ download Menu 2nd (USB) ]]]]]]
――――――――――――――――――――――――――――――――――

[1]: Service Mode Password Clear
[C]: Return to Main Menu
```

F-6-141

Other Menu

[9]: Other Menu

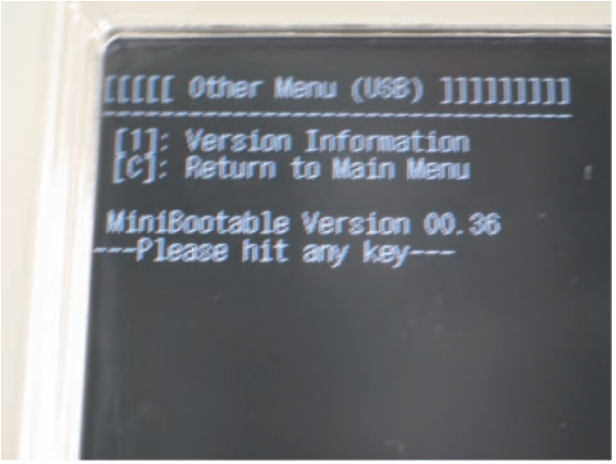
This mode displays other menu.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [9] -> [0]: To display other menu/Any key other than [0] key: To return to the menu screen.

[1]: Version Information

This mode displays the version of download mode.



F-6-142

Press any key to return to the main menu.

Troubleshooting

Error Code: E753-0001

Cause

In the case of an error during writing process of the system software or in the case of writing the system software of the option that is not installed, an error is determined to display E753-0001.

Remedy

The result of writing process is displayed at the upper side of E753-0001 error display.
Check if the target option is properly installed and see if the software to download is for the correct target option, and then execute downloading again.

Upgrading by SST

Be sure to use Assist mode as a general rule because the system software of the non-connecting option is not to be downloaded in Assist mode.
In Single mode, it is available to download the system software of the option that is not installed.
In the case of downloading the Finisher's system software, make the download mode of the Host Machine in normal mode and connect to SST, and then download just the system software of the Finisher with the version information displayed at the right side of the SST screen.
In the case that Super G3FAX Board – AE1 is not installed or in the case of download mode in safe mode, G3CCB/G3CCM is not displayed on the list of downloadable system software.

NOTE:
Image Reader has 2 types of system software: RCOND and RCONS.
Downloading both RCOND and RCONS results in writing of only the system software that complies with the Image Reader installed in the Host Machine. When downloading the system software that does not comply with the Image Reader installed in the Host Machine, it results in skipping of writing process (it will not be an error).

Making Initial Checks

List of Initial Check Items

Item	No.	Detail	Check
Site Environment	1	The voltage of the power supply is as rated (±10%).	
	2	The site is not a high temperature / humidity environment (near a water faucet, water boiler, humidifi er), and it is not in a cold place. The machine is not near a source of fire or dust.	
	3	The site is not subject to ammonium gas.	
	4	The site is not exposed to direct rays of the sun. (Otherwise, provide curtains.)	
	5	The site is well ventilated, and the floor keeps the machine level.	
	6	The machine's power plug remains connected to the power outlet.	
Checking the Paper	7	The paper is of a recommended type.	
	8	The paper is not moist. Try paper fresh out of package.	
Checking the Placement of Paper	9	Check the cassette and the manual feed tray to see if the paper is not in excess of a specific level.	
	10	If a transparency is used, check to make sure that it is placed in the correct orientation in the manual feed tray.	
Checking the Durables	11	Check the table of durables to see if any has reached the end of its life.	
Checking the Periodically Replaced Parts	12	Check the scheduled servicing table and the periodically replaced parts table, and replace any part that has reached the time of replacement.	

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Version Upgrade via CDS

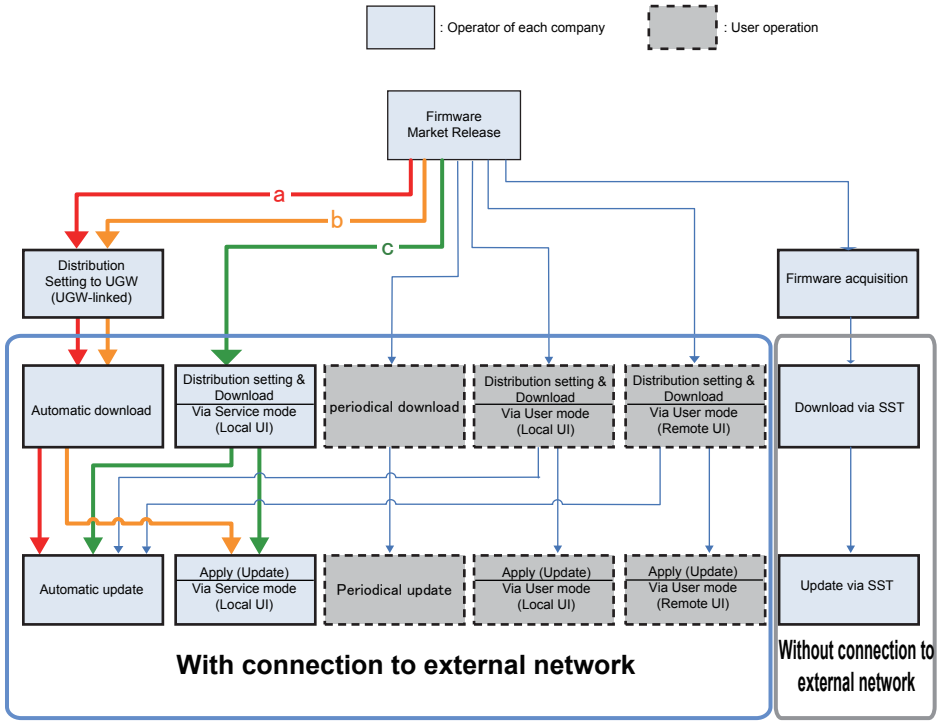
Overview

Among the 4 methods in which service technicians provide firmware install services, the following 3 methods are available using Updater functions.

a. UGW-linked Download and Update (Full-remote Update)

b. UGW-linked Download (Remote Distribution Update)

c. Manual Download and Update (On-site Update from Service Mode)



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*1: Schedules for UGW-linked distribution are maintained on CDS.

NOTE:
- See User Manual of the device for how to connect the device to the external network.
- When needed, perform the communication test before actual download to check if the communication with the distribution server is normal.

Preparation

Overview of Preparation

The following should be prepared before using Updater.

- For updating of firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

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- For Install of Application

Installation Method	Network Settings	Enabling [Install Application/ Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

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Setting Sales Company's HQ

When using devices input in the markets listed below, the default setting of Sales Company's HQ should be changed before obtaining firmware distributed from CDS. Unless the setting is changed properly, the desired firmware may not be able to be selected.

Market	Default Setting of Sales Company's HQ	Setting of Sales Company's HQ after Change
Canada	US	CA
Latin America	US/SG	LA
Hong Kong	SG	HK

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Go to the following screen to change the setting of Sales Company's HQ.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL

NOTE:
The list below shows the setting of Sales Company's HQ for CDS-CTS by market.
Check and adhere to the appropriate setting for your market.
<List of Sales Company's HQ and the settings for CDS-CTL>

Japan = JP
USA = US
Singapore = SG
Europe = NL
Korea = KR
China = CN
Hong Kong = HK
Australia = AU
Canada = CA
Latin America= LA

Network Settings

1. Connecting to External Network

The method of connecting to external network is similar to a normal network connection method. Refer to user manual of the device for details.

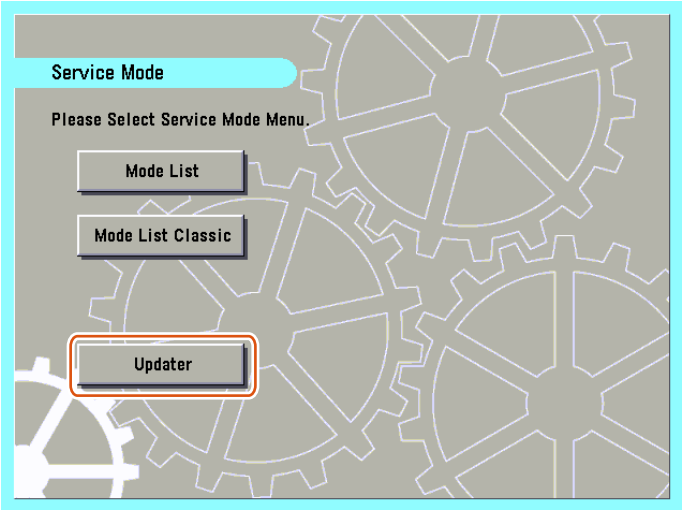
NOTE:
- See User Manual for how to connect the device to the external network.
- Before using UGW link or User mode, see the sections below to prepare as required.
  "Enabling UGW Link"
  "Enabling [Update Firmware] Button of User Mode"
  "Enabling [Install Application/Options] Button of User Mode"

NOTE:
"External Network" here means the network connecting the device to CDS via Internet.

2. Confirming URL Setting of Distribution Server

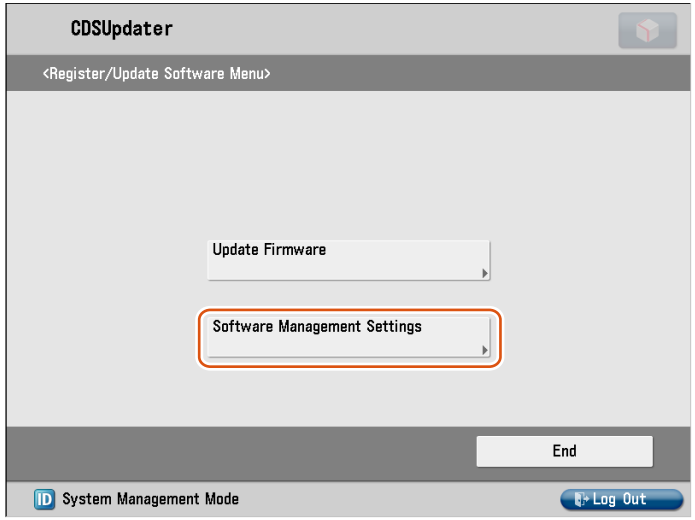
This section describes how to confirm the URL setting of the distribution server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.
2. Press [Updater] button.



F-6-144

3. Press [Software Management Settings] button.



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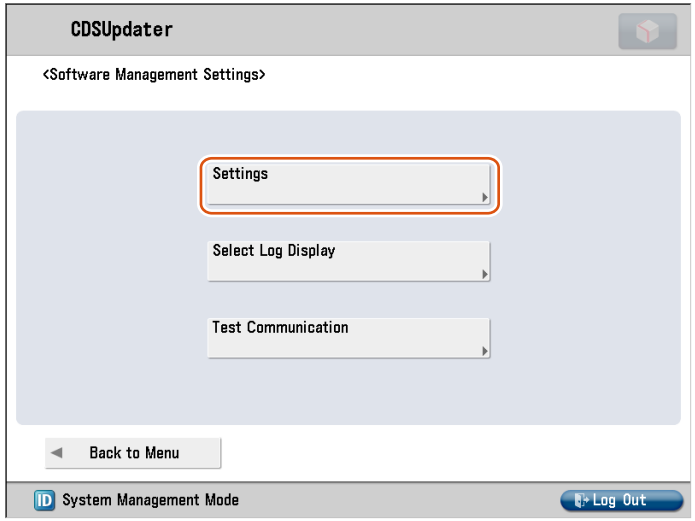
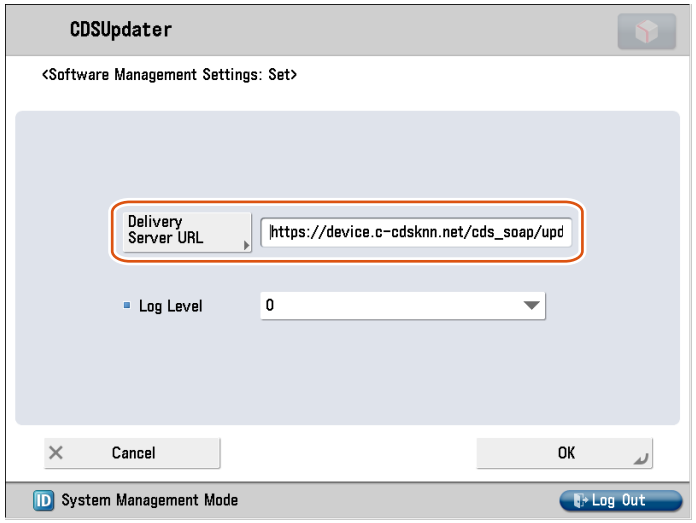
4. Press [Settings] button.



F-6-146

5. Ensure to enter “https://device.c-cdsknn.net/cds_soap/updaterif” in the field beside the [Delivery Server URL] button.
If the URL is not entered or a wrong URL is entered in the field, click [Delivery Server URL] button to show the virtual keypad. Check the URL and enter the correct one.



F-6-147

6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

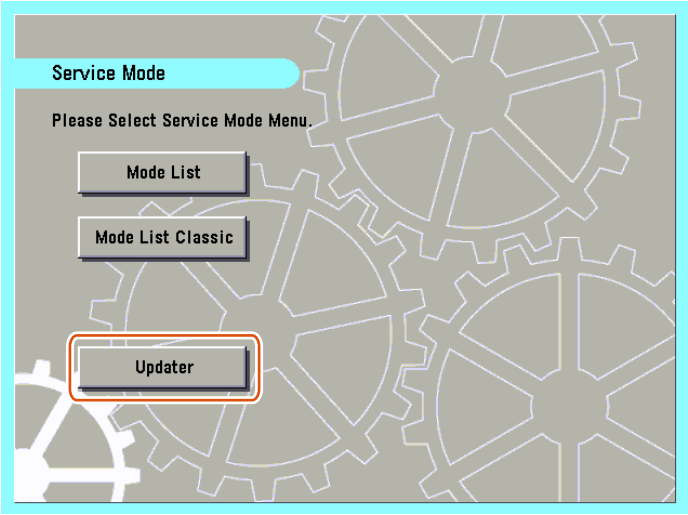
3. Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

NOTE:
CDS and RDS are another servers.
You need the communication test of CDS by all means even if You succeed in a communication test of the RDS.

2. Press [Updater] button.



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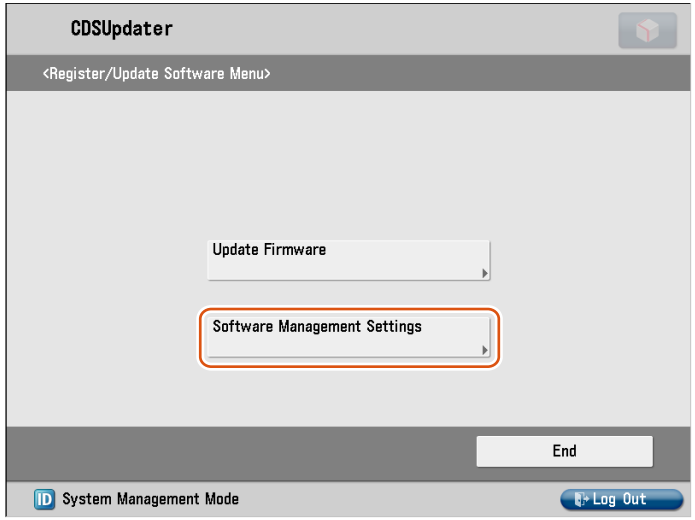
3. Press [Software Management Settings] button.



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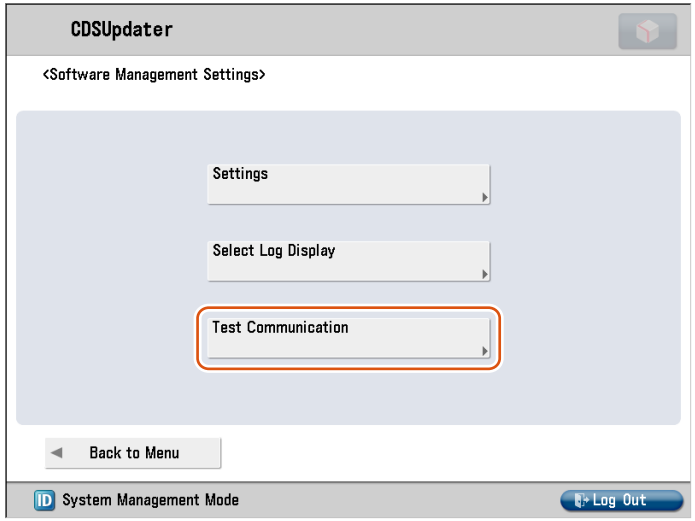
4. Press [Test Communication] button.



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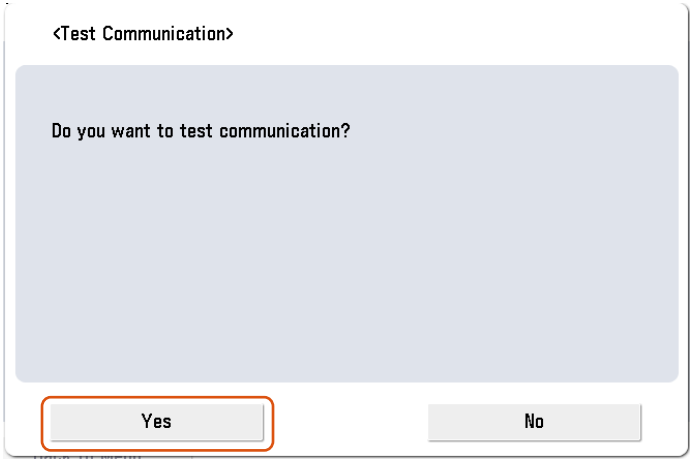
5. Press [Yes] button.



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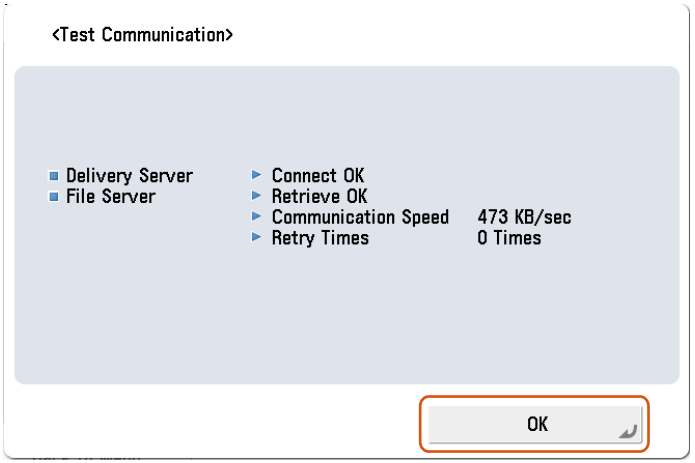
Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).
Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown. Press [OK] button to exit this operation.



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Enabling UGW Link

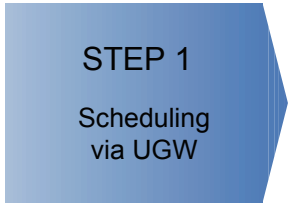
When installing the firmware in the method of “UGW-linked Download and Update” or “UGW-linked Download”, the following should be set before actually using UGW link.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware Distribution Information" to grant the appropriate authorities to each account.

NOTE:
- See “imageWARE Remote Operator’s Manual / e-Maintenance Business Operation Manual“ for how to operate UGW WebPortal.
- [Distribute Firmware] should be set on [Customer Management] screen for staff in charge of setting for [Enter customer information] or [Command for firmware distribution] in order to allow them to select the desired device on [Firmware Distribution Information] screen.

a. UGW-linked Download and Update (Full-remote Update)

See the figure below for the operational flow of “UGW-linked Download and Update”.



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STEP1: Scheduling via UGW

The firmware distribution schedule to the certain device should be set on UGW.
See “UGW-linked Download and Update” in chapter 5 of Operation Manual of Content Delivery System V1.0 for Firmware Distribution for details.

The device checks the schedule concerned every 12 hours on UGW. This allows the device to register the firmware distribution setting, enabling automatic firmware download and update.

CAUTION:

Firmware update will not be triggered when any of the following jobs remains in the queue.

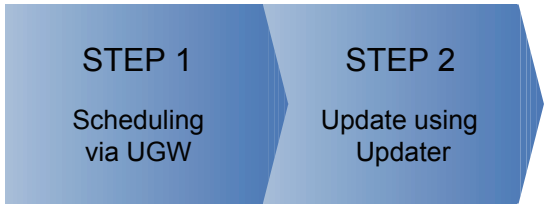
-Print
-Scan
-Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

See the section of "Wait for EOJ (end of job) Function" under “Limitations and Cautions”, “Updater” of Chapter 2 “Technology” of this manual for more detailed information.

NOTE:
To contacts registered for E-mail notification on UGW, the E-mail is sent from UGW upon completing firmware update.

b. UGW-linked Download (Remote Distribution Update)

See the figure below for the operational flow of “UGW-linked download”.



F-6-154

STEP 1: Scheduling via UGW

The firmware distribution schedule to the certain device should be set on UGW.
See “UGW-linked Download” in Operation Manual of CDS V1.0 (for Firmware Distribution) for details.

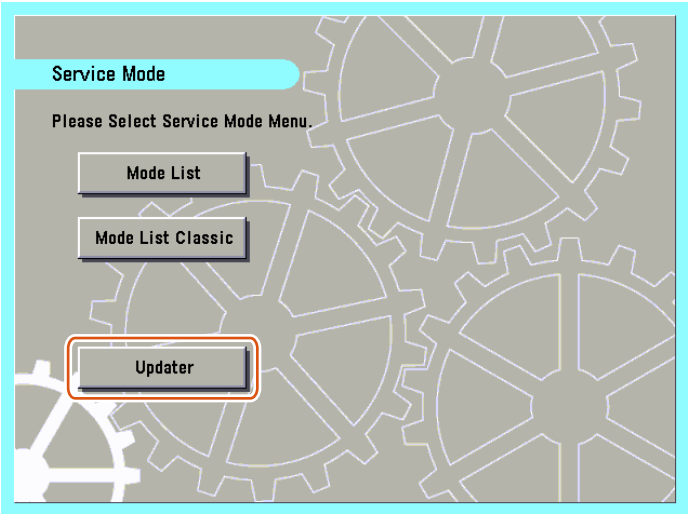
NOTE:
The firmware downloaded by scheduling via UGW can be checked/deleted from User mode, but cannot be updated. If a user download the other firmware, the firmware downloaded with "UGW-linked Download" is overwritten.

STEP 2: Update using Updater

The firmware downloaded on the device can be updated using Updater functions.

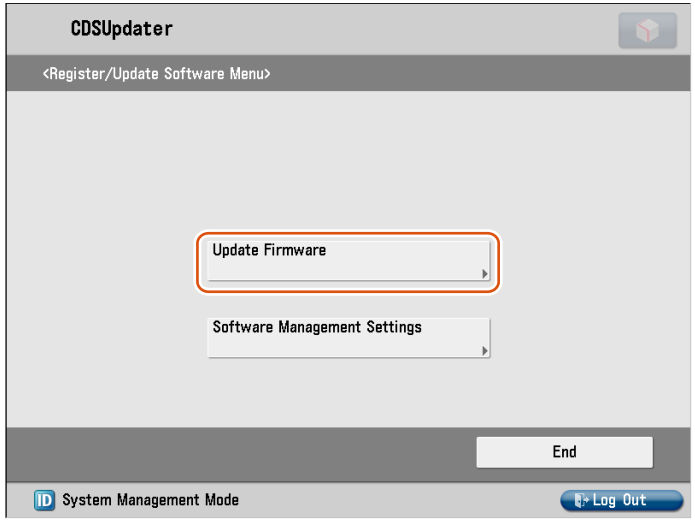
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



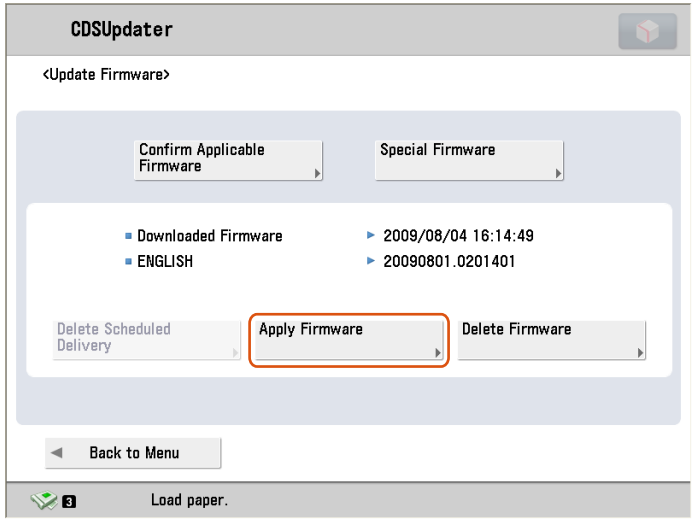
F-6-155

3. Press [Update Firmware] button.



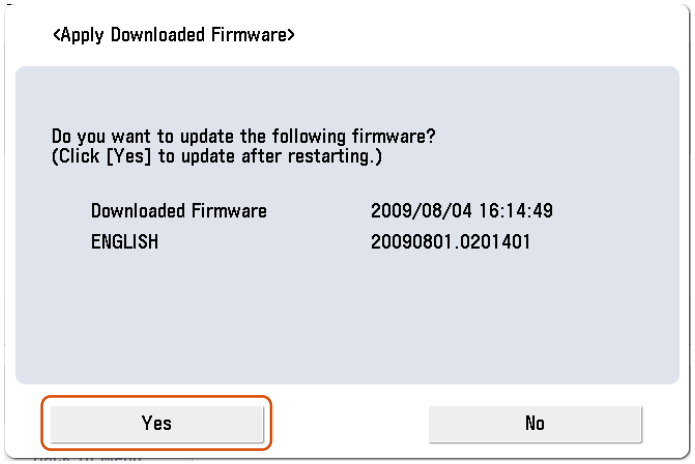
F-6-156

4. Press [Apply Firmware] button.



F-6-157

5. Confirm the downloaded firmware and press [Yes] button.



F-6-158

6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.

7. When the device is restarted, confirm the version of the firmware.
   1). Press [Check Counter Key] button on the control panel.
   2). Press [Check Device Configuration] button.
   3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method of “Manual Download and Update”.

CAUTION:

Firmware update will not be triggered when any of the following jobs remains in the queue.

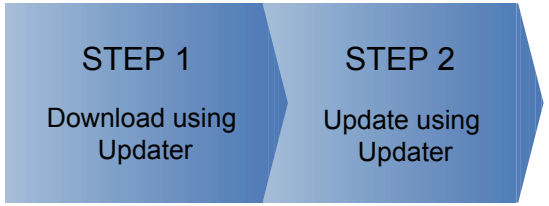
-Print
-Scan
-Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

See the section of "Wait for EOJ (end of job) Function" under “Limitations and Cautions”, “Updater” of Chapter 2 “Technology” of this manual for more detailed information.

NOTE:
To contacts registered for E-mail notification on UGW, the E-mail is sent from UGW upon completing firmware update.

c. Manual Download and Update (On-site Update from Service Mode)

The figure below shows the operational flow of “Manual Download and Update”.



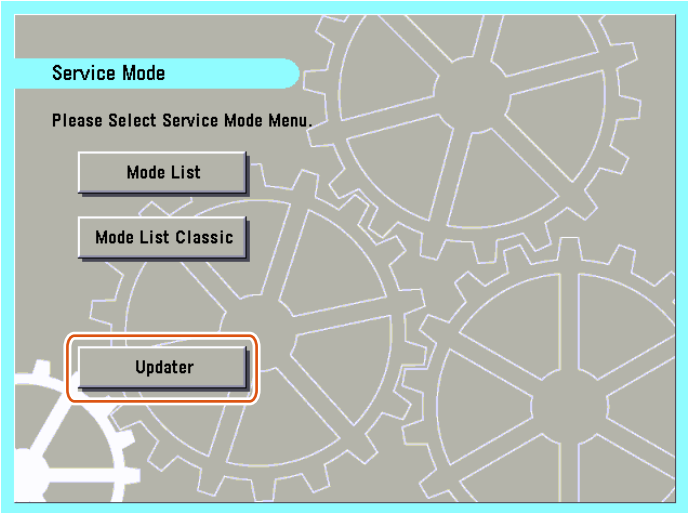
F-6-159

STEP 1: Download using Updater

The firmware can be downloaded from CDS to the device using Updater.

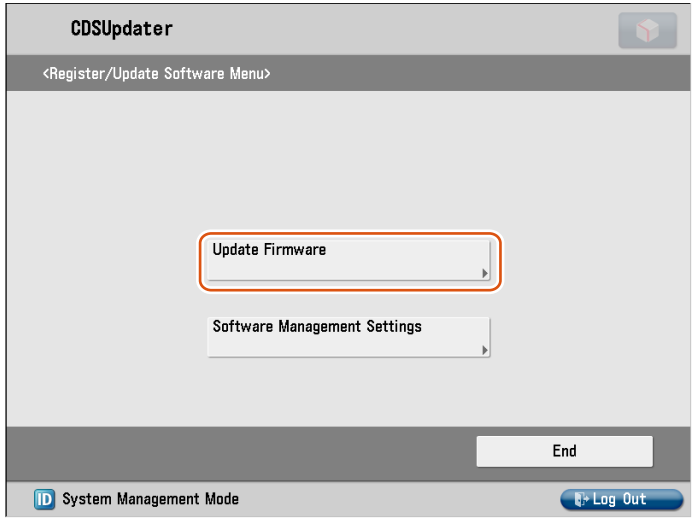
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User mode)] on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



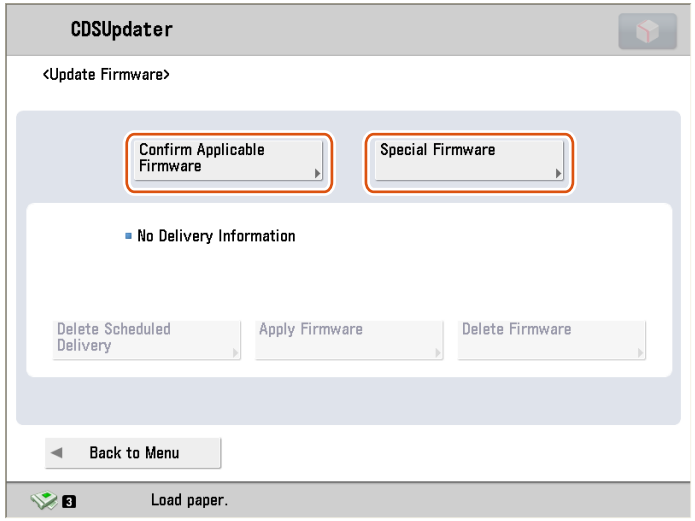
F-6-160

3. Press [Update Firmware] button.



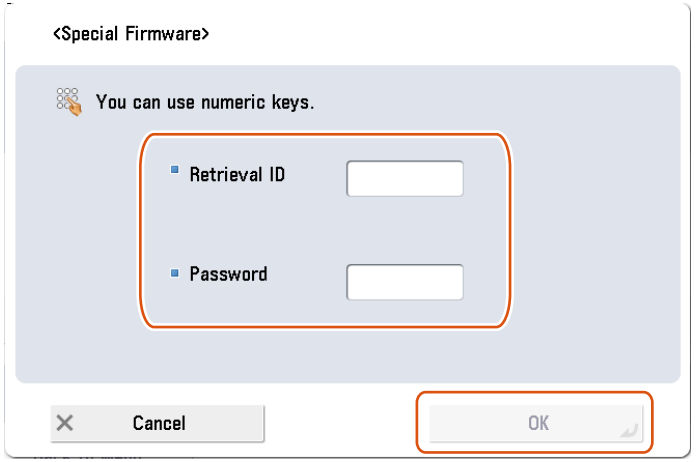
F-6-161

4. Confirm the firmware to be updated in either of the following 2 ways.
- To update to the official edition, press [Confirm Applicable Firmware] button and go to Step 6.
- To update to the individual response edition, press [Special Firmware] and go to Step 5.



F-6-162

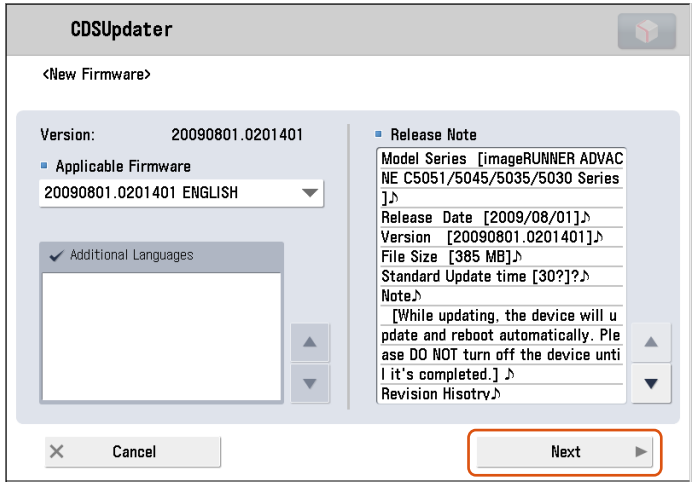
5. [Special Firmware] screen is shown as below. Enter the fields and press [OK] button.



F-6-163

- [Retrieval ID]:
  Enter numeric up to 8 characters.
- [Password]:
  Enter numeric up to 8 characters.

6. [New Firmware] screen is shown as below. Check the contents and press [Next] button.

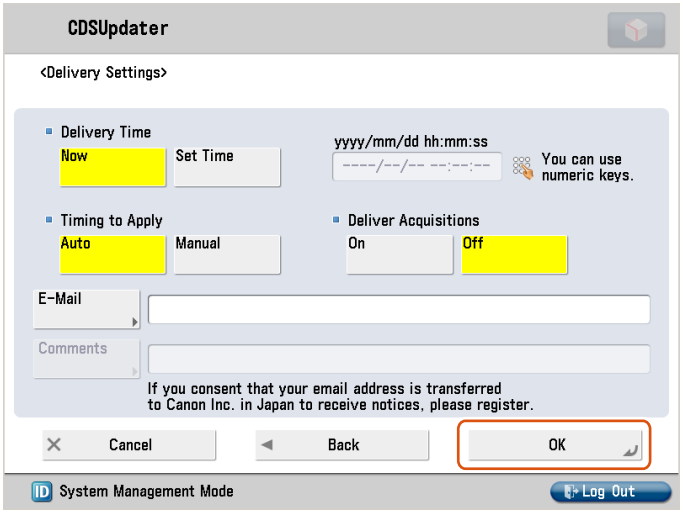


F-6-164

- [Version]:
  The current firmware version is shown.
- [Applicable Firmware]:
  Select the firmware applicable to the device from the dropdown list.
- [Additional Languages]:
  If there are any addtional languages, they are displayed.
  More than 1 language can be selected, and it is possible to add another language when upgrading the firmware.
  Up to 8 languages can be added. The languages already registered in the device are always selected, and SST is used to delete an unnecessary language from the device.
  Include English and Japnese in eight languages.
- [Release Note]:
  If any release note is published, the contents are shown here.

NOTE:
To update to the individual response edition, the firmware corresponding to the ID and password that you input is displayed in [Applicable Firmware].

7. [Delivery Settings] screen is shown as below. Enter the fields and press [OK] button.



F-6-165

- [Delivery Time]:
  Press either [Now] or [Set Time] button.
  - [Now]:
    The firmware is downloaded immediately after distribution schedule is set.
  - [Set Time]:
    Be sure to specify the date (within 30 days) and time. The firmware is downloaded on the specified date and time.
    Enter the date and time using the numeric keypad in the format of “yyyy/mm/dd hh:mm:ss”
- [Timing to Apply]:
  Press either [Auto] or [Manual] button.
  - [Auto]:
    The firmware is applied automatically upon firmware downloaded.
  - [Manual]:
    The firmware is automatically downloaded. Go to [Apply Firmware] to set up for updating the downloaded firmware.
- [Updated Module Only]:
  Press either [On] or [Off] button.
  - [On]:
    Only difference between the current and new firmware is downloaded.
  - [Off]:
    The firmware to be applied is wholly downloaded.

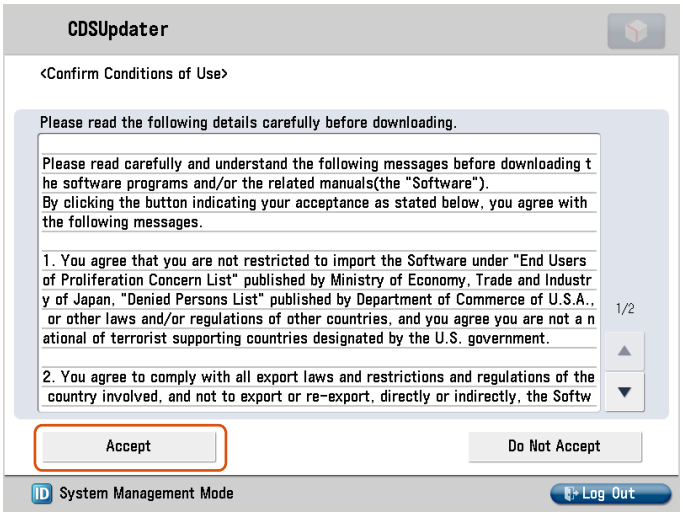
- [E-mail]:
  E-mails concerning update statuses are sent from the device to the contact registered here.
  Enter the E-mail address of the service technician in charge.
  Enter 1-byte alphanumeric or symbols up to 64 characters.
- [Comments]:
  Enter the comment in 1-byte alphanumeric or symbols up to 128 characters.
  Enter the comment to be automatically included in E-mail. Model Name in the comment will be helpful to identify the device relevant to the E-mail.

NOTE:
[Timing to Apply]
- For firmware versions with no remote update permission, [Auto] cannot be selected in [Timing to Apply]

[Updated Module Only]
- For firmware versions with difference-only delivery disabled, only [OFF] can be selected in [Updated Module Only].

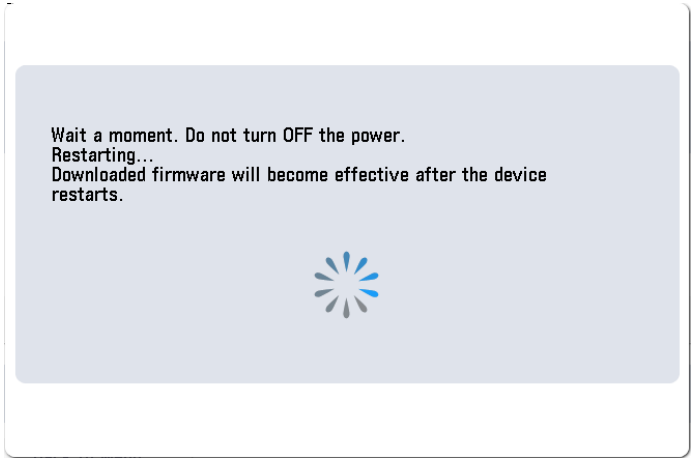
[E-mail]
- To send E-mails to multiple destinations, each E-mail address should be delimited with comma (,) or semi-colon (;).
- For E-mail addresses entered in this field, a notification E-mail is sent at the following timing.
  -Distribution Set
  -Distribution Started
  -Distribution Finished
  -Update Started
  -Update Finished
  -Error Occurred

8. Confirm Export Criteria screen is shown as below. Check the contents and press [Accept] button.



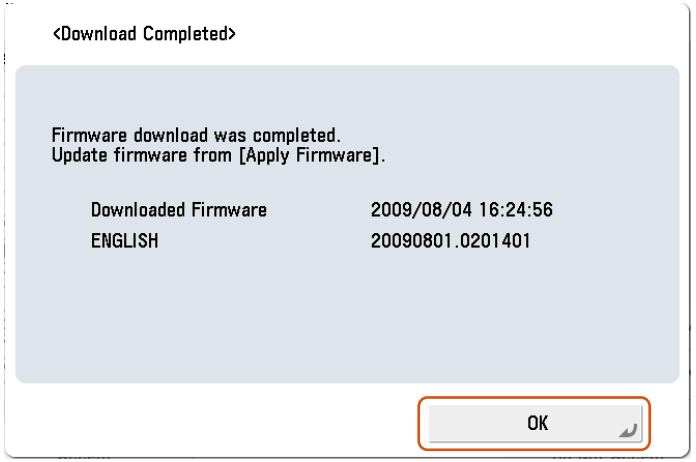
F-6-166

9. One of the screens below is shown according to the setting.
- When Distribution Time and Timing to Apply of Distribution Setting are set to [Now] and [Auto], respectively:
  Firmware is downloaded and updated automatically to the device. The device is automatically restarted upon update completed. Now STEP 1 is successfully completed.



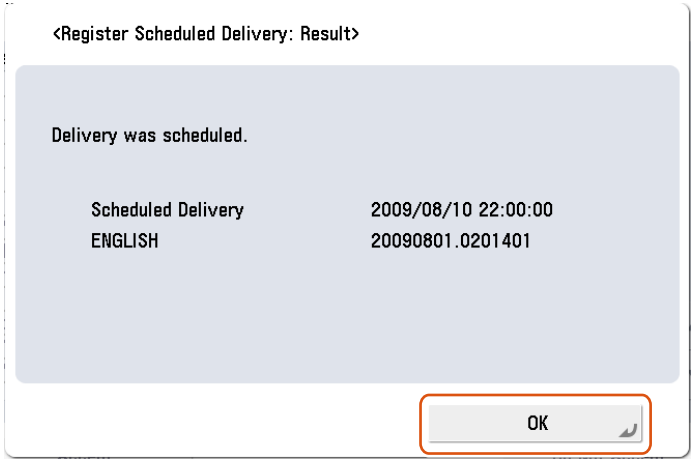
F-6-167

- When Distribution Time and Timing to Apply of Distribution Setting are set to [Now] and [Manual], respectively:
  Confirm the firmware and press [OK] button. Now STEP 1 is successfully completed.



F-6-168

- When Distribution Time is set to [Set Time] in Distribution Setting:
  Confirm the distribution schedule and press [OK] button. Now STEP 1 is successfully completed.



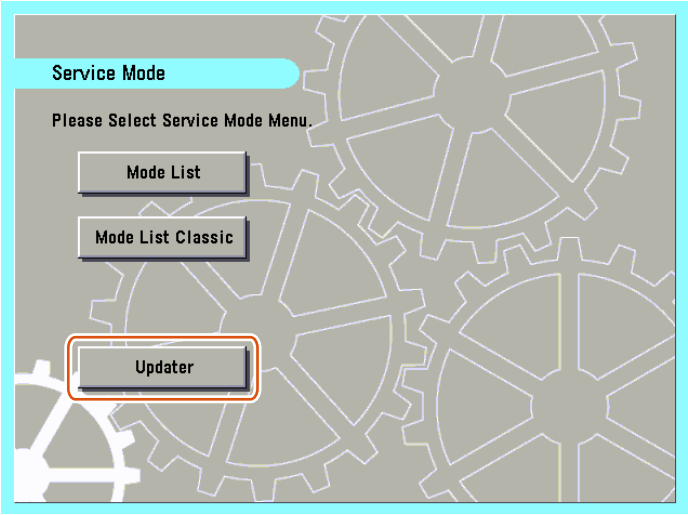
F-6-169

STEP 2: Update using Updater

The firmware downloaded to the device can be updated using Updater functions.
When Timing to Apply is set to [Auto] in Distribution Setting in STEP 1, the firmware is updated automatically. Only when Timing to Apply is set to [Manual], follow the steps below to update the firmware.

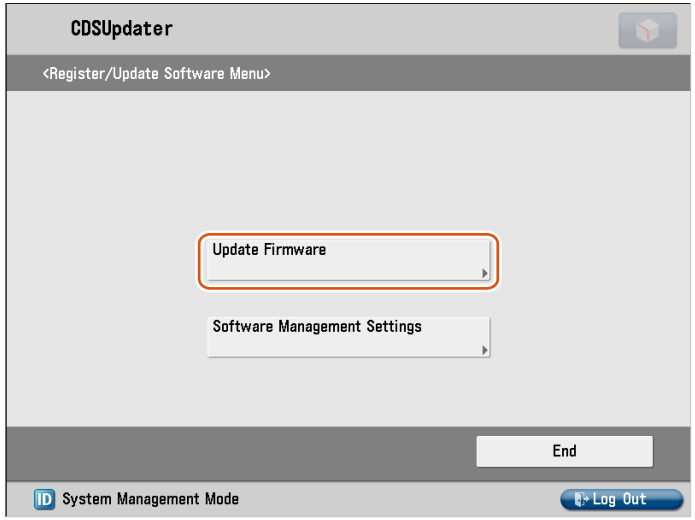
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



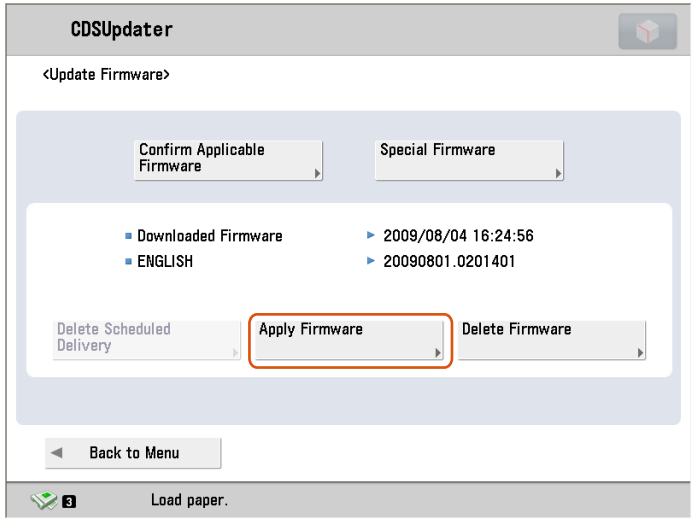
F-6-170

3. Press [Update Firmware] button.



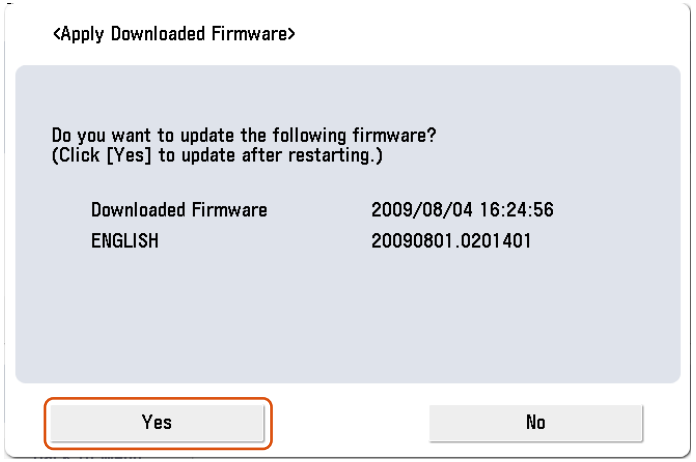
F-6-171

4. Press [Apply Firmware] button.



F-6-172

5. Confirm the downloaded firmware and press [Yes] button.



F-6-173

6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.
7. When the device is restarted, confirm the version of the firmware.
   1). Press [Check Counter Key] button on the control panel.
   2). Press [Check Device Configuration] button.
   3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method of “Manual Download and Update”.

CAUTION:

Firmware update will not be triggered when any of the following jobs remains in the queue.

-Print
-Scan
-Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

See the section of "Wait for EOJ (end of job) Function" under “Limitations and Cautions”, “Updater” of Chapter 2 “Technical Information” of this manual for more detailed information.

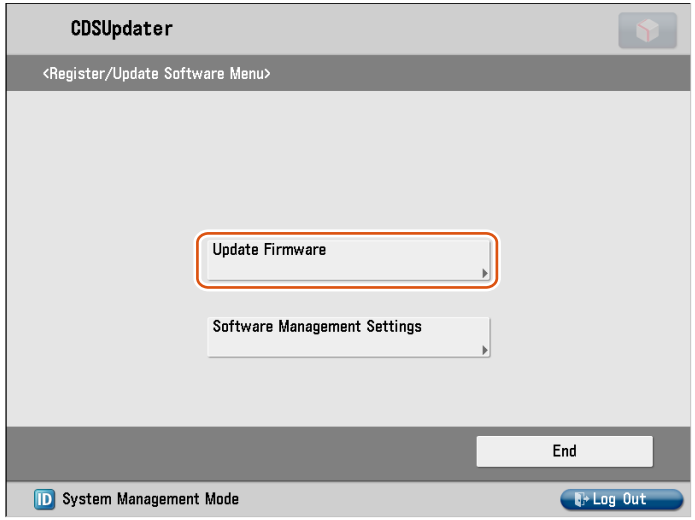
Deleting Firmware Distribution Schedule

This section describes how to delete firmware distribution schedule set by Updater.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] button at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

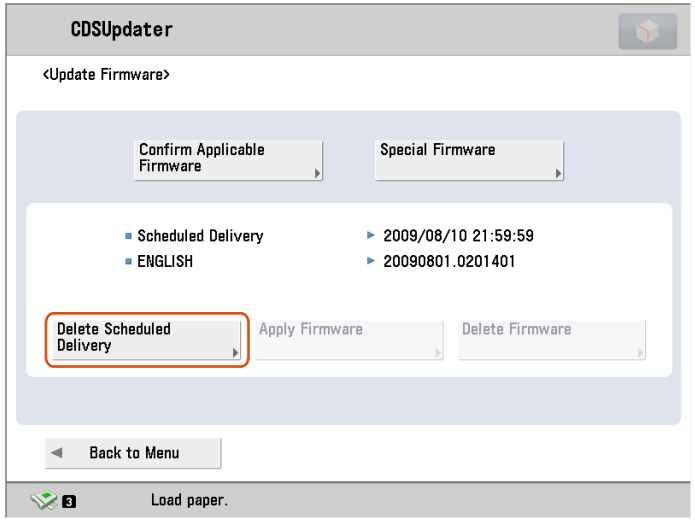
2. Press [Updater] button.

3. Press [Update Firmware] button.



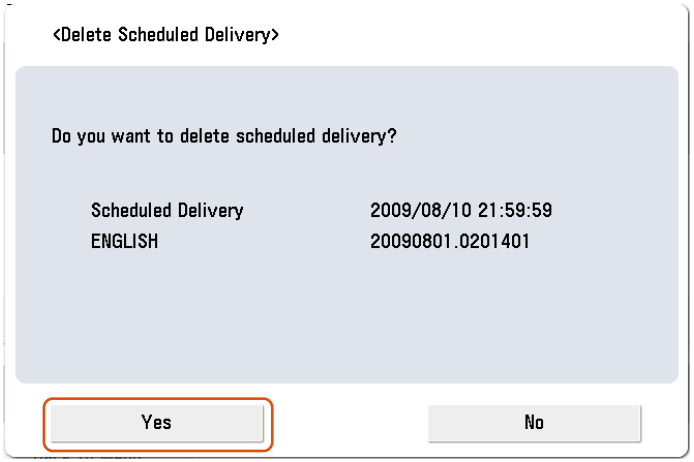
F-6-174

4. Press [Delete Scheduled Delivery] button.



F-6-175

5. Confirm the contents of the distribution schedule and press [Yes] button.



F-6-176

6. Confirm the result of deletion shown on the screen and press [OK] button. Now the firmware distribution schedule is successfully deleted.

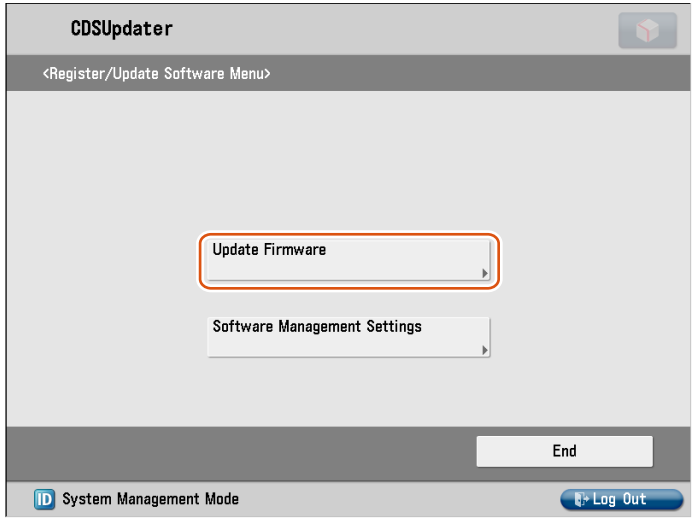
Updating Downloaded Firmware (Applying Firmware)

This section describes how to update the downloaded firmware.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User mode)] button on the control panel.
   4). [Service Mode] screen is shown.

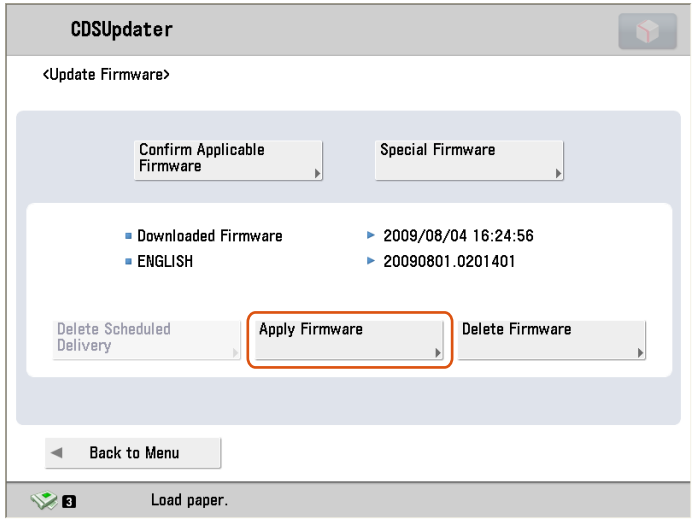
2. Press [Updater] button.

3. Press [Update Firmware] button.



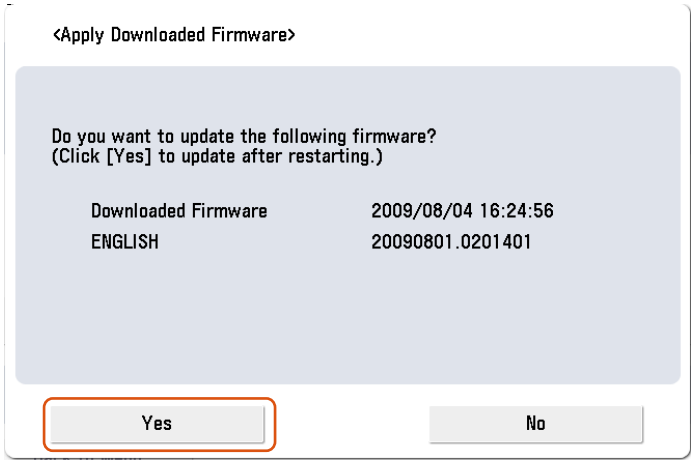
F-6-177

4. Press [Apply Firmware] button.



F-6-178

5. Confirm the downloaded firmware and press [Yes] button.



F-6-179

6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.

7. When the device is restarted, confirm the version of the firmware.
   1). Press [Check Counter Key] button on the control panel.
   2). Press [Check Device Configuration] button.
   3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method.

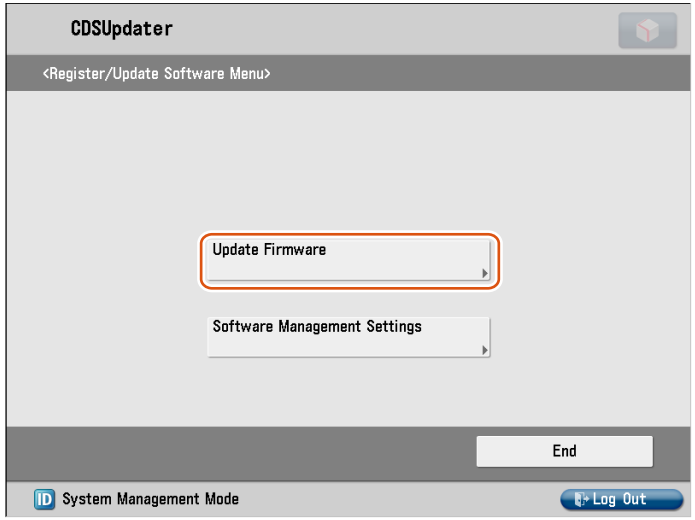
Deleting Downloaded Firmware

This section describes how to delete the downloaded firmware using Updater.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] button at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

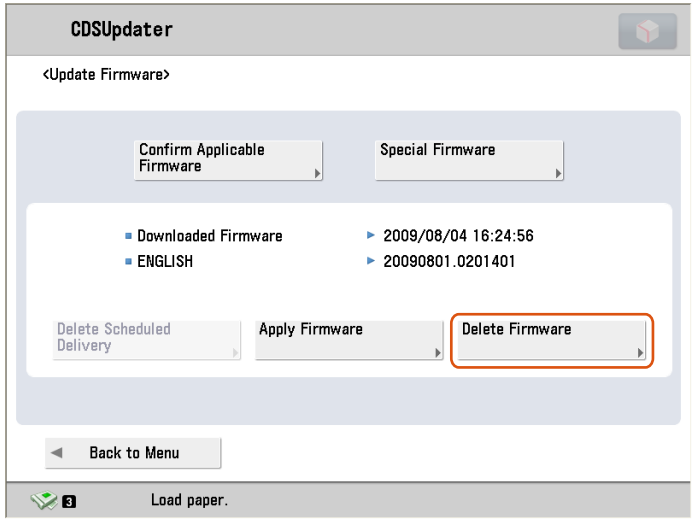
2. Press [Updater] button.

3. Press [Update Firmware] button.



F-6-180

4. Press [Delete Firmware] button.



F-6-181

5. Confirm the downloaded firmware to be deleted and press [Yes] button.

F-6-182

6. Confirm the result of deletion and press [OK] button. Now the downloaded firmware is successfully deleted.

Troubleshooting on Firmware Installation

No.1

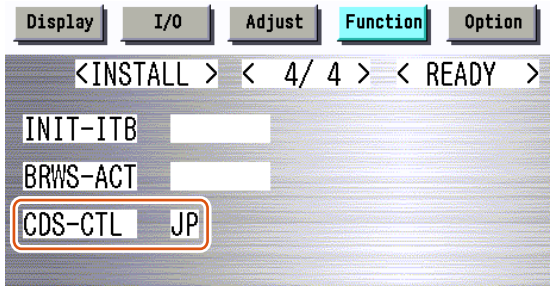
Symptom: I can't find the firmware to be updated using Updater.

Cause: Preparation has not been properly done.

Action: Confirm the setting of Sales Company's HQ bellow.

Setting of Device [SERVICE MODE] (Level1)

COPIER > FUNCTION > INSTALL > CDS-CTL



F-6-183

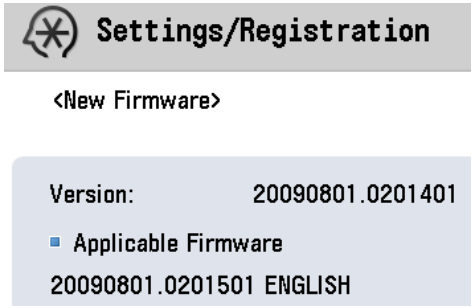
Cause: The version currently in use is not available for update.

Action: Download the release note from CDS separately to upgrade to the version available for update.

Cause: You try to download firmware from User mode.You can download only the latest version of firmware from User mode.

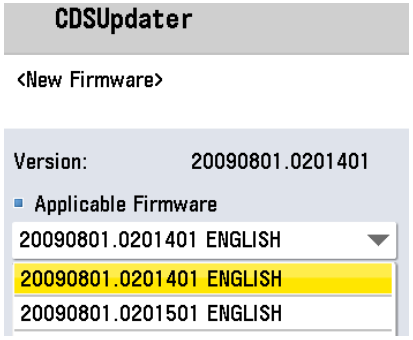
Action: Download from Service mode.

<User Mode>



F-6-184

<Service Mode>



F-6-185

No.2

Symptom: Firmware download is aborted during operation using Updater functions.

Cause: The network cable is disconnected or the power went off due to blackout and the like.

Action: Retry download. Firmware under download is cancelled upon aborted.

No.3

Symptom: Firmware update is aborted during operation using Updater functions and the device cannot be started.

Cause: The power went off due to blackout and the like.

Action: Service technicians should follow the steps below via SST.

1. Press [2] and [8] buttons at a time to start the device.
   1) Turn on the power and hold down [2] and [8] buttons at a time on the control panel.
   2) [Download Mode] is shown on Local UI.
      If the operation above does not trigger the download mode, BOOT (Flash Memory, service parts) should be replaced (takes up to 1 minute for rewriting).
      If the operation above successfully triggers the download mode, go to the next steps below.

2. Via SST, format the HDD of BOOT Dev only.

3. Via SST, install the firmware in the device.

No.4

Symptom: Firmware has not been downloaded according to the distribution schedule.

Cause: Other firmware distribution schedule is set.Since only 1 distribution schedule is held, the registered schedule may be overridden by the new firmware distribution schedule.

Action: Once the schedule is overridden, the firmware cannot be downloaded. Distribution should be rescheduled for the firmware.

Cause: At the scheduled distribution date and time, the firmware registered was not found on CDS.

Action: Distribution should be rescheduled for the firmware.

Cause: After distribution is scheduled, device is updated to other version of firmware via SST. (Status of the firmware in the device is changed.)

Action: Distribution should be rescheduled for the firmware.

Cause: The power of the device was off at scheduled date and time.

Action: Distribution should be rescheduled for the firmware.

No.5

Symptom: The firmware presumed to be downloaded to the device cannot be found.

Cause: Since only 1 firmware can be held on the device, the firmware previously downloaded was overridden by the newly downloaded one.

Action: Retry the firmware download.

Information required for Reports

Information required for Service Technicians to Obtain on Site

- Update Logs
- System Logs (Log Level: 4)

Information to Report

- Symptom occurred
- Location of the device
- Date and Time that symptom occurred
- Steps taken for reproduction
- Firmware / Application you tried to install
- Occurrence frequency
- Model dependency (if the same symptom occurred in other models)
- Dependency on firmware/MEAP application/system option
- Conditions of symptom occurrence
  - Model
  - Firmware version installed on the device
  - List of MEAP applications installed on the device
  - Network setting information of the device
  - Service mode setting information

Setting of device service mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL
	COPIER > OPTION > FNC-SW > CDS-UGW
	COPIER > OPTION > FNC-SW > CDS-FIRM
	COPIER > OPTION > FNC-SW > CDS-MEAP
	COPIER > OPTION > FNC-SW > LOCLFIRM

* As many as the items listed above should be obtained on site. More information provided will be helpful for investigation.

Debug Logs

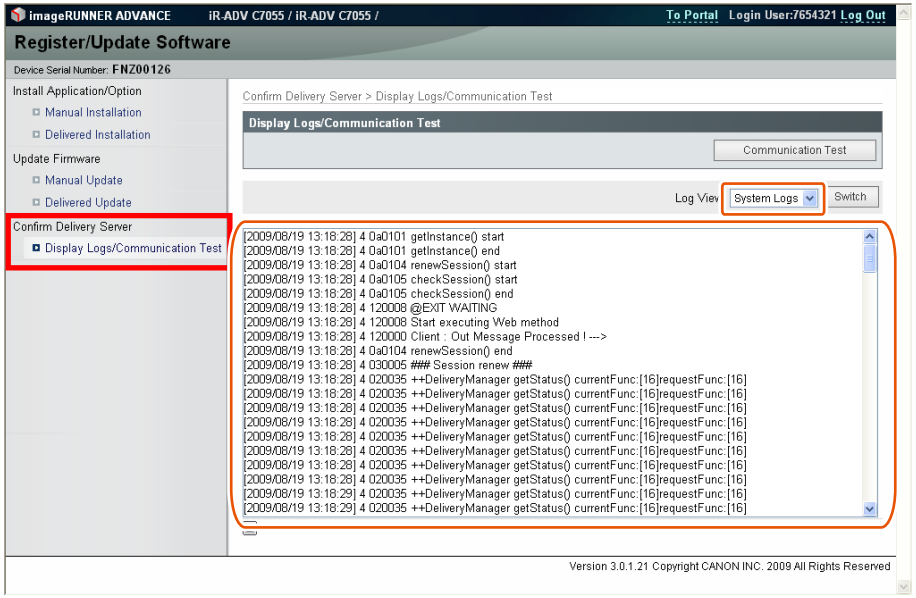
Obtaining Log Files

Updater log files can be obtained by copy & paste from remote UI.
This procedure is shown below.

1. Check that the “CDS-MEAP” or “CDS-FIRM” is enabled in the service mode. If they are not enabled, change the value to “1” and then restart the device.
   Service mode (Level1) > Mode List
   - COPIER > OPTION > FNC-SW > CDS-MEAP: 1
   - COPIER > OPTION > FNC-SW > CDS-FIRM: 1

2. Log in the remote UI (URL: http://<device’s IP address or host name>) using the system administrator right.

3. From “Display Logs/Communication Test” screen, obtain System Logs (log level 4) and Update Logs by copy & paste.
   Top page (Remote UI) > [Settings/Registration] > [Management Settings] > [License/Others] > [Register/Update Software] > “Display Logs/Communication Test”



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NOTE:
- See "Setting Log Level" in chapter 3 for details of changing Log Level

4. If the value of CDS-MEAP or CDS-FIRM was changed in the service mode, return to the original value and then restart the device to enable this setting.

Obtaining the log files is completed.

Error Messages

Error messages displayed in LUI on a device are shown below. As to error codes, see the next list.

No.	Messages	Timing of display	Cause	Remedy
1	An error occurred with the delivery server. Contact your sales representative. Error Code: [xxx]	In communicating with the delivery server.	System error occurred in server.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
2	Delivery server is stopped. Wait a while and then try to perform the operation again. Check the following URL for details. <Stopped Delivery Server URL>	In communicating with the delivery server.	Delivery server stopped.	Check the delivery server stop information. After the delivery server starts, perform the operation from this application. When the delivery server stop information is not available, contact the sales company's Support Department.
3	Failed to connect to delivery server. Check the delivery server and network.	In communicating with the delivery server.	Communication error due to incorrect settings of CDS URL.	Set correct CDS URL in the Updater settings.
			Excluding delivery server stop, communication error to the delivery server occurred.	Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
4	Download was stopped because an error occurred with the file server. Check the network.	At the time of file download	Communication error to the delivery server occurred.	Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
5	Downloaded files are invalid. Check the network.	At the time of file download	The received file is broken.	After checking the network environment of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
6	Failed to retrieve information of special firmware. Check the retrieval ID and password.	Acquisition of applicable firmware information	No information exists about firmware for special firmware retrieval ID or Password is invalid.	Enter the correct firmware ID or Password applicable to the firmware information. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
7	Scheduled delivery information of firmware does not exist. Check it because it may already have been deleted.	Acquisition of applicable firmware information	Delivery information with specified delivery ID does not exist.	Register the delivery schedule again. If this occurs at the time of canceling file download, deleting downloaded firmware or deleting scheduled delivery, no remedy is required.
8	Failed to apply firmware.	Firmware application error	Error due to the application (NLM)	Obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
9	Delivery Server : Connect Failed File Server : Retrieve Failed Error Code: [xxxx]	Communication test, etc. (communication test result dialogue)	In the communication test, failed to connect to the delivery server. In SOAP communication, failed to success after 1 min retry.	Check the network environment of the device, and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			ID and Password required for proxy to connect to the internet are not configured in device.	Set proxy and restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The access to the network is limited.	Set the user environment to make the access to the following domain available. https://device.cdsknn.net/ http://cdsknn.net.edgesuite.net/ If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Delivery server stopped.	Contact Field Support Group in the sale company. After confirmation that the delivery server has been restored, restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company again.
10	Delivery Server : Connect OK File Server : Retrieve Failed Error Code: [xxxx]	Delivery Server : Connect OK File Server : Retrieve Failed Error Code: [XXXX]	Due to no return of data for the communication test, time-out (in HTTP communication, no response for 1min) occurred. After that, retried but failed to connect to server.	Check the network environment of the device and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The network cable was disconnected during data download in the communication test.	Reconnect the network cable and then restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The file server stopped during data download in the communication test.	Contact the sales company's Support Department. After confirmation that the delivery server has been restored, restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company again.
			Hash value in the communication test file is incorrect.	Check the network environment and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
11	An error occurred. Error Code: [xxx]	communication test, etc. (main screen)	The max value (space/file) was exceeded and new log was not accepted. Normally an old log file is deleted before the max value (space/file) is exceeded, but error may occur due to other element (e.g. I/O error).	Check if the log file exceeded the max value. <Update log> Max space: 128KB/file Max file number: 4 <System log> Max space: 512KB/file Max file number: 4 If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Notice of version information (main screen)	Failed to acquire version information of device due to no CDS registration of firmware version of device.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			At the time of notifying version information, failed to connect to the delivery server.	Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			No return of notifying version information	
			Network cable was disconnected during notice of version information.	Re-connect the network cable and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Failed to send notice of version information since the main power was turned OFF and then ON during the sending.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Server stopped at the time of sending notice of version information.	Check the network environment of the device and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of sending notice of version information.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
11	An error occurred. Error Code: [xxx]	UGW linkage (main screen)	UGW linkage was turned ON when eRDS was OFF.	For a device using eRDS, turn ON the eRDS. For a device not using eRDS, turn OFF the UGW linkage. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of acquiring delivery information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		On-site (error dialogue)	An internal error occurred at the time of acquiring applicable firmware information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of sending approval information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of delivery order	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Immediate download (error dialogue)	An internal error occurred at the time of requesting firmware delivery information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			During the download, all space in the storage disk was occupied. (DiskFull)	After adding vacant space of the storage disk, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			At the end of receipt, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Manual update (error dialogue)	At the update start, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company
		Automatic update (error dialogue)	At the update start, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Deletion of downloaded firmware	At the time of notifying cancellation, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
12	An error occurred. Check the Update Firmware screen.	UGW linkage (main screen)	eRDS sent an order but Updater failed to connect to server.	Conduct a communication test to analyze the cause of the error. After solving the cause, resend the order from the eRDS. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Scheduled date and time acquired from the delivery server was before current time (15 or more min had passed.)	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Scheduled data and time acquired from the delivery server did not exist.	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Immediate download (main screen)	At the time of immediate download, turned OFF and then ON the power of device main body.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Manual update (main screen) Automatic update (main screen)	Updated version was different from the ordered version.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, failed to connect to the delivery server.	Check the network environment and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, the network cable was disconnected.	Re-connect the network cable and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, server returned an error.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, an internal error occurred.	If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
13	Delivery Error Error Code: [xxx]	UGW linkage (Update Firmware screen)	eRDS sent an order but Updater failed to connect to the server.	Conduct a communication test to analyze the cause of the error. After solving the cause, resend the order from the eRDS. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The scheduled data and time acquired from delivery server does not exist.	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
14	Delivery Error Delivery Time Delivery Firmware Label Delivery Firmware version Error Code: [xxx]	UGW linkage (Update Firmware screen)	The scheduled date and time acquired from delivery server was before current time (15 or more min had passed).	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Immediate download (Update Firmware screen)	At the time of immediate download, turned OFF and then ON the power of device main body.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
15	Applicable firmware is not registered.	On-site (error dialogue)	At the user site, no latest firmware exists.	This means the current firmware is the latest, so this error has no impact. But when the latest firmware to be retrieved must exist e.g. released new firmware information has been notified, contact Field Support Group in the sales company.
			No applicable firmware exists on CDS, so the service person can't select any applicable firmware.	Contact the sales company's Support Department.
16	Restart failed. Turn the main power OFF and ON.	Manual update (error dialogue)	An error occurred at the time of the device restart.	After turning OFF and then ON the main power of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Automatic update (error dialogue)	An error occurred at the time of the device restart.	After turning OFF and then ON the main power of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
17	Specify [E-Mail Address] with up to 64 characters.	At the time of periodical update setting	The specified E-mail address exceeded 64 characters.	Specify E-mail address within 64 characters.
18	The following characters cannot be used for the [E-Mail Address]: , : ; “ ( ) [ ] < > \	At the time of periodical update setting		
19	Specify [Comments] with up to 128 characters.	At the time of periodical update setting	Comments exceeded 128 characters.	Specify comments within 128 characters.
20	The [Delivery Server URL] is incorrect.	In setting with the deliver server URL.	The specified deliver server URL is wrong.	Enter the right URL(https://device.c-cdsknn.net/cds_soap/updaterif)

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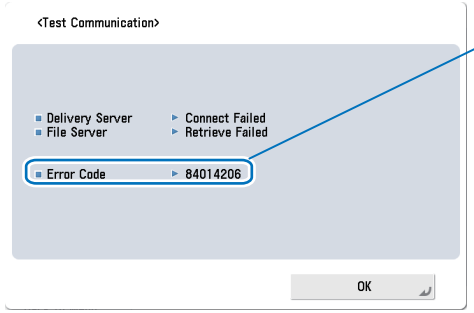
Error Codes

Error Codes displayed on LUI in a device and how to read them.

How to read an error code



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Code	Value	Contents
The first digit Error field	8	Error
The second digit Operator	0 1 2 3 4 5	Not defined. CDS server Updater UGW Service person IT administrator (User)
The 3rd - 4th digits Method category	xx	Method
The 5th digit Category code	0 1 2 3 4 5 6 7	Category code
The 6 - 8th digits Description code	000-	See Error code list

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Error Code

The error code list is shown below. Remedy are error codes of "-", and for all the error codes out of the list, contact Field Suppot Group in the sales company.

Error Code (hex number)								Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category		The 5th digit Category code	The 6 - 8th digits Description code					CDS delivery server	UP DATER	CDS file server	Network
8	Error												
	0	Not defined.											
	1	CDS server											
		x	x	Relating method code									
				0	Not categorized								
					0	0	1	No value is set in a mandatory data entry item	-	-	✓	-	-
					0	0	2	In a string type of a data entry item, digit number and/or character type is/are set against the regulations	-	-	✓	-	-
					0	0	3	In an data entry item, the value is set against the regulations (E.g. the set value is other than "Operator: 4. Service person, 5. User")	-	-	✓	-	-
					0	0	4	No applicable delivery information exists	-	✓	-	-	-
				1	Operation								
					0	0	1	Inconsistency between the current firmware component in the data entry item and delivery information (E.g. the conditions for automatic update are not met. The settings of a mandatory additional set are invalid)	-	✓	✓	-	-
					0	0	2	In a notice of delivery-allowed information, an install-set was release to the market, but the market release was stopped during the delivery	-	✓	-	-	-
					0	0	3	No mail template file exists	-	✓	-	-	-
					0	0	4	The device serial number in the data entry item differs from that in delivery information	-	✓	-	-	-
					0	0	5	User is selected as Operator in the data entry items and the retrieval type is other than the latest	-	✓	-	-	-
					0	0	6	The retrieval type in the data entry item is special and registration ID and individual Password are not set (* Operator did not enter registration ID and individual Password)	-	✓	-	-	-
					0	0	7	The retrieval type in the data entry item is special and Operator is not Service person	-	✓	-	-	-
					0	0	8	As to the device serial number in the data entry items, there is no applicable device code product	-	✓	-	-	-
					0	0	9	The retrieval type in the data entry items is special and there are no basic-set applicable to the registration ID and Password (* When wrong registration ID or Password was entered by an operator)	-	✓	-	-	-
					0	0	A	The delivery status is Applying	-	✓	-	-	-
					0	0	B	No approval information exists about EULA or the export criteria when the delivery is determined	-	✓	-	-	-
					0	0	C	The delivery status is Distributing/Distributed/Applying/ Finished/Failed	-	✓	-	-	-
					0	0	D	The delivery status is Distributing/Distributed/Applying/ Finished/Failed	-	✓	-	-	-

Error Code (hex number)								Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category		The 5th digit Category code	The 6 - 8th digits Description code					CDS delivery server	UP DATER	CDS file server	Network
					0	0	E	The delivery status is New/Waiting to Distribute/Distributed/ Applying/Finished/Failed	-	✓	-	-	-
					0	0	F	The delivery code is other than Distributing. (Firmware delivery)	-	✓	-	-	-
					0	0	0	The delivery status is New/Waiting to Distribute/Distributing/ Applying/Finished/Failed	-	✓	-	-	-
					0	0	1	The delivery status is Distributing/Distributed/Applying/ Finished/Failed	-	✓	-	-	-
					0	0	2	Device is "Not applicable to CDS" (Firmware delivery)	-	✓	-	-	-
				2	I/O								
					0	0	1	The specified license access number does not exist in LMS	-	✓	-	-	-
					0	0	2	The specified license access number has been deauthorized	-	✓	-	-	-
					0	0	3	The package product of the entered license access number doesn't include MEAP application/System Option	-	✓	-	-	-
					0	0	4	The sales company for the MEAP application isn't identical with the sale company for the package product	-	✓	-	-	-
					0	0	5	The number of licenses to be issued will exceed the limit number allowed to register	-	✓	-	-	-
					0	0	6	As for System Option for the same function, the license keys were issued more than the defined number of times for the same device serial number	-	✓	-	-	-
					0	0	7	No device product exists applicable to the optional product	-	✓	-	-	-
					0	0	8	No product exists applicable to the device serial number	-	✓	-	-	-
					0	0	9	The product of the entered license access number cannot be used with this device because the settings of the sales company are incorrect	-	✓	-	-	-
					0	0	A	No product linked to the license access number is registered in CDS for delivery	-	✓	-	-	-
					0	0	B	Although the product linked to the license access number is registered in CDS for delivery, the delivery is stopped now	-	✓	-	-	-
					0	0	C	No existence of optional product applicable to the device serial number.	-	✓	-	-	-
					0	0	D	The license access number has been registered for another device	-	✓	-	-	-
					0	0	E	For the device product applicable to the device serial number, no available software (MEAP application, System Option) exists	-	✓	-	-	-
					0	1	0	LMS system error	-	✓	-	-	-
	2~5												
		x	x	Relating method code									
				0	Not cartelized								
					0	0	0	Not defined	Normally not indicated				
					1	0	0	Unknown error	Normally not indicated				
				1	Operation								
					0	0	1	Processing exclusively	Start the operation again after terminating other Updater operations being executed simultaneously	-	✓	-	-
					1	0	1	Failed to process preparation for use	-	-	✓	-	-

Error Code (hex number)								Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category		The 5th digit Category code	The 6 - 8th digits Description code					CDS delivery server	UP DATER	CDS file server	Network
					1	0	2	Failed to process use end	-	-	✓	-	-
					1	0	3	Time out during restart of readiness preparation	-	-	✓	-	-
					1	0	4	Session time-out excluding after application inquiry (after issuing delivery ID)	Start the operation again from the beginning		✓	-	-
					1	0	5	CDS URL is not set	Set CDS URL	-	✓	-	-
					1	0	6	There is another job	Start the operation again after terminating the job of the device	-	✓	-	-
				2	I/O								
					1	x	x	An internal error about file operation	-	-	✓	-	-
					2	x	x	An internal error about xML file operation	-	-	✓	-	-
					3	0	1	Failed to output the license file	-	-	✓	-	-
				3	Device								
					1	x	x	An internal error in CPCA	-	-	✓	-	-
					2	x	x	An internal error in IMI	-	-	✓	-	-
					3	x	x	An internal error in SMS	-	-	✓	-	-
					4	x	x	An internal error in NLM	-	-	✓	-	-
				4	SOAP communication								
					1	0	1	The processing thread stopped	-	-	✓	-	-
					1	0	2	Processing SOAP communication now	-	-	✓	-	-
					1	0	3	The function type is not matched	-	-	✓	-	-
					1	0	4	An invalid SOAP response error	-	✓	-	-	-
					2	0	1	An internal error about application information	-	-	✓	-	-
					2	0	2	config.xml is NOT FOUND	-	-	✓	-	-
					2	0	3	type.xml is NOT FOUND	-	-	✓	-	-
					2	0	4	An error in binding type.xml	-	-	✓	-	-
					2	0	5	An error in creating a service tab	-	-	✓	-	-
					2	0	6	A runtime error in performing the web method	-	-	✓	-	✓
					2	0	7	An unknown host error in performing the web method	• Check the network environment of the device and start the operation again • Check if the URL settings of the CDS server are correct, and start the operation again after resetting	✓	✓	-	✓
					3	0	1	The delivery server is stopped	-	✓	-	-	-
					3	0	2	An error occurrence in the delivery server	-	✓	✓	-	-
				5	HTTP communication								
					1	0	1	Specified Hash Algorithm is unknown	-	-	✓	-	-
					2	0	1	Invalid HTTP request	-	-	✓	✓	✓
					2	0	2	Failed to connect to the server	Check the network environment of the device and start the operation again	-	✓	✓	✓
					2	0	3	Failed to find the server	Check the network environment of the device and start the operation again	-	✓	✓	✓
					2	0	4	An input/output error occurred during the connecting process to the server	-	-	✓	✓	✓
					2	0	5	Failed to read a HTTP response	-	-	✓	✓	✓
					2	0	6	Error in a HTTP response	-	-	✓	✓	✓
					3	0	1	Failed to retrieve the data stream	-	-	✓	-	✓
					3	0	2	Failed to create the file object for receipt	-	-	✓	-	✓
					3	0	3	Failed to create the data stream of the file for receipt	-	-	✓	-	✓
					3	0	4	Failed to receive the data	Check the network environment of the device and start the operation again	-	✓	✓	✓

Error Code (hex number)								Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category		The 5th digit Category code	The 6 - 8th digits Description code					CDS delivery server	UP DATER	CDS file server	Network
					3	0	5	An error about reserving the file data for receipt	-	-	✓	-	-
					3	0	6	Failed to close the data stream	-	-	✓	-	-
					3	0	7	Failed to close the file data for receipt	-	-	✓	-	-
					3	0	8	Invalid hash code of the download file	Check the network environment of the device and start the operation again	✓	✓	✓	✓
					3	0	9	The prosy authorization method is not applicable	Check the proxy authentication method used, and start the operation again after changing the settings to use the corresponding proxy anthentication	-	✓	-	✓
				6	Socket communication								
					1	0	1	Failed to connect the eRDS	-	-	✓	-	✓
					1	0	2	No response from eRDS	-	-	✓	-	✓
					1	0	3	No notice of start from the eRDS	-	-	✓	-	✓
					1	0	4	Error of socket reading	-	-	✓	-	✓
					1	0	5	Socket communication time-out	-	-	✓	-	✓
				7	Other internal codes								
					0	0	2	One of installation, start or authorization failed (When installation or authorization failed, it is regarded as an error) *	-	-	✓	-	-
					0	3	x	An internal error in processing the installation	-	-	✓	-	-
					1	x	x	An error by using invalid API	-	-	✓	-	-
					2	x	x	An internal error in SMS	-	-	✓	-	-
					3	0	1	No existence of delivery ID	-	-	✓	-	-
					3	0	2	Invalid delivery ID	-	-	✓	-	-
					3	0	3	The updated firmware information is not identical with the firmware information after activation of the Updater	-	-	✓	-	-
					3	0	4	The process of firmware download is incomplete	-	-	✓	-	-
					3	0	5	The update process is incomplete	-	-	✓	-	-
					3	0	6	The installment process is incomplete	-	-	✓	-	-
					4	0	1	Failed to retrieve delivery information	-	-	✓	-	-
					5	0	1	Failed to execute the delivery process	-	-	✓	-	-
					5	0	2	The scheduled delivery was not executed within the defined period of time	Scheduled deliveries not executed within the defined period of time are abandoned, so register a scheduled delivery again. When setting the date and time of the scheduled delivery, be sure to designate a time when the device is ON	-	✓	-	-

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* Not displayed on a device UI

Debug log

Scope of Application

Purpose

- When the Canon quality-appointed staff determines the need for an analysis of debug log by the R&D department, we ask the field to collect log for an investigation to determine the cause.
- This is intended to improve efficiency in log collection when a trouble occurs.

Overview

Function Overview

Debug log is an integrated log for failure analysis that gathers logs prepared by the software modules in the device for debug purpose.
In the case of a field failure that is hard to be reproduced, this measure is intended to improve efficiency in failure analysis and reduce the time for failure support by collecting debug log at the user site (which was created immediately after the failure) and sending it to the R&D.
When the Canon quality-appointed staff determines the need for an analysis of firmware debug log by the R&D department, we ask the field to collect log for an investigation to determine the cause.

Effective Instances of Collecting Debug Log

- The error occurs only at the customer site and cannot be reproduced by the sales company or the Canon staff who is in charge of quality follow-up.
- When the error frequency is low.
- When the error is suspected of links with firmware rather than a mechanical/electrical failure.
  * Collection of Sublog is not necessary when the reproduction procedure is identified and the error can be reproduced by the sales company HQ or the Canon staff who is in charge of quality follow-up.

Types of Logs

There are continuous logs, event logs, and manual logs.

Type	Collecting method	Number/size of logs collected	Setting
Continuous log	The behaviors of the Main Controller, Reader Controller, and DC Controller are recorded on the HDD.	800 KB x 200 files (160 MB)	n/a
Event log	Automatically recorded in accordance with the conditions specified in DEBUG-1.	800 KB x 10 files (80 MB)	Service mode Lev2: COPIER > FUNCTION > SYSTEM > DEBUG-1 > 3 (default) 3: Exception + E code + Reboot Make movement same as 3 even if you change setting of it. USB-FAX Board: FAX--SSSW--SW01--bit5 0: File size 256-512KB 1: File size 4MB-8MB
Manual log	Perform the following procedure. 1. Hold down the [Counter] button (10 seconds or longer). 2. Press 1 on the numeric keypad. 3. Press 2 on the numeric keypad. 4. Press 3 on the numeric keypad.		n/a

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Conditions of Log Collection

- Logs can be collected on a PCB-by-PCB basis. (SUBLOG, SUBLOG_RCON, SUBLOG_DCON)
- As for continuous logs, only SUBLOG is collected.
- When restriction has occurred, SUBLOG_RCON and SUBLOG_DCON are collected.

Location	File name	Automatic collection			Manual collection
		Continuous log	Event log		Manual log
			When an event has occurred	When restriction has occurred	
Main Controller	SUBLOG	Yes	Yes	No	Yes
Reader Controller	SUBLOG_RCON	No	Yes	Yes	Yes
DC Controller	SUBLOG_DCON	No	Yes	Yes	Yes
USB-FAX Board	SUBLOG USBFAX_LOG	Yes	Yes	No	Yes

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Collection of Logs

Connect SST or a USB memory device,
and select COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK to collect logs.

Description of Log to be Collected

As for SUBLOG, up to 200 logs can be stored on the HDD.
As for SUBLOG_RCON and SUBLOG_DCON, up to 10 logs can be stored on the HDD.

Logs are stored from the latest one, and the latest file is always stored.
Logs earlier than those logs are overwritten and deleted from the oldest log.
When collecting logs from the machine, the log file in the machine is deleted.

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Collecting System Information

Collection Destination

To retrieve debug log to an external location from the device, use a USB memory device, FTP server or SST (Ver. 4.63 or later).

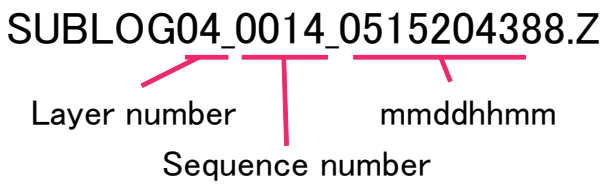
Collection Method

Retrieve debug log from the machine by any of the following methods.

- Make the machine recognize the USB memory device. Select the following in service mode Lev1: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and click OK.
- Use SST on a PC with the network cable connected to transfer the debug log.
- Transfer the debug log to a USB memory device that stores the system of the machine.

File Name of Sublog

Whether the file is new or old can be judged by the year, month, day, hour, and minute.



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Collecting Debug Log (USB memory device)

NOTE:
When the data is sent to the USB memory device:
USB memory where the system software for this machine has been registered using the SST.

1) Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK
Connect the USB memory device to the machine.
2) [5] Execute [BACKUP].

```
[[[[[ download Menu (USB) ]]]]]]]]]]]
-------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 /[5] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

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3) [1] Execute [Sublog].

```
[[[[[ Backup Menu (USB) ]]]]]]]]]]]
-------------------------------------
[1]: Sublog
[4]: ServicePrint
[5]: Netcap
[6]: SRAM(HDD)
[7]: SRAM(USB)

[C]: Return to Main Menu
```

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● When the data is sent to the USB memory device

A folder of the year, month, day, hour, and minute is created in the USB memory device. The log file is saved in the folder.

Example: Folder 201205241821

SUBLOG_DCON.TXT	254 KB
SUBLOG_DCON01.TXT	254 KB
SUBLOG_USBFAX_LOG.TXT	239 KB
SUBLOG00_0129_0706093688SHT.TXT	3,009 KB
SUBLOG00_0130_0706094388SHT.TXT	2,695 KB
SUBLOG00_0131_0706095588SHT.TXT	2,860 KB
SUBLOG00_0132_0706100188SHT.TXT	2,691 KB
SUBLOG00_0133_0706110119.TXT	3,111 KB
SUBLOG00_0134_0706132632.TXT	3,088 KB
SUBLOG00_0135_0706132945.TXT	3,050 KB
SUBLOG00_0136_0706133304.TXT	3,041 KB
SUBLOG00_0137_0706133635.TXT	3,026 KB
SUBLOG00_0138_0706134001.TXT	3,030 KB
SUBLOG00_0139_0706134317.TXT	3,065 KB
SUBLOG00_0140_0706134635.TXT	3,035 KB
SUBLOG00_0141_0706150088SHT.TXT	3,042 KB
SUBLOG00_0142_0706200433.TXT	2,980 KB
SUBLOG00_0143_0706200535.TXT	2,932 KB
SUBLOG00_0144_0706200688SHT.TXT	456 KB
SUBLOG00_0145_0706151028.TXT	3,090 KB
SUBLOG00_0146_0706151141.TXT	3,115 KB
SUBLOG00_0147_0706152759.TXT	3,321 KB
SUBLOG00_0148_0706155588SHT.TXT	1,283 KB

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■ Uploading Data by SST

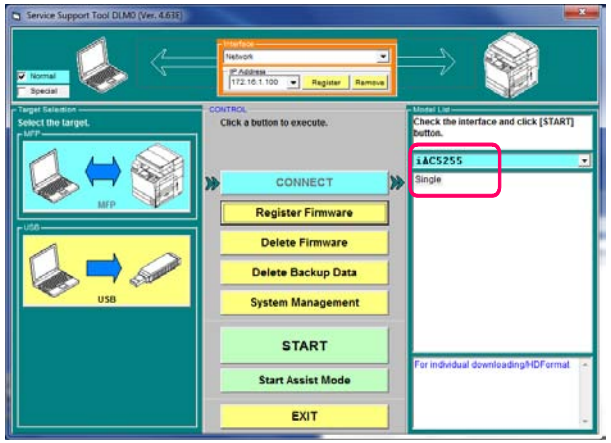
The following shows a method to collect a log by connecting a PC with SST (Ver. 4.63 or later) running to the machine.

■ Preconditions:

In addition to continuous logs, obtained manual logs (holding down the counter + 1, 2, and 3 keys) and event logs (DEBUG-1) are stored in the machine.
A PC where SST is running is connected to the machine, and the machine is in download mode.

> Note:
> Executing a log collection by SST deletes logs in the machine.

1. Start SST (Ver. 4.63 or later) and select iRC5051 from Model List. Press the Start button.



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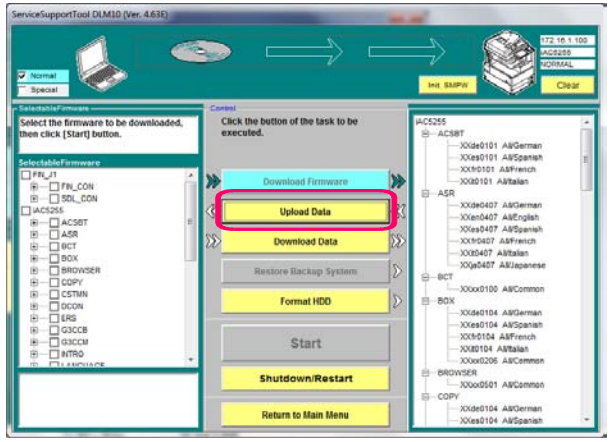
2. Press the Upload Data button.



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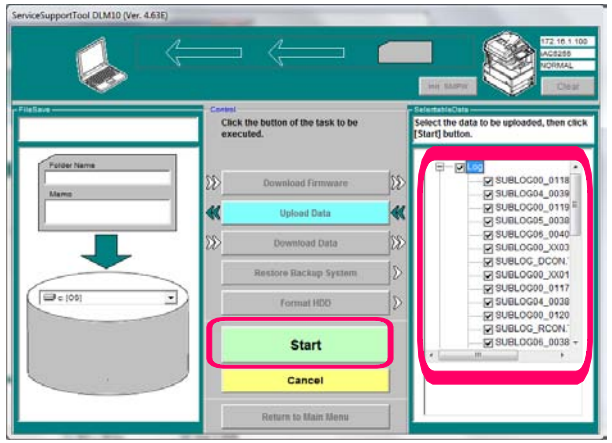
3. Select the data to be uploaded, then click [Start] button.
When there is no log in the machine, it results in blank option items for "data to upload".
When the file name is longer than the frame, it displays that it is a log in the comment column just below.
It is displayed as "log" in the figure below.

Note:
The log is not stored when You cancel it before pushing the Start button.
It is deleted from the main body.



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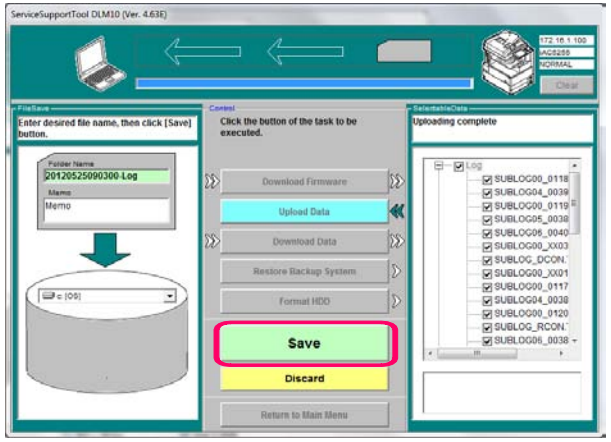
4. Press the "Save" button.



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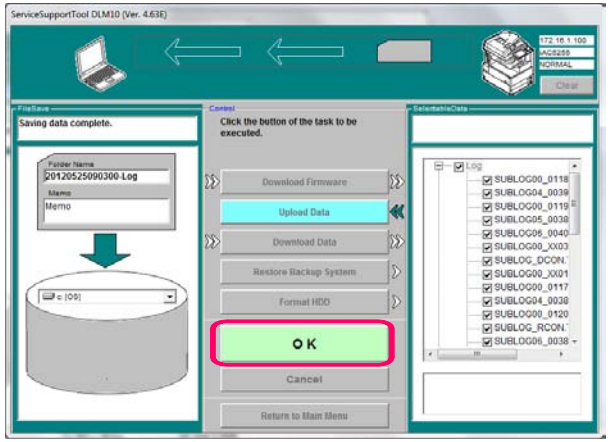
5. Check that the data storage is completed and click the "OK" button.



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6. Check that the log is stored in the specified location in the PC.
   In the initial setting:
   Windows(C:) > ServData > iAxxxx(Model) > JWH00003(Serial number) > 20120524192934-Log(yymmddhhmm)

SUBLOG_DCON.TXT	254 KB
SUBLOG_DCON01.TXT	254 KB
SUBLOG_USBFAX_LOG.TXT	239 KB
SUBLOG00_0129_0706093688SHT.TXT	3,009 KB
SUBLOG00_0130_0706094388SHT.TXT	2,695 KB
SUBLOG00_0131_0706095588SHT.TXT	2,860 KB
SUBLOG00_0132_0706100188SHT.TXT	2,691 KB
SUBLOG00_0133_0706110119.TXT	3,111 KB
SUBLOG00_0134_0706132632.TXT	3,088 KB
SUBLOG00_0135_0706132945.TXT	3,050 KB
SUBLOG00_0136_0706133304.TXT	3,041 KB
SUBLOG00_0137_0706133635.TXT	3,026 KB
SUBLOG00_0138_0706134001.TXT	3,030 KB
SUBLOG00_0139_0706134317.TXT	3,065 KB
SUBLOG00_0140_0706134635.TXT	3,035 KB
SUBLOG00_0141_0706150088SHT.TXT	3,042 KB
SUBLOG00_0142_0706200433.TXT	2,980 KB
SUBLOG00_0143_0706200535.TXT	2,932 KB
SUBLOG00_0144_0706200688SHT.TXT	456 KB
SUBLOG00_0145_0706151028.TXT	3,090 KB
SUBLOG00_0146_0706151141.TXT	3,115 KB
SUBLOG00_0147_0706152759.TXT	3,321 KB
SUBLOG00_0148_0706155588SHT.TXT	1,283 KB

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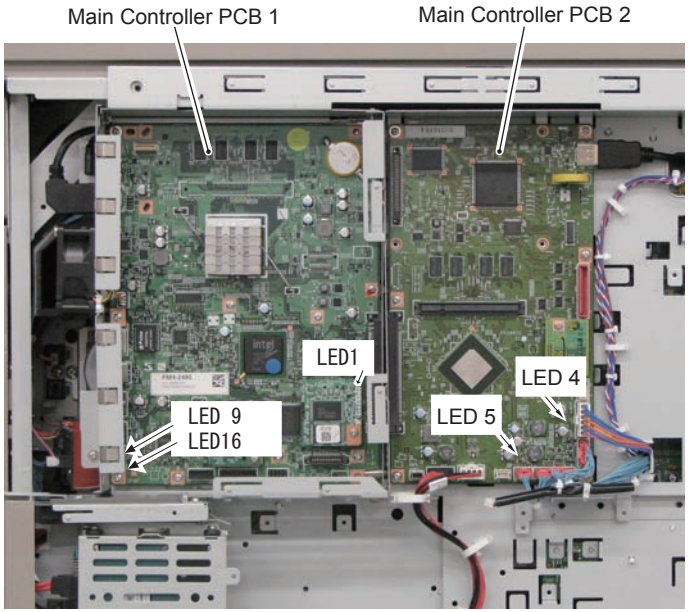
Operation Check of the Main Controller LEDs

You may be able to determine the remedies against Main Controller-related troubles by checking the lighting status of LEDs on the PCB.

Location of LEDs



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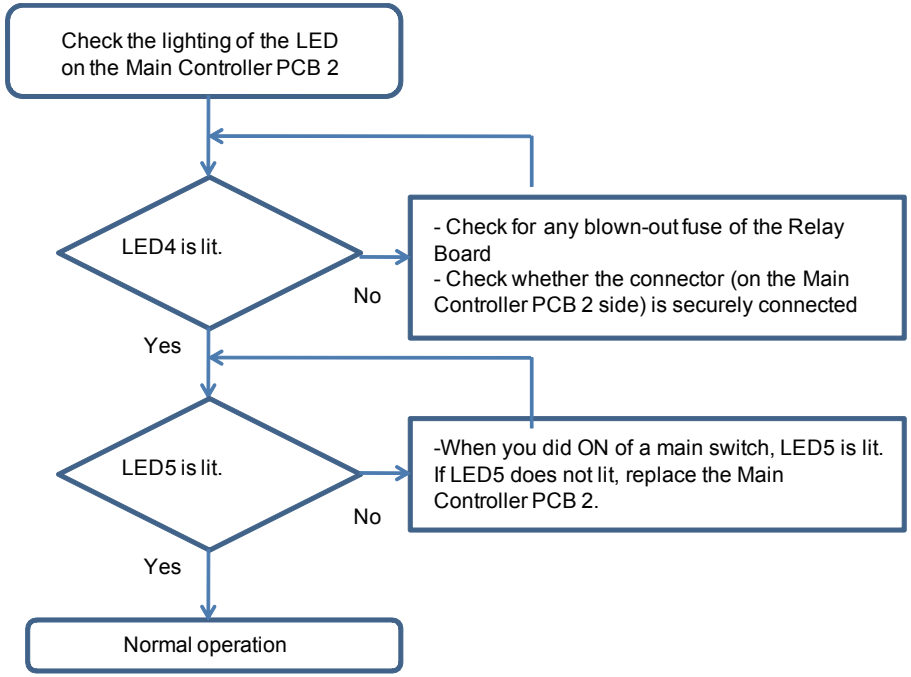
Preconditions

Check whether the Main Controller PCB 1 and the Main Controller PCB 2 are properly inserted.
Check whether the connectors are securely connected. LEDs are not lit when the contaction is poor. (Power-on is not possible)
When the LED of the Control Panel main power is not lit, check the connection of cables (such as UI Cable).

Checking the lighting of the LED4, LED5 on the Main Controller 2



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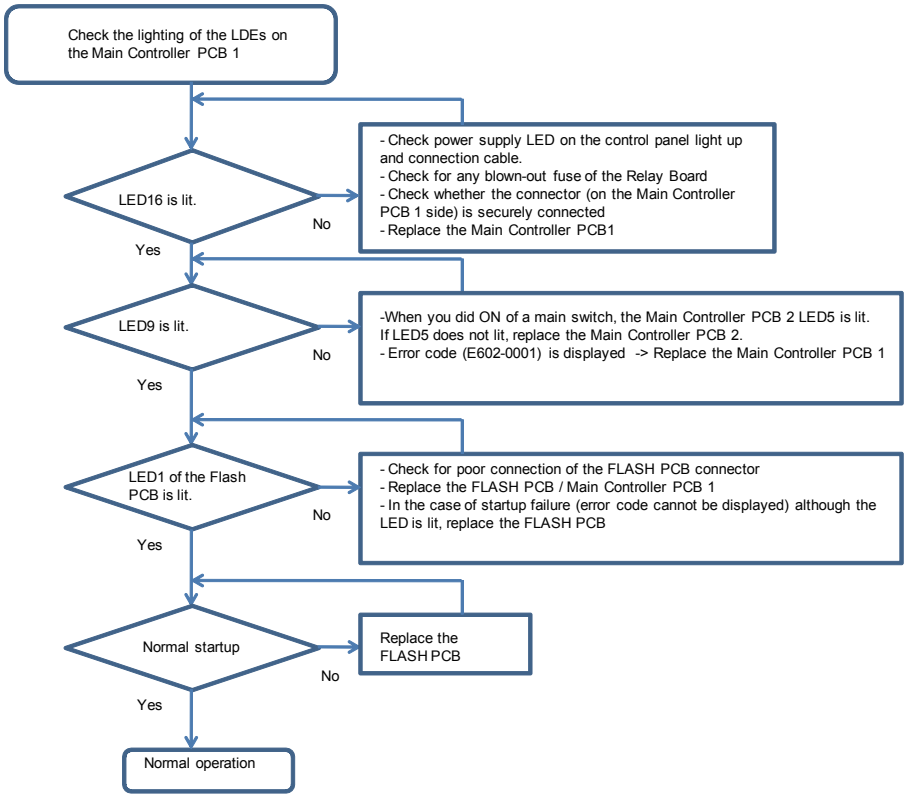
Check the lighting of the LDEs on the Main Controller PCB 1

- Main Controller PCB 1 - LED9, LED16
- Flash PCB - LED1



F-6-201

7

Error Code

- Overview
- Error Code
- Jam Code
- Alarm Code

Overview

Outline

This chapter describes various codes which are displayed when a failure occurs on the product. These are classified into 3 codes as follows.

Code type	Explanation	Reference
Error code	This code is displayed when an error occurs on the machine.	p. 7-3
Jam code	This code is displayed when a jam occurs inside the machine.	p. 7-83
Alarm code	This code is displayed when a function of the machine is malfunctioned.	p. 7-92

T-7-1

- Error code notation

An error code is shown in 7-digit [E000XXX] on the display on the operation panel. However, [000] in 2 to 4 digit is not used. Thus, an error code is described as [EXXX] using 5 to 7 digit in the service manual. (e.g.: E012 = E000012)

Location code

Error code, jam code, and alarm code include the location information.
Location information is displayed as 2-digit numbers as follows.
In the jam display screen, the “L” row corresponds to the location code.

Device	JAM	ERR	ALARM
imageRUNNER ADVANCE 6075/6065/6055 Series	00	Main Controller = 00 Printer engine = 05	Others of listed below
Color Image Reader Unit-C1/ Duplex Color Image Reader Unit-C1	01	04	02
Paper Deck Unit-A1	00	05	04
Paper Deck Unit-D1	00	05	04
Document Insertion / Folding Unit-H1	02	05	-
Document Insertion Unit-L1	02	05	-
Staple Finisher-E1/Booklet Finisher-E1	02	05	61, 62
External 2/3 Hole Puncher-A1	02	05	65

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Pickup position code

When jam occurs, pickup location is indicated with the following pickup position code.
In the jam display screen, the “P” row corresponds to the pickup position code.

Pickup position	Pickup position code
At Finisher jam/At error avoidance jam/At ADF jam without pickup operation (at SEND, Inbox, etc.)	00
Right Deck	01
Left Deck	02
Cassette 3	03
Cassette 4	04
Multi-purpose Tray	05
Side Paper Deck	06
Duplex (At duplex printing, jam occurs after paper passes through the Duplex Paper Sensor (PS38).)	F0

T-7-3

Points to Note When Clearing MN-CON

- Execution of clearing MN-COM deletes all data in Address Book, Forwarding Settings, Settings/Registration (Preferences), Adjustment/Maintenance, Function Settings, Set Destination, Management Settings, TPM Settings, etc. Before execution of this operation, ask user to back up the data and get approval for this operation.

- When clearing MN-CON while any login application other than Default Authentication is, error such as not displayed login screen occurred. In this case, access SMS once and switch login application to Default Authentication to recover to the normal status.

Points to Note When Clearing HDD

As a remedy for error codes (E602-XXXX, E611-0000), HDD partition is selected and the target partition may be cleared.
When clearing partition, be sure to check which data will be deleted by referring Detail of HDD partition and explain to the user before starting work.

Error Code

Error Code Details

E000 to E069

E Code	Detail Code	Location	Item	Description
E000	-0001	-05	Title	Fixing Assembly low temperature error
			Detection description	Temperature of the Fixing Main Thermistor (THM1) does not reach 70 degC although 20 seconds have passed after starting the Fixing Roller temperature control.
			Remedy	1. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) -> Replace the Heater Assembly. 2. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10) (connector disconnection, open circuit, the caught cable). 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1).
E000	-0002	-05	Title	Fixing Assembly low temperature error
			Detection description	Temperature of the Fixing Main Thermistor (THM1) does not reach 10 degC although 20 seconds have passed after starting the Fixing Roller temperature control.
			Remedy	1. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) -> Replace the Heater Assembly. 2. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10) (connector disconnection, open circuit, the caught cable). 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1).
E000	-0010	-05	Title	Fixing Assembly low temperature error
			Detection description	Turning OFF and then ON the power without clearing the error.
			Remedy	Clear the error.
E001	-0002	-05	Title	Fixing Assembly high temperature error (software detection)
			Detection description	• The Fixing Main Thermistor (THM1) detects 230 degC or higher. • The Fixing Sub Thermistor 1 (THM2)/Fixing Sub Thermistor 2 (THM3) detects 230 degC or higher for 2 consecutive seconds.
			Remedy	1. Check if the cable of the Thermistor is caught. -> Replace the Thermistors. -> Replace the Fixing Upper Unit. 2. IH control error. -> Replace the Fixing Power Supply PCB (PCB10), the DC Controller PCB (PCB1), or the Main Driver PCB (PCB2).
E001	-0003	-05	Title	Fixing Assembly high temperature error (hardware detection)
			Detection description	• The Fixing Main Thermistor (THM1) detects hardware overheating. • The Fixing Sub Thermistor 1 (THM2)/Fixing Sub Thermistor 2 (THM3) detects hardware overheating.
			Remedy	1. Check if the cable of the Thermistor is caught. -> Replace the Thermistors. -> Replace the Fixing Upper Unit. 2. Replace the Main Driver PCB (PCB2). 3. Replace the DC Controller PCB (PCB1).
E001	-0004	-05	Title	Fixing Assembly high temperature error (hardware detection)
			Detection description	Abnormal temperature difference among the Thermistors was detected.
			Remedy	1. Check if the cable of the Thermistor is caught or is open circuit. -> Replace the Thermistors. -> Replace the Fixing Upper Unit. 2. Replace the Main Driver PCB (PCB2). 3. Replace the DC Controller PCB (PCB1). 4. Check if the Fixing Shutter operates. -> Replace the Fixing Assembly.
E001	-0010	-05	Title	Fixing Assembly high temperature error
			Detection description	Turning OFF and then ON the power without clearing the error.
			Remedy	Clear the error.

E Code	Detail Code	Location	Item	Description
E002	-0001	-05	Title	Fixing Assembly temperature rise error
			Detection description	• Temperature of the Fixing Main Thermistor (THM1) does not reach 100 degC although 12 seconds have passed since it reached above 70 degC after starting the Fixing Roller temperature control. • Temperature of the Fixing Main Thermistor does not reach 130 degC although 12 seconds have passed since it reached above 100 degC after starting the Fixing Roller temperature control. • Temperature of the Fixing Main Thermistor does not reach 150 degC although 15 seconds have passed since it reached above 130 degC after starting the Fixing Roller temperature control.
			Remedy	1. Check the connection of the Fixing Main Thermistor (THM1). -> Replace the Fixing Main Thermistor Unit. 2. Check the installation of the Fixing Main Thermistor. -> Replace the Fixing Upper Unit. 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1). 6. Replace the Relay PCB (PCB5).
E002	-0010	-05	Title	Fixing Assembly temperature rise error
			Detection description	Turning OFF and then ON the power without clearing the error.
			Remedy	Clear the error.
E003	-0000	-05	Title	Fixing Assembly temperature decrease error
			Detection description	The Fixing Main Thermistor (THM1) detects 70 degC or lower for 2 seconds or longer although the temperature reached above 100 degC after starting the Fixing Roller temperature control.
			Remedy	1. Check the connection of the Fixing Main Thermistor (THM1). -> Replace the Fixing Main Thermistor Unit. 2. Check the installation of the Fixing Main Thermistor. -> Replace the Fixing Upper Unit. 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1). 6. Replace the Relay PCB (PCB5).
E003	-0010	-05	Title	Fixing Assembly temperature decrease error
			Detection description	Turning OFF and then ON the power without clearing the error.
			Remedy	Clear the error.
E004	-0010	-05	Title	Fixing Power Supply error
			Detection description	Turning OFF and then ON the power without clearing the error.
			Remedy	Clear the error.

E Code	Detail Code	Location	Item	Description
E004	-0205	-05	Title	Fixing Power Supply error
			Detection description	Detect that the Fixing Main Thermistor Unit is not connected.
			Remedy	1. Check the harness of the Fixing Main Thermistor (THM1) in the Fixing Assembly. 2. Check the connection of the harness of the Fixing Assembly on the host machine side. 3. Replace the Main Driver PCB (PCB2).
E005	-0000	-05	Title	Fixing Cleaning Web absent error
			Detection description	After noticing the Fixing Cleaning Web absent, the web was pulled out 2000 times.
			Remedy	1. Replace the Fixing Cleaning Web. 2. Replace the Fixing Cleaning Web Level Sensor (PS45). 3. Replace the DC Controller PCB (PCB1). After executing the measures, clear the Fixing Cleaning Web counter (COPIER> COUNTER> MISC> FIXWEB).
E005	-0001	-05	Title	Error in Fixing Cleaning Web Drive Solenoid connection
			Detection description	Connection of the Fixing Cleaning Web Drive Solenoid (SL9) is not detected when the power is turned ON.
			Remedy	1. Check the Connector of the Fixing Cleaning Web Drive Solenoid. 2. Check the output of the DC Power Supply PCB (24V) (PCB31). Using a tester, check whether 24V is output from 3PIN through 6PIN of J513 on the Relay PCB. In case of error, replace the DC Power Supply PCB (24V) (PCB31) (on the right). 3. Replace the Fixing Cleaning Web Drive Solenoid (SL9).
E005	-0010	-05	Title	Fixing Cleaning Web error
			Detection description	Turning OFF and then ON the power without clearing the error.
			Remedy	Clear the error.

E Code	Detail Code	Location	Item	Description
E012	-0001	-05	Title	Drum Motor (M1) error
			Detection description	Lock error of the Drum Motor (M1).
			Remedy	1. Check the connection of the Main Driver PCB (PCB2) and the Drum Motor (M1). Motor side: J2138, PCB side: J109 2. Check the voltage of the Drum Motor (M1) J2151. If voltage is 0V, check the connection of the Relay PCB J520. 3. Replace the Drum Motor (M1). 4. Check the gear of the Drum Drive Shaft. If the load is too much, replace the Process Unit and the Drum Drive Unit (Shaft). 5. Replace the Main Driver PCB (PCB2). 6. Replace the DC Controller PCB (PCB1).
E013	-0001	-05	Title	Error in Waste Toner Lock Detection Connector disconnection
			Detection description	The Waste Toner Lock Detection Switch (SW5) detects locked state 3 times for 200 msec at power-on.
			Remedy	Check the connection of the Waste Toner Lock Detection Switch (SW5) and the Main Driver PCB (PCB2). Switch side: J3050, PCB side: J103
E013	-0002	-05	Title	Error in Waste Toner Feed Screw Lock detection
			Detection description	The Waste Toner Lock Detection Switch detects locked state 3 times for 200 msec while the Developing Assembly is driven.
			Remedy	1. Check the Waste Toner Container and the Waste Toner Container Pipe. If toner overflowed from the Waste Toner Container clogs the outlet of the Waste Toner Pipe, remove the clogged toner. After removing it, check that the screw can be seen from the outlet of the pipe. 2. Check the connection of the Waste Toner Lock Detection Switch (SW5) and the Main Driver PCB (PCB2). 3. Check the connection of the Main Driver PCB (PCB2) and the DC Controller PCB (PCB1). Main Controller side: J3050, DC Controller side: J103 4. Replace the Waste Toner Lock Detection Switch (SW5). 5. Replace the Waste Toner Feed Unit. 6. Replace the Main Driver PCB (PCB2). 7. Replace the DC Controller PCB (PCB1). (When the error is still displayed after replacing the Waste Toner Feed Unit and the Main Driver PCB (PCB2).)

E Code	Detail Code	Location	Item	Description
E014	-0001	-05	Title	Fixing Motor error
			Detection description	Lock error of the Fixing Motor (M3).
			Remedy	1. Check the gear of the Fixing Drive Unit. -> Replace the gear. 2. Replace the Fixing Motor (M3). 3. Check the connection drawer between the Fixing Assembly and the host machine. 4. Replace the Main Driver PCB (PCB2).
E017	-0001	-05	Title	ETB disengagement error
			Detection description	Disengagement of the ETB is not completed within the specified period of time.
			Remedy	1. Check the connection of the ETB Disengage Sensor (PS56). Sensor side: J2101, J3270, PCB side: J343 (Duplex Driver PCB (PCB4)) 2. Check the connection of the Duplex Feed Left Motor (M19). Motor side: J2107, J3044 (relay), PCB side: J330 (Duplex Driver PCB (PCB4)) 3. Replace the ETB Disengage Sensor (PS56). 4. Replace the Duplex Feed Left Motor (M19). 5. Replace the Duplex Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1). NOTE: Check if the Disengagement Cam is stained. If necessary, clean it. Check if the drive system (gear, Motor, one-way) is failed. If necessary, replace it. Check if the link with the Fixing Feed Handle is failed. If necessary, replace it.

E Code	Detail Code	Location	Item	Description
E017	-0002	-05	Title	ETB engagement error
			Detection description	Engagement of the ETB is not completed within the specified period of time.
			Remedy	1. Check the connection of the ETB Disengage Sensor (PS55). Sensor side: J2100, J3270, PCB side: J343 (Duplex Driver PCB (PCB4)) 2. Check the connection of the Duplex Feed Left Motor (M19). Motor side: J2107, J3044 (relay), PCB side: J330 (Duplex Driver PCB (PCB4)) 3. Replace the ETB Engage Sensor (PS55). 4. Replace the Duplex Feed Left Motor (M19). 5. Replace the Duplex Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1). NOTE: Check if the Disengagement Cam is stained. If necessary, clean it. Check if the drive system (gear, Motor, one-way) is failed. If necessary, replace it. Check if the link with the Fixing Feed Handle is failed. If necessary, replace it.

E Code	Detail Code	Location	Item	Description
E017	-0003	-05	Title	ETB HP error
			Detection description	Engagement of the ETB was not completed at initialization.
			Remedy	If this error occurs at installation, the ETB Disengage Member (Transfer Frame Stopper) may be left unremoved. Refer to the troubleshooting “Remedy to be implemented when the ETB Disengage Member (Transfer Frame Stopper) is left unremoved” in the Service Manual, and check whether the ETB Disengage Member is left unremoved or not and implement appropriate procedure. If this error occurs at times other than installation, follow the following steps to implement check and remedy. 1. Check the connection of the ETB Disengage Sensor (PS56). Sensor side: J2101, J3270, PCB side: J343 (Duplex Driver PCB (PCB4)) 2. Check the connection of the Duplex Feed Left Motor (M19). Motor side: J2107, J3044 (relay), PCB side: J330 (Duplex Driver PCB (PCB4)) 3. Replace the ETB Disengage Sensor (PS56). 4. Replace the Duplex Feed Left Motor (M19). 5. Replace the Duplex Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1). NOTE: Check if the Disengagement Cam is stained. If necessary, clean it. Check if the drive system (gear, Motor, one-way) is failed. If necessary, replace it. Check if the link with the Fixing Feed Handle is failed. If necessary, replace it.

E Code	Detail Code	Location	Item	Description
E020	-0000	-05	Title	Developing Assembly toner absent error
			Detection description	Toner in the Developing Assembly was empty for 2 minutes.
			Remedy	1. Check the connection of the Developing Toner Sensor (TS1). Sensor side: J2133, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2)) 2. Check the connection of the Magnet Roller Clutch (CL5). Sensor side: J2036, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2)) 3. Check the connection of the Toner Feed Motor (M28). Motor side: J2035, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2)) 4. Check the connection of the Buffer Toner Sensor (TS3). Sensor side: J2039, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2)) 5. Replace the Developing Toner Sensor (TS1). 6. Replace the Magnet Roller Clutch (CL5). 7. Replace the Toner Feed Motor (M28). 8. Replace the Buffer Toner Sensor (TS3). 9. Replace the Main Driver PCB (PCB2). 10. Replace the DC Controller PCB (PCB1).
E020	-0001	-05	Title	Error in Developing Toner Sensor connection detection
			Detection description	The connection detection port was OFF at power-on.
			Remedy	1. Check the connection of the Developing Toner Sensor (TS1). Sensor side: J2133, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2)) 2. Replace the Developing Toner Sensor (TS1). 3. Replace the Main Driver PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).
E020	-0002	-05	Title	Error in Buffer Toner Sensor connection detection
			Detection description	The connection detection port was OFF at power-on.
			Remedy	1. Check the connection of the Buffer Toner Sensor (TS3). Sensor side: J2039, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2)) 2. Replace the Buffer Toner Sensor (TS3). 3. Replace the Main Driver PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E020	-0003	-05	Title	Error in the Toner Excess Supply Sensor connection detection
			Detection description	The connection detection port was OFF at power-on.
			Remedy	1. Check the connection of the Toner Excess Supply Sensor (TS2). Sensor side: J2038, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2)) 2. Replace the Toner Excess Supply Sensor (TS2). 3. Replace the Main Driver PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).
E020	-0004	-05	Title	Error in Magnet Roller Clutch connection detection
			Detection description	The connection detection port was OFF at power-on.
			Remedy	1. Check the connection of the Magnet Roller Clutch (CL5). Sensor side: J2036, J3124 (relay), J3090 (relay) PCB side: J3091(relay), J115 (Main Driver PCB (PCB2)) 2. Replace the Magnet Roller Clutch (CL5). 3. Replace the Main Driver PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).
E020	-0020	-05	Title	Error in Developing Assembly Toner Sensor Cleaning Scraper displacement
			Detection description	State without toner was detected continuously.
			Remedy	1. Turn OFF the main power. 2. Replace the Developing Assembly. 3. Turn ON the main power.
E020	-0021	-05	Title	Error in Developing Assembly Toner Sensor Cleaning Scraper displacement
			Detection description	State with toner was detected continuously.
			Remedy	1. Turn OFF the main power. 2. Replace the Developing Assembly. 3. Turn ON the main power.

E Code	Detail Code	Location	Item	Description
E023	-0001	-05	Title	Developing Motor error
			Detection description	Lock error of the Developing Motor (M2).
			Remedy	1. Check the connection of the Connector. Motor side: J2319, Main Driver PCB (PCB2) side: J109 2. Check the voltage of the Developing Motor (M2) J2152. If voltage is 0V, check the connection of the Relay PCB J520. 3. Check the load of the Developing Motor (M2). Manually turn the Developing Motor (M2) located at the rear of the host machine to check it. 4. Replace the Developing Motor (M2). 5. Replace the Developing Clutch (CL1). (When an error occurs while the Developing Clutch is ON.) 6. Replace the Main Driver PCB (PCB2). 7. Replace the DC Controller PCB (PCB1).
E023	-0002	-05	Title	Error in Magnet Roller Clutch connection detection
			Detection description	Connection of the Magnet Roller Clutch (CL5) cannot be detected 5 times with 20 msec time interval.
			Remedy	1. Check the connection of the Magnet Roller Clutch (CL5). Sensor side: J2006, Main Driver PCB (PCB2) side: J109 2. Replace the Magnet Roller Clutch (CL5). 3. Replace the Main Driver PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).
E025	-0001	-05	Title	Toner Feed Motor error
			Detection description	Overcurrent of the Toner Feed Motor (M28) was detected.
			Remedy	1. Check the connection of the Connector. Motor side: J2036, Buffer Unit relay: J3124, Front side relay: J3090, Rear side relay: J3091, Main Driver PCB (PCB2) side: J115 2. Replace the Toner Feed Motor (M28). 3. Check if toner is clogged inside of the Buffer. Turn the Drive Shaft of the Motor with your hand to check it. If the load is too much, inside of the Buffer may be clogged, so clean inside of it. 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E027	-0001	-05	Title	Toner Supply Motor error
			Detection description	Lock error of the Toner Supply Motor (M10).
			Remedy	1. Check the connection of the Connector. Motor side: J2037, Front side relay: J3080, Rear side relay: J3063, Main Driver PCB (PCB2) side: J117 2. Remove the Toner Container, and check if an error occurs. If an error does not occur, reinstall the Toner Container and check again. If an error occurs, check the driving area of connection point of the container. If an error occurs, go on to 3. 3. Replace the Toner Supply Motor (M10). 4. Replace the Main Driver PCB (PCB2). 5. Replace the DC Controller PCB (PCB1).
E032	-0001	00	Title	Failure of NE Controller Counter
			Detection description	Detection of open circuit of count pulse signal.
			Remedy	Disconnection of cable.
E041	-0001	-05	Title	Right Deck Lifter Motor error
			Detection description	Overcurrent of the Right Deck Lifter Motor was detected.
			Remedy	1. Check for displacement of the Lifter Wire of the Right Deck. 2. Check for hindrance to smooth movement of the Deck Base Plate of the Right Deck.
E041	-0002	-05	Title	Left Deck Lifter Motor error
			Detection description	Overcurrent of the Left Deck Lifter Motor was detected.
			Remedy	1. Check for displacement of the Lifter Wire of the Left Deck. 2. Check for hindrance to smooth movement of the Deck Base Plate of the Left Deck.
E041	-0003	-05	Title	Cassette 3 Lifter Motor error
			Detection description	Overcurrent of the Cassette 3 Lifter Motor was detected.
			Remedy	1. Check for error around the Lifter of the Cassette 3. 2. Check for hindrance to smooth movement of the Cassette Base Plate of the Cassette 3.
E041	-0004	-05	Title	Cassette 4 Lifter Motor error
			Detection description	Overcurrent of the Cassette 4 Lifter Motor was detected.
			Remedy	1. Check for error around the Lifter of the Cassette 4. 2. Check for hindrance to smooth movement of the Cassette Base Plate of the Cassette 4.

E Code	Detail Code	Location	Item	Description
E053	-0001	-05	Title	Error in Reverse Upper Flapper Solenoid connection detection
			Detection description	Connection of the Reverse Upper Flapper Solenoid (SL5) cannot be detected 5 times with 20 msec time interval.
			Remedy	1. Check the connection of the Reverse Upper Flapper Solenoid (SL5). Solenoid side: J2115, Duplex Driver PCB side: J340 2. Replace the Reverse Upper Flapper Solenoid (SL5). 3. Replace the Duplex Driver PCB (PCB4). 4. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E060	-0001	-05	Title	Primary Charging Shutter HP open error
			Detection description	The Primary Charging Shutter Sensor (PS94) detects that the shutter is opened although it is moved to the close position.
			Remedy	1. Check the position of the Primary Charging Shutter and the Cleaning Pad. 1-A. In the case that the Primary Charging Shutter and the Cleaning Pad fail to operate (stopped at HP at front side) 1-A-1. Check the connection of the Primary Charging Wire Cleaning Motor (M6). Motor side: J3017, J3060 (iR-ADV 8xxx)/J3160 (iR-ADV 6xxx) (relay), PCB side: J3177 (relay), J107 (Main Driver PCB (PCB2)) 1-A-2. Replace the Primary Charging Wire Cleaning Motor (M6). 1-B. In the case that the Primary Charging Shutter and the Cleaning Pad are stopped at rear side (close operation position) 1-B-1. Check the connection of the Primary Charging Shutter Sensor (PS94). Sensor side: J2029, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2)) 1-B-2. Replace the Primary Charging Shutter Sensor (PS94). 1-C. In the case that the Primary Charging Shutter and the Cleaning Pad are stopped along the way 1-C-1. Check the loosening of screw on the Slider Pin and abrasion of the pin. Tighten the screw or replace the Slider Pin. 1-C-2. Replace the Primary Charging Assembly. 1-D. In the case that the Primary Charging Shutter stops at front side and the Cleaning Pad moves to rear side 1-D-1. Check if the Shutter Mounting Plate is deformed. If so, replace the Shutter Unit. 1-D-2. Check the loosening of screw on the Slider Pin and abrasion of the pin. Tighten the screw or replace the Slider Pin. 1-D-3. Replace the Primary Charging Assembly. 2. Replace the Main Driver PCB (PCB2). 3. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E060	-0002	-05	Title	Primary Charging Shutter HP close error
			Detection description	The Primary Charging Shutter Sensor (PS94) detects that the shutter is closed although it is moved to the open position.
			Remedy	1. Check the position of the Primary Charging Shutter and the Cleaning Pad. 1-A. In the case that the Primary Charging Shutter and the Cleaning Pad fail to operate (stopped at HP at front side) 1-A-1. Check the connection of the Primary Charging Wire Cleaning Motor (M6). Motor side: J3017, J3060 (iR-ADV 8xxx)/J3160 (iR-ADV 6xxx) (relay), PCB side: J3177 (relay), J107 (Main Driver PCB (PCB2)) 1-A-2. Replace the Primary Charging Wire Cleaning Motor (M6). 1-B. In the case that the Primary Charging Shutter and the Cleaning Pad are stopped at rear side (close operation position) 1-B-1. Check the connection of the Primary Charging Shutter Sensor (PS94). Sensor side: J2029, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2)) 1-B-2. Replace the Primary Charging Shutter Sensor (PS94). 1-C. In the case that the Primary Charging Shutter and the Cleaning Pad are stopped along the way 1-C-1. Check the loosening of screw on the Slider Pin and abrasion of the pin. Tighten the screw or replace the Slider Pin. 1-C-2. Replace the Primary Charging Assembly. 2. Replace the Main Driver PCB (PCB2). 3. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E061	-0001	-05	Title	Potential control error (VL)
			Detection description	The measured value in the dark area (VL) differs +/-30 V or higher than the target potential at potential control. NOTE: If the difference is somewhere between +/-10 V and less than 30 V, alarm is indicated.
			Remedy	1. Check the connection of the Pre-exposure LED (connector connection, open circuit, the caught cable). 2. Check the installation of the Primary Charging Assembly (connector connection, open circuit, the caught cable). 3. Check the fixation state of the Drum and the Drum Shaft. (Check if the drum fixation cylinder is properly installed.) 4. Check if the Dustproof Glass is soiled. If necessary, clean it. 5. Check the installation of the Laser Scanner Unit (connector connection, open circuit, the caught cable). 6. Check the installation of the Primary Charging High Voltage PCB (PCB11), and its connection (connector connection, open circuit, the caught cable). 7. Check the installation of the Potential Sensor (connector connection, open circuit, the caught cable). 8. Check the installation of the Drum Motor (M1), and its connection (connector connection, open circuit, the caught cable). 9. Replace the parts. • Primary Charging Assembly • Laser Scanner Unit • Potential Sensor • Primary Charging High Voltage PCB (PCB11) • Drum Motor (M1) • Main Driver PCB (PCB2) • DC Controller PCB (PCB1)

E Code	Detail Code	Location	Item	Description
E061	-0101	-05	Title	Potential control error (VD)
			Detection description	Potential in the dark area did not fall within the range (target value +/-10 V) although retry was executed 8 times at VD potential control.
			Remedy	1. Check the connection of the Pre-exposure LED (connector connection, open circuit, the caught cable). 2. If the current value of the Primary Charging Roller (COPIER> DISPLAY> DPOT> PRIM-C) is 1550 micro A or higher, execute 2-1 to 3. 2-1. Increase the grid voltage of the Primary Charging Assembly by 100V (COPIER> ADJUST> HV-PRI> PRI-GRID). 2-2. Execute the potential control (COPIER> FUNCTION> DPC> DPC). 2-3. Turn OFF and then ON the power. 3. Check the installation of the Primary Charging Assembly (connector connection, open circuit, the caught cable). 4. Check the installation of the Primary Charging High Voltage PCB (PCB11), and its connection (connector connection, open circuit, the caught cable). 5. Check the installation of the Drum Motor (M1), and its connection (connector connection, open circuit, the caught cable). 6. Replace the parts. • Primary Charging Assembly • Primary Charging High Voltage PCB • Drum Motor (M1) • Main Driver PCB (PCB2) • DC Controller PCB (PCB1)
E064	-00FF	-05	Title	High voltage setting error
			Detection description	With the state in which the developing AC is output, 600 V or higher developing DC output was detected. (Basically, this error is not detected. However, to detect that the image formation-related backup data is corrupted or to protect the hardware in case of 600 V or higher developing DC output, this is to be an error.)
			Remedy	1. Turn OFF and then ON the main power. 2. Replace the DCON PCB.

E Code	Detail Code	Location	Item	Description
E065	-0001	-05	Title	Primary charging/grid high voltage output leak error
			Detection description	The leak detection signal was detected 5 times in a row for every 20 msec.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the High Voltage Unit. Main Driver side: J111, High Voltage Unit side: J3097 2. Check the connection between the Relay PCB (PCB5) and the High Voltage Unit. Relay side: J519, High Voltage Unit side: J3099 3. Replace the Primary Charging Assembly. 4. Check the connection inside of the High Voltage Unit. High Voltage Unit Relay (J3097) and Primary Charging High Voltage PCB (PCB11) (J3501) High Voltage Unit relay (J3099) and Pre-transfer Charging PCB (PCB26) (J3545, J3500) 5. Replace the Main Driver PCB (PCB2). 6. Replace the Primary Grid High Voltage Connector (FM4-1006).

E Code	Detail Code	Location	Item	Description
E066	-0001	-05	Title	Pre-transfer Charging Shutter HP open error
			Detection description	The Pre-transfer Charging Shutter Sensor (PS95) detects that the shutter is opened although it is moved to the close position.
			Remedy	1. Check the position of the Pre-transfer Charging Shutter. 1-A. In the case that the Pre-transfer Charging Shutter fails to operate (stopped at HP at front side) Check the connection of the Pre-transfer Charging Wire Cleaning Motor (M7). Sensor side: J3108, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2)) 1-B. In the case that the Pre-transfer Charging Shutter is stopped at rear side (close operation position) 1-B-1. Check that the Primary Fan Duct is closed. Close the Primary Fan Duct. 1-B-2. Check movement of the pin to push the Pre-transfer Charging Shutter Sensor (PS95). Replace the Pin. 1-B-3. Check movement of the flag on the Pre-transfer Charging Shutter Sensor (PS95). Replace the flag/spring. 1-B-4. Check the connection of the Pre-transfer Charging Shutter Sensor (PS95). Sensor side: J2114, J3215 (relay), J3067 (relay) PCB side: J3066 (relay), J130 (Main Driver PCB (PCB2)) 1-C. In the case that the Pre-transfer Charging Shutter is stopped along the way 1-C-1. Check abrasion of the Slider Pin. Replace the Slider Pin. 1-C-2. Replace the Pre-transfer Charging Assembly. 2. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E066	-0002	-05	Title	Pre-transfer Charging Shutter HP close error
			Detection description	The Pre-transfer Charging Shutter Sensor (PS95) detects that the shutter is closed although it is moved to the open position.
			Remedy	1. Check the position of the Pre-transfer Charging Shutter. 1-A. In the case that the Pre-transfer Charging Shutter fails to operate (stopped at HP at front side) Check the connection of the Pre-transfer Charging Wire Cleaning Motor (M7). Sensor side: J3108, J3089 (relay), PCB side: J3088 (relay), J114 (Main Driver PCB (PCB2)) 1-B. In the case that the Pre-transfer Charging Shutter is stopped at rear side (close operation position) 1-B-1. Check that the Primary Fan Duct is closed. Close the Primary Fan Duct. 1-B-2. Check movement of the pin to push the Pre-transfer Charging Shutter Sensor (PS95). Replace the Pin. 1-B-3. Check movement of the flag on the Pre-transfer Charging Shutter Sensor (PS95). Replace the flag/spring. 1-B-4. Check the connection of the Pre-transfer Charging Shutter Sensor (PS95). Sensor side: J2114, J3215 (relay), J3067 (relay) PCB side: J3066 (relay), J130 (Main Driver PCB (PCB2)) 1-C. In the case that the Pre-transfer Charging Shutter is stopped along the way 1-C-1. Check abrasion of the Slider Pin. Replace the Slider Pin. 1-C-2. Replace the Pre-transfer Charging Assembly. 2. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E067	-0001	-05	Title	Developing high voltage output leak error
			Detection description	The leak detection signal was detected 5 times in a row for every 20 msec.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the High Voltage Unit. Main Driver side: J112, High Voltage Unit side: J3098 2. Check the connection between the Relay PCB (PCB5) and the High Voltage Unit. Relay side: J519, High Voltage Unit side: J3099 3. Replace the Developing Assembly. 4. Check the connection point of the Developing Assembly. If it is soiled, clean it. 5. Check the connection inside of the High Voltage Unit. Check the connection of the High Voltage Unit Relay (J3097) and the Developing High Voltage PCB (J3511). High Voltage Unit Relay (J3099) and Pre-transfer Charging PCB (J3545, J3500, J3510) 6. Replace the Main Driver PCB (PCB2).
E068	-0001	-05	Title	Pre-transfer charging high voltage output leak error
			Detection description	The leak detection signal was detected 5 times in a row for every 20 msec.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the High Voltage Unit. Main Driver side: J112, High Voltage Unit side: J3098 2. Check the connection between the Relay PCB (PCB5) and the High Voltage Unit. Relay side: J519, High Voltage Unit side: J3099 3. Replace the Pre-transfer Charging Assembly. 4. Check the connection inside of the High Voltage Unit. Check the connection of the High Voltage Unit Relay (J3098) and the Transfer High Voltage PCB (J3544). Check the connection of the High Voltage Unit Relay (J3099) and the Pre-transfer Charging PCB (J3545, J3500) 5. Replace the Main Driver PCB (PCB2). 6. Replace the Pre-transfer High Voltage Connector (FM4-1007). 7. Replace the Pre-transfer Transformer (Post Charging Trance) of the High Voltage Unit.

E Code	Detail Code	Location	Item	Description
E069	-0001	-05	Title	Transfer high voltage output leak error
			Detection description	The leak detection signal was detected 5 times in a row for every 20 msec.
			Remedy	1. Check the connection between the Duplex Driver PCB (PCB4) and the High Voltage Unit. Check the connection at Duplex Driver side (J343) and the Transfer High Voltage side (J3066). Check the connection at Duplex Driver side (J311) and the Transfer High Voltage side (J3061). (In addition, check that 24 V is output.) 2. Check the connection of the Transfer High Voltage PCB (J3306). 3. Replace the ETB Unit. 4. Replace the Duplex Driver PCB (PCB4).

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E100 to E199

E Code	Detail Code	Location	Item	Description
E100	-11xx	-05	Title	BD unlock error
			Detection description	Locked state was not detected within the specified period of time at start-up.
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connection between the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor and BD PCB: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1). NOTE: When condensation occurs inside of the machine or the Laser Scanner Unit, this error also occurs. When condensation occurs, leave the machine or the unit as it is until condensation disappears. (Use the machine or the unit in an environment where condensation does not occur.)
E100	-12xx	-05	Title	BD unlock error
			Detection description	After the BD range was specified, lock was unlocked for 1 second or longer.
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connection between the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor and BD PCB: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1). NOTE: When condensation occurs inside of the machine or the Laser Scanner Unit, this error also occurs. When condensation occurs, leave the machine or the unit as it is until condensation disappears. (Use the machine or the unit in an environment where condensation does not occur.)
E100	-13xx	-05	Title	Polygon Motor BD unlock error (Laser diode is not lit up/failure of the BD PCB/power supply error, or condensation)
			Detection description	During the Polygon speed change, lock was unlocked for 1 second or longer. (Laser diode is not lit up/failure of the BD PCB/power supply error, or condensation)
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connection between the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor and BD PCB: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1). NOTE: When condensation occurs inside of the machine or the Laser Scanner Unit, this error also occurs. When condensation occurs, leave the machine or the unit as it is until condensation disappears. (Use the machine or the unit in an environment where condensation does not occur.)
E100	-FFFF	-05	Title	Polygon Motor BD unlock error
			Detection description	Failed to get the Detailed Code (communication error, power supply error, PCB failure, etc.).
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1).
E102	-0001	-05	Title	EEPROM writing error
			Detection description	Failed to write to EEPROM (Power is not supplied/EEPROM failure).
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E103	-0001	-05	Title	Different Laser Scanner Unit model error
			Detection description	The scanner for 6275/6265/6255 models was installed to the imageRUNNER ADVANCE 8205/8295/8285 models, and vice versa.
			Remedy	Replace the Laser Scanner Unit with the one for the correct model.
E110	-11xx	-05	Title	Polygon Motor FG unlock error
			Detection description	Locked state was not detected within the specified period of time at start-up. (Power is not supplied/Polygon Motor signal error)
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1).
E110	-12xx	-05	Title	Polygon Motor FG unlock error
			Detection description	After the BD range was specified, lock was unlocked for 1 second or longer. (Power is not supplied/Polygon Motor signal error)
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E110	-13xx	-05	Title	Polygon Motor FG unlock error
			Detection description	During the Polygon speed change, lock was unlocked for 1 second or longer. (Power is not supplied/Polygon Motor signal error)
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1).
E110	-FFFF	-05	Title	Polygon Motor FG unlock error
			Detection description	Failed to get the Detailed Code (communication error, power supply error, PCB failure).
			Remedy	1. Check if the door is opened. Close the door. 2. Check the connector connection, open circuit, and the caught cable of the DC Controller PCB (PCB1) and the Laser Driver PCB (PCB35). DC Controller side: J471, J472, Laser Driver side: J5100, J5101, Relay Harness connection to Polygon Motor (M44) and BD Sensor: J3011 3. Replace the Laser Scanner Unit. 4. Replace the Laser Driver PCB (PCB35). 5. Replace the DC Controller PCB (PCB1).
E121	-0001	-05	Title	Laser Scanner Cooling Fan error
			Detection description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Laser Scanner Cooling Fan (FM16) is turned ON.
			Remedy	1. Check the connection of the Connector. 2. Replace the Laser Scanner Cooling Fan (FM16).
E197	-0001	-05	Title	Error in Main Driver PCB connection detection
			Detection description	Failed to establish a communication between the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2).
			Remedy	1. Check the connection of the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2). DC Controller side: J411, J412, Main Driver side: J125, J126 2. Check the Main Driver PCB (PCB2) power supply connection. Check the connection at the Main Driver side (J128) and the DC Controller side (J414), and check the voltage. 3. Replace the Main Driver PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E197	-0002	-05	Title	Error in Feed Driver PCB connection detection
			Detection description	Failed to establish a communication between the DC Controller PCB (PCB1) and the Feed Driver Pub (PCB3).
			Remedy	1. Check the connection of the DC Controller PCB (PCB1) and the Feed Driver PCB (PCB3). DC Controller side: J421, Feed Driver side: J204 2. Check the connection of the Feed Driver PCB (PCB3) and the DC-DC Converter PCB. Check the connection at the Feed Driver side (J218) and the DC-DC Converter side (J9033). 3. Check the power supply of the Feed Driver PCB (PCB3). Check if appropriate voltages are applied to the Feed Driver side (12 V to 1pin, 5 V to 3pin, 3.3 V to 4pin). -> If not, replace the DC-DC Converter PCB. 4. Replace the Feed Driver PCB (PCB3). 5. Replace the DC Controller PCB (PCB1).
E197	-0003	-05	Title	Error in Duplex Driver PCB connection detection
			Detection description	Failed to establish a communication between the DC Controller PCB (PCB1) and the Duplex Driver PCB (PCB4).
			Remedy	1. Check the connection between the DC Controller PCB (PCB1) and the Fixing Feed Drawer. DC Controller side: J431, J432, Fixing Feed Drawer (host machine side): J3002D Fixing Feed Drawer (Fixing Feed side): J3002L, Duplex Driver side: J300, J301 2. Check the connection of the Duplex Driver PCB (PCB4) and the DC-DC Converter PCB. Check the connection at the Duplex Driver side (J311) and the DC-DC Converter side (J9034). 3. Check the power supply of the Duplex Driver PCB (PCB4). Check if appropriate voltages are applied to the Duplex Driver side (12 V to 1pin, 5 V to 3pin, 3.3 V to 4pin). -> If not, replace the DC-DC Converter PCB. 4. Replace the Duplex Driver PCB (PCB4). 5. Replace the DC Controller PCB (PCB1).
E197	-0004	-05	Title	Error in Relay PCB connection detection
			Detection description	Connection between the DC Controller PCB (PCB1) and the Relay PCB (PCB5) is disconnected.
			Remedy	1. Check the connection of the DC Controller PCB (PCB1) and the Relay PCB (PCB5). DC Controller side: J451, Relay side: J514 2. Replace the Relay PCB (PCB5). 3. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E197	-0005	-05	Title	Error in Main Driver PCB Analog Connector connection detection
			Detection description	Connection between the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2) is disconnected.
			Remedy	1. Check the connection of the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2). DC Controller side: J413, Main Driver side: J124 2. Replace the Main Driver PCB (PCB2). 3. Replace the DC Controller PCB (PCB1).
E197	-0006	-05	Title	Error in Feed Driver PCB Drawer Connector connection detection
			Detection description	Connection between the DC Controller PCB (PCB1) and the Feed Driver PCB (PCB3) is disconnected.
			Remedy	1. Check the connection between the DC Controller PCB (PCB1) and the Fixing Feed Drawer. DC Controller side: J431, J432, Fixing Feed Drawer (host machine side): J3002D Fixing Feed Drawer (Fixing Feed side): J3002L, Feed Driver side: J300, J301 2. Replace the Feed Driver PCB (PCB3). 3. Replace the DC Controller PCB (PCB1).
E197	-0008	-05	Title	Error in Fixing Drawer Connector connection detection
			Detection description	Connection between the DC Controller PCB (PCB1) and the Main Driver PCB (PCB2) is disconnected.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Fixing Drawer. Main Driver side: J105, Fixing Drawer (host machine side): J3001D Check the Harness of the Fixing Drawer (Fixing side) (J3001L). 2. Replace the Main Driver PCB (PCB2).
E197	-0009	-05	Title	Error in the Process Unit connection detection
			Detection description	Connection between the Main Driver PCB (PCB2) and the Process Unit is disconnected.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Process Unit. PCB side: J107, Process Unit side: J3060 2. Replace the Process Unit.

E Code	Detail Code	Location	Item	Description
E197	-0010	-05	Title	Error in Primary Charging High Voltage PCB connection detection
			Detection description	Connection between the Main Driver PCB (PCB2) and the Primary Charging High Voltage PCB (PCB11) is disconnected.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Primary Charging High Voltage PCB (PCB11). Main Driver side: J111, Primary Charging High Voltage side: J3501 2. Replace the Primary Charging High Voltage PCB (PCB11).
E197	-0011	-05	Title	Error in Developing High Voltage PCB connection detection
			Detection description	Connection between the Main Driver PCB (PCB2) and the Developing High Voltage PCB (PCB12) is disconnected.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Developing High Voltage PCB (PCB12). Main Driver side: J112, Developing High Voltage side: J3511 2. Replace the Developing High Voltage PCB (PCB12).
E197	-0012	-05	Title	Error in Transfer High Voltage PCB connection detection
			Detection description	Connection between the Duplex Driver PCB (PCB4) and the Transfer High Voltage PCB (PCB13) is disconnected.
			Remedy	1. Check the connection between the Duplex Driver PCB (PCB4) and the Transfer High Voltage PCB (PCB13). Duplex Driver side: J343, Transfer High Voltage side: J3062 2. Replace the Transfer High Voltage PCB (PCB13).
E197	-0181	-05	Title	Serial communication error
			Detection description	Failure of reception from the video signal control ASIC. Data reception was failed 5 times in a row when reading data from the video signal control ASIC (at FG lock detection, BD lock detection).
			Remedy	Replace the DC Controller PCB (PCB1).
E199	-0000	-05	Title	-
			Detection description	-
			Remedy	Collect the sublog and contact the sales company.

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E202 to E280

E Code	Detail Code	Location	Item	Description
E202	-0001	-04	Title	Scanner HP error
			Detection description	An error occurs during the Scanner Unit (Paper Front) HP detection operation (outward).
			Remedy	1. Connector disconnection/open circuit of the Scanner HP Sensor (SR2). 2. Failure of the Scanner HP Sensor (SR2). 3. Failure of the Scanner Motor (M1). 4. Failure of the Reader Controller PCB (PCB1).
E202	-0002	-04	Title	Scanner HP error
			Detection description	An error occurs during the Scanner Unit (Paper Front) HP detection operation (homeward).
			Remedy	1. Connector disconnection/open circuit of the Scanner HP Sensor (SR2). 2. Failure of the Scanner HP Sensor (SR2). 3. Failure of the Scanner Motor (M1). 4. Failure of the Reader Controller PCB (PCB1).
E202	-0101	-04	Title	Glass HP error
			Detection description	An error occurs during the Glass HP detection operation (outward).
			Remedy	1. Connector disconnection/open circuit of the Glass Shift HP Sensor (SR11). 2. Failure of the Glass Shift HP Sensor (SR11). 3. Failure of the Glass Shift Motor (M9). 4. Failure of the DADF Driver PCB (PCB1).
E202	-0102	-04	Title	Glass HP error
			Detection description	An error occurs during the Glass HP detection operation (homeward).
			Remedy	1. Connector disconnection/open circuit of the Glass Shift HP Sensor (SR11). 2. Failure of the Glass Shift HP Sensor (SR11). 3. Failure of the Glass Shift Motor (M9). 4. Failure of the DADF Driver PCB (PCB1).
E227	-0001	-04	Title	Power supply (24 V) error
			Detection description	24 V port is OFF when the power is turned ON.
			Remedy	1. Connector disconnection/open circuit of the Reader Power Supply. 2. Failure of power supply.
E227	-0002	-04	Title	Power supply (24 V) error
			Detection description	24 V port is OFF when a job is started.
			Remedy	1. Connector disconnection/open circuit of the Reader Power Supply. 2. Failure of power supply.

E Code	Detail Code	Location	Item	Description
E227	-0003	-04	Title	Power supply (24 V) error
			Detection description	24 V port is OFF when a job is ended.
			Remedy	1. Connector disconnection/open circuit of the Reader Power Supply. 2. Failure of power supply.
E227	-0004	-04	Title	Power supply (24 V) error
			Detection description	24 V port is OFF when loading.
			Remedy	1. Connector disconnection/open circuit of the Reader Power Supply. 2. Failure of power supply.
E227	-0101	-04	Title	Power supply (24 V) error
			Detection description	24 V port is OFF when the power of DADF is turned ON.
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Connector disconnection/open circuit of the Reader Power Supply. 3. Failure of power supply.
E227	-0102	-04	Title	Power supply (24 V) error
			Detection description	24 V port is OFF when a job is started in the DADF.
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Connector disconnection/open circuit of the Reader Power Supply. 3. Failure of power supply.
E227	-0103	-04	Title	Power supply (24 V) error
			Detection description	24 V port is OFF when a job is ended in the DADF.
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Connector disconnection/open circuit of the Reader Power Supply. 3. Failure of power supply.
E240	-0000	-05	Title	Communication error between Main Controller and DC Controller
			Detection description	Communication error occurs between the CPU of the Main Controller PCB and the DC Controller PCB (PCB1).
			Remedy	1. Check the connection of the Main Controller PCB and the DC Controller PCB (PCB1). Main Controller side: J712, DC Controller side: J442 2. Replace the DC Controller PCB (PCB1). 3. Replace the Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E240	-0001	-05	Title	3 minutes passed with pickup request waiting status
			Detection description	It was detected that 3 minutes passed with pickup request waiting status.
			Remedy	1. Check the connection of the Connector. 2. Check the connection of the Sub PCB in the Main Controller PCB 1 Box. 3. Check the connections of the DC Controller PCB and the Main Controller PCB 1. Replace the PCB(s) if necessary.
E240	-0002	-05	Title	3 minutes passed with image output request waiting status
			Detection description	It was detected that 3 minutes passed with image output request waiting status.
			Remedy	1. Check the connection of the Connector. 2. Check the connection of the Sub PCB in the Main Controller PCB 1 Box. 3. Check the connections of the DC Controller PCB and the Main Controller PCB 1. Replace the PCB(s) if necessary.
E240	-0003	-05	Title	Software sequence error after the jam
			Detection description	A software sequence error (engine bug) was detected after the jam.
			Remedy	1. Check the connection of the Connector. 2. Check the connection of the Sub PCB in the Main Controller PCB 1 Box. 3. Check the connections of the DC Controller PCB and the Main Controller PCB 1. Replace the PCB(s) if necessary.
E246	-0001	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E246	-0002	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E246	-0003	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E246	-0005	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E247	-0001	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.

E Code	Detail Code	Location	Item	Description
E247	-0002	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E247	-0003	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E247	-0004	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E248	-0000	-00	Title	SRAM error
			Detection description	SRAM check error when the power is turned ON.
			Remedy	Main Controller PCB 2.
E248	-0001	-04	Title	EEPROM error
			Detection description	An error when EEPROM power for the Reader Controller PCB (PCB1) is turned ON.
			Remedy	Failure of the Reader Controller PCB (PCB1).
E248	-0002	-04	Title	EEPROM error
			Detection description	EEPROM writing error for the Reader Controller PCB (PCB1).
			Remedy	Failure of the Reader Controller PCB (PCB1).
E248	-0003	-04	Title	EEPROM error
			Detection description	Reading error after writing to EEPROM for the Reader Controller PCB (PCB1).
			Remedy	Failure of the Reader Controller PCB (PCB1).
E263	-0000	-05	Title	Error in Current Sensor reference voltage generation
			Detection description	When CP54 on the Main Driver PCB was measured with a tester, the reference voltage (normally 2.5 V) was not within the range of reference value (2.2 to 2.7 V).
			Remedy	1. Check the connection between the AC Driver PCB and the Main Driver PCB (connector disconnection, open circuit, short circuit of harness). AC Driver side: J615, Main Driver side: J103 2. Replace the AC Driver PCB. 3. Replace the Main Driver PCB (PCB2).

E Code	Detail Code	Location	Item	Description
E263	-0001	-05	Title	Current Sensor error
			Detection description	An error is detected in the value of the Current Sensor (SE601) (the value remains at the upper limit).
			Remedy	1. Check the connection between the AC Driver PCB and the Main Driver PCB (connector disconnection, open circuit, short circuit of harness). AC Driver side: J615, Main Driver side: J103 2. Replace the AC Driver PCB. 3. Replace the Main Driver PCB (PCB2).
E263	-0002	-05	Title	Current Sensor error
			Detection description	An error is detected in the value of the Current Sensor (SE601) (the value remains at the lower limit).
			Remedy	1. Check the connection between the AC Driver PCB and the Main Driver PCB (connector disconnection, open circuit, short circuit of harness). AC Driver side: J615, Main Driver side: J103 2. Replace the AC Driver PCB. 3. Replace the Main Driver PCB (PCB2).
E270	-0001	-04	Title	Error in paper front vertical scanning synchronous signal
			Detection description	Vertical scanning synchronous signal (VSYNC) is not sent appropriately from the CMOS PCB (Scanner Unit (Paper Front)), so the image error occurs or the operation stops abnormally.
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (Reader). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (Reader). 4. Failure of the Reader Controller PCB (PCB1).
E270	-0002	-04	Title	Error in horizontal scanning/vertical scanning synchronous signal
			Detection description	Due to the horizontal scanning synchronous signal (HSYNC) error, the vertical scanning synchronous signal (VSYNC) is not sent, so the image error occurs or the operation stops abnormally.
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (Reader/DADF). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (Reader/DADF). 4. Failure of the Reader Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E270	-0101	-04	Title	Error in paper back vertical scanning synchronous signal
			Detection description	Vertical scanning synchronous signal (VSYNC) is not sent appropriately from the CMOS PCB (Scanner Unit (Paper Back)), so the image error occurs or the operation stops abnormally.
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (DADF). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (DADF). 4. Failure of the Reader Controller PCB (PCB1).
E280	-0001	-04	Title	Communication error between Reader Controller PCB (PCB1) and Scanner Unit (Reader)
			Detection description	Within the specified period of time, communication between the Reader Controller PCB and Scanner Unit (Paper Front) is not started.
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (Reader). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (Reader). 4. Failure of the Reader Controller PCB (PCB1).
E280	-0101	-04	Title	Communication error between Reader Controller PCB (PCB1) and Scanner Unit (DADF)
			Detection description	Within the specified period of time, communication between the Reader Controller PCB and Scanner Unit (Paper Back) is not started.
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (DADF). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (DADF). 4. Failure of the Reader Controller PCB (PCB1).

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E301 to E355

E Code	Detail Code	Location	Item	Description
E301	0001	-04	Title	Paper front light intensity NG
			Detection description	Light intensity is below the reference level at paper front shading.
			Remedy	Failure of the Scanner Unit (Reader).
E301	0101	-04	Title	Paper back light intensity NG
			Detection description	Light intensity is below the reference level at paper back shading.
			Remedy	Failure of the Scanner Unit (DADF).
E302	0001	-04	Title	Error in paper front shading
			Detection description	Error in shading RAM access, or the shading value is either below or higher than the reference level.
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (Reader). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Failure of the Scanner Unit (Reader). 4. Failure of the Reader Controller PCB (PCB1).
E302	0101	-04	Title	Error in paper back shading
			Detection description	Error in shading RAM access, or the shading value is either below or higher than the reference level.
			Remedy	1. Connector disconnection/open circuit of the Scanner Unit (DADF). 2. Connector disconnection/open circuit of the Reader Controller PCB (PCB1). 3. Operation error of the Glass Shift Motor (M9). 4. Failure of the Scanner Unit (DADF). 5. Failure of the Reader Controller PCB (PCB1).
E315	0007	-00	Title	Codec error
			Detection description	JBIG encode error.
			Remedy	Replacement of the Main Controller PCB.
E315	000d	-00	Title	Codec error
			Detection description	JBIG decode error.
			Remedy	1. Replacement of SDRAM. 2. Replacement of HDD. 3. Replacement of the Main Controller PCB.
E315	000e	-00	Title	Codec error
			Detection description	Software decode error.
			Remedy	1. Replacement of SDRAM. 2. Replacement of HDD. 3. Replacement of the Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E315	0025	-00	Title	Codec error
			Detection description	ROTU hardware error.
			Remedy	Replacement of the Main Controller PCB.
E315	0027	-00	Title	Codec error
			Detection description	ROTU timeout error.
			Remedy	Replacement of the Main Controller PCB.
E315	0033	-00	Title	MemFill hardware error
			Detection description	MemFill hardware error.
			Remedy	Replacement of the Main Controller PCB.
E315	0035	-00	Title	Codec error
			Detection description	MemFill timeout error.
			Remedy	Replacement of the Main Controller PCB.
E315	0100	-00	Title	Codec error
			Detection description	PrcOverRun error.
			Remedy	Replacement of the Main Controller PCB.
E315	0500	-00	Title	Codec error
			Detection description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0501	-00	Title	Codec error
			Detection description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0510	-00	Title	Codec error
			Detection description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0511	-00	Title	Codec error
			Detection description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0520	-00	Title	Codec error
			Detection description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0521	-00	Title	Codec error
			Detection description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.

E Code	Detail Code	Location	Item	Description
E315	0530	-00	Title	Codec error
			Detection description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0531	-00	Title	Codec error
			Detection description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0540	-00	Title	JPEG decode error
			Detection description	This error occurs when images buffered in the HDD or memory were corrupted when performing image processing. JPEG decode is used when handling color (or gray) images. Therefore, the error does not occur for normal copy or PDL print. But it may occur with SEND.
			Remedy	1. Turn OFF and then ON the power. If it is not recovered or it occurs frequently, perform the following measures. 2. Format the HDD. If it is not recovered, replace the HDD. 3. Replace the memory on the Main Controller 2 (DDR2-SDRAM). 4. Replace the Main Controller PCB 2.
E315	0541	-00	Title	Codec error
			Detection description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0550	-00	Title	Codec error
			Detection description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0551	-00	Title	Codec error
			Detection description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0560	-00	Title	Codec error
			Detection description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0561	-00	Title	Codec error
			Detection description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E350	0000	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.

E Code	Detail Code	Location	Item	Description
E350	0001	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E350	0002	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E350	0003	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E350	3000	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E351	0000	-00	Title	Main Controller PCB 2 communication error
			Detection description	Main Controller PCB 2 communication error.
			Remedy	1. Disconnect and then connect the connector of the Main Controller PCB 2. 2. Replace the Main Controller PCB 2.
E354	0001	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E354	0002	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E355	0001	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E355	0003	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.
E355	0004	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies.

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E400 to E490

E Code	Detail Code	Location	Item	Description
E400	-0001	-04	Title	Communication error between Reader Controller PCB (PCB1) and DADF
			Detection description	Reception error occurs at the time of communication between the Reader Controller PCB and the DADF.
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Failure of the DADF Driver PCB (PCB1). 3. Failure of the Reader Controller PCB (PCB1).
E400	-0002	-04	Title	Communication error between Reader Controller PCB (PCB1) and DADF
			Detection description	Reception error occurs at the time of communication between the Reader Controller PCB and the DADF.
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (PCB1). 2. Failure of the DADF Driver PCB (PCB1). 3. Failure of the Reader Controller PCB (PCB1).
E401	-0001	-04	Title	Pickup Roller Unit lifting error
			Detection description	The level of the Pickup Roller Unit Lifter HP Sensor (SR12) does not change within the specified period of time although the Pickup Roller Unit Lifter Motor (M10) is driven.
			Remedy	1. Connector disconnection/open circuit of the Pickup Roller Unit Lifter HP Sensor (SR12). 2. Connector disconnection/open circuit of the Pickup Roller Unit Lifter Motor (M10). 3. Failure of the Pickup Roller Unit Lifter HP Sensor (SR12). 4. Failure of the Pickup Roller Unit Lifter Motor (M10).
E401	-0002	-04	Title	Pickup Roller Unit lifting error
			Detection description	The level of the Pickup Roller Unit Lifter HP Sensor (SR12) does not change within the specified period of time although the Pickup Roller Unit Lifter Motor (M10) is driven.
			Remedy	1. Connector disconnection/open circuit of the Pickup Roller Unit Lifter HP Sensor (SR12). 2. Connector disconnection/open circuit of the Pickup Roller Unit Lifter Motor (M10). 3. Failure of the Pickup Roller Unit Lifter HP Sensor (SR12). 4. Failure of the Pickup Roller Unit Lifter Motor (M10).

E Code	Detail Code	Location	Item	Description
E407	-0001	-04	Title	Tray Lifter Motor (M8) error
			Detection description	The Tray HP Sensor (SR13) is not turned ON or OFF within the specified period of time although the Tray Lifter Motor (M8) is driven.
			Remedy	1. Connector disconnection/open circuit of the Tray HP Sensor (SR13). 2. Connector disconnection/open circuit of the Tray Lifter Motor (M8). 3. Failure of the Tray HP Sensor (SR13). 4. Failure of the Tray Lifter Motor (M8).
E407	-0002	-04	Title	Tray Lifter Motor (M8) error
			Detection description	The Paper Surface Sensor (SR6) is not turned ON within the specified period of time although the Tray Lifter Motor (M8) is driven.
			Remedy	1. Connector disconnection/open circuit of the Paper Surface Sensor (SR6). 2. Connector disconnection/open circuit of the Tray Lifter Motor (M8). 3. Failure of the Paper Face Sensor (SR6). 4. Failure of the Tray Lifter Motor (M8).
E413	-0001	-04	Title	DADF Disengagement Motor 1 (M6) error
			Detection description	The DADF Disengagement HP Sensor 1 (SR15) is not turned ON within the specified period of time although the DADF Disengagement Motor 1 (M6) is driven.
			Remedy	1. Connector disconnection/open circuit of the Disengagement HP Sensor 1 (SR15). 2. Connector disconnection/open circuit of the Disengagement Motor 1 (M6). 3. Failure of the Disengagement HP Sensor 1 (SR15). 4. Failure of the Disengagement Motor 1 (M6). 5. Failure of the DADF Driver PCB (PCB1).
E413	-0002	-04	Title	DADF Disengagement Motor 1 (M6) error
			Detection description	The DADF Disengagement HP Sensor 1 (SR15) is not turned OFF within the specified period of time although the DADF Disengagement Motor 1 (M6) is driven.
			Remedy	1. Connector disconnection/open circuit of the Disengagement HP Sensor 1 (SR15). 2. Connector disconnection/open circuit of the Disengagement Motor 1 (M6). 3. Failure of the Disengagement HP Sensor 1 (SR15). 4. Failure of the Disengagement Motor 1 (M6). 5. Failure of the DADF Driver PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E413	-0011	-04	Title	DADF Disengagement Motor 2 (M7) error
			Detection description	The DADF Disengagement HP Sensor 2 (SR16) is not turned ON within the specified period of time although the DADF Disengagement Motor 2 (M7) is driven.
			Remedy	1. Connector disconnection/open circuit of the Disengagement HP Sensor 2 (SR16). 2. Connector disconnection/open circuit of the Disengagement Motor 2 (M7). 3. Failure of the Disengagement HP Sensor 2 (SR16). 4. Failure of the Disengagement Motor 2 (M7). 5. Failure of the DADF Driver PCB (PCB1).
E413	-0012	-04	Title	DADF Disengagement Motor 2 (M7) error
			Detection description	The DADF Disengagement HP Sensor 2 (SR16) is not turned OFF within the specified period of time although the DADF Disengagement Motor 2 (M7) is driven.
			Remedy	1. Connector disconnection/open circuit of the Disengagement HP Sensor 2 (SR16). 2. Connector disconnection/open circuit of the Disengagement Motor 2 (M7). 3. Failure of the Disengagement HP Sensor 2 (SR16). 4. Failure of the Disengagement Motor 2 (M7). 5. Failure of the DADF Driver PCB (PCB1).
E423	-0001	-04	Title	DADF SDRAM error
			Detection description	SDRAM access error.
			Remedy	Error in SDRAM (video image memory) on the Reader Controller PCB (PCB1).
E423	-0002	-04	Title	DADF SDRAM error
			Detection description	SDRAM Verify error.
			Remedy	Error in SDRAM (video image memory) on the Reader Controller PCB (PCB1).
E490	-0001	-04	Title	Different DADF model error
			Detection description	Not proper DADF is installed.
			Remedy	1. Installed DADF is a different model. 2. Failure of the Reader Controller PCB (PCB1). 3. Failure of the DC Controller PCB. 4. Failure of the Main Controller PCB.

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E500 to E5F6

E Code	Detail Code	Location	Item	Description
E500	-0000	-05	Title	Communication error (Finisher-P1)
			Detection description	The communication with the host machine is interrupted.
			Remedy	1. The Finisher Controller PCB is faulty. 2. The host machine DC Controller PCB is faulty.
E503	-0002	-05	Title	Communication error (Finisher-P1)
			Detection description	The communication with the Saddle Stitcher is interrupted.
			Remedy	1. The wiring between the Finisher Controller PCB and Saddle Controller PCB is faulty. 2. The Finisher Controller PCB is faulty. 3. The Saddle Stitcher Controller PCB is faulty.
E503	-0003	-05	Title	Communication error (Finisher-P1/External 2 Hole Puncher)
			Detection description	The communication with the Puncher unit is interrupted.
			Remedy	1. The wiring between the Finisher Controller PCB and host machine DC Controller PCB is faulty. 2. The Punch Controller PCB is faulty. 3. The Finisher Controller PCB is faulty. 4. The host machine DC Controller PCB is faulty.
E503	-0004	-05	Title	A. Communication error (Finisher-P1) B. Communication error with Insertion Unit (Document Insertion Unit-L1) C. Communication error with Insertion Unit (Document Insertion/Folding Unit-H1)
			Detection description	A. The communication with the Inserter or the Paper Folding Unit is interrupted. B. Failed communication for 3 consecutive times. C. Failed communication for 3 consecutive times.
			Remedy	A-1. The wiring between the Finisher Controller PCB and host machine Controller PCB is faulty. A-2. The Finisher Controller PCB is faulty. A-3. The host machine Controller PCB is faulty. B-1. Inserter Controller PCB is faulty. B-2. Disconnection of communication cable B-3. Connector on the Inserter Controller PCB is disconnected. C-1. Folder Controller PCB is faulty. C-2. Disconnection of communication cable C-3. Connector on the DC Controller PCB is disconnected.
E505	-0001	-05	Title	Finisher back-up RAM (EEPROM) error (Finisher-P1)
			Detection description	The checksum for the EEPROM data has an error. (The value written in EEPROM and the value extracted from EEPROM doesn't conform.)
			Remedy	The Finisher Controller PCB is faulty.
E505	-0002	-05	Title	EEPROM error (External 2 Hole Puncher)
			Detection description	The checksum for the EEPROM data has an error.
			Remedy	The Punch Controller PCB is faulty.
E505	-0003	-05	Title	A. EEPROM error with the Insertion Unit (failed data reading/writing) (Document Insertion Unit-L1) B. EEPROM error with the Insertion Unit (failed data reading/writing) (Document Insertion/Folding Unit-H1)
			Detection description	A. The checksum for the EEPROM data has an error. B. Data failed to be read properly.
			Remedy	A. The Insertion Unit Controller PCB is faulty. B. Folder Controller PCB is faulty.
E514	-8001	-05	Title	Rear end assist home position error (Finisher-P1)
			Detection description	The stapler does not leave the rear end assist home position when the Rear Eend Assist Motor has been driven for 3 seconds.
			Remedy	1. The Rear End Assist Home Position Sensor (PI109) is faulty. 2. The wiring between the Finisher Controller PCB and Rear End Assist Motor is faulty. 3. The end assist mechanism is faulty. 4. The Rear End Assist Motor (M109) is faulty. 5. The Finisher Controller PCB is faulty.
E514	-8002	-05	Title	Rear end assist home position error (Finisher-P1)
			Detection description	The stapler does not return to the rear end assist home position when the Rear End Assist Motor has been driven for 3 seconds.
			Remedy	1. The Rear End Assist Home Pposition Sensor (PI109) is faulty. 2. The wiring between the Finisher Controller PCB and Rear End Assist Motor is faulty. 3. The end assist mechanism is faulty. 4. The Rear End Assist Motor (M109) is faulty. 5. The Finisher Controller PCB is faulty.
E518	-8001	-05	Title	Error in Folding Feed Motor lock (Document Insertion/Folding Unit-H1)
			Detection description	The Folding Feed Motor (M5) lock signal has been detected for more than the specified time.
			Remedy	1. Connector of the Folding Feed Motor (M5) is disconnected. 2. Folding Feed Motor (M5) is faulty.

E Code	Detail Code	Location	Item	Description
E519	-0002	-05	Title	Gear change home position error (Finisher-P1)
			Detection description	The Gear Change Hhome Position Sensor does not turn ON when the Gear Change Motor has been driven for 387 pulses.
			Remedy	1. The Gear Change Home Position Sensor (PI117) is faulty. 2. The wiring between the Finisher Controller PCB and Gear Change Motor is faulty. 3. The gear change mechanism is faulty. 4. The Gear Change Motor (M110) is faulty. 5. The Finisher Controller PCB is faulty.
E519	-8001	-05	Title	Gear change home position error (Finisher-P1)
			Detection description	The Gear Change Home Position Sensor does not turn OFF when the Gear Change Motor has been driven for 387 pulses.
			Remedy	1. The Gear Change Home Position Sensor (PI117) is faulty. 2. The wiring between the Finisher Controller PCB and Gear Change Motor is faulty. 3. The gear change mechanism is faulty. 4. The Gear Change Motor (M110) is faulty. 5. The Finisher Controller PCB is faulty.
E530	-8001	-05	Title	Front aligning plate home position error (Finisher-P1)
			Detection description	The aligning plate does not leave the Aligning Plate Front Home Position Sensor when the Alignment Plate Front Motor has been driven for 4 seconds.
			Remedy	1. The Front Aligning Plate Home Position Sensor (PI106) is faulty. 2. The wiring between the Finisher Controller PCB and Front Aligning Plate Motor is faulty. 3. The front aligning plate is faulty. 4. The Front Aligning Plate Motor (M103) is faulty. 5. The Finisher Controller PCB is faulty.
E530	-8002	-05	Title	Front aligning plate home position error (Finisher-P1)
			Detection description	The aligning plate does not return to aligning plate front home position Sensor when the alignment plate front Motor has been driven for 4 seconds.
			Remedy	1. The front Aligning Plate Home Position Sensor (PI106) is faulty. 2. The wiring between the Finisher Controller PCB and front aligning plate Motor is faulty. 3. The front aligning plate is faulty. 4. The front aligning plate Motor (M103) is faulty. 5. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E531	-8001	-05	Title	Staple home position error (Finisher-P1)
			Detection description	The Stapler does not leave the staple home position when the Staple Motor has been driven for 0.4 sec.
			Remedy	1. The wiring between the Finisher Controller PCB and Stapler is faulty. 2. The Stapler is faulty. 3. The Finisher Controller PCB is faulty.
E531	-8002	-05	Title	Staple home position error (Finisher-P1)
			Detection description	The Stapler does not return to the staple home position when the Staple Motor has been driven for 0.4 sec.
			Remedy	1. The wiring between the Finisher Controller PCB and Stapler is faulty. 2. The Stapler is faulty. 3. The Finisher Controller PCB is faulty.
E532	-8001	-05	Title	Stapler shift home position error (Finisher-P1)
			Detection description	The Stapler does not leave the stapler shift home pposition when the Stapler Shift Motor hasbeen driven for 5 seconds.
			Remedy	1. The Stapler Drive Home Position Sensor (PI110) is faulty. 2. The wiring between the Finisher Controller PCB and Stapler Shift Motor is faulty. 3. The stapler shift base is faulty. 4. The Stapler Shift Motor (M105) is faulty. 5. The Finisher Controller PCB is faulty.
E532	-8002	-05	Title	Stapler shift home position error (Finisher-P1)
			Detection description	The Stapler does not return to the stapler shift home position when the Stapler Shift Motor has been driven for 20 seconds.
			Remedy	1. The Stapler Drive Home Position Sensor (PI110) is faulty. 2. The wiring between the Finisher Controller PCB and Stapler Shift Motor is faulty. 3. The stapler shift base is faulty. 4. The Stapler Shift Motor (M105) is faulty. 5. The Finisher Controller PCB is faulty.
E535	-8001	-05	Title	Swing home position error (Finisher-P1)
			Detection description	The Stapler does not leave the swing home position when the Swing Motor has been driven for 3 seconds.
			Remedy	1. The Swing Home Position Sensor (PI105) is faulty. 2. The wiring between the Finisher Controller PCB and Swing Motor is faulty. 3. The swing mechanism is faulty. 4. The Swing Motor (M106) is faulty. 5. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E535	-8002	-05	Title	Swing home position error (Finisher-P1)
			Detection description	The Stapler does not return to the swing home position when the Swing Motor has bee driven for 3 seconds.
			Remedy	1. The Swing Home Position Sensor (PI105) is faulty. 2. The wiring between the Finisher Controller PCB and Swing Motor is faulty. 3. The swing mechanism is faulty. 4. The Swing Motor (M106) is faulty. 5. The Finisher Controller PCB is faulty.
E537	-8001	-05	Title	Rear aligning plate home position error (Finisher-P1)
			Detection description	The aligning plate does not leave the Aligning Plate Rear Home Position Sensor when the Alignment Plate Rear Motor has been driven for 4 seconds.
			Remedy	1. The Aligning Plate Rear Home Position Sensor (PI107) is faulty. 2. The wiring between the Finisher Controller PCB and Aligning Plate Rear Motor is faulty. 3. The rear aligning plate is faulty. 4. The Rear Aligning Plate Motor (M104) is faulty. 5. The Finisher Controller PCB is faulty.
E537	-8002	-05	Title	Rear aligning plate home position error (Finisher-P1)
			Detection description	The aligning plate does not return to Aligning Plate Rear Home Position Sensor when the Alignment Plate Rear Motor has been driven for 4 seconds.
			Remedy	1. The Aligning Plate Rear Home Position Sensor (PI107) is faulty. 2. The wiring between the Finisher Controller PCB and Aligning Plate Rear Motor is faulty. 3. The rear aligning plate is faulty. 4. The Rear Aligning Plate Motor (M104) is faulty. 5. The Finisher Controller PCB is faulty.
E540	-8001	-05	Title	Tray 1 time out error (Finisher-P1)
			Detection description	1. If the tray does not return to home position when the Tray 1 Shift Motor is driven for 25 seconds. 2. If the tray does not move to other area when Tray 1 Shift Motor is driven for 5 seconds.
			Remedy	1. The Tray 1 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 1 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 1 Shift Motor (M107) is faulty. 5. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E540	-8002	-05	Title	Tray 1 shift area error (Finisher-P1)
			Detection description	1. The dangerous area is reached before the Tray 1 Paper Surface Sensor detects paper surface during the paper surface detection operation. 2. A discontinuous area is detected during tray operation.
			Remedy	1. The Tray 1 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 1 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 1 Shift Motor (M107) is faulty. 5. The Finisher Controller PCB is faulty.
E540	-8003	-05	Title	Swing Guide Switch/Staple Safety Switch error (Finisher-P1)
			Detection description	The swing guide switch or staple safety switch is activated while the tray is operating.
			Remedy	1. The Tray 1 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 1 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 1 Shift Motor (M107) is faulty. 5. The Finisher Controller PCB is faulty.
E540	-8004	-05	Title	The Tray 1 Shift Motor clock error (Finisher-P1)
			Detection description	The FG input cannot be detected when the Tray 1 Shift Motor has been driven for 0.2 second.
			Remedy	1. The Tray 1 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 1 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 1 Shift Motor (M107) is faulty. 5. The Finisher Controller PCB is faulty.
E540	-8005	-05	Title	The Tray 1 Shift Motor speed error (Finisher-P1)
			Detection description	The lock detection signal turns OFF 150 msec after the lock detection signal turned ON.
			Remedy	1. The Tray 1 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 1 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 1 Shift Motor (M107) is faulty. 5. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E540	-8006	-05	Title	The Tray 1 Shift Motor acceleration error (Finisher-P1)
			Detection description	The lock detection signal does not turn ON when the Tray 1 Shift Motor has been driven for 1 second.
			Remedy	1. The Tray 1 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 1 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 1 Shift Motor (M107) is faulty. 5. The Finisher Controller PCB is faulty.
E540	-8007	-05	Title	The Tray 1 Shift Motor error (Finisher-P1)
			Detection description	The lock detection signal does not turn OFF when the Tray 1 Shift Motor is at a stop.
			Remedy	1. The Tray 1 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 1 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 1 Shift Motor (M107) is faulty. 5. The Finisher Controller PCB is faulty.
E542	-8001	-05	Title	Tray 1 time out error (Finisher-P1)
			Detection description	1. If the tray does not return to home position when the Tray 1 Shift Motor is driven for 25 seconds. 2. If the tray does not move to other area when Tray 2 Shift Motor is driven for 5 seconds.
			Remedy	1. The Tray 2 shift area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 2 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 2 shift Motor (M105) is faulty. 5. The Finisher Controller PCB is faulty.
E542	-8002	-05	Title	Tray 2 shift area error (Finisher-P1)
			Detection description	1. The upper limit area is reached before the Tray 2 Paper Surface Sensor 1 detects the paper surface during paper surface detection operation. 2. A discontinuous area is detected during tray operation. 3. During evacuation operation, arrival at the area beyond the Tray 2 Paper Surface Sensor 2 is detected before this Sensor detects paper surface.
			Remedy	1. The Tray 2 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 2 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 2 Shift Motor (M105) is faulty. 5. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E542	-8004	-05	Title	The Tray 2 Shift Motor clock error (Finisher-P1)
			Detection description	The FG input cannot be detected when the Tray 2 Shift Motor has been driven for 0.2 second.
			Remedy	1. The Tray 2 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 2 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 2 Shift Motor (M105) is faulty. 5. The Finisher Controller PCB is faulty.
E542	-8005	-05	Title	The Tray 2 Shift Motor speed error (Finisher-P1)
			Detection description	The lock detection signal turns OFF 150 msec after the lock detection signal turned ON.
			Remedy	1. The Tray 2 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 2 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 2 Shift Motor (M105) is faulty. 5. The Finisher Controller PCB is faulty.
E542	-8006	-05	Title	The Tray 2 Shift Motor acceleration error (Finisher-P1)
			Detection description	The lock detection signal does not turn ON when the Tray 2 Shift Motor has been driven for 1 second.
			Remedy	1. The Tray 2 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 2 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 2 Shift Motor (M105) is faulty. 5. The Finisher Controller PCB is faulty.
E542	-8007	-05	Title	The Tray 2 Shift Motor error (Finisher-P1)
			Detection description	The lock detection signal does not turn OFF when the Tray 2 Shift Motor is at a stop.
			Remedy	1. The Tray 2 Shift Area Sensor PCB is faulty. 2. The wiring between the Finisher Controller PCB and Tray 2 Shift Motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 2 Shift Motor (M105) is faulty. 5. The Finisher Controller PCB is faulty.
E551	-0011	-05	Title	Error in the Power Supply Fan of the Insertion Unit
			Detection description	The loch signal is detected for the specified times while the fan operates.
			Remedy	1. The connector of the Fan (F1) is disconnected. 2. The wiring of the Fan (F1) is faulty. 3. The Fan (F1) is faulty. 4. The Insertion Unit Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E551	-0021	-05	Title	Error in the Power Supply Fan of the Paper Folding Unit
			Detection description	The loch signal is detected for the specified times while the fan operates.
			Remedy	1. The connector of the Fan (F1) is disconnected. 2. The wiring of the Fan (F1) is faulty. 3. The Fan (F1) is faulty. 4. The Paper Folding Unit Controller PCB is faulty.
E562	-8001	-05	Title	Error in Slowing Timing Sensor (Document Insertion/Folding Unit-H1)
			Detection description	The receiving-light intensity failed to be within the threshold although the emitting-light intensity is adjusted to be within the threshold when adjusting the Sensor.
			Remedy	1. Connector of the Slowing Timing Sensor (S24) is disconnected. 2. Slowing Timing Sensor (S24) is faulty.
E562	-8002	-05	Title	Error in Disengagement Timing Sensor (Document Insertion/ Folding Unit-H1)
			Detection description	The receiving-light intensity failed to be within the threshold although the emitting-light intensity is adjusted to be within the threshold when adjusting the Sensor.
			Remedy	1. Connector of the Disengagement Timing Sensor (S21) is disconnected. 2. Disengagement Timing Sensor (S21) is faulty.
E562	-8003	-05	Title	Error in Folding Position Accuracy Sensor (Document Insertion/Folding Unit-H1)
			Detection description	The receiving-light intensity failed to be within the threshold although the emitting-light intensity is adjusted to be within the threshold when adjusting the Sensor.
			Remedy	1. Connector of the Folding Position Accuracy Sensor (S23) is disconnected. 2. Folding Position Accuracy Sensor (S23) is faulty.
E562	-8004	-05	Title	Error in the Upper Stopper HP Sensor (Document Insertion/ Folding Unit-H1)
			Detection description	The receiving-light intensity failed to be within the threshold although the emitting-light intensity is adjusted to be within the threshold when adjusting the Sensor.
			Remedy	1. Connector of the Upper Stopper HP Sensor (S16) is disconnected. 2. Upper Stopper HP Sensor (S16) is faulty.

E Code	Detail Code	Location	Item	Description
E569	-8001	-05	Title	Upper Stopper Motor of Paper Folding Unit failed to go through HP (Document Insertion/Folding Unit-H1)
			Detection description	The Upper Stopper HP Sensor failed to be OFF despite the drive of specified pulse in the case that the Upper Stopper Motor started to be driven while the Upper Stopper HP Sensor was ON.
			Remedy	1. Connector of the Upper Stopper Motor (M7) is disconnected. 2. Upper Stopper Motor (M7) is faulty. 3. Connector of the Upper Stopper HP Sensor (S16) is disconnected. 4. Upper Stopper HP Sensor (S16) is faulty.
E569	-8002	-05	Title	Upper Stopper Motor of Paper Folding Unit failed to return to HP (Document Insertion/Folding Unit-H1)
			Detection description	The Upper Stopper HP Sensor failed to be ON despite the drive of specified pulse in the case that the Upper Stopper Motor started to be driven while the Upper Stopper HP Sensor was OFF.
			Remedy	1. Connector of the Upper Stopper Motor (M7) is disconnected. 2. Upper Stopper Motor (M7) is faulty. 3. Connector of the Upper Stopper HP Sensor (S16) is disconnected. 4. Upper Stopper HP Sensor (S16) is faulty.
E56A	-8001	-05	Title	C-fold Stopper Motor of Paper Folding Unit failed to go through HP (Document Insertion/Folding Unit-H1)
			Detection description	The C-fold Stopper Motor HP Sensor failed to be OFF despite the drive of specified pulse in the case that the C-fold Stopper Motor started to be driven while the C-fold Stopper Motor HP Sensor was ON.
			Remedy	1. Connector of the C-fold Stopper Motor (M8) is disconnected. 2. C-fold Stopper Motor (M8) is faulty. 3. Connector of the C-fold Stopper HP Sensor (S17) is disconnected. 4. C-fold Stopper HP Sensor (S17) is faulty.
E56A	-8002	-05	Title	C-fold Stopper Motor of Paper Folding Unit failed to return to HP (Document Insertion/Folding Unit-H1)
			Detection description	The C-fold Stopper Motor HP Sensor failed to be ON despite the drive of specified pulse in the case that the C-fold Stopper Motor started to be driven while the C-fold Stopper Motor HP Sensor was OFF.
			Remedy	1. Connector of the C-fold Stopper Motor (M8) is disconnected. 2. C-fold Stopper Motor (M8) is faulty. 3. Connector of the C-fold Stopper HP Sensor (S17) is disconnected. 4. C-fold Stopper HP Sensor (S17) is faulty.

E Code	Detail Code	Location	Item	Description
E56B	-8001	-05	Title	C-fold Tray Motor of Paper Folding Unit failed to go through HP (Document Insertion/Folding Unit-H1)
			Detection description	The C-fold Tray Motor Sensor failed to be OFF despite the drive of specified pulse in the case that the C-fold Tray Motor started to be driven while the C-fold Tray Motor Sensor was ON.
			Remedy	1. Connector of the C-fold Tray Motor (M6) is disconnected 2. C-fold Tray Motor (M6) is faulty 3. Connector of the C-fold Tray Motor Sensor (S19) is disconnected 4. C-fold Tray Motor Sensor (S19) is faulty
E56B	-8002	-05	Title	Folding Tray Motor of Paper Folding Unit failed to return to HP (Document Insertion/Folding Unit-H1)
			Detection description	The C-fold Tray Motor Sensor failed to be ON despite the drive of specified pulse in the case that the C-fold Tray Motor started to be driven while the C-fold Tray Motor Sensor was OFF.
			Remedy	1. Connector of the C-fold Tray Motor (M6) is disconnected. 2. C-fold Tray Motor (M6) is faulty. 3. Connector of the C-fold Tray Motor Sensor (S19) is disconnected. 4. C-fold Tray Motor Sensor (S19) is faulty.
E584	-0002	-05	Title	Shutter home position error (Finisher-P1)
			Detection description	The stapler does not return to the shutter home position when the Stack Ejection Motor has been driven for 3 seconds.
			Remedy	1. The Shutter Home Position Sensor (PI113) is faulty. 2. The wiring between the Finisher Controller PCB and Stack Ejection Motor, and between the Finisher Controller PCB and Shutter Clutch is faulty. 3. The shutter mechanism is faulty. 4. The Stack Ejection Motor (M102), Shutter Clutch (CL101), ang Stack Ejection Lower Roller Clutch (CL102) is faulty. 5. The Finisher Controller PCB is faulty.
E584	-8001	-05	Title	Shutter home position error (Finisher-P1)
			Detection description	The stapler does not leave the shutter home position when the Stack Ejection Motor has been driven for 3 seconds.
			Remedy	1. The Shutter Home Position Sensor (PI113) is faulty. 2. The wiring between the Finisher Controller PCB and Stack Ejection Motor, and between the Finisher Controller PCB and Shutter Clutch is faulty. 3. The shutter mechanism is faulty. 4. The Stack Ejection Motor (M102), Shutter Clutch (CL101), ang Stack Ejection Lower Roller Clutch (CL102) is faulty. 5. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E590	-8001	-05	Title	Punch home position error (External 2 Hole Puncher)
			Detection description	The Puncher does not detect the Punch Home Position Sensor when the Puncher Motor has been driven for 200 msec.
			Remedy	1. The Punch Home Position Sensor (PI63) and Punch Motor Clock Sensor (PI62) is faulty. 2. The wiring between the Punch Controller PCB and Sensor is faulty. 3. The punch mechanism is faulty. 4. The Punch Motor (M61) is faulty. 5. The Punch Controller PCB is faulty. 6. The Finisher Controller PCB is faulty.
E590	-8002	-05	Title	Punch home position error (External 2 Hole Puncher)
			Detection description	After the Motor has been stopped at time of Punch Motor initialization, the Puncher does not detect Punch Home Position Sensor.
			Remedy	1. The Punch Home Position Sensor (PI63) and Punch Motor Clock Sensor (PI62) is faulty. 2. The wiring between the Punch Controller PCB and Sensor is faulty. 3. The punch mechanism is faulty. 4. The Punch Motor (M61) is faulty. 5. The Punch Controller PCB is faulty. 6. The Finisher Controller PCB is faulty.
E591	-8001	-05	Title	Scrap full detection error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 3.0 V or less even when the light emitting duty of the Scrap Full Detector Sensor has been increased to 66 % or more.
			Remedy	1. The wiring between the Scrap Full Detector PCB and Punch Controller PCB is faulty. 2. The Scrap Full Detector PCB is faulty. 3. The Punch Controller PCB is faulty. 4. The Finisher Controller PCB is faulty.
E591	-8002	-05	Title	Scrap full detection error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the Scrap Full Detector Sensor has been decreased to 0 %.
			Remedy	1. The Scrap Full Detector PCB is faulty. 2. The Punch Controller PCB is faulty. 3. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E592	-8001	-05	Title	Trailing Edge Sensor error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the Trailing Edge Sensor (LED5, PTR5) has been increased to 66% or more.
			Remedy	1. The wiring between the LED PCB/Photosensor PCB and Punch Controller PCB is faulty. 2. The LED PCB and Photosensor PCB is faulty. 3. The Punch Controller PCB is faulty. 4. The Finisher Controller PCB is faulty.
E592	-8002	-05	Title	Trailing Edge Sensor error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the Trailing Edge Sensor has been decreased to 0 %.
			Remedy	1. The LED PCB and Photosensor PCB is faulty. 2. The Punch Controller PCB is faulty. 3. The Finisher Controller PCB is faulty.
E592	-8003	-05	Title	Horizontal Registration Sensor 1 error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the Horizontal Registration Sensor 1 (LED1, PTR1) has been increased to 66 % or more.
			Remedy	1. The wiring between the LED PCB/Photosensor PCB and Punch Controller PCB is faulty. 2. The LED PCB and Photosensor PCB is faulty. 3. The Punch Controller PCB is faulty. 4. The Finisher Controller PCB is faulty.
E592	-8004	-05	Title	Horizontal Registration Sensor 1 error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the Horizontal Registration Sensor 1 (LED1, PTR1) has been decreased to 0 %.
			Remedy	1. The LED PCB and Photosensor PCB is faulty. 2. The Punch Controller PCB is faulty. 3. The Finisher Controller PCB is faulty.
E592	-8005	-05	Title	Horizontal Registration Sensor 2 error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the Horizontal Registration Sensor 2 (LED2, PTR2) has been increased to 66 % or more.
			Remedy	1. The wiring between the LED PCB/Photosensor PCB and Punch Controller PCB is faulty. 2. The LED PCB and Photosensor PCB is faulty. 3. The Punch Controller PCB is faulty. 4. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E592	-8006	-05	Title	Horizontal Registration Sensor 2 error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the Horizontal Registration Sensor 2 (LED2, PTR2) has been decreased to 0 %.
			Remedy	1. The LED PCB and Photosensor PCB is faulty. 2. The Punch Controller PCB is faulty. 3. The Finisher Controller PCB is faulty.
E592	-8007	-05	Title	Horizontal Registration Sensor 3 error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the Horizontal Registration Sensor 3 (LED3, PTR3) has been increased to 66 % or more.
			Remedy	1. The wiring between the LED PCB/Photosensor PCB and Punch Controller PCB is faulty. 2. The LED PCB and Photosensor PCB is faulty. 3. The Punch Controller PCB is faulty. 4. The Finisher Controller PCB is faulty.
E592	-8008	-05	Title	Horizontal Registration Sensor 3 error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the Horizontal Registration Sensor 3 (LED3, PTR3) has been decreased to 0 %.
			Remedy	1. The LED PCB and Photosensor PCB is faulty. 2. The Punch Controller PCB is faulty. 3. The Finisher Controller PCB is faulty.
E592	-8009	-05	Title	Horizontal Registration Sensor 4 error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the Horizontal Registration Sensor 4 (LED4, PTR4) has been increased to 66 % or more.
			Remedy	1. The wiring between the LED PCB/Photosensor PCB and Punch Controller PCB is faulty. 2. The LED PCB and Photosensor PCB is faulty. 3. The Punch Controller PCB is faulty. 4. The Finisher Controller PCB is faulty.
E592	-800A	-05	Title	Horizontal Registration Sensor 4 error (External 2 Hole Puncher)
			Detection description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the Horizontal Registration Sensor 4 (LED4, PTR4) has been decreased to 0 %.
			Remedy	1. The LED PCB and Photosensor PCB is faulty. 2. The Punch Controller PCB is faulty. 3. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E593	-8001	-05	Title	Horizontal registration home position error (External 2 Hole Puncher)
			Detection description	At time of Horizontal Registration Motor initialization, the punch slide unit does not leave the Horizontal Home Position Sensor even when it has been driven for 9 mm.
			Remedy	1. The Horizontal Registration Home Position Sensor (PI61) is faulty. 2. The wiring between the Punch Controller PCB and Sensor is faulty. 3. The horizontal registration mechanism is faulty. 4. The Horizontal Registration Motor (M62) is faulty. 5. The Punch Controller PCB is faulty. 6. The Finisher Controller PCB is faulty.
E593	-8002	-05	Title	Horizontal registration home position error (External 2 Hole Puncher)
			Detection description	At time of Horizontal Registration Motor initialization, the punch slide unit does not return to the Horizontal Registration Home Position Sensor even when the unit has been driven for 37 mm.
			Remedy	1. The Horizontal Registration Home Position Sensor (PI61) is faulty. 2. The wiring between the Punch Controller PCB and Sensor is faulty. 3. The horizontal registration mechanism is faulty. 4. The Horizontal Registration Motor (M62) is faulty. 5. The Punch Controller PCB is faulty. 6. The Finisher Controller PCB is faulty.
E5E1	-0001	-05	Title	Tray Lift Motor of Paper Folding Unit failed to go through HP (Document Insertion Unit-L1)
			Detection description	The Paper Feed Sensor (S3) did not turned ON when the Inserter paper feed tray moved up.
			Remedy	1. Connector of the Tray Lift Motor (M2) is disconnected 2. Tray Lift Motor (M2) is faulty 3. Connector of the Paper Feed Sensor (S3) is disconnected 4. Paper Feed Sensor is faulty
E5E1	-0002	-05	Title	Tray Lift Motor of Paper Folding Unit failed to return to HP (Document Insertion Unit-L1)
			Detection description	During initialization or lowering of the Inserter paper feed tray, the Tray Lower Limit Sensor (S5) has not turned ON within the specified time.
			Remedy	1. Connector of the Tray Lift Motor (M2) is disconnected 2. Tray Lift Motor (M2) is faulty 3. Connector of the Tray Lower Limit Sensor (S5) is disconnected 4. Tray Lower Limit Sensor (S5) is faulty

E Code	Detail Code	Location	Item	Description
E5E1	-8001	-05	Title	Tray Lift Motor of Paper Folding Unit failed to go through HP (Document Insertion/Folding Unit-H1)
			Detection description	The Paper Feed Sensor (S3) did not turned ON when the Inserter paper feed tray moved up.
			Remedy	1. Connector of the Tray Lift Motor (M2) is disconnected 2. Tray Lift Motor (M2) is faulty 3. Connector of the Paper Feed Sensor (S3) is disconnected 4. Paper Feed Sensor (S3) is faulty
E5E1	-8002	-05	Title	Tray Lift Motor of Paper Folding Unit failed to return to HP (Document Insertion/Folding Unit-H1)
			Detection description	During initialization or lowering of the Inserter paper feed tray, the Tray Lower Limit Sensor (S5) has not turned ON within the specified time.
			Remedy	1. Connector of the Tray Lift Motor (M2) is disconnected 2. Tray Lift Motor (M2) is faulty 3. Connector of the Tray Lower Limit Sensor (S5) is disconnected 4. Tray Lower Limit Sensor (S5) is faulty
E5F0	-8001	-05	Title	Paper positioning plate home position error (Finisher-P1)
			Detection description	The paper positioning plate home positio Sensor does not turn ON when the Paper Positioning Plate Motor has been driven for 1500 pulses.
			Remedy	1. The Paper Positioning Plate Home Position Sensor (PI7) is faulty. 2. The positioning plate drive mechanism is faulty. 3. The Paper Positioning Plate Motor (M4) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F0	-8002	-05	Title	Paper positioning plate home position error (Finisher-P1)
			Detection description	The Paper Positioning Plate Home Position Sensor does not turn OFF when the Paper Positioning Plate Motor has been driven for 300 pulses.
			Remedy	1. The Paper Positioning Plate Home Position Sensor (PI7) is faulty. 2. The wiring between the Finisher Controller PCB and Stack Ejection Motor, and between the Finisher Controller PCB and Shutter Clutch is faulty. 3. The positioning plate drive mechanism is faulty. 4. The Paper Positioning Plate Motor (M4) is faulty. 5. The Saddle Stitcher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E5F1	-8001	-05	Title	Paper Ffolding Motor lock error (Finisher-P1)
			Detection description	The feed speed of the paper fold roller reaches 5 mm/sec or less.
			Remedy	1. The Paper Folding Motor Clock Sensor (PI4) and Paper Ffolding Home Position Sensor (PI21) is faulty. 2. The paper folding roller drive mechanism is faulty. 3. The Paper Folding Motor (M2) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F1	-8002	-05	Title	Paper positioning plate home position error (Finisher-P1)
			Detection description	The status of the Paper Fold Home Position Sensor does not change when the paper fold Motor has been driven for 3 seconds.
			Remedy	1. The Paper Folding Motor Clock Sensor (PI4) and Paper Ffolding Home Position Sensor (PI21) is faulty. 2. The paper folding roller drive mechanism is faulty. 3. The Paper Folding Motor (M2) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F2	-8001	-05	Title	Guide home position error (Finisher-P1)
			Detection description	The Guide Home Position Sensor does not turn ON when the Guide Motor has been driven for 700 pulses.
			Remedy	1. The Guide Home Position Sensor (PI13) is faulty. 2. The guide plate drive mechanism is faulty. 3. The Guide Motor (M3) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F2	-8002	-05	Title	Guide home position error (Finisher-P1)
			Detection description	The Guide Home Position Sensor does not turn OFF when the Guide Motor has been driven for 50 pulses.
			Remedy	1. The Guide Home Position Sensor (PI13) is faulty. 2. The guide plate drive mechanism is faulty. 3. The Guide Motor (M3) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F3	-8001	-05	Title	Aligning plate home position error (Finisher-P1)
			Detection description	The Aligning Plate Home Position Sensor does not turn ON when the Aligning Motor has been driven for 500 pulses.
			Remedy	1. The Aligning Plate Home Position Sensor (PI5) is faulty. 2. The aligning plate drive mechanism is faulty. 3. The Aligning Motor (M5) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F3	-8002	-05	Title	Aligning plate home position error (Finisher-P1)
			Detection description	The Aligning Plate Home Position Sensor does not turn OFF when the Aligning Motor has been driven for 50 pulses.
			Remedy	1. The Aligning Plate Home Position Sensor (PI5) is faulty. 2. The aligning plate drive mechanism is faulty. 3. The Aligning Motor (M5) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E5F4	-8001	-05	Title	Stitcher (rear) home position error (Finisher-P1)
			Detection description	The Stitcher Home Position Sensor does not turn ON when the Stitch Motor (rear) has been driven backward for 0.5 sec.
			Remedy	1. The Stitcher Home Position Sensor (rear) (SW5) is faulty. 2. The Stitcher (rear) is faulty. 3. The Saddle Stitcher Controller PCB is faulty.
E5F4	-8002	-05	Title	Stitcher (rear) home position error (Finisher-P1)
			Detection description	The stitching home position Sensor does not turn OFF when the Stitch Motor (rear) has been driven forward for 0.5 sec.
			Remedy	1. The Stitcher Home Position Sensor (rear) (SW5) is faulty. 2. The Stitcher (rear) is faulty. 3. The Saddle Stitcher Controller PCB is faulty.
E5F5	-8001	-05	Title	Stitcher (front) home position error (Finisher-P1)
			Detection description	The Stitcher Home Position Sensor does not turn ON when the Stitch Motor (front) has been driven forward for 0.5 sec.
			Remedy	1. The Stitcher Home Position Sensor (front) (SW7) is faulty. 2. The Stitcher (front) is faulty. 3. The Saddle Stitcher Controller PCB is faulty.
E5F5	-8002	-05	Title	Stitcher (front) home position error (Finisher-P1)
			Detection description	The Stitcher Home Position Sensor does not turn OFF when the Stitch Motor (front) has been driven backward for 0.5 sec.
			Remedy	1. The Stitcher Home Position Sensor (front) (SW7) is faulty. 2. The Stitcher (front) is faulty. 3. The Saddle Stitcher Controller PCB is faulty.
E5F6	-8001	-05	Title	Paper pushing plate home position error (Finisher-P1)
			Detection description	The Paper Pushing Plate Home Position Sensor does not turn ON when the Paper Pushing Plate Motor has been driven for 0.5 sec.
			Remedy	1. The Paper Pushing Plate Home Position Sensor (PI14), Paper Pushing Plate Top Position Sensor (PI15), and Paper Pushing Plate Motor Clock Sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The Paper Pushing Plate Motor (M8) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F6	-8002	-05	Title	Paper pushing plate home position error (Finisher-P1)
			Detection description	The Paper Pushing Plate Home Position Sensor does not turn OFF when the Paper Pushing Plate Motor has been driven for 150 msec.
			Remedy	1. The Paper Pushing Plate Home Position Sensor (PI14), Paper Pushing Plate Top Position Sensor (PI15), and Paper Pushing Plate Motor Clock Sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The Paper Pushing Plate Motor (M8) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E5F6	-8003	-05	Title	Paper Pushing Plate Motor clock error (Finisher-P1)
			Detection description	The number of pulses detected by the Paper Pushing Plate Motor Clock Sensor is 6 pulses or less.
			Remedy	1. The Paper Pushing Plate Home Position Sensor (PI14), Paper Pushing Plate Top Position Sensor (PI15), and Paper Pushing Plate Motor Clock Sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The Paper Pushing Plate Motor (M8) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F6	-8004	-05	Title	Pushing position error (Finisher-P1)
			Detection description	The Paper Pushing Plate Leading Edge Position Sensor does not turn ON when the Paper Pushing Plate Motor has been driven for 0.1 sec.
			Remedy	1. The Paper Pushing Plate Home Position Sensor (PI14), Paper Pushing Plate Top Position Sensor (PI15), and Paper Pushing Plate Motor Clock Sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The Paper Pushing Plate Motor (M8) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.
E5F6	-8005	-05	Title	Pushing position error (Finisher-P1)
			Detection description	The Paper Pushing Plate Leading Edge Position Sensor does not turn OFF when the Paper Pushing Plate Motor has been driven for 0.5 sec.
			Remedy	1. The Paper Pushing Plate Home Position Sensor (PI14), Paper Pushing Plate Top Position Sensor (PI15), and Paper Pushing Plate Motor Clock Sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The Paper Pushing Plate Motor (M8) is faulty. 4. The Saddle Stitcher Controller PCB is faulty.

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E602

E Code	Detail Code	Location	Item	Description
E602	0001	-00	Title	Error in HDD
			Detection description	HDD failed to be recognized. Startup partition (BOOTDEV) failed to be found at startup.
			Remedy	1. Turn OFF the main switch and check connection of HDD cable, and then turn ON the main switch. 2. If the Encryption Board has been installed, there may be an Encryption Board failure. In this case, disconnect the signal cable connecting to the Encryption Board and directly connect to the HDD. (It cannot be connected from the back side. Open the Main Controller Cover, and connect by going over the Main Controller PCB 1.) After connecting, power on by the safe mode. If the machine starts normally, replace the Encryption Board as the Encryption Board had failed. 3. Be sure that HDD spins stably (no problem in drive sound) and 5V/12V power is supplied when the main power is turned ON. (If the drive sound is abnormal, replace the HDD.) 4. Replace the HDD and reinstall the system. (In the case of using a USB memory device, insert a USB memory device where the system software has been registered to the slot of the host machine, and then execute main menu [3]: Upgrade (Overwrite all).) 5. Replace the Main Controller PCB 1.
E602	0002	-00	Title	Error in HDD
			Detection description	There is no system for the main CPU
			Remedy	1. Start in Safe Mode, then perform overall format using SST or USB memory and reinstall the system, and then turn OFF and then ON the Main Switch. (Prepare the USB memory which system software was registered. Insert the USB memory to the equipment. Execute [3]: Upgrade (Overwrite All) in the main menu.) 2. If the above measures do not solve the problem, it can be caused by failure with HDD; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0003	-00	Title	Error in HDD
			Detection description	WriteAbort was detected with BootDevice
			Remedy	1. Execute detection and recovery of WriteAbortSector <In the case of display of B/W E-code> 1-1. Perform the following steps because Service Mode is not available. 1-2. Turn OFF the power. Then, while pressing 1+9 keys, turn ON the power. WriteAbortSector recovery routine is automatically started which makes the screen black. 1-3. After a while, progress is displayed because the process takes time (40 to 50 min.). The process is complete when the screen turns white. <In the case of official display of wrench-mark> 1-1. Set as follows: CHK-TYPE=0; and execute HD-CHECK (40 to 50 min.), and then turn OFF and then ON the main switch. 2. If the above measures do not solve the problem, start up in Safe Mode to perform overall format using SST or USB memory and reinstall the system, and then turn OFF and then ON the main switch. 3. If no improvement is found despite the above measures, it can be caused by failure with HDD; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0006	-00	Title	Error in HDD
			Detection description	There is no system for the sub CPU
			Remedy	Reinstall the system software. For details, see “Chapter 6: Upgrading”. For your reference, the method using USB memory is described below. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. (When it is not operated normally, start the safe mode.) 3. Insert the USB memory to the equipment. 4. Execute [3]: Upgrade (Overwrite All) in the main menu. (Be sure to download SYSTEM, LANGUAGE and RUI.) 5. System software is downloaded and the machine restarts automatically. At this time, if the machine restarts with the safe mode, E753 might occurs. Check the log. In case of the system software of the options which are not connected, turn OFF and then ON the power supply to restore. (For details, see the description for E753.) If the measures above do not solve the problem, replace the HDD and download the system software with the foregoing method.
E602	0007	-00	Title	Error in HDD
			Detection description	There is no ICCProfile
			Remedy	1. Start up in Safe Mode and reinstall the system using SST; and then turn OFF and then ON the main power switch. 2. If the above measures do not solve the problem, it can be caused by failure with the HDD; therefore, replace the HDD and reinstall the system.
E602	0009	-00	Title	Error in HDD
			Detection description	There is no Font file in /BOOTDEV/BOOT
			Remedy	1. Start up in Safe Mode and reinstall the system using SST; and then turn OFF and then ON the main power switch. 2. If the above measures do not solve the problem, it can be caused by failure with the HDD; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0010	-00		Error in HDD
				There is no Chinese, Korean, and Taiwan font files
				1. Start up in Safe Mode and reinstall the system using SST; and then turn OFF and then ON the main power switch. 2. If the above measures do not solve the problem, it can be caused by failure with the HDD; therefore, replace the HDD and reinstall the system.
E602	0011	-00		Error in HDD
				There is no Chinese, Korean, and Taiwan font files
				1. Start up in Safe Mode and reinstall the system using SST; and then turn OFF and then ON the main power switch. 2. If the above measures do not solve the problem, it can be caused by failure with the HDD; therefore, replace the HDD and reinstall the system.
E602	0012	-00	Title	Error in HDD
			Detection description	There is no file in which the Web browser refers to
			Remedy	1. Start up in Safe Mode and reinstall the Web browser using SST, and then turn OFF and then ON the main power switch. 2. If the above measures do not solve the problem, it can be caused by failure with the HDD; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0101	-00	Title	Error in HDD
			Detection description	Error in storage area of image data (Inbox, etc.) (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=1, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=1, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=1, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0111	-00	Title	Error in HDD
			Detection description	Error in storage area of image data (Inbox, etc.) (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=1, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=1, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=1, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0201	-00	Title	Error in HDD
			Detection description	Error in management data area of image (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=2, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=2, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=2, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0211	-00	Title	Error in HDD
			Detection description	Error in management data area of image (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=2, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=2, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=2, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0301	-00	Title	Error in HDD
			Detection description	Storage area of image data (temporary data) (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=3, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=3, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=3, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0311	-00	Title	Error in HDD
			Detection description	Storage area of image data (temporary data) (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=3, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=3, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=3, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0401	-00	Title	Error in HDD
			Detection description	Error in thumbnail area (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=4, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=4, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=4, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0411	-00	Title	Error in HDD
			Detection description	Error in thumbnail area (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=4, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=4, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=4, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0501	-00	Title	Error in HDD
			Detection description	Error in storage area of universal data (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=5, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=5, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=5, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0511	-00	Title	Error in HDD
			Detection description	Error in storage area of universal data (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=5, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=5, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=5, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0601	-00	Title	Error in HDD
			Detection description	Error in storage area of universal data (temporary data) (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=6, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=6, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=6, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0611	-00	Title	Error in HDD
			Detection description	Error in storage area of universal data (temporary data) (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=6, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=6, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=6, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0701	-00	Title	Error in HDD
			Detection description	Error in storage area of fax (temporary data) (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=7, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=7, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=7, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0711	-00	Title	Error in HDD
			Detection description	Error in storage area of fax (temporary data) (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=7, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=7, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=7, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0801	-00	Title	Error in HDD
			Detection description	Error in storage area of PSS (temporary data) (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=8, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=8, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=8, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0811	-00	Title	Error in HDD
			Detection description	Error in storage area of PSS (temporary data) (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=8, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=8, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=8, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0901	-00	Title	Error in HDD
			Detection description	Error in storage area of PDL-related file (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=9, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=9, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=9, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	0911	-00	Title	Error in HDD
			Detection description	Error in storage area of PDL-related file (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=9, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=9, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=9, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.
E602	1001	-00	Title	Error in HDD
			Detection description	Error in storage area of firmware (BOOTDEV) (at startup)
			Remedy	If the problem is not solved by turning OFF and then ON the power, 1. Format the BOOTDEV using SST or USB, and download the firmware. 2. Replace the HDD.

E Code	Detail Code	Location	Item	Description
E602	1011	-00	Title	Error in HDD
			Detection description	Error in storage area of firmware (BOOTDEV) (after startup)
			Remedy	If the problem is not solved by turning OFF and then ON the power, 1. Format the BOOTDEV using SST or USB, and download the firmware. 2. Replace the HDD.
E602	1101	-00	Title	Error in HDD
			Detection description	Error in MEAP area (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=11, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=11, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=11, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	1111	-00	Title	Error in HDD
			Detection description	Error in MEAP area (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=11, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=11, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=11, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	1201	-00	Title	Error in HDD
			Detection description	Error in Send area (at startup)
			Remedy	If the problem is not solved by turning OFF and then ON the power, 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=12, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Format the all using SST or USB, and download the firmware. 4. Replace the HDD.
E602	1211	-00	Title	Error in HDD
			Detection description	Error in Send area (after startup)
			Remedy	If the problem is not solved by turning OFF and then ON the power, 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=12, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Format the all using SST or USB, and download the firmware. 4. Replace the HDD.
E602	1301	-00	Title	Error in HDD
			Detection description	Error in MEAP area (at startup)
			Remedy	If the problem is not solved by turning OFF and then ON the power, 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=13, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Format the all using SST or USB, and download the firmware. 4. Replace the HDD.

E Code	Detail Code	Location	Item	Description
E602	1311	-00	Title	Error in HDD
			Detection description	Error in MEAP area (after startup)
			Remedy	If the problem is not solved by turning OFF and then ON the power, 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=13, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Format the all using SST or USB, and download the firmware. 4. Replace the HDD.

E Code	Detail Code	Location	Item	Description
E602	1401	-00	Title	Error in HDD
			Detection description	Error in storage area of system log (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=14, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=14, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=14, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	1411	-00	Title	Error in HDD
			Detection description	Error in storage area of system log (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=14, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=14, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=14, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	1501	-00	Title	Error in HDD
			Detection description	Error in Advanced Box area (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=15, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=15, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=15, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	1511	-00	Title	Error in HDD
			Detection description	Error in Advanced Box area (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=15, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=15, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=15, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	1601	-00	Title	Error in HDD
			Detection description	Error in CDS area (at startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=16, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=16, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=16, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	1611	-00	Title	Error in HDD
			Detection description	Error in CDS area (after startup)
			Remedy	When the problem is not solved by turning OFF and then ON the power, ask the followings to user. A. Preferring to give priority on recovery time although data is deleted B. Preferring to wait for tens of minutes with possibility that data can be protected (Tell the user that data may not be able to be protected in the worst case.) Case A 1. Enter CHK-TYPE=16, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) 2. If the problem is not solved with step 1, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 3. If the problem is not solved with step 2, format the HDD using SST or USB, and download the firmware. 4. Replace the HDD. Case B 1. Try to recover the corresponding file/partition. -> Enter CHK-TYPE=16, execute HD-CHECK, and then turn OFF and then ON the power. 2. Back up necessary data. 3. Enter CHK-TYPE=16, execute HD-CLEAR, and then turn OFF and then ON the power. (Deletion of the corresponding partition) After that, restore the backup data. 4. If the problem is not solved with step 3, enter CHK-TYPE=0, execute HD=CLEAR, and then turn OFF and then ON the power. (Deletion of HDDALL) 5. If the problem is not solved with step 4, format the HDD using SST or USB, and download the firmware. 6. Replace the HDD. Note: Although the problem can be solved with step 1 in some cases, there is a possibility that the error may occur again; therefore, be sure to perform the steps 1 through 3.

E Code	Detail Code	Location	Item	Description
E602	2000	-00	Title	Error in HDD Encryption Board
			Detection description	Authentication error between the host machine and the Encryption Board.
			Remedy	1. After checking connection of the Encryption Board, disconnect and connect the connector and, turn OFF and then ON the power. 2. Execute the key clear procedure. * Key clear: system recovery procedure 1. Execute the key clear procedure with SST. --> As a result, the disk becomes unformatted disk. Thus, it is necessary to execute step 2. --> E602-0001 will be indicated if activating the machine with the unformatted disk. 2. Execute HDD format and system reinstallation with SST.
E602	4000	-00	Title	Error in HDD
			Detection description	Unable to mount the Linux system.
			Remedy	1. Check the cable and the power connector. 2. If the above measures do not solve the problem, start in Safe Mode to perform overall format using SST or USB memory and reinstall the system, and then turn OFF and then ON the Main Power Switch. 3. If there still remains the problem, it can be caused by failure with the HDD; therefore, replace the HDD and reinstall the system.
E602	4001	-00	Title	Error in HDD
			Detection description	No Linux system start script.
			Remedy	1. Check the cable and the power connector. 2. If the above measures do not solve the problem, start in Safe Mode to perform overall format using SST or USB memory and reinstall the system, and then turn OFF and then ON the Main Power Switch. 3. If there still remains the problem, it can be caused by failure with the HDD; therefore, replace the HDD and reinstall the system.
E602	FF01	-00	Title	Error in HDD
			Detection description	HDD error (unidentified) (at startup)
			Remedy	1. Turn OFF and then ON the power. 2. Disconnect and then connect the HDD connector. 3. Format the HDD using SST or USB, and download the firmware. 4. Replace the HDD.

E Code	Detail Code	Location	Item	Description
E602	FF11	-00	Title	Error in HDD
			Detection description	HDD error (unidentified) (after startup)
			Remedy	1. Turn OFF and then ON the power. 2. Disconnect and then connect the HDD connector. 3. Format the HDD using SST or USB, and download the firmware. 4. Replace the HDD.

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E604 to E677

E Code	Detail Code	Location	Item	Description
E604	-1024	-00	Title	Insufficient memory
			Detection description	Insufficient memory (require 1024 MB).
			Remedy	DDR2-SDRAM
E609	-0008	-00	Title	Hard disk error
			Detection description	Temperature of the HDD does not rise to the specified temperature within the specified period of time at the time of startup.
			Remedy	HDD.
E609	-0009	-00	Title	Hard disk error
			Detection description	At the time of recovery from sleep, it does not reach to the specified temperature.
			Remedy	HDD.
E610	-0001	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	The Encryption Board does not exist.
			Remedy	Check the hardware configuration.
E610	-0002	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Not meeting the memory configuration to execute encryption operation.
			Remedy	Check the hardware configuration.
E610	-0101	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Failed to initialize the memory of key storage area.
			Remedy	Turn OFF and then ON the power.
E610	-0102	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Failed to initialize the encryption processing part.
			Remedy	Turn OFF and then ON the power.
E610	-0201	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Error in the encryption processing part.
			Remedy	Turn OFF and then ON the power.
E610	-0202	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Error in the encryption processing part.
			Remedy	Turn OFF and then ON the power.
E610	-0301	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Failed to create the encryption key.
			Remedy	Turn OFF and then ON the power.
E610	-0302	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Failure of the encryption key is detected.
			Remedy	Turn OFF and then ON the power. Due to this error, HDD content is initialized.
E610	-0303	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Failure of the encryption key is detected.
			Remedy	Turn OFF and then ON the power. Due to this error, HDD content is initialized.
E610	-0401	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Error is detected during encryption.
			Remedy	Turn OFF and then ON the power.
E610	-0402	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Error is detected during decryption.
			Remedy	Turn OFF and then ON the power.
E610	-0501	-00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Detection description	Error in document management information on /FSTDEV.
			Remedy	Turn OFF and then ON the power.

E Code	Detail Code	Location	Item	Description
E611	-0000	-00	Title	Rebooting due to SRAM corruption when executing a transmission job that secures disconnection of the power
			Detection description	In the case that reboot is repeated at recovery from power down because SRAM information is corrupted and the job information saved on SRAM cannot be read, the phenomenon that the communication is repeated occurs.
			Remedy	Clear SRAM to erase the job that secures disconnection of the power.
E674	-0001	-00	Title	FAX error
			Detection description	Communication error with the FAX PCB.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E674	-0002	-00	Title	FAX error
			Detection description	Communication error with the FAX PCB.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E674	-0004	-00	Title	FAX error
			Detection description	Error in access of the modem IC.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E674	-0008	-00	Title	FAX error
			Detection description	Error in access of the port IC.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E674	-000C	-00	Title	FAX error
			Detection description	Error in access of the modem IC/port IC.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E674	-0010	-00	Title	FAX error
			Detection description	FAX error.
			Remedy	Replace the Main Controller PCB.
E674	-0011	-00	Title	FAX error
			Detection description	FAX error.
			Remedy	Replace the Main Controller PCB.
E674	-0030	-00	Title	FAX error
			Detection description	Checksum error.
			Remedy	Download the system software for 2-line FAX.

E Code	Detail Code	Location	Item	Description
E674	-0100	-00	Title	FAX error
			Detection description	Logging is failed after completion of FAX communication, and unable to read.
			Remedy	Turn OFF and then ON the power.
E674	-0200	-00	Title	HDD access error
			Detection description	An error occurred when accessing the HDD.
			Remedy	1. Turn OFF/ON the main power switch. 2. Reinstall all the formats and the system. 3. Replace the HDD. 4. Replace the Main Controller PCB 1.
E677	-0001	-00	Title	Print server error
			Detection description	Exhaust Fan operation error on the print server is detected.
			Remedy	1. Check power supply to the Exhaust Fan. 2. Replace the Exhaust Fan.
E677	-0003	-00	Title	Print server error
			Detection description	Error is detected at the configuration check performed at startup.
			Remedy	Check the cable connection, reinstallation.
E677	-0004	-00	Title	Print server error
			Detection description	CPU Fan operation error on the print server is detected.
			Remedy	1. Check power supply to the CPU Fan. 2. Replace the CPU Fan.
E677	-0010	-00	Title	Print server error
			Detection description	Not proper print server is connected.
			Remedy	Replace the print server with the proper one.
E677	-0080	-00	Title	Print server error
			Detection description	Communication error at startup.
			Remedy	Check the cable connection, reinstallation.

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E710 to E760

E Code	Detail Code	Location	Item	Description
E710	-0001	-00	Title	Printer IPC error
			Detection description	Error is detected by IPC communication IC of the printer engine at power ON.
			Remedy	Disconnection of cable.
E711	-0001	-00	Title	IPC communication error
			Detection description	Occurrence of error was set for 4 times or more for 1.5 seconds to the error register of the IPC Chip.
			Remedy	Check the Cable.
E711	-0001	-05	Title	IPC communication error (retransmission request reception error)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
E711	-0002	-05	Title	IPC communication error (reception timeout)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
E711	-0004	-05	Title	IPC communication error (checksum error)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
E711	-0020	-05	Title	IPC communication error (recovery error)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
E711	-0040	-05	Title	IPC communication error (serial error)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection. Check the connection between DCON side (J462) and Finisher Lattice side (J9043) Finisher Cable 2. Replace the DC Controller PCB.
E713	-0001	-05	Title	Finisher IPC communication error (retransmission request reception error)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
E713	-0002	-05	Title	Finisher IPC communication error (reception timeout)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
E713	-0004	-05	Title	Finisher IPC communication error (checksum error)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
E713	-0020	-05	Title	Finisher IPC communication error (recovery error)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
E713	-0040	-05	Title	Finisher IPC communication error (serial error)
			Detection description	Communication between the host machine and the Finisher was lost.
			Remedy	1. Check the cable connection of the Finisher. DC Controller side: J462, Finisher Lattice side: J9043 2. Replace the Finisher Controller PCB.
E717	-0001	-00	Title	Communication error with the NE Controller
			Detection description	Error when the NE Controller is started. The NE Controller which was connected before turning OFF the power is not connected at power-on.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR.

E Code	Detail Code	Location	Item	Description
E717	-0002	-00	Title	Communication error with the NE Controller
			Detection description	IPC error at NE Controller operation. Open circuit of IPC, unable to recover the IPC communication.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR.
E719	-0001	-00	Title	Error in coin manager
			Detection description	Error when the coin manager is started. The coin manager which was connected before turning OFF the power is not connected at power-on.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR.
E719	-0002	-00	Title	Error in coin manager
			Detection description	IPC error at coin manager operation. Open circuit of IPC, unable to recover the IPC communication. When open circuit of the pickup/delivery signal cable is detected. Invalid connection is detected.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR.
E719	-0003	-00	Title	Error in coin manager
			Detection description	Communication error with the coin manager occurs during unit price acquisition at startup.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR.
E719	-0011	-00	Title	Error when the Card Reader is started
			Detection description	The Card Reader which was connected before turning OFF the power is not connected at power-on.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR.
E719	-0012	-00	Title	IPC error at Card Reader operation
			Detection description	Open circuit of IPC, unable to recover the IPC communication.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR.
E719	-0031	-00	Title	Communication error when the Card Reader (serial) is started
			Detection description	Unable to start communication with the Card Reader at startup.
			Remedy	1. Check the cable connection of the Card Reader (connector connection error, open circuit), and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR. 2. After removing the Card Reader, execute the following service mode, and then reinstall the Card Reader. • COPIER> FUNCTION> CLEAR> CARD • COPIER> FUNCTION> CLEAR> ERR

E Code	Detail Code	Location	Item	Description
E719	-0032	-00	Title	Communication error after the Card Reader (serial) is started
			Detection description	Although communication with the Card Reader was possible at startup, it became unavailable in the middle of it.
			Remedy	Check the cable connection of the Card Reader (connector connection error, open circuit), and then go through the following to clear the error: Service Mode> COPIER> FUNCTION> CLEAR> ERR.
E720	-0001	-05	Title	Different model error
			Detection description	Not proper Finisher is connected.
			Remedy	Check the configuration of options.
E720	-0002	-05	Title	Different model error
			Detection description	Not proper Option Deck is connected.
			Remedy	Check the configuration of options.
E730	-1001	-00	Title	PDL software error
			Detection description	Initialization error.
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power.
E730	-100A	-00	Title	PDL software error
			Detection description	Systematic fatal error, such as initialization failure, occurs.
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power.
E730	-9004	-00	Title	Third party PDL communication error
			Detection description	Communication error with the print server.
			Remedy	1. Turn OFF and then ON the power. 2. Check the cable connection. 3. Replace the Open I/F PCB, F Link PCB (Main/Sub). 4. Replace the Main Controller PCB.
E730	-9005	-00	Title	Third party PDL communication error
			Detection description	Error in video cable connection with the print server.
			Remedy	1. Turn OFF and then ON the power. 2. Check the cable connection. 3. Replace the Open I/F PCB, F Link PCB (Main/Sub). 4. Replace the Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E730	-A006	-00	Title	PDL communication error
			Detection description	No reply from PDL. Due to failure of Subbootable, or no existence, there is no reply from PDL.
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power. 3. Check the connection of the Main Controller PCB. 4. Reinstall the firmware. 5. Replace the Main Controller PCB.
E730	-A007	-00	Title	Mismatched PDL version
			Detection description	Version of the host machine control software and version of PDL control software are different.
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power. 3. System All Format and installation.
E730	-B013	-00	Title	PDL embedded font error
			Detection description	Font data is corrupted.
			Remedy	1. Turn OFF and then ON the power. 2. Reinstall the system. 3. System All Format and installation.
E732	-0000	-00	Title	Reader communication error
			Detection description	Negotiation failure.
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.
E732	-0001	-00	Title	Reader communication error
			Detection description	Communication error.
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.
E732	-0010	-00	Title	Reader communication error
			Detection description	Unable to detect Vsync from the Reader Controller although 2 minutes have passed after the completion of register setting of the Main Controller.
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E732	-0023	-00	Title	Scanner communication error
			Detection description	SPRDY-S signal cannot be detected (Hardware failure of DDI-S)
			Detection description	1. Check of connector of scanner connection 2. Check of scanner power (check whether initialization operation is executed or not at start-up) 3. Replacement of RCON, scanner board or main controller PCB
E732	-8888	-00	Title	Error in the reader type
			Detection description	When a scanner for the different model is detected during the communication with the reader.
			Remedy	Replace to the proper reader.
E732	-9999	-00	Title	Detection of Reader
			Detection description	The Reader is detected for the first time with the printer model. (On the user screen, only the message “Turn OFF and then ON the power again”, instead of an error code, is displayed. It is recorded as an error log in Service Mode> COPIER> DISPLAY> ERR.)
			Remedy	---
E733	-0000	-00	Title	Communication error between the Main Controller PCB 1 and the DC Controller PCB
			Detection description	Unable to make communication between the Main Controller PCB 1 and the DC Controller PCB. (Communication error was detected at startup.)
			Remedy	1. Check the cable connection (connector connection error/ open circuit). • DC Controller PCB: J441, J442, Main Controller PCB 2: J21, J22 • Main Controller PCB 2: J2, Main Controller PCB 1: J1019 2. Replace the DC Controller PCB/Main Controller PCB 2/Main Controller PCB1.
E733	-0001	-00	Title	Communication error between the Main Controller PCB 1 and the DC Controller PCB
			Detection description	Unable to make communication between the Main Controller PCB 1 and the DC Controller PCB. (Communication error was detected during power distribution (while the power is ON).)
			Remedy	1. Turn OFF and then ON the power. 2. Check the cable connection (connector connection error/ open circuit). • DC Controller PCB: J441, J442, Main Controller PCB 2: J21, J22 • Main Controller PCB 2: J2, Main Controller PCB 1: J1019 3. Replace the DC Controller PCB/Main Controller PCB 2/Main Controller PCB1.

E Code	Detail Code	Location	Item	Description
E733	-0002	-00	Title	Communication error between the Main Controller PCB 1 and the DC Controller PCB
			Detection description	Error was detected in the signal from the DC Controller PCB to the Main Controller PCB 1. (Communication between the DC Controller PCB and the Main Controller PCB 1 is normal.)
			Remedy	1. Check the cable connection (connector connection error/ open circuit). • DC Controller PCB: J441, J442, Main Controller PCB 2: J21, J22 • Main Controller PCB 2: J2, Main Controller PCB 1: J1019 2. Replace the DC Controller PCB/Main Controller PCB 2/Main Controller PCB1.
E733	-0010	-00	Title	Communication error between the Main Controller PCB 2 and the DC Controller PCB
			Detection description	An image request signal is not sent from the Main Controller PCB 2 to the DC Controller PCB. Or, a vertical synchronization signal (a signal to synchronize the write start timing in horizontal scanning direction at the time of laser exposure) is not sent from the DC Controller PCB to the Main Controller PCB 2. Since the Main Controller PCB 1 monitors whether the foregoing communication is made normally, this error may occur when communication between the Main Controller PCB 2 and the Main Controller PCB 1 is not available.
			Remedy	1. Check the cable connection (connector connection error/ open circuit). • DC Controller PCB: J441, J442, Main Controller PCB 2: J21, J22 • Main Controller PCB 2: J2, Main Controller PCB 1: J1019 2. Replace the DC Controller PCB/Main Controller PCB 2/Main Controller PCB1.
E740	-0002	-00	Title	Network Controller error
			Detection description	Invalid MAC address.
			Remedy	1. Check the connection of the LAN Connector. 2. Check the connection of the Main Controller PCB 1. 3. Replacement of the Main Controller PCB 1.
E743	-0000	-04	Title	DDI communication error
			Detection description	The Reader Controller PCB detected the communication error between the Main Controller PCB and the Reader Controller PCB.
			Remedy	1. Connection error between the Main Controller PCB and the Reader Controller PCB. 2. Failure of the Reader Controller PCB (PCB1). 3. Failure of the Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E743	-0003	-04	Title	DDI communication error
			Detection description	The Reader Controller PCB detected the communication error between the Main Controller PCB and the Reader Controller PCB.
			Remedy	1. Connection error between the Main Controller PCB and the Reader Controller PCB. 2. Failure of the Reader Controller PCB (PCB1). 3. Failure of the Main Controller PCB.
E743	-0004	-04	Title	DDI communication error
			Detection description	The Reader Controller PCB detected the communication error between the Main Controller PCB and the Reader Controller PCB.
			Remedy	1. Connection error between the Main Controller PCB and the Reader Controller PCB. 2. Failure of the Reader Controller PCB (PCB1). 3. Failure of the Main Controller PCB.
E744	-0001	-00	Title	Error in language file/BootROM
			Detection description	Version of language in HDD and version of Bootable are different.
			Remedy	Download the correct version of the language file.
E744	-0002	-00	Title	Error in language file/BootROM
			Detection description	Size of the language in HDD is too big.
			Remedy	Download the correct version of the language file.
E744	-0003	-00	Title	Error in language file/BootROM
			Detection description	Unable to find the language to be switched to that is described in the Config.txt in HDD.
			Remedy	Download the correct version of the language file.
E744	-0004	-00	Title	Error in language file/BootROM
			Detection description	Unable to switch to the language in HDD.
			Remedy	Download the correct version of the language file.
E744	-1000	-00	Title	Error in language file/BootROM
			Detection description	The Boot ROM for the different model is installed.
			Remedy	Replace the Boot ROM with the one for the correct model.
E744	-2000	-00	Title	Controller firmware mismatch
			Detection description	Invalid controller firmware was detected.
			Remedy	This error normally does not occur. This error occurs when using the HDD which was used with another model. Replace the HDD with the one which was originally installed or a new one for the model.

E Code	Detail Code	Location	Item	Description
E744	-4000	-05	Title	Engine ID error
			Detection description	The Main Controller PCB model and the DC Controller PCB (PCB1) model are not matched.
			Remedy	Replace the DC Controller PCB (PCB1) or redownload.
E746	-0003	-00	Title	Different Image Analysis PCB model
			Detection description	Different Image Analysis PCB model.
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
E746	-0021	-00	Title	Image Analysis PCB self-check error detection
			Detection description	Image Analysis PCB self-check error detection.
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
E746	-0022	-00	Title	Invalid Image Analysis PCB version
			Detection description	Invalid Image Analysis PCB version.
			Remedy	1. Upgrade the Image Analysis PCB software. 2. Replace the Image Analysis PCB.
E746	-0023	-00	Title	No reply from Image Analysis PCB
			Detection description	No reply from Image Analysis PCB.
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
E746	-0024	-00	Title	Image Analysis PCB operation error
			Detection description	Image Analysis PCB operation error.
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
E746	-0031	-00	Title	Hardware error (TPM)
			Detection description	Hardware error (TPM).
			Remedy	The TPM PCB is not installed, the TPM PCB for other model is installed, or failure of TPM Chip.

E Code	Detail Code	Location	Item	Description
E746	-0032	-00	Title	Error in engine ID of SoftID
			Detection description	Mismatched data in TPM
			Remedy	Format the system. Format the HDD using SST or USB memory, and download the system software. For details, see “Chapter 6: Upgrading”. For your reference, the method using USB memory is described below. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. 3. Insert the USB memory to the equipment. 4. Execute [4]: Format HDD in the main menu. 5. After formatting is completed, the machine reboots automatically and starts with the download mode. 6. Execute [1]: Upgrade (Auto) in the main menu. 7. System software is downloaded and the machine restarts automatically.
E746	-0033	-00	Title	Error in engine ID of SoftID
			Detection description	Error that can be recovered
			Remedy	When the TPM key was backed up, it can be restored. 1. Connect the USB memory which stores the TPM key. 2. Go to Management Settings > Data Management > TPM Settings, and then click “Restore TPM Key”. 3. Enter the password set at backup operation. 4. When the restoration completion screen is displayed, click “OK”. Remove the USB memory, and turn OFF and then ON the main power. When the TPM key was not backed up, formatting the system is required. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. 3. Insert the USB memory to the equipment. 4. Execute [4]: Format HDD in the main menu. 5. After formatting is completed, the machine reboots automatically and starts with the download mode. 6. Execute [1]: Upgrade (Auto) in the main menu. 7. System software is downloaded and the machine restarts automatically.

E Code	Detail Code	Location	Item	Description
E746	-0034	-00	Title	Error occurs, but auto recovery of system is possible (TPM)
			Detection description	Error occurs, but auto recovery of system is possible (TPM).
			Remedy	Mismatch of key occurs. However, recovery by restart is possible. Turn OFF and then ON the power.
E746	-0035	-00	Title	TPM version error
			Detection description	TPM which cannot be used in this machine was installed.
			Remedy	Install the supported TPM.
E748	-2000	-00	Title	Main Controller PCB access error
			Detection description	Main Controller PCB Chip access error.
			Remedy	Replace the Main Controller PCB 1/2.
E748	-2001	-00	Title	Main Controller PCB access error
			Detection description	Main Controller PCB memory access error.
			Remedy	1. Remove and then reinstall the DDR2-SDRAM(M0/M1/P). 2. Replace the Main Controller PCB 1/2.
E748	-2010	-00	Title	Flash PCB error / HDD error
			Detection description	Flash PCB error has occurred, or the HDD cannot be recognized.
			Remedy	1. After turning OFF the main power, disconnect the HDD interface connector (J12) of the Main Controller PCB 2 and turn ON the main power. 2. If the error code E748-2010 remains unchanged, it means a Flash PCB error, so replace the Flash PCB, and install the system using SST or USB. 3. When it changed to another error code(For example E602), refer to the remedy of the applicable code.
E748	-2011	-00	Title	Flash PCB error
			Detection description	Flash PCB error
			Remedy	Replace the Flash PCB, and install the system using SST or USB.
E748	-2012	-00	Title	Flash PCB error
			Detection description	Flash PCB error
			Remedy	Replace the Flash PCB, and install the system using SST or USB.
E748	-2021	-00	Title	Main controller board 2 access errors
			Detection description	Main controller board 2 access errors
			Remedy	Main controller board 1/2 removing and inserting, replacement

E Code	Detail Code	Location	Item	Description
E748	-2023	-00	Title	Main controller board 2 access errors
			Detection description	Main controller board 2 access errors
			Remedy	DDR2-SDRAM (M0/M1/P) removing and inserting, replacement
E748	-2024	-00	Title	Main controller board 2 access errors
			Detection description	Main controller board 2 access errors
			Remedy	Main controller board 1/2 removing and inserting, replacement
E748	-4910	-00	Title	Main Controller PCB 2 error
			Detection description	Main Controller PCB 2 error.
			Remedy	Replace the Main Controller PCB 2.
E748	-9000	-00	Title	System error
			Detection description	---
			Remedy	Contact to the sales companies
E749			Title	Restart direction due to configuration change.
			Detection description	The option such as the Finisher and Paper Deck was installed or removed when all of following conditions were met and the machine configuration is changed when the main power switch is turned ON. Settings/Registration > Preferences > Timer/Energy Settings > Quick Startup at Power-on > ON • The Main Power Switch is turned OFF • The power plug of the machine is connected to the output. • The breaker is ON
			Remedy	It is recovered by turning OFF and then ON the main power. CAUTION This machine provides power to some PCBs even when in the main power OFF status. The power supply is not completely OFF by just turning OFF the main power switch and therefore, the machine is unable to detect a configuration change. When disconnecting and then connecting a connector, always disconnect the power plug or turn the breaker OFF. Refer to the Service Manual > Chapter 2 > External and Controls > Quick Startup for details.
E753	-0001	-00	Title	Download error
			Detection description	Firmware update error.
			Remedy	Turn OFF and then ON the power.

E Code	Detail Code	Location	Item	Description
E753	-0001	-05	Title	Download Error
			Detection description	System Software Update Error Error occurs when updating system software of uninstalled options
			Remedy	Check the log to find where the download error has been occurred. <FIN_P1> Staple Finisher-P1/Booklet Finisher-P1 <G3CCB> Super G3 FAX Board-AL1/Super G3 2nd Line Fax Board-AL1/Super G3 3rd/4th Line Fax Board-AL1 <G3CCM> Super G3 FAX Board-AL1/Super G3 2nd Line Fax Board-AL1/Super G3 3rd/4th Line Fax Board-AL1 When any of the above system software is displayed, check if the target option has been installed. When the target option has not been installed: Turn OFF and then ON the main power supply to restore (since there is no system software to be updated.). When the target option has been installed: Check if the accessory is correctly installed and if the target system software to be downloaded is for the installed option. Then download the appropriate system software again.
E760	-0001	-00	Title	Main Controller PCB 2 internal error
			Detection description	Error was detected in the Image Processing Chip on the Main Controller PCB 2.
			Remedy	1. Turn OFF and then ON the main power. 2. Remove and then install the DDR2-SDRAM (J11 and J13) on the Main Controller PCB 2. 3. Replace the DDR2-SDRAM on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. NOTE: If the error occurs periodically or it occurs with specific jobs although it can be solved by turning OFF and then ON the power, upgrade the system software to the latest version.

T-7-12

E804 to E996

E Code	Detail Code	Location	Item	Description
E804	-0000	-05	Title	Power Supply Cooling Fan 1/2 error
			Detection description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Power Supply Cooling Fan 1 (FM14)/Power Supply Cooling Fan 2 (FM15) is turned ON. The error detection signal cable is shared with the Fans, and it is not detected with which Fan the error occurs.
			Remedy	1. Check the connection of the Connector. 2. Replace the Power Supply Cooling Fan 1 (FM14)/Power Supply Cooling Fan 2 (FM15).
E804	-0001	-05	Title	Fixing Power Supply Cooling Fan error
			Detection description	The Fan stop signal is detected for 1.5 seconds or longer and retry is failed 4 times in a row although the Fixing Power Supply Cooling Fan (FM7) is turned ON.
			Remedy	1. Check the connection of the Connector. 2. Replace the Fixing Power Supply Cooling Fan (FM7).
E806	-0000	-05	Title	Making Image Exhaust Fan error
			Detection description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Making Image Exhaust Fan (FM3) is turned ON.
			Remedy	1. Check the connection of the Connector. 2. Replace the Making Image Exhaust Fan (FM3).
E808	-0001	-05	Title	Fixing Power Supply error
			Detection description	Detected 145 V (100 V/120 V model)/290 V (230 V model) or higher inlet voltage at power-on.
			Remedy	1. Check the outlet voltage. -> Connect to the correct outlet. 2. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2).
E808	-0002	-05	Title	Fixing Power Supply error
			Detection description	Detected 75 V (100 V/120 V model)/150 V (230 V model) or higher inlet voltage at power-on.
			Remedy	1. Check the outlet voltage. -> Connect to the correct outlet. 2. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 3. Replace the Fixing Power Supply PCB (PCB10). 4. Replace the Main Driver PCB (PCB2).

E Code	Detail Code	Location	Item	Description
E808	-0003	-05	Title	Fixing Power Supply error
			Detection description	Inlet current is 1 A or lower for 1 second or longer although the maximum voltage is output.
			Remedy	1. Check the clogging of the Fixing Power Supply Cooling Fan (FM7). 2. Check the clogging of the Louver on right side of the host machine (Multi-purpose Tray side). 3. Check the connection of the Fixing Power Supply PCB (PCB10) Output Connector. 4. Replace the Fixing Power Supply PCB (PCB10).
E808	-0004	-05	Title	Fixing Power Supply error
			Detection description	Detected OFF with 12 V of the Main Driver PCB (PCB2) output.
			Remedy	Replace the Main Driver PCB (PCB2).
E808	-0005	-05	Title	12 V OFF detection when relay is turned ON
			Detection description	Detected OFF with 12 V of the Fixing Power Supply output after IH relay is turned ON.
			Remedy	1. Check the conduction of the Fixing Thermal Switch 1/2 (TP1/2). 2. Check the drawer between the Fixing Assembly and the host machine. 3. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 4. Replace the Fixing Power Supply Unit. 5. Replace the Main Driver PCB (PCB2).
E808	-0006	-05	Title	ASIC error
			Detection description	ASIC error.
			Remedy	Replace the DC Controller PCB (PCB1).
E808	-0007	-05	Title	Fixing Power Supply error
			Detection description	The detected power voltage differs from the voltage of the port in the IH Power Supply.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 2. Replace the Fixing Power Supply PCB with the one for the correct location (voltage). 3. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E808	-0008	-05	Title	Fixing Power Supply error
			Detection description	Current fluctuation error.
			Remedy	1. Check the connection between the Main Driver PCB (PCB2) and the Fixing Power Supply PCB (PCB10). 2. Check the connection between the Fixing Power Supply PCB (PCB10) and the Heater Unit. 3. Replace the Fixing Roller and Heater Unit. 4. Replace the Fixing Power Supply PCB (PCB10). 5. Replace the Main Driver PCB (PCB2).
E808	-0009	-05	Title	Fixing Power Supply error
			Detection description	Unable to clear the error flag at power-on.
			Remedy	Replace the DC Controller PCB (PCB1).
E820	-0000	-05	Title	Developer Lower Cooling Fan error
			Detection description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Developer Lower Cooling Fan (FM30) is turned ON.
			Remedy	1. Check the connection of the Connector. 2. Replace the Developer Lower Cooling Fan (FM30).
E820	-0001	-05	Title	Developer Upper Cooling Fan error
			Detection description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Developer Upper Cooling Fan (FM31) is turned ON.
			Remedy	1. Check the connection of the Connector. 2. Replace the Developer Upper Cooling Fan (FM31).
E820	-0002	-05	Title	Duplex Driver Cooling Fan error
			Detection description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Duplex Driver Cooling Fan (FM41) is turned ON.
			Remedy	1. Check the connection of the Connector. 2. Replace the Duplex Driver Cooling Fan (FM41).
E824	-0000	-05	Title	Primary Charging Air Supply Fan error
			Detection description	The Fan stop signal is detected for 5 seconds or longer and retry is failed 4 times in a row although the Primary Charging Air Supply Fan (FM2) is turned ON.
			Remedy	1. Check the connection of the Connector. 2. Replace the Primary Charging Air Supply Fan (FM2).

E Code	Detail Code	Location	Item	Description
E840	-0001	-05	Title	Fixing Shutter Motor error
			Detection description	The Fixing Shutter HP Sensor (PS53) failed the detection at the Fixing Shutter operation.
			Remedy	1. Check the operation of the Fixing Shutter Gear (overload, etc.). 2. Check the operation of the Fixing Shutter Motor (M15) at the initialization operation of the Fixing Shutter. 3. Check the detection of the Fixing Shutter HP Sensor (PS53) (if the Sensor operates normally). 4. Check the drawer of the Fixing Assembly and the host machine. 5. Replace the Fixing Upper Unit and the Fixing Drawer Harness Unit. 6. Replace the Main Driver PCB (PCB2) (check the fuse (FU11)).
E880	-0001	-00	Title	Controller Fan error
			Detection description	Error in the Main Controller Cooling Fan (FM4) is detected.
			Remedy	Connector disconnection, failure of Fan.
E880	-0005	-00	Title	Controller Fan error
			Detection description	Error in the HDD Cooling Fan (FM) is detected.
			Remedy	Connector disconnection, failure of Fan.
E905	-0001	-05	Title	POD Deck Air Assist Fan error
			Detection description	[POD Deck Lite] When the Air Assist Swing Motor fails to return to the HP although a specified period of time has passed
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J04, J05 BoxDriver J51, J52, J57 2. Replace the Swing Motor (M3) and the Air Assist Fan (FM1, FM2, FM3). 3. Replace the Deck Lite Controller PCB. 4. Replace the BoxDriver PCB.
E905	-0002	-05	Title	POD Deck Air Assist Fan error
			Detection description	[POD Deck Lite] When the Pickup Motor Cooling Fan is not locked
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J30 2. Replace the Motor Cooling Fan (FM4). 3. Replace the Deck Lite Controller PCB.

E Code	Detail Code	Location	Item	Description
E905	-0003	-05	Title	POD Deck Air Assist Fan error
			Detection description	[POD Deck Lite] When the Pickup Motor Cooling Fan is not unlocked
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J30 2. Replace the Motor Cooling Fan (FM4). 3. Replace the Deck Lite Controller PCB.
E906	-0001	-05	Title	POD Deck Air Heater error
			Detection description	[POD Deck Lite] Air Heater high temperature error When 120 deg C or higher temperature is detected for 1 second consecutively
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J03, J05 BoxDriver J52, J54, J58, J59 2. Replace the Air Heater. 3. Replace the Deck Lite Controller PCB.
E906	-0002	-05	Title	POD Deck Air Heater error
			Detection description	[POD Deck Lite] Air Heater low temperature error When the heater does not become Ready although a specified period of time has passed
			Remedy	1. Check connector disconnection/improper connection. => Disconnect and then connect the connector. Target connector: Deck Lite Controller J03, J05 BoxDriver J52, J54, J58, J59 2. Replace the Air Heater. 3. Replace the Deck Lite Controller PCB.
E996	-xxxx	-05	Title	Timeout error
			Detection description	The DC Controller is not stopped. The Detailed Code varies according to the state transition of the software.
			Remedy	Turn OFF and then ON the main power.
E996	-0071	-04	Title	Frequent error avoidance jam (ADF)
			Detection description	Frequent error avoidance jam (ADF)
			Remedy	Depending on the setting of JM-ERR-R in service mode, “010071” jam is displayed as an error. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-R, and set JM-ERR-R to 0.

E Code	Detail Code	Location	Item	Description
E996	-0CA1	-05	Title	Frequent error avoidance jam (PRINTER)
			Detection description	Error avoidance jam (PRINTER)
			Remedy	Make “000CA1” jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.
E996	-0CA2	-05	Title	Frequent error avoidance jam (PRINTER)
			Detection description	Error avoidance jam (PRINTER)
			Remedy	Make “000CA2” jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.
E996	-0CA3	-05	Title	Frequent error avoidance jam (PRINTER)
			Detection description	Error avoidance jam (PRINTER)
			Remedy	Make “000CA3” jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.
E996	-0CA4	-05	Title	Frequent error avoidance jam (PRINTER)
			Detection description	Error avoidance jam (PRINTER)
			Remedy	Make “000CA4” jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.
E996	-0CA4	-05	Title	Frequent error avoidance jam (PRINTER)
			Detection description	Error avoidance jam (PRINTER)
			Remedy	Make “000CA4” jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.

E Code	Detail Code	Location	Item	Description
E996	-0CAF	-05	Title	Frequent error avoidance jam (PRINTER)
			Detection description	Error avoidance jam (PRINTER)
			Remedy	Make “000CAF” jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.

T-7-13

Jam Code

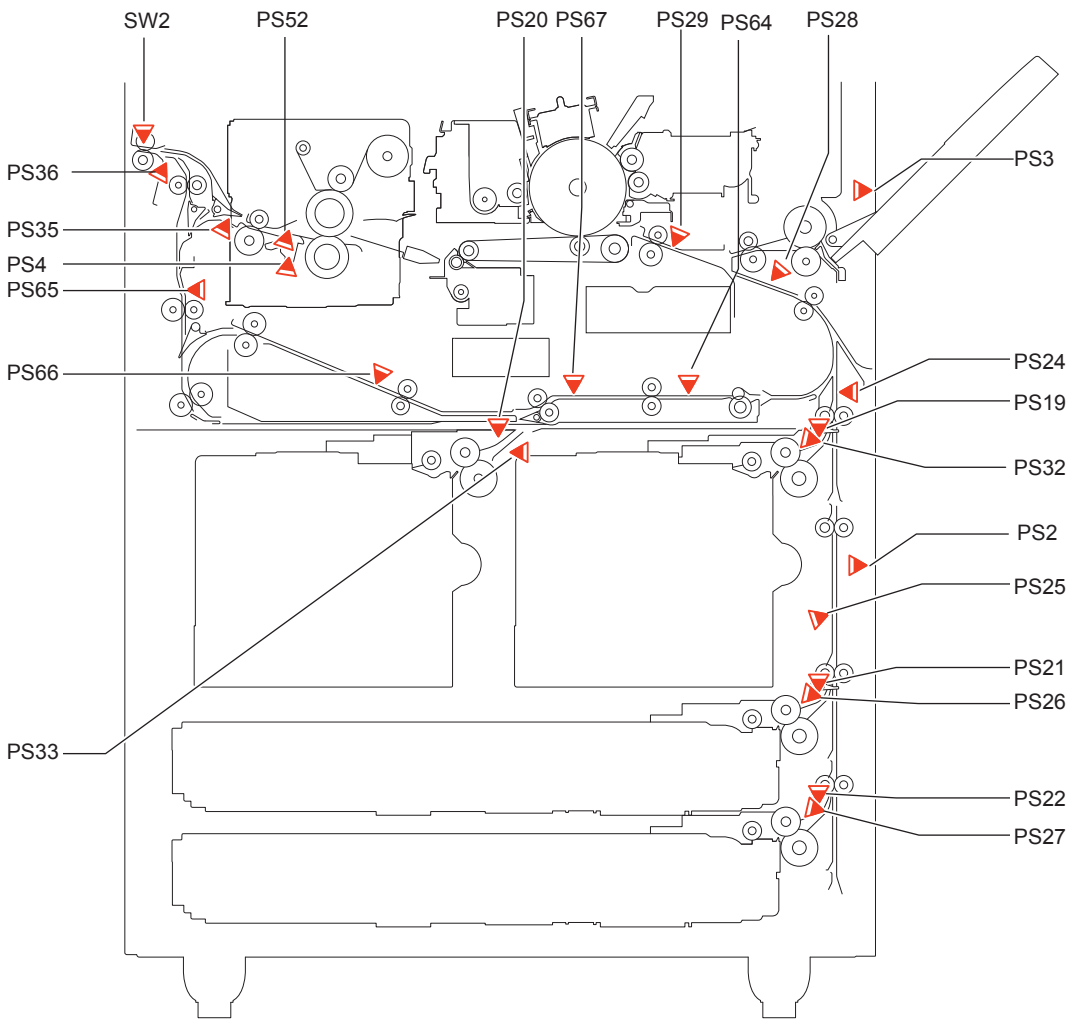
Jam Type

Jam types are shown below.

Type	Meaning
DELAY	Delay jam
STNRY	Stationary jam
OVERLAP	Double feed detection
TIMING NG	Timing error
OHP NG	Incorrect paper
ADF OP	ADF open
COVER OP	Cover open
RESIDUAL	Residual jam
PICKUP NG	Pickup error
POWER ON	Power ON
DOOR OP	Door open
SEQ NG	Sequence jam
DELAY ESC	Delay jam while ejecting to the escape delivery tray
OTH JAM	Other jams
STNRY ESC	Stationary jam while ejecting to the escape delivery tray
STP	Staple
SDL STP	Saddle stitch staple
INIT ROT	Residual (at initial rotation)
UP DEVICE	Upper stream device jam
OTHER	Others
ERROR	Error
RETRY ERR	Retry error
STOP	Press Stop key
ROT	Keeps rotating
PROGRAM	Program
TIME OUT	Time-out
PUNCH	Punch
MEDIA NG	Misprint

T-7-14

Main Unit



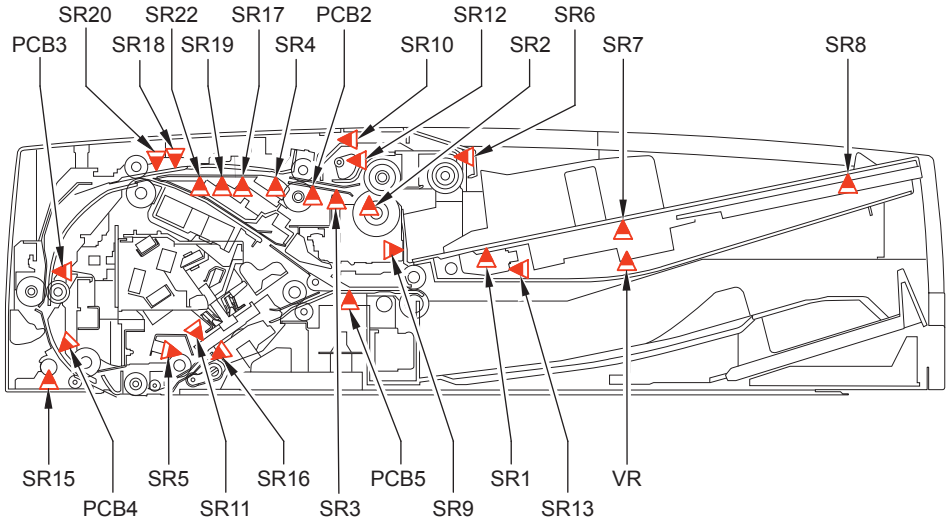
F-

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
00	0101	DELAY	Right Deck Pickup Sensor 1	PS19
00	0102	DELAY	Right Deck Pull Out Sensor	PS32
00	0103	DELAY	Vertical Path Sensor 1	PS24
00	0104	DELAY	Writing Judging Sensor	PS28
00	0105	DELAY	Registration Sensor	PS29
00	0106	DELAY	Left Deck Pickup Sensor 1	PS20
00	0107	DELAY	Left Deck Pull Out Sensor	PS33
00	0108	DELAY	Duplex Merging Sensor	PS67
00	0109	DELAY	Duplex Outlet Sensor	PS64
00	010A	DELAY	Cassette 3 Pickup Sensor 1	PS21
00	010B	DELAY	Vertical Path Sensor 3	PS26
00	010C	DELAY	Vertical Path Sensor 2	PS25
00	010D	DELAY	Cassette 4 Pickup Sensor 1	PS22
00	010E	DELAY	Vertical Path Sensor 4	PS27
00	0111	DELAY	Fixing Outlet Sensor	PS52
00	0112	DELAY	Inner Delivery Sensor	PS35
00	0113	DELAY	Outer Delivery Sensor	PS36
00	0114	DELAY	Reverse Vertical Path Sensor	PS65
00	0115	DELAY	Duplex Left Sensor	PS66
00	0202	STNRY	Right Deck Pull Out Sensor	PS32
00	0203	STNRY	Vertical Path Sensor 1	PS24
00	0204	STNRY	Writing Judging Sensor	PS28
00	0205	STNRY	Registration Sensor	PS29
00	0207	STNRY	Left Deck Pull Out Sensor	PS33
00	0208	STNRY	Duplex Merging Sensor	PS67
00	0209	STNRY	Duplex Outlet Sensor	PS64
00	020B	STNRY	Vertical Path Sensor 3	PS26
00	020C	STNRY	Vertical Path Sensor 2	PS25
00	020E	STNRY	Vertical Path Sensor 4	PS27
00	0212	STNRY	Inner Delivery Sensor	PS35
00	0213	STNRY	Outer Delivery Sensor	PS36
00	0214	STNRY	Reverse Vertical Path Sensor	PS65
00	0215	STNRY	Duplex Left Sensor	PS66
00	0305	TIMING NG	Registration Sensor	PS29
00	0A02	POWER ON	Right Deck Pull Out Sensor	PS32
00	0A03	POWER ON	Vertical Path Sensor 1	PS24
00	0A04	POWER ON	Writing Judging Sensor	PS28
00	0A05	POWER ON	Registration Sensor	PS29
00	0A07	POWER ON	Left Deck Pull Out Sensor	PS33
00	0A08	POWER ON	Duplex Merging Sensor	PS67
00	0A09	POWER ON	Duplex Outlet Sensor	PS64
00	0A0B	POWER ON	Vertical Path Sensor 3	PS26
00	0A0C	POWER ON	Vertical Path Sensor 2	PS25
00	0A0E	POWER ON	Vertical Path Sensor 4	PS27

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
00	0A0F	POWER ON	Fixing Inlet Sensor Power ON jam	PS51
00	0A10	POWER ON	Fixing Toenail Jam Sensor	PS4
00	0A11	POWER ON	Fixing Outlet Sensor	PS52
00	0A12	POWER ON	Inner Delivery Sensor	PS35
00	0A13	POWER ON	Outer Delivery Sensor	PS36
00	0A14	POWER ON	Reverse Vertical Path Sensor	PS65
00	0A15	POWER ON	Duplex Left Sensor	PS66
00	0B01	DOOR OP	Front Door Open Detection Switch	DOOR OP
00	0B02	DOOR OP	Multi-purpose Tray Cover Sensor	DOOR OP
00	0B03	DOOR OP	Vertical Path Cover Open/Close Sensor	DOOR OP
00	0CA1	OTHER	FeedSts time out jam	OTHER
00	0CA2	OTHER	RefeedStart time out jam	OTHER
00	0CA3	OTHER	ImageSet time out jam	OTHER
00	0CA4	OTHER	PageComplete time out jam	OTHER
00	0CA5	OTHER	Fixing temperature control time out jam	OTHER
00	0C10	OTHER	Fixing Toenail jam	PS4
00	0CF1	OTHER	Retry jam	OTHER
00	0D91	OTHER	Different Size jam(short paper length)	OTHER
02	1E00	OTHER	Finisher Sequence Error jam	OTHER

T-7-15

Duplex Color Image Reader-G1



F-7-2

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
01	0001	DELAY	Post-separation sensor 1/2/3	SR2,SR3,PCB2
01	0002	STNRY	Post-separation sensor 1/2/3	SR2,SR3,PCB2
01	0003	DELAY	Delay detection sensor	SR4
01	0004	STNRY	Delay detection sensor	SR4
01	0005	DELAY	Registration sensor	PCB3
01	0006	STNRY	Registration sensor	PCB3
01	0007	DELAY	Lead sensor 1	PCB4
01	0008	STNRY	Lead sensor 1	PCB4
01	0009	DELAY	Lead sensor 2	SR5
01	0010	STNRY	Lead sensor 2	SR5
01	0011	DELAY	Delivery sensor	PCB5
01	0012	STNRY	Delivery sensor	PCB5
01	0042	STNRY	Post-separation sensor 3	SR2,SR3,PCB2
01	0043	DELAY	Delay detection sensor	SR4
01	0044	STNRY	Delay detection sensor	SR4
01	0045	DELAY	Registration sensor	PCB3
01	0046	STNRY	Registration sensor	PCB3
01	0047	DELAY	Lead sensor 1	PCB4
01	0048	STNRY	Lead sensor 1	PCB4
01	0049	DELAY	Lead sensor 2	SR5
01	0050	STNRY	Lead sensor 2	SR5
01	0051	DELAY	Delivery sensor	PCB5
01	0052	STNRY	Delivery sensor	PCB5
01	0071	TIMING NG		TIMING NG
01	0073	HP NG	Disengaging HP sensor 1	SR15
01	0074	HP NG	Disengaging HP sensor 2	SR16
01	0075	HP NG	Pickup roller unit lifter HP sensor	SR12
01	0090	ADF OP	DADF open/closed sensor 1/2	ADF OP
01	0091	ADF OP	DADF open/closed sensor 1/2	ADF OP
01	0092	COVER OP	Cover open/closed sensor	SR10
01	0093	COVER OP	Cover open/closed sensor	SR10
01	0094	POWER ON	All feed sensor *3	POWER ON
01	0095	PICKUP NG	Post-separation sensor 1/2/3	SR2,SR3,PCB2

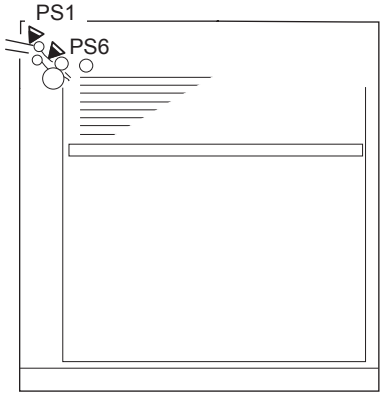
T-7-16

*1 The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.
If the same jam is detected although the above operation is performed, an error code will be notified.

*2 The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.
If it is not recovered by the above operation, it is considered an error near the target sensor. Disconnect and then connect the connectors around the target sensor, check if the cable is open circuit, and replace the sensor.

*3 Confirm the following sensors from service mode.
Delivery Sensor (PCB5): COPIER> IO> FEEDER> P006> 3 (0: Paper presence)
Read Sensor 2 (SR5): COPIER> IO> FEEDER> P006> 2 (0: Paper presence)
Read Sensor 1 (PCB4): COPIER> IO> FEEDER> P006> 1 (0: Paper presence)
Registration Sensor (PCB3): COPIER> IO> FEEDER> P006> 0 (0: Paper presence)
Delay sensor (SR4): COPIER> IO> FEEDER> P006> 5 (0: Paper presence)
Post-separation Sensor 3 (PCB2): COPIER> IO> FEEDER> P006> 4 (0: Paper presence)

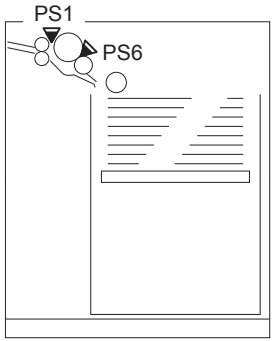
Paper Deck Unit-D1



F-7-3

ACC ID	Jam Code	Type	Sensor Name / Description	Sensor ID
00	0117	DELAY	Deck feed sensor	PS1
00	0118	DELAY	Deck pickup sensor	PS6
00	0218	STNRY	Deck pickup sensor	PS6
00	0A18	POWER ON	Deck pickup sensor	PS6

Paper Deck Unit-A1

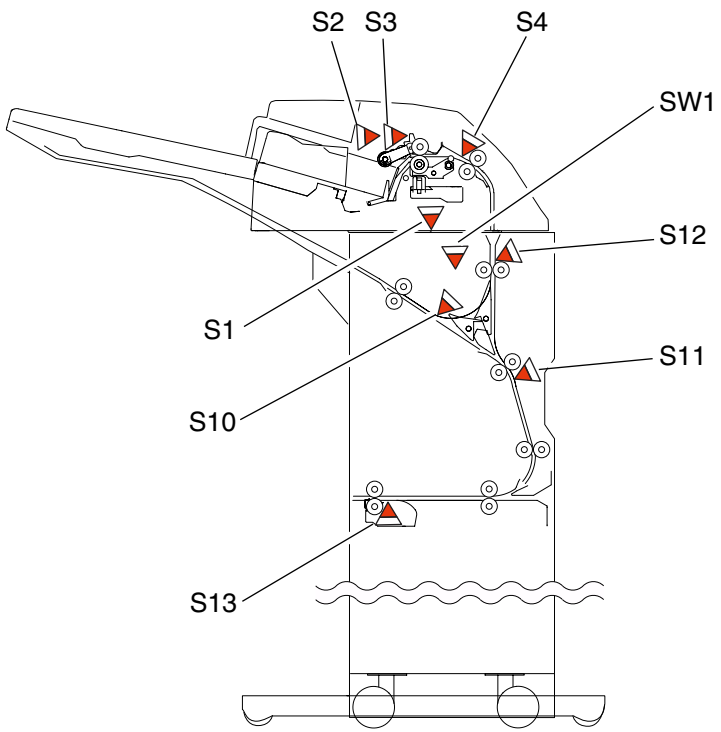


F-7-4

ACC ID	Jam Code	Type	Sensor Name / Description	Sensor ID
00	0117	DELAY	Deck feed sensor	PS1
00	0118	DELAY	Deck pickup sensor	PS6
00	0218	STNRY	Deck pickup sensor	PS6
00	0A18	POWER ON	Deck pickup sensor	PS6

T-7-17

Inserter-L1

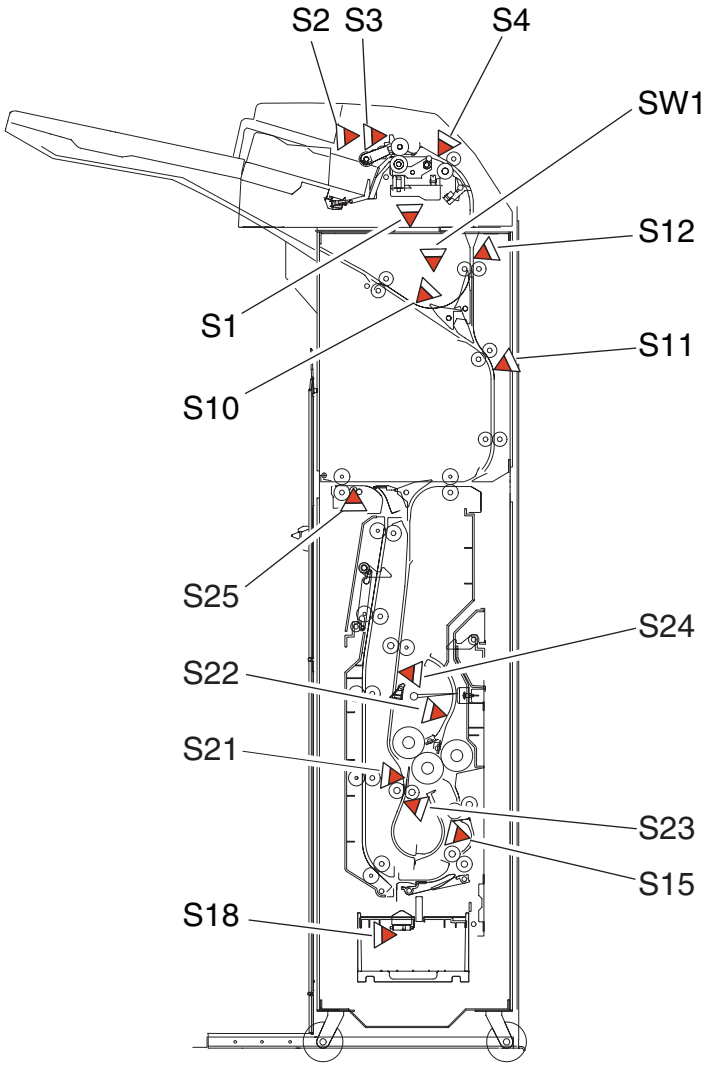


F-7-5

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	10B1	DELAY	Paper Registration Sensor Delay jam	S4
02	10B2	DELAY	Reverse Inlet Sensor Delay jam	S12
02	10B3	DELAY	Reverse Sensor Delay jam	S10
02	10B4	DELAY	Reverse Timing Sensor Delay jam	S11
02	11C1	STNRY	Paper Registration Sensor Stationary jam	S4
02	11C2	STNRY	Reverse Inlet Sensor Stationary jam	S12
02	11C3	STNRY	Reverse Sensor Stationary jam	S10
02	11C4	STNRY	Reverse Timing Sensor Stationary jam	S11
02	13D7	POWER ON	Power ON jam	POWER ON
02	14D8	COVER OP	Door Open jam	SW1, S1, S2
02	1FD1	OTHER	Inserter Paper absent jam	OTHER

T-7-18

Paper Folding Inserter Unit-H1

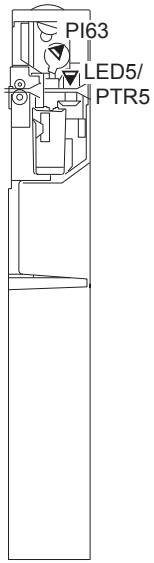


F-7-6

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	10B1	DELAY	Paper Registration Sensor Delay jam	S4
02	10B2	DELAY	Reverse Inlet Sensor Delay jam	S12
02	10B3	DELAY	Reverse Sensor Delay jam	S10
02	10B4	DELAY	Reverse Timing Sensor Delay jam	S11
02	10B5	DELAY	Slowdown Timing Sensor Delay jam	S24
02	10B6	DELAY	Release Timing Sensor Delay jam	S21
02	10B7	DELAY	Fold Position Sensor Delay jam	S23
02	10B8	DELAY	Upper Stopper Path Sensor Delay jam	S22
02	10B9	DELAY	Delivery 1 Sensor Delay jam	S25
02	10BA	DELAY	Delivery 2 Sensor Delay jam	S15
02	10BB	DELAY	3-fold Tray Empty Sensor Delay jam	S18
02	11C1	STNRY	Paper Registration Sensor Stationary jam	S4
02	11C2	STNRY	Reverse Inlet Sensor Stationary jam	S12
02	11C3	STNRY	Reverse Sensor Stationary jam	S10
02	11C4	STNRY	Reverse Timing Sensor Stationary jam	S11
02	11C5	STNRY	Slowdown Timing Sensor Stationary jam	S24
02	11C6	STNRY	Release Timing Sensor Stationary jam	S21
02	11C7	STNRY	Fold Position Detection Sensor Stationary jam	S23
02	11C8	STNRY	Upper Stopper Path Sensor Stationary jam	S22
02	11C9	STNRY	Delivery 1 Sensor Stationary jam	S25
02	11CA	DELAY	Delivery 2 Sensor Stationary jam	S15
02	11CB	DELAY	3-fold Tray Empty Sensor Stationary jam	S18
02	13D7	POWER ON	Power ON jam	POWER ON
02	14D8	COVER OP	Door Open jam	SW1,S1,S2
02	1FD1	OTHER	Inserter Paper absent jam	OTHER

T-7-19

External 2-hole Puncher-A1

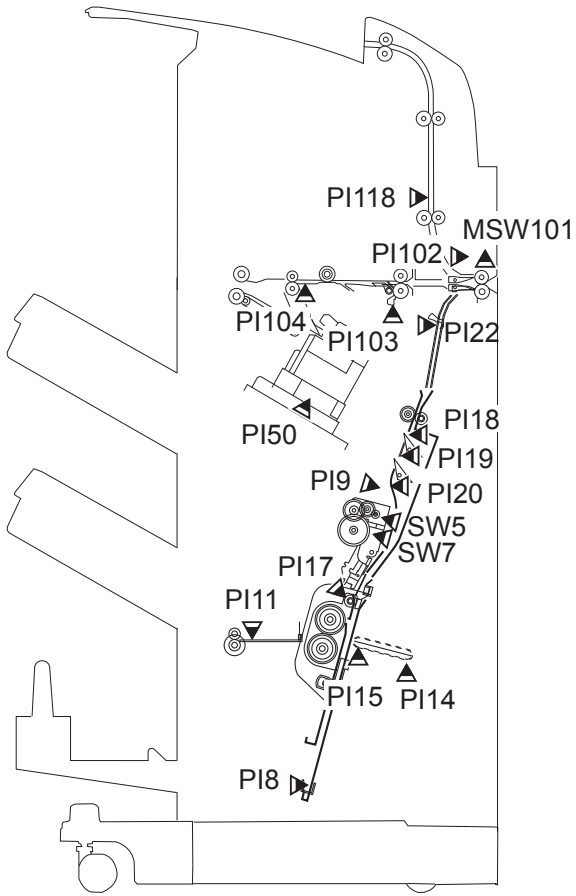


F-7-7

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	1F44	PUNCH	Punch home jam	PI63
02	1F45	POWER ON	Punch Residual jam	LED5,PTR5
02	1012	DELAY	Punch Path Sensor Feed Delay jam	LED5, PTR5
02	1122	STNRY	Punch Path Sensor Feed Stationary jam	LED5, PTR5

T-7-20

Staple Finisher-P1/Booklet Finisher-P1



F-7-8

ACC ID	Jam Code	Type	Sensor Name/Description	Sensor ID
02	1011	DELAY	Inlet Path Sensor Feed Delay jam	PI103
02	1013	DELAY	Escape Path Sensor Feed Delay jam	PI118
02	1014	DELAY	Delivery Path Sensor Feed Delay jam	PI104
02	1091	DELAY	Saddle Feed Path Sensor Feed Delay jam	PI18
02	1092	DELAY	Saddle Delivery Sensor Feed Delay jam	PI11
02	1093	DELAY	Saddle Inlet Sensor Feed Delay jam	PI22
02	1121	STNRY	Inlet Path Sensor Feed Stationary jam	PI103
02	1123	STNRY	Escape Path Sensor Feed Stationary jam	PI118
02	1124	STNRY	Delivery Path Sensor Feed Stationary jam	PI104
02	112F	OTHER	Error Avoidance jam	OTHER
02	11A1	STNRY	Saddle Feed Path Sensor Feed Stationary jam	PI18, PI19, PI20
02	11A2	STNRY	Saddle Delivery Sensor Feed Stationary jam	PI11, PI17
02	11A3	STNRY	Saddle Inlet Sensor Feed Stationary jam	PI22
02	1205	OTH JAM	Early Timing jam	PI103
02	1307	POWER ON	Power ON jam	PI103,PI104,PI118
02	1387	POWER ON	Saddle Power ON jam	PI11,PI17,PI18,PI19 PI20,PI22
02	1408	COVER OP	Door Open jam	PI102,MSW101
02	1488	COVER OP	Saddle Door Open jam	PI19,PI102
02	1506	STP	Staples jam	PI50
02	1586	SDL STP	Saddle Staples jam	SW5,SW7
02	1F8F	OTHER	Error Avoidance jam	OTHER

T-7-21

Alarm Code

List of Alarm Code

Alarm Code	Title	A. movement /B. cause /C. measures
00-0246	Error code display (4-digit)	Soft counter PCB cannot write normally
00-0247	Error code display (4-digit)	Soft counter PCB cannot restore data
01-0001	Fails to obtain counter information (RDS creates)	-
01-0002	No change in device status after specified period of time has passed (RDS server creates)	-
01-0004	IP address change notification (RDS server creates)	-
02-0020	Dust correction (paper front) occurrence	Movement: Execute correction process to the pixel where dust is detected (image on paper front) Cause: Dust is detected on the Stream Read Glass (paper front). Measures: Clean the Stream Read Glass (paper front), and check if the Platen Roller 1 is soiled. If necessary, clean it.
02-0021	Dust correction (paper back) occurrence	Movement: Execute correction process to the pixel where dust is detected (image on paper back with 1-Path DADF). Cause: Dust is detected on the Scanner Glass (paper back). Measures: Clean and check the Scanner Glass (paper back), and check if the Platen Roller 2 is soiled.

Alarm Code	Title	A. movement /B. cause /C. measures
04-0001	Right Deck Lifter error	Movement: The Right Deck Lifter Motor (M4) is stopped. Not using the Right Deck. Cause: The Right Deck Lifter does not rise, failure of the Right Deck Paper Height Sensor (PS6). Measures: 1. Turn OFF/ON the power. When it is recovered, the measure is completed. If it is not recovered, execute the following measures. 2. Check if the Deck Lifter rises. If not, execute the following measures. If an alarm occurs although it rises, execute step 5 and later steps. 3. Check the connection between the Right Deck Lifter Motor (M4) and the Feed Driver PCB (PCB3). Motor side: J2069, PCB side: J225 4. Replace the Right Deck. 5. Check the connection between the Right Deck Paper Height Sensor (PS6) and the Feed Driver PCB (PCB3). Sensor side: J2063, J3633 (relay), PCB side: J222 6. Check the operation of the Right Deck Paper Height Sensor (PS6), and replace it. 7. Replace the Feed Driver PCB (PCB3).
04-0002	Left Deck Lifter error	Movement: The Left Deck Lifter Motor (M5) is stopped. Not using the Left Deck. Cause: The Left Deck Lifter does not rise, failure of the Left Deck Paper Height Sensor (PS10). Measures: 1. Turn OFF and then ON the power. When it is recovered, the measure is completed. If it is not recovered, execute the following measures. 2. Check if the Deck Lifter rises. If not, execute the following measures. If an alarm occurs although it rises, execute step 5 and later steps. 3. Check the connection between the Left Deck Lifter Motor (M5) and the Feed Driver PCB (PCB3). Motor side: J2051, PCB side: J225 4. Replace the Left Deck. 5. Check the connection between the Left Deck Paper Height Sensor (PS10) and the Feed Driver PCB (PCB3). Sensor side: J2045, J3634 (relay), PCB side: J221 6. Check the operation of the Left Deck Paper Height Sensor (PS10), and replace it if necessary. 7. Replace the Feed Driver PCB (PCB3).

Alarm Code	Title	A. movement /B. cause /C. measures
04-0003	Cassette 3 Lifter error	Movement: The Cassette 3 Lifter Motor (M20) is stopped. Not using the Cassette 3. Cause: The Cassette Lifter does not rise, failure of the Cassette 3 Paper Height Sensor (PS17). Measures: 1. Turn OFF and then ON the power. When it is recovered, the measure is completed. If it is not recovered, execute the following measures. 2. Check if the Deck Lifter rises. If not, execute the following measures. If an alarm occurs although it rises, execute step 5 and later steps. 3. Check the connection between the Cassette 3 Lifter Motor (M20) and the Feed Driver PCB (PCB3). Motor side: J2072, PCB side: J225 4. Replace the Cassette 3. 5. Check the connection between the Cassette 3 Paper Height Sensor (PS17) and the Feed Driver PCB (PCB3). Sensor side: J2080, J3635 (relay), PCB side: J223 6. Check the operation of the Cassette 3 Paper Height Sensor (PS17), and replace it if necessary. 7. Replace the Feed Driver PCB (PCB3).
04-0004	Cassette 4 Lifter error	Movement: The Cassette 4 Lifter Motor (M21) is stopped. Not using the Cassette 4. Cause: The Cassette 4 Lifter does not rise, failure of the Cassette 4 Paper Height Sensor (PS18). Measures: 1. Turn OFF and then ON the power. When it is recovered, the measure is completed. If it is not recovered, execute the following measures. 2. Check if the Deck Lifter rises. If not, execute the following measures. If an alarm occurs although it rises, execute step 5 and later steps. 3. Check the connection between the Cassette 4 Lifter Motor (M21) and the Feed Driver PCB (PCB3). Motor side: J2074, PCB side: J225 4. Replace the Cassette 4. 5. Check the connection between the Cassette 4 Paper Height Sensor (PS18) and the Feed Driver PCB (PCB3). Sensor side: J2091, J3636 (relay), PCB side: J224 6. Check the operation of the Cassette 4 Paper Height Sensor (PS18), and replace it if necessary. 7. Replace the Feed Driver PCB (PCB3).

Alarm Code	Title	A. movement /B. cause /C. measures
04-0008	Option Deck Lifter error	Movement: The Option Deck Pickup Motor (M) is stopped. Not using the Left Deck. Cause: The Option Deck does not rise, failure of the Option Deck Paper Height Sensor (PS). Measures: Clear the error by turning OFF/ON the power.
04-0010	Jam left untouched (RDS creates)	-
04-0031	Right Deck Lifter Motor overcurrent alarm	Movement: The Right Deck Lifter Motor (M4) is stopped. Not using the Right Deck. Cause: The Right Deck is above the upper limit or is stopped along the way. Measures: 1. Check the connection between the Right Deck Lifter Motor (M4) and the Feed Driver PCB (PCB3). Motor side: J2069, PCB side: J225 2. Replace the Right Deck Lifter Motor (M4). 3. Check the Right Deck Upper Limit Sensor (PS8). 4. Check the Right Deck Lifter Gear (damage, foreign matter, etc.). 5. Replace the Feed Driver PCB (PCB3).
04-0032	Left Deck Lifter Motor overcurrent alarm	Movement: The Left Deck Lifter Motor (M5) is stopped. Not using the Left Deck. Cause: The Left Deck is above the upper limit or is stopped along the way. Measures: 1. Check the connection between the Left Deck Lifter Motor (M5) and the Feed Driver PCB (PCB3). Motor side: J2069, PCB side: J225 2. Replace the Left Deck Lifter Motor (M5). 3. Check the Left Deck Upper Limit Sensor (PS12). 4. Check the Left Deck Lifter Gear (damage, foreign matter, etc.). 5. Replace the Feed Driver PCB (PCB3).

Alarm Code	Title	A. movement /B. cause /C. measures
04-0033	Cassette 3 Lifter Motor overcurrent alarm	Movement: The Cassette 3 Lifter Motor (M20) is stopped. Not using the Cassette 3. Cause: The Cassette 3 is above the upper limit or is stopped along the way. Measures: 1. Check the connection between the Cassette 3 Lifter Motor (M20) and the Feed Driver PCB (PCB3). Motor side: J2072, PCB side: J225 2. Replace the Cassette 3 Lifter Motor (M20). 3. Check the Cassette 3 Upper Limit Sensor (PS68). 4. Check the Cassette 3 Lifter Gear (damage, foreign matter, etc.). 5. Replace the Feed Driver PCB (PCB3).
04-0034	Cassette 4 Lifter Motor overcurrent alarm	Movement: The Cassette 4 Lifter Motor (M21) is stopped. Not using the Cassette 4. Cause: The Cassette 4 is above the upper limit or is stopped along the way. Measures: 1. Check the connection between the Cassette 4 Lifter Motor (M21) and the Feed Driver PCB (PCB3). Motor side: J2072, PCB side: J225 2. Replace the Cassette 4 Lifter Motor (M21). 3. Check the Cassette 4 Upper Limit Sensor (PS71). 4. Check the Cassette 4 Lifter Gear (damage, foreign matter, etc.). 5. Replace the Feed Driver PCB (PCB3).
04-0069	Error in Right Deck Pickup Solenoid connection	Movement: Jam occurred when picking up from the Right Deck. Cause: Connection of the Right Deck Pickup Solenoid (SL6) cannot be detected. Measures: 1. Check the connection of the Right Deck Pickup Solenoid (SL6). Solenoid side: J2070, Pickup Unit side: J3633, Feed Driver PCB side: J222 2. Replace the Right Deck Pickup Solenoid (SL6). 3. Replace the Feed Driver PCB (PCB3).
04-0070	Error in Left Deck Pickup Solenoid connection	Movement: Jam occurred when picking up from the Left Deck. Cause: Connection of the Left Deck Pickup Solenoid (SL7) cannot be detected. Measures: 1. Check the connection of the Left Deck Pickup Solenoid (SL7). Solenoid side: J2052, Pickup Unit side: J3634, Feed Driver PCB side: J221 2. Replace the Left Deck Pickup Solenoid (SL7). 3. Replace the Feed Driver PCB (PCB3).

Alarm Code	Title	A. movement /B. cause /C. measures
04-0071	Error in Cassette 3 Pickup Solenoid connection	Movement: Jam occurred when picking up from the Cassette 3. Cause: Connection of the Cassette 3 Pickup Solenoid (SL3) cannot be detected. Measures: 1. Check the connection of the Cassette 3 Pickup Solenoid (SL3). Solenoid side: J2073, Pickup Unit side: J3635, Feed Driver PCB side: J223 2. Replace the Cassette 3 Pickup Solenoid (SL3). 3. Replace the Feed Driver PCB (PCB3).
04-0072	Error in Cassette 4 Pickup Solenoid connection	Movement: Jam occurred when picking up from the Cassette 4. Cause: Connection of the Cassette 4 Pickup Solenoid (SL4) cannot be detected. Measures: 1. Check the connection of the Cassette 4 Pickup Solenoid (SL4). Solenoid side: J2075, Pickup Unit side: J3636, Feed Driver PCB side: J224 2. Replace the Cassette 4 Pickup Solenoid (SL4). 3. Replace the Feed Driver PCB (PCB3).
04-0073	Error in Multi-purpose Pickup Solenoid connection	Movement: Jam occurred when picking up from the Multi-purpose Tray. Cause: Connection of the Multi-purpose Pickup Solenoid (SL2) cannot be detected. Measures: 1. Check the connection of the Multi-purpose Pickup Solenoid (SL2). Solenoid side: J2001, Relay: J3060, J3121, J3235, Main Driver PCB side: J106 2. Replace the Multi-purpose Pickup Solenoid (SL2). 3. Replace the Main Driver PCB (PCB2).
04-0074	Error in Left Deck Merging Solenoid connection	Movement: Jam occurred when picking up from the Left Deck. Cause: Connection of the Left Deck Merging Solenoid (SL11) cannot be detected. Measures: 1. Check the connection of the Left Deck Merging Solenoid (SL11). Solenoid side: J2106, Relay side: J3270, Duplex Driver PCB side: J343 2. Replace the Left Deck Merging Solenoid (SL11). 3. Replace the Duplex Driver PCB (PCB4).

Alarm Code	Title	A. movement /B. cause /C. measures
04-0075	Error in Reverse Detachment Solenoid connection	Movement: Jam occurred at the time of large size paper reverse delivery. Cause: Connection of the Reverse Detachment Solenoid (SL12) cannot be detected. Measures: 1. Check the connection of the Reverse Detachment Solenoid (SL12). Solenoid side: J2176, Duplex Driver PCB side: J340 2. Replace the Reverse Detachment Solenoid (SL12). 3. Replace the Duplex Driver PCB (PCB4).
06-0003	Web absence notice	Movement: The Web Drive Solenoid is turned ON 4 times after the Fixing Cleaning Web Level Sensor performs detection. Cause: Remaining level of the Fixing Cleaning Web is low. Measures: Replace the Fixing Cleaning Web.
09-0006	2D Shading ROM error 1	Movement: Turn OFF the 2D Shading. Cause: After clearing the drum, not reading the EEPROM. Measures: Execute COPIER>FUNCTION>2D-SHADE>2D-READ.
09-0007	2D Shading ROM error 2	Movement: Turn OFF the 2D Shading. Cause: After reading ROM data, calculated checksum value and checksum of ROM does not match. Measures: Install the correct ROM.
09-0008	Drum HP signal noise alarm	Movement: Only when the 2D shading is ON, the accuracy of shading is degraded and an image error occurs. Uneven density may occur. Cause: The Drum HP cycle is shorter than the specified cycle. Measures: 1. Install the Drum HP Sensor (PS61) and check the connector. 2. Check the Drum HP Flag. 3. Check the harness between the Drum HP Sensor (PS61) and the Main Driver PCB (PCB2). (Between J2137 and J107) 4. Replace the Drum HP Sensor (PS61). 5. Replace the Main Driver PCB (PCB2). 6. Check the harness between the Main Driver PCB (PCB2) and the DCON PCB (PCB1). (Between J125 and J411 and between J126 and J412) 7. Replace the DCON PCB (PCB1).

Alarm Code	Title	A. movement /B. cause /C. measures
09-0009	Drum HP signal absence alarm	Movement: Only when the 2D shading is ON, the accuracy of shading is degraded and an image error occurs. Uneven density may occur. Cause: The Drum HP cycle is longer than the specified cycle. Measures: 1. Install the Drum HP Sensor (PS61) and check the connector. 2. Check the Drum HP Flag. 3. Check the harness between the Drum HP Sensor (PS61) and the Main Driver PCB (PCB2). (Between J2137 and J107) 4. Replace the Drum HP Sensor (PS61). 5. Replace the Main Driver PCB (PCB2). 6. Check the harness between the Main Driver PCB (PCB2) and the DCON PCB (PCB1). (Between J125 and J411 and between J126 and J412) 7. Replace the DCON PCB (PCB1).
10-0001	No toner (Bk) (RDS creates)	-
11-0002	Waste Toner Container full (Photosensitive Drum)	Movement: A message “The waste toner container is full.” is displayed on the Control Panel, and the machine is stopped. Cause: The Waste Toner Counter reaches 600000. Measures: Clean the Waste Toner Container. Reset the Waste Toner Counter.
30-0004	Pre-transfer Charging PCB Harness disconnection (connection error)	Movement: Pre-transfer charging high voltage is not output. An image error like discharge trace occurs. Cause: Connection error of the Pre-transfer Charging PCB (PCB26). Measures: 1. Check the connection between the Main Driver PCB (PCB2) and the High Voltage Unit. Main Driver PCB side: J112, High Voltage Unit side: J3098 2. Check the connection inside of the High Voltage Unit. High Voltage Unit inlet side: J3098, Pre-transfer Charging PCB side: J3544 3. Replace the Pre-transfer Charging PCB (PCB26). 4. Replace the Main Driver PCB (PCB2).
31-0005	Environment Sensor reading alarm	Movement: It becomes as follow: environment temperature= 0 degC, environment humidity= 0%. Cause: Connection of the Environment Sensor cannot be detected. Measures: 1. Check the connection of the Environment Sensor (THU1). 2. Replace the Environment Sensor (THU1).

Alarm Code	Title	A. movement /B. cause /C. measures
31-0008	HDD failure prediction alarm	Movement: HDD failure is expected to occur in a short time due to occurrence of physical error in HDD. It does not occur in the HDD of mirroring configuration. Cause: Error in the S.M.A.R.T. value of HDD Measures: 1. Back up the data stored in HDD. 2. Replace the HDD. 3. Restore the data. S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology): Self-diagnosis function built in the HDD. The occurrence rate of reading error, reading and writing speed, the total number of Motor start-up and stop times, the total length of power-on time, etc. are monitored.
32-0002	Potential control (VL control) error	Movement: Not reflecting the result of VL control. To the laser power determined with VL control, the power with which the previous potential control was succeeded (within target potential +/-10V) is applied. Cause: The measured value in the dark area (VL) differs over +/-10V but less than +/-30V than the target potential at potential control. Measures: If there is no influence on image, measures are not needed. If not, execute the following measures. 1. Check the installation of the Pre-exposure LED (connector connection, open circuit, the caught cable). 2. Check the installation of the Primary Charging Assembly (connector connection, open circuit, the caught cable). 3. Check the fixation state of the Drum and the Drum Shaft (check if the drum fixation cylinder is properly installed). 4. Check if the Dustproof Glass is soiled. If necessary, clean it. 5. Check the installation of the Laser Scanner Unit (connector connection, open circuit, the caught cable). 6. Check the installation and connection of the Primary Charging High Voltage PCB (PCB11) (connector connection, open circuit, the caught cable). 7. Check the installation of the Potential Sensor (connector connection, open circuit, the caught cable). 8. Check the installation and connection of the Drum Motor (M1) (connector connection, open circuit, the caught cable). 9. Replace the parts. • Primary Charging Assembly • Laser Scanner Unit • Potential Sensor • Primary Charging High Voltage PCB (PCB11) • Drum Motor (M1) • Main Driver PCB (PCB2) • DC Controller PCB (PCB1)

Alarm Code	Title	A. movement /B. cause /C. measures
33-0001	Delivery Assembly Decurler Fan alarm	Movement: No change. Cause: Connector disconnection of the Paper Cooling Fan (FM5). Failure of the Paper Cooling Fan (FM5). Measures: Check the connector -> Replace the Paper Cooling Fan (FM5).
33-0002	Feed Fan alarm	Movement: No change. Cause: Connector disconnection of the Registration Motor/ Duplex Motor Cooling Fan (FM42). Failure of the Registration Motor/Duplex Motor Cooling Fan (FM42). Measures: Check the connector -> Replace the Registration Motor/Duplex Motor Cooling Fan (FM42).
33-0010	Stream Reading Fan alarm	Movement: Nothing in particular (Fan stops). Cause: The Fan rotation signal cannot be detected after 3 seconds have passed since the Scanner Unit Heat Exhaust Fan (FM1) is turned ON. Measures: Check the connector connection -> Replace the Scanner Unit Heat Exhaust Fan (FM1).
33-0013	Power Unit Fan 1 alarm	Movement: No change. Cause: Connector disconnection of the Feed Driver Cooling Fan (FM40). Failure of the Feed Driver Cooling Fan (FM40). Measures: Check the connector -> Replace the Feed Driver Cooling Fan (FM40).
33-0022	Read Motor Cooling Fan alarm	Movement: Nothing in particular (Fan stops). Cause: The Fan rotation signal cannot be detected after 3 seconds have passed since the Motor Driver Cooling Fan (FM1) or the Read Motor Cooling Fan (FM2) is turned ON. Measures: Check the connector connection -> Replace the Motor Driver Cooling Fan (FM1) or the Read Motor Cooling Fan (FM2).
33-0023	Scanner Unit (DADF) Cooling Fan alarm	Movement: Nothing in particular (Fan stops). Cause: The Fan rotation signal cannot be detected after 3 seconds have passed since the (DADF) Scanner Unit Cooling Fan (FM3) is turned ON. Measures: Check the connector connection -> Replace the DADF Scanner Unit Cooling Fan (FM3).
33-0025	Scanner Unit (Reader) Cooling Fan alarm	Movement: Nothing in particular (Fan stops). Cause: The Fan rotation signal cannot be detected after 3 seconds have passed since the (Reader) Scanner Unit Cooling Fan (FM2) is turned ON. Measures: Check the connector connection -> Replace the (Reader) Scanner Unit Cooling Fan (FM2).

Alarm Code	Title	A. movement /B. cause /C. measures
33-0026	Charging Assembly Fan 1 alarm	Movement: No change. Cause: Connector disconnection of the Pre-transfer Charging Assembly Air Supply Fan (FM32) or the Pre-transfer Charging Assembly Exhaust Fan (FM33). Failure of the Pre-transfer Charging Assembly Air Supply Fan (FM32) or the Pre-transfer Charging Assembly Exhaust Fan (FM33). Measures: Check the connector connection -> Replace the Pre-transfer Charging Assembly Air Supply Fan (FM32) or the Pre-transfer Charging Assembly Exhaust Fan (FM33).
33-0027	Charging Assembly Fan 2 alarm	Movement: No change. Cause: Connector disconnection of the Primary Charging Assembly Exhaust Fan (FM17). Failure of the Primary Charging Assembly Exhaust Fan (FM17). Measures: Check the connector -> Replace the Primary Charging Assembly Exhaust Fan (FM17).
33-0028	Power Unit Fan 2 alarm	Movement: No change. Cause: Connector disconnection of the Duplex Driver Cooling Fan (FM41). Failure of the Duplex Driver Cooling Fan (FM41). Measures: Check the connector -> Replace the Duplex Driver Cooling Fan (FM41).
37-0001	For R&D	For R&D
37-0002	For R&D	For R&D
37-0003	For R&D	For R&D
37-0004	For R&D	For R&D
37-0005	For R&D	For R&D
37-0006	For R&D	For R&D
37-0007	For R&D	For R&D
37-1000	For R&D	For R&D
37-2000	For R&D	For R&D
38-0001	For R&D	For R&D
38-0002	For R&D	For R&D
50-0007	Insufficient light intensity in Post-separation Sensor 3	Movement: Nothing in particular. Cause: Light intensity is insufficient when adjusting output of the Post-separation Sensor 3 (PCB2). Measures: Clean the Post-separation Sensor 3 (PCB2) (periodical maintenance).

Alarm Code	Title	A. movement /B. cause /C. measures
50-0008	Insufficient light intensity in Lead Sensor 1	Movement: Nothing in particular. Cause: Light intensity is insufficient when adjusting output of the Lead Sensor 1 (PCB4). Measures: Clean the Lead Sensor 1 (PCB4) (periodical maintenance).
50-0009	Insufficient light intensity in Delivery Sensor	Movement: Nothing in particular. Cause: Light intensity is insufficient when adjusting output of the Delivery Sensor (PCB5). Measures: Clean the Delivery Sensor (PCB5) (periodical maintenance).
50-0010	Alarm due to original separation failure	Movement: Nothing in particular. Cause: Condition unable to separate 1st sheet of original from the ADF occurs 3 times . Measures: Check rotation of the Pickup Motor (M1) -> Check the life of the Pickup Roller -> Check if paper lint is at the Pickup Slot.
50-0013	Insufficient light intensity in Registration Sensor	Movement: Nothing in particular. Cause: Light intensity is insufficient when adjusting output of the Registration Sensor (PCB3). Measures: Clean the Registration Sensor (PCB3) (periodical maintenance).
60-0001	Shift Tray alarm	Movement: Shift Tray operation is stopped. Cause: Home position at startup of the host machine cannot be detected. Measure: Check connector disconnection of the HP Sensor (Front) (PS101) and the HP Sensor (Rear) (PS102) -> Replace the HP Sensor (Front) (PS101) and the HP Sensor (Rear) (PS102).
61-0001	Finisher Staple alarm	Movement: A user message is displayed on the Control Panel. If staple job is being processed during a print job, printing is stopped. Measures: Load staples.
62-0001	Saddle Staple alarm	Movement: A user message is displayed on the Control Panel, and printing is stopped. If staple job is being processed during a print job, printing is stopped. Measures: Load staples.
65-0001	Punch alarm	Movement: A user message is displayed on the Control Panel. If punching is being operated during a print job, operation varies depending on the detection level. • Level 1: Continue operation. • Level 2 (in case that punching operated 1000 times after the detection level 1): Stop printing. Measures: Remove the punched trash.
73-0006	LIPS	Error in configuration acquisition/management

Alarm Code	Title	A. movement /B. cause /C. measures
73-0007	LIPS	Memory management error in LIPS
73-0008	LIPS	File management error in LIPS
73-0009	LIPS	Reception data management error
73-0011	LIPS	Macro management error
73-0014	LIPS	Font management error
73-0015	LIPS	Letter drawing error
73-0017	LIPS	Image drawing error
73-0021	LIPS	Utility execution control error
73-0024	LIPS	Boot error in LIPS
73-0026	LIPS	Data format error of image mode
75-0001	Error occurred in Yukon	-
75-0002	Error occurred due to invalid SVG analysis from Yukon	-
76-0001	Font	No memory for internal font
76-0002	Font	Fails to secure the work area to analyze the font that is downloaded at “Resource Download”.
76-0003	Font	Fails to access to the file that stores the font.
76-0004	Font	Fails to allocate the FM work memory.
76-0005	Font	Fails to analyze the internal font.
76-0006	Font	Alignment of font data is wrong.
76-0007	Font	Fails to allocate work memory with scalar. There are 3 types depending on where to occur.
76-0008	Font	Fails to allocate work memory with scalar. There are 3 types depending on where to occur.
78-0003	GL	Invalid GL entry
78-0005	GL	System memory full
79-0001	Canon-made PCL	PCL initialization error
79-0002	Canon-made PCL	PCL processing error
79-0003	Canon-made PCL	Overflow of work memory for translator
79-0004	Canon-made PCL	Download overflow
80-0001	BDL	Admin error
80-0003	BDL	Data Area error
80-0004	BDL	Wrapper error
80-0007	BDL	Resource error

Alarm Code	Title	A. movement /B. cause /C. measures
80-0008	BDL	Attribute error
80-0009	BDL	VolatileResource error
80-0010	BDL	Graphics error
80-0011	BDL	Char error
80-0012	BDL	Image error
80-0013	BDL	Image error
80-0015	BDL	Print data cannot process this version.
80-0016	BDL	Overflow of work memory for translator
80-0019	BDL	In case of invalid data format in BDL custom mode
81-0001	Imaging	Fails to allocate the memory.
81-0002	Imaging	Rendering error
81-0003	Imaging	Overflow of work memory for translator
81-0004	Imaging	Imaging initialization error
81-0005	Imaging	Imaging processing error
81-0006	Imaging	Error when the setting is long length paper + 1200dpi. (Because of memory, long length paper + 1200dpi is not available.)
81-0007	Imaging	Error when long length paper + color is set.
83-0005	PDF	PDF memory full
83-0015	PDF	PDF data decoding error
83-0016	PDF	Page range error
83-0017	PDF	PDF error
84-0001	XPS memory full error	-
84-0002	XPS spool full error	-
84-0003	XPS print range error	-
84-0004	XPS document data error	-
84-0005	XPS page data error	-
84-0006	XPS image data error	-
84-0007	XPS font data error	-
84-0008	XPS non-support image error	-
84-0009	XPS rendering error	-

T-7-22

8 Service Mode

- Overview
- COPIER
- FEEDER
- SORTER
- BOARD

Overview

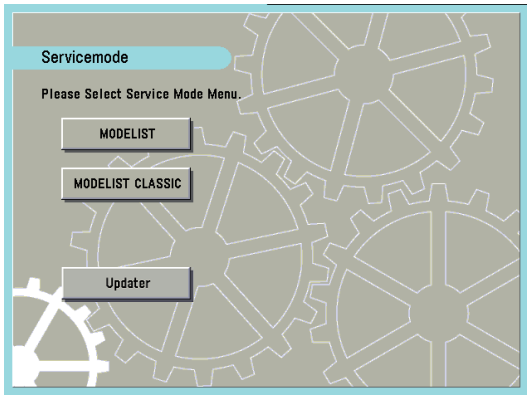
Instructions on how to use service mode items can be found within the service mode itself. The information explains what items have been added or changed from previous models.

Entering Service Mode

Contact the sales company for the method to enter service mode.

Service Mode Menu

TOP Screen



F-8-1

"MODELIST"	A brand new additional mode in the host machine. A function that can be used as a reference on how to use each item in Service Mode is installed. The new function, which will be described later, is available in MODELIST Mode.
"MODELIST CLASSIC"	This mode is same as the old machine. The new function, which will be described later, is not available in the MODELIST CLASSIC Mode.
“Updater”	This is a MEAP application with functions of network communication to Content Delivery System V1.0 (hereinafter CDS) and installation of firmware, MEAP applications or system options. (Refer to Updater V1.0 service manual.)

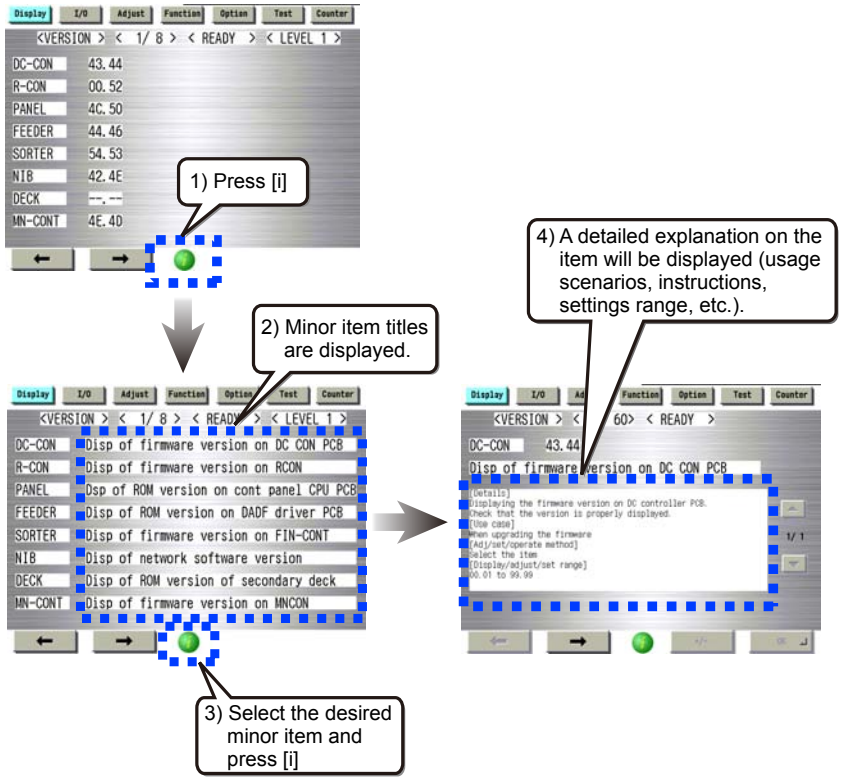
If " MODELIST " or " MODELIST CLASSIC " or “Updater” is pressed, the screen will switch to initial screen for each mode.

Service mode item explanations

Explanatory texts for the initial window, main items, sub items and minor items can be displayed.

Select the desired initial window, main item, sub item or minor item, then pres [i] (Information button) to display an explanatory text (hereafter, service mode contents) on the selected item.

E.g., COPIER > DISPLAY > Version window

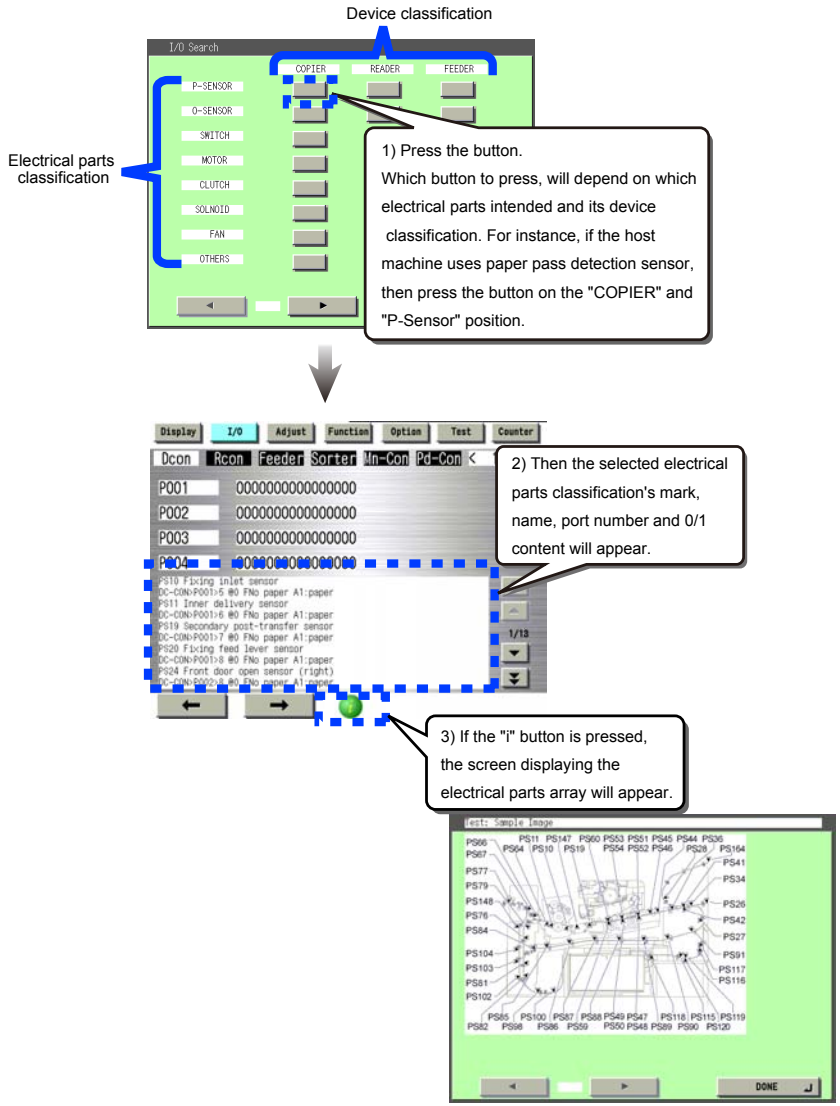


F-8-2

- The service mode contents can be displayed in J/E/F/I/G/S languages.
- Service mode contents, like system software, can be upgraded by SST.

I/O information enhancement

On the COPIER > I/O, the mode to confirm input output signal of electrical parts used (sensor, motor, fan, etc), makes it easier to look for the intended electrical part.
And the screen will also display the input output signal.

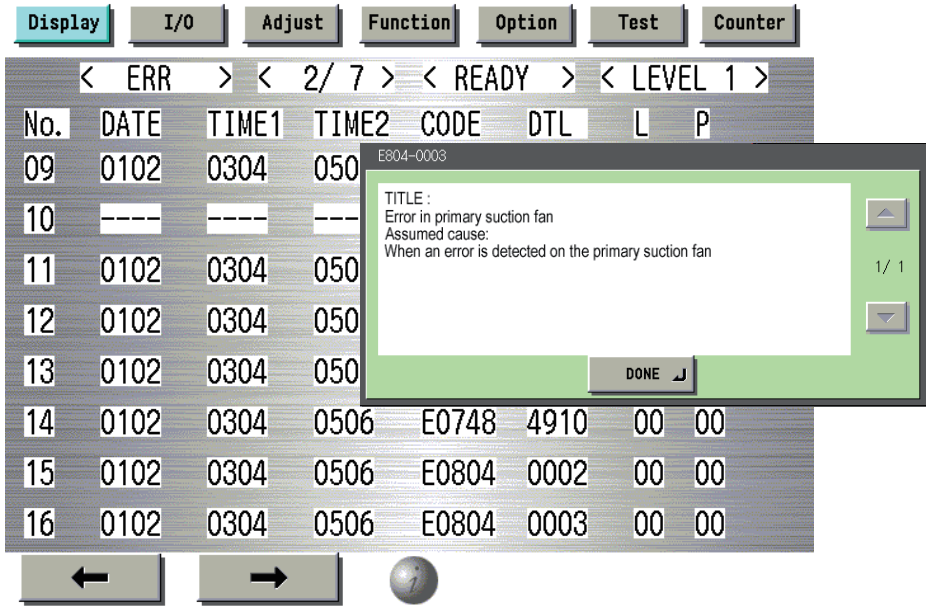


F-8-3

Display of Error Code/Alarm Code description

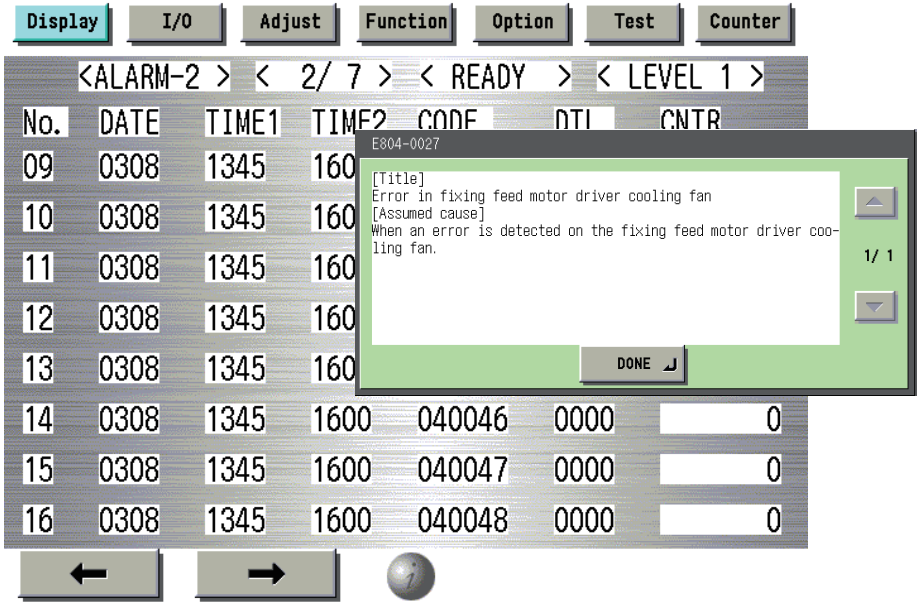
The detail description of each code can be viewed on the error code and alarm code occurrence record screen.

ERROR CODE : COPIER > DISPLAY >ERR



F-8-4

ALARM CODE : COPIER > DISPLAY >ERR



F-8-5

COPIER > OPTION > BODY, Item Segmentation

On the current machine, there are extremely many items in the COPIER > OPTION > BODY (in related to host machine specification), that it is difficult to reach the intended item.
In order to reach the intended item in shorter time, all items inside the BODY is classified to 15 categories.

Classification	Name	Description
Function switching	**FNC-SW**	Language, cassette, paper size type, NAVI/ DA connection, count-up spec., document size detection, dirt detection level
Display switching/ display timing	**DSPLY-SW**	UI (User Interface) display related
Image related (fixing)	**IMG-FIX**	Fixing related
Image related (transfer)	**IMG-TR**	Transfer related
Image related (developing)	**IMG-DEV**	Developer related
Image related (laser/ latent image)	**IMG-LSR**	Laser, latent image related
Image related (reader/ ADF)	**IMG-RDR**	Reader, ADF image related
Image related (controller, other general items)	**IMG-MCON**	MN-CON image related, and image related items other than those referred to above.
Image quality/ copy speed	**IMG-SPD**	Power down sequence
Cleaning	**CLEANING**	Cleaning of charging unit, drum, transfer roller, etc.
Environment settings	**ENV-SET**	Temperature, humidity, environmental heater, condensation, log acquisition
Paper feed (pickup, delivery)	**FEED-SW**	Stack performance, motor speed adjustment, delivery functions, etc.
Noise reduction	**SOUND**	Noise related
Network	**NETWORK**	Network settings, IFAX, SEND, E-RDS, etc.
Customization	**CUSTOM**	Customization

T-8-1

Security features

To prevent unauthorized access to Service Mode, Password set is enabled.

Related service modes

- COPIER > OPTION > FNC-SW > PSWD-SW (Level1)
  Set password type for transition to service mode.
  <Setting range>
  0: No password (default)
  1: Service engineer
  2: System administrator and Service engineer.

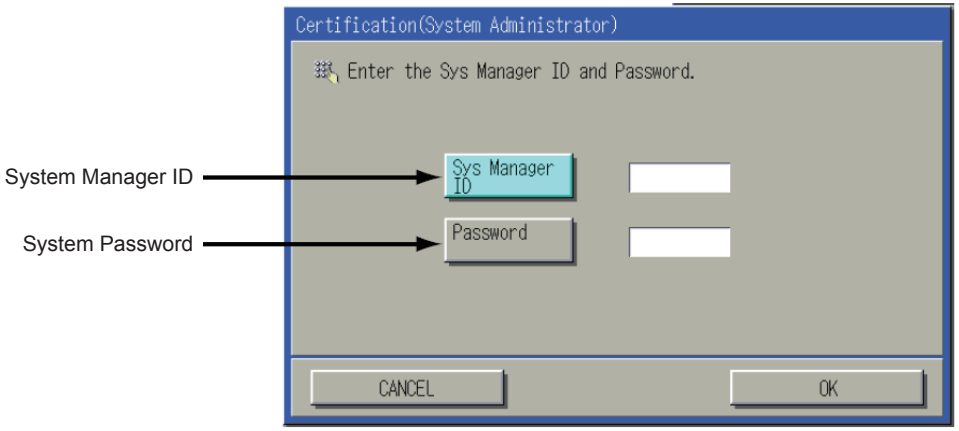
- COPIER > OPTION > FNC-SW > SM-PSWD (Level2)
  Password for service engineer for transition to service mode.
  <Setting range>

To reinforce the security, change the password from a default.

  ******** (eight digit numeral) [default: 11111111]

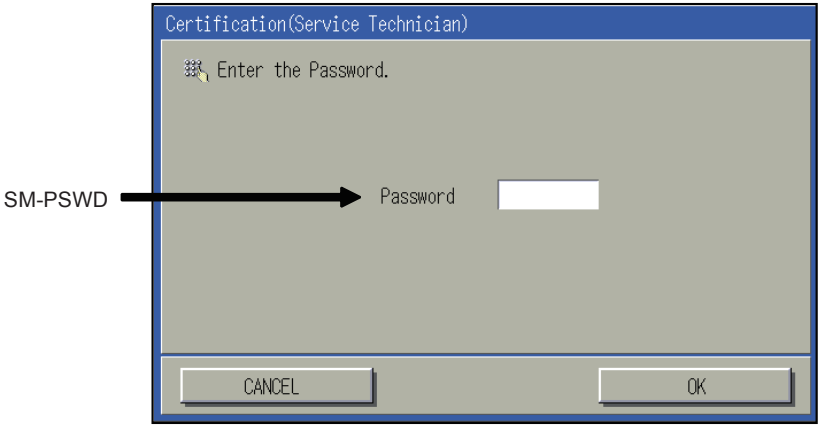
After the above setting, to enter Service Mode, enter password screen will appear.

1) Additional Functions > System Settings > System Manager Settings > enter System Manager ID > enter System Password Settings > press OK button.



F-8-6

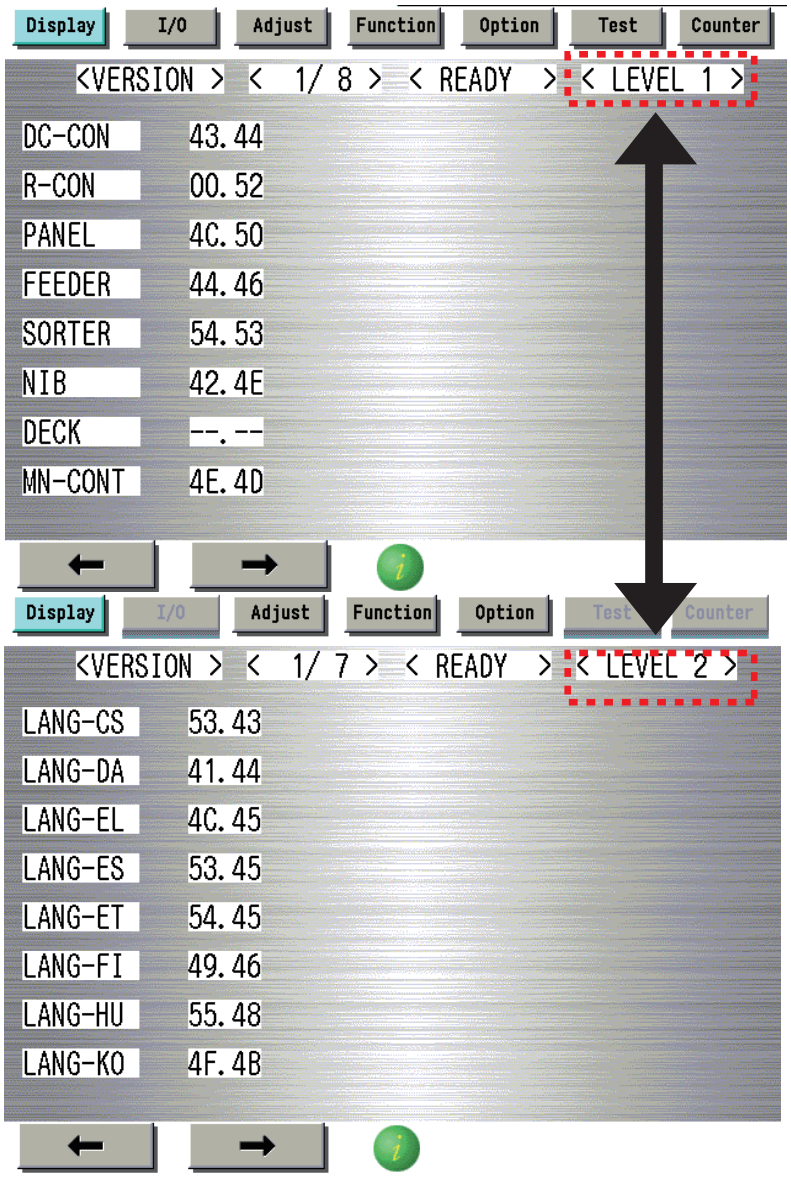
2) After entering the password for service technician (Service mode: COPIER > Option > FNC-SW > SM-PSWD), press OK button.



F-8-7

Switching Screen (Level 1 < - > 2)

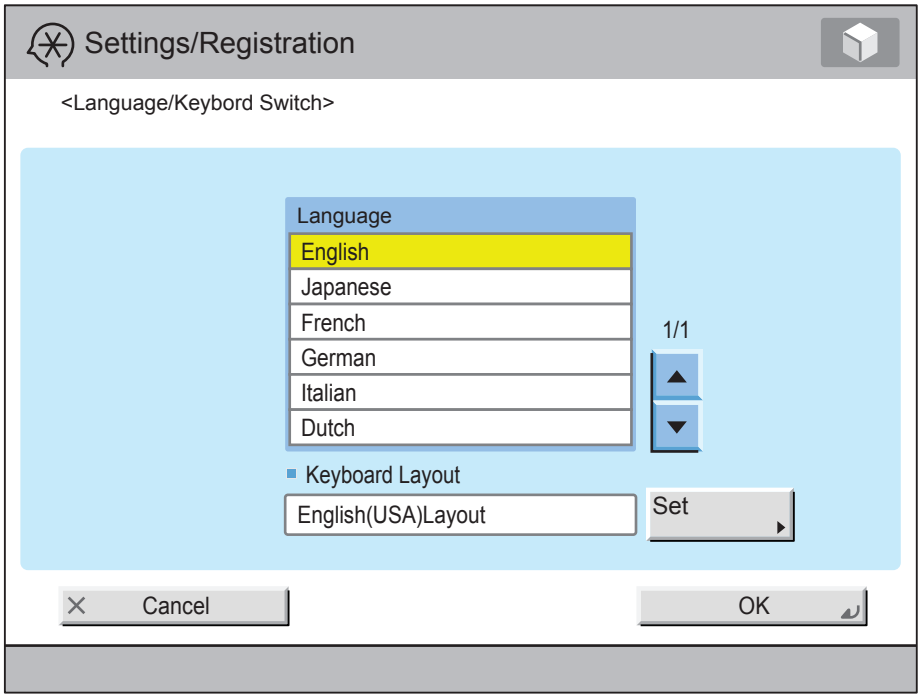
Switching screens between level 1 and 2 has been made easier.
When level 1 screen is displayed, press <LEVEL 1> in the right upper side of the screen, and it will switch to level 2.



F-8-8

Language switch

The language of the explanatory text displayed in the Service Mode can be switched by performing the below languange switch operation in User Mode
The explanatory text can be displayed by installing the Service Mode Content (SCMNT) in HDD.
Service Mode Content (SCMNT) can be installed and upgraded on SST.
Settings/Registration > Prefernces > Display Settings > Language/Keyboard Switch

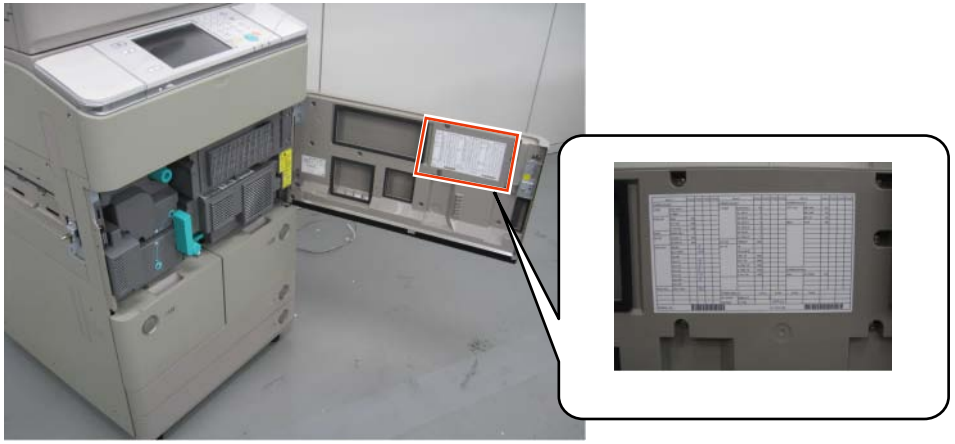


F-8-9

NOTE:
If the Service Mode Content (SMCNT) of the concerned language is not installed, English explanatory text will be displayed.
If English-language Service Mode Content (SMCNT) is not installed either, explanatory text can't be displayed.

Back-up of service mode

In factory setting, adjustments are made for each machine, and adjustment values are written in the service label.
When you replaced the DC controller PCB, or executed the RAM clear function, adjustment values for ADJUST or OPTION return to default. Therefore, when you made adjustments and changed values of the Service Mode in the field, be sure to write down the changed values in the service label. When there is no relevant field in the service label, write down the values in a blank field.



F-8-10

COPIER

DISPLAY

VERSION

COPIER > DISPLAY > VERSION		
DC-CON		Display of DCON firmware version
Lv.1	Details	To display the firmware version of DC Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
R-CON		Display of RCON firmware version
Lv.1	Details	To display the firmware version of Reader Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PANEL		Dspl of Control Panel CPU PCB ROM ver
Lv.1	Details	To display the ROM version of Control Panel CPU PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ECO		Display of ECO-ID PCB ROM version
Lv.1	Details	To display the ROM version of ECO-ID PCB.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
FEEDER		Display of DADF Driver PCB ROM version
Lv.1	Details	To display the firmware version of DADF Driver PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SORTER		Display of FIN-CONT firmware version
Lv.1	Details	To display the firmware version of Finisher Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NIB		Display of network software version
Lv.1	Details	To display the version of the network software.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PS/PCL		Display of PS/PCL function version
Lv.1	Details	Display of PS/PCL function version
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SDL-STCH		Dspl of Saddle Sttch Ctrollr PCB ROM ver
Lv.1	Details	To display the ROM version of the Saddle Stitcher Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
DECK		Display of POD Deck ROM version
Lv.1	Details	To display the ROM version of ROM version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MN-CONT		Display of MNCON firmware version
Lv.1	Details	To display the firmware version of Main Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
RIP1		Display of RIP1 software version
Lv.1	Details	To display the software version to be downloaded to RIP1 (PS/PCL Expansion Accelerator Board).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
DIAG-DVC		Dspl of self diagnosis device ROM ver
Lv.1	Details	To display the ROM version of self diagnosis device.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
RUI		Display of remote UI version
Lv.1	Details	To display the version of remote UI.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PUNCH		Display of Finisher Inner Punch Unit
Lv.1	Details	To display the version of Finisher Inner Punch Unit.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-EN		Display of English language file version
Lv.1	Details	To display the version of English language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
LANG-FR		Display of French language file version
Lv.1	Details	To display the version of French language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-DE		Display of German language file version
Lv.1	Details	To display the version of German language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-IT		Display of Italian language file version
Lv.1	Details	To display the version of Italian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-JP		Display of Japanese language file ver
Lv.1	Details	To display the version of Japanese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CS		Display of Czech language file version
Lv.2	Details	To display the version of Czech language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-DA		Display of Danish language file version
Lv.2	Details	To display the version of Danish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-EL		Display of Greek language file version
Lv.2	Details	To display the version of Greek language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ES		Display of Spanish language file version
Lv.1	Details	To display the version of Spanish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ET		Display of Estonian language file ver
Lv.2	Details	To display the version of Estonian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
LANG-FI		Display of Finnish language file version
Lv.2	Details	To display the version of Finnish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-HU		Display of Hungarian language file ver
Lv.2	Details	To display the version of Hungarian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-KO		Display of Korean language file version
Lv.2	Details	To display the version of Korean language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-NL		Display of Dutch language file version
Lv.2	Details	To display the version of Dutch language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-NO		Display of Norwegian language file ver
Lv.2	Details	To display the version of Norwegian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-PL		Display of Polish language file version
Lv.2	Details	To display the version of Polish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-PT		Display of Portuguese language file ver
Lv.2	Details	To display the version of Portuguese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-RU		Display of Russian language file version
Lv.2	Details	To display the version of Russian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SL		Display of Slovenian language file ver
Lv.2	Details	To display the version of Slovenian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
LANG-SV		Display of Swedish language file version
Lv.2	Details	To display the version of Swedish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TW		Dspl of Chinese language file ver: trad
Lv.2	Details	To display the version of Chinese language file (traditional).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ZH		Dspl of Chinese language file ver: smpl
Lv.2	Details	To display the version of Chinese language file (simplified).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-BU		Display of Bulgarian language file ver
Lv.2	Details	To display the version of Bulgarian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CR		Display of Croatian language file ver
Lv.2	Details	To display the version of Croatian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-RM		Display of Romanian language file ver
Lv.2	Details	To display the version of Romanian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SK		Display of Slovak language file version
Lv.2	Details	To display the version of Slovak language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TK		Display of Turkish language file version
Lv.2	Details	To display the version of Turkish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEAP		Display of MEAP contents version
Lv.1	Details	To display the version of MEAP contents in HDD.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
OCR-CN		Display of Chinese OCR: simplified
Lv.1	Details	To display the version of Chinese OCR (simplified). "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-JP		Display of Japanese OCR version
Lv.1	Details	To display the version of Japanese OCR. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-KR		Display of Korean OCR version
Lv.1	Details	To display the version of Korean OCR. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-TW		Display of Chinese OCR ver: traditional
Lv.1	Details	To display the version of Chinese OCR (traditional). "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-JA		Dspl of Japanese voice dictionary ver
Lv.1	Details	To display the version of Japanese voice dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-EN		Dspl of English voice dictionary version
Lv.1	Details	To display the version of English voice dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-IT		Dspl of Italian voice dictionary version
Lv.1	Details	To display the version of Italian voice dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
TTS-FR		Dspl of French voice dictionary version
Lv.1	Details	To display the version of French voice dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-ES		Dspl of Spanish voice dictionary version
Lv.1	Details	To display the version of Spanish voice dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-DE		Dspl of German voice dictionary version
Lv.1	Details	To display the version of German voice dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
WEB-BRWS		Display of Web browser version
Lv.1	Details	To display the version of Web browser. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
HELP		Display of easy NAVI version
Lv.1	Details	To display the version of "EASY NAVI" file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Caution	Version should be displayed for EASY NAVI function because it is an external file.
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	EASY NAVI function is equipped as standard instead of the conventional HELP function.
LANG-CA		Display of Catalan language file version
Lv.2	Details	To display the version of Catalan language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
WEBDAV		Display of WebDAV version
Lv.1	Details	To display the version of "WebDAV" file. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
TIMESTMP		Display of timestamp version
Lv.1	Details	To display the version of "Time Stamp" file. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ASR-JA		Dspl of Japanese ASR dictionary version
Lv.1	Details	To display the version of Japanese automatic speech recognition dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ASR: Automatic Speech Recognition (voice recognition)
ASR-EN		Dspl of English ASR dictionary version
Lv.1	Details	To display the version of English automatic speech recognition dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ASR: Automatic Speech Recognition (voice recognition)
MEDIA-JA		Dspl of Japanese media information ver
Lv.2	Details	To display the version of Japanese media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-EN		Dspl of English media information ver
Lv.2	Details	To display the version of English media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-DE		Dspl of German media information version
Lv.2	Details	To display the version of German media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-IT		Dspl of Italian media information ver
Lv.2	Details	To display the version of Italian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
MEDIA-FR		Dspl of French media information version
Lv.2	Details	To display the version of French media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ZH		Dspl of Chinese media info ver: smpl
Lv.2	Details	To display the version of Chinese media information (simplified).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-SK		Dspl of Slovak media information version
Lv.2	Details	To display the version of Slovak media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-TK		Dspl of Turkish media information ver
Lv.2	Details	To display the version of Turkish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CS		Dspl of Czech media information version
Lv.2	Details	To display the version of Czech media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-EL		Dspl of Greek media information version
Lv.2	Details	To display the version of Greek media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ES		Dspl of Spanish media information ver
Lv.2	Details	To display the version of Spanish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ET		Dspl of Estonian media information ver
Lv.2	Details	To display the version of Estonian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-FI		Dspl of Finnish media information ver
Lv.2	Details	To display the version of Finnish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
MEDIA-HU		Dspl of Hungarian media information ver
Lv.2	Details	To display the version of Hungarian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-KO		Dspl of Korean media information version
Lv.2	Details	To display the version of Korean media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-NL		Dspl of Dutch media information version
Lv.2	Details	To display the version of Dutch media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-NO		Dspl of Norwegian media information ver
Lv.2	Details	To display the version of Norwegian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-PL		Dspl of Polish media information version
Lv.2	Details	To display the version of Polish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-PT		Dspl of Portuguese media information ver
Lv.2	Details	To display the version of Portuguese media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-RU		Dspl of Russian media information ver
Lv.2	Details	To display the version of Russian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-SL		Dspl of Slovenian media information ver
Lv.2	Details	To display the version of Slovenian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-SV		Dspl of Swedish media information ver
Lv.2	Details	To display the version of Swedish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
MEDIA-TW		Dspl of Chinese media info version:trad
Lv.2	Details	To display the version of Chinese media information (traditional).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-BU		Dspl of Bulgarian media information ver
Lv.2	Details	To display the version of Bulgarian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CR		Dspl of Croatian media information ver
Lv.2	Details	To display the version of Croatian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-RM		Dspl of Romanian media information ver
Lv.2	Details	To display the version of Romanian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CA		Dspl of Catalan media information ver
Lv.2	Details	To display the version of Catalan media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
FAX1		Display of 1-line FAX PCB ROM version
Lv.1	Details	To display the ROM version of 1-line FAX PCB. Nothing is displayed if the PCB is not connected.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	ASCII character string (21 digits)
FAX2/3/4		Dspl of 2/3/4-line FAX PCB ROM version
Lv.1	Details	To display the ROM version of 2/3/4-line FAX PCB. "NULL" is displayed if the PCB is not connected.
	Use case	When upgrading the firmware
	Display/adj/set range	ASCII character string (21 digits)
IOCS		Display of BIOS version
Lv.1	Details	To display the BIOS version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SYSTEM		Dspl Linux kernel/tool/driver/file ver
Lv.1	Details	To display the version of Linux kernel/tool/driver/file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ROOT		Display of ROOT version
Lv.1	Details	To display the ROOT version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INS		Display of Inserter ROM version
Lv.1	Details	To display the ROM version of Inserter.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-JP		Dspl of service mode Japanese file ver
Lv.1	Details	To display the version of Japanese language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-EN		Dspl of service mode English file ver
Lv.1	Details	To display the version of English language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-FR		Dspl of service mode French file version
Lv.1	Details	To display the version of French language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-IT		Dspl of service mode Italian file ver
Lv.1	Details	To display the version of Italian language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-GR		Dspl of service mode German file version
Lv.1	Details	To display the version of German language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-SP		Dspl of service mode Spanish file ver
Lv.1	Details	To display the version of Spanish language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
UI-RES		Display of UI resource file version
Lv.1	Details	To display the UIRES version. UIRES consists of the resource file which is necessary to display the native screen (top screen and software keyboard screen) of UI.
	Use case	When checking the version at the time of downloading UIRES to MFP
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-AP		Display of COPY (JAVA UI) version
Lv.1	Details	To display the version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-AP		Display of SEND (JAVA UI) version
Lv.1	Details	To display the version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-AP		Display of BOX (JAVA UI) version
Lv.1	Details	To display the version of BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MOBPR-AP		[Not used]
RPTL-AP		Display of RUI portal version
Lv.1	Details	To display the RUI portal version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-AP		Dspl of useful feat introduce appli ver
Lv.1	Details	To display the version of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TSP-JLK		Dspl of PCAM Option Board version
Lv.1	Details	To display the version of the PCAM Option Board.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-FR		Dspl of COPY appli French file version
Lv.1	Details	To display the French language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-IT		Dspl of COPY appli Italian file version
Lv.1	Details	To display the Italian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-DE		Dspl of COPY appli German file version
Lv.1	Details	To display the German language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ES		Dspl of COPY appli Spanish file version
Lv.1	Details	To display the Spanish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ZH		Dspl COPY appli Chinese file ver: smpl
Lv.2	Details	To display the simplified Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TW		Dspl of COPY appli Chinese file ver:trad
Lv.2	Details	To display the traditional Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-KO		Dspl of COPY appli Korean file version
Lv.2	Details	To display the Korean language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CS		Dspl of COPY appli Czech file version
Lv.2	Details	To display the Czech language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-DA		Dspl of COPY appli Danish file version
Lv.2	Details	To display the Danish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-EL		Dspl of COPY appli Greek file version
Lv.2	Details	To display the Greek language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ET		Dspl of COPY appli Estonian file version
Lv.2	Details	To display the Estonian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-FI		Dspl of COPY appli Finnish file version
Lv.2	Details	To display the Finnish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-HU		Dspl of COPY appli Hungarian file ver
Lv.2	Details	To display the Hungarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-NL		Dspl of COPY appli Dutch file version
Lv.2	Details	To display the Dutch language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-NO		Dspl of COPY appli Norwegian file ver
Lv.2	Details	To display the Norwegian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-PL		Dspl of COPY appli Polish file version
Lv.2	Details	To display the Polish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-PT		Dspl of COPY appli Portuguese file ver
Lv.2	Details	To display the Portuguese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-RU		Dspl of COPY appli Russian file version
Lv.2	Details	To display the Russian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SL		Dspl of COPY appli Slovenian file ver
Lv.2	Details	To display the Slovenian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SV		Dspl of COPY appli Swedish file version
Lv.2	Details	To display the Swedish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ID		Dspl of COPY appli Indonesian file ver
Lv.2	Details	To display the Indonesian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-BU		Dspl of COPY appli Bulgarian file ver
Lv.2	Details	To display the Bulgarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
COPY-CR		Dspl of COPY appli Croatian file version
Lv.2	Details	To display the Croatian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-RM		Dspl of COPY appli Romanian file version
Lv.2	Details	To display the Romanian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SK		Dspl of COPY appli Slovak file version
Lv.2	Details	To display the Slovak language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TK		Dspl of COPY appli Turkish file version
Lv.2	Details	To display the Turkish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CA		Dspl of COPY appli Catalan file version
Lv.2	Details	To display the Catalan language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TH		Dspl of COPY appli Thai file version
Lv.2	Details	To display the Thai language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-VN		Dspl of COPY appli Vietnamese file ver
Lv.2	Details	To display the Vietnamese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SEND-FR		Dspl of SEND appli French file version
Lv.1	Details	To display the French language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-IT		Dspl of SEND appli Italian file version
Lv.1	Details	To display the Italian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-DE		Dspl of SEND appli German file version
Lv.1	Details	To display the German language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ES		Dspl of SEND appli Spanish file version
Lv.1	Details	To display the Spanish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ZH		Dspl SEND appli Chinese file ver: smpl
Lv.2	Details	To display the simplified Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TW		Dspl of SEND appli Chinese file ver:trad
Lv.2	Details	To display the traditional Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-KO		Dspl of SEND appli Korean file version
Lv.2	Details	To display the Korean language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SEND-CS		Dspl of SEND appli Czech file version
Lv.2	Details	To display the Czech language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-DA		Dspl of SEND appli Danish file version
Lv.2	Details	To display the Danish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-EL		Dspl of SEND appli Greek file version
Lv.2	Details	To display the Greek language file version of the SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ET		Dspl of SEND appli Estonian file version
Lv.2	Details	To display the Estonian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-FI		Dspl of SEND appli Finnish file version
Lv.2	Details	To display the Finnish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-HU		Dspl of SEND appli Hungarian file ver
Lv.2	Details	To display the Hungarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-NL		Dspl of SEND appli Dutch file version
Lv.2	Details	To display the Dutch language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SEND-NO		Dspl of SEND appli Norwegian file ver
Lv.2	Details	To display the Norwegian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-PL		Dspl of SEND appli Polish file version
Lv.2	Details	To display the Polish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-PT		Dspl of SEND appli Portuguese file ver
Lv.2	Details	To display the Portuguese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-RU		Dspl of SEND appli Russian file version
Lv.2	Details	To display the Russian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SL		Dspl of SEND appli Slovenian file ver
Lv.2	Details	To display the Slovenian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SV		Dspl of SEND appli Swedish file version
Lv.2	Details	To display the Swedish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ID		Dspl of SEND appli Indonesian file ver
Lv.2	Details	To display the Indonesian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SEND-BU		Dspl of SEND appli Bulgarian file ver
Lv.2	Details	To display the Bulgarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CR		Dspl of SEND appli Croatian file version
Lv.2	Details	To display the Croatian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-RM		Dspl of SEND appli Romanian file version
Lv.2	Details	To display the Romanian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SK		Dspl of SEND appli Slovak file version
Lv.2	Details	To display the Slovak language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TK		Dspl of SEND appli Turkish file version
Lv.2	Details	To display the Turkish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CA		Dspl of SEND appli Catalan file version
Lv.2	Details	To display the Catalan language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TH		Dspl of SEND appli Thai file version
Lv.2	Details	To display the Thai language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
SEND-VN		Dspl of SEND appli Vietnamese file ver
Lv.2	Details	To display the Vietnamese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-FR		Dspl of usful feat intro French file ver
Lv.1	Details	To display the version of French language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-IT		Dspl useful feat intro Italian file ver
Lv.1	Details	To display the version of Italian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-DE		Dspl of usful feat intro German file ver
Lv.1	Details	To display the version of German language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ES		Dspl useful feat intro Spanish file ver
Lv.1	Details	To display the version of Spanish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ZH		Useful feat intro Chinese file ver: smpl
Lv.2	Details	To display the version of simplified Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TW		Useful feat intro Chinese file ver: trad
Lv.2	Details	To display the version of traditional Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
INTRO-KO		Dspl of usful feat intro Korean file ver
Lv.2	Details	To display the version of Korean language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CS		Dspl of useful feat intro Czech file ver
Lv.2	Details	To display the version of Czech language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-DA		Dspl of usful feat intro Danish file ver
Lv.2	Details	To display the version of Danish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-EL		Dspl of useful feat intro Greek file ver
Lv.2	Details	To display the version of Greek language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ET		Dspl useful feat intro Estonian file ver
Lv.2	Details	To display the version of Estonian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-FI		Dspl useful feat intro Finnish file ver
Lv.2	Details	To display the version of Finnish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-HU		Dspl usful feat intro Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-NL		Dspl of useful feat intro Dutch file ver
Lv.2	Details	To display the version of Dutch language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-NO		Dspl usful feat intro Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-PL		Dspl of usful feat intro Polish file ver
Lv.2	Details	To display the version of Polish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-PT		Dspl usful feat intro Portuguese filever
Lv.2	Details	To display the version of Portuguese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-RU		Dspl useful feat intro Russian file ver
Lv.2	Details	To display the version of Russian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SL		Dspl usful feat intro Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SV		Dspl useful feat intro Swedish file ver
Lv.2	Details	To display the version of Swedish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-ID		Dspl of useful feat intro Indon file ver
Lv.2	Details	To display the version of Indonesian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-BU		Dspl usful feat intro Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CR		Dspl useful feat intro Croatian file ver
Lv.2	Details	To display the version of Croatian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-RM		Dspl useful feat intro Romanian file ver
Lv.2	Details	To display the version of Romanian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SK		Dspl of usful feat intro Slovak file ver
Lv.2	Details	To display the version of Slovak language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TK		Dspl useful feat intro Turkish file ver
Lv.2	Details	To display the version of Turkish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CA		Dspl useful feat intro Catalan file ver
Lv.2	Details	To display the version of Catalan language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-TH		Dspl useful feat intro Thai file version
Lv.2	Details	To display the version of Thai language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-VN		Useful feat intro Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-FR		Dspl of custom menu French file version
Lv.1	Details	To display the version of French language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-IT		Dspl of custom menu Italian file version
Lv.1	Details	To display the version of Italian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-DE		Dspl of custom menu German file version
Lv.1	Details	To display the version of German language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ES		Dspl of custom menu Spanish file version
Lv.1	Details	To display the version of Spanish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ZH		Dspl custom menu Chinese file ver: smpl
Lv.2	Details	To display the version of simplified Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-TW		Dspl custom menu Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-KO		Dspl of custom menu Korean file version
Lv.2	Details	To display the version of Korean language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CS		Dspl of custom menu Czech file version
Lv.2	Details	To display the version of Czech language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-DA		Dspl of custom menu Danish file version
Lv.2	Details	To display the version of Danish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-EL		Dspl of custom menu Greek file version
Lv.2	Details	To display the version of Greek language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ET		Dspl of custom menu Estonian file ver
Lv.2	Details	To display the version of Estonian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-FI		Dspl of custom menu Finnish file version
Lv.2	Details	To display the version of Finnish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-HU		Dspl of custom menu Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-NL		Dspl of custom menu Dutch file version
Lv.2	Details	To display the version of Dutch language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-NO		Dspl of custom menu Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-PL		Dspl of custom menu Polish file version
Lv.2	Details	To display the version of Polish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-PT		Dspl of custom menu Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-RU		Dspl of custom menu Russian file version
Lv.2	Details	To display the version of Russian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SL		Dspl of custom menu Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-SV		Dspl of custom menu Swedish file version
Lv.2	Details	To display the version of Swedish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ID		Dspl of custom menu Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-BU		Dspl of custom menu Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CR		Dspl of custom menu Croatian file ver
Lv.2	Details	To display the version of Croatian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-RM		Dspl of custom menu Romanian file ver
Lv.2	Details	To display the version of Romanian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SK		Dspl of custom menu Slovak file version
Lv.2	Details	To display the version of Slovak language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TK		Dspl of custom menu Turkish file version
Lv.2	Details	To display the version of Turkish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-CA		Dspl of custom menu Catalan file version
Lv.2	Details	To display the version of Catalan language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TH		Dspl of custom menu Thai file version
Lv.2	Details	To display the version of Thai language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-VN		Dspl of custom menu Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-FR		Dspl of accessibility French file ver
Lv.1	Details	To display the version of French language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-IT		Dspl of accessibility Italian file ver
Lv.1	Details	To display the version of Italian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-DE		Dspl of accessibility German file ver
Lv.1	Details	To display the version of German language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ES		Dspl of accessibility Spanish file ver
Lv.1	Details	To display the version of Spanish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-ZH		Dspl Accessibility Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TW		Dspl accessibility Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-KO		Dspl of accessibility Korean file ver
Lv.2	Details	To display the version of Korean language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CS		Dspl of accessibility Czech file version
Lv.2	Details	To display the version of Czech language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-DA		Dspl of accessibility Danish file ver
Lv.2	Details	To display the version of Danish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-EL		Dspl of accessibility Greek file version
Lv.2	Details	To display the version of Greek language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ET		Dspl of accessibility Estonian file ver
Lv.2	Details	To display the version of Estonian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-FI		Dspl of accessibility Finnish file ver
Lv.2	Details	To display the version of Finnish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-HU		Dspl of accessibility Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-NL		Dspl of accessibility Dutch file version
Lv.2	Details	To display the version of Dutch language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-NO		Dspl of accessibility Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-PL		Dspl of accessibility Polish file ver
Lv.2	Details	To display the version of Polish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-PT		Dspl accessibility Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-RU		Dspl of accessibility Russian file ver
Lv.2	Details	To display the version of Russian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-SL		Dspl of accessibility Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SV		Dspl of accessibility Swedish file ver
Lv.2	Details	To display the version of Swedish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ID		Dspl accessibility Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-BU		Dspl of accessibility Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CR		Dspl of accessibility Croatian file ver
Lv.2	Details	To display the version of Croatian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-RM		Dspl of accessibility Romanian file ver
Lv.2	Details	To display the version of Romanian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SK		Dspl accessibility Slovak file version
Lv.2	Details	To display the version of Slovak language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-TK		Dspl of accessibility Turkish file ver
Lv.2	Details	To display the version of Turkish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CA		Dspl of accessibility Catalan file ver
Lv.2	Details	To display the version of Catalan language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TH		Dspl of accessibility Thai file version
Lv.2	Details	To display the version of Thai language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-VN		Dspl accessibility Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-FR		Display of ERS French file version
Lv.1	Details	To display the version of French language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-IT		Display of ERS Italian file version
Lv.1	Details	To display the version of Italian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-DE		Display of ERS German file version
Lv.1	Details	To display the version of German language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ES		Display of ERS Spanish file version
Lv.1	Details	To display the version of Spanish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ERS-ZH		Display of ERS Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-TW		Display of ERS Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-KO		Display of ERS Korean file version
Lv.2	Details	To display the version of Korean language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-CS		Display of ERS Czech file version
Lv.2	Details	To display the version of Czech language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-DA		Display of ERS Danish file version
Lv.2	Details	To display the version of Danish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-EL		Display of ERS Greek file version
Lv.2	Details	To display the version of Greek language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ET		Display of ERS Estonian file version
Lv.2	Details	To display the version of Estonian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-FI		Display of ERS Finnish file version
Lv.2	Details	To display the version of Finnish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ERS-HU		Display of ERS Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-NL		Display of ERS Dutch file version
Lv.2	Details	To display the version of Dutch language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-NO		Display of ERS Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-PL		Display of ERS Polish file version
Lv.2	Details	To display the version of Polish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-PT		Display of ERS Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-RU		Display of ERS Russian file version
Lv.2	Details	To display the version of Russian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SL		Display of ERS Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SV		Display of ERS Swedish file version
Lv.2	Details	To display the version of Swedish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
ERS-ID		Display of ERS Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-BU		Display of ERS Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-CR		Display of ERS Croatian file version
Lv.2	Details	To display the version of Croatian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-RM		Display of ERS Romanian file version
Lv.2	Details	To display the version of Romanian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SK		Display of ERS Slovak file version
Lv.2	Details	To display the version of Slovak language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-TK		Display of ERS Turkish file version
Lv.2	Details	To display the version of Turkish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-CA		Display of ERS Catalan file version
Lv.2	Details	To display the version of Catalan language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-TH		Display of ERS Thai file version
Lv.2	Details	To display the version of Thai language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
ERS-VN		Display of ERS Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-FR		Display of UAC French file version
Lv.1	Details	To display the version of French language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-IT		Display of UAC Italian file version
Lv.1	Details	To display the version of Italian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-DE		Display of UAC German file version
Lv.1	Details	To display the version of German language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-ES		Display of UAC Spanish file version
Lv.1	Details	To display the version of Spanish language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-ZH		Display of UAC Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-TW		Display of UAC Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-KO		Display of UAC Korean file version
Lv.2	Details	To display the version of Korean language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-CS		Display of UAC Czech file version
Lv.2	Details	To display the version of Czech language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-DA		Display of UAC Danish file version
Lv.2	Details	To display the version of Danish language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
NLS-EL		Display of UAC Greek file version
Lv.2	Details	To display the version of Greek language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-ET		Display of UAC Estonian file version
Lv.2	Details	To display the version of Estonian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-FI		Display of UAC Finnish file version
Lv.2	Details	To display the version of Finnish language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-HU		Display of UAC Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-NL		Display of UAC Dutch file version
Lv.2	Details	To display the version of Dutch language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-NO		Display of UAC Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-PL		Display of UAC Polish file version
Lv.2	Details	To display the version of Polish language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-PT		Display of UAC Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-RU		Display of UAC Russian file version
Lv.2	Details	To display the version of Russian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-SL		Display of UAC Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
NLS-SV		Display of UAC Swedish file version
Lv.2	Details	To display the version of Swedish language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-ID		Display of UAC Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-BU		Display of UAC Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-CR		Display of UAC Croatian file version
Lv.2	Details	To display the version of Croatian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-RM		Display of UAC Romanian file version
Lv.2	Details	To display the version of Romanian language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-SK		Display of UAC Slovak file version
Lv.2	Details	To display the version of Slovak language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-TK		Display of UAC Turkish file version
Lv.2	Details	To display the version of Turkish language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
NLS-CA		Display of UAC Catalan file version
Lv.2	Details	To display the version of Catalan language file for UAC application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
LS-ROM-V		Dspl of Laser Scanner Unit EEPROM ver
Lv.2	Details	To display the EEPROM version of Laser Scanner Unit.
	Use case	At trouble analysis
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	001 to 999
LS-UNT-V		Dspl of Laser Scanner Unit version
Lv.2	Details	To display the version of Laser Scanner Unit.
	Use case	At trouble analysis
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	001 to 999

COPIER > DISPLAY > VERSION		
LS-SRL		Dspl of serial No. of Laser Scanner Unit
Lv.2	Details	To display the serial number of Laser Scanner Unit.
	Use case	At trouble analysis
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00000001 to 99999999
BCT		Display of self diagnosis tool version
Lv.1	Details	To display the version of self diagnosis tool.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ASR-ES		Dis of Spanish ASR dictionary version
Lv.1	Details	To display the version of Spanish automatic speech recognition dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ASR: Automatic Speech Recognition (voice recognition)
ASR-FR		Dis of French ASR dictionary version
Lv.1	Details	To display the version of French automatic speech recognition dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ASR: Automatic Speech Recognition (voice recognition)
ASR-IT		Dis of Italian ASR dictionary version
Lv.1	Details	To display the version of Italian automatic speech recognition dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ASR: Automatic Speech Recognition (voice recognition)
ASR-DE		Dis of German ASR dictionary version
Lv.1	Details	To display the version of German automatic speech recognition dictionary. "--.--" is displayed when no file is found.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ASR: Automatic Speech Recognition (voice recognition)
LANG-TH		Display of Thai language file version
Lv.2	Details	To display the version of Thai language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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LANG-VN		Display of Vietnamese language file ver
Lv.2	Details	To display the version of Vietnamese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-FR		Display of BOX appli French file version
Lv.1	Details	To display the version of French language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-IT		Dspl of BOX appli Italian file version
Lv.1	Details	To display the version of Italian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-DE		Display of BOX appli German file version
Lv.1	Details	To display the version of German language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ES		Dspl of BOX appli Spanish file version
Lv.1	Details	To display the version of Spanish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ZH		Dspl of BOX appli Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TW		Dspl of BOX appli Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
BOX-KO		Display of BOX appli Korean file version
Lv.2	Details	To display the version of Korean language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CS		Display of BOX appli Czech file version
Lv.2	Details	To display the version of Czech language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-DA		Display of BOX appli Danish file version
Lv.2	Details	To display the version of Danish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-EL		Display of BOX appli Greek file version
Lv.2	Details	To display the version of Greek language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ET		Dspl of BOX appli Estonian file version
Lv.2	Details	To display the version of Estonian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-FI		Dspl of BOX appli Finnish file version
Lv.2	Details	To display the version of Finnish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-HU		Dspl of BOX appli Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
BOX-NL		Display of BOX appli Dutch file version
Lv.2	Details	To display the version of Dutch language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-NO		Dspl of BOX appli Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-PL		Display of BOX appli Polish file version
Lv.2	Details	To display the version of Polish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-PT		Display of BOX appli Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-RU		Dspl of BOX appli Russian file version
Lv.2	Details	To display the version of Russian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SL		Dspl of BOX appli Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SV		Dspl of BOX appli Swedish file version
Lv.2	Details	To display the version of Swedish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
BOX-ID		Display of BOX appli Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-BU		Dspl of BOX appli Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CR		Dspl of BOX appli Croatian file version
Lv.2	Details	To display the version of Croatian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-RM		Dspl of BOX appli Romanian file version
Lv.2	Details	To display the version of Romanian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SK		Display of BOX appli Slovak file version
Lv.2	Details	To display the version of Slovak language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TK		Dspl of BOX appli Turkish file version
Lv.2	Details	To display the version of Turkish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CA		Dspl of BOX appli Catalan file version
Lv.2	Details	To display the version of Catalan language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER > DISPLAY > VERSION		
BOX-TH		Dspl of BOX appli Thai file version
Lv.2	Details	To display the version of Thai language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-VN		Dspl of BOX appli Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
WSDS-AP		Display of WSD-SCAN (JAVA UI) version
Lv.1	Details	To display the version of WSD-SCAN application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-TH		Display of UAC Thai file version
Lv.2	Details	To display the version of Thai language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-VN		Display of UAC Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

T-8-2

USER

COPIER > DISPLAY > USER		
SPDTYPE		Dspl of Ctrollr Board engine speed type
Lv.1	Details	To display the engine speed type (ppm) of Controller Board.
	Use case	When checking the engine speed type of Controller Board
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	55 to 75
BRWS-STS		Display of service browser ON/OFF
Lv.1	Details	To display whether the service browser can be used. If the value is 1, [Service Browser] button is displayed on the service mode initial screen. The value of BRWS-STS switches whenever COPIER> FUNCTION> INSTALL> BRWS-ACT is executed, but ON/OFF of service browser is enabled after reboot. If the service browser does not start even though the value of BRWS-STS is 1, turn OFF/ON the main power switch.
	Use case	When checking the operation mode of the service browser
	Caution	The value of BRWS-STS is linked with COPIER> FUNCTION> INSTALL> BRWS-ACT, but the service browser cannot start even though 1 is displayed unless the main power switch is turned OFF/ON.
	Display/adj/set range	1 to 2 1: ON (Available), 2: OFF (Not available)
	Related service mode	COPIER> FUNCTION> INSTALL> BRWS-ACT

T-8-3

ACC-STS

COPIER > DISPLAY > ACC-STS		
FEEDER		Display of DADF connection state
Lv.1	Details	To display the connecting state of DADF.
	Use case	When checking the connection between the machine and DADF
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
SORTER		Connect state of Finisher-related option
Lv.1	Details	To display the connecting state of Finisher-related options.
	Use case	When checking the connection of Finisher-related options
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	Left column (connecting state of Finisher-related options): 1 to 5 1: Without Saddle 2: With Saddle, without Folding Unit 3: With Saddle and Inserter, without Folding Unit 4: With Saddle and Folding Unit, without Inserter 5: With Saddle, Inserter and Folding Unit Right column (connecting state of Finisher-belonged Inserter): 0 to 4 0: no hole, 1: 2-hole, 2: 2/3-hole, 3: 4-hole, 4: 4-hole (SW)
DECK		Dspl of Paper Deck connection state
Lv.1	Details	To display the connecting state of the Paper Deck.
	Use case	When checking the connection between the machine and the Paper Decks
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 8 0: Not connected 1: Connected (small) (Display is hidden on this machine.) 2: Connected (large) 3: POD Deck Lite (with Multi-purpose Tray) 4: POD Deck Lite (without Multi-purpose Tray) 5: Multi-purpose Tray only 6: POD deck 7: 2-POD deck connected 8: 3-POD deck connected (Display is hidden on this machine.)
CARD		Dspl of connection state of Card Reader
Lv.1	Details	To display the connecting state of Card Reader.
	Use case	When checking the connection between the machine and the Card Reader
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: No card is inserted while the Card Reader is connected. (Copy is not available.) 1: Card Reader is not connected, or card is inserted while the Card Reader is connected. (Copy is available.)

COPIER > DISPLAY > ACC-STS		
DATA-CON		Dspl of NE Controller connection state
Lv.1	Details	To display the connecting state of NE Controller.
	Use case	When checking the connection between the machine and the NE Controller
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
RAM		Dspl of MNCON PCB 2 DDR2-SDRAM capacity
Lv.1	Details	To display the memory (DDR2-SDRAM) capacity of the Main Controller PCB 2.
	Use case	When checking the memory capacity of the machine
	Adj/set/operate method	N/A (Display only)
COINROBO		Dspl of Coin Manager connection state
Lv.1	Details	To display the connecting state of the Coin Manager.
	Use case	When checking the connection between the machine and the Coin Manager
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
NIB		Display of Network PCB connection state
Lv.1	Details	To display the connecting state of the Network PCB.
	Use case	When checking the connection between the machine and the Network PCB
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 3 0: Not connected, 1: Ethernet PCB connected, 2: Token Ring PCB connected, 3: Ethernet PCB + Token Ring PCB connected
PS/PCL		Install state dis of PS/PCL firmware
Lv.1	Details	To display the installation state of PS/PCL firmware.
	Use case	When checking whether NetWare firmware is installed to the machine
	Display/adj/set range	0 to 2 0: Not installed, 1: PS/PCL, 2: PS Kanji
RIP1		Display of RIP1 software version
Lv.1	Details	To display the software version to be downloaded to RIP1 (PS/PCL Expansion Accelerator Board).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Appropriate target value	0

COPIER > DISPLAY > ACC-STS		
NETWARE		Install state dspl of NetWare firmware
Lv.1	Details	To display the installation state of the NetWare firmware.
	Use case	When checking whether NetWare firmware is installed to the machine
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
SEND		Display of SEND support PCB existence
Lv.1	Details	To display whether there is PCB to support SEND function. SEND function can be used only when the PCB is mounted.
	Use case	When checking the connection between the machine and the PCB that supports SEND function
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not mounted, 1: Mounted
TRIM-CN		Display of Trimmer connection state
Lv.1	Details	To display the connecting state of Trimmer.
	Use case	When checking the connection between the machine and Trimmer
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
HDD		Display of HDD model name
Lv.1	Details	To display the model name of HDD.
	Use case	When checking the model name of HDD used on the machine
	Adj/set/operate method	N/A (Display only)
PCI1		Display of PCI1-connected PCB name
Lv.1	Details	To display the name of the PCB that is connected to PCI1.
	Use case	When checking the name of the PCB that is connected to PCI1
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-: No PCB connected Voice Board: Voice PCB 3DES Board: Encryption PCB 1Gbit-Board: Giga Ethernet PCB
PCI2		Display of PCI2-connected PCB name
Lv.1	Details	To display the name of the PCB that is connected to PCI2.
	Use case	When checking name of the PCB that is connected to PCI2
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-: No PCB connected iSLOT: iSLOT Wireless LAN PCB Voice Board: Voice PCB Voice Board R: Voice Recognition PCB (Display is hidden on this machine.) 3DES Board: Encryption PCB 1Gbit-Board: Giga Ethernet PCB

COPIER > DISPLAY > ACC-STS		
IA-RAM		Dspl of MNCON PCB 1 DDR2-SDRAM capacity
Lv.1	Details	To display the memory (DDR2-SDRAM) capacity of the Main Controller PCB 1.
	Use case	When checking the memory capacity of the Main Controller PCB
	Adj/set/operate method	N/A (Display only)

T-8-4

■ ANALOG

COPIER > DISPLAY > ANALOG		
TEMP		Display of inside temperature
Lv.1	Details	To display the temperature inside the machine detected by Environment Sensor.
	Use case	When checking the temperature inside the machine
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 60
	Appropriate target value	20 - 27
	Related service mode	COPIER> DISPLAY> ANALOG> HUM, ABS-HUM, PDK-TEMP
HUM		Display of inside humidity
Lv.1	Details	To display the humidity inside the machine detected by Environment Sensor.
	Use case	When checking the humidity inside the machine
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100
	Appropriate target value	30 - 70
	Related service mode	COPIER> DISPLAY> ANALOG> TEMP, ABS-HUM, PDK-HUM
ABS-HUM		Display of inside moisture content
Lv.1	Details	To display the absolute moisture content inside the machine detected by Environment Sensor.
	Use case	When checking the moisture content inside the machine
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100
	Appropriate target value	0 - 22
	Related service mode	COPIER> DISPLAY> ANALOG> TEMP, HUM
FIX-U		Dspl of Fixing Roller center temperature
Lv.1	Details	To display the center temperature of the Fixing Roller detected by the Fixing Main Thermistor.
	Use case	When checking the temperature at the center of Fixing Roller
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 999
FIX-UE		Dspl of Fixing Roller edge temperature
Lv.1	Details	To display the edge temperature of the Fixing Roller detected by the Fixing Sub Thermistor 1. Fixing Sub Thermistor 1 is located in the rear nip inlet side of Fixing Roller.
	Use case	When checking the edge temperature of the Fixing Roller
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 999
FIX-SHTR		Display of Fixing Shutter temperature
Lv.1	Details	To display the temperature of the Fixing Shutter detected by the Fixing Shutter Thermistor.
	Use case	When checking the temperature of Fixing Shutter
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 999

COPIER > DISPLAY > ANALOG		
PDK-TEMP		Dspl of POD Deck compartment temp
Lv.1	Details	To display the compartment temperature of POD Deck Lite. It may be out of order if the indicated temperature is greatly different from the machine right after power-on.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 60
	Related service mode	COPIER> DISPLAY> ANALOG> TEMP, PDK-HUM
PDK-HUM		Dspl of POD Deck compartment humidity
Lv.1	Details	To display the compartment humidity of POD Deck Lite. It may be out of order if the indicated temperature is greatly different from the machine right after power-on.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100
	Related service mode	COPIER> DISPLAY> ANALOG> HUM, PDK-TEMP

T-8-5

CST-STS

COPIER > DISPLAY > CST-STS		
WIDTH-C3		Display of Cassette 3 paper size
Lv.2	Details	To display the paper size of Cassette 3.
	Use case	When checking the paper size of Cassette 3
	Adj/set/operate method	N/A (Display only)
WIDTH-C4		Display of Cassette 4 paper size
Lv.2	Details	To display the paper size of Cassette 4.
	Use case	When checking the paper size of Cassette 4
	Adj/set/operate method	N/A (Display only)
WIDTH-MF		Display of MP Tray paper width size
Lv.2	Details	To display the paper width size set on the Multi-purpose Tray.
	Use case	When checking the paper width side set on the Multi-purpose Tray
	Adj/set/operate method	N/A (Display only)

T-8-6

HV-STS

COPIER > DISPLAY > HV-STS		
PRIMARY		Display of primary charging current
Lv.1	Details	To display the current that is applied to the Primacy Charging Assembly at the latest. The result set in COPIER> ADJUST> HV-PRI> PRIMARY is reflected.
	Use case	When checking ON/OFF of potential control
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1600
	Related service mode	COPIER> ADJUST> HV-PRI> PRIMARY
PRI-GRID		Dspl of Primary Charging Ass'y grid bias
Lv.1	Details	To display the grid bias voltage that is applied to the Primacy Charging Assembly at the latest. The result set in COPIER> ADJUST> HV-PRI> PRI-GRID is reflected.
	Use case	When checking ON/OFF of potential control
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	500 to 900
	Related service mode	COPIER> ADJUST> HV-PRI> PRI-GRID
PRE-TR		Dspl of pre-transfer charge DC current
Lv.1	Details	To display the DC component of current that is applied to the Pre-transfer Charging Assembly at the latest.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-650 to 0
TR		Dspl of trns current: Plain, 1st side
Lv.1	Details	To display the current that is applied to plain paper (1st side) in the Pre-transfer Charging Assembly at the latest.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
BIAS		Dspl of developing DC bias setting VL
Lv.1	Details	To display the setting value of developing DC bias.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
TR-V		Dspl of ATVC detection voltage value
Lv.1	Details	To display the ATVC detection voltage value.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
TR-LV-I		Dspl ppr lead edge trns bias outpt crrnt
Lv.1	Details	To display the current value in the paper leading edge position at transfer bias output.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100

COPIER > DISPLAY > HV-STS		
TR-LV-T		Dspl ppr lead edge trns bias output tmg
Lv.1	Details	To display the transfer bias output timing in the paper leading edge position.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-50 to 50

T-8-7

CCD

COPIER > DISPLAY > CCD		
TARGET-B		Shading target value (B)
Lv.2	Details	To display the shading target value of Blue. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 - 2047
TARGET-G		Shading target value (G)
Lv.2	Details	To display the target value of Green. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 - 2047
TARGET-R		Shading target value (R)
Lv.2	Details	To display the shading target value of Red. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 - 2047
GAIN-OB		Gain level of Img Sensor odd bit(B): frt
Lv.2	Details	To display the Blue gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
GAIN-OG		Gain level of Img Sensor odd bit(G): frt
Lv.2	Details	To display the Green gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48

COPIER > DISPLAY > CCD		
GAIN-OR		Gain level of Img Sensor odd bit(R): frt
Lv.2	Details	To display the Red gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
GAIN-EB		Gain level of Img Sensor even bit(B):frt
Lv.2	Details	To display the Blue gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
GAIN-EG		Gain level of Img Sensor even bit(G):frt
Lv.2	Details	To display the Green gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
GAIN-ER		Gain level of Img Sensor even bit(R):frt
Lv.2	Details	To display the Red gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper front). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
LAMP-BW		Scan Lamp intensity adj VL(B&W): front
Lv.2	Details	To display the LED light intensity adjustment value of Scanner Unit (paper front) in B&W scanning mode.
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 164
	Appropriate target value	20 - 163
	Supplement/memo	LED cannot be replaced individually. Replace the Scanner Unit.

COPIER > DISPLAY > CCD		
LAMP-CL		Scan Lamp intensity adj VL(color): frt
Lv.2	Details	To display the LED light intensity adjustment value of Scanner Unit (paper front) in color scanning mode.
	Use case	When image failure occurs at front side scanning in color mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 164
	Appropriate target value	33 - 163
	Supplement/memo	LED cannot be replaced individually. Replace the Scanner Unit.
LAMP2-BW		Scan Lamp intensity adj VL(B&W): back
Lv.2	Details	To display the LED light intensity adjustment value of Scanner Unit (paper back) in B&W scanning mode.
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 164
	Appropriate target value	33 - 163
	Supplement/memo	LED cannot be replaced individually. Replace the Scanner Unit.
LAMP2-CL		Scan Lamp intensity adj VL(color): back
Lv.2	Details	To display the LED light intensity adjustment value of Scanner Unit (paper back) in color scanning mode.
	Use case	When image failure occurs at back side scanning in color mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 164
	Appropriate target value	33 - 163
	Supplement/memo	LED cannot be replaced individually. Replace the Scanner Unit.
OFST-BW		Img Sensor offset value (B&W) [Front]
Lv.2	Details	To display the CMOS Sensor offset value at B&W scanning.
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 96
	Appropriate target value	1 - 95
OFST-CL		Img Sensor offset value (color) [Front]
Lv.2	Details	To display the CMOS Sensor offset value at color scanning.
	Use case	When image failure occurs at front side scanning in color mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 96
	Appropriate target value	1 - 95
OFST2-BW		Img Sensor offset value (B&W) [Back]
Lv.2	Details	To display the CMOS Sensor offset value at B&W scanning.
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 96
	Appropriate target value	1 - 95

COPIER > DISPLAY > CCD		
GAIN-BW1		Img Sensor gain level adj VL1(B&W): frt
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 1 of Scanner Unit (paper front).
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN-BW2		Img Sensor gain level adj VL2(B&W): frt
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 2 of Scanner Unit (paper front).
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN-BW3		Img Sensor gain level adj VL3(B&W): frt
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 3 of Scanner Unit (paper front).
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN-BW4		Img Sensor gain level adj VL4(B&W): frt
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 4 of Scanner Unit (paper front).
	Use case	When image failure occurs at front side scanning in B&W mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN2BW1		Img Sensor gain level adj VL1(B&W): Back
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 1 of Scanner Unit (paper back).
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN2BW2		Img Sensor gain level adj VL2(B&W): Back
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 2 of Scanner Unit (paper back).
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47

COPIER > DISPLAY > CCD		
GAIN2BW3		Img Sensor gain level adj VL3(B&W): Back
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 3 of Scanner Unit (paper back).
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN2BW4		Img Sensor gain level adj VL4(B&W): Back
Lv.2	Details	To display the CMOS Sensor B&W gain level adjustment value 4 of Scanner Unit (paper back).
	Use case	When image failure occurs at back side scanning in B&W mode.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN2-OR		Gain level of Img Sensor odd bit(R): bck
Lv.2	Details	To display the Red gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN2-OG		Gain level of Img Sensor odd bit(G): bck
Lv.2	Details	To display the Green gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN2-OB		Gain level of Img Sensor odd bit(B): bck
Lv.2	Details	To display the Blue gain level adjustment value in odd-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47

COPIER > DISPLAY > CCD		
GAIN2-ER		Gain level of Img Sensor even bit(R):bck
Lv.2	Details	To display the Red gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN2-EG		Gain level of Img Sensor even bit(G):bck
Lv.2	Details	To display the Green gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
GAIN2-EB		Gain level of Img Sensor even bit(B):bck
Lv.2	Details	To display the Blue gain level adjustment value in even-numbered bit on CMOS Sensor of Scanner Unit (paper back). Continuous display of upper limit is considered a failure of the Scanner Unit/Reader Controller PCB.
	Use case	• When replacing the Reader Controller PCB • At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 48
	Appropriate target value	1 - 47
OFST2-CL		Img Sensor offset value (color) [Back]
Lv.2	Details	To display the CMOS Sensor offset value at color scanning.
	Use case	When image failure occurs at back side scanning in color mode
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 96
	Appropriate target value	1 - 95

T-8-8

DPOT

COPIER > DISPLAY > DPOT		
DPOT-K		Display of Bk Drum surface potential
Lv.1	Details	To display the current surface potential Vd on the Bk Photosensitive Drum that is specified as a result of the potential control. The value after the calculation of potential offset is displayed. If the offset value is not adjusted, negative value may be detected during printing.
	Use case	When the density failure or foggy image occurs, check whether the surface potential of the Drum is the factor.
	Adj/set/operate method	N/A (Display only)
	Caution	• To update the display, be sure to move to a different screen, and then move back to display it again. (The potential at the moment of showing this screen is displayed.) • If the value is out of range (-30 to 30), there is a possibility of Potential Sensor disconnection.
	Display/adj/set range	-30 to 600
VL1T		Dspl of bright area target potential VL
Lv.1	Details	To display the bright area target potential value.
	Adj/set/operate method	N/A (Display only)
VL1M		Dspl bright area measured potential VL
Lv.1	Details	To display the bright area measured potential value.
	Adj/set/operate method	N/A (Display only)
VDT		Dspl of dark area target potential VL
Lv.1	Details	To display the dark area target potential value.
	Adj/set/operate method	N/A (Display only)
VDM		Dspl of dark area measured potential VL
Lv.1	Details	To display the dark area measured potential value.
	Adj/set/operate method	N/A (Display only)
BIAS-C		Dspl dev bias potential control result
Lv.2	Details	To display the developing bias potential control result.
	Adj/set/operate method	N/A (Display only)
LPOWER-C		Output laser intnsty potntl ctrl result
Lv.2	Details	To display the output laser intensity potential control result.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
PRIM-C		Dspl pry chg current potntl ctrl result
Lv.2	Details	To display the potential control result of primary charging current.
	Adj/set/operate method	N/A (Display only)
	Related service mode	COPIER> ADJUST> HV-PRI> PRI-GRID
VLT-L		Bright area target potential VL: thin
Lv.1	Details	To display the bright area target potential VL with thin paper.
	Use case	At occurrence of an image density failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	50 to 500

COPIER > DISPLAY > DPOT		
VLT-H1		Bright area target potential VL: heavy 1
Lv.1	Details	To display the bright area target potential VL with heavy paper 1.
	Use case	At occurrence of an image density failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	50 to 500
VLT-H2		Bright area target potential VL: heavy 2
Lv.1	Details	To display the bright area target potential VL with heavy paper 2.
	Use case	At occurrence of an image density failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	50 to 500

T-8-9

SENSOR

COPIER > DISPLAY > SENSOR		
DOC-SZ		Dspl size detect by Original Size Sensr
Lv.2	Details	To display the original size detected by Original Size Sensor.
	Use case	When checking whether the machine detects the paper on Copyboard Glass correctly
	Adj/set/operate method	1) Place the original on Copyboard Glass. 2) Close the Copyboard Cover/DADF. 3) Select the item.
	Caution	Unless the Copyboard Cover/DADF is closed, this is not displayed correctly.
	Display/adj/set range	A, B, L configuration size

T-8-10

MISC

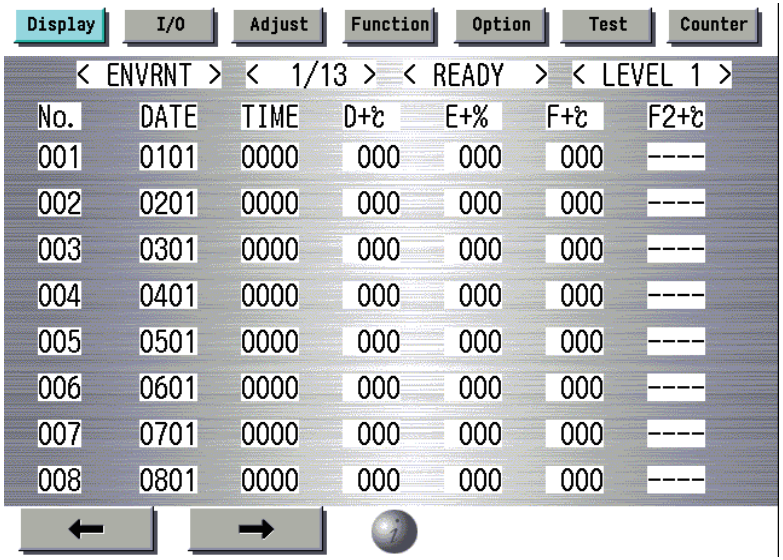
COPIER > DISPLAY > MISC		
LPOWER		Display of laser light intensity
Lv.2	Details	To display the laser power setting value during image formation in real time. Check that laser power is different between coated paper and plain paper.
	Use case	At occurrence of an image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255

T-8-11

ENVRNT

Environment Indication

The readings of the environment sensor and the fixing thermistor (main) are indicated as a history of changes in the following: machine inside temperature (deg C), humidity (%), fixing roller surface (middle; deg C).



F-8-11

Item	Description
No.	order of data acquisition (the higher the number, the order the data)
DATE	date of data acquisition
TIME	time of data acquisition
D+deg C	machine inside temperature
E+%	machine inside humidity
F+deg C	fixing roller surface (middle) temperature

T-8-12

NOTE:
The interval at which data is acquired may be changed using the following service mode item: COPIER > OPTION > BODY > ENVP-IN.

2D-SHADE

COPIER > DISPLAY > 2D-SHADE		
2D-STS		Display of 2D shading ON/OFF
Lv.1	Details	To display ON/OFF of 2D shading. When 0 is displayed although 1 is set with COPIER> OPTION> IMG-LSR> 2D-SHADE, check the Drum Lot number with DRM-LOT. If no number has been registered, execute COPIER> FUNCTION> 2D-SHADE> 2D-READ.
	Use case	When uneven image occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Related service mode	COPIER> DISPLAY> 2D-SHADE> DRM-LOT COPIER> FUNCTION> 2D-SHADE> 2D-READ COPIER> OPTION> IMG-LSR> 2D-SHADE
DRM-LOT		Display of Drum Lot number
Lv.2	Details	To display the Photosensitive Drum Lot number (10 digits) read at power-on. Lot number is stored in ROM for 2D shading. Check that the displayed value is matched with the Lot number in the seal affixed on the Photosensitive Drum.
	Use case	When uneven image occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	10-digit alphanumerics
	Related service mode	COPIER> DISPLAY> 2D-SHADE> 2D-STS
CHK-SUM		Display of checksum calculation result
Lv.1	Details	To display the checksum calculation result at power-on. Calculation result is stored in ROM for 2D shading. When the calculation result is NG, ROM for 2D shading has a failure, so replace this ROM.
	Use case	When uneven image occurs
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: at normal state, 1: at failure occurrence

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I/O (I/O display mode)

Address	bit	Name	Symbol	Remarks
P001	15	Not used	–	
	14	Not used	–	
	13	DC Power Supply PCB (24V) (Fixing/Feed) Remote Signal	–	0: ON
	12	DC Power Supply PCB (24V) Remote Signal	–	0: ON
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Fixing Feed Drawer Connector Connection Signal	–	0: Connect
	7	Main Driver PCB Connector Connection Signal	PCB2	0: Connect
	6	Relay PCB Connection Signal	PCB5	0: Connect
	5	Not used	–	
	4	DC Power Supply PCB (12V) Laser Output Signal	PCB29	0: Normal
	3	DC Power Supply PCB (24V) B Interlock System Output Signal	PCB31	0: Normal
	2	DC Power Supply PCB (24V) B Output Signal	PCB31	0: Normal
	1	DC Power Supply PCB (24V) A Interlock System Output Signal	PCB30	0: Normal
	0	DC Power Supply PCB (24V) A Output Signal	PCB30	0: Normal
P002	15	Not used	–	
	14	Not used	–	
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Power Supply Cooling Fan 1/2 Error	FM14/ FM15	1: Error
	7	For R&D use	–	
	6	For R&D use	–	
	5	For R&D use	–	
	4	For R&D use	–	
	3	For R&D use	–	
	2	For R&D use	–	
	1	For R&D use	–	
	0	For R&D use	–	

Address	bit	Name	Symbol	Remarks
P003	15	Primary Charging Shutter Sensor	PS94	1: HP front
	14	Not used	–	
	13	For R&D use	–	
	12	For R&D use	–	
	11	For R&D use	–	
	10	For R&D use	–	
	9	For R&D use	–	
	8	For R&D use	–	
	7	For R&D use	–	
	6	For R&D use	–	
	5	For R&D use	–	
	4	For R&D use	–	
	3	Not used	–	
	2	Fixing Sub Thermistor 2 Excessive Temperature Rise Detection	THM3	1: Excessive temperature rise * The value returns to 0 when temperature of the Fixing Assembly decreases.
	1	Fixing Sub Thermistor 1 Excessive Temperature Rise Detection	THM2	1: Excessive temperature rise * The value returns to 0 when temperature of the Fixing Assembly decreases.
	0	Fixing Main Thermistor Excessive Temperature Rise Detection	THM1	1: Excessive temperature rise * The value returns to 0 when temperature of the Fixing Assembly decreases.

Address	bit	Name	Symbol	Remarks
P004	15	Not used	–	
	14	Not used	–	
	13	Not used	–	
	12	Thermistor temperature difference error detection Fixing Sub Thermistor 2 > Fixing Sub Thermistor 1	THM2/ THM3	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	11	Thermistor temperature difference error detection Fixing Main Thermistor > Fixing Sub Thermistor 2	THM1/ THM3	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	10	Thermistor temperature difference error detection Fixing Sub Thermistor 2 > Fixing Main Thermistor	THM1/ THM3	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	9	Thermistor temperature difference error detection Fixing Main Thermistor > Fixing Sub Thermistor 1	THM1/ THM2	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	8	Thermistor temperature difference error detection Fixing Sub Thermistor 1 > Fixing Main Thermistor	THM1/ THM2	1: Error * The value returns to 0 when temperature of the Fixing Assembly decreases.
	7	Thermistor Connection	THM1/ THM3	0: Connect
	6	Front Door Open Detection Switch	SW2	0: Close, 1: Open
	5	Fixing Feed Lever	–	1: Fixing Feed Unit presence
	4	Fixing Power Supply PCB 12V OFF	PCB10	1: 12V to Fixing Power Supply PCB is OFF or safety circuit operation
	3	Outer Delivery Sensor	PS36	1: Paper presence
	2	Not used	–	
	1	Fixing Motor Error	M3	1: Stop
	0	Fixing Power Supply Cooling Fan Error	FM7	1: Stop

Address	bit	Name	Symbol	Remarks
P005	15	Roller Bias OFF	–	0: OFF, 1: ON
	14	Pre-transfer Charging PCB Remote	PCB26	0: ON
	13	Develop High Voltage PCB Remote	PCB12	0: ON
	12	Primary Charging High Voltage PCB Remote	PCB11	0: ON
	11	Fixing Motor ON	M3	1: ON
	10	Fixing Motor CCW	M3	0: CW (paper feed direction)
	9	Not used	–	
	8	Not used	–	
	7	Fixing Power Supply PCB 12V ON	PCB10	0: 12V forcible OFF
	6	Fixing Power Supply PCB Relay 2 ON	–	1: ON
	5	Fixing Power Supply PCB Relay 1 ON	–	1: ON
	4	Not used	–	
	3	Developer Lower Cooling Fan/ Developer Upper Cooling Fan Half Speed	FM30/ FM31	1: Half Speed
	2	Developer Lower Cooling Fan/ Developer Upper Cooling Fan Full Speed	FM30/ FM31	1: Full Speed
	1	Not used	–	
	0	Not used	–	

Address	bit	Name	Symbol	Remarks
P006	15	For R&D use	–	
	14	Not used	–	
	13	Not used	–	
	12	Multi Cassette Heater ON	H02	0: ON
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	For R&D use	–	
	2	For R&D use	–	
	1	Pre-transfer Charging Wire Cleaning Motor ON 2	M7	ON1/ON2 Signal= 0/0: Stop 0/1: Front -> Rear 1/0: Rear -> Front
	0	Pre-transfer Charging Wire Cleaning Motor ON 1	M7	ON1/ON2 Signal= 0/0: Stop 0/1: Front -> Rear 1/0: Rear -> Front

Address	bit	Name	Symbol	Remarks
P007	15	Shift Tray Rear Tray Full Sensor / Shift Tray Front Tray Full Sensor	PS104 (rear) / PS105 (front)	0: Full
	14	Shift Tray Paper Sensor	PS103	0: Paper presence
	13	Shift Tray Rear Home Position Sensor	PS102	1: HP
	12	Shift Tray Front Home Position Sensor	PS101	1: HP
	11	Process Unit Connection	–	0: Connect
	10	Shift Tray Connection	–	0: Connect
	9	Fixing Cleaning Web Drive Solenoid Connection	SL9	0: Connect, 1: Not connect or Driving
	8	Patch Sensor Shutter Solenoid Connection	SL10	0: Connect, 1: Not connect or Driving
	7	Fixing Cleaning Web Level Sensor	PS45	1: Web level is low or Connector disconnection
	6	Fixing Toenail Jam Sensor	PS4	0: JAM
	5	Fixing Outlet Sensor	PS52	1: Paper presence
	4	Fixing Inlet Sensor	PS51	1: Paper presence or Connector disconnection
	3	Not used	–	
	2	Fixing Shutter Home Position Sensor	PS53	0: HP or middle size 1, or small size 1
	1	Not used	–	
	0	Pre-transfer Charging Shutter Sensor	PS95	1: HP front

Address	bit	Name	Symbol	Remarks
P008	15	Fixing Power Supply Detection	–	1: iRA6075 Series
	14	Not used	–	
	13	Not used	–	
	12	Fixing Power Supply PCB 12V Detection	PCB10	0: Fixing Power Supply PCB 12V-ON
	11	Fixing Power Supply PCB Power Supply ID1	PCB10	Detect 100V or 200V by combination of power supply ID0/ID1. – 100V: ID0=0, ID1=1 – 200V: ID0=1, ID1=0
	10	Fixing Power Supply PCB Power Supply ID0	PCB10	
	9	Primary Charging High Voltage PCB 24V Detection	PCB11	0: 24V-ON, 1: Error
	8	Primary Charging High Voltage PCB Connection	PCB11	0: Connect
	7	Develop High Voltage PCB 24V Detection	PCB12	0: 24V-ON, 1: Error
	6	Develop High Voltage PCB Connection	PCB12	0: Connect
	5	Pre-transfer Charging PCB 24V Detection	PCB26	0: 24V-ON, 1: Error
	4	Pre-transfer Charging PCB Connection	PCB26	0: Connect
	3	Drum Home Position Sensor	PS61	1: HP
	2	Fixing Drawer Connection	–	0: Connect
	1	Reserve Fan Error	–	1: Error
	0	AC Driver PCB Location Detection	PCB6 or PCB7	0: 100V, 1: 200V

Address	bit	Name	Symbol	Remarks
P009	15	5V sensor ON Signal (Fixing Assembly)	–	1: ON
	14	Not used	–	
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Transfer High Voltage PCB AC ON	PCB13	0: ON
	9	Transfer High Voltage PCB DC ON	PCB13	0: ON
	8	Not used	–	
	7	Pre-exposure LED_ON	–	1: ON
	6	Shift Motor CW	M101	0: CW
	5	Shift Motor CCW	M101	0: CCW
	4	Not used	–	
	3	Shift Tray Rear Tray Full Sensor / Shift Tray Front Tray Full Sensor ON	PS104 (rear) / PS105 (front)	0: ON
	2	Develop High Voltage PCB AC ON	PCB12	0: ON
	1	Develop High Voltage PCB DC ON	PCB12	0: ON
	0	Primary Charging High Voltage PCB ON	PCB11	0: ON
P010	15	Not used	–	
	14	Patch Sensor_ON	PS90	1: ON
	13	Primary Charging Wire Cleaning Motor ON 2	M6	ON1/ON2 Signal= 0/0: Stop 0/1: Front -> Rear 1/0: Rear -> Front
	12	Primary Charging Wire Cleaning Motor ON 1	M6	ON1/ON2 Signal= 0/0: Stop 0/1: Front -> Rear 1/0: Rear -> Front
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	

Address	bit	Name	Symbol	Remarks
P011	15	Developing Motor Error	M2	1: Stop
	14	Drum Motor Error	M1	1: Stop
	13	Waste Toner Lock Detection Switch	SW5	1: Lock (toner clogging) or Connector disconnection
	12	Toner Exchange Cover Sensor	PS54	0: Cover Open or Connector disconnection
	11	Not used	–	
	10	Toner Supply Motor Error	M10	1: Overcurrent Error (logical change)
	9	Not used	–	
	8	Toner Feed Motor Error	M28	1: Overcurrent Error (logical change)
	7	Buffer Toner Sensor	TS3	1: Toner presence
	6	Buffer Toner Sensor Connection	TS3	0: Connect
	5	Toner Excess Supply Sensor	TS2	1: Toner presence
	4	Toner Excess Supply Sensor Connection	TS2	0: Connect
	3	Developing Toner Sensor	TS1	1: Toner presence
	2	Developing Toner Sensor Connection	TS1	0: Connect
	1	Magnet Roller Clutch Connection	CL5	0: Connect, 1: Not connect or Driving
	0	Developing Clutch Connection	CL1	0: Connect, 1: Not connect or Driving

Address	bit	Name	Symbol	Remarks
P012	15	Primary Charging Exhaust Fan Error	FM17	1: Stop
	14	Laser Scanner Cooling Fan Error	FM16	1: Stop
	13	Primary Charging Air Supply Fan Error	FM2	1: Stop
	12	Not used	–	
	11	Multi-purpose Tray Paper Last Paper Sensor	PS28	1: Paper presence
	10	Multi-purpose Pickup Solenoid Connection	SL2	0: Connect, 1: Not connect or Driving
	9	Multi-purpose Tray Paper Sensor	PS23	1: Paper presence
	8	Vertical Path Sensor 1	PS24	1: Paper presence
	7	For R&D use	–	
	6	Front Door Open Detection Switch	SW2	1: Open
	5	Multi-purpose Cover Open/Close Sensor	PS3	0: Open
	4	For R&D use	–	
	3	For R&D use	–	
	2	Pre-transfer Charging Assembly Air Supply Fan/Pre-transfer Charging Exhaust Fan Error	FM32/ FM33	1: Error
	1	Developer Upper Cooling Fan Error	FM31	1: Error
	0	Developer Lower Cooling Fan Error	FM30	1: Error
P013	15	Not used	–	
	14	Not used	–	
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	For R&D use	–	
	1	For R&D use	–	
	0	For R&D use	–	

Address	bit	Name	Symbol	Remarks
P014	15	Not used	–	
	14	Pre-transfer Charging Assembly Air Supply Fan/Pre-transfer Charging Exhaust Fan Full Speed ON	FM32/ FM33	1: Full Speed
	13	Not used	–	
	12	Not used	–	
	11	Drum Motor_ON	M1	1: ON
	10	Drum Motor_CCW	M1	0: CW
	9	Not used	–	
	8	Not used	–	
	7	Pre-transfer Charging Assembly Air Supply Fan/Pre-transfer Charging Exhaust Fan Half Speed ON	FM32/ FM33	1: Half Speed
	6	Voltage Sensor PCB ON	PCB15	1: ON
	5	Not used	–	
	4	Not used	–	
	3	Developing Motor_ON	M2	1: ON
	2	Developing Motor_CCW	M2	0: CW
	1	Not used	–	
	0	Not used	–	

Address	bit	Name	Symbol	Remarks
P015	15	Right Deck Pickup Sensor 1/2	PS19	1: Paper presence
	14	Right Deck Pickup Solenoid Connection	SL6	0: Connect, 1: Not connect or Driving
	13	Right Deck Paper Height Sensor	PS6	0: Lifter Up
	12	Vertical Path Sensor 2	PS25	1: Paper presence
	11	Vertical Path Sensor 3	PS26	1: Paper presence
	10	Right Deck Upper Limit Sensor	PS8	1: Upper limit
	9	Vertical Path Cover Open/Close Sensor	PS2	0: Open
	8	Right Deck Pull Out Sensor	PS32	1: Paper presence
	7	For R&D use	–	
	6	For R&D use	–	
	5	For R&D use	–	
	4	For R&D use	–	
	3	Right Deck Paper Level Sensor 2	PS48	Detect paper level by combination of the Paper Level Sensor 1/2 0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.
	2	Right Deck Paper Level Sensor 1	PS47	
	1	Right Deck Lifter Motor	M4	1: Error
	0	Right Deck Paper Sensor	PS7	0: Paper absence, 1: Paper presence

Address	bit	Name	Symbol	Remarks
P016	15	Cassette3 Lifter Motor Error	M20	1: Error
	14	Cassette 3 Paper Level Sensor 2	PS70	Detect paper level by combination of the Paper Level Sensor 1/2 0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.
	13	Cassette 3 Paper Level Sensor 1	PS69	
	12	Cassette 3 Paper Height Sensor	PS17	0: Lifter Up
	11	Cassette 3 Pickup Sensor 1	PS21	1: Paper presence
	10	Cassette 3 Upper Limit Sensor	PS68	1: Upper limit
	9	Cassette 3 Paper Sensor	PS13	0: Paper absence, 1: Paper presence
	8	Cassette 3 Pickup Solenoid Connection	SL3	0: Connect, 1: Not connect or Driving
	7	Cassette 3 Paper Length Detection Switch	SW9	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	6	Cassette 3 Paper Length Detection Switch	SW9	
	5	Cassette 3 Paper Length Detection Switch	SW9	
	4	Cassette 3 Paper Length Detection Switch	SW9	
	3	Cassette 3 Paper Width Detection Switch	SW7	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	2	Cassette 3 Paper Width Detection Switch	SW7	
	1	Cassette 3 Paper Width Detection Switch	SW7	
	0	Cassette 3 Paper Width Detection Switch	SW7	

Address	bit	Name	Symbol	Remarks
P017	15	Not used	–	
	14	Not used	–	
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	
P018	15	Not used	–	
	14	Not used	–	
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	

Address	bit	Name	Symbol	Remarks
P019	15	Not used	–	
	14	Not used	–	
	13	Vertical Path Sensor 4	PS27	1: Paper presence
	12	Not used	–	
	11	Feed Driver Cooling Fan Error	FM40	1: Error
	10	Making Image Exhaust Fan Error	FM3	1: Stop
	9	Cassette 4 Pickup Solenoid Connection	SL4	0: Connect, 1: Not connect or Driving
	8	Cassette 4 Paper Level Sensor 2	PS73	Detect paper level by combination of the Paper Level Sensor 1/2 0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.
	7	Cassette 4 Paper Level Sensor 1	PS72	
	6	Cassette 4 Paper Height Sensor	PS18	0: Lifter Up
	5	Cassette 4 Lifter Motor Error	M21	1: Error
	4	Cassette 4 Pickup Sensor 1	PS22	1: Paper presence
	3	Cassette 4 Upper Limit Sensor	PS71	1: Upper limit
	2	Cassette 4 Paper Sensor	PS14	1: Paper presence
	1	Left Deck Pickup Solenoid Connection	SL7	0: Connect, 1: Not connect or Driving
	0	Left Deck Paper Level Sensor 2	PS50	Detect paper level by combination of the Paper Level Sensor 1/2 0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.

Address	bit	Name	Symbol	Remarks
P020	15	Left Deck Paper Level Sensor 1	PS49	Detect paper level by combination of the Paper Level Sensor 1/2 0: OFF 1: ON (Condition that the flag blocks the sensor) As for the combination, refer to the Pickup/Feed System in Service Manual.
	14	Left Deck Lifter Motor Error	M5	1: Error
	13	Left Deck Upper Limit Sensor	PS12	1: Upper limit
	12	Left Deck Pickup Sensor 1	PS20	1: Paper presence
	11	Left Deck Pull Out Sensor	PS33	1: Paper presence
	10	Left Deck Paper Height Sensor	PS10	0: Lifter Up
	9	Left Deck Paper Sensor	PS11	1: Paper presence
	8	Not used	–	
	7	Cassette 4 Paper Length Detection Switch	SW10	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	6	Cassette 4 Paper Length Detection Switch	SW10	
	5	Cassette 4 Paper Length Detection Switch	SW10	
	4	Cassette 4 Paper Length Detection Switch	SW10	
	3	Cassette 4 Paper Width Detection Switch	SW8	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	2	Cassette 4 Paper Width Detection Switch	SW8	
	1	Cassette 4 Paper Width Detection Switch	SW8	
	0	Cassette 4 Paper Width Detection Switch	SW8	

Address	bit	Name	Symbol	Remarks
P021	15	Not used	–	
	14	Not used	–	
	13	Not used	–	
	12	Not used	–	
	11	Feed Driver Cooling Fan Half Speed	FM40	1: ON
	10	Feed Driver Cooling Fan Full Speed	FM40	1: ON
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Making Image Exhaust Fan Half Speed	FM3	1: ON
P022	15	Making Image Exhaust Fan Full Speed	FM3	1: ON (priority)
	14	For factory use	–	
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	

Address	bit	Name	Symbol	Remarks
P023	15	For R&D use	–	
	14	For R&D use	–	
	13	For R&D use	–	
	12	For R&D use	–	
	11	Registration Sensor	PS29	1: Paper presence
	10	Duplex Outlet Sensor	PS64	1: Paper presence
	9	Not used	–	
	8	Left Deck Merging Solenoid Connection	SL11	0: Connect, 1: Not connect or Driving
	7	Not used	–	
	6	Reverse Upper Flapper Solenoid Connection	SL5	0: Connect, 1: Not connect or Driving
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	
P024	15	ETB Disengage Sensor	PS56	1: HP
	14	ETB Engage Sensor	PS55	1: Engage
	13	Side Registration Sensor	PS31	0: Detect
	12	Transfer Cleaner Cooling Fan Error	FM8	1: Stop
	11	Duplex Left Sensor	PS66	1: Paper presence
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Duplex Driver Cooling Fan Error	FM41	1: Stop
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	

Address	bit	Name	Symbol	Remarks
P025	15	Not used	–	
	14	Not used	–	
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	For factory use	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	
P026	15	Not used	–	
	14	Not used	–	
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	

Address	bit	Name	Symbol	Remarks
P027	15	Transfer High Voltage PCB Connection	PCB13	0: Connect
	14	Not used	–	
	13	Transfer High Voltage PCB 24V Check	PCB13	1: Error
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Duplex Merging Sensor	PS67	1: Paper presence
	6	Registration Motor/Duplex Motor Cooling Fan	FM42	1: Stop
	5	Reverse Vertical Path Sensor	PS65	1: Paper presence
	4	Not used	–	
	3	Paper Cooling Fan Error	FM5	1: Stop
	2	Not used	–	
	1	For R&D use	–	
	0	For R&D use	–	
P028	15	For R&D use	–	
	14	For R&D use	–	
	13	For R&D use	–	
	12	For R&D use	–	
	11	For R&D use	–	
	10	For R&D use	–	
	9	For R&D use	–	
	8	For R&D use	–	
	7	Reverse Detachment Solenoid Connection	SL12	0: Connect, 1: Not connect or Driving
	6	Inner Delivery Sensor	PS35	1: Paper presence
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	

Address	bit	Name	Symbol	Remarks
P029	15	Transfer High Voltage Positive Bias Constant Current mode	PCB13	0: ON
	14	Transfer High Voltage Negative Bias Constant Current	PCB13	0: ON
	13	Transfer High Voltage Positive Bias Constant Voltage mode	PCB13	0: ON
	12	Transfer High Voltage PCB Remote	PCB13	0: Active
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Not used	–	
	3	Not used	–	
	2	Paper Cooling Fan Half Speed	FM5	1: Half Speed
	1	Paper Cooling Fan Full Speed	FM5	1: Full Speed
	0	Operation Check LED Port	–	1: ON
P030	15	Registration Motor/Duplex Motor Cooling Fan Half Speed	FM42	1: Half Speed
	14	Registration Motor/Duplex Motor Cooling Fan Full Speed	FM42	1: Full Speed
	13	Not used	–	
	12	Not used	–	
	11	Not used	–	
	10	Not used	–	
	9	Not used	–	
	8	Not used	–	
	7	Not used	–	
	6	Not used	–	
	5	Not used	–	
	4	Transfer Cleaner Cooling Fan Half Speed	FM8	1: Half Speed
	3	Transfer Cleaner Cooling Fan Full Speed	FM8	1: Full Speed (priority)
	2	Not used	–	
	1	Not used	–	
	0	Not used	–	

T-8-14

■ Host Machine_Main Controller (DC-CON>P001 to P005))

Address	bit	Name	Symbol	Remarks
P001	0 – 7	For R&D use	–	
	8	Data Analyzer Board power state	–	0: Abnormal, 1: Normal
	9 – 11	For R&D use	–	
	12	Main Controller PCB 2 Version bit0	PCB51	
	13	Main Controller PCB 2 Version bit1	PCB51	
	14	Main Controller PCB 2 Version bit2	PCB51	
	15	Main Controller PCB 2 Version bit3	PCB51	
P002	0 – 15	Not used	–	
P003	0 – 15	Not used	–	
P004	0 – 10	Not used	–	
	11	Power Supply Cooling Fan 1/2	FM14/FM15	0: Normal, 1: Abnormal
	12 – 14	For R&D use	–	
	15	Reader Controller PCB power state	–	0: ON, 1: OFF
P005	0	SCPRDY (Controller reception is available)	–	
	1 – 3	For R&D use	–	
	4	SPRDY (Reader power ON)	–	
	5 – 10	For R&D use	–	
	11	/PPRDY (Printer power ON)	–	
	12	/PCPRDY (Controller reception is available)	–	
	13 – 15	For R&D use	–	
P006	0 – 4	For R&D use	–	
	5	Channel Link PCB Connection	PCB52	0: Connect, 1: Not connect
	6	DC Controller PCB Connection	PCB1	0: Connect, 1: Not connect
	7 – 15	For R&D use	–	

T-8-15

■ Reader (R-CON>P001 to P005)

Address	bit	Name	Symbol	Remarks
P001	0	Scanner Unit HP Sensor Interruption	SR2	1: HP
	1	DDI-SPO1	–	Not used
	2	Fan Lock Signal (Reserve)	–	–
	3	DDI-SRTS	–	0: Reception is available
	4	DDI-SCPRDY	–	0: Controller ready
	5	Silent Mode	–	1: Normal start-up, 0: Silent start-up
	6	Board Test	–	1: Normal start-up, 0: PCB check
	7	12V Power Supply Monitor	–	0: Power supply
P002	0	24V Power Supply Monitor	–	0: Power supply
	1	Reader-DADF Connect	–	1: Connect, 0: Unconnected AP
	2	Location Information 0	–	Not used
	3	Location Information 1	–	Not used
	4	Debug LED	–	Not used
	5	Memory Identification	–	1: Model with memory, 0: Model without memory
	6	Model Identification	–	1: X-system or Copyboard, 0: S-system
	7	Original Size Sensor 1	CF1	0: Original presence
P003	0	Original Size Sensor 2	CF2	0: Original presence
	1	DADF Sensor 1	SR1	1: Close, 0: Open
	2	DADF Sensor 2	SR3	1: Close, 0: Open
	3	Scanner Unit Heat Exhaust Fan Lock Signal	FM1	1: Failure
	4	Scanner Unit Cooling Fan Lock Signal	FM2	1: Failure
	5	LED Select 1	–	DIPSW2, 3 (1,1): Rank A, (1,0): Rank B, (0,1): Rank C
	6	LED Select 2	–	
	7	–	–	–
P004	0	B_DDI_SPI1	–	Fix to 1
	1	B_DDI_SCTS	–	0: Transmission is available
	2	B_DDI_SPRDY	–	0: Engine ready
	3	Debug Inspection Activation LED	–	1: ON
	4	DF/Reader Selector	–	1: DADF, 0: Reader
	5	Size Detection LED	–	1: ON
	6	Watchdog Output	–	0: (Toggle operation)
	7	Scanner Motor Current Setting 1	M1	(0,0): 100%, (0,1): 75%, (1,0): 50%, (1,1): 25%
P005	0	Scanner Motor Current Setting 2	M1	
	1	Scanner Motor Reset	M1	0: Reset (100nsec)
	2	Scanner Motor Enable	M1	1: Enable
	3	Scanner Unit Cooling Fan ON	FM2	1: ON
	4	Scanner Motor Direction	M1	1: Back scan, 0: Scan
	5	–	–	–
	6	–	–	–
	7	–	–	–

T-8-16

■ ADF (FEEDER>P001 to P007)

Address	bit	Name	Symbol	Remarks
P001	0	24V Power Supply Monitor	–	0: Power supply
	1	Reverse Sensor	SR23	1: Paper presence
	2	DADF Fan Alarm	–	0: Failure
	3	LTR-R/LGL Identification Sensor	SR8	1: Paper presence
	4	AB/Inch Identification Sensor	SR7	1: A4R, STMTR, B6R
	5	Tray Sensor	SR9	0: Open
	6	Tray HP Sensor	SR13	1: HP (lower limit)
	7	Paper Surface Sensor	SR6	1: Paper surface detection
P002	0	Cover Sensor	SR10	0: Open
	1	Original Sensor	SR1	1: Original presence
	2	Stamp Presence/Absence	–	0: Stamp presence
	3	Post-separation 3 Sensor (Reserve)	PCB2	1: Paper presence
	4	Post-separation 2 Sensor	SR3	0: Paper presence
	5	Post-separation 1 Sensor	SR2	0: Paper presence
	6	Pickup Roller Unit Lifting HP Sensor	SR12	1: HP (Escape)
	7	Scanner Unit Cooling Fan Alarm	FM3	0: Failure
P003	0	Disengagement HP Sensor 2	SR16	1: HP (Disengagement)
	1	1-path Duplex Model Identification	–	1: 1-path duplex, 0: Reverse duplex
	2	Leading Edge Position Sensor	SR22	1: Paper presence
	3	Disengagement HP Sensor 1	SR15	1: HP (Disengagement)
	4	Original Size Sensor 4	SR20	1: Paper presence
	5	Original Size Sensor 3	SR19	1: Paper presence
	6	Original Size Sensor 2	SR18	1: Paper presence
	7	Original Size Sensor 1	SR17	1: Paper presence
P004	0	Delivery Sensor	PCB5	0: Paper presence
	1	Read Sensor 2	SR5	1: Paper presence
	2	Read Sensor 1	PCB4	0: Paper presence
	3	Registration Sensor	PCB3	0: Paper presence
	4	ITOP	–	Not used
	5	Glass Shift HP Sensor	SR11	0: HP
	6	Feed Sensor	–	0: Paper presence
	7	Post-separation Sensor 3	PCB2	0: Paper presence

Address	bit	Name	Symbol	Remarks
P005	0	Pickup Motor Direction	M1	1: Rotation direction, 0: (Not used)
	1	DA Enable	–	1: Enable, 0: Reset
	2	Tray Lifting Motor Direction	M8	1: Up, 0: Down
	3	Stamp Solenoid	SL2	1: ON
	4	Original LED	LED	1: ON
	5	Tray Lifting Motor Current	M8	1: Operation is available
	6	Disengagement Motor 1 Current	M6	1: Operation is available
	7	Disengagement Motor 2 Current	M7	1: Operation is available
P006	0	Glass Shift Motor Current	M9	1: Operation is available
	1	Glass Shift Motor Direction	M9	1: Shading direction (Right upper)
	2	DADF Fan ON	–	1: ON
	3	Pickup Motor Direction	M1	1: ON
	4	Separation Motor Current	–	1: Operation is available
	5	Pickup Motor Current	M1	1: Operation is available
	6	Registration Motor Current	M3	1: Operation is available
	7	Read Motor Current	M4	1: Operation is available
P007	0	Pickup Motor Current	M1	1: Operation is available
	1	Scanner Unit Cooling Fan ON	FM3	1: ON
	2	Pickup Clutch	–	1: ON
	3	Delivery Motor Current	M5	1: Operation is available
	4	Delivery Motor Direction	M5	1: CCW (Delivery direction)
	5	–	–	–
	6	–	–	–
	7	–	–	–

T-8-17

■ Paper Deck Uint – A1 (DC-CON>P048 to P050)

Addres	bit	Description	Symbol	Remarks
P048	15		–	–
	14	not used	–	–
	13	not used	–	–
	12	not used	–	–
	11	not used	–	–
	10	deck main motor hold	M1	–
	9	deck open solenoid	SL2	0:open/1:close
	8	deck lifter motor	M2	0:up/1:down
	7	deck lifter motor ON signal	M2	0:OFF/1:ON
	6	deck main motor ON signal	M1	0:OFF/1:ON
	5	not used	–	–
	4	not used	–	–
	3	deck pickup clutchON ON signal	CL2	0:OFF/1:ON
	2	not used	–	–
	1	deck pickup roller releasing solenoid	SL1	0:OFF/1:ON
	0	deck open indicator	LED100	–
P049	15	not used	–	–
	14	not used	–	–
	13	not used	–	–
	12	not used	–	–
	11	not used	–	–
	10	not used	–	–
	9	not used	–	–
	8	not used	–	–
	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	not used	–	–
	2	not used	–	–
	1	not used	–	–
	0	not used	–	–

Addres	bit	Description	Symbol	Remarks
P050	15	for R&D	–	–
	14	not used	–	–
	13	for R&D	–	–
	12	for R&D	–	–
	11	deck open sensor	PS9	0:close/1:open
	10	deck set sensor	PS5	0:connected/1:unconnected
	9	deck lifter lower limit detecting switch	SW2	0:ON/1:OFF
	8	deck paper level sensor	PS8	0:paper present/1:paper absent
	7	deck paper supply position sensor	PS7	0:paper present/1:paper absent
	6	deck main motor lock signal	M1	–
	5	deck pickup roller releasing solenoid ON signal	SL1	0:ON/1:OFF
	4	deck pickup sensor	PS6	0:paper present/1:paper absent
	3	deck feed sensor	PS1	0:paper present/1:paper absent
	2	deck lifter position sensor	PS4	0:ON/1:OFF
	1	deck paper sensor	PS2	0:paper present/1:paper absent
	0	deck open detecting switch	SW1	0:open/1:close

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■ Paper Deck Uint – D1 (DC-CON>P048 to P050)

Addres	bit	Description	Symbol	Remarks
P048	15		–	–
	14	not used	–	–
	13	not used	–	–
	12	not used	–	–
	11	not used	–	–
	10	deck main motor hold	M1	–
	9	deck open solenoid	SL2	0:open/1:close
	8	deck lifter motor	M2	0:up/1:down
	7	deck lifter motor ON signal	M2	0:OFF/1:ON
	6	deck main motor ON signal	M1	0:OFF/1:ON
	5	not used	–	–
	4	not used	–	–
	3	deck pickup clutchON ON signal	CL2	0:OFF/1:ON
	2	not used	–	–
	1	deck pickup roller releasing solenoid	SL1	0:OFF/1:ON
	0	deck open indicator	LED100	–
P049	15	not used	–	–
	14	not used	–	–
	13	not used	–	–
	12	not used	–	–
	11	not used	–	–
	10	not used	–	–
	9	not used	–	–
	8	not used	–	–
	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	not used	–	–
	2	not used	–	–
	1	not used	–	–
	0	not used	–	–

Addres	bit	Description	Symbol	Remarks
P050	15	for R&D	–	–
	14	not used	–	–
	13	for R&D	–	–
	12	for R&D	–	–
	11	deck open sensor	PS9	0:close/1:open
	10	deck set sensor	PS5	0:connected/1:unconnected
	9	deck lifter lower limit detecting switch	SW2	0:ON/1:OFF
	8	deck paper level sensor	PS8	0:paper present/1:paper absent
	7	deck paper supply position sensor	PS7	0:paper present/1:paper absent
	6	deck main motor lock signal	M1	–
	5	deck pickup roller releasing solenoid ON signal	SL1	0:ON/1:OFF
	4	deck pickup sensor	PS6	0:paper present/1:paper absent
	3	deck feed sensor	PS1	0:paper present/1:paper absent
	2	deck lifter position sensor	PS4	0:ON/1:OFF
	1	deck paper sensor	PS2	0:paper present/1:paper absent
	0	deck open detecting switch	SW1	0:open/1:close

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■ Inserter – L1 (SORTER>P047 to P061)

Address	bit	Name	Symbol	Remarks
P047	7	Reserve unit motor*B	M3	H:active
	6	Reserve unit motor*A	M3	H:active
	5	Reserve unit motorB	M3	H:active
	4	Reserve unit motorA	M3	H:active
	3			
	2			
	1			
	0			
P048	7			
	6			
	5			
	4			
	3	Straight path feed motor(IN)*B	M11	H:active
	2	Straight path feed motor(IN)*A	M11	H:active
	1	Straight path feed motor(IN)B	M11	H:active
	0	Straight path feed motor(IN)A	M11	H:active
P049	7	Front upper cover open/close sensor	SW1	H:open
	6	Top cover open/close sensor	S2	L:open
	5			
	4	PCB Identification signal2		PF3098 1:H 2:L PF4154 1:L 2:L
	3	PCB Identification signal1		
	2			
	1			
	0			
P050	7	Through pass/IN_motor driver current		Analog input
	6	Paper feed motor driver current		Analog input
	5			
	4			
	3			
	2			
	1			
	0			
P051	7			
	6			
	5			
	4			
	3	–	–	–
	2		–	–
	1		–	–
	0		–	–

Address	bit	Name	Symbol	Remarks
P052	7	Folding unit sensor	–	H:No unit
	6	By Borah motor driver_standby signal	–	H:Movement is possible L:stop
	5	Reverse solenoid_PWM	SL1	PWM
	4			
	3			
	2			
	1	PCB LED2	–	L:ON
	0	PCB LED1	–	L:ON
P053	7	–	–	–
	6	DSW5	–	L:ON
	5	DSW6	–	L:ON
	4	DSW7	–	L:ON
	3			
	2			
	1			
	0			
P054	7	Tray lift motor driver current	M2	Analog output
	6	Reverse unit motor driver current	M3	Analog output
	5	Inserter open/close sensor	S1	H:open
	4	Tray paper sensor2	S8	L:paper on
	3	Tray paper sensor1	S7	L:paper on
	2	Paper feed sensor	S3	L:ON
	1	Tray lower limit sensor	S5	H:lower limit
	0	Paper set sensor	S6	H:empty
P055	7			
	6			
	5			
	4			
	3			
	2			
	1			
	0			
P056	7			
	6			
	5			
	4			
	3	Reverse sensor	S10	H:paper on
	2			
	1			
	0			

Address	bit	Name	Symbol	Remarks
P057	7			
	6			
	5	EEPROM/DA converter CLK signal	–	–
	4	EEPROM CS signal	–	–
	3	Tray lift motor B PHASE	M2	H:OUTX L:OUT*X
	2	Tray lift motor A PHASE	M2	H:OUTX L:OUT*X
	1	Tray lift motor B ENABLE	M2	H:output L:OFF
	0	Tray lift motor A ENABLE	M2	H:output L:OFF
P058	7			
	6			
	5	–	–	
	4	Fold adjustment regi clutch BACK	–	H:Absorption
	3	Fold adjustment regi clutch FEED	–	H:Absorption
	2	paper set LED	–	–
	1	–	–	H:ON
	0	Interface InsDataEnable signal	–	–
P059	7			
	6			
	5			
	4			
	3	Paper feed motor*B	M1	H:active
	2	Paper feed motor*A	M1	H:active
	1	Paper feed motorB	M1	H:active
	0	Paper feed motorA	M1	H:active
P060	7	DSW8	–	L:ON
	6	DSW4	–	L:ON
	5	DSW3	–	L:ON
	4	DSW2	–	L:ON
	3	Reverse entrance sensor	S12	L:paper on
	2	DSW1	–	L:ON
	1	Reverse timing sensor	S11	H:paper on
	0	Paper registration sensor	S4	L:paper on
P061	7	–	–	–
	6	–	–	–
	5	–	–	–
	4	PSW2	–	L:ON
	3	PSW1	–	L:ON
	2	Delivery sensor	S13	H:paper on
	1			
	0			

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■ Paper Folding Inserter Unit – H1 (SORTER>P047 to P061)

Address	bit	Name	Symbol	Remarks
P047	7	Reserve unit motor*B	M3	H:active
	6	Reserve unit motor*A	M3	H:active
	5	Reserve unit motorB	M3	H:active
	4	Reserve unit motorA	M3	H:active
	3	Straight path feed motor(IN)*B	M9	H:active
	2	Straight path feed motor(IN)*A	M9	H:active
	1	Straight path feed motor(IN)*B	M9	H:active
	0	Straight path feed motor(IN)A	M9	H:active
P048	7	DAconverter Cssignal		
	6	C fold flapper solenoid	SL5	H:Absorption
	5	–		
	4	Fold transport motor Clock signal	M5	
	3	Straight path feed motor(IN)*B	M4	H:active
	2	Straight path feed motor(IN)*A	M4	H:active
	1	Straight path feed motor(IN)B	M4	H:active
	0	Straight path feed motor(IN)A	M4	H:active
P049	7	Front upper cover open/close sensor	SW1	H:open
	6	Top cover open/close sensor	S2	L:open
	5	Slowdown timing sensor	S24	H:paper on
	4	PCB Identification signal2		PF3098 1:H 2:L
	3	PCB Identification signal1		PF4154 1:L 2:L
	2	Interface FinDataEnable signal		
	1			
	0			
P050	7	Through pass/IN_motor driver current		Analog input
	6	Paper feed motor driver current		Analog input
	5	C fold paper full sensor	S20	L:full
	4	Upper stopper path sensor AD	S22	Analog input
	3	Fold position sensor AD	S23	Analog input
	2	Release timing sensor AD	S21	Analog input
	1	Slowdown timing sensor AD	S24	Analog input
	0	Tray paper width senor AD	S9	Analog input
P051	7			
	6			
	5			
	4			
	3	–	–	–
	2		–	–
	1		–	–
	0		–	–

Address	bit	Name	Symbol	Remarks
P052	7	Folding unit sensor	S14	H:No unit
	6	By Borah motor driver_standby signal	–	H:Movement is possible L:stop
	5	Reverse solenoid_PWM	SL1	PWM
	4	Straight path flapper solenoid PWM	SL2	PWM
	3	Skew correction pressure solenoid PWM	SL4	PWM
	2	Skew correction release solenoid PWM	SL3	PWM
	1	PCB LED2	–	L:ON
	0	PCB LED1	–	L:ON
P053	7	–	–	–
	6	DSW5	–	L:ON
	5	DSW6	–	L:ON
	4	DSW7	–	L:ON
	3	Upper stopper motor B PHASE	M7	H:OUTX L:OUT*X
	2	Upper stopper motor A PHASE	M7	H:OUTX L:OUT*X
	1	Upper stopper motor B ENABLE	M7	H:output L:OFF
	0	Upper stopper motor A ENABLE	M7	H::output L:OFF
P054	7	Tray lift motor driver current	–	Analog output
	6	Reverse unit motor driver current		Analog output
	5	Inserter open/close sensor	S1	H:open
	4	Tray paper sensor2	S8	L:paper on
	3	Tray paper sensor1	S7	L:paper on
	2	Paper feed sensor	S3	L:ON
	1	Tray lower limit sensor	S5	H:lower limit
	0	Paper set sensor	S6	H:empty
P055	7	C fold tray motor B PHASE	M6	
	6	C fold tray motor A PHASE	M6	
	5	C fold tray motor B ENABL	M6	
	4	C fold tray motor A ENABL	M6	
	3	C fold stopper motor B PHASE	M8	H:OUTX L:OUT*X
	2	C fold stopper motor A PHASE	M8	H:OUTX L:OUT*X
	1	C fold stopper motor B ENABL	M8	H:output L:OFF
	0	C fold stopper motor A ENABL	M8	H:output L:OFF
P056	7	Fold position adjustment motor *B	M10	H:active
	6	Fold position adjustment motor *A	M10	H:active
	5	Fold position adjustment motor B	M10	H:active
	4	Fold position adjustment motor A	M10	H:active
	3	Reverse sensor	S10	H:paper on
	2	C fold stopper sensor	S17	H:home
	1	C fold tray motor sensor	S19	H:home
	0	C fold tray empty sensor	S18	L:paper on

Address	bit	Name	Symbol	Remarks
P057	7	C fold stopper solenoid	SL7	H:Absorption
	6	C fold guide solenoid	SL6	H:Absorption
	5	EEPROM/DA converter CLK signal	–	–
	4	EEPROM CS signal	–	–
	3	Tray lift motor B PHASE	M2	H:OUTX L:OUT*X
	2	Tray lift motor A PHASE	M2	H:OUTX L:OUT*X
	1	Tray lift motor B ENABLE	M2	H:output L:OFF
	0	Tray lift motor A ENABLE	M2	H:output L:OFF
P058	7	EEPROM/DA converter Disignal	–	–
	6	Fold transport motor ON/OFF signal	M5	H:Absorption
	5	–	–	H:on
	4	Fold adjustment regi clutch BACK	–	H:Absorption
	3	Fold adjustment regi clutch FEED	–	H:Absorption
	2	paper set LED	–	–
	1	–	–	H:ON
	0	Interface InsDataEnable signal	–	–
P059	7	Fold transport motor lock signal	–	H:lock
	6	Delivery sensor	S25	H:paper on
	5	Upper stopper sensor	S16	H:paper on
	4	Upper stopper path sensor	S22	H:paper on
	3	Paper feed motor*B	M1	H:active
	2	Paper feed motor*A	M1	H:active
	1	Paper feed motorB	M1	H:active
	0	Paper feed motorA	M1	H:active
P060	7	DSW8	–	L:ON
	6	DSW4	–	L:ON
	5	DSW3	–	L:ON
	4	DSW2	–	L:ON
	3	Reverse entrance sensor	S12	L:paper on
	2	DSW1	–	L:ON
	1	Reverse timing sensor	S11	H:paper on
	0	Paper registration sensor	S4	L:paper on
P061	7	–	–	–
	6	–	–	–
	5	–	–	–
	4	PSW2	–	L:ON
	3	PSW1	–	L:ON
	2	Delivery sensor	S25	H:paper on
	1	Fold position sensor	S23	H:paper on
	0	Release timing sensor	S21	H:paper on

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■ External Punch – A1 (SORTER>SORTER>P041 to P046)

Addres	bit	Description	Symbol	Remarks
P041	7	punch home position sensor	PI63	0:ON/1:OFF
	6	punch motor clock sensor	PI62	–
	5	trailing edge detection snsor	LED5, PT5	0:paper present/1:paper absent
	4	punch OUT signal	–	–
	3	not used	–	–
	2	SW601-3 on the punch controller PCB	–	0:ON/1:OFF
	1	SW601-2 on the punch controller PCB	–	0:ON/1:OFF
	0	SW601-1 on the punch controller PCB	–	0:ON/1:OFF
P042	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	not used	–	–
	2	punch TxD	–	–
	1	punch RxD	–	–
	0	punch In	–	–
P043	7	punch motor CW signal	M61	0:ON/1:OFF
	6	punch motor CCW signal	M61	0:ON/1:OFF
	5	horizontal registration motor	M62	0:besides standby/1:drive
	4	horizontal registration home position sensor	PI61	0:besides HP/1:HP
	3	EEPROM CS	–	–
	2	EEPROM CLK	–	–
	1	EEPROM DataOut	–	–
	0	EEPROM DataIn	–	–
P044	7	not used	–	–
	6	sensor PWM signal	–	0:ON/1:OFF
	5	horizontal registration motor electric current setting	M62	0:drive electric current / 1:maintenance electric current
	4	not used	–	–
	3	not used	–	–
	2	not used	–	–
	1	not used	–	–
	0	not used	–	–
P045	7	SW602 on the punch controller PCB	–	0:ON/1:OFF
	6	SW603 on the punch controller PCB	–	0:ON/1:OFF
	5	for R&D	–	–
	4	not used	–	–
	3	LED602 on the punch controller PCB	–	0:OFF/1:ON
	2	horizontal registration motor phase B signal	M62	0:phase B* ON/1:phase B ON
	1	horizontal registration motor phase A signal	M62	0:phase A* ON/1:phase A ON
	0	LED601 on the punch controller PCB	–	0:OFF/1:ON
P046	7	horizontal registration sensor 1 on the LED PCB	LED1, PT1	0:paper present/1:paper absent
	6	scrap full detector PCB	–	0:paper present/1:paper absent
	5	upper door switch	–	0:open/1:close
	4	front door switch	–	0:open/1:close
	3	horizontal registration sensor 2 on the LED PCB	LED2, PT2	0:paper present/1:paper absent
	2	horizontal registration sensor 3 on the LED PCB	LED3, PT3	0:paper present/1:paper absent
	1	horizontal registration sensor 4 on the LED PCB	LED4, PT4	0:paper present/1:paper absent
	0	trailing edge sensor on the LED PCB	LED5, PT5	0:paper present/1:paper absent

T-8-22

■ Staple Finisher – E1 / Booklet Finisher –E1 (SORTER>P001 to P040)

Addres	bit	Description	Symbol	Remarks
P001	7	punch serial communication	–	0:OFF/1:ON
	6	escape feed motor clock signal	M112	–
	5	folding serial communication (RxD)	–	–
	4	folding serial communication (TxD)	–	–
	3	front cover sensor	PI102	0:close/1:open
	2	saddle unit connection detection	–	0:saddle present/1:saddle absent
	1	punch serial communication (RxD)	–	–
	0	punch serial communication (TxD)	–	–
P002	7	punch serial communication	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	inserter communication (IN)	–	0:OFF/1:ON
	2	tray motor clock signal	–	–
	1	not used	–	–
	0	swing motor clock signal	M106	–
P003	7	punch feed motor phase B* signal	M63	–
	6	punch feed motor phase A* signal	M63	–
	5	punch feed motor phase B signal	M63	–
	4	punch feed motor phase A signal	M63	–
	3	feed motor phase B* signal	M101	–
	2	feed motor phase A* signal	M101	–
	1	feed motor phase B signal	M101	–
	0	feed motor phase A signal	M101	–
P004	7	PSW2 on the finisher controller PCB	–	0:ON/1:OFF
	6	PSW1 on the finisher controller PCB	–	0:ON/1:OFF
	5	stack ejection motor clock signal	M102	–
	4	tray 2 shift motor FG signal	M108	–
	3	tray 1 shift motor FG signal	M107	–
	2	feed motor clock signal	M101	–
	1	punch feed motor clock signal	M63	–
	0	punch paper trailing edge detection	–	0:not detected/1:detected
P005	7	not used	–	–
	6	not used	–	–
	5	tray motor clock signal	–	–
	4	saddle serial signal	–	–
	3	saddle serial signal	–	–
	2	PWM output for solenoid	–	–
	1	for R&D	–	–
	0	for R&D	–	–
P006	7	not used	–	–
	6	not used	–	–
	5	expansion I/O read signal	–	–
	4	for R&D	–	–
	3	expansion I/O write signal	–	–
	2	for R&D	–	–
	1	for R&D	–	–
	0	PSW3 on the finisher controller PCB	–	0:ON/1:OFF
P007	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	tray 1 shift motor lock detection	M107	0:OFF/1:lock detectioon
	2	chip select 2	–	–
	1	chip select 1	–	–
	0	front cover sensor	PI102	0:close/1:open
P008	7	tray 2 shift area sensor 1	–	0:ON/1:OFF
	6	tray 2 shift area sensor 2	–	0:ON/1:OFF
	5	tray 2 shift area sensor 3	–	0:ON/1:OFF
	4	inlet sensor	PI103	0:paper present/1:paper absent
	3	swing guide HP sensor	PI105	0:besides HP/1:HP
	2	download mode	–	0:OFF/1:ON
	1	not used	–	–
	0	not used	–	–

Addres	bit	Description	Symbol	Remarks
P009	7	tray 1 paper sensor	PI111	0:paper present/1:paper absent
	6	host machine software IPC communication (RxD)	-	-
	5	host machine software IPC communication (TxD)	-	-
	4	tray 1 shift area sensor 1	-	0:ON/1:OFF
	3	tray 1 shift area sensor 2	-	0:ON/1:OFF
	2	tray 1 shift area sensor 3	-	0:ON/1:OFF
	1	tray 2 shift motor lock detection	M108	0:OFF/1:lock detectioon
	0	tray 2 paper sensor	PI112	0:paper present/1:paper absent
P010	7	DIPSW1-8 on the finisher controller PCB	-	0:ON/1:OFF
	6	DIPSW1-7 on the finisher controller PCB	-	0:ON/1:OFF
	5	DIPSW1-6 on the finisher controller PCB	-	0:ON/1:OFF
	4	DIPSW1-5 on the finisher controller PCB	-	0:ON/1:OFF
	3	DIPSW1-4 on the finisher controller PCB	-	0:ON/1:OFF
	2	DIPSW1-3 on the finisher controller PCB	-	0:ON/1:OFF
	1	DIPSW1-2 on the finisher controller PCB	-	0:ON/1:OFF
	0	DIPSW1-1 on the finisher controller PCB	-	0:ON/1:OFF
P011	7	EEPROM clock signal	-	-
	6	EEPROM enable signal	-	0:OFF/1:ON
	5	EEPROM output signal	-	0:OFF/1:ON
	4	not used	-	-
	3	gear change motor electric current change I1	M110	-
	2	gear change motor electric current change I0	M110	-
	1	gear change motor phase B signal	M110	-
	0	gear change motor phase A signal	M110	-

Addres	bit	Description	Symbol	Remarks
P012	7	swing height sensor	PI123	0:close/1:open
	6	gear change home position sensor	PI117	0:HP/1:besides HP
	5	not used	-	-
	4	rear end assist HP sensor	PI109	0:HP/1:besides HP
	3	processing tray sensor	PI108	0:paper present/1:paper absent
	2	rear aligning plate HP sensor	PI107	0:HP/1:besides HP
	1	front aligning plate HP sensor	PI106	0:HP/1:besides HP
	0	EEPROM input signal	-	-
P013	7	tray 2 shift motor ON signal	M108	0:OFF/1:ON
	6	tray 2 shift motor CW/CCW signal	M108	0:CW/1:CCW
	5	feed roller separation solenoid	SL101	0:OFF/1:ON
	4	punch feed motor standby	M63	0:standby/1:drive
	3	punch feed motor electric current change I0	M63	-
	2	punch feed motor electric current change I1	M63	-
	1	feed motor electric current change I0	M101	-
	0	feed motor electric current change I1	M101	-
P014	7	tray 1 shift motor enable signal	M107	0:standby/1:drive
	6	tray 1 shift motor CW/CCW signal	M107	0:CW/1:CCW
	5	tray 1 shift motor ON signal	M107	0:OFF/1:ON
	4	rear end assist motor enable signal	M109	0:standby/1:drive
	3	rear end assist motor electric current change I1	M109	-
	2	rear end assist motor electric current change I0	M109	-
	1	rear end assist motor directiojn change	M109	0:CW/1:CCW
	0	inserter serial communication (OUT)	-	0:OFF/1:ON
P015	7	staple motor direction change CW signal	M41	-
	6	staple motor direction change CCW signal	M41	-
	5	Stapler shift motor enable signal	M105	0:drive/1:standby
	4	stack ejection motor electric current change I0	M102	-
	3	stack ejection motor electric current change I1	M102	-
	2	stack ejection motor torque terminal	M102	0:71%/1:100%
	1	swing motor electric current change	M106	0:High/1:Low
	0	swing motor direction change	M106	0:CW/1:CCW

Addres	bit	Description	Symbol	Remarks
P016	7	not used	–	–
	6	rear aligning plate motor direction change	M104	0:CW/1:CCW
	5	rear aligning plate motor clock signal	M104	–
	4	rear aligning plate motor electric current change I0	M104	0:High/1:Low
	3	not used	–	–
	2	front aligning plate motor electric current change I0	M103	0:High/1:Low
	1	front aligning plate motor direction change	M103	0:CW/1:CCW
	0	front aligning plate motor clock signal	M103	–
P017	7	tray 2 paper surface sensor 1	PI115	0:paper present/1:paper absent
	6	tray 1 paper surface sensor	PI114	0:paper present/1:paper absent
	5	shutter HP sensor	PI113	0:HP/1:besides HP
	4	stapler shift HP sensor	PI110	0:HP/1:besides HP
	3	stapler alignment interference sensor	PI116	0:interference/1:not interference
	2	stapler needle presence	–	0:needle present/1:needle absent
	1	stapler READY	–	0:standby/1:drive
	0	stapler HP detection	–	0:besides HP/1:HP
P018	7	stapler shift motor	M105	0:CCW/1:CW
	6	buffer roller separation solenoid	SL102	0:OFF/1:ON
	5	shutter clutch	CL101	0:OFF/1:ON
	4	stack ejection lower roller clutch	CL102	0:OFF/1:ON
	3	buffer rear end holding solenoid	SL104	0:OFF/1:ON
	2	1st delivery roller separation solenoid	SL103	0:OFF/1:ON
	1	stapler shift motor electric current change I1	M105	–
	0	stapler shift motor electric current change I0	M105	–
P019	7	inserter unit connection detection	–	0:connected/1:unconnected
	6	feed path sensor	PI104	0:paper present/1:paper absent
	5	swing guide switch signal	MS102	0:OFF/1:ON
	4	staple safety switch signal	MS104	0:OFF/1:ON
	3	not used	–	–
	2	not used	–	–
	1	not used	–	–
	0	Stapler shift motor lock signal	M105	–

Addres	bit	Description	Symbol	Remarks
P020	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	escape feed motor phase B* signal	M112	–
	2	escape feed motor phase A* signal	M112	–
	1	escape feed motor phase B signal	M112	–
	0	escape feed motor phase A signal	M112	–
P021	7	puncher unit connection detection	–	0:connected/1:unconnected
	6	tray 2 paper surface sensor 2	PI120	0:paper present/1:paper absent
	5	not used	–	–
	4	not used	–	–
	3	not used	–	–
	2	escape tray full sensor	PI119	0:paper present/1:paper absent
	1	escape door sensor	PI121	0:close/1:open
	0	escape tray path sensor	PI118	0:paper present/1:paper absent
P022	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	for host machine download	–	0:OFF/1:ON
	2	not used	–	–
	1	not used	–	–
	0	not used	–	–
P023	7	not used	–	–
	6	motor enable signal	–	0:standby/1:drive
	5	punch serial communication (OUT)	–	0:OFF/1:ON
	4	not used	–	–
	3	escape solenoid	SL105	0:OFF/1:ON
	2	escape feed motor standby signal	M112	0:standby/1:drive
	1	escape feed motor electric current change I1	M112	–
	0	escape feed motor electric current change I0	M112	–

Addres	bit	Description	Symbol	Remarks
P024	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	stack ejection motor phase B* signal	M102	–
	2	stack ejection motor phase A* signal	M102	–
	1	stack ejection motor phase B signal	M102	–
	0	stack ejection motor phase A signal	M102	–
P025	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	not used	–	–
	2	not used	–	–
	1	not used	–	–
	0	for host machine download	–	0:OFF/1:ON
P026	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	not used	–	–
	2	not used	–	–
	1	not used	–	–
	0	not used	–	–
P027	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	not used	–	–
	2	not used	–	–
	1	not used	–	–
	0	not used	–	–
P028	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	not used	–	–
	2	not used	–	–
	1	not used	–	–
	0	not used	–	–

Addres	bit	Description	Symbol	Remarks
P029	7	alignment plate HP sensor	PI5	0:besides HP/1:HP
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	saddle staple unit connection detection	–	0:connected/1:unconnected
	2	vertical path paper sensor	PI17	0:paper absent/1:paper present
	1	not used	–	–
	0	not used	–	–
P030	7	not used	–	–
	6	feed motor clock signal	M1	–
	5	paper folding motor PWM signal	M2	–
	4	solenoid PWM signal	–	–
	3	stitcher HP sensor (rear)	SW5	0:besides HP/1:HP
	2	stitcher HP sensor (front)	SW7	0:besides HP/1:HP
	1	paper pushing plate top position sensor	PI15	0:top position/1:besides top position
	0	paper pushing plate HP sensor	PI14	0:besides HP/1:HP
P031	7	guide motor phase B signal	M3	–
	6	guide motor phase A signal	M3	–
	5	alignment motor B signal	M5	–
	4	alignment motor A signal	M5	–
	3	not used	–	–
	2	paper positioning plate motor phase B signal	M4	–
	1	paper positioning plate motor phase A signal	M4	–
	0	feed motor CW/CCW signal	M1	0:CCW/1:CW
P032	7	saddle rear staple electric current detection (AD)	–	0:OFF/1:ON
	6	saddle front staple electric current detection (AD)	–	0:OFF/1:ON
	5	not used	–	–
	4	not used	–	–
	3	feed motor clock signal	M1	–
	2	paper folding motor clock sensor	PI4	–
	1	paper pushing plate motor clock sensor	PI1	–
	0	not used	–	–

Addres	bit	Description	Symbol	Remarks
P033	7	not used	–	–
	6	not used	–	–
	5	No.2 paper deflecting solenoid	SL2	0:OFF/1:ON
	4	No.1 paper deflecting solenoid	SL1	0:OFF/1:ON
	3	saddle inlet solenoid	SL5	0:OFF/1:ON
	2	paper folding HP sensor	PI21	0:OFF/1:ON
	1	for R&D	–	–
	0	for R&D	–	–
P034	7	not used	–	–
	6	PSW1 on the saddle controller PCB	–	0:ON/1:OFF
	5	not used	–	–
	4	power ON signal	–	0:ON/1:OFF
	3	guide motor I0	M3	0:ON/1:OFF
	2	feed motor enable	M1	0:ON/1:OFF
	1	feed motor electric current change I1	M1	–
	0	feed motor electric current change I0	M1	–
P035	7	not used	–	–
	6	not used	–	–
	5	not used	–	–
	4	not used	–	–
	3	stitcher motor (rear) CW signal	M6	0:ON/1:OFF
	2	not used	–	–
	1	staple sensor (rear)	SW4	0:OFF/1:ON
	0	24V detection	–	0:ON/1:OFF
P036	7	not used	–	–
	6	feed plate contact solenoid	SL4	0:OFF/1:ON
	5	paper folding motorRV	M2	0:OFF/1:ON
	4	paper positioning plate motor I0	M4	–
	3	alignment motor I0	M5	–
	2	paper positioning plate paper sensor	PI8	0:paper present/1:paper absent
	1	paper positioning plate HP sensor	PI7	0:HP/1:besides HP
	0	tray paper sensor	PI6	0:paper present/1:paper absent

Addres	bit	Description	Symbol	Remarks
P037	7	paper pushing plate motor EN signal	M8	0:ON/1:OFF
	6	paper pushing plate motor FWD signal	M8	0:OFF/1:ON
	5	paper pushing plate motor RV signal	M8	0:OFF/1:ON
	4	paper folding motor FWD signal	M2	0:OFF/1:ON
	3	not used	–	–
	2	for R&D	–	–
	1	for R&D	–	–
	0	for R&D	–	–
P038	7	stitcher motor (rear) CCW signal	M6	0:ON/1:OFF
	6	saddle software IPC communication	–	–
	5	saddle software IPC communication	–	–
	4	stitcher motor (front) CW signal	M7	0:ON/1:OFF
	3	stitcher motor (front) CCW signal	M7	0:ON/1:OFF
	2	staple sensor (front)	SW6	0:needle absent/1:needle present
	1	not used	–	–
	0	not used	–	–
P039	7	SW504-8 on the saddle controller PCB	–	0:ON/1:OFF
	6	SW504-7 on the saddle controller PCB	–	0:ON/1:OFF
	5	SW504-6 on the saddle controller PCB	–	0:ON/1:OFF
	4	SW504-5 on the saddle controller PCB	–	0:ON/1:OFF
	3	SW504-4 on the saddle controller PCB	–	0:ON/1:OFF
	2	SW504-3 on the saddle controller PCB	–	0:ON/1:OFF
	1	SW504-2 on the saddle controller PCB	–	0:ON/1:OFF
	0	SW504-1 on the saddle controller PCB	–	0:ON/1:OFF
P040	7	saddle inlet sensor	PI22	0:paper absent/1:paper present
	6	guide HP sensor	PI13	0:besides HP/1:HP
	5	crescent roller phase sensor	PI12	0:besides HP/1:HP
	4	delivery sensor	PI11	0:paper present/1:paper absent
	3	inlet cover sensor	PI9	0:colse/1:open
	2	saddle trailing edge sensor 3	–	0:OFF/1:ON
	1	saddle trailing edge sensor 2	–	0:OFF/1:ON
	0	saddle trailing edge sensor 1	–	0:OFF/1:ON

T-8-23

ADJUST

AE

COPIER > ADJUST > AE		
AE-TBL		Adj of text density at image density adj
Lv.1	Details	To adjust text density according to the adjusted image density. As the greater value is set, text gets darker.
	Use case	When clearing the RAM data of the Reader Controller PCB
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When clearing the RAM data of the Reader Controller PCB, enter the value of service label.
	Display/adj/set range	1 to 9
	Default value	5

T-8-24

ADJ-XY

COPIER > ADJUST > ADJ-XY		
ADJ-X		Adj of img pstn in book mode: vert scan
Lv.1	Details	To adjust the image reading start position (image leading edge position) in vertical scanning direction. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the trailing edge side by 0.1mm.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0
ADJ-Y		Adj of img pstn in book mode: horz scan
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the rear side by 0.1mm.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0

COPIER > ADJUST > ADJ-XY		
ADJ-Y-DF		Adj img pstn in DADF mode:horz scan[Frt]
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction at DADF reading. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image position moves to the rear side by 0.1mm.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0
STRD-POS		Adj read pstn in DADF mode: front side
Lv.1	Details	To adjust the reading position at DADF reading (front side). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-100 to 100
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> FUNCTION> INSTALL> STRD-POS
ADJ-X-MG		Adj img ratio in book mod:vert scan[frt]
Lv.1	Details	To make a fine adjustment of image magnification in vertical scanning direction at copyboard reading. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image magnification changes by 0.01%. +: Enlarge -: Reduce
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-50 to 50
	Unit	0.01%
	Default value	0

COPIER > ADJUST > ADJ-XY		
ADJY-DF2		Adj img pstn in DADF mode:horz scan[bck]
Lv.1	Details	To adjust the image position of back side in horizontal scanning direction at simultaneous duplex reading. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image position moves to the rear side by 0.1mm.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0
ADJ-Y-MG		Fine adj img ratio:book, horz scan [frt]
Lv.1	Details	To make a fine adjustment of image magnification ratio in horizontal scanning direction at copyboard reading. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image magnification ratio changes by 0.1%. +: Enlarge -: Reduce
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-10 to 10
	Unit	0.1%
	Default value	0

T-8-25

CCD

COPIER > ADJUST > CCD		
W-PLT-X		White level data(X) entry of white plate
Lv.1	Details	When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	7500 to 9999
	Default value	8271
	Related service mode	COPIER> ADJUST> CCD> W-PLT-Y, W-PLT-Z
W-PLT-Y		White level data(Y) entry of white plate
Lv.1	Details	When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	7500 to 9999
	Default value	8735
	Related service mode	COPIER> ADJUST> CCD> W-PLT-X, W-PLT-Z
W-PLT-Z		White level data(Z) entry of white plate
Lv.1	Details	When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	7500 to 9999
	Default value	9418
	Related service mode	COPIER> ADJUST> CCD> W-PLT-X, W-PLT-Y

COPIER > ADJUST > CCD		
SH-TRGT		Shading target value (B&W) [Copyboard]
Lv.1	Details	To set the B&W shading target value in copyboard reading mode.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Scanner Unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	700 to 1400
	Default value	1126
100-RG		Img Sensr RG color displace crrct VL:Frt
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit (paper front). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001line
	Default value	0
100-GB		Img Sensr GB color displace crrct VL:Frt
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit (paper front). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001line
	Default value	0

COPIER > ADJUST > CCD		
DFTAR-R		Shading target value (R) [Front side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Copyboard Glass/Scanner Unit (paper front)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1159
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
DFTAR-G		Shading target value (G) [Front side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Copyboard Glass/Scanner Unit (paper front)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1189
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
DFTAR-B		Shading target value (B) [Front side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Copyboard Glass/Scanner Unit (paper front)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1209
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2

COPIER > ADJUST > CCD		
MTF2-M1		MTF value 1 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M2		MTF value 2 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M3		MTF value 3 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M4		MTF value 4 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M5		MTF value 5 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF2-M6		MTF value 6 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M7		MTF value 7 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M8		MTF value 8 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M9		MTF value 9 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S1		MTF value 1 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF2-S2		MTF value 2 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S3		MTF value 3 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S4		MTF value 4 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S5		MTF value 5 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S6		MTF value 6 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF2-S7		MTF value 7 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S8		MTF value 8 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S9		MTF value 9 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
100DF2GB		Img Sensr GB color displace crrct VL:bck
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit (paper back). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-256 to 256
	Unit	0.001line
	Default value	0

COPIER > ADJUST > CCD		
100DF2RG		Img Sensr RG color displace crrct VL:bck
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit (paper back). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-256 to 256
	Unit	0.001line
	Default value	0
DFCH2R2		Complex chart No.2 data (R) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Red data (for paper front) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
DFCH2R10		Complex chart No.10 data(R) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Red data (for paper front) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
DFCH2B2		Complex chart No.2 data (B) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Blue data (for paper front) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000

COPIER > ADJUST > CCD		
DFCH2B10		Complex chart No.10 data(B) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Blue data (for paper front) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
DFCH2G2		Complex chart No.2 data (G) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Green data (for paper front) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
DFCH2G10		Complex chart No.10 data(G) [Front side]
Lv.1	Details	To derive the front/back side linearity, set the Green data (for paper front) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
CCD-CHNG		Scanner Unit(ppr frt) rplce flag setting
Lv.1	Details	To set the calculation mode of MTF filter coefficient that is used at the replacement of Scanner Unit (paper front). When replacing the Scanner Unit (paper front), enter 1. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	• When replacing the Scanner Unit (paper front) • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Data at factory shipment is used. 1: Data at factory shipment is not used. (Scanner Unit (paper front) is already replaced.)
	Default value	0

COPIER > ADJUST > CCD		
MTF-M1		MTF value 1 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M2		MTF value 2 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M3		MTF value 3 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M4		MTF value 4 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M5		MTF value 5 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF-M6		MTF value 6 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M7		MTF value 7 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M8		MTF value 8 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M9		MTF value 9 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S1		MTF value 1 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF-S2		MTF value 2 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S3		MTF value 3 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S4		MTF value 4 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S5		MTF value 5 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S6		MTF value 6 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF-S7		MTF value 7 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S8		MTF value 8 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S9		MTF value 9 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
DFCH-R2		Complex chart No.2 data (R) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Red data (for paper back) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
	Related service mode	COPIER> ADJUST> CCD> DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR

COPIER > ADJUST > CCD		
DFCH-R10		Complex chart No.10 data (R) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Red data (for paper back) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR
DFCH-B2		Complex chart No.2 data (B) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Blue data (for paper back) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
	Related service mode	COPIER> ADJUST> CCD> DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR
DFCH-B10		Complex chart No.10 data (B) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Blue data (for paper back) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR

COPIER > ADJUST > CCD		
DFCH-G2		Complex chart No.2 data (G) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Green data (for paper back) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
	Related service mode	COPIER> ADJUST> CCD> DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR
DFCH-G10		Complex chart No.10 data (G) [Back side]
Lv.1	Details	To derive the front/back side linearity, set the Green data (for paper back) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10 COPIER> FUNCTION> CCD> DF-LNR
MTF2-M10		MTF value 10 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-M11		MTF value 11 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF2-M12		MTF value 12 setting: horz scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S10		MTF value 10 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S11		MTF value 11 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF2-S12		MTF value 12 setting: vert scan [Front]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M10		MTF value 10 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
MTF-M11		MTF value 11 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-M12		MTF value 12 setting: horz scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S10		MTF value 10 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S11		MTF value 11 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC
MTF-S12		MTF value 12 setting: vert scan [Back]
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 85
	Default value	50
	Related service mode	COPIER> FUNCTION> CCD> MTF-CLC

COPIER > ADJUST > CCD		
DFCH2K2		Complex chart No.2 data (B&W) [Front]
Lv.1	Details	To derive the front/back side linearity, set the B&W data (for paper front) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
DFCH2K10		Complex chart No.10 data (B&W) [Front]
Lv.1	Details	To derive the front/back side linearity, set the B&W data (for paper front) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
DFCH-K2		Complex chart No.2 data (B&W) [Back]
Lv.1	Details	To derive the front/back side linearity, set the B&W data (for paper back) of No.2 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2550
	Default value	2000
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10, DFCH-K10 COPIER> FUNCTION> CCD> DF-LNR
DFCH-K10		Complex chart No.10 data (B&W) [Back]
Lv.1	Details	To derive the front/back side linearity, set the B&W data (for paper back) of No.10 image in DADF complex chart. Enter the value of service label on the Reader.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2550
	Default value	0
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-R10, DFCH-B2, DFCH-B10, DFCH-G2, DFCH-G10, DFCH-K2 COPIER> FUNCTION> CCD> DF-LNR

COPIER > ADJUST > CCD		
DFTAR-BW		Shading target value (B&W) [Front side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4 and write the value which is automatically set in the service label.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Copyboard Glass/Scanner Unit (paper front)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1209
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4
DFTBK-G		Shading target value (G) [Back side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper back), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Scanner Unit (paper back)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1136
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
DFTBK-B		Shading target value (B) [Back side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper back), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Scanner Unit (paper back)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1126
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2

COPIER > ADJUST > CCD		
DFTBK-R		Shading target value (R) [Back side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper back), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 and write the value which is automatically set in the service label.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Scanner Unit (paper back)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1156
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
CCD-CHG2		Scanner Unit(paper back) rplce flag set
Lv.1	Details	To set the calculation mode of MTF filter coefficient that is used at the replacement of Scanner Unit (paper back). When replacing the Scanner Unit (paper back), enter 1. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label.
	Use case	• When replacing the Scanner Unit (paper back) • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Data at factory shipment is used. 1: Data at factory shipment is not used. (Scanner Unit (paper back) is already replaced.)
	Default value	0
DFTBK-BW		Shading target value (B&W) [Back side]
Lv.1	Details	When replacing the Reader Controller PCB, enter the value of service label. When replacing the Copyboard Glass/Scanner Unit (paper back), execute COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4 and write the value which is automatically set in the service label.
	Use case	• When replacing the Reader Controller PCB/clearing RAM data • When replacing the Copyboard Glass/Scanner Unit (paper back)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	700 to 1400
	Default value	1126
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4

T-8-26

LASER

COPIER > ADJUST > LASER		
PVE-OFST		Adj of write start position of laser
Lv.1	Details	To adjust the image position by changing the laser emitting position. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image moves by 0.1mm. +: Toward rear -: Toward front
	Use case	When adjusting image position
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Use this only when replacing the DC Controller PCB/Laser Scanner Unit. When adjusting the image write start position, use COPIER> ADJUST> FEED-ADJ> ADJ-C1/C2/C3/C4/MF/DK. If it is not sufficient enough, execute mechanical adjustment.
	Display/adj/set range	-300 to 300
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> ADJUST> FEED-ADJ> ADJ-C1, ADJ-C2, ADJ-C3, ADJ-C4, ADJ-MF, ADJ-DK
POWER		Adj laser power at no potential control
Lv.1	Details	To adjust the laser power when the potential control is not performed.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> FNC-SW> PO-CNT COPIER> OPTION> TEMPO> F-POT-SW

T-8-27

IMG-REG

COPIER > ADJUST > IMG-REG		
MAG-H-K		Fine adj of magnification: horz scan
Lv.1	Details	To make a fine adjustment of image magnification in horizontal scanning direction by adjusting the rotation speed of the Polygon Mirror/modulating clock. Convert the magnification measurement line length of PG for image position adjustment into a percentage, and enter the amount of change in percentage. As the value is incremented by 1, the image magnification changes by 0.01%. +: Enlarge -: Reduce
	Use case	• When checking image at initial installation • At check operation when replacing the Laser Scanner Unit • When adjustment is requested by a user
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-100 to 100
	Unit	0.01%
	Default value	0
MAG-V		Fine adj of magnification: vertical scan
Lv.1	Details	To make a fine adjustment of image magnification in vertical scanning direction by adjusting the rotation speed of the Polygon Mirror/modulating clock. Convert the magnification measurement line length of PG for image position adjustment into a percentage, and enter the amount of change in percentage. As the value is incremented by 1, the image magnification changes by 0.01%. +: Enlarge -: Reduce The setting value is reflected to the rotation speed of the Polygon Mirror set to the DC Controller at the time of shipment.
	Use case	• When checking image at initial installation • At check operation when replacing the Laser Scanner Unit • When adjustment is requested by a user
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-100 to 100
	Unit	0.01%
	Default value	0

T-8-28

DEVELOP

COPIER > ADJUST > DEVELOP		
BIAS		Adjustment of developing bias
Lv.1	Details	To adjust the developing bias when the potential control is not performed.
	Use case	When potential control is not performed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 600
	Default value	180
TSPLYADJ		[Not used]

T-8-29

DENS

COPIER > ADJUST > DENS		
DENS-ADJ		Density correction of copy image
Lv.1	Details	To correct the density of copy image by changing the F-value table. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. Blurring is alleviated when the value is increased, and fogging is alleviated when the value is decreased.
	Use case	When fogging or blurring at high density area occurs with a copy image
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Density of printer output image cannot be corrected.
	Display/adj/set range	1 to 9
	Default value	5
	Supplement/memo	F-value table: shows the relationship between original density and image density.

T-8-30

BLANK

COPIER > ADJUST > BLANK		
BLANK-T		Adjustment of leading edge margin
Lv.1	Details	To adjust the margin on the leading edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case	• When reducing the margin upon user's request • When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	0 to 1000
	Unit	1pixel
	Default value	118
BLANK-L		Adjustment of left edge margin
Lv.1	Details	To adjust the margin on the left edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case	• When reducing the margin upon user's request • When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1000
	Unit	1pixel
	Default value	118
BLANK-R		Adjustment of right edge margin
Lv.1	Details	To adjust the margin on the right edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case	• When reducing the margin upon user's request • When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1000
	Unit	1pixel
	Default value	118
BLANK-B		Adjustment of trailing edge margin
Lv.1	Details	To adjust the margin on the trailing edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case	• When reducing the margin upon user's request • When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1000
	Unit	1pixel
	Default value	118

T-8-31

V-CONT

COPIER > ADJUST > V-CONT		
EPOTOFST		Manual entry of Potential Sensor offset
Lv.1	Details	To set the offset auto adjustment value of Potential Sensor manually. As the value is incremented by 1, the offset value changes by 1V. +: Identified as the lower potential than the detected one -: Identified as the higher potential than the detected one
	Use case	When an error is displayed by executing OFST (auto offset adjustment) at the replacement of Potential Sensor (When the value out of specified range is set due to Potential Sensor disconnection/ connection failure/installation failure), restore to the factory setting values. 1) To stop the error, set 0 (V) in EPOTOFST. 2) Check around the Potential Sensor. If there is an error, address it and if not, go to the step 3). 3) Enter the value of service label. 4) If image fogging or the like occurs, increase the value by 10V increment.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	0 to 255
	Unit	1V
	Default value	0
	Related service mode	COPIER> FUNCTION> DPC> OFST
VL-OFST		Bright area tgt potential ofst VL entry
Lv.1	Details	To set the offset auto adjustment value of bright area target potential VL manually. As the value is incremented by 1, the offset value changes by 1V. +: Increase -: Decrease
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-30 to 30
	Unit	1V
	Default value	0

COPIER > ADJUST > V-CONT		
VD-OFST		Dark area tgt potential ofst VL entry
Lv.1	Details	To set the offset auto adjustment value of dark area target potential VL manually. As the value is incremented by 1, the offset value changes by 1V. +: Increase -: Decrease
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-30 to 30
	Unit	1V
	Default value	0
DE-OFST		Copy image Vdc offset value entry
Lv.1	Details	To set the Vdc offset auto adjustment value for potential control of copy image manually. As the value is incremented by 1, the offset value changes by 1V. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	1V
	Default value	0
VCONT-1		Dev contrast crrct potntl:first time/day
Lv.1	Details	To make a fine adjustment of correction potential of developing contrast target potential Vcont for the first time of the day.
	Use case	When image density for the first time of the day is low
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10
	Unit	1V
	Default value	0
VL-OF-L		Bright area target potential:thin
Lv.2	Details	To make a fine adjustment of bright area target potential VL with thin paper.
	Use case	When an image density failure occurs with thin paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-200 to 200
	Unit	1V
	Default value	20
VL-OF-H1		Fine adj bright area target potntl:hvy 1
Lv.2	Details	To make a fine adjustment of bright area target potential VL with heavy paper 1.
	Use case	When an image density failure occurs with heavy paper 1
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-200 to 200
	Unit	1V
	Default value	20

COPIER > ADJUST > V-CONT		
VL-OF-H2		Fine adj bright area target potntl:hvy 2
Lv.2	Details	To make a fine adjustment of bright area target potential VL with heavy paper 2.
	Use case	When an image density failure occurs with heavy paper 2
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-200 to 200
	Unit	1V
	Default value	20
SMR-IPRV		Smeared image control batch settings
Lv.2	Details	To set the service modes necessary for smeared image control (toner scattering) collectively. When 1 is set, offset value of each service mode is set, so that adjustment cannot be made individually. • COPIER> ADJUST> HV-TR> P-TR-OF1 (Environment: 4, feed mode: 7, offset value of pre-transfer charging current: -10) • COPIER> ADJUST> V-CONT> VL-OFST (Offset value of bright area target potential: 30) • COPIER> ADJUST> V-CONT> VD-OFST (Offset value of dark area target potential: -30) When 0 is set, each offset value returns to 0 (default), so that adjustment can be made individually.
	Use case	When a smeared image occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch. 3) Execute auto gradation adjustment.
	Caution	When 1 is set, the following service modes cannot be adjusted individually. COPIER> ADJUST> HV-TR> P-TR-OF1 COPIER> ADJUST> V-CONT> VL-OFST, VD-OFST
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF1 COPIER> ADJUST> V-CONT> VL-OFST, VD-OFST

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PASCAL

COPIER > ADJUST > PASCAL		
OFST-P-K		Bk density adj at test print reading
Lv.1	Details	To adjust the offset of Bk color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the greater value is set, the image after adjustment gets darker.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 128
	Default value	According to the adjustment value of the Reader at factory shipment

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HV-PRI

COPIER > ADJUST > HV-PRI		
PRIMARY		Adjustment of primary charging current
Lv.1	Details	To adjust the primary charging current flows to the Primary Charging Assembly when potential control is OFF. When potential control is turned OFF, the specified primary charging current is output.
	Use case	• When outputting image while potential control is OFF • When changing the primary charging current and then checking the high voltage output
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	0 to 1600
	Unit	1uA
	Default value	1000
	Related service mode	COPIER> OPTION> FNC-SW> PO-CNT
PRI-GRID		Adjustment of Pry Chg Ass'y grid bias
Lv.1	Details	To adjust the grid voltage of the Primary Charging Assembly at potential control. Adjust the offset value for the voltage table that changes according to the durability. When an image failure occurs due to the soiled Primary Charging Wire, set a negative value. If the value in COPIER> DISPLAY> DPOT> PRIM-C is 1550 (micro A) or higher when E061-0101 (potential control error) occurs, set a positive value.
	Use case	• When an image failure occurs due to the soiled Primary Charging Wire • When E061-0101 occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 220
	Unit	1V
	Default value	0
	Related service mode	COPIER> DISPLAY> DPOT> PRIM-C

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HV-TR

COPIER > ADJUST > HV-TR		
TR-OFS1		Adj transfer target current offset:Plain
Lv.2	Details	To adjust the offset value of the target current of the Transfer Roller for plain paper. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Transfer Roller target current offset value: -10 to 10
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS2-6

COPIER > ADJUST > HV-TR		
TR-OFS2		Adj transfer tgt current offset:Heavy 1
Lv.2	Details	To adjust the offset value of the target current of the Transfer Roller for heavy paper 1. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Transfer Roller target current offset value: -10 to 10
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS1, 3-8

COPIER > ADJUST > HV-TR		
TR-OFS3		Adj transfer tgt current offset:Heavy 2
Lv.2	Details	To adjust the offset value of the target current of the Transfer Roller for heavy paper 2. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Transfer Roller target current offset value: -10 to 10
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS1, 2, 4-6

COPIER > ADJUST > HV-TR		
TR-OFS4		Adj transfer tgt current offset: Thin
Lv.2	Details	To adjust the offset value of the target current of the Transfer Roller for thin paper. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Transfer Roller target current offset value: -10 to 10
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS1-3, 5-6

COPIER > ADJUST > HV-TR		
TR-OFS5		Adj transfer tgt current offset:Special1
Lv.2	Details	To adjust the offset value of the target current of the Transfer Roller for special paper 1. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the environment and feed speed set in this item and the paper type (special paper 1) set in TR-SP1, the specified offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Transfer Roller target current offset value: -10 to 10
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS1-4, 6, TR-SP1

COPIER > ADJUST > HV-TR		
TR-OFS6		Adj transfer tgt current offset:Special2
Lv.2	Details	To adjust the offset value of the target current of the Transfer Roller for special paper 2. Set the environment (temperature and humidity), feed mode, and Transfer Roller target current offset value in the order from left. When the actual usage status matches to the environment and feed speed set in this item and the paper type (special paper 2) set in TR-SP2, the specified offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Transfer Roller target current offset value: -10 to 10
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS1-5, TR-SP2
TR-L-OF1		Adj lead edge trns tgt crrnt ofst:Plain
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for plain paper.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF2-6
	Supplement/memo	1 mm
TR-L-OF2		Adj lead edge trns tgt crrnt ofst:Heavy1
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for heavy paper 1.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1, 3-6
	Supplement/memo	1 mm

COPIER > ADJUST > HV-TR		
TR-L-OF3		Adj lead edge trns tgt crrnt ofst:Heavy2
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for heavy paper 2.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1, 2, 4-6
	Supplement/memo	1 mm
TR-L-OF4		Adj lead edge trns tgt crrnt ofst: Thin
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for thin paper.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1-3, 5-6
	Supplement/memo	1 mm
TR-L-OF5		Adj lead edge trns tgt crrnt ofst:Spcl 1
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for special paper 1. When the paper type is the one (special paper 1) set in the TR-L-SP1, the specified offset value is added to the leading edge transfer target current and the leading edge transfer bias output timing.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1-4, 6, TR-L-SP1
	Supplement/memo	1 mm

COPIER > ADJUST > HV-TR		
TR-L-OF6		Adj lead edge trns tgt crrnt ofst:Spcl 2
Lv.2	Details	To adjust the leading edge transfer target current and the offset value of leading edge transfer bias output timing for special paper 2. When the paper type is the one (special paper 2) set in the TR-L-SP2, the specified offset value is added to the leading edge transfer target current and the leading edge transfer bias output timing.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Leading edge transfer target current offset value: -2 to 10 Offset value of leading edge transfer bias output timing: 0 to 20
	Unit	5uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF1-5, TR-L-SP2
	Supplement/memo	1 mm
P-TR-OF1		Adj of pre-trn charge crrnt ofst: Plain
Lv.2	Details	To adjust the offset value of the pre-transfer charging current for plain paper. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the pre-transfer charging target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Pre-transfer charging current offset value: -10 to 10
	Unit	10uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF2-6

COPIER > ADJUST > HV-TR		
P-TR-OF2		Adj of pre-trn charge crrnt ofst:Heavy1
Lv.2	Details	To adjust the offset value of the pre-transfer charging current for heavy paper 1. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the pre-transfer charging target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Pre-transfer charging current offset value: -10 to 10
	Unit	10uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF1, 3-6

COPIER > ADJUST > HV-TR		
P-TR-OF3		Adj of pre-trn charge crrnt ofst:Heavy2
Lv.2	Details	To adjust the offset value of the pre-transfer charging current for heavy paper 2. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the pre-transfer charging target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Pre-transfer charging current offset value: -10 to 10
	Unit	10uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF1, 2, 4-6

COPIER > ADJUST > HV-TR		
P-TR-OF4		Adj of pre-trn charge crrnt ofst: Thin
Lv.2	Details	To adjust the offset value of the pre-transfer charging current for thin paper. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the specified environment and feed mode, the specified offset value is added to the pre-transfer charging target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Pre-transfer charging current offset value: -10 to 10
	Unit	10uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF1-3, 5-6

COPIER > ADJUST > HV-TR		
P-TR-OF5		Adj pre-trn charge crrnt ofst: Special 1
Lv.2	Details	To adjust the offset value of the pre-transfer charging current for special paper 1. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the environment and feed speed set in this item and the paper type (special paper 1) set in P-TR-SP1, the specified offset value is added to the pre-transfer charging target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Pre-transfer charging current offset value: -10 to 10
	Unit	10uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF1-4, 6, P-TR-SP1

COPIER > ADJUST > HV-TR		
P-TR-OF6		Adj pre-trn charge crrnt ofst: Special 2
Lv.2	Details	To adjust the offset value of the pre-transfer charging current for special paper 2. Set the environment (temperature and humidity), feed mode, and pre-transfer charging current offset value in the order from left. When the actual usage status matches to the environment and feed speed set in this item and the paper type (special paper 2) set in P-TR-SP2, the specified offset value is added to the pre-transfer charging target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	Environment: 0 to 4 0: No specification, 1: Environment 1and 2, 2: Environment 3 to 5, 3: Environment 6 and 7, 4: All environments Feed mode: 0 to 7 0: No specification, 1: Cassette/3.5K deck 1-sided, 2: Cassette/3.5K deck 2-sided, 3: Multi-purpose Tray 1-sided, 4: Multi-purpose Tray 2-sided, 5: Large deck 1-sided (only POD Deck Lite), 6: Large deck 2-sided (only POD Deck Lite), 7: All modes Pre-transfer charging current offset value: -10 to 10
	Unit	10uA
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF1-5, P-TR-SP2
TR-SP1		Set trns tgt crrnt adj: special paper 1
Lv.2	Details	To set the paper type of special paper 1 which the offset value of the target current of the Transfer Roller is adjusted. When the actual usage status matches to the paper type set in this item and the environment and feed mode set in TR-OFS5, the offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS5

COPIER > ADJUST > HV-TR		
TR-SP2		Set trns tgt crrnt adj: special paper 2
Lv.2	Details	To set the paper type of special paper 2 which the offset value of the target current of the Transfer Roller is adjusted. When the actual usage status matches to the paper type set in this item and the environment and feed mode set in TR-OFS6, the offset value is added to the Transfer Roller target current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-OFS6
TR-L-SP1		Set lead edge trns tgt crrnt adj: Spcl 1
Lv.2	Details	To set the paper type of special paper 1 which the offset value of the target current of the Transfer Roller is adjusted. When the paper type is the specified one , the offset value set in TR-L-OF5 is added to the leading edge transfer target current and the leading edge transfer bias output timing.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF5
TR-L-SP2		Set lead edge trns tgt crrnt adj: Spcl 2
Lv.2	Details	To set the paper type of special paper 2 which the offset value of the target current of the Transfer Roller is adjusted. When the paper type is the specified one , the offset value set in TR-L-OF6 is added to the leading edge transfer target current and the leading edge transfer bias output timing.
	Use case	When a drum separation failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> TR-L-OF6

COPIER > ADJUST > HV-TR		
P-TR-SP1		Set pre-trns charging crrnt adj: Spcl 1
Lv.2	Details	To set the paper type of special paper 1 which the offset value of the pre-transfer charging current is adjusted. When the actual usage status matches to the paper type set in this item and the environment and feed mode set in P-TR-OF5, the offset value is added to the pre-transfer charging current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF5
P-TR-SP2		Set pre-trns charging crrnt adj: Spcl 2
Lv.2	Details	To set the paper type of special paper 2 which the offset value of the pre-transfer charging current is adjusted. When the actual usage status matches to the paper type set in this item and the environment and feed mode set in P-TR-OF6, the offset value is added to the pre-transfer charging current.
	Use case	When transfer failure occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 10 0: No specification, 1: Transparency, 2: Postcard, 3: Tracing paper, 4: Bond paper, 5: Labels, 6: Recycled paper, 7: Color paper, 8: Punched paper, 9: Tab paper, 10: Letterhead
	Default value	0
	Related service mode	COPIER> ADJUST> HV-TR> P-TR-OF6

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FEED-ADJ

COPIER > ADJUST > FEED-ADJ		
REGIST		Adj of registration start timing: Plain
Lv.1	Details	To adjust the timing to turn ON the Registration Motor in the case of plain paper. As the value is incremented by 1, the margin on the leading edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0
ADJ-C1		Right Deck write start pstn in horz scan
Lv.1	Details	To adjust the image write start position in the horizontal scanning direction when feeding paper from the Right Deck. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If write start position cannot be adjusted in service mode, execute mechanical adjustment.
	Display/adj/set range	-20 to 20
	Unit	0.1mm
	Default value	0

COPIER > ADJUST > FEED-ADJ		
ADJ-C2		Left Deck write start pstn in horz scan
Lv.1	Details	To adjust the image write start position in the horizontal scanning direction when feeding paper from the Left Deck. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If write start position cannot be adjusted in service mode, execute mechanical adjustment.
	Display/adj/set range	-20 to 20
	Unit	0.1mm
	Default value	0
ADJ-C3		Cassette 3 write start pstn in horz scan
Lv.1	Details	To adjust the image write start position in the horizontal scanning direction when feeding paper from the Cassette 3. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If write start position cannot be adjusted in service mode, execute mechanical adjustment.
	Display/adj/set range	-20 to 20
	Unit	0.1mm
	Default value	0

COPIER > ADJUST > FEED-ADJ		
ADJ-C4		Cassette 4 write start pstn in horz scan
Lv.1	Details	To adjust the image write start position in the horizontal scanning direction when feeding paper from the Cassette 4. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If write start position cannot be adjusted in service mode, execute mechanical adjustment.
	Display/adj/set range	-20 to 20
	Unit	0.1mm
	Default value	0
ADJ-MF		Write start pstn in horz scan: MP tray
Lv.1	Details	To adjust the image write start position in the horizontal scanning direction when feeding paper from the Multi-purpose Tray. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If write start position cannot be adjusted in service mode, execute mechanical adjustment.
	Display/adj/set range	-20 to 20
	Unit	0.1mm
	Default value	0

COPIER > ADJUST > FEED-ADJ		
ADJ-DK		Write start pstn in horz scan:Deck/POD D
Lv.1	Details	To adjust the image write start position in the horizontal scanning direction when feeding paper from the Paper Deck/ POD Deck Lite. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	If write start position cannot be adjusted in service mode, execute mechanical adjustment.
	Display/adj/set range	-20 to 20
	Unit	0.1mm
	Default value	0
ADJ-REFE		Write start pstn in horz scan: 2nd side
Lv.1	Details	To adjust the image write start position on the second side in the horizontal scanning direction. The image write start position is set in the relative amount against the first side regardless of the paper pickup cassette/tray/deck. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0
RG-MF		Rgst start timing adj: MP Tray, Plain
Lv.1	Details	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding plain paper from the Multi-purpose Tray. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	-20

COPIER > ADJUST > FEED-ADJ		
REG-THCK		Rgst start timing adj: Heavy, 1/2 speed
Lv.1	Details	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding heavy paper. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	-20
REG-OHT		Rgst start timing adj: Transp, 1/2 speed
Lv.1	Details	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding transparency. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	-20
REG-DUP1		Rgst start timing adj: Plain, 2nd side
Lv.1	Details	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding the second side of plain paper. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	-10

COPIER > ADJUST > FEED-ADJ		
REG-DUP2		Rgst start timing adj: Heavy, 2nd side
Lv.1	Details	To adjust the top margin by changing the timing to turn ON the Registration Motor when feeding the second side of heavy paper. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Top margin becomes smaller. (An image moves upward.) -: Top margin becomes larger. (An image moves downward.)
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	-10
LP-FEED1		Cassette pre-rgst arch amount: Plain
Lv.1	Details	To adjust the arch amount before registration when feeding plain paper from the cassette. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5mm
	Default value	0
LP-FEED2		Casstt pre-rgst arch amount:Heavy/Transp
Lv.1	Details	To adjust the arch amount before registration when feeding heavy paper/transparency from the cassette. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5mm
	Default value	0

COPIER > ADJUST > FEED-ADJ		
LP-MULT1		MP Tray pre-rgst arch amount: Plain
Lv.1	Details	To adjust the arch amount before registration when feeding plain paper from the Multi-purpose Tray. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5mm
	Default value	0
LP-MULT2		MP Tray pre-rgst arch amount:Heavy/Trans
Lv.1	Details	To adjust the arch amount before registration when feeding heavy paper/transparency from the Multi-purpose Tray. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5mm
	Default value	0
LP-DUP1		Duplex pre-rgst arch amount: Plain
Lv.1	Details	To adjust the arch amount before registration when feeding plain paper in duplex mode. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5mm
	Default value	0

COPIER > ADJUST > FEED-ADJ		
LP-DUP2		Duplex pre-rgst arch amount:Hvy/Transp
Lv.1	Details	To adjust the arch amount before registration when feeding heavy paper/transparency in duplex mode. As the value is incremented by 1, the pre-registration arch amount changes by 0.5 mm. +: Increase -: Decrease
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.5mm
	Default value	0
REG-SPD		Speed adj Registration Motor:1/1 speed
Lv.1	Details	To adjust 1/1 speed of the Registration Motor. +: The speed is increased. -: The speed is decreased.
	Use case	• At occurrence of an image failure • When the leading edge margin becomes larger due to wear of the Registration Roller
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-10 to 10
	Default value	0
TBLT-SPD		Fine adjustment of ETB speed
Lv.1	Details	To make a fine adjustment of the ETB speed. +: The speed is increased. -: The speed is decreased. When the speed is changed, image magnification in the vertical scanning direction is changed.
	Use case	When image magnification is changed due to replacement of ETB, etc.
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-200 to 200
	Unit	0.1mm
	Default value	0

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■ CST-ADJ

COPIER > ADJUST > CST-ADJ		
MF-A4R		Adj of MP Tray A4R paper width
Lv.1	Details	To adjust the width of A4R paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A4R.
	Use case	• When replacing the DC Controller PCB/clearing RAM data • When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> FUNCTION> CST> A4R
MF-A6R		Adj of MP Tray A6R paper width
Lv.1	Details	To adjust the width of A6R paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A6R.
	Use case	• When replacing the DC Controller PCB/clearing RAM data • When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> FUNCTION> CST> A6R

COPIER > ADJUST > CST-ADJ		
MF-A4		Adj of MP Tray A4 paper width
Lv.1	Details	To adjust the width of A4 paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A4.
	Use case	• When replacing the DC Controller PCB/clearing RAM data • When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> FUNCTION> CST> A4

T-8-37

MISC

COPIER > ADJUST > MISC		
SEG-ADJ		Set criteria for text/photo: front side
Lv.1	Details	To set the judgment level of text/photo original in Text/Photo/Map mode. As the value is increased, the original tends to be detected as a photo document, and as the value is decreased, the original tends to be detected as a text document.
	Use case	When adjusting the classification level of text and photo in Text/Photo/Map mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-4 to 4
	Default value	0
K-ADJ		Set criteria for black text: front side
Lv.1	Details	To set the judgment level of black characters at text processing. As the value is increased, the text tends to be detected as black.
	Use case	When preferring the text to be judged as black
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Default value	0
ACS-ADJ		Set criteria for B&W/color in ACS:front
Lv.1	Details	To set the judgment level of B&W/color original in ACS mode. As the value is increased, the original tends to be detected as a B&W document, and as the value is decreased, the original tends to be detected as a color document.
	Use case	When adjusting the color detection level in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Default value	0
ACS-EN		Set judgment area in ACS mode:front side
Lv.2	Details	To set the judgment area in ACS mode. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the judgment area in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	1

COPIER > ADJUST > MISC		
ACS-CNT		Set jdgmt pixel count area in ACS:front
Lv.2	Details	To set the area which counts the pixel to judge the color presence in ACS mode. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the area which counts the pixel to judge the color presence in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	0
ACS-EN2		Set ACS mode jdgmt area in DADF mode
Lv.2	Details	To set the judgment area in ACS mode at DADF reading. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the judgment area in ACS mode at DADF reading
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	1
ACS-CNT2		Set ACS jdgmt pixel count area in DADF
Lv.2	Details	To set the area which counts the pixel to judge the color presence in ACS mode at DADF reading. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the area which counts the pixel to judge the color presence in ACS mode at DADF reading
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	0

COPIER > ADJUST > MISC		
WT-FL-LM		Set of waste toner full dspl timing
Lv.1	Details	If the user sets the darker/lighter copy density than the normal density, the toner level to be consumed is increased/decreased. As a result, the number of images to be printed until the Waste Toner Container becomes full varies. According to the usage of the user, set the number of images (calculation with A4 and 5% image duty) until the full toner message is displayed. Set -2 if the setting is dark, but set -1 according to circumstances. Set 2 if the setting is light, but set 1 according to circumstances.
	Use case	When adjusting the full toner display timing according to the usage of the user
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2 -2: 300,000 (A4, 5% image duty), -1: 400,000, 0: 500,000, 1: 600,000, 2: 700,000
	Default value	0
SEG-ADJ3		Set text/photo jdgmt stdrd: back side
Lv.1	Details	To set the judgment level of text/photo original in Text/Photo/Map mode (back side at duplex reading with 1 path). As the value is increased, the original tends to be detected as a photo document, and as the value is decreased, the original tends to be detected as a text document.
	Use case	When adjusting the classification level of text and photo in Text/Photo/Map mode (back side at duplex reading with 1 path)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-4 to 4
	Default value	0
K-ADJ3		Set Bk text jdgmt stdrd: back side
Lv.1	Details	To set the judgment level of black characters at text processing (back side at duplex reading with 1 path). As the value is increased, the text tends to be detected as black.
	Use case	When preferring the text to be judged as black (back side at duplex reading with 1 path)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Default value	0

COPIER > ADJUST > MISC		
ACS-ADJ3		Set ACS B&W/color jdgmt stdrd:back side
Lv.1	Details	To set the judgment level of B&W/color original in ACS mode (back side at duplex reading with 1 path). As the value is increased, the original tends to be detected as a B&W document, and as the value is decreased, the original tends to be detected as a color document.
	Use case	When adjusting the color detection level in ACS mode (back side at duplex reading with 1 path)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Default value	0
ACS-EN3		Set of ACS mode jdgmt area: back side
Lv.2	Details	To set the judgment area in ACS mode (back side at duplex reading with 1 path). As the greater value is set, the judgment area is widened.
	Use case	When adjusting the judgment area in ACS mode (back side at duplex reading with 1 path)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	1
ACS-CNT3		ACS mode jdgmt pixel count area: back
Lv.2	Details	To set the area which counts the pixel to judge the color presence in ACS mode (back side at duplex reading with 1 path). As the greater value is set, the judgment area is widen.
	Use case	When adjusting the area which counts the pixel to judge the color presence in ACS mode (back side at duplex reading with 1 path)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	0

COPIER > ADJUST > MISC		
TBSIS-WB		Setting of blank band ejection time
Lv.2	Details	To set the blank band ejection time. As the value is incremented by 1, the ejection time changes by 0.1 second. +: Increase -: Decrease
	Use case	When an image failure (streaks of uneven density) occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	When a positive value is set, the ejection time increases.
	Display/adj/set range	-2 to 2
	Unit	0.1sec
	Default value	0
DCON-V		Fine adj DC Controller reference voltage
Lv.2	Details	To make a fine adjustment of the reference voltage of CPU drive voltage (3.3V) on the DC Controller PCB.
	Use case	When the reference voltage is deviated from the center value (3.41 V) significantly
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Because it affects the scanning values of the Potential Sensor and Patch Sensor, image density may vary.
	Display/adj/set range	-14 to 14
	Unit	0.01V
	Default value	0
HP-OFST		Setting of 2D shading drum HP offset
Lv.1	Details	To set the home position of Photosensitive Drum in the vertical scanning direction at 2D shading. As the value is incremented by 1, the home position moves by 10 mm.
	Use case	When adjusting the home position of the Photosensitive Drum at the replacement of the drum
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-5 to 5
	Unit	10mm
	Default value	0

T-8-38

EXP-LED

COPIER > ADJUST > EXP-LED		
PR-EXP		Setting of Pre-exposure LED current
Lv.2	Details	To set the current of the Cleaning Pre-exposure LED. Increase the value when taking a measure for drum ghost. Decrease the value when potential is not applied well.
	Use case	• When drum ghost is significant (drum pitch is not correct) • When potential is not applied well
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	110 to 233
	Unit	0.4uA
	Default value	181

T-8-39

FUNCTION

INSTALL

COPIER > FUNCTION > INSTALL		
TONER-S		Toner supply to Developing Assembly
Lv.1	Details	To execute a series of operation necessary for supplying toner to the Developing Assembly/Toner Supply area (drive the Developing Cylinder, Toner Stirring/Feed Member, Photosensitive Drum and ETB, and output developing bias) as a whole. After counting down from 600 seconds., it is stopped automatically.
	Use case	• At installation • When replacing the Developing Assembly • When replacing toner in the Developing Assembly
	Adj/set/operate method	1) Select the items. "Check the Developer" is displayed. 2) Check connection, and then press OK key. It automatically stops after 10 minutes.
	Caution	• Although "Check the Developer" is displayed when selecting the item, be sure to check the connection between the Developing Assembly and connector. • The operation can stop manually with OK key when a failure occurs.
	Display/adj/set range	During operation: xxx second (remaining time), When operation finished normally: END
	Default value	600
STRD-POS		Scan position auto adj in DADF mode
Lv.1	Details	To adjust the DADF scanning position automatically.
	Use case	At DADF installation/uninstallation
	Adj/set/operate method	1) Set a paper for stream reading position adjustment, and then close the DADF. 2) Select the item, and then press OK key. The operation automatically stops after the adjustment. 3) Write the value displayed by COPIER>ADJUST>ADJ-XY>STRD-POS in the service label.
	Caution	Write the adjusted value in the service label.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
	Related service mode	COPIER> ADJUST> ADJ-XY> STRD-POS
	Supplement/memo	For the details of paper for stream reading position adjustment, refer to the Service Manual.

COPIER > FUNCTION > INSTALL		
CARD		Card number setting
Lv.1	Details	To set the card number to be used for Card Reader. A series of numbers from the entered number to the number of cards specified by CARD-RNG can be used.
	Use case	• At installation of the Card Reader • After replacement of the HDD
	Adj/set/operate method	1) Enter the number, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The card management information (department ID and password) is initialized.
	Display/adj/set range	1 to 2001
	Default value	1
	Related service mode	COPIER> OPTION> FNC-SW> CARD-RNG
E-RDS		Set use/no use of Embedded-RDS function
Lv.1	Details	To set whether to use the Embedded-RDS function.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	0 to 1 0: Not used, 1: Used (All the counter information is sent.)
	Default value	0
	Related service mode	COPIER> FUNCTION> INSTALL> RGW-PORT, COM-TEST, COM-LOG, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-PORT		Set port number of Sales Co's server
Lv.1	Details	To set the port number of the sales company's server to be used for Embedded-RDS.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	1 to 65535
	Default value	443
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, COM-TEST, COM-LOG, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER > FUNCTION > INSTALL		
COM-TEST		Dspl connect result w/ Sales Co's server
Lv.1	Details	To display the result of the connection test with the sales company's server.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	During operation: ACTIVE, When connection is completed: OK, When connection is failed: NG
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-LOG, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
COM-LOG		Dspl connect error w/ Sales Co's server
Lv.1	Details	To display error information when the connection with the sales company's server failed.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Display only
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	Year, date, time, error code, error detail information (maximum 128 characters)
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-TEST, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-ADR		URL setting of Sales Company's server
Lv.1	Details	To set the URL of the sales company's server to be used for Embedded-RDS.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Select the URL. 2) Enter the URL, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• Do not use Shift-JIS character strings. • Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	URL
	Default value	https://a01.ugwdevice.net/ugw/agentif010
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-TEST, COM-LOG
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER > FUNCTION > INSTALL		
CNT-DATE		Set counter send start date to SC server
Lv.1	Details	To set the year, month, date, hour and minute to send counter information to the sales company's server. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case	When the Embedded-RDS third-party expanded function is available
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	YYYYMMDDHHMM (12 digits) YYYY: Year, MM: Month, DD: Date, HH: Hour, MM: Minute
	Default value	000000000000
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
CNT-INTV		Set counter send interval to SC server
Lv.1	Details	To set the interval of sending counter information to the sales company's server in a unit of one hour. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case	• When restarting potential control after execution of COPIER> OPTION> IMG-FIX> PO-CNT • When the D-max control condition is changed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 168 (=1 week)
	Default value	24
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER > FUNCTION > INSTALL		
BRWS-ACT		ON/OFF of service browser
Lv.1	Details	To set ON/OFF of service browser. ON/OFF of service browser switches whenever the main power switch is turned OFF/ON after execution. If connection with the UGW server is successful, “OK!” is displayed. If “NG!” is displayed, execute a communication test using COM-TEST. The setting is enabled after reboot. Whether the service browser is ON or OFF can be checked in COPIER> DISPLAY> USER> BRWS-STS (1: ON, 2: OFF).
	Use case	• When using the service browser • At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After execution, turn OFF/ON the main power switch. After reboot, be sure to check the usage status in COPIER> DISPLAY> USER> BRWS-STS.
	Display/adj/set range	At normal termination: OK!, At abnormal termination: NG!
	Related service mode	COPIER> FUNCTION> INSTALL> COM-TEST COPIER> DISPLAY> USER> BRWS-STS
CDS-CTL		Set country/area when using CDS
Lv.1	Details	To set country/area to enable CDS.
	Use case	When enabling CDS
	Display/adj/set range	Country/area set in COPIER> OPTION> FNC-SW> CONFIG, CA (Canada), LA (Latin America) and HK (Hong Kong)
	Default value	It differs according to the location.
	Related service mode	COPIER> OPTION> FNC-SW> CONFIG
	Supplement/memo	CDS: Contents Delivery System
DRM-INIT		Initialization of Photosensitive Drum
Lv.1	Details	To initialize Photosensitive Drum. Clear drum counter (PT-DRM), Drum Lot number, and checksum stored in the DC Controller.
	Use case	After replacement of the Photosensitive Drum
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Related service mode	COPIER> COUNTER> LF> K-DRM-LF
HD-CRYP		Initial install of HDD Encryption Board
Lv.1	Details	To execute operation necessary for initial installation of the HDD Encryption Board. After executing the necessary operation and then turning OFF the main power switch, install the HDD Encryption Board.
	Use case	At installation of the HDD Encryption Board
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item before installing the HDD Encryption Board.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

COPIER > FUNCTION > INSTALL		
BIT-SVC		OFF/ON of Web service of E-RDS
Lv.1	Details	To set ON/OFF of Web service function of E-RDS. When OFF is selected, authentication information cannot be obtained from E-RDS.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1

T-8-40

CCD

COPIER > FUNCTION > CCD		
DF-WLVL1		White level adj in book mode: color
Lv.1	Details	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass.
	Use case	• When replacing the Copyboard Glass • When replacing the Scanner Unit • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
	Caution	Be sure to execute DF-WLVL2 in a row.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL2 COPIER> ADJUST> CCD> DFTBK-R, DFTBK-G, DFTBK-B
DF-WLVL2		White level adj in DADF mode: color
Lv.1	Details	To adjust the white level for DADF scanning automatically by setting the paper which is usually used by the user on the DADF.
	Use case	• When replacing the Copyboard Glass • When replacing the Scanner Unit • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution	Be sure to execute this item after DF-WLVL1.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1 COPIER> ADJUST> CCD> DFTAR-R, DFTAR-G, DFTAR-B, DFTAR2-R, DFTAR2-G, DFTAR2-B, DFTAR-BW, DFTAR2BW, DFTBK-R, DFTBK-G, DFTBK-B
DF-LNR		Deriving of DADF front/back linearity
Lv.1	Details	To derive the front/back side linearity characteristics in the use of DADF based on the scanning data of the DADF complex chart (No. 2, No. 10).
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the value of the reader's service label. (under COPIER> ADJUST> CCD) DFCH-R2, DFCH-G2, DFCH-B2, DFCH-K2, DFCH-R10, DFCH-G10, DFCH-B10, DFCH-K10, DFCH2R2, DFCH2G2, DFCH2B2, DFCH2K2, DFCH2R10, DFCH2G10, DFCH2B10, DFCH2K10 2) Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> DFCH-R2, DFCH-G2, DFCH-B2, DFCH-K2, DFCH-R10, DFCH-G10, DFCH-B10, DFCH-K10, DFCH2R2, DFCH2G2, DFCH2B2, DFCH2K2, DFCH2R10, DFCH2G10, DFCH2B10, DFCH2K10

COPIER > FUNCTION > CCD		
MTF-CLC		Deriving of MTF filter coefficient
Lv.1	Details	To derive the MTF filter coefficient to be set for ASIC based on the MTF value of the DADF complex chart.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF-M1-M12, MTF-S1-S12, MTF2-M1-M12, MTF2-S1-S12
	Supplement/memo	The scanning data of the DADF complex chart is indicated in the label of the Scanner Unit (DADF/Reader).
DF-WLVL3		White level adj in book mode (B&W)
Lv.1	Details	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass.
	Use case	• When replacing the Copyboard Glass • When replacing the Scanner Unit • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
	Caution	Be sure to execute DF-WLVL4 in a row.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> DFTBK-BW
DF-WLVL4		White level adj in DADF mode (B&W)
Lv.1	Details	To adjust the white level for DADF scanning automatically by setting the paper which is usually used by the user on the DADF.
	Use case	• When replacing the Copyboard Glass • When replacing the Scanner Unit • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution	Be sure to execute this item after DF-WLVL3.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> DFTAR-R, DFTAR-G, DFTAR-B, DFTAR2-R, DFTAR2-G, DFTAR2-B, DFTBK-BW
BW-TGT		Set of B&W shading target value
Lv.1	Details	After the white level data (X/Y/Z) for the Standard White Plate is set, read the Standard White Plate and set the black and white shading target value.
	Use case	When replacing the Copyboard Glass/Scanner Unit
	Caution	Be sure to execute this item after execution of COPIER> ADJUST> CCD> W-PLT-X, W-PLT-Y, W-PLT-Z.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> W-PLT-X, W-PLT-Y, W-PLT-Z

T-8-41

DPC

COPIER > FUNCTION > DPC		
DPC		Execution of potential control
Lv.1	Details	To execute potential control for the Photosensitive Drum manually. (It is usually executed automatically.)
	Use case	When checking potential control operation
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
OFST		Potential adjustment of Potential Sensor
Lv.1	Details	To adjust the detection potential offset value of the Potential Sensor automatically.
	Use case	• When replacing the Potential Sensor • At diagnosis for a failure of the Potential Sensor
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	An error is displayed when disconnection/connection failure/ installation failure occurs to the Potential Sensor at the time of replacement. In this case, manually set the value to 0 by EPOTOFST and then make an adjustment.
	Related service mode	COPIER> ADJUST> V-CONT> EPOTOFST

T-8-42

CST

COPIER > FUNCTION > CST		
C3-STMTR		Reg Cassette 3 STMTR stdrd width
Lv.1	Details	To register the standard value of STMTR paper width (139.5mm) on the Cassette 3. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> C3-STMTR.
	Adj/set/operate method	1) Set STMTR paper on the Cassette 3, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> C3-STMTR, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> C3-STMTR
C3-A4R		Reg Cassette 3 A4R stdrd width
Lv.1	Details	To register the standard value of A4R paper width (210 mm) on the Cassette 3. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> C3-A4R.
	Adj/set/operate method	1) Set A4R paper on the Cassette 3, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> C3-A4R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> C3-A4R
C4-STMTR		Reg Cassette 4 STMTR stdrd width
Lv.1	Details	To register the standard value of STMTR paper width (139.5 mm) on the Cassette 4. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> C4-STMTR.
	Adj/set/operate method	1) Set STMTR paper on the Cassette 4, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> C4-STMTR, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> C4-STMTR

COPIER > FUNCTION > CST		
C4-A4R		Reg Cassette 4 A4R stdrd width
Lv.1	Details	To register the standard value of A4R paper width (210 mm) on the Cassette 4. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> C4-A4R.
	Adj/set/operate method	1) Set A4R paper on the Cassette 4, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> C4-A4R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> C4-A4R
MF-A4R		Reg Multi-purpose Tray A4R stdrd width
Lv.1	Details	To register the standard value of A4R paper width (210mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A4R.
	Adj/set/operate method	1) Set A4R paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A4R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A4R
MF-A6R		Reg Multi-purpose Tray A6R stdrd width
Lv.1	Details	To register the standard value of A6R paper width (105 mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A6R.
	Adj/set/operate method	1) Set A6R paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A6R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A6R
MF-A4		Reg Multi-purpose Tray A4 standard width
Lv.1	Details	To register the standard value of A4 paper width (297 mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A4.
	Adj/set/operate method	1) Set A4 paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A4, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A4

T-8-43

CLEANING

COPIER > FUNCTION > CLEANING		
TBLT-CLN		ETB cleaning
Lv.1	Details	To execute three idle rotations of the ETB and clean the ETB. Disengage the Photosensitive Drum and Transfer Roller from the ETB.
	Use case	When ETB cleaning failure/stain on the back of paper occurs
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
WIRE-CLN		Cleaning of all Charging Wires
Lv.1	Details	To clean the Charging Wires of Primary Charging Assembly and Pre-transfer Charging Assembly simultaneously (5-reciprocation). Polish new Charging Wires to remove foreign matters or protrusions.
	Use case	• When replacing the Primary Charging Assembly/Pre-transfer Charging Assembly • When replacing the Charging Wire • When vertical lines occur on an image
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
WIRE-EX		Check cleaning operation of all Chg Wir
Lv.1	Details	To clean the Charging Wires of Primary Charging Assembly and Pre-transfer Charging Assembly simultaneously (1-reciprocation). Check the reciprocation operation of the Wire Cleaner.
	Use case	When checking operation of the Primary Charging Wire Cleaning Motor after removing, and then installing the Primary Charging Assembly at working around the Process area
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

T-8-44

FIXING

COPIER > FUNCTION > FIXING		
NIP-CHK		Check of fixing nip width
Lv.1	Details	To check whether the fixing nip width is appropriate by printing. If it is not appropriate, a fixing failure may occur.
	Use case	• When replacing the fixing-related parts (Fixing Roller, Pressure Roller) • When a fixing failure occurs
	Adj/set/operate method	1) Print approx. 20 sheets of A4 size paper. 2) Set A4 size plain paper/recycled paper on the Multi-purpose Tray. 3) Select the item, and then press OK key. A sheet is stopped once in a state held by the Fixing Nip area, and is delivered approx. 20 seconds later. 4) Measure the nip width of delivered sheet. If the nip widths are as follow it is judged as normal: 4.0 to 5.0 mm at the center, and difference between front and rear is within 0.5mm. If there is an error, execute step 5. 5) Check the Fixing Roller, Pressure Roller, and Fixing Lower Unit, and replace damaged part.
	Related service mode	COPIER> TEST> PG> TYPE

T-8-45

PANEL

COPIER > FUNCTION > PANEL		
LCD-CHK		Check of LCD Panel dot missing
Lv.1	Details	To check whether there is a missing dot on the LCD Panel of the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that the LCD Panel lights up in the order of white, black, red, green and blue. 3) Press STOP key to terminate checking.
LED-CHK		Check of Control Panel LED
Lv.1	Details	To check whether the LED on the Control Panel lights up.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that the LED lights up in the order. 3) Use LED-OFF to terminate checking.
	Related service mode	COPIER> FUNCTION> PANEL> LED-OFF
LED-OFF		End check of Control Panel LED
Lv.1	Details	To terminate the check of LED on the Control Panel.
	Use case	During execution of LED-CHK
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> FUNCTION> PANEL> LED-CHK
KEY-CHK		Check of key entry
Lv.1	Details	To check the key input on the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item and press the key on the Control Panel. 2) Check that the input value is displayed. 3) Cancel the selection to terminate checking.
TOUCHCHK		Adj of coordinate pstn of Touch Panel
Lv.1	Details	To adjust the coordinate position on the Touch Panel of the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Press the nine “+” keys in sequence.

T-8-46

PART-CHK

COPIER > FUNCTION > PART-CHK		
CL		Specification of operation Clutch
Lv.1	Details	To specify the Clutch to operate.
	Use case	When replacing the Clutch/checking the operation
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	1 to 6 1: Developing Clutch (CL1) 2: Magnet Roller Clutch (CL5) 3 to 6: Not used
	Default value	0
	Related service mode	COPIER> FUNCTION> PART-CHK> CL-ON
CL-ON		Operation check of Clutch
Lv.1	Details	To start operation check of the Clutch specified by CL. The operation stops after “ON for 0.5 sec” => “OFF for 10 sec” => “ON for 0.5 sec” => “OFF for 10 sec” => “ON for 0.5 sec”.
	Use case	When replacing the Clutch/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Default value	0
	Related service mode	COPIER> FUNCTION> PART-CHK> CL
MTR		Specification of operation Motor
Lv.1	Details	To specify the Motor to operate.
	Use case	When replacing the Motor/checking the operation
	Adj/set/operate method	Enter the value, and then press OK key.
	Caution	Be sure to remove the Toner Container before Toner Supply Motor (M10) is activated. If it remains to be installed, toner is supplied.
	Display/adj/set range	1 to 16 1: Toner Supply Motor (M10) 2: Toner Feed Motor (M28) 3: Delivery Motor (M13) 4: Reverse Motor (M14) 5: Side Registration Motor (M16) 6: Duplex Feed Right Motor (M18) 7: Duplex Feed Left Motor (M19) 8: Vertical Path Upper Motor (M26) 9: Vertical Path Lower Motor (M27) 10: Vertical Path Middle Motor (M31) 11: Duplex Feed Merging Motor (M32) 12: Multi-purposeTray Registration Front Motor (M33) 13: Registration Motor (M34) 14: ETB Motor (M43) 15 to 16: Not used
	Default value	1
	Related service mode	COPIER> FUNCTION> PART-CHK> MTR-ON

COPIER > FUNCTION > PART-CHK		
MTR-ON		Operation check of Motor
Lv.1	Details	To start operation check of the Motor specified by MTR. The operation automatically stops after operation of 20 seconds.
	Use case	When replacing the Motor/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to remove the Toner Container before Toner Supply Motor (M10) is activated. If it remains to be installed, toner is supplied.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> PART-CHK> MTR
SL		Specification of operation Solenoid
Lv.1	Details	To specify the Solenoid to operate.
	Use case	When replacing the Solenoid/checking the operation
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	1 to 10 1: Multi Middle Plate Release Solenoid (SL2) 2: Cassette 3 Pickup Solenoid (SL3) 3: Cassette 4 Pickup Solenoid (SL4) 4: Reverse Upper Flapper Solenoid (SL5) 5: Right Deck Pickup Solenoid (SL6) 6: Not used 7: Left Deck Merging Solenoid (SL11) 8: Fixing Cleaning Web Drive Solenoid (SL9) 9: Patch Sensor Shutter Solenoid (SL10) 10: Reverse Detachment Solenoid (SL12)
	Default value	1
	Related service mode	COPIER> FUNCTION> PART-CHK> SL-ON
SL-ON		Operation check of Solenoid
Lv.1	Details	To start operation check for the Solenoid specified by SL. The operation stops after “ON for 0.5 sec” => “OFF for 10 sec” => “ON for 0.5 sec” => “OFF for 10 sec” => “ON for 0.5 sec”.
	Use case	When replacing the Solenoid/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> PART-CHK> SL

T-8-47

CLEAR

COPIER > FUNCTION > CLEAR		
ERR		Clear of error code
Lv.1	Details	To clear error codes (E000, E001, E002, E003, E717, E719). E000, E001, E002, and E003 are fixing-related errors. E004 (IH Power Supply) and E005 (Web absence) do not need to be cleared.
	Use case	At error occurrence
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
DC-CON		RAM clear of DC Controller PCB
Lv.1	Details	To clear the RAM data of the DC Controller PCB.
	Use case	When clearing the RAM data of the DC Controller PCB
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. • The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
R-CON		RAM clear of Reader Controller PCB
Lv.1	Details	To clear the RAM data of the Reader Controller PCB.
	Use case	When clearing the RAM data of the Reader Controller PCB
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. • The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
JAM-HIST		Clear of jam history
Lv.1	Details	To clear the jam history.
	Use case	When clearing the jam history
	Adj/set/operate method	Select the item, and then press OK key.
ERR-HIST		Clear of error code history
Lv.1	Details	To clear the error code history.
	Use case	When clearing the error code history
	Adj/set/operate method	Select the item, and then press OK key.
PWD-CLR		Clear of system administrator password
Lv.1	Details	To clear the password of the system administrator set in the user mode.
	Use case	When clearing the password of the system administrator
	Adj/set/operate method	Select the item, and then press OK key.

COPIER > FUNCTION > CLEAR		
ADRS-BK		Clear of address book
Lv.1	Details	To clear the address book data.
	Use case	When clearing the address book data
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The address book data is cleared after the main power switch is turned OFF/ON.
CNT-MCON		Clear of Main Controller service counter
Lv.1	Details	To clear the service counter counted by the Main Controller PCB.
	Use case	When clearing the service counter counted by the Main Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> COUNTER
	Supplement/memo	See COUNTER for the target counter.
CNT-DCON		Clear of DC Controller service counter
Lv.1	Details	To clear the service counter (FIN-STPR, FIN-PDDL, SADDLE, STPL) counted by the DC Controller PCB.
	Use case	When clearing the service counter counted by the DC Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> COUNTER> DRBL-2> FIN-STPR, FIN-PDDL, SADDLE, STPL
OPTION		Clear of service mode setting VL(OPTION)
Lv.1	Details	To return the value specified in service mode (OPTION) to the default value (value at the time of RAM clear).
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	• Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. • This item is executed for the data on the Main Controller PCB, DC Controller PCB and Reader Controller PCB.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
MMI		Clear of user mode setting value
Lv.1	Details	To clear the user mode setting values (excluding values for Control Panel, common settings, and FAX). • Common Settings • Timer Settings • Adjustment/Cleaning • Report Settings • System Settings • Copy Settings • Communications Settings • Printer Settings
	Use case	When clearing various setting values of user mode
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The setting value is cleared after the main power switch is turned OFF/ON.

COPIER > FUNCTION > CLEAR		
MN-CON		RAM clear of MNCON PCB SRAM Board
Lv.1	Details	To clear the RAM data of the Main Controller PCB SRAM Board. All data on the SRAM Board is initialized.
	Use case	When clearing the RAM data of the Main Controller PCB SRAM Board
	Adj/set/operate method	1) Select the item, and then press OK key. The machine is automatically rebooted. 2) Turn OFF/ON the main power switch.
	Caution	• Inform the user that all images in Inbox will be deleted and get approval for it. • Since the file management information is initialized, images on the HDD cannot be read. • Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. • The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
CARD		Clear of card ID-related data
Lv.1	Details	To clear the data related to the card ID (department).
	Use case	When clearing the data related to the card ID
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The value is cleared after the main power switch is turned OFF/ON.
ALARM		Clear of alarm log
Lv.1	Details	To clear alarm log.
	Use case	When clearing alarm log
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The alarm log is cleared after the main power switch is turned OFF/ON.

COPIER > FUNCTION > CLEAR		
CA-KEY		Deletion of CA certificate and key pair
Lv.2	Details	To simultaneously delete the CA certificate and key pair which are additionally registered by the user.
	Use case	When a service person replaces/discards the device
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that OK is displayed. 3) Turn OFF/ON the main power switch.
	Caution	• Unless this item is executed at the time of replacement/discard of the device, the CA certificate and key pair which are additionally registered by the user remain in the HDD, which is a problem in terms of security. • Do not execute this item carelessly because the CA certificate and key pair which are additionally registered are deleted when it is executed. If they are deleted mistakenly, they need to be again registered by the user. If no CA certificate and key pair are additionally registered, the machine condition becomes the same as the one at the time of factory shipment. • When NG is displayed in 2), there is a possibility that deletion was not executed. In this case, surely execute the deletion by initializing the HDD, etc.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
	Supplement/memo	• The CA certificate is used in the MEAP application with E-RDS and SSL client connection, and the key pair is used in the SSL function of IPP, RUI and MEAP. • When the main power switch is turned OFF/ON, the CA certificate and key pair which were registered at the time of factory shipment are decompressed from the archive (/BOOTDEV/KCMNG), and become available in the E-RDS/SSL function.
ERDS-DAT		Initialization of E-RDS SRAM data
Lv.1	Details	To initialize the SCM value of the Embedded-RDS stored in the SRAM. SCM values are ON/OFF of E-RDS, server's port number, server's SOAP URL, and communication schedule with the server (how often the data is acquired), etc. The value set by COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, RGW-ADR, COM-LOG is cleared.
	Use case	When upgrading the Bootable in the E-RDS environment
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The method of using the SRAM in E-RDS differs depending on the Bootable version. Therefore, unless the SRAM data is cleared at the time of version upgrade, data inconsistency occurs.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, RGW-ADR, COM-LOG

COPIER > FUNCTION > CLEAR		
KEY-CLR		Encrypt key clear of HDD Encrypt Board
Lv.2	Details	To clear the encryption key of the HDD Encryption Board (Security Kit) for replacement. Processing is executed at the time of replacement of the Encryption Board, and a new encryption key is generated.
	Use case	When replacing the encryption key for the HDD Encryption Board
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that OK is displayed. 2) Turn OFF/ON the main power switch.
	Caution	Since all data in the HDD becomes unavailable when executing this item, be sure to initialize the HDD after turning OFF/ON the main power switch.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
USBM-CLR		Initialize USB MEAP priority rgst info
Lv.1	Details	To initialize the registered ID data retained in the OS field by calling the API provided by the OS.
	Use case	When a failure occurs in USB MEAP priority registration
JV-CACHE		Cache clear of JAVA application
Lv.1	Details	To clear the cache information used by JAVA application.
	Use case	When initializing the JAVA application
	Adj/set/operate method	Select the item, and then press OK key.
FXTX-CLR		Clearing fax job information
Lv.1	Details	To clear fax job information stored on SRAM. Use this mode to restore from E611-0001.
	Use case	When E611-0001 occurs
	Adj/set/operate method	Select the item, and then press OK key.
TR-BLT		Clearing Transfer Belt parts counter
Lv.1	Details	To clear ETB parts counter when replacing to a new Transfer Belt (ETB).
	Use case	When replacing to a new ETB
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> COUNTER> DRBL-1> TR-BLT
GRD-CRNT		Init of Primary Charging Wire current VL
Lv.1	Details	To initialize the current value of the Primary Charging Wire by initializing the voltage value of the grid wire. The current value of the Primary Charging Wire is linked with the usage status; thus, execute initialization at the time of replacement.
	Use case	When replacing the Primary Charging Wire
	Adj/set/operate method	Select the item, and then press OK key.

COPIER > FUNCTION > CLEAR		
LANG-CLR		Uninstallation of language files
Lv.2	Details	To uninstall the language files other than Japanese and English files. After execution, the machine automatically enters the download mode.
	Use case	When installing a new language file while there are 7 installed language files
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Reboot the machine.
	Caution	The language files are not uninstalled if a language file is not installed by SST after the execution of this service mode.
	Supplement/memo	Screen is displayed in English after the execution, so switch the language.
FIN-MCON		Clearing Finisher delvry destination set
Lv.1	Details	To clear the setting of Delivery Tray of the Finisher specified in user mode (Settings/Registration> Function Settings> Common> Paper Output Settings> Output Tray Settings). Since the delivery destination settings are stored in the DC Controller PCB in the machine, malfunction occurs when replacing the Finisher with a different model without clearing the settings. If the model of the Finishers is the same, there is no need to clear the settings.
	Use case	When the Finisher is replaced with a different model in the field
	Adj/set/operate method	Select the item, and then press OK key.
	Related UI menu	Settings/Registration> Function Settings> Common> Paper Output Settings> Output Tray Settings

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MISC-R

COPIER > FUNCTION > MISC-R		
SCANLAMP		Light-up check of LED
Lv.1	Details	To light up the LED for 3 seconds.
	Use case	When replacing the LED
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
CLM-PLTN		Sampling of color copyboard read MTF VL
Lv.1	Details	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/ storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation. When color copyboard reading is performed, the controller performs sampling of the MTF value. This value is set in COPIER> ADJUST> CCD> MTF2-Mx, MTF2-Sx.
	Use case	At installation
	Adj/set/operate method	1) Set the MTF chart on the Copyboard Glass. 2) Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF2-M1-12, MTF2-S1-12
BWM-PLTN		Sampling of B&W copyboard read MTF value
Lv.1	Details	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/ storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation. When B&W copyboard reading is performed, the controller performs sampling of the MTF value. This value is set in COPIER> ADJUST> CCD> MTF2-Mx, MTF2-Sx.
	Use case	At installation
	Adj/set/operate method	1) Set the MTF chart on the Copyboard Glass. 2) Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF2-M1-12, MTF2-S1-12

COPIER > FUNCTION > MISC-R		
CLM-DF1		Sampling of clr front stream read MTF VL
Lv.1	Details	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/ storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation. When color front side stream reading is performed, the controller performs sampling of the MTF value. This value is set in COPIER> ADJUST> CCD> MTF2-Mx, MTF2-Sx.
	Use case	At installation
	Adj/set/operate method	1) Set the MTF chart on the ADF. 2) Select the item, and then press OK key. 3) Perform color front side stream reading with the MTF chart set on the ADF. (CLM-DF1)
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF2-M1-12, MTF2-S1-12
BWM-DF1		Sampling of B&W front stream read MTF VL
Lv.1	Details	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/ storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation. When B&W front side stream reading is performed, the controller performs sampling of the MTF value. This value is set in COPIER> ADJUST> CCD> MTF2-Mx, MTF2-Sx.
	Use case	At installation
	Adj/set/operate method	1) Set the MTF chart on the ADF. 2) Select the item, and then press OK key. 3) Perform B&W front side stream reading with the MTF chart set on the ADF. (BWM-DF1)
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF2-M1-12, MTF2-S1-12

COPIER > FUNCTION > MISC-R		
CLM-DF2		Sampling color back stream read MTF VL
Lv.1	Details	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/ storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation. When color back side stream reading is performed, the controller performs sampling of the MTF value. The MTF value is set in MTF-Mx, MTF-Sx.
	Use case	At installation
	Adj/set/operate method	1) Perform color back side stream reading with the MTF chart set on the ADF. (CLM-DF2) 2) Set the MTF chart on the ADF. 3) Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF-M1-12, MTF-S1-12
BWM-DF2		Sampling B&W back stream read MTF value
Lv.1	Details	The MTF value for the Reader Unit is sometimes displaced from the factory setting value depending on the condition at transportation/ storage. If the machine is installed without correcting the value, it may cause an image failure such as moire. Therefore, it is necessary to readjust the MTF value by reading the MTF adjustment chart at installation. When B&W back side stream reading is performed, the controller performs sampling of the MTF value. The MTF value is set in MTF-Mx, MTF-Sx.
	Use case	At installation
	Adj/set/operate method	1) Perform B&W back side stream reading with the MTF chart set on the ADF. (BWM-DF2) 2) Set the MTF chart on the ADF. 3) Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> ADJUST> CCD> MTF-M1-12, MTF-S1-12

COPIER > FUNCTION > MISC-R		
CLPLT-EN		Color copyboard read MTF VL initial set
Lv.1	Details	To return the MTF value for color copyboard reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When CLM-PLTN is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with CLM-PLTN becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the front side of a color image even performing a fine adjustment with CLM-TGT after adjusting the MTF value with CLM-PLTN.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> CLM-PLTN, CLM-TGT COPIER> ADJUST> CCD> MTF2-M1-12, MTF2-S1-12
BWPLT-EN		B&W copyboard read MTF value initial set
Lv.1	Details	To return the MTF value for B&W copyboard reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When BWM-PLTN is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with BWM-PLTN becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the front side of a B&W image even performing a fine adjustment with BWM-TGT after adjusting the MTF value with BWM-PLTN.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> BWM-PLTN, BWM-TGT COPIER> ADJUST> CCD> MTF2-M1-12, MTF2-S1-12

COPIER > FUNCTION > MISC-R		
CLDF1-EN		Clr front stream read MTF VL initial set
Lv.1	Details	To return the MTF value for color front side stream reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When CLM-DF1 is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with CLM-DF1 becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the front side of a color image even performing a fine adjustment with CLM-TGT after adjusting the MTF value with CLM-DF1.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> CLM-DF1, CLM-TGT COPIER> ADJUST> CCD> MTF2-M1-12, MTF2-S1-12
BWDF1-EN		B&W front stream read MTF VL initial set
Lv.1	Details	To return the MTF value for B&W front side stream reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When BWM-DF1 is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with BWM-DF1 becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the front side of a B&W image even performing a fine adjustment with BWM-TGT after adjusting the MTF value with BWM-DF1.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> BWM-DF1, BWM-TGT COPIER> ADJUST> CCD> MTF2-M1-12, MTF2-S1-12

COPIER > FUNCTION > MISC-R		
CLDF2-EN		Clr back stream read MTF VL initial set
Lv.1	Details	To return the MTF value for color back side stream reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When CLM-DF2 is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with CLM-DF2 becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the back side of a color image even performing a fine adjustment with CLM-TGT after adjusting the MTF value with CLM-DF2.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> CLM-DF2, CLM-TGT COPIER> ADJUST> CCD> MTF-M1-12, MTF-S1-12
BWDF2-EN		B&W back stream read MTF VL initial set
Lv.1	Details	To return the MTF value for B&W back side stream reading to the factory setting value. Since overwriting is performed with the backup data retained in the Reader Controller PCB, the MTF value obtained by sampling of the MTF chart becomes disabled. When BWM-DF2 is executed, the value is automatically set to 1. When the value is set to 0, the value adjusted with BWM-DF2 becomes disabled and returned to the factory setting value.
	Use case	When returning the MTF value to the initial setting value upon user's request in case that a sufficient quality level cannot be obtained on the back side of a B&W image even performing a fine adjustment with BWM-TGT after adjusting the MTF value with BWM-DF2.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The MTF value obtained by reading the MTF chart becomes disabled.
	Display/adj/set range	0 to 1 0: Factory setting value, 1: Adjustment value at installation
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-R> BWM-DF2, BWM-TGT COPIER> ADJUST> CCD> MTF-M1-12, MTF-S1-12

COPIER > FUNCTION > MISC-R		
CLM-TGT		Fine adjustment of color MTF value
Lv.1	Details	To perform the filter processing inside of the Reader Controller so that the MTF value measured by CLM-PLTN/CLM-DF1/CLM-DF2 becomes 55% or lower of the value. When 1 is specified, the MTF correction filter is calculated again, and the MTF value becomes 50% or lower of the value (the image becomes foggy). The backup MTF filter correction coefficient is updated.
	Use case	When decreasing the MTF value (to make the image foggy) upon user's request (moire, incorrect judgment)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: 55% 1: 50% (The image becomes foggy.)
	Default value	0
	Supplement/memo	The MTF value is set to 65% at the time of shipment.
BWM-TGT		Fine adjustment of B&W MTF value
Lv.1	Details	To perform the filter processing inside of the Reader Controller so that the MTF value measured by BWM-PLTN/BWM-DF1/BWM-DF2 becomes 55% or lower of the value. When 1 is specified, the MTF correction filter is calculated again, and the MTF value becomes 50% or lower of the value (the image becomes foggy). The backup MTF filter correction coefficient is updated.
	Use case	When decreasing the MTF value (to make the image foggy) upon user's request (moire, incorrect judgment)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: 55% 1: 50% (The image becomes foggy.)
	Default value	0
	Supplement/memo	The MTF value is set to 65% at the time of shipment.
SCANLMP2		Light-up check of LED Lamp Unit: back
Lv.1	Details	To light up the LED Lamp Unit for back side, which is placed in the ADF, and check whether there is a missing block or no lighting in LED.
	Use case	When replacing the LED Lamp Unit for back side
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

COPIER > FUNCTION > MISC-R		
RD-SHPOS		Moving to Reader Scanner Unit fix pstn
Lv.2	Details	To move the Reader Scanner Unit to the position where it is fixed when moving. When moving the Reader after installation, the Reader Scanner Unit may move and get damage. By moving the Scanner Unit to the specified position and securing it in place with a screw before moving, damage can be prevented.
	Use case	When moving the Reader after installation
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to move the Scanner Unit to the fixing position and secure it in place with a screw when moving the Reader after installation. Otherwise, the Scanner Unit may get damage.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

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MISC-P

COPIER > FUNCTION > MISC-P		
P-PRINT		Output of service mode setting value
Lv.1	Details	To print the service mode setting value.
	Use case	Before executing the CLEAR service mode, etc.
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	It takes approximately 15 seconds before printing starts.
KEY-HIST		Output of Ctrl Panel key input log
Lv.1	Details	To print the key input log on the Control Panel.
	Use case	When printing the key input log on the Control Panel
	Adj/set/operate method	Select the item, and then press OK key.
HIST-PRT		Output of jam and error history
Lv.1	Details	To print the jam history and error history.
	Use case	When printing the jam/error history
	Adj/set/operate method	Select the item, and then press OK key.
TRS-DATA		Moving memory reception data to Inbox
Lv.2	Details	To move the data received in memory to Inbox.
	Use case	When moving the data received in memory to Inbox
	Adj/set/operate method	Select the item, and then press OK key.
USER-PRT		Output of user mode list
Lv.1	Details	To print the user mode list.
	Use case	When printing the user mode list
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	It takes approximately 3 seconds before printing starts.
LBL-PRNT		Output of service label
Lv.1	Details	To print the service label.
	Use case	When printing the service label
	Adj/set/operate method	1) Place A4/LTR paper in Cassette 1. 2) Select the item, and then press OK key.
	Supplement/memo	It takes approximately 15 seconds before printing starts.
PRE-EXP		Light-up of Pre-exposure LED
Lv.1	Details	To light up the Cleaning Pre-exposure LED. Open the Front Cover, and check that the LEDs light up visually. It automatically stops after all light up.
	Use case	When checking that the Pre-exposure LEDs light up
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Drum memory may occur, so be sure not to execute this item frequently.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
ENV-PRT		Temp&hmdy/surface temp of Fix Roll log
Lv.1	Details	To output data of the temperature and humidity inside the machine/ surface temperature of the Fixing Roller as a log.
	Use case	When figuring out the past temperature inside the machine/fixing temperature information at trouble analysis
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!

COPIER > FUNCTION > MISC-P		
PJH-P-1		Detail info of print job history:100 job
Lv.1	Details	To print the print job history for the latest 100 jobs with detailed information. In the case of less than 100 jobs, the history of all print jobs is printed.
	Use case	When printing the print job history with detailed information
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	Output the print job history with detailed information which is not displayed/printed in the job history screen under “System Monitor>Print>Log>Printer” and in the report of the print job history.
PJH-P-2		Detail info of print job history:all job
Lv.1	Details	To print the history of all print jobs stored in the machine with detailed information (for maximum 5000 jobs). The difference between PJH-P-1 and this item is only the number of jobs printed.
	Use case	When printing the print job history with detailed information
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	Output the print job history with detailed information which is not displayed/printed in the job history screen under “System Monitor>Print>Log>Printer” and in the report of the print job history.
WB		Reverse toner forcible eject: blank band
Lv.2	Details	To eject the reverse toner forcibly. After execution, it automatically stops.
	Use case	When operating in a high duty and low humidity environment for a long time (executed by administrator)
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	In processing: ACTIVE, At normal termination: OK, At abnormal termination: NG
BB		Toner forcible eject (black band)
Lv.1	Details	Forcibly discharge low-charge toner, and send it to the drum cleaner unit. The operation automatically stops after execution.
	Use case	When operating the machine in low-duty and high-humidity environment for a long period of time (implemented by the administrator)
	Adj/set/operate method	Select the item and press the OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK, When operation failed: NG
USBH-PRT		Output of USB device information report
Lv.1	Details	To output information of the connected USB device in the form of a report.
	Adj/set/operate method	Select the item, and then press OK key.

COPIER > FUNCTION > MISC-P		
DV-RT		Idle rotation of Developing Assembly
Lv.1	Details	To execute idle rotation of the Developing Assembly. Duration can be set by COPIER> OPTION> IMG-DEV>DV-RT-LG.
	Use case	When small vertical lines occurs on an image
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	If using frequently, deterioration of developer or toner scattering might occur.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Related service mode	COPIER> OPTION> IMG-DEV>DV-RT-LG
RPT-FILE		Output of report print file
Lv.1	Details	To save various service reports in HDD as a file. The files can be obtained using PC to which SST has been installed or USB memory device after starting the machine in download mode.
	Use case	When obtaining the service report as a file instead of printing the report out
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	File size: Approx. 1 MB at a maximum

T-8-50

SENS-ADJ

COPIER > FUNCTION > SENS-ADJ		
STCK-LMT		Adj of Shift Tray Full Sensor position
Lv.2	Details	To adjust position of the Shift Tray Full Sensor (front)/(rear). ”ON” is displayed at detection of full, and “OFF” is displayed at other times.
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At detection of full: ON, At other times: OFF

T-8-51

SYSTEM

COPIER > FUNCTION > SYSTEM		
DOWNLOAD		Shift to download mode
Lv.1	Details	To make the machine enter the download mode and wait for a command. Perform downloading by SST.
	Use case	At upgrade
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Perform downloading by SST.
	Caution	Do not turn OFF the power before HOLD is displayed.
	Supplement/memo	SST: Service Support Tool
CHK-TYPE		HD-CLEAR/HD-CHECK exe partition No.
Lv.1	Details	To specify the partition number of the HDD to execute HD-CLEAR/HD-CHECK.
	Use case	When executing HD-CLEAR/HD-CHECK
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 65535 0: Entire HDD 1, 2, 3, 4: Image data storage area 5: Universal file storage area 6, 7, 8: Universal file storage area (temporary file) 9: PDL file storage area 10: Program file storage area 11: MEAP application 12: Address book/transfer setting 13: MEAP stored data 14: System log storage area 15: Advanced Box area 16: Delivery server area
	Related service mode	COPIER> FUNCTION> SYSTEM> HD-CLEAR, HD-CHECK
	Supplement/memo	Universal file: Management information of user setting data, various log data, PDL spool data, and image data, etc.
HD-CHECK		Entire HDD check and recovery
Lv.1	Details	To check the entire HDD and execute recovery processing.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	During operation: Progress ratio (%), When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE

COPIER > FUNCTION > SYSTEM		
HD-CLEAR		Initialization of specified partition
Lv.1	Details	To initialize the HDD partition specified by CHK-TYPE.
	Use case	When initializing the HDD partition
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	Top 2 digits: Progress ratio (%, Returns to “00” at termination) Last 2 digits: Result at termination (00: Normally finished, Others: Abnormally finished)
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE
DEBUG-1		Setting of log type and save timing
Lv.2	Details	To set the types of logs to be stored and the timing to store logs in the HDD. Logs are used to analyze the cause of a trouble.
	Use case	When analyzing the cause of a problem
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Do not use this at the normal service. Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 3 0: Save PLOG at detection of Reboot/Exception 1: Save PLOG at detection of Reboot/Exception/Encode 2: Save SUBLOG at detection of Reboot/Exception/Encode 3: Save SUBLOG in overwrite mode at detection of Reboot/Exception/Encode
	Default value	3
DSRAMBUP		Backup of DC Controller PCB SRAM
Lv.2	Details	To back up the setting data in SRAM of the DC Controller PCB.
	Use case	When replacing the DC Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMRES
DSRAMRES		Restore of DC Controller PCB SRAM
Lv.2	Details	To restore the setting data which has been backed up in SRAM of the DC Controller PCB.
	Use case	When replacing the DC Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMBUP

COPIER > FUNCTION > SYSTEM		
RSRAMBUP		Backup of Reader Controller PCB SRAM
Lv.2	Details	To back up the setting data in SRAM of the Reader Controller PCB.
	Use case	When replacing the Reader Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMRES
RSRAMRES		Restore of Reader Controller PCB SRAM
Lv.2	Details	To restore the setting data which has been backed up in SRAM of the Reader Controller PCB.
	Use case	When replacing the Reader Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMBUP
R-REBOOT		Reboot of host machine (Remote)
Lv.1	Details	To reboot the host machine.
	Use case	When rebooting the host machine by remote control
	Adj/set/operate method	Select the item, and then press OK key.

T-8-52

2D-SHADE

COPIER > FUNCTION > 2D-SHADE		
M-LINE1		2D shading horizontal scan 1 correction
Lv.2	Details	To set the correction value of the horizontal scanning direction 1 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> M-LINE2
M-LINE2		2D shading horizontal scan 2 correction
Lv.2	Details	To set the correction value of the horizontal scanning direction 2 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> M-LINE1
S-LINE1		2D shading vertical scan 1 correction
Lv.2	Details	To set the correction value of the vertical scanning direction 1 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> S-LINE2, S-LINE3, S-LINE4
S-LINE2		2D shading vertical scan 2 correction
Lv.2	Details	To set the correction value of the vertical scanning direction 2 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> S-LINE1, S-LINE3, S-LINE4
S-LINE3		2D shading vertical scan 3 correction
Lv.2	Details	To set the correction value of the vertical scanning direction 3 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> S-LINE1, S-LINE2, S-LINE4
S-LINE4		2D shading vertical scan 4 correction
Lv.2	Details	To set the correction value of the vertical scanning direction 4 at 2D shading.
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 255
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> S-LINE1, S-LINE2, S-LINE3

COPIER > FUNCTION > 2D-SHADE		
SHD-P1		2D shading pattern 1 output
Lv.1	Details	To output pattern 1 for 2D shading.
	Use case	When checking 2D shading profile visually and entering manually
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> SHD-P2, SHD-P3
SHD-P2		2D shading pattern 2 output
Lv.1	Details	To output pattern 2 for 2D shading.
	Use case	When checking 3D shading profile visually and entering manually
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> SHD-P1, SHD-P3
SHD-P3		2D shading pattern 3 output
Lv.1	Details	To output pattern 3 for 2D shading.
	Use case	When checking 4D shading profile visually and entering manually
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> OPTION> IMG-LSR> 2D-SHADE COPIER> FUNCTION> 2D-SHADE> SHD-P1, SHD-P2
2D-READ		Read 2D shading ROM
Lv.1	Details	To read 2D shading ROM data. To check ROM for 2D shading, compare the calculated checksum and checksum of ROM. When they are matched, the checksum and Drum Lot number are stored in the DC Controller. When they are not matched, it is judged as an alarm.
	Use case	After executing initialization of Drum at Drum replacement
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During execution: ACTIVE, At normal termination: OK!, At abnormal termination: NG!
	Related service mode	COPIER> DISPLAY> 2D-SHADE> 2D-STS COPIER> OPTION> IMG-LSR> 2D-SHADE

T-8-53

OPTION

CLEANING

COPIER > OPTION > CLEANING		
W-CLN-P		Set last rotn Prmry Charge Wir cln intvl
Lv.2	Details	To set the offset value of the paper interval for automatic cleaning of the Primary Charging Wire. Default is 2000 sheets, and the paper interval can be changed within the range between 1000 and 5000 sheets.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-1000 to 3000
	Default value	0 (2000 sheets)
CLN-SW		ON/OFF of cleaning black band sequence
Lv.1	Details	To set ON/OFF of black band sequence for cleaning. When printing a low duty image while toner ejection operation at low duty image is set to OFF, amount of toner supply to the Cleaning Blade is decreased extremely. Toner is supplied to the edge of Cleaning Blade if the sequence is executed. The execution of sequence is synchronized with the Primary Charging Wire cleaning timing. When setting CLN-SW to 2 and setting CLN-ADJ to 0, the setting value "7" of environment control for each process speed is executed. When setting CLN-SW to 2 and setting CLN-ADJ to other than 0, operation is accorded with the setting value of CLN-ADJ. When setting CLN-SW to 0, operation is not executed regardless of the CLN-ADJ setting.
	Use case	When amount of toner supply to the Cleaning Blade is decreased extremely
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 2 0: OFF, 1: Based on environment control, 2: ON
	Default value	1
	Related service mode	COPIER> OPTION> CLEANING> CLN-ADJ

COPIER > OPTION > CLEANING		
CLN-ADJ		Set black band length for cleaning
Lv.1	Details	To set black band length for cleaning. When setting CLN-SW to 2 and setting CLN-ADJ to 0, the setting value "7" of environment control for each process speed is executed. When setting CLN-SW to 2 and setting CLN-ADJ to other than 0, operation is accorded with the setting value of CLN-ADJ. When setting CLN-SW to 0, operation is not executed regardless of the CLN-ADJ setting. However, with imageRUNNER ADVANCE 8205/8295/8285, black band sequence is not executed although the setting value of environment control is "7". Set CLN-ADJ to other than 0 to execute the operation.
	Use case	When amount of toner supply to the Cleaning Blade is decreased extremely
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 4 0: Based on environment control, 1: 1000 mm, 2: 2098 mm, 3: 3548 mm, 4: 5000 mm
	Default value	0
	Related service mode	COPIER> OPTION> CLEANING> CLN-SW

T-8-54

CUSTOM

COPIER > OPTION > CUSTOM		
TEMP-TBL		Set fixing control temp table: Plain
Lv.1	Details	To set the control temperature table of the Fixing Roller for 64 to 90g/m2 size paper.
	Use case	When alleviating the curl
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-5 to 2 -5 to -1: -5 degC, 0: 0 degC, 1 to 2: +5 degC
	Default value	0
CCD-TYPE		Setting of CCD Unit type
Lv.2	Details	To set the CCD Unit type installed in the Reader to the backup area in the controller. Controller switches the image processing table according to the setting value.
	Use case	When changing the CCD Unit type
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Initial type, 1: Improved type
	Default value	0
	Supplement/memo	If the CCD Unit is changed after factory shipment, the Reader cannot identify the type.
SC-L-CNT		Set large paper jdgmt reference at scan
Lv.1	Details	To set the judgment reference of the scan counter as to which to use B4 or LTR to determine large size. The threshold is determined by the combination with the setting of B4-L-CNT. SC-L-CNT=0, B4-L-CNT=0: paper exceeding B4 is determined as large size, paper with B4 or smaller is determined as small size. SC-L-CNT=0, B4-L-CNT=1: paper with B4 or larger is determined as large size, paper smaller than B4 is determined as small size.
	Use case	As needed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: B4 size, 1: LTR size
	Default value	0
	Related service mode	COPIER> OPTION> USER> B4-L-CNT
FACT-DEF		Set batch chng of factory setting values
Lv.2	Details	To set the batch change of factory setting values for customization.
	Display/adj/set range	0 to 1
	Default value	0

COPIER > OPTION > CUSTOM		
MAILYEAR		Set auto add to e-mail Subject/File name
Lv.2	Details	To set whether to add date, time and split number automatically to the end of a character string of e-mail Subject/File name.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Following the current setting, 1: Adding
	Default value	0
BOX-BKUP		Set to allow Inbox backup data restore
Lv.1	Details	To set whether to permit restoration of Inbox backup data. Machine subject to restoration can be selected from either the same model or the next model. When restoration is completed normally, the setting value is returned to 0.
	Use case	At replacement, permit to restore backup data of other model (some models).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Permit restoration only from own device to own device (same model only) 1: Permit restoration only from old device to new device (next model only)
	Default value	0
SCANTYPE		Switch of ADF + Reader
Lv.1	Details	To switch to a different type ADF + Reader Unit.
	Use case	At installation
	Display/adj/set range	0 to 1 0: Reverse Duplex ADF + Reader, 1: 1-Path Duplex ADF + Reader
	Default value	0
PDLEVCT1		Set event skipping at continuous PDL job
Lv.2	Details	To set event skipping at continuous PDL job. During continuous operation, processing performance may be decreased due to other events generated by the event in operation. In this case, decrease of processing performance can be prevented by skipping the amount of event. Processing performance: No event skipping < Subject of skipping 1
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No event skipping, 1: Subject of skipping 1
	Default value	1

COPIER > OPTION > CUSTOM		
ABK-TOOL		Allow access from address book mntc tool
Lv.1	Details	To set whether to accept import from the address book maintenance tool.
	Use case	When executing import from the address book maintenance tool
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/memo	Address book maintenance tool: Tool provided from CMJ.
DEV-SP1		Device special settings 1
Lv.2	Details	To execute the device special settings 1.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
DEV-SP2		Device special settings 2
Lv.2	Details	To execute the device special settings 2.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
DEV-SP3		Device special settings 3
Lv.2	Details	To execute the device special settings 3.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
DEV-SP4		Device special settings 4
Lv.2	Details	To execute the device special settings 4.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000

COPIER > OPTION > CUSTOM		
DEV-SP5		Device special settings 5
Lv.2	Details	To execute the device special settings 5.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
DEV-SP6		Device special settings 6
Lv.2	Details	To execute the device special settings 6.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
DEV-SP7		Device special settings 7
Lv.2	Details	To execute the device special settings 7.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000
DEV-SP8		Device special settings 8
Lv.2	Details	To execute the device special settings 8.
	Use case	When specific instructions are given from the Quality Support Division
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	00000000 to 11111111
	Default value	00000000

COPIER > OPTION > CUSTOM		
AC-FREQ		Setting of frequency of AC power
Lv.2	Details	Although power frequency is judged for power control with the machine, it might be judged incorrectly depending on power circumstance at the installation location. At left side column, the power frequency (50 Hz/60 Hz) which the DC Controller judged at power-on is displayed. In the case that the power frequency is not matched with the one at the installation location, set the AC power frequency at right side column.
	Use case	When the breaker is frequently tripped during operation
	Adj/set/operate method	1) Select the right side column. 2) Enter the setting value, and then press OK key.
	Display/adj/set range	Left side: 0 to 1 0: 50 Hz, 1: 60 Hz Right side: 0 to 2 0: Judged frequency is used, 1: 50 Hz, 2: 60 Hz
	Default value	0
EXT-TBOX		Set Wst Tonr Cntner preparation warn tmg
Lv.1	Details	To set the number of images (calculation with A4 and 5% image ratio) until the Waste Toner Container preparation warning message is displayed. As the value is incremented by 1, the number of images is increased by approx. 10,000. +: Timing is delayed -: Timing becomes earlier
	Use case	When adjusting the Waste Toner Container preparation warning timing according to the usage of the user
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	• Depending on the image ratio or use environment (temperature and humidity), the message may be displayed before reaching the specified number of sheets. • Toner leak may occur when changing the value drastically.
	Display/adj/set range	-10 to 9 -10: -100,000 images, ..., -1: -10,000 images, 0: 0 sheet, 1: +10,000 images, ..., 9: +90,000 images (calculation with A4 and 5% image ratio)
	Default value	0
DFEJCLED		ON/OFF of DADF delivery LED
Lv.1	Details	To set whether to light up the delivery LED of DADF during a job.
	Use case	Upon user's request (The delivery LED is too bright.)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0

COPIER > OPTION > CUSTOM		
RDEV-SP1		RCON device special settings 1
Lv.2	Details	To execute the device special setting.
	Use case	For customization, etc.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP2		RCON device special settings 2
Lv.2	Details	To execute the device special setting.
	Use case	For customization, etc.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP4		RCON device special settings 4
Lv.2	Details	To execute the device special setting.
	Use case	For customization, etc.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP5		RCON device special settings 5
Lv.2	Details	To execute the device special setting.
	Use case	For customization, etc.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP6		RCON device special settings 6
Lv.2	Details	To execute the device special setting.
	Use case	For customization, etc.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0

COPIER > OPTION > CUSTOM		
RDEV-SP7		RCON device special settings 7
Lv.2	Details	To execute the device special setting.
	Use case	For customization, etc.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0
RDEV-SP8		RCON device special settings 8
Lv.2	Details	To execute the device special setting.
	Use case	For customization, etc.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use this mode only when specific instructions are given.
	Display/adj/set range	00000000 to 11111111
	Default value	0

T-8-55

DSPLY-SW

COPIER > OPTION > DSPLY-SW		
UI-COPY		Display/hide of copy screen
Lv.2	Details	To set whether to display or hide the copy function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-BOX		Display/hide of Inbox screen
Lv.2	Details	To set whether to display or hide the Inbox function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: No Inbox function (Storing is not available even with PDL to Inbox.) 1: Inbox function is active 2: Inbox function is active (with limitation; Storing is available with PDL to Inbox despite no display on the Control Panel/remote UI)
	Default value	1
	Related UI menu	Preferences> Display Settings> Store Location Display Settings> Mail Box The setting value is changed to 2 when turning OFF the foregoing user mode, and the value is changed to 1 when turning ON the mode at power-off/on. As the setting value of this service mode is changed, the setting value of the foregoing user mode is also changed.
UI-SEND		Display/hide of send screen
Lv.2	Details	To set whether to display or hide the SEND function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-FAX		Display/hide of FAX screen
Lv.2	Details	To set whether to display or hide the FAX function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
T-LW-LVL		[Not used]

COPIER > OPTION > DSPLY-SW		
NWERR-SW		OFF/ON of network-related error display
Lv.2	Details	To set OFF/ON of network-related error message display. When setting “0: OFF” while the machine is not connected to network, the error message “Check the network connection.” is not displayed.
	Use case	When using the machine as a copy machine
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	Printer model: 1, Copier model: 0
ANIM-SW		Screen switch set from MEAP to warning
Lv.2	Details	To set to enable/disable switching from MEAP screen to the error/jam screen. If disabling this mode, the screen will not be switched to the warning screen in the case of an error/jam/alarm, and a message is appeared on the MEAP screen indicating to contact the service person.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled (No display of warning screen)
	Default value	0
	Related service mode	COPIER> OPTION> DSPLY-SW> MEAP-DSP
	Supplement/memo	If just disabling the switch with MEAP-DSP, the screen is switched to the standard screen in the case of an error/jam/alarm. If disabling the switch with ANIM-SW, the screen will not be switched to the standard screen and a warning is appeared on MEAP screen.
UI-PRINT		Display/hide of print job screen
Lv.2	Details	To set whether to display or hide the print job screen.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

COPIER > OPTION > DSPLY-SW		
IMGC-ADJ		Dspl/hide of img adj item in user mode
Lv.1	Details	To set whether to display or hide the item relating to image adjustment in user mode. When selecting display setting, detailed image adjustment procedure will be displayed only for the duplicated paper specified with the following settings: Preferences> Paper Settings> Set Paper Type Management.
	Use case	As needed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Preferences> Paper Settings> Set Paper Type Management
UI-RSCAN		Display/hide of remote scan screen
Lv.2	Details	To set whether to display or hide the remote scan screen on the Control Panel.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-EPRNT		Display/hide of extended print screen
Lv.2	Details	To set whether to display or hide the extended print screen (print screen for print server).
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-WEB		Display/hide of Web browser screen
Lv.2	Details	To set whether to display or hide the Web browser screen.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

COPIER > OPTION > DSPLY-SW		
UI-HOLD		Display/hide of hold job screen
Lv.2	Details	To set whether to display the hold job screen on the Control Panel.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
OPEMANT		ON/OFF of operator maintenance mode
Lv.2	Details	To set ON/OFF of operator maintenance mode. When setting to ON, "Operator Maintenance Mode" is displayed on the Settings/Registration screen.
	Use case	When starting operator maintenance
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related UI menu	Settings/Registration > Operator Maintenance Mode
OPLOG-SW		Dspl/hide of error log in operator mntc
Lv.2	Details	To set whether to display or hide error/jam/alarm-2 log in operator maintenance mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
OP-ALMT		Set warning mssg timing in operator mntc
Lv.2	Details	To set the timing to display warning message of parts replacement/cleaning counter in operator maintenance mode. With this setting, warning message is displayed once before reaching the specified life of parts or number of sheets for cleaning.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: At 100%, 1: At 90% and 100%
	Default value	0

COPIER > OPTION > DSPLY-SW		
RMT-CNSL		ON/OFF of MEAP console screen
Lv.1	Details	Selecting "1: ON" enables to obtain log for Function Composer on console screen.
	Use case	When obtaining log for Function Composer
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
UI-SBOX		ON/OFF of Advanced Box screen display
Lv.2	Details	To set ON/OFF of the Advanced Box screen on the Control Panel.
	Use case	When not displaying the Advanced Box screen on the Control Panel
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	JP:1, USA:1, EUR:0, AU:1, CN:1, KR:1, TW:1, ASIA:1
	Supplement/memo	Preferences> Display Settings> Store Location Display Settings> Advanced Box / Network The setting value is changed to 0 when turning OFF the foregoing user mode, and the value is changed to 1 when turning ON the mode at power-off/on. As the setting value of this service mode is changed, the setting value of the foregoing user mode is also changed.
UI-MEM		ON/OFF of memory media screen display
Lv.2	Details	To set ON/OFF of the memory media screen display on the Control Panel.
	Use case	When not displaying the memory media screen on the Control Panel
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	Preferences> Display Settings> Store Location Display Settings> Memory Media The setting value is changed to 0 when turning OFF the foregoing user mode, and the value is changed to 1 when turning ON the mode at power-off/on. As the setting value of this service mode is changed, the setting value of the foregoing user mode is also changed.
UI-NAVI		Display/hide of useful feat intro
Lv.2	Details	To set whether to display or hide "Introduction to Useful Features" in the main menu.
	Use case	Upon user's request
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-MOBP		[Not used]

COPIER > OPTION > DSPLY-SW		
UI-CUSTM		ON/OFF of custom menu screen display
Lv.2	Details	To set ON/OFF of the custom menu screen display on the Control Panel.
	Use case	When not displaying the custom menu screen on the Control Panel
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
SCT-BTN		Set No. of shortcut buttons upper limit
Lv.1	Details	To set an upper limit on the number of shortcut buttons that appear at the top of the Control Panel screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When 1 is set, the number of shortcut buttons that can be set increases from 2 to 4. However, the buttons become smalled in width, and the number of characters that can be displayed decreases. Depending on the MEAP application allocated to the shortcut button, the character strings displayed may not be fully displayed. Since the character strings displayed on the shortcut button are specified by the MEAP application, they cannot be changed. Therefore, if the number of characters are too many, foregoing symptom occurs. To prevent the symptom, a measure such as decreasing the number of characters on the MEAP application side needs to be taken.
	Display/adj/set range	0 to 1 0: 2 buttons, 1: 4 buttons
	Default value	0
USER-DSP		Display/hide of login user name
Lv.1	Details	To set whether to display the name of the user who logs in to the machine on the screen of the Control Panel (upper left area).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Hide, 1: Display the user name, 2: Display the display name
	Default value	0

COPIER > OPTION > DSPLY-SW		
SDTM-DSP		Display/hide of auto shutdown time
Lv.1	Details	To set whether to display "Auto Shutdown Time" in user mode.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When "Hide" is set, auto shutdown time is reset. (Auto shutdown is not performed.)
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	JP:0, USA:0, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Settings/Registration> Preferences> Time/Energy Settings> Auto Shutdown Time
WT-WARN		Dspl/hide of Wst Tonr Cntner prep mssg
Lv.1	Details	To set whether to display the preparation warning message of the Waste Toner Container on the status area of LUI.
	Use case	When there is no need to notify the preparation timing of the Waste Toner Container to the user
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

T-8-56

ENV-SET

COPIER > OPTION > ENV-SET		
ENVP-INT		Temp, humid/Fix Roll temp log get cycle
Lv.1	Details	To set the cycle to obtain log of the temperature and humidity inside the machine or the surface temperature of the Fixing Roller. As the value is incremented by 1, the cycle is increased by 1 minute. Obtained log can be displayed by selecting the following: COPIER > DISPLAY > ENVRNT
	Use case	At trouble analysis
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 480
	Default value	60
	Related service mode	COPIER> DISPLAY> ENVRNT
DRY-CISU		ON/OFF of condensation prevention mode
Lv.1	Details	To set ON/OFF of condensation mode. When droplets are appeared on the Scanner Unit due to condensation and image failure or E225 occurs, set “1: ON”. By selecting 1, the Scanner Unit (paper front) stops the fan for 15 seconds and the Scanner Unit (paper back) lights LED for 30 seconds from the next startup.
	Use case	When droplets are appeared on the Scanner Unit due to condensation and image failure or E225 occurs
	Display/adj/set range	0 to 1 0: OFF (Normal mode), 1: ON (Anti-condensation mode)

T-8-57

FEED-SW

COPIER > OPTION > FEED-SW		
TRY-CHG		Set of Delivery Tray switch at tray full
Lv.2	Details	To set the Delivery Tray switching control when the Delivery Tray of the Finisher reaches to the full level. If Tray A/B is selected as a delivery tray, tray is switched to the Tray A when the Tray B reaches to the full level. At this time, after removing papers on the Tray B, paper is delivered to the Priority Tray when 0 is set. When 1 is set, paper is output followed by the previous job.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Deliver to the Priority Tray, 1: Deliver followed by the previous job
	Default value	0
REG-SPD		Speed adj of Rgst Roller: plain paper
Lv.2	Details	To adjust the Registration Roller speed when 1/1 speed is set for plain paper, etc. Increase the value if the image at the leading edge of paper shrinks in the feeding direction, and decrease the value if it expands. Decrease the value if wavy-line image occurs. If these symptoms are not alleviated after adjustment is made, replace the Registration Roller.
	Display/adj/set range	-50 to 50
	Default value	0
	Related service mode	COPIER> OPTION> FEED-SW> REG-SPD2, REG-SPD3
INSRT-SW		[Not used]

COPIER > OPTION > FEED-SW		
DK2-TURN		ON/OFF of L-Deck Pckup Rol little rotn
Lv.1	Details	To set whether to rotate the Left Deck Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Deck has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case	When pickup jam occurs with the following conditions • Pickup Deck has not been used for a long time • The usage is extended • At the operation performed first time for the day in a low temperature environment
	Caution	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the deck.
	Display/adj/set range	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value	0
	Related service mode	COPIER> OPTION> FEED-SW> DK1-TURN, DK3-TURN, DK4-TURN, DK5-TURN

COPIER > OPTION > FEED-SW		
DK3-TURN		ON/OFF of Casstt3 Pckup Rol little rotn
Lv.1	Details	To set whether to rotate the Cassette 3 Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Cassette has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case	When pickup jam occurs with the following conditions • Pickup Cassette has not been used for a long time • The usage is extended • At the operation performed first time for the day in a low temperature environment
	Caution	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the Cassette.
	Display/adj/set range	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value	0
	Related service mode	COPIER> OPTION> FEED-SW> DK1-TURN, DK2-TURN, DK4-TURN, DK5-TURN

COPIER > OPTION > FEED-SW		
DK4-TURN		ON/OFF of Casstt4 Pckup Rol little rotn
Lv.1	Details	To set whether to rotate the Cassette 4 Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Cassette has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case	When pickup jam occurs with the following conditions • Pickup Cassette has not been used for a long time • The usage is extended • At the operation performed first time for the day in a low temperature environment
	Caution	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the Cassette.
	Display/adj/set range	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value	0
	Related service mode	COPIER> OPTION> FEED-SW> DK1-TURN, DK2-TURN, DK3-TURN, DK5-TURN

COPIER > OPTION > FEED-SW		
DK1-TURN		ON/OFF of R-Deck Pckup Rol little rotn
Lv.1	Details	To set whether to rotate the Right Deck Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Deck has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case	When pickup jam occurs with the following conditions • Pickup Deck has not been used for a long time • The usage is extended • At the operation performed first time for the day in a low temperature environment
	Caution	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the deck.
	Display/adj/set range	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value	0
	Related service mode	COPIER> OPTION> FEED-SW> DK2-TURN, DK3-TURN, DK4-TURN, DK5-TURN

COPIER > OPTION > FEED-SW		
DK5-TURN		ON/OFF of OP-Deck Pckup Rol little rotn
Lv.1	Details	To set whether to rotate the Option Deck Pickup Roller a little after completion of job or at the time of warm-up rotation. If the Pickup Deck has not been used for a long time, a part of the Separation Roller engaged with the Pickup Roller becomes worn and the roller stops rotation. As a result of that, jam may occur. When 1 is set, the Pickup Roller rotates 75mm after completion of job so that wear of the Separation Roller can be reduced. As the usage is extended or at the operation performed first time for the day in a low temperature environment, the Separation Roller is not rotated in response to rotation of the Pickup Roller. As a result of that, jam may occur. When 2 is set, the Pickup Roller rotates 75mm at warm-up rotation.
	Use case	When pickup jam occurs with the following conditions • Pickup Deck has not been used for a long time • The usage is extended • At the operation performed first time for the day in a low temperature environment
	Caution	When ON is set, papers sticking out of the Receptacle may get stuck at the time of opening and closing the deck.
	Display/adj/set range	0 to 3 0: OFF, 1: ON after a job, 2: ON at warm-up rotation, 3: ON after a job and at warm-up rotation
	Default value	0
	Related service mode	COPIER> OPTION> FEED-SW> DK1-TURN, DK2-TURN, DK3-TURN, DK4-TURN
TFL-RTC		Set delvry dest at rcvry after tray full
Lv.1	Details	To select the delivery destination for a job with multiple pages after recovering the Delivery Tray that reaches the full level. When 0 (default) is set, a job is output from the delivery destination again from which the last job was delivered. When 1 is set, a job is output from the delivery destination which priority is set as high at “Output Tray Settings” in user mode.
	Use case	When changing the delivery tray
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Output from the tray from which the last job was output. 1: Output from the delivery destination which priority is high among the delivery trays.
	Default value	0
	Related UI menu	Function Settings> Common> Paper Output Settings> Output Tray Settings

T-8-58

FNC-SW

COPIER > OPTION > FNC-SW		
PO-CNT		ON/OFF of potential control function
Lv.1	Details	To set ON/OFF of potential control function.
	Use case	When replacing the Potential Sensor
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to set the value back to 1 (ON) after servicing.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
PO-CNTMD		Set potential control execution timing
Lv.2	Details	To set the combination of timing to execute the potential control.
	Use case	When productivity decreases at execution of potential control
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 2 0: • At warm-up rotation performed first time for the day in an HH environment • At last rotation in the case that a job right after startup first time for the day takes 10 minutes or longer • At last rotation after 1500 sheets since the last potential control • At last rotation of the first job after 90 minutes since the last potential control • At warm-up rotation of the fist job after 10 minutes since the startup first time for the day (30 seconds) 1: • At warm-up rotation performed first time for the day in an HH environment • At last rotation in the case that a job right after startup first time for the day takes 10 minutes or longer • At last rotation after 1500 sheets since the last potential control • At warm-up rotation of the fist job after 10 minutes since the startup first time for the day (30 seconds) 2: • At warm-up rotation performed first time for the day in an HH environment • At last rotation after 1500 sheets since the last potential control
	Default value	0

COPIER > OPTION > FNC-SW		
MODEL-SZ		Fixed magnifictn & DADF orgnl dtct size
Lv.1	Details	To set the fixed magnification ratio display and the original detection size with DADF. It is set automatically at the time of installation of the Reader according to the location.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: AB configuration (6R5E) for Japan, 1: Inch configuration (5R4E) for North/Middle/South America, 2: A configuration (3R3E) for Europe, 3: AB/Inch configuration (6R5E) for Asia, Oceania, South America
	Default value	It differs according to the location.
SCANSLCT		ON/OFF of scan area calculate function
Lv.2	Details	To set ON/OFF of the function to calculate scanning area from the specified paper size. When the paper size is larger than the original size, selecting ON reduces productivity because the scanning area gets larger.
	Use case	When matching the scanning area with the paper size
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF (calculated from the detected original size) 1: ON (calculated from the specified paper size)
	Default value	0
SENS-CNF		Setting of original detection size
Lv.2	Details	To set original detection size according to AB configuration/Inch configuration/A configuration. Select 1 (Inch configuration) for Inch configuration/A configuration machine.
	Use case	When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: AB configuration, 1: Inch configuration
	Default value	0

COPIER > OPTION > FNC-SW		
CONFIG		Set country/area/lang/location/ppr size
Lv.1	Details	To set the country/region, language, location, paper size configuration for multiple system software in HDD.
	Use case	Upon user's request
	Adj/set/operate method	1) Select the setting item. 2) Switch with +/- key, and then press OK key. 3) Turn OFF/ON the main power switch.
	Display/adj/set range	XX YY.ZZ.AA XX: Country/region JP: Japan, US: United States, GB: England, FR: France, DE: Germany, IT: Italia, AU: Australia, SG: Singapore, NL: Netherlands, KR: Korea, CN: China, TW: Taiwan, ES: Spain, SE: Sweden, PT: Portugal, NO: Norway, DK: Denmark, FI: Finland, PL: Poland, HU: Hungary, CZ: Czech, SI: Slovenia, GR: Greek, EE: Estonia, RU: Russia, AD: Andorra, AL: Albania, AM: Armenia, AR: Argentine, AT: Austria, BA: Bosnia Herzegovina, BE: Belgium, BG: Bulgaria, BO: Bolivia, BR: Brazil, CA: Canada, CH: Switzerland, CL: Chile, CY: Cyprus, HR: Croatia, ID: Indonesia, IE: Ireland, IL: Israel, IN: India, IS: Iseland, LU: Luxembourg, LV: Latvia, MX: Mexico, MY: Malaysia, NZ: New Zealand, PE: Peru, PH: Philippine, PY: Paraguay, RO: Romania, SK: Slovakia, TH: Thailand, TR: Turkey, UA: Ukraine, UY: Uruguay, VE: Venezuela, VN: Vietnam YY: Language (Fixed; e.g. ja: Japanese) ZZ: Location (Fixed; e.g. 00: CANON) AA: Paper size configuration (00: AB configuration, 01: Inch configuration, 02: A configuration, 03: Inch/AB configuration)
	Related service mode	COPIER> OPTION> FNC-SW> MODEL-SZ
W/SCNR		Setting of Reader Unit installation
Lv.1	Details	To set installation of the Reader Unit. 1 (Installed) is automatically selected once the Reader Unit is detected at the start of the machine.
	Use case	When installing/removing the Reader Unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed

COPIER > OPTION > FNC-SW		
ORG-LGL		Special paper size set in DADF mode: LGL
Lv.2	Details	To set the size of special paper (LGL configuration) that cannot be recognized in DADF stream reading mode.
	Use case	• Upon user's request • When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 10 0: LEGAL-R, 1: FOOLSCAP-R, 2: OFICIO-R, 3: FOLIO-R, 4: Australian FOOLSCAP-R, 5: Ecuador OFICIO-R, 6: Bolivia OFICIO-R, 7: Argentine OFICIO-R, 8: Argentine LEGAL-R, 9: Government LEGAL-R, 10: Mexico OFICIO-R
	Default value	0
ORG-LTR		Special paper size set in DADF mode: LTR
Lv.2	Details	To set the size of special paper (LTR configuration) that cannot be recognized in DADF stream reading mode.
	Use case	• Upon user's request • When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: LETTER, 1: EXECUTIVE, 2: Argentine LETTER, 3: Government LETTER
	Default value	0
ORG-B5		Special paper size set in DADF mode: B5
Lv.2	Details	To set the size of special paper (B5) that cannot be recognized in DADF stream reading mode.
	Use case	• Upon user's request • When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: B5, 1: Korean government office paper
	Default value	0

COPIER > OPTION > FNC-SW		
MODELSZ2		Ppr size dtct global support in bookmode
Lv.2	Details	To set ON/OFF for global support of document size detection in copyboard reading mode.
	Use case	Upon user's request (mixed media original with AB/Inch configuration)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• Do not use this at the normal service. • The Document Size Sensor (Photo Sensor) is additionally required to correctly detect the document size when the original consists of mixed media (AB/Inch configuration).
	Display/adj/set range	0 to 1 0: Detected with detection size according to location, 1: Detected with AB/Inch mixed media.
	Default value	0
SVMD-ENT		Setting of entry method to service mode
Lv.2	Details	To set the way to get in service mode to prevent information leak.
	Use case	As needed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: [Settings/Registration] - Pressing [2] and [8] at the same time - [Settings/Registration] 1: [Settings/Registration] - Pressing [4] and [9] at the same time - [Settings/Registration]
	Default value	0
BASE-SW		Model switch set from MEAP-Full to Base
Lv.1	Details	To switch from the MEAP-Full model to the Base model. Switch this mode in the case of restricting the operation of MEAP application for trouble analysis.
	Use case	When trouble that caused by MEAP application occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Switching from the Base model to the MEAP-Full model is not available.
	Display/adj/set range	0 to 1 0: OFF (Base model), 1: ON (Full model)
	Default value	Depending on the setting of option bit (MeapModelBIT).

COPIER > OPTION > FNC-SW		
KSIZE-SW		Set of Chinese paper (K-size) support
Lv.2	Details	To set to detect/display the Chinese paper (K size paper: 8K, 16K).
	Use case	When using K size paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Go through the following: COPIER > OPTION > FNC-SW > MODEL-SZ; and if MODEL-SZ is “0: AB configuration”, this mode is enabled.
	Display/adj/set range	0 to 1 0: Not supported, 1: Supported
	Default value	JP:0, USA:0, EUR:0, AU:0, CN:1, KR:0, TW:0, ASIA:0
	Related service mode	COPIER> OPTION> FNC-SW> MODEL-SZ
	Supplement/memo	8K paper: 270 x 390 mm, 16K paper: 270 x 195 mm
PDF-RDCT		PDF reduction set at forwarding
Lv.2	Details	To set whether to reduce the image for transmission when converting the image received by IFAX into PDF for e-mail/file transmission.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Following the current setting, 1: Image reduction
	Default value	0
REBOOTSW		Restart setting at E240 error occurrence
Lv.2	Details	To set whether to reboot in the case of E240 error. In the case of E240 error, the machine is automatically rebooted due to the possibility of continuous operation of the drive system while the spooled print job is cleared. Print job can be obtained if selecting the setting not to reboot.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• Do not use this at the normal service. • Be sure to get approval from the user by telling the possibility of continuous operation of the drive system in the case of E240 error.
	Display/adj/set range	0 to 1 0: Rebooted, 1: Not rebooted
	Default value	0
	Supplement/memo	E240 error: Communication error between the Main Controller and the DC Controller.

COPIER > OPTION > FNC-SW		
SJB-UNW		Reserve upper limit of secured print job
Lv.2	Details	To set the upper limit for the number of reserved jobs in secured print job.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 50 jobs, 1: 90 jobs
	Default value	0
CARD-RNG		Card number setting (department number)
Lv.2	Details	To set the number of cards (departments) that can be used with the Card Reader.
	Use case	When setting the number of cards (departments)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 1000
	Default value	1000
SJOB-CL		Set of scan job canceling by logout
Lv.1	Details	To set whether to cancel the scan job in operation by logout of the user.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• The job with scanning completed cannot be canceled.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/memo	Scan job: A job after the scanning operation is completed.
USB-RCNT		Auto connect set at USB device disconnct
Lv.2	Details	To set to enable/disable automatic connection when the USB device is disconnected. With the setting to disable automatic connection, USB device cannot be used if disconnecting and then connecting the USB device. To enable connection again, the power needs to be turned OFF/ON. With the setting to enable automatic connection, reconnection is made after disconnecting, and then connecting the USB device.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	With the setting to enable automatic connection, disconnecting of 1 area makes automatic connection of all USB devices if there is USB hub.
	Display/adj/set range	0 to 1 0: No automatic connection, 1: Automatic connection
	Default value	0

COPIER > OPTION > FNC-SW		
UNLMTBND		Over 400 binders print job support set
Lv.1	Details	To set whether to support print job that exceeds 400 binders. With the setting to support, the machine makes prints by sharing binders according to job attribution. Select “1: Not supported” if the user does not print job* with large quantity of binders.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Automatic setting (When the print server is not connected: not supported; When the print server is connected: supported) 1: Not supported
	Default value	0
	Supplement/memo	* : A job that requires finishing (such as stapling) in one job. Does not apply in the case of executing finishing with multiple sets of output.
MIBCOUNT		Scope range set of Charge Counter MIB
Lv.2	Details	To set the range of counter information that can be obtained as MIB (Management Information Base).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: All charge counters are obtained, 1: Only displayed counter* is obtained, 2: All charge counters are not obtained * : Counter specified by the following: COPIER > OPTION > USER > COUNTER 1 to 6
	Default value	0
	Related service mode	COPIER> OPTION> USER> COUNTER1-6
MEAP-PRI		Setting of MEAP task priority
Lv.2	Details	Selecting “1: ON” increases MEAP task priority.
	Use case	When improving processing performance of MEAP
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
CNTR-SW		Init of parts counter replacement timing
Lv.1	Details	To return the estimated life of parts counter to the initial value.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter 0, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: Returned to the initial value
	Default value	0

COPIER > OPTION > FNC-SW		
ILSZ-JAM		ON/OFF of size difference jam detection
Lv.2	Details	To set ON/OFF of size difference jam detection.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
W/RAID		Setting of HDD Mirroring Kit installation
Lv.1	Details	To set installation condition of HDD Mirroring Kit. Select “1: Installed” when installing the HDD Mirroring Kit. Select “0: Not installed” when removing the HDD Mirroring Kit.
	Use case	When installing/removing HDD Mirroring Kit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
	Default value	0
PSWD-SW		Password type set to enter service mode
Lv.1	Details	To set the type of password that is required to enter when getting into service mode. 2 types are available: one for “service technician” and the other for “system administrator + service technician”. When selecting the type for “system administrator + service technician”, enter the password for service technician after the password entry by the user’s system administrator.
	Use case	Upon request from the user who concerns security
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: No password, 1: Service technician, 2: System administrator + service technician
	Default value	0
SM-PSWD		Password setting for service technician
Lv.2	Details	To set password for service technician that is used when getting into service mode.
	Use case	When password is required to get into service mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to select 1 or 2 with PSWD-SW in advance.
	Display/adj/set range	1 to 99999999
	Default value	11111111
	Related service mode	COPIER> OPTION> FNC-SW> PSWD-SW

COPIER > OPTION > FNC-SW		
CE/SCNR		Dspl/set scan connector disconnect times
Lv.1	Details	To display/change the number of Scanner connector disconnection detection. To count up every time when connector disconnection is detected. When 0 is set, the number of detection can be reset.
	Use case	When checking/clearing the number of connector disconnection
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 5
	Default value	0
	Supplement/memo	When the connector is disconnected, “Check the connector” is displayed on the Control Panel. After detecting certain times, an error code (E732-000) is displayed.
RPT2SIDE		Set of report 1-sided/2-sided output
Lv.1	Details	To set whether to use 1-sided or 2-sided for report output of service mode.
	Use case	When making 2-sided report output to reduce the number of output pages
	Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
BRWS-FAV		Set of service browser favorite register
Lv.2	Details	To set whether to allow registration of favorites in the browser for service. When 1 is set, favorites in the browser for service can be edited, and any URLs can be accessed.
	Use case	When service engineers edit favorites in the browser for service
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
STND-PNL		Set Upright Control Panel installation
Lv.2	Details	To set whether the Upright Control Panel is installed. When the Upright Control Panel is installed, set 1.
	Use case	At installation of the Upright Control Panel
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
	Default value	0

COPIER > OPTION > FNC-SW		
INVALPDL		Disable of PDL license
Lv.1	Details	To disable the registered PDL license. When “1: Disabled” is set, PDL is disabled even if a PDL license is registered. This is set to the machines installed at convenience stores, which do not allow PDL to be used.
	Use case	When prohibiting the use of PDL
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Registered PDL license is enabled, 1: Disabled
	Default value	0
CDS-FIRM		Set to allow firmware update by admin
Lv.1	Details	To set whether to permit update of the firmware by user (administrator). When “1: Enabled” is set, Updater can be activated from the user mode.
	Use case	When allowing the administrator to update the firmware
	Caution	Do not use it for purposes other than collecting log files. In Japan, the firmware cannot be updated by user. Be sure to return the value to 0 after use.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	JP:0, USA:0, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Supplement/memo	CDS: Content Delivery System
CDS-MEAP		Set to allow MEAP installation by admin
Lv.1	Details	To set whether to permit the user (administrator) to install MEAP applications and enable iR options from CDS. When “1: Enabled” is set, Updater can be activated from the user mode.
	Use case	When allowing the administrator to install MEAP applications and enable iR options from CDS
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled (This setting can be specified for China, Korea and Taiwan models only.)
	Default value	1
	Supplement/memo	CDS: Content Delivery System
CDS-UGW		Set to allow firmware update from UGW
Lv.1	Details	To set whether to permit update of the firmware from the UGW server. When “1: Enabled” is set, Updater accepts the operation from the UGW server in cooperation with CDS.
	Use case	When allowing update of the firmware from the UGW server
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/memo	CDS: Content Delivery System

COPIER > OPTION > FNC-SW		
LOCLFIRM		Set to allow firmware update by file
Lv.1	Details	To set whether to permit the user (administrator) to update the firmware from the remote UI using a local file. This update is executed as a measure for vulnerability in emergency situations.
	Use case	When allowing the administrator to update the firmware using a file
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	1
T-RUN-LV		No.of keep print at Toner Cntner rplce
Lv.1	Details	To set the number of prints to be kept from the indication of Toner Container replacement until job is interrupted. The time to keep printing varies depending on image ratio and productivity.
	Use case	When preferring to shorten the time from replacement of the Toner Container to the recovery
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Approx. 900 sheets, 1: Approx. 140 sheets (A4, 5% image ratio)
	Default value	0
BXNUPLOG		ON/OFF of Nup log at Inbox print
Lv.2	Details	To set whether to keep Nup log at Inbox print.
	Use case	When keeping Nup log at Inbox print
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	At normal service: 0, At customization: 1
SDLMTWRN		Cpcty warn dspl ON/OFF: E-mail/I-Fax TX
Lv.1	Details	To set whether to display the warning message when sending data that exceeds the upper limit value for the transmission data size via E-mail/I-Fax.
	Use case	For customization
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related UI menu	Function Settings> Send> E-Mail/I-Fax Settings> Maximum Data Size for Sending
JLK-PWSC		ON/OFF of PCAM password auth doc scan
Lv.2	Details	To set whether to scan the PCAM password authentication document with the MEAP application.
	Use case	When scanning the PCAM password authentication document
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

COPIER > OPTION > FNC-SW		
FAX-INT		Set FAX RX print interruption oprtn mode
Lv.2	Details	To set the mode performing interruption operation of FAX reception print automatically.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal, 1: Interruption operation mode
	Default value	0
CDS-LVUP		Set to allow CDS periodical update
Lv.1	Details	To set whether to allow the user (administrator) to use the periodical update function linked with CDS. When 1 is set, the periodical update function can be used from the user mode.
	Use case	When allowing the user to use the periodical update function
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not set 1 in Japan. The firmware cannot be updated by user.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	JP:0, USA:0, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Supplement/memo	CDS: Content Delivery System
AMSOFFSW		OFF of AMS mode
Lv.1	Details	Normally, the machine enters in AMS (ACQ) mode automatically when the following conditions are satisfied. • AMS license which is an iR option is installed. • The AMS-supported login application is activated. When turning OFF the AMS mode, set 0.
	Use case	When turning OFF the AMS mode
	Adj/set/operate method	1) Enable the AMS mode. • Enter the iR option license for AMS. • Make settings to activate SSOH. • Turn OFF/ON the main power switch twice. • Press Counter button, and display the Device Configuration screen. • Check that "ACCESS MANAGEMENT SYSTEM" is displayed. 2) Enter the setting value, and then press OK key. 3) Turn OFF/ON the main power switch. 4) Check that AMS mode is disabled. • Press Counter button, and display the Device Configuration screen. • Check that "ACCESS MANAGEMENT SYSTEM" is not displayed.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	JP:0, USA:1, EUR:1, AU:1, CN:1, KR:1, TW:1, ASIA:1
	Supplement/memo	AMS: ACCESS MANAGEMENT SYSTEM

COPIER > OPTION > FNC-SW		
UA-OFFSW		ON/OFF of unified auth function
Lv.1	Details	To set ON/OFF of the Unified Authentication function. Set 0 when not preferring to use the Unified Authentication function because of security concern.
	Use case	Upon user's request (not to use the Unified Authentication function)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
	Supplement/memo	Unified Authentication: A function with which it is considered that login authentication under it is performed by logging in it using SSO-H.
MIB-NVTA		RFC-compatible character stringMIB write
Lv.1	Details	As default, MIB object which NVT-ASCII can be written exists in order to link with LUI entry value. This violates RFC order, so a problem like garbled 2-byte characters may occur in the SNMP monitoring system, such as the 3rd vendor's MPS. Whether non-RFC-compatible character strings are written in MIB can be set using this mode. When 1 is set, only the character strings which are strictly compatible with RFC are written. (Writing operation is executed from the SNMP manager.) LUI is not linked.
	Use case	Upon user's request (operation with RFC-compatible system)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Compatible in a conventional manner, 1: RFC-compatible, 2 to 3: Not used
	Default value	0
	Supplement/memo	RFC: Document of internet-related technical standards NVT-ASCII: Network Virtual Terminal-ASCII
MIB-EXT		ON/OFF of link with Ex-Cont on network
Lv.1	Details	To set whether to link with External Controller on network (Hewlett-Packard Co.).
	Use case	When linking with External Controller of Hewlett-Packard Co.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: OFF, 1: ON, 2: Not used
	Default value	0

COPIER > OPTION > FNC-SW		
SVC-RUI		Enabling of RUI function for servicing
Lv.1	Details	To set whether to enable the RUI function for servicing (not provided to end users). When 0 is set, the RUI function is disabled. When setting the value other than 0, RUI function is enabled. The value entered becomes password to use the RUI function.
	Use case	When preferring to use the import function of background image file of main menu
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 65535
	Default value	0
LCDSFLG		Enabling of local CDS server
Lv.1	Details	To set whether to use the local CDS server. When CDSFIRM is 1, this setting is enabled.
	Use case	When using the local CDS server
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When CDSFIRM is 1, this setting is enabled.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Related service mode	COPIER > OPTION > FNC-SW > CDS-FIRM
	Related UI menu	Management Settings> License/Other> Register/Update Software> Software Management Setting> Setting
	Supplement/memo	When local CDS is used, iW EMC/MC device firmware update plug-in is required.
STNDBY-A		Setting of operation at sleep
Lv.1	Details	To set the sleep operation when pressing the Control Panel Energy Saver Key. Normally, the entire machine shifts to sleep mode. When 1 is set, only the LCD backlight is turned off.
	Use case	Upon user's request (FCOT)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	By setting 1 when the machine is not frequently used, the life may become shorter than the estimated life.
	Display/adj/set range	0 to 1 0: The entire machine is in sleep mode, 1: Only the LDC backligh is turned off
	Default value	0
	Supplement/memo	FCOT: First Copy Output Time

COPIER > OPTION > FNC-SW		
BXSHIFT		Setting of binding at 0mm binding margin
Lv.1	Details	To set whether to judge the job as a job “without binding” when storing a PDL job in Inbox while the binding margin is set to “0”. By setting the binding margin to 0 mm while “0” is set, the job is processed as “without binding”. “Booklet” in “Options” on the Inbox screen can be also used. When “1” is set, it is judged as “with binding” even the binding margin is 0 mm so “Booklet”, which has an exclusive relationship with “binding”, cannot be used.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When storing a PDL job in Inbox while 1 is set, “Booklet” in “Options” on the Inbox screen cannot be used.
	Display/adj/set range	0 to 1 0: Without binding, 1: With binding
	Default value	0
SELF-CHK		Set high voltg error condtn detect func
Lv.2	Details	To set the high voltage error condition detection function.
	Display/adj/set range	0 to 15 0: OFF, 1: ON, 2 to 15: Not used
	Default value	0
HOME-SW		Set screen displayed with Main Menu key
Lv.1	Details	To set whether to display the main menu screen or the screen registered as the startup screen when pressing Main Menu key.
	Use case	Upon user’s request (to change the startup screen)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Main Menu screen, 1: Screen registered as the startup screen
	Default value	0
NO-LGOUT		Display/hide of logout button
Lv.1	Details	To set whether to display or hide [Logout] button. When 0 is set, [Logout] button is displayed on the screen, and logout with the ID key is enabled. (Normal) When 1 is set, [Logout] button is not displayed, and logout with the ID key is disabled.
	Use case	Upon user’s request (for customization, etc.)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Display, 1: Hide
	Default value	0

COPIER > OPTION > FNC-SW		
T-DLV-BK		Set of Bk-toner level displaying alarm
Lv.1	Details	To set the Bk-toner level to display “absence of toner” message.
	Use case	When changing the timing to notify the end of life according to the usage status
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Since toner level is calculated based on the developing supply count, some errors may occur.
	Display/adj/set range	0 to 40
	Default value	JP:15, USA:15, EUR:0, AU:15, CN:15, KR:15, TW:15, ASIA:15
JM-ERR-D		Set of error display of 0CAx jam (DCON)
Lv.2	Details	To set whether to display “0CAF” jam as the error “E996-0CAF”. In the case of a jam, log cannot be obtained depending on the timing. By selecting 1 when the jam “0CAF” occurs, it is displayed as the error “E996-0CAF” so that the log can be obtained.
	Use case	When obtaining a log at the occurrence of 0CAF jam
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Display as a jam, 1: Display as an error
	Default value	0
	Related service mode	COPIER > OPTION > FNC-SW > JM-ERR-R
JM-ERR-R		Set of error display of 0071 jam (RCON)
Lv.2	Details	To set whether to display “0071” jam as the error “E996-0071”. In the case of a jam, log cannot be obtained depending on the timing. By selecting 1 when the jam “0071” occurs, it is displayed as the error “E996-0071” so that the log can be obtained.
	Use case	When obtaining a log at the occurrence of 0071 jam
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Display as a jam, 1: Display as an error
	Default value	0
	Related service mode	COPIER > OPTION > FNC-SW > JM-ERR-D

T-8-59

IMG-DEV

COPIER > OPTION > IMG-DEV		
TSPLY-SW		[Not used]
DRM-IDL		Set first idle rotn time in NL Ev
Lv.1	Details	To set the duration of idle rotation to be performed first time for the day in an NL (normal temperature/low humidity) environment.
	Use case	When image density for the first time of the day is low
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 20 (0: OFF)
	Default value	1 (15 seconds)
	Related service mode	COPIER> OPTION> IMG-DEV> DRM-IDL2, DRM-IDL3
DV-RT-LG		Set Developing Assembly idle rotn time
Lv.1	Details	To set the duration of idle rotation of the Developing Assembly by COPIER> FUNCTION> MISC-P> DV-RT. As the value is incremented by 1, the duration is increased by 1 minute. +: Increase -: Decrease
	Use case	When an image failure is not alleviated by executing idle rotation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	If the duration is long, deterioration of developer or toner scattering might occur.
	Display/adj/set range	1 to 20
	Default value	5
	Related service mode	COPIER> FUNCTION> MISC-P> DV-RT
ADJ-VPPN		Adj developing bias Vpp: Uncoated paper
Lv.1	Details	To adjust Vpp of the developing AC bias for uncoated paper group. The initial value is 1.5 kV, and as the value is decreased by 1, Vpp is decreased by 0.1 kV (density and fogging increase). Decrease the value when fogging or bias leak occurs, and increase the value when the density is low or white spots occur.
	Use case	When fogging, bias leak, low density, or white spots occur
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-4 to 2
	Default value	0
	Supplement/memo	Uncoated paper group: uncoated paper/recycled paper/textured paper/label/postcard/cotton
DRM-IDL2		Set first idle rotn time in NN Ev
Lv.1	Details	To set the duration of idle rotation to be performed first time for the day in an NN (normal temperature/normal humidity) environment.
	Use case	When image density for the first time of the day is low
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 20 (0: OFF)
	Default value	1 (15 seconds)
	Related service mode	COPIER> OPTION> IMG-DEV> DRM-IDL, DRM-IDL3

COPIER > OPTION > IMG-DEV		
ATM		Set of highland ev voltg reduction mode
Lv.2	Details	To set the highland environment voltage reduction mode in the case that leak occurs at a high latitude. When 1 is set, high voltage settings for the Primary Charging Assembly, Pre-transfer Charging Assembly and developing bias are decreased so that leak can be prevented.
	Use case	When leak occurs at high latitude
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Normal, 1: Voltage reduction mode
	Default value	0
LWDTY-SW		ON/OFF of low duty ejection
Lv.1	Details	To set ON/OFF of low duty ejection control. When 1 is set, developer is ejected at the time of last rotation/during a job.
	Use case	Upon user's request (Reduction of toner consumption)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Be sure to get approval from the user by telling possibility that the image density may be lowered due to deterioration of developer when setting 0.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> IMG-DEV> LWDTYADJ
LWDTYADJ		Set low duty ejection threshold value
Lv.1	Details	To set offset of image density which becomes the threshold value for the low duty ejection control. The threshold value which becomes a reference differs depending on the environment (temperature and humidity). When a positive value is entered, the interval of low duty ejection control becomes shorter. Lowering of image density can be prevented, but replacement timing of the Waste Toner Container becomes early due to the increase of toner consumption.
	Use case	When density is lowered at the time of continuous output of low duty image
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Default value	0
	Related service mode	COPIER> OPTION> IMG-DEV> LWDTY-SW

COPIER > OPTION > IMG-DEV		
BB-CNT		Set Bk band output intvl: Cleaning Blade
Lv.1	Details	To set the paper interval to output black band for preventing flip of the Cleaning Blade. When a negative value is entered, the interval to output black band becomes shorter. The possibility that the Cleaning Blade may be flipped is decreased, but replacement timing of the Waste Toner Container becomes early due to the increase of toner consumption.
	Use case	When flip of the Cleaning Blade occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-15 to 15
	Default value	0
PRI-SHUT		Set Pry/Pre-trn Chg Shutter close timing
Lv.1	Details	To set the time from when the Photosensitive Drum stops to when the Primary/Pre-transfer Charging Shutter is closed. With the Primary/Pre-transfer Charging Shutter control, the Primary/Pre-transfer Charging Shutter is closed after up to 255 minutes of the stop of the Photosensitive Drum to prevent image smear due to nitrogen oxide. Decrease the value to close the shutter earlier when image smear occurs first time for the day. Depending on the value, the shutter is closed before the machine shifts to sleep mode, so that the first copy time becomes longer for the time to open the shutter again (approx. 13 seconds). As the value is reduced, the life of the Primary/Pre-transfer Charging Wire Cleaning Pad is shortened because cleaning of the Charging Wire is performed every time the shutter is closed.
	Use case	When image smear occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	• If the shutter is closed before the machine shifts to sleep mode, the first copy time becomes longer for the time to open it again. • As the value is reduced, the life of the Primary/Pre-transfer Charging Wire Cleaning Pad is shortened.
	Display/adj/set range	-7 to 0
	Default value	0 (255 minutes)

COPIER > OPTION > IMG-DEV		
TBLTCLSW		Setting of ETB cleaning timing
Lv.1	Details	To set the timing to execute ETB cleaning control. When 1 or 2 is set, it is also executed at the time of the Charging Wire cleaning. As the value is increased, the soiling of the back side of paper is decreased, but the life of the ETB is shortened and productivity is decreased.
	Use case	When the back side of paper is soiled
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	As the number of times of ETB cleaning is increased, the life of the ETB is shortened and productivity is decreased.
	Display/adj/set range	0 to 2 0: OFF 1: At last rotation + At Charging Wire cleaning 2: At last rotation + At initial rotation + At Charging Wire cleaning
	Default value	0
	Related service mode	COPIER> OPTION> IMG-DEV> TBLTBIS+, TBLTBIS-, TBLTTMS
	Default value	0(100uA)
	Related service mode	COPIER> OPTION> IMG-DEV> TBLTCLSW, TBLTBIS-, TBLTTMS
TBLTBIS-		Setting of ETB cleaning bias (-)
Lv.1	Details	To set the transfer current value to apply cleaning bias (-) at the time of ETB cleaning.
	Use case	When the back side of paper is soiled
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	0 to 5
	Default value	0 (-50 micro A)
	Related service mode	COPIER> OPTION> IMG-DEV> TBLTCLSW, TBLTBISP, TBLTTMS
TBLTTMS		Set ETB cleaning bias application times
Lv.1	Details	To set the number of times to apply cleaning bias at the time of ETB cleaning. Apply positive (+) and negative (-) cleaning bias alternately. As the value is increased, the soiling of the back side of paper is decreased, but the life of the ETB is shortened and productivity is decreased.
	Use case	When the back side of paper is soiled
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	As the greater value is set, the life of the ETB is shortened and productivity is decreased.
	Display/adj/set range	1 to 10
	Default value	2
	Related service mode	COPIER> OPTION> IMG-DEV> TBLTCLSW, TBLTBISP, TBLTBIS-

COPIER > OPTION > IMG-DEV		
DRM-IDL3		Set first idle rotn time in HH Ev
Lv.1	Details	To set the idle rotation time to be performed first time for the day in an HH (high temperature and high humidity) environment.
	Use case	When image density for the first time of the day is low
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 20 (0: OFF)
	Default value	1 (45 seconds)
	Related service mode	COPIER> OPTION> IMG-DEV> DRM-IDL, DRM-IDL2

T-8-60

IMG-FIX

COPIER > OPTION > IMG-FIX		
FIX-CLN		Set fixing cleaning execution interval
Lv.1	Details	To set the number of sheets as the intervals to execute fixing cleaning. By performing idle rotation of the Fixing Assembly for 5 seconds every time a specified number of sheets are fed , remove soil adhered on the Pressure Roller. Set 1 when an image failure occurs. If it is not alleviated, set 2 or 3. Because idle rotation is executed by interrupting an ongoing job, as the short execution interval is set, productivity decreases.
	Use case	When an image failure due to the Pressure Roller occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	As the short execution interval is set, productivity decreases.
	Display/adj/set range	0 to 3 0: OFF, 1: 500 sheets, 2: 300 sheets, 3: 150 sheets
	Default value	0
FIX-TEMP		Set fixing/productivity: Heavy paper
Lv.1	Details	To set priority between productivity and fixing by changing temperature at which down sequence is applied to Heavy paper. When 2 is set, fixing has priority over productivity because the machine is likely to go into the down sequence. When 0 is set, productivity has priority over fixing.
	Use case	When changing priority between fixing and productivity for Heavy paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 2 0: Priority on productivity (-5 degC), 1: Normal, 2: Priority on fixing (+5 degC)
	Default value	1
FSPD-S1		Setting of fixing improvement mode
Lv.2	Details	To set whether to start the machine in fixing improvement mode. When 1 to 4 is set, duration of warm-up is increased for the specified time to increase the temperature of the Fixing Assembly.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 4 0: 0 second, 1: 15 seconds, 2: 30 seconds, 3: 45 seconds, 4: 60 seconds
	Default value	0

COPIER > OPTION > IMG-FIX		
CBLTINVL		Setting of Fixing Web Solenoid ON times
Lv.1	Details	To set frequency to turn ON the Fixing Cleaning Web Drive Solenoid. If an image failure occurs due to the soiled Pressure Roller, set 1. If an image failure occurs due to the soiled Separation Claw, set 2. If the life of Fixing Cleaning Web is shorter than the target (500,000 sheets) (in case of much take-up amount of web), set 3.
	Use case	• When an image failure due to the soiled Pressure Roller/ Separation Claw occurs • When the life of Fixing Cleaning Web is too short
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Normal, 1: 1.5 times higher than normal, 2: 0.5 times higher than normal, 3: 0.75 times higher than normal
	Default value	0
TMP-TBL2		Set fixing control temp table: Thin
Lv.1	Details	To set the control temperature table of the Fixing Roller for 52 to 63g/m2 size paper.
	Use case	When alleviating the curl
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-5 to 2 -5 to -1: -5 degC, 0: 0 degC, 1 to 2: +5 degC
	Default value	0
TMP-TBL3		Set fixing control temp table: Heavy
Lv.1	Details	To set the control temperature table of the Fixing Roller for 91 to 256g/m2 size paper.
	Use case	When alleviating the curl
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-5 to 2 -5 to -2: -10 degC, -1: -5 degC, 0: 0 degC, 1 to 2: +5 degC
	Default value	0
TMP-TBL4		Set fixing control temp table: Bond
Lv.1	Details	To set the control temperature table of the Fixing Roller for bond paper.
	Use case	When alleviating the curl
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-5 to 2 -5 to -1: -5 degC, 0 to 2: 0 degC
	Default value	0
TMP-TBL5		[Not used]
TMP-TBL6		[Not used]

COPIER > OPTION > IMG-FIX		
RAG-CONT		Set fix smeared image ctrl mode level
Lv.1	Details	To set level of the mode (skipping) to control smeared image caused by fixing area.
	Use case	When a smeared image occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Set RAG-SW to 1 to 3 to enable skipping.
	Display/adj/set range	0 to 3 0: No skipping, 1: Small skipping, 2: Medium skipping, 3: Large skipping
	Default value	0
	Related service mode	COPIER> OPTION> IMG-FIX> RAG-SW
RAG-SW		ON/OFF of fixing burst prevention mode
Lv.1	Details	To set ON/OFF of fixing burst prevention mode (skipping) to prevent line burst. Select “1: ON” in the case all horizontal lines are burst. Set ON according to paper type in the case the degree of line burst differs depending on media.
	Use case	When horizontal lines burst
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Set RAG-CONT to 1 to 3 to enable skipping.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> IMG-FIX> RAG-CONT
FIX-DWN		Set prdctvty reduct mode: small size
Lv.2	Details	To set the speed ratio in the case of reducing productivity when feeding small size paper.
	Use case	When an image failure (crepe mark) occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-3 to 0 -3: 40%, -2: 60%, -1: 80%, 0: 100%
	Default value	0
FIX-RT		Set idle rotation time at last rotation
Lv.2	Details	To set the idle rotation time at last rotation executed after a job is completed.
	Use case	When an image failure (crepe mark) occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 3 0: No idle rotation, 1: 10 seconds, 2: 20 seconds, 3: 30 seconds
	Default value	0

COPIER > OPTION > IMG-FIX		
P-BETWN		Setting of paper interval: 2-sided mode
Lv.1	Details	To set the paper interval at 2-sided mode. Use this mode when uneven gloss occurs on the Fixing Roller pitch (126mm) on 1st side of 2-sided print. When 1 is set, 150mm or less paper interval at 2-sided mode becomes 150mm or more. Uneven gloss can be alleviated, but productivity decreases.
	Use case	When uneven gloss occurs on 1st side of 2-sided print
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When 1 is set, productivity decreases
	Display/adj/set range	0 to 1 0: Normal, 1: Widening paper interval
	Default value	0
FX-IMGLV		Set img qlty/prdctvty lvl:Qlty Prrty
Lv.2	Details	To set image quality/productivity level when “Quality Priority” is set.. When “Quality Priority” is selected in user mode, productivity may be extremely decreased to prevent occurrence of image with crepe mark. When 0 is set, image quality is slightly decreased compared with its of normal Quality Priority mode, but productivity improves (suitable for text document). When 1 is set, image quality is prioritized so image with crepe mark does not occur but productivity decreases (suitable for photo document). When “Quality Priority” is set in user mode, this item is enabled.
	Use case	Upon user’s request (Alleviation of image with crepe mark)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Be sure to get approval from the user by telling that the productivity decreases to improve image quality.
	Display/adj/set range	0 to 2 0: Text document mode, 1 to 2: Photo document mode
	Default value	0
	Related UI menu	Function Settings > Common > Print Settings > Thin/Plain Paper Printing Priority Settings

COPIER > OPTION > IMG-FIX		
FX-WNKL		Setting of paper wrinkle prevention mode
Lv.2	Details	To set paper wrinkle prevention mode. If the edge temperature of the Fixing Roller is lower than the center temperature, feeding speed at the center of a paper becomes faster than the speed at the edge so paper wrinkle occurs. Normally, when printing to paper larger than A3 or LDR size paper at the start of printing in a high humidity environment, control temperature is increased by performing idle rotation. Paper wrinkle which occurs at this time can be decreased, but first copy time becomes longer. In other cases, idle rotation is not performed. When paper wrinkle occurs with A3/LDR or larger size paper in a normal humidity/high humidity environment, set 2. If paper wrinkle is not alleviated with 2, set 3. (First copy time becomes longer.) When paper wrinkle occurs with B4 or larger size paper in all environments, set 4. If it is not alleviated with 4, set 5 or 6. (As the value is larger, first copy time becomes longer.)
	Use case	• When paper wrinkles occur • Upon user’s request (shorten the first copy time)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When 2 to 6 is set, the first copy time becomes longer.
	Display/adj/set range	0 to 6 0, 1: OFF 2: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 10 seconds. 3: When paper is A3/LDR or larger size paper in a normal humidity/high humidity environment, idle rotation is performed for up to 20 seconds. 4: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 10 seconds. 5: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 20 seconds. 6: When paper is B4 or larger size paper in all environments, idle rotation is performed for up to 30 seconds.
	Default value	1
FIX-TMP4		Set fixing/productivity: Plain paper
Lv.1	Details	To set priority between productivity and fixing by changing temperature at which down sequence is applied to plain paper (64 to 90g/m2). When a positive value is set, fixing has priority over productivity because the machine is likely to go into the down sequence. When a negative value is set, productivity has priority over fixing.
	Use case	• When fixing failure occurs on plain paper • When productivity is decreased due to down sequence
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-2 to 2
	Default value	0

COPIER > OPTION > IMG-FIX		
WEB-LIFE		Set Fixing Web level alarm notice timing
Lv.1	Details	To set the timing to notify the Web absence alarm according to the time required for replacement of the Fixing Cleaning Web. The maximum output number until the error message appears after the Fixing Cleaning Web absence alarm is 3000 sheets (on a A4 size conversion basis). If a large volume of papers is output after the appearance of the alarm message, the machine may stop due to an error before replacing the Web. If 0 is set, an alarm is notified when the Fixing Cleaning Web Level Sensor detects “Web absence” as usual. If the value is between 1 and 7, an alarm is notified when the Fixing Cleaning Web Drive Solenoid counter reaches the specified value. As the value is incremented by 1, the threshold of the counter is increased by 50,000 sheets (on a A4 size conversion basis).
	Use case	When changing the timing to notify the Web absence alarm according to the output status
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Depending on the setting value of COPIER > OPTION> IMG-FIX > CBLTINVL, the number of estimated prints to display an alarm differs.
	Display/adj/set range	0 to 7 0: Detection by the sensor, 1: Count of 500,000 sheets (on a A4 size conversion basis), 2: 550,000 sheets, 3: 600,000 sheets, 4: 650,000 sheets, 5: 700,000 sheets, 6: 750,000 sheets, 7: 800,000 sheets
	Default value	0
	Related service mode	COPIER> OPTION> IMG-FIX> CBLTINVL

T-8-61

IMG-LSR

COPIER > OPTION > IMG-LSR		
LAPC-SW		ON/OFF of ini rotn/last rotn APC crrct
Lv.2	Details	To set ON/OFF of laser APC correction executed at initial rotation and last rotation.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
2D-SHADE		ON/OFF of 2D shading
Lv.1	Details	To set ON/OFF of 2D shading.
	Use case	When uneven image occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF 1: Drum Heater, first time for the day, potential control when recovering from sleep, 2D shading ON
	Default value	0
	Related service mode	COPIER> DISPLAY> 2D-SHADE> 2D-STS

T-8-62

IMG-MCON

COPIER > OPTION > IMG-MCON		
PASCAL		Use/no use of auto gradation adj data
Lv.1	Details	To set to use/not to use the gradation adjustment data gamma LUT that is generated by auto gradation adjustment (Full/Quick Adjust) control. Selection is available as to whether to use gamma LUT at the time of image formation.
	Use case	When PASCAL-related failure occurs/when identifying the cause of PASCAL-related failure
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Initial LUT is used. (Automatic gradation adjustment is not used.) 1: Auto gradation adjustment is used. 2 to 3: Not used
	Default value	1
SHARP		Setting of sharpness level of image
Lv.2	Details	To set the setting level (center value) of sharpness of image. As the value is increased, the image tends to be sharp, and as the value is decreased, image tends to be soft.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 5
	Default value	3
DRM-H-SW		ON/OFF of Drum Heater
Lv.2	Details	To set ON/OFF control of the Drum Heater at power-off/at sleep.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: ON/OFF depending on the environment condition 1: ON 2: OFF
	Default value	0

COPIER > OPTION > IMG-MCON		
SCR-SLCT		Halftone process in Photo Printout mode
Lv.2	Details	To set halftone process (error diffusion, screen 2 types) in Photo Printout mode when making a copy. Change the setting if the copy image has a problem with the initial setting (Low screen ruling). Select 0 (error diffusion) in the case of moire (suitable for character reproduction). Select 2 (High screen ruling) in the case of rough dots.
	Use case	When moire image or rough dots occurs on copy image
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Error diffusion, 1: Low screen ruling, 2: High screen ruling
	Default value	1
	Related UI menu	Function Settings> Copy> Photo Printout mode
TMC-SLCT		Setting of error diffusion coefficient
Lv.2	Details	To set coefficient to be used for error diffusion process. Specify according to the level of granularity and dot stability.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Small granularity/low dot stability 1: Small granularity/low dot stability (color mode), Large granularity/high dot stability (B&W mode) 2: Large granularity/high dot stability
	Default value	2
CAL-SW		Set calibration control execute condtn
Lv.2	Details	To set the condition to execute the calibration control. Two types of calibration (patch detection) are available: one for 1/1 speed (for plain paper), and the other for 1/2 speed (for heavy paper). When 0 is set, only patch detection for 1/1 speed is executed. When 1 is set, patch detection for both 1/1 speed and 1/2 speed is executed, which increases the required time.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this when the machine is operating correctly.
	Display/adj/set range	0 to 1 0: only for 1/1 speed, 1: both for 1/1 speed and 1/2 speed
	Default value	0
DH-MODE		[Not used]

COPIER > OPTION > IMG-MCON		
VP-ART		Setting of line art processing
Lv.2	Details	To set outline processing for line art on scalable PDF. In the outline processing, a binary image outline is extracted in the field which is recognized as line art, and is converted into vector data. Specify whether to convert the binary image outline into vector data or to recognize it as one line (as a thin line). For the thin line, the line width can be specified. Change this value when you want to obtain an output of a wide-width line as one line rather than as an outline (when you want to prioritize edit operation as a line rather than image quality).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 99
	Default value	1
VP-TXT		Setting of character vectorization
Lv.2	Details	To set vector conversion processing for text on scalable PDF. In the vector conversion processing, a binary image outline is extracted in the field which is recognized as text, and is converted into vector data. In regular vector conversion, function approximation is not used for small text because the image quality is not changed. When the value is changed, function approximation processing is executed for small text, which realizes smooth text although the image quality is changed. Change this value when you want to prioritize smoothness in small text.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 99
	Default value	1
C-PDL-T		Setting of PDL gradation reference
Lv.2	Details	To set whether gradation or density to be prioritized as the gradation reference for PDL. With priority on gradation (% of halftone dots), gradation is matched with original on the shadow area although the maximum density decreases. With priority on density, density is always matched with original.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Priority on gradation (% of halftone dots), 1: Priority on density
	Default value	0
	Supplement/memo	Abbreviation of CAL_PDL_Target

COPIER > OPTION > IMG-MCON		
C-S-P-D		High dens end edge crrct: PDL dens prrty
Lv.2	Details	To set ON/OFF of high density trailing edge correction function at PDL. By selecting CAL (priority on density) in C-PDL-T, high density trailing edge correction function is ON in normal operation; however, set OFF as needed.
	Use case	ON: When reducing jagged line and jagged outline of text OFF: When matching density with original on high density area, or when prioritizing density and gradation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Related service mode	COPIER> OPTION> IMG-MCON> C-PDL-T
	Supplement/memo	Abbreviation of CAL_Shadow_PDL_Density
C-S-C-D		High density end edge crrct ON/OFF: copy
Lv.2	Details	To set ON/OFF of high density trailing edge correction function at copy. With CAL of COPY, high density trailing edge correction function is ON in normal operation; however, set OFF as needed.
	Use case	ON: When reducing jagged line and jagged outline of text OFF: When matching density with original on high density area, or when prioritizing density and gradation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	Abbreviation of CAL_Shadow_COPY_Density. When adjusting the input signal 255 to low in the case that the density of solid area is too high, jaggy (jagged effect of halftone) may occur to text, etc. By entering the input signal 255 as solid, occurrence of jaggy can be prevented.
C-SM-P-G		[Not used]
C-SM-C-G		[Not used]
WDREDUCT		Setting of white dots reduction mode
Lv.1	Details	To set the white dots reduction mode. When 1 is set, white dots become less significant by enlarging black dots by thin line correction.
	Use case	When white dots are significant
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> IMG-MCON> VDADDCNT, HDADDCNT, LIN-OFST
	Related UI menu	Thin line correction, horizontal line correction, and vertical line correction in user mode

COPIER > OPTION > IMG-MCON		
VDADDCNT		Horz added dot amnt at white dots reduct
Lv.1	Details	To adjust the amount of dots added to side at white dots reduction mode. As the greater value is set, the size of white dot gets smaller. When WDREDUCT is 1, this setting is enabled.
	Use case	When adjusting the level of white dots reduction mode
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 4
	Default value	1
	Related service mode	COPIER> OPTION> IMG-MCON> WDREDUCT
HDADDCNT		Vert added dot amnt at white dots reduct
Lv.1	Details	To adjust the amount of dots added to upside at white dots reduction mode. As the greater value is set, the size of white dot gets smaller. When WDREDUCT is 1, this setting is enabled.
	Use case	When adjusting the level of white dots reduction mode
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 4
	Default value	0
	Related service mode	COPIER> OPTION> IMG-MCON> WDREDUCT
LIN-OFST		Set special paper added dot amnt offset
Lv.1	Details	To set the offset amount of dots added to vertical/horizontal direction when lines on special paper are thinner than those on plain paper. When printing special paper, compared to plain paper, the amount of dots specified with this item is added. As the value is larger, lines become thicker. When WDREDUCT is 0, this setting is enabled.
	Use case	When the line width of special paper is thinner than the one of plain paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 4
	Default value	1
	Related service mode	COPIER> OPTION> IMG-MCON> WDREDUCT

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IMG-RDR

COPIER > OPTION > IMG-RDR		
DF-BLINE		ON/OFF of dust dtct in DADF stream read
Lv.2	Details	To set ON/OFF of dust detection in DADF stream reading mode (measures for black line).
	Use case	When black line occurs due to dust on the Platen Roller
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When “1: ON” is set, black line is resolved, but sharpness of image edge is decreased.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
DFDST-L1		DADF mode dust dtct level adj: ppr intvl
Lv.1	Details	To adjust dust detection level with dust detection correction control that is executed at paper interval in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case	• When black line occurs due to dust • Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range	0 to 255 0: OFF
	Default value	200
	Supplement/memo	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.

COPIER > OPTION > IMG-RDR		
DFDST-L2		DADF mode dust dtct level adj: after job
Lv.1	Details	To adjust dust detection level with dust detection correction control that is executed after the job is completed in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case	• When black line occurs due to dust • Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range	0 to 255 0: OFF
	Default value	200
	Supplement/memo	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.
ABC-MODE		Adj sface digital ABC bckgd dens reduct
Lv.1	Details	To adjust the background density reduction setting level of surface digital ABC (at B&W mode).
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-1 to 4 -1: Setting of the direction which the background density reduction is less (For photo original and complex form original) 0: Default setting 1: Setting of the direction which the background density reduction is more 2: Setting of the direction which the background density reduction is more 3: Setting of the direction which the background density reduction is more 4: Background density reduction according to the density in the 5 mm portion of the image leading edge
	Default value	0

COPIER > OPTION > IMG-RDR		
ABC-MD2		Adj back digital ABC bckgd dens reduct
Lv.1	Details	To adjust the background density reduction setting level of back side digital ABC (Auto Background Control) at B&W mode.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-1 to 4 -1: Setting of the direction which the background reduction is less (For photo original and complex form original) 0: Default 1 to 3: Setting of the direction which the background reduction is more 4: Background density reduction according to the density in the 5 mm portion of the image leading edge
	Default value	0
	Supplement/memo	Auto Background Control: A control to make the background color of the original close to white with the image processing when reading the image on back side with the Scanner Unit (paper back).
DF2DSTL1		DADF dust dtct lvl adj at ppr intvl:bck
Lv.1	Details	To adjust dust detection level with dust detection correction control that is executed at paper interval by the Scanner Unit (paper back) in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case	• When black line occurs due to dust • Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range	1 to 255 (Duplex Color Image Reader Unit-C1 only)
	Default value	200
	Supplement/memo	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.

COPIER > OPTION > IMG-RDR		
DF2DSTL2		Adj DADF dust dtct level at job end:bck
Lv.1	Details	To adjust dust detection level with dust detection correction control that is executed by the Scanner Unit (paper back) after the job is completed in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case	• When black line occurs due to dust • Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range	1 to 255 (Duplex Color Image Reader Unit-C1 only)
	Default value	200
	Supplement/memo	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.
IR-FILTR		Set scan unit with infrared cut filter
Lv.1	Details	Due to the surface texture of an original, reflected light from an original is diffused; thus, green might be detected as reddish brown incorrectly. The Scanner Unit with the Infrared Cut Filter installed is set as a service part to prevent incorrect detection. Set 1 when installing this Scanner Unit.
	Use case	When green becomes reddish brown
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not supported, 1: Supported
	Default value	0

T-8-64

■ NETWORK

COPIER > OPTION > NETWORK		
RAW-DATA		Setting of received data print mode
Lv.2	Details	To set print mode for the received image data. This item is used to identify the cause whether it's due to image data or image processing in the case of trouble with received image.
	Use case	When received image trouble occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to set the value back to "0: Normal print operation" after recovering from the trouble.
	Display/adj/set range	0 to 1 0: Normal print operation, 1: Print with original data without image processing
	Default value	0
RMT-LANG		Language setting of remote UI
Lv.2	Details	To set the language on remote UI.
	Use case	Upon user's request
	Adj/set/operate method	1) Switch with +/- key, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	ja/en/de/fr/it/es ja: Japanese, en: English, de: German, fr: French, it: Italian, es: Spanish
IFAX-LIM		No. of max print lines at IFAX reception
Lv.2	Details	To set the maximum number of lines for e-mail text to be printed when receiving IFAX. Setting of this item can prevent endless printing of the attached file data in the case of receiving an error e-mail or failure in interpretation of the context. Selecting 0 prints the header/footer in 1 sheet when receiving e-mail text without attached file.
	Use case	When preventing endless print in the case of failure in reception
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: E-mail text not printed, 999: Unlimited
	Default value	500
SMTPTXPN		Setting of SMTP TX port number
Lv.2	Details	To set SMTP transmission port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	25

COPIER > OPTION > NETWORK		
SMTPRXPN		Setting of SMTP reception port number
Lv.2	Details	To set SMTP reception port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	25
POP3PN		Setting of POP3 reception port number
Lv.2	Details	To set POP3 reception port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	110
FTPTXPN		Specification of SEND port (FTP) number
Lv.1	Details	To specify address port (FTP) number for SEND.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	21
NW-SPEED		Setting of network data transfer speed
Lv.2	Details	To set the data transfer speed when the service network is connected. When downloading the firmware through network, use 0 in the normal operation. When fixed to 100Base-TX/10Base-T for any reason, change the setting.
	Use case	When fixing the communication speed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Auto, 1: 100Base-TX, 2: 10Base-T
	Default value	0

COPIER > OPTION > NETWORK		
STS-PORT		ON/OFF of TOT sync status comctn port
Lv.2	Details	To set ON/OFF for Inquiry/Response (sync)-mode status communication port with T.O.T. Select "1: ON" in the case of connecting the PC and the machine with the cross cable while Service NAVI is used.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> CMD-PORT
	Supplement/memo	T.O.T: TUIF over TCP. Communication protocol to be used for communication with the built-in application (UI) and the internal application such as COPY/ SEND/ BOX, etc. (Canon's own protocol).
CMD-PORT		ON/OFF TOTasync command comctn port
Lv.2	Details	To set ON/OFF for asynchronous command communication port with T.O.T. Select "1: ON" in the case of connecting the PC and the machine with the cross cable while Service NAVI is used.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> STS-PORT
	Supplement/memo	T.O.T: TUIF over TCP. Communication protocol to be used for communication with the built-in application (UI) and the internal application such as COPY/ SEND/ BOX, etc. (Canon's own protocol).
NS-CMD5		Limit CRAM-MD5 auth method at SMTP auth
Lv.2	Details	To restrict use of CRAM-MD5 authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER > OPTION > NETWORK		
NS-GSAPI		Limit GSSAPI auth method at SMTP auth
Lv.2	Details	To restrict use of GSSAPI authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-NTLM		Limit NTLM auth method at SMTP auth
Lv.2	Details	To restrict use of NTLM authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-PLNWS		Limit plaintext auth at SMTP auth encry
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is encrypted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER > OPTION > NETWORK		
NS-PLN		Limit plaintext auth at SMTPauth noencry
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is not encrypted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-LGN		Limit LOGIN authentication at SMTP auth
Lv.2	Details	To restrict use of LOGIN authentication at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
MEAP-PN		HTTP port No.setting of MEAP application
Lv.2	Details	To set HTTP port number of MEAP application.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not specify port 8080 when the Print Server is connected. Otherwise, you cannot browse the device RUI in which MEAP authentication application is running (Port 8080 is reserved for redirection of EFI Controller to the iR side.)
	Display/adj/set range	0 to 65535
	Default value	8000

COPIER > OPTION > NETWORK		
RMT-LGIN		Set to allow remote login to SSH server
Lv.2	Details	To set whether to allow remote login from the remote host (SSH client: DA) to debug console of the SSH server.
	Use case	As needed (This mode is used for the Japanese models only and not used with overseas models (outside Japan)).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This item is enabled when the setting value of SSH-SW is ON.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	1
	Related service mode	COPIER> OPTION> NETWORK> SSH-SW
	Supplement/memo	DA: Digital Accessory
CHNG-STS		Set of TOT status connection port number
Lv.2	Details	To set the port number for status connection with T.O.T.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 65535
	Default value	20010
	Related service mode	COPIER> OPTION> NETWORK> STS-PORT
CHNG-CMD		Set of TOT command connection port No.
Lv.2	Details	To set the port number for command connection with T.O.T.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 65535
	Default value	20000
	Related service mode	COPIER> OPTION> NETWORK> CMD-PORT
MEAP-SSL		HTTPS port setting of MEAP
Lv.2	Details	To set the port of HTTPS server in the case of using SSL with HTTP of MEAP.
	Use case	When specifying the setting of HTTPS port for MEAP
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	8443
LPD-PORT		Setting of LPD port number
Lv.2	Details	To set the LPD port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 65535
	Default value	515
	Supplement/memo	LPD port: Network port for TCP/IP communication when making prints through network.

COPIER > OPTION > NETWORK		
WUEV-SW		Setting of sleep notification execution
Lv.2	Details	To set whether to notify the sleep mode to the application (imageWARE, etc) on the network when shifting to/recovering from the sleep mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Notified, 1: Not notified
	Default value	0
WUEV-INT		Setting of sleep notification interval
Lv.2	Details	To set the interval of sleep notification.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range	60 to 65535
	Default value	600
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW
WUEV-POT		Port number setting for sleep notice
Lv.2	Details	To set port number of the PC to notify the sleep mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range	1 to 65535
	Default value	11427
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW
WUEV-RTR		Setting of sleep notification range
Lv.2	Details	To set the number of available routers to the target for sleep notification.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range	0 to 254
	Default value	3
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW

COPIER > OPTION > NETWORK		
WUEN-LIV		Recovery time setting after sleep notice
Lv.2	Details	To set the time from the sleep start from network without job assignment until the mode is shifted to the sleep mode.
	Use case	When setting the startup time after sleep notification
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	10 to 600
	Default value	15
IFX-CHIG		Set operation by IFAX recv mail content
Lv.1	Details	To set the number of characters for the IFAX received mail content, so that the mail is not printed/forwarded when the characters in the text is less than the number of specified characters. This machine can output blank paper because some senders send e-mail text consists of linefeed codes only. In such case, specify 2 (number of characters) so that there will be no output of blank paper. In the case of specifying any number other than 0, header/footer is printed/forwarded in 1 sheet only if the e-mail (body) text is less than the specified value while no TIFF file is attached. As the value is incremented by 1, the number of target characters in e-mail body text is increased by 1 character.
	Use case	When reducing print of blank paper due to e-mail received by IFAX
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to get approval from the user by telling that there will be no print of e-mail (body) text if the number of characters is less than the specified value.
	Display/adj/set range	0 to 999 0: E-mail (body) text is not ignored.
	Default value	0
	Supplement/memo	1 Japanese Kanji character is calculated as 2 bytes, and the control codes (such as linefeed code, etc) are included in the number of characters.
DNSTRANS		Setting of DNS transfer priority
Lv.1	Details	To set priority order of the protocol (IPv4/IPv6) to be used for DNS query. In the case of using both IPv6 and IPv4 while the DNS server supports IPv4, it takes time because of timeout when executing DNS query with priority on IPv6. Giving priority on query by IPv4 can shorten the time.
	Use case	When it takes time to execute DNS query with priority on IPv6 because the DNS server supports IPv4
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: IPv4, 1: IPv6
	Default value	1

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PROXYRES		Setting of proxy response to Windows
Lv.2	Details	To set whether to provide proxy response or return the device status when an inquiry is received via Windows while the device is in sleep mode.
	Use case	When executing status response for query from Windows correctly
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No proxy response, 1: Proxy response
	Default value	1
WOLTRANS		Setting of sleep recovery protocol
Lv.1	Details	To set the protocol for recovery from sleep mode according to the value of WOL (Wake On LAN) trans. Reception of a specific network packet is one of the requirements for the device to recover from sleep mode. When the number of network protocols supported by the device increases, the types of network packets which activate recovery from sleep mode vary. However, there is a possibility that the existing network protocol is actually used. Select the type of network packet which activates recovery from sleep mode according to the environment where the device is used.
	Use case	When selecting protocol for sleep recovery
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 3 1: WSD and SNMP, 2: WSD and CPCA, 3: CPCA and SNMP
	Default value	1
802XTOUT		Set of IEEE802.1X authentication timeout
Lv.1	Details	To set timeout value for IEEE802.1X authentication. If the device executes 802.1X authentication, change the wait time for response from the authentication server.
	Use case	When response from the authentication server is slow/fast
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	10 to 120
	Default value	30
IKERETRY		Setting of IKE retry times
Lv.1	Details	To set the number of retries in the case of no response from the communication target at the time of IKE packet transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3
	Default value	2
	Supplement/memo	IKE: Internet Key Exchange

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SPDALDEL		Initialization of SPD value
Lv.2	Details	To initialize all the SPD values that are under management. SPD values can be initialized without clearing SRAM.
	Use case	At the time of SPD value mismatch when IPSec Board is added
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	SPD: Database that manages SA (Security Association). SPD value is managed when IPSec Board is used. Normally, SRAM needs to be cleared in the case of mismatch in SPD value.
NCONF-SW		ON/OFF of Network Configurator function
Lv.1	Details	To set ON/OFF of Network Configurator function. If the user does not use the function, select OFF to prevent remote attack through network.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	Network Configurator function is a function to be used for communication with NetSpot Device Installer, etc., and the network setting can be changed from the remote.
IKEINTVL		Setting of IKE retry interval
Lv.1	Details	To set retry interval in the case of no response from the communication target at the time of IKE packet transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 10
	Default value	5
	Supplement/memo	IKE: Internet Key Exchange
IPSDEBLV		Setting of IPSec debug level
Lv.2	Details	For R&D use

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SP-LINK		Mode setting at 1W sleep
Lv.1	Details	Switch to execute 10base-T standby as default to realize the standby power 1W in sleep mode.
	Use case	When shifting to sleep mode after negotiation (same as conventional machines)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Shift to sleep mode with 10base-T 1: Shift to sleep mode after negotiation
	Default value	0
LM-LEVEL		Set of SMB client authentication method
Lv.1	Details	To set the authentication method (LM, NTLMv1, NTLMv2) that the SMB client uses for authentication. In SMB authentication, authentication is generally made by the authentication method with higher level, and if it fails, the authentication level is lowered. (NLTMv2 => NLTMv1 => LM) It is possible to limit the authentication level by setting 1 or 2 to avoid using the authentication method with lower level.
	Use case	Upon user's request
	Display/adj/set range	0 to 2 0: Authentication is made by LM, NTLMv1 and NTLMv2 1: Authentication is made by NTLMv1 and NTLMv2 2: Authentication is made by NTLMv2
	Default value	0
	Supplement/memo	Windows NT LAN Manager authentication: A user authentication method for network logon, which was generally used in the OS for Windows NT Series prior to Windows NT 4.0
AFS-JOB		Set of FAX server job reception port
Lv.1	Details	To set the reception port of the fax server to which a fax client sends jobs.
	Use case	When changing the job reception port of the fax server
	Display/adj/set range	0 to 65535
	Default value	20317
	Related service mode	COPIER> OPTION> NETWORK> AFC-EVNT
AFC-EVNT		Set of FAX client event reception port
Lv.1	Details	To set the event notification reception port of a fax client.
	Use case	When changing the event notification reception port of a fax client
	Display/adj/set range	0 to 65535
	Default value	29400
	Related service mode	COPIER> OPTION> NETWORK> AFS-JOB

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ILOGMODE		Setting of IP address block mode
Lv.1	Details	To set all protocols or TCP/UDP/ICMP unicast as the target of IP block. When 0 is set, the machine responds to ARP, ICMP multicast and broadcast which have no direct relation, and consequently the number of logs is increased. When 1 is set, the machine filters TCP, UDP and ICMP unicast only.
	Use case	Upon user's request
	Adj/set/operate method	0 to 3 0: All protocols support mode 1: TCP/UDP/ICMP unicast support mode 2, 3: Not used
	Default value	0
ILOGKEEP		Set of IP address block log hold time
Lv.1	Details	To set the retention time from the log time of IP block. When access is made again from a same IP address which was blocked before, if it is within the retention time of the previous log, its log is not recorded. If access is frequently made from a same IP address, the log record of the UI might be filled with its logs. If the user considers that a single log for a same IP address is enough, set the longer retention time.
	Use case	Upon user's request
	Display/adj/set range	0 to 48 0: 1 minute (special mode) 1 to 48: 1 hour to 48 hours
	Default value	1
IPTBROAD		Set to allow broad/multicast TX
Lv.1	Details	To set whether to permit transmission of broadcast packets and multicast packets. Transmission of broadcast packets and multicast packets is permitted without specifying an exception address. It is permitted within the device even if it is rejected in the default setting of the IPv4/v6 transmission filter. Set "1: Disabled" when the user does not want to send them.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 5 0: Enabled, 1: Disabled, 2 to 5: Not used
	Default value	0

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PFWFTPRT		Set of RST reply at IP filter FTP SEND
Lv.1	Details	When FTP SEND is executed using an IP filter by which packets from a specific remote PC are rejected, SYN is returned to the port 113 if the PC supports authentication of the FTP port 113. However, since the IP filter blocks the packets, the block logs are increased and the performance is lowered. When 1 is set, RST is returned to the port 113 without blocking packets.
	Use case	When executing FTP SEND against the OS which supports authentication of the FTP port 113 while the IP filter is enabled
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
PRNIPBLK		ON/OFF of IP address block function
Lv.1	Details	To set ON/OFF of IP address block function. When 1 is set, "IP Address Range Settings" and "RX/Print Range" screen is displayed on the Control Panel.
	Use case	When using the IP address block function
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related UI menu	Preferences> Network> TCP/IP Settings> IPv4 Settings/IPv6 Settings> IP Address Range Settings> RX/Print Range
IPMTU		Setting of MTU size
Lv.1	Details	To set MTU size of network packet. This item is used when performing SEND communication between locations connected with Ethernet in a field environment where MTU black hole problem occurs.
	Use case	When MTU black hole problem occur
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0: OFF, 1: ON
	Default value	10
DDNSINTV		Set of DDNS periodical update interval
Lv.1	Details	DNS registration is executed only once at start-up with the current iR, so the registered contents are deleted in an environment where the DNS server settings are deleted at intervals. To set the interval of DDNS periodical update for not deleting the registered contents.
	Use case	When the DNS server settings are deleted at intervals
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 48 0: No periodical update, 1: 1-hour interval, 2: 2-hour interval, ..., 47: 47-hour interval, 48: 48-hour interval
	Default value	24

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USER

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COPY-LIM		Setting of upper limit for copy
Lv.1	Details	To set the upper limit value for copy.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 9999
	Default value	9999
SLEEP		Setting of auto sleep function
Lv.1	Details	To set ON/OFF of auto sleep function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
SIZE-DET		ON/OFF of original size detect function
Lv.2	Details	To set ON/OFF of original size detection function.
	Use case	Upon user's request (glare of the scan lamp, etc)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
COUNTER1		Display of software counter 1
Lv.1	Details	To display counter type for software counter 1 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Display only. No change is available.
	Default value	It differs according to the location.
COUNTER2		Setting of software counter 2
Lv.1	Details	To set counter type for software counter 2 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	It differs according to the location.

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COUNTER3		Setting of software counter 3
Lv.1	Details	To set counter type for software counter 3 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	It differs according to the location.
COUNTER4		Setting of software counter 4
Lv.1	Details	To set counter type for software counter 4 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	It differs according to the location.
COUNTER5		Setting of software counter 5
Lv.1	Details	To set counter type for software counter 5 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	0
COUNTER6		Setting of software counter 6
Lv.1	Details	To set counter type for software counter 6 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	0
DATE-DSP		Setting of data/time display format
Lv.2	Details	To set date/time display format according to the country or region. After the display format is set with this mode, the order of date is reflected to the followings: Preferences > Timer/Energy Settings > Date/Time Settings, and report output.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: YYMM/DD, 1: DD/MMYY, 2: MM/DD/YY
	Default value	It differs according to the location.
	Related UI menu	Preferences > Timer/Energy Settings > Date/Time Settings

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MB-CCV		Control card usage limit for Mail Box
Lv.2	Details	To restrict use of control card for Mail Box.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Unlimited, 1: Limited
	Default value	1
CONTROL		Charge setting of PDL job
Lv.1	Details	To set charge count transmission of PDL job to the connecting charging management device (Coin Manager or non-Canon-made control card).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No charge, 1: Charge
	Default value	0
B4-L-CNT		Count setting of B4 size
Lv.1	Details	To set B4 count with software counter 1 to 8 as to whether B4 is counted as large size or small size. Selecting 1 counts B4 or larger size paper as large size while paper smaller than B4 size as small size.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Small size, 1: Large size
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> SC-L-CNT
TRY-STP		Set of Fin Tray output suspension ref
Lv.2	Details	To set the reference which judges to suspend outputting to Finisher Tray.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: At detection of full tray, 1: At detection of height
	Default value	0

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MF-LG-ST		Display/hide of long strip mode
Lv.2	Details	To set whether to display or hide the [Long Original] button. When 1 is set, [Long Original] button is displayed in Copy > Options screen and the long strip paper becomes available.
	Use case	Upon user's request (use of long strip original or long strip paper)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Copy > Options
	Supplement/memo	Up to 630mm length paper is supported when DADF is used.
CNT-DISP		Display/hide of serial No.
Lv.2	Details	To set whether to display or hide the serial No. on the Counter Check screen.
	Use case	When setting to display/hide serial No. on the Counter Check screen.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Display, 1: Hide
	Default value	0
PH-D-SEL		Set dither matrix at screen processing
Lv.2	Details	To set the screen dither matrix to be used for halftoning processing at the time of copy output, B&W Inbox scan output and B&W SEND output. When moire occurs frequently, set to "1: 141 lines". When the setting is changed, the number of PG lines to be output at PASCAL control is also changed.
	Use case	When moire frequently occurs at the time of copy output, B&W Inbox scan output and B&W SEND output. Especially when moire frequently occurs in the halftone density area of photo and image gradation areas
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 134 lines, 1: 141 lines
	Default value	1
	Related service mode	COPIER> OPTION> USER> PH-D-SL2

COPIER > OPTION > USER		
COPY-JOB		Setting of copy job reservation
Lv.1	Details	To set to enable/disable copy job reservation when the Card Reader/ Coin Manager is used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
OP-SZ-DT		Orgnl size dtct ON/OFF at copyboard open
Lv.2	Details	To set ON/OFF of original size detection while the Copyboard is opened. When "0: OFF" is set, enter original size manually from the Control Panel. When "1: ON" is set, original size is detected automatically.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
NW-SCAN		Setting of network scan function usage
Lv.2	Details	To set to enable/disable use of network scan function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• Do not change this mode in Japan. • For PS/PCL machines for overseas (outside Japan), fix the setting value as "1: Enabled". For others, permit the use.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
HDCR-DSP		Setting of HDD complete delete method
Lv.2	Details	To set data deletion method of HDD data complete deletion function.
	Use case	When switching the deletion method in HDD data complete deletion mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 4 1: 1-time deletion with 0 data, 2: 1-time deletion with random data, 3: 3-time deletion with random data, 4: DOD
	Default value	1
	Supplement/memo	HDD data complete deletion function: a function to completely delete data in HDD by overwriting with 0 (null) data or random data to the file data when logically deleting file on HDD (deleting management information data).

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JOB-INVL		Job intvl setting at interruption copy
Lv.2	Details	To set output interval between jobs at the time of interruption copy. Sorting is difficult after interruption copy because of the continuous output of the next job. Paper interval becomes longer when starting pickup for the next job after the last sheet of the previous job is delivered.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Continuous output of the interruption copy and the next job 1: Starting pickup for the next job after the interruption copy is delivered all. 2: Starting pickup for the next job after the previous job is delivered all. (For all jobs)
	Default value	0
TAB-ROT		Set of landscape img rotn at PDL:tab ppr
Lv.1	Details	To set whether to rotate landscape image by 180 degrees when PDL print is made on tab paper. When "1: Rotated" is set, image is rotated.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not rotated, 1: Rotated
	Default value	0
PR-PSESW		Display/hide of output Stop button
Lv.1	Details	To set whether to display or hide [Stop] button on the Status Monitor screen.
	Use case	• Upon user's request • When promptly stopping the print job in operation or under reservation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

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IDPRN-SW		Charge target job set of dept mngm cntr
Lv.1	Details	To set the job type that advances the department management counter.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: PRINT category: Inbox Print, Report Print, Send Local Print, PDL Print COPY category: COPY 1: PRINT category: Report Print, Send Local Print, PDL Print COPY category: COPY, Inbox Print
	Default value	0
PCL-COPY		Set of PCL COPIES command control method
Lv.2	Details	To set the binder control method of COPIES command with PCL. Select whether to use the control method of Canon-made PCL or use the same control method of non-Canon-made PCL.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535 0: Control method of Canon-made PCL (following the value of COPIES command that is specified for each page to control on a page basis) 1: Control method of non-Canon-made PCL (handling the value of COPIES command, which is specified for page 1 at the time of Collate mode, as bind figure while the value of COPIES command for the next page or later is invalid. Same control applies as Canon-made PCL at the time of non-sorted mode) 2 to 65535: For future use
	Default value	0

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CNT-SW		Set default dspl items on charge counter
Lv.1	Details	To set default display items of the charge counter on the Counter Check screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this mode overseas (outside Japan).
	Display/adj/set range	0 to 2 For Japan 0: Counter 1 - Total 1: 101 1: Counter 1 - Total 2: 102, Counter 2 - Copy (Total 2): 202, Counter 3 - Total A2: 127 2: Not used For UL 0: Counter 1 - Total 1: 101, Counter 2 - Total (Large): 103, Counter 3 - Copy (Total 1): 201, Counter 4 - Copy (Large): 203 1: Counter 1 - Total 2: 102, Counter 2 - Copy (Total 2): 202 2: Not used
	Default value	0
TAB-ACC		Auto cassette change set for tab paper
Lv.1	Details	To set to enable/disable auto cassette change when tab paper runs out.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to instruct the user to thoroughly comply the following: • Use tab paper with the same number of tabs. • Set tab paper. Be sure to comply the above; otherwise, proper print is not available and it can cause soil inside the machine because of toner.
	Display/adj/set range	0 to 1 0: Auto cassette change disabled, 1: Auto cassette change enabled
	Default value	0
BCNT-AST		Set of box print charge target job
Lv.1	Details	To set the job type that advances the count in box print with NE Controller (ASSIST).
	Use case	When switching the job type that is subject to counting of the box print with NE Controller
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: PDL job, 1: Copy job
	Default value	0

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PRJOB-CP		Set count TX at RX/report print
Lv.2	Details	To set to enable/disable a page-basis count pulse transmission to the charging management device at the time of reception print or report print.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No transmission, 1: Transmission
	Default value	0
	Supplement/memo	Charging management device: Coin Manager, Non-Canon-made control card
DOC-REM		Display/hide of original removal message
Lv.1	Details	To set whether to display or hide the message to remove original when scanning with DADF without opening/closing DADF after scanning with the Copyboard.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
DPT-ID-7		Password entry set at dept ID reg/auth
Lv.2	Details	To set whether to require a password entry at the time of registration/authentication of department ID. With the setting to require entry, entry of 7-digit password is required as well as entry of department ID.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Department ID only, 1: 7-digit (password) entry
	Default value	0
RUI-RJT		Connct set at invalid auth from remoteUI
Lv.2	Details	To set to disconnect HTTP port when the machine receives invalid authentication from remote UI 3 times.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Continued connection, 1: Disconnected
	Default value	0

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CTM-S06		Set of password delete from export file
Lv.2	Details	To set to delete password for file transmission address from export file. With the setting to delete password, the password of file transmission target is deleted at the time of exporting address book data from remote UI.
	Use case	• Upon user's request • When avoiding information leak
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Retained, 1: Deleted
	Default value	0
FREG-SW		Dspl/hide of MEAP counter free rgst area
Lv.2	Details	To set whether to display or hide the free register area of MEAP counter for SEND
	Use case	At trouble analysis
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• Do not use this at the normal service. • Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Supplement/memo	Individual count-up (counter advance) of MEAP application is available in the free register area of MEAP counter.
IFAX-SZL		Setting of IFAX send size limit
Lv.2	Details	To set for restricting data size at the time of IFAX transmission that does not go through the server. With the setting to restrict the data size, there will be #830 error in the case of sending data that exceeds the upper limit value. In the case that the data goes through the server, the size of transmission data is always restricted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Limited, 1: Not limited (Restriction applies when data goes through the server.)
	Default value	1
	Related UI menu	Function Settings > Send > E-Mail/I-Fax Settings > Maximum Data Size for Sending
	Supplement/memo	Specify the upper limit value for transmission data size in user mode.

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IFAX-PGD		Set page split TX at IFAX Simple mode TX
Lv.2	Details	To set to enable/disable split-data transmission on a page basis in the case that the transmission size in IFAX Simple mode exceeds the upper limit value.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	In the case to enable split-data transmission, be sure to get approval from the user by explaining the following: • No guarantee for page order on the reception side • There is a possibility of interruption of other received jobs between pages.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Related service mode	COPIER> OPTION> CLEANING> W-CLN-P
	Related UI menu	Function Settings > Send > E-Mail/I-Fax Settings > Maximum Data Size for Sending
	Supplement/memo	Specify the upper limit value for transmission data size in user mode.
MEAPSAFE		Setting of MEAP safe mode
Lv.2	Details	To set safe mode for MEAP platform. MPSF is displayed on the Control Panel in safe mode. In safe mode, MEAP application is stopped while just the system application, which starts with initial state, is activated. This mode enables obtaining log for cause analysis of MEAP failure.
	Use case	Perform system recovery processing when MEAP platform fails to be activated due to resource confliction between MEAP applications, service registration or use order.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal mode, 1: Safe mode
	Default value	0
AFN-PSWD		Access limit setting to user mode
Lv.2	Details	To set to restrict password entry when accessing to the user mode. With the setting to enable this mode, password entry of system administrator is required after pressing Settings/Registration key.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Password is not required, 1: Password is required
	Default value	0

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PTJAM-RC		Auto reprint setting at PDL print jam
Lv.2	Details	To set to automatically restart printing after jam recovery that occurs with PDL print.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not automatically reprinted, 1: Automatically reprinted
	Default value	1
PDL-NCSW		Card mngm setting for PDL print job
Lv.2	Details	To set to make PDL print job to be subject to card management by the Card Reader. With the setting to enable this mode, PDL print is available only when the card ID of the card inserted to the Card Reader matches the department ID.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: PDL print is available with no card inserted. 1: PDL print is available only when the card ID matches the department ID in the case that the card is inserted.
	Default value	0
SLP-SLCT		Usage setting of network applications
Lv.2	Details	With the setting to use network-related application, the machine can be recovered through network because it does not move to sleep mode 1. For this machine to recover from sleep mode 1 through network, a particular packet needs to be received; however, the existing network-related application does not send this packet. With the setting not to use the network-related application, this machine cannot recover from sleep mode 1 through network when it gets into sleep mode 1.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	0 to 1 0: Not used (Shift to sleep mode 1 is available.) 1: Used (Shift to sleep mode 1 is not available.)
	Default value	0
	Supplement/memo	Network-related application: NetSpot Accountant, imageWARE

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PS-MODE		Setting of PS print line drawing
Lv.2	Details	Details To set the line drawing processing at PS print. In case that line width differs according to the print position, when 8 is set, PostScript interpreter automatically adjusts the line width.
	Use case	Use case When right and left ruled lines are different in width
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535 8: Auto adjustment of line width 0 to 7, 9 to 65535: Spare
	Default value	0
CNCT-RLZ		Setting of connection serialize function
Lv.2	Details	Connection serialize is a function to assure job grouping function of imageWARE Output Manager Select Edition V1.0. The setting to enable this mode can avoid job rearrangement because the machine does not receive job data from other connection until it completes job data reception from the current connection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	Connection: Connection to be established through network between multiple hosts (PC, etc). Job grouping function: A function of imageWARE Output Manager Select Edition V1.0. This is to prevent job interruption from other PC by group job (sending multiple jobs in 1 session at job transmission).
JA-FUNC		ON/OFF of job archive function
Lv.2	Details	To set ON/OFF of job archive function.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Changing this mode is not available in service mode, but reference is available (in service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

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JA-JOB		Setting of job archive target job
Lv.2	Details	To set the job type subject to job archive. With the job archive function enabled, archive operation is executed when executing the target job.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Changing this mode is not available in service mode, but reference is available (in service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range	0: N/A, 3: Limited to FAX/IFAX, 0xFFFFFFFF: All jobs
	Default value	0
	Related service mode	COPIER > OPTION > USER > JA-FUNC
JA-RESTR		Setting of job archive limit items
Lv.2	Details	To set restriction items for job archive specification. With job archive function enabled, follow the setting to execute operation to restrict specification.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Changing this mode is not available in service mode, but reference is available (in service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range	0 to 1 0: OFF, 1: ON 32 specification restrictions with Bit definition Bit0: Function to obtain image file (0: OFF, 1:ON) Bit1: Function to compose form registration (0: OFF, 1: ON) Bit2: Function to edit document (0:OFF, 1: ON)
	Default value	0
	Related service mode	COPIER > OPTION > USER > JA-FUNC
LDAP-SW		Retrieval condition set for LDAP server
Lv.1	Details	To set the condition to search e-mail address, etc. from LDAP server.
	Use case	When specifying condition to search e-mail address, etc. from LDAP server
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 5 0: Includes the next, 1: Not include the next, 2: Equivalent to the next, 3: Not equivalent to the next, 4: Starts with the next, 5: Finishes with the next
	Default value	4
	Supplement/memo	LDAP (Lightweight Directory Access Protocol): Registering LDAP server enables to search e-mail address, etc. from LDAP server and the result can be registered in the Address Book, etc. Registration is available by the following: Set Destination > Register LDAP Server

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FROM-OF		Deletion of mail sender's address
Lv.1	Details	To set whether to delete the sender's address (From) at the time of e-mail transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Retained, 1: Deleted
	Default value	0
DOM-ADD		Additional entry of mail destn domain
Lv.2	Details	To set to automatically add the domain specified in user mode to the sending address (To) entered at the time of e-mail transmission. If specifying "xxx.com" as a domain in user mode in advance, just entering "aaa" enables to display "aaa@xxx.com" when sending e-mail.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not added, 1: Added
	Default value	0
FILE-OF		File send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of file transmission. File transmission is not available by entering the address because of no display of "File" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0

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MAIL-OF		Mail send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of e-mail transmission. E-mail transmission is not available by entering the address because of no display of "E-Mail" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
IFAX-OF		IFAX send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of I-Fax transmission. IFAX transmission is not available by entering the address because of no display of "I-Fax" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
LDAP-DEF		Initial condtn set of LDAP server search
Lv.1	Details	To set initial condition for search target attribute that is specified at the time of LDAP server Details search.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Name, 1: E-mail, 2: FAX, 3: Organization, 4: Organization unit, 5: No registration 1 (any setting), 6: No registration 2 (any setting)
	Default value	0
	Related service mode	COPIER > OPTION > USER > LDAP-SW

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FREE-DSP		Display/hide of charge disable screen
Lv.2	Details	To set whether to display or hide the Use Charge Management screen for switching between charge and no charge. The hardware switch for switching charge/no charge in the Coin Manager enables the mode in which all the services are available for free (store manager mode) by temporarily releasing the charging system. Even without the hardware switch, the mode can be switched with the software switch when it is set to display the Use Charge Management screen in Settings/Registration.
	Use case	When enabling all the services to be provided for free by temporarily releasing the charging system
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Management Settings > Charge Management > Use Charge Management
TNRB-SW		Display/hide of Toner Container counter
Lv.2	Details	To set whether to display the Toner Container counter on the Counter Check screen.
	Use case	When not showing the screen to users
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
HDCR-DSW		Dspl/hide of HDD complete delete ON/OFF
Lv.1	Details	To set whether to display or hide “Hard Disk Data Complete Deletion” in user mode. With this setting, HDD data complete deletion function is available with ON/OFF button on the screen.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related UI menu	Management Settings > Data Management > HDD Data Complete Deletion > Hard Disk Data Complete Deletion

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DK1-ASST		Setting of machine’s Deck Air Heater
Lv.1	Details	To set the condition to turn ON the machine’s Deck Air Heater for air floatation. When the media is switched from non-coated paper to coated paper, pickup operation does not start until the Air Heater for air floatation reaches the specified temperature. To shorten the wait time, set to non media-dependent. When the use environment is near the threshold for turning ON/OFF the Air Heater, switching occurs frequently, which increases the wait time. To shorten the wait time, set to Always ON.
	Use case	When receiving a request to shorten the wait time
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• When setting non media-dependent, be sure to receive approval from the user in advance after explaining that there is a possibility that transfer performance for non-coated paper may decrease. • When setting Always ON, be sure to receive approval from the user in advance after explaining that there is a possibility that transfer performance may decrease if humidity decreases.
	Display/adj/set range	0 to 2 0: Media and environment condition-dependent 1: Environment condition-dependent (No media-dependent) 2: Always Air Heater ON (No environment/media-dependent)
	Default value	0
SNMP-COA		Inside comty name SNMPaccess limit:admin
Lv.2	Details	To restrict SNMP access by the community name (administrator right) that is kept internally. This machine internally retains the community name (administrator right) other than the SNMP community name that is specified in user mode. Canon-made utility software, such as NetSpot, uses this community name. Because of security concern, select 0/1 in the case to restrict SNMP access with the internal community name.
	Use case	When restricting SNTP access with the community name (administrator right) that is retained internally
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: OFF, 1: Read only, 2: Read/Write
	Default value	1
	Related UI menu	Preferences > Network > SNMP Settings > Community Name 1 Settings

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SCALL-SW		Display/hide of repair request button
Lv.1	Details	To set whether to display or hide the repair-request button on the Control Panel.
	Use case	When the sales company supports service by the repair-request button
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
SCALLCMP		Set of repair request complete notice
Lv.1	Details	With this setting enabled, a notification of repair completion is sent to UGW server to clear the repair-request status that is retained internally.
	Use case	Service technician uses this mode after completing repair.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1
	Default value	0
USBH-DSP		Display/hide of “Use USB Host”
Lv.2	Details	To set whether to display “Preferences > External Interface > USB Settings > Use USB Host”. By selecting “1: Display”, whether to use USB host on USB Settings screen can be selected.
	Use case	When switching to display or hide “Use USB Host” on USB Settings screen
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Preferences > External Interface > USB Settings > Use USB Host

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USBM-DSP		Dspl/hide of USB ex-memory device driver
Lv.2	Details	To set whether to display “Preferences > External Interface > USB Settings > Use MEAP Driver for USB External Device”. By selecting “0: Hide”, the item is not displayed, and the user administrator cannot change the setting of the MEAP driver for the USB external memory device.
	Use case	When prohibiting the user administrator to change the setting of “Use MEAP Driver for USB External Device”, set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related UI menu	Preferences> External Interface> USB Settings> Use MEAP Driver for USB External Device
USBI-DSP		Dspl/hide of USB input device driver set
Lv.2	Details	To set whether to display “Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device”. By selecting “0: Hide”, the item is not displayed, and the user administrator cannot change the setting of the MEAP driver for the USB input device.
	Use case	When prohibiting the user administrator to change the setting of “Use MEAP Driver for USB Input Device”, set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related UI menu	Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device
CTCHKDSP		Display/hide of counter print
Lv.1	Details	To set whether to display or hide “Print List” on the Counter Check screen. Model name, model number information, counter check date and counter information can be output as a total count management report.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

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DFLT-ADJ		Tgt Auto Adj Gradation initial dspl set
Lv.1	Details	To set the initial display (highlight in blue) of the target Full Adjust/ Quick Adjust items on Auto Adjust Gradation screen of user mode. This setting is enabled when EFI Controller is connected or only on the copy model which Adobe PS/PDF is available. When 0 is set, the adjustment item is not displayed. When 1 to 3 is set, the target adjustment item (Copy/Printer/Both) is displayed to select (highlighted in blue).
	Use case	When switching the initial display at the time of Auto Adjust Gradation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Adjustment item is not displayed. 1: “Copy” in the target adjustment items is selected. 2: “Printer” in the target adjustment items is selected. 3: “Both” in the target adjustment items is selected.
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Auto Adjust Gradation
USBR-DSP		Dspl/hide of USB infrared device driver
Lv.2	Details	To set whether to display “Preferences > External Interface > USB Settings > Use MEAP Driver for USB Infrared Device.”
	Use case	When prohibiting the user administrator to change the setting of “Use MEAP Driver for USB Infrared Device,” set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Preferences > External Interface > USB Settings > Use MEAP Driver for USB Infrared Device
POL-SCAN		Dspl/hide Rights Management Server set
Lv.1	Details	When “1: Display” is set, the Rights Management Server function screen is displayed. While the Rights Management Server function is a standard feature, it is possible to hide if not necessary.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	JP:1, USA:0, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0

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PH-D-SL2		Set halftone process in text/photo mode
Lv.2	Details	When copying or B&W scanning to Inbox in text/photo mode, halftone processing of the image which reproduces gradation of text and photo judgment areas can be specified with this setting. Set to 1 when jaggy occurs or request to use the same halftoning method (text area) as conventional one is raised. Set to 2 when moire occurs frequently or request to use the same halftoning method as conventional B&W MFP method is raised. Even 0 is set, TBIC is used for text judgment area and low screen ruling for photo judgment area at the time of B&W Inbox scan. The setting is disabled when the B&W Inbox scanning density is set to auto.
	Use case	• When jaggy occurs on the edge of text or thin lines at copy output. Especially when jaggy occurs in the text or thin lines (text in halftone dots) of the area where gradation in the halftone density is expressed like photo, graphics, etc. • When moire occurs frequently at the time of copy or B&W Inbox scan Especially when moire frequently occurs in the area where gradation in the halftone density is expressed like photo, graphics, etc. and this symptom is not alleviated with PH-D-SEL or sharpness adjustment • When receiving a request to use the same halftoning method (text area) as the conventional one (model with image area separation method) at copy output • When receiving a request to use the same halftoning method (both text and photo areas) as the conventional B&W MFP method at the time of copy or B&W Inbox output
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Low screen ruling (134 lines) is used for photo judgment area and high screen ruling (141 lines) for text judgment area. 1: Low screen ruling is used for photo judgment area and TBIC for text judgment area. 2: TBIC is used for both photo and text judgment areas.
	Default value	0
	Related service mode	COPIER> OPTION> USER> PH-D-SEL
SCAN-RSL		Setting of scanned image resolution
Lv.2	Details	To set the resolution of image which is generated by scan processing.
	Use case	When the scan processing performance with 1200 dpi is low
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 1200 dpi, 1: 600 dpi
	Default value	0

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JA-SBOX		Setting of linking with Advanced Box:SAM
Lv.2	Details	To set the link with Advanced Box when iW SAM is enabled. When 1 is set, linking with Advanced Box is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-DFAX		Setting of direct fax transmission: SAM
Lv.2	Details	To set the direct fax transmission when iW SAM is enabled. When 1 is set, the direct fax transmission is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-REP		Setting of TX Report with image: SAM
Lv.2	Details	To set the TX Report with image when iW SAM is enabled. When 1 is set, the TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-FREP		Setting of Fax TX Report with image: SAM
Lv.2	Details	To set the Fax TX Report with image when iW SAM is enabled. When 1 is set, the Fax TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-BOX		Setting of Inbox document operation: SAM
Lv.2	Details	To set the operation for Inbox document at the time of iW SAM When 1 is set, the Inbox document can be operated.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-FORM		Setting of image composition: SAM
Lv.2	Details	To set the image composition when iW SAM is enabled. When 1 is set, the image composition is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

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JA-PREV		Setting of preview page deletion: SAM
Lv.2	Details	To set whether a page is deleted from the scan preview screen at the time of iW SAM When 1 is set, a page is deleted from the scan preview screen.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PULL		Setting of network scan: SAM
Lv.2	Details	To set the network scan when iW SAM is enabled. When 1 is set, the network scan is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PDLB		Set of printer driver multi box save:SAM
Lv.2	Details	To set whether a document can be simultaneously saved to multiple Inboxes from the printer driver at the time of iW SAM. When 1 is set, a document can be saved to multiple Inboxes from the printer driver.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-JOBK		Setting of job merge allowance:SAM
Lv.2	Details	To set whether merging jobs is allowed when iW SAM is enabled. When 1 is set, jobs can be merged.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-JDF		Setting of JDF: SAM
Lv.2	Details	To set the use of JDF when iW SAM is enabled. When 1 is set, JDF can be used.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

COPIER > OPTION > USER		
JA-RUI		Setting of Inbox document access: SAM
Lv.2	Details	To set the Inbox document access from remote UI at the time of iW SAM When 1 is set, accessing to the Inbox document from remote UI is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-WEB		Setting of Inbox document upload: SAM
Lv.2	Details	To set the Inbox document upload with the Web browser at the time of iW SAM. When 1 is set uploading to the Inbox document with the Web Browser is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
EXP-CRYP		Confdntial encrypt ON/OFF:add book exprt
Lv.1	Details	To set whether to encrypt the confidential part (password part) in the Address Book when exporting the Address Book and device settings via RUI. When 0 is set, the confidential part in the Address Book is exported without encryption.
	Use case	When there is a need to export password without encryption because of operation and tool
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure not to allow the user to execute export without encryption because of security concern.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
SLEEP1SW		Power supply when shifting to SLEEP1
Lv.1	Details	When shifting to SLEEP1 mode, the power stops to be supplied, so it takes time to activate after a job is received. When 1 is set, the power keeps to be supplied even after shifting to SLEEP1 mode, so the activation of job processing becomes earlier.
	Use case	Upon user's request (when job processing after shifting to SLEEP1 is slow)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

COPIER > OPTION > USER		
CNCL-ATH		ON/OFF of secure print domain judgment
Lv.1	Details	To set whether to conduct authentication when stopping a secured job. By setting 1, security for the secured job is enhanced when user authentication is not conducted.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
EZY-SCRP		ON/OFF of secure print simple auth
Lv.1	Details	To set whether to conduct secure print simple authentication. When 1 is set, secured print, encryption secured print and inbox print are received, but the normal print jobs are canceled. If the password "3758211" is entered at job sending, authentication by entering the password on the Control Panel is not required. If the password is not entered at job sending, authentication by entering the password on the Control Panel is necessary at job output. In addition, the following selection is added as auto deletion time of secure job: 10 minutes, 20 minutes, 30 minutes
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
DMN-MTCH		ON/OFF of secure print domain judgment
Lv.1	Details	To set whether to display only the job which matches the domain in the "My Job Status" screen of the secure print.LS When 1 is set, only the job which matches the user name and domain name is displayed in the "My Job Status" screen, so the job which does not match the domain is not displayed.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON

COPIER > OPTION > USER		
SCN-RSLG		Set outpt resolution at composition copy
Lv.1	Details	To set the output resolution when the composition function is used at copy in Text/Photo mode. When 0 is set, image quality becomes the same level (1200dpi) as when the composition function is not used, but productivity decreases.
	Use case	Upon user's request (to improve image quality)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to receive approval from the user in advance by explaining that productivity decreases by changing the setting.
	Display/adj/set range	0 to 1 0: 1200 dpi, 1: 600 dpi
	Default value	1
	Supplement/memo	Composition function: Page Numbering, Copy Set Numbering, Watermark, Print-Date
SMD-EXPT		Setting of export target data: remote UI
Lv.1	Details	To set whether to export "service mode data" from remote UI. When 1 is set, "service mode data" is displayed as the target data of export on remote UI. When installing more than 1 machine at the same time, the same service mode data can be registered.
	Use case	When installing more than 1 machine at the same time
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Supplement/memo	If selecting "service mode data" as the target data of export on remote UI after setting SMD-EXPT to 1, service mode data can be exported.
SNDSTREN		Set of setting delete aftr scan and send
Lv.1	Details	To set whether to delete the transmission settings except for the address after transmission from the "Scan and Send" screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Delete, 1: Retain
	Default value	JP:1, USA:0, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0

COPIER > OPTION > USER		
FAXSTREN		Set of setting delete aftr fax transmit
Lv.1	Details	To set whether to delete the transmission settings except for the address after transmission from the "Fax" screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Delete, 1: Retain
	Default value	JP:1, USA:0, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0

T-8-66

CST

COPIER > OPTION > CST		
U1-NAME		Dspl/hide ppr name in ppr size group U1
Lv.2	Details	To set whether to display or hide paper name at paper size group U1 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
U2-NAME		Dspl/hide ppr name in ppr size group U2
Lv.2	Details	To set whether to display or hide paper name at paper size group U2 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
U3-NAME		Dspl/hide ppr name in ppr size group U3
Lv.2	Details	To set whether to display or hide paper name at paper size group U3 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
U4-NAME		Dspl/hide ppr name in ppr size group U4
Lv.2	Details	To set whether to display or hide paper name at paper size group U4 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0

COPIER > OPTION > CST		
P-SZ-C1		Setting of Right Deck paper size
Lv.1	Details	To set the paper size used in the Right Deck.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 2 0: A4, 1: B5, 2: LTR
	Default value	0
P-SZ-C2		Setting of Left Deck paper size
Lv.1	Details	To set the paper size used in the Left Deck.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 2 0: A4, 1: B5, 2: LTR
	Default value	0
CST3-P1		Setting of Cassette 3 paper size
Lv.1	Details	To set the paper size used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> Paper Settings> A5R/STMTR Original Selection
CST3-P2		Setting of Cassette 3 paper size
Lv.1	Details	To set the paper size used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> Paper Settings> B5/EXEC Original Selection

COPIER > OPTION > CST		
CST4-P1		Setting of Cassette 4 paper size
Lv.1	Details	To set the paper size used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> Paper Settings> A5R/STMTR Original Selection
CST4-P2		Setting of Cassette 4 paper size
Lv.1	Details	To set the paper size used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> Paper Settings> B5/EXEC Original Selection
CST3-U1		Set Cst3 overseas special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 42 0: Special paper is not used, 1 to 22: Not used, 23: K-LGL-R, 24: FLSP, 25: A-FLSP, 26: OFI, 27: E-OFI, 28: B-OFI, 29: Not used, 30: A-LTRR, 31: Not used, 32: G-LTRR, 33: A-LGL, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4
	Default value	0
CST3-U3		Set Cst3 overseas special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 31 0: Special paper is not used, 1 to 21: Not used, 22: K-LGL, 23 to 28: Not used, 29: A-LTR, 30: Not used, 31: G-LTR
	Default value	0

COPIER > OPTION > CST		
CST4-U1		Set Cst4 overseas special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 42 0: Special paper is not used, 1 to 22: Not used, 23: K-LGL-R, 24: FLSP, 25: A-FLSP, 26: OFI, 27: E-OFI, 28: B-OFI, 29: Not used, 30: A-LTRR, 31: Not used, 32: G-LTRR, 33: A-LGL, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4
	Default value	0
CST4-U3		Set Cst4 overseas special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 31 0: Special paper is not used, 1 to 21: Not used, 22: K-LGL, 23 to 28: Not used, 29: A-LTR, 30: Not used, 31: G-LTR
	Default value	0

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■ ACC

COPIER > OPTION > ACC		
COIN		Setting of charge management
Lv.1	Details	To set charging management method.
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Following items are automatically specified when changing the value to 3 (from 0 to 2). The change will not be returned even if changing back the value to 0 to 2 (from 3) once the mode has been changed. • COPIER> OPTION> USER> CONTROL=1 • COPIER> OPTION> NETWORK> DA-CNCT=1 • COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX=0 • Function Settings > Send > E-Mail/I-Fax Settings > Communication Settings > SMTP Receive, POP=OFF • Preferences> Network > TCP/IP Settings > DNS Settings > FTP Print Settings > Use FTP Printing=OFF • Preferences> Network > TCP/IP Settings > DNS Settings > IPP Print Settings > Use IPP Printing=ON
	Display/adj/set range	0 to 7 0: No charge 1: Charge with Coin Manager 2: Charge with remote counter 3: Charge with DA (only in Japan) 4: Charge with this machine itself 5: Not used 6: External charge mode 6 7: External charge mode 7
	Default value	0
	Related service mode	COPIER> OPTION> USER> CONTROL COPIER> OPTION> FNC-SW> DA-CNCT COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX COPIER> OPTION> ACC> PDL-THR
	Related UI menu	Function Settings > Send > E-Mail/I-Fax Settings > Communication Settings Preferences> Network > TCP/IP Settings > DNS Settings > FTP Print Settings Preferences> Network > TCP/IP Settings > DNS Settings > IPP Print Settings
	Supplement/memo	Control card can be used with “0: No charge”. DA: Digital Accessory
DK-P		Setting of Paper Deck paper size
Lv.1	Details	To set the paper size used in the Paper Deck.
	Display/adj/set range	0 to 2 0: A4, 1: B5, 2: LTR
	Default value	0

COPIER > OPTION > ACC		
CARD-SW		Screen set when Coin Manager connected
Lv.1	Details	To set coin or card that the user is urged to insert on the Control Panel when the Coin Manager is connected.
	Use case	Upon user’s request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 3 0: Card, 1: certification by external device, 3: Coin and card, 3: Card
PD-SIZE		Setting of Side Paper Deck paper size
Lv.1	Details	To set the paper size used in the Side Paper Deck. Although the setting value 0 to 37 can be set, by setting 1 to 21, the basic paper size can be set from the user mode. In the service mode, set the special paper size.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 37
	Default value	0
CC-SPSW		Support setting of control card I/F
Lv.2	Details	To set support level for control card (CCIV/CCV) interface.
	Use case	Upon user’s request (when connecting to the external counter management system using the control card interface)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No support, 1: Support
	Default value	0
UNIT-PRC		Setting of Coin Manager currency unit
Lv.2	Details	To set currency unit to be handled with Coin Manager
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Japanese yen, 1: Euro, 2: Pound, 3: Swiss Franc, 4: Dollar, 5: No currency unit (no fractional unit), 6: No currency unit (with fractional unit)
	Default value	0

COPIER > OPTION > ACC		
MIN-PRC		Set of Coin Manager minimum price
Lv.1	Details	To set the minimum amount to be handled with Coin Manager. Enter 10 when specifying 10 Japanese yen as the minimum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/Dollar) by going through the following: COPIER> OPTION> ACC > UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents ($ 0.50).
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This mode is enabled when selecting 4 for the following: COPIER > OPTION > ACC > COIN.
	Display/adj/set range	0 to 9999
	Default value	10
	Related service mode	COPIER> OPTION> ACC> COIN, UNIT-PRC
	Supplement/memo	As for the charging amount, it causes an error if specifying the value that is smaller than the minimum currency unit with Settings/Registration mode. The unit differs according to the setting value by the following: COPIER> OPTION> ACC> UNIT-PRC.
MAX-PRC		Set of Coin Manager maximum price
Lv.1	Details	To set the maximum amount to be handled with Coin Manager. Enter 8800 when specifying 8800 Japanese yen as the maximum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/Dollar) by going through the following: COPIER> OPTION> ACC > UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents ($ 0.50).
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This mode is enabled when selecting 4 for the following: COPIER > OPTION > ACC > COIN.
	Display/adj/set range	0 to 9999
	Default value	8800
	Related service mode	COPIER> OPTION> ACC> COIN, UNIT-PRC
	Supplement/memo	As for charging amount, it causes an error if specifying the value that is larger than the maximum currency unit with Settings/Registration mode. The unit differs according to the setting value by the following: COPIER> OPTION> ACC> UNIT-PRC.

COPIER > OPTION > ACC		
MIC-TUN		Manual adj of voice recognize microphone
Lv.1	Details	To manually adjust the voice receiving level (sensitivity) of the connected voice recognition microphone. Microphone sensitivity is automatically tuned in user mode; however, adjust it manually as needed.
	Use case	When the sensitivity of microphone is not improved by auto tuning
	Display/adj/set range	0 to 255
	Default value	128
	Related UI menu	Preferences > Accessibility > Voice Navigation Settings > Tune Microphone
SRL-SPSW		Setting of Serial I/F Kit support
Lv.1	Details	To set the support level of the Serial Interface Kit. To keep processing performance of printer engine, select “1: Priority on speed”. To correctly stop the output by the upper limit number of sheets, select “2: Priority on upper limit number of sheets”.
	Use case	At installation of Serial Interface Kit
	Caution	With priority on speed, output cannot be correctly stopped by the upper limit number of sheets. With priority on the upper limit number of sheets, processing performance of the printer engine is decreased depending on pickup location.
	Display/adj/set range	0 to 2 0: No support, 1: Priority on speed, 2: Priority on upper limit number of sheets
	Default value	0
PDL-THR		Norm PDL pnt set:External charge mode6/7
Lv.2	Details	To set normal PDL print job processing at external charge mode 6/7. When 1 is set and external charge mode 6/7 is set with COIN, normal PDL print job is executed without being cancelled.
	Use case	When setting the normal PDL print processing in external charge mode 6/7
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Cancel, 1: Execute
	Default value	0
	Related service mode	COPIER> OPTION> ACC> COIN

COPIER > OPTION > ACC		
CR-TYPE		Setting of Card Reader
Lv.1	Details	To set the model of the Card Reader. Set 1 in the case of connecting the Card Reader-C1. It operates even 0 is set, but recognition rate decreases.
	Use case	When connecting the Card Reader-C1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Card Reader-F1, 1: Card Reader-C1
	Default value	0

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INT-FACE

COPIER > OPTION > INT-FACE		
IMG-CONT		Connection setting of print server
Lv.1	Details	To set connection with print server.
	Use case	At installation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 4 0: Normal mode (Print server not connected), 1, 2: Not used, 3: Print server connected, 4: Not used
	Default value	0
AP-OPT		Output set of appli with print server
Lv.2	Details	To set whether to permit output from the application (PrintMe) equipped with print server.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Permits the specified account only, 1: Permits, 2: Permits the specified department ID only
	Default value	0
AP-ACCNT		Job dept ID set of appli w/ print server
Lv.2	Details	To set department ID to the print job from the application (PrintMe) equipped with print server.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 9999999
	Default value	0
AP-CODE		Set output pass code from print server
Lv.2	Details	To set the pass code for output from print server.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 9999999
	Default value	0
NWCT-TM		Timeout setting of network connection
Lv.2	Details	To set the time to keep network connection between this machine and the PC application (keep-alive setting). As the value is incremented by 1, the time is increased by 1 minute.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 5
	Default value	5
	Supplement/memo	Expected PC application: Network print application, E-mail function, cascade copy, MEAP network application, etc.

COPIER > OPTION > INT-FACE		
CNT-TYPE		Connection setting of print server
Lv.1	Details	To switch print server to be connected. Specify print server with EFI Controller ID.
	Use case	At installation of print server
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 999 445: imagePASS-U1
	Default value	1

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TEMPO

COPIER > OPTION > TEMPO		
F-POT-SW		Setting at Potential Sensor failure
Lv.2	Details	To set the control at the Potential Sensor failure. If the potential control, D-max control, etc. are executed at the Potential Sensor failure, an image failure or error occurs. When 0 is set, the potential control and D-max become OFF, so the device can be run temporarily although the Potential Sensor failure occurs. Use the item as a temporary measure when it takes time until replacing the Potential Sensor.
	Use case	When replacing the Potential Sensor
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to set the value back to 1 (ON) after replacing.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Related service mode	COPIER> OPTION> FNC-SW> PO-CNT
F-HUM-SW		ON/OFF of humidity manual entry
Lv.2	Details	To set whether to enable F-HUM-D setting when an error (failure) in the Environment Sensor occurs. When 1 is set, the F-HUM-D setting is enabled. Use the item as a temporary measure until replacing the Environment Sensor.
	Use case	When an error (failure) in the Environment Sensor occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> TEMPO> F-HUM-D
F-HUM-D		Manual entry of humidity
Lv.2	Details	Enter the humidity at the installation location manually when an error in the Environment Sensor occurs. When F-HUM-SW is 1, this setting is enabled.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	30 to 99
	Default value	35
	Related service mode	COPIER>OPTION>TEMPO>F-HUM-SW

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LCNS-TR

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ST-SEND		Installation state dspl of SEND function
Lv.2	Details	To display installation state of SEND function when transfer is disabled.
	Use case	When checking whether SEND function is installed
	Adj/set/operate method	1) Select ST-SEND. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SEND.
	Display/adj/set range	When operation finished normally: OK!
	Default value	1
TR-SEND		Trns license key dspl of SEND function
Lv.2	Details	To display transfer license key to use SEND function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-SEND. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SEND.
	Display/adj/set range	24 digits
ST-ENPDF		Install state dspl of Encryption PDF
Lv.2	Details	To display installation state of Encryption PDF when transfer is disabled.
	Use case	When checking whether Encryption PDF is installed
	Adj/set/operate method	1) Select ST-ENPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-ENPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-ENPDF		Trns license key dspl of Encryption PDF
Lv.2	Details	To display transfer license key to use Encryption PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-ENPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-ENPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-SPDF		Install state dspl of Searchable PDF
Lv.2	Details	To display installation state of Searchable PDF when transfer is disabled.
	Use case	When checking whether Searchable PDF is installed
	Adj/set/operate method	1) Select ST-SPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SPDF		Trns license key dspl of Searchable PDF
Lv.2	Details	To display transfer license key to use Searchable PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-SPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits
ST-EXPDF		Instal state of Encry PDF + Searchbl PDF
Lv.2	Details	To display installation state of Encryption PDF + Searchable PDF when transfer is disabled.
	Use case	When checking whether Encryption PDF + Searchable PDF is installed
	Adj/set/operate method	1) Select ST-EXPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-EXPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-EXPDF		Trns lcns key of Encry PDF+Searchbl PDF
Lv.2	Details	To display transfer license key to use Encryption PDF + Searchable PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-EXPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-EXPDF.
	Caution	This mode is enabled when SEND function is installed for Japan.
	Display/adj/set range	24 digits

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ST-PDFDR		Install state dspl of Direct Print PDF
Lv.2	Details	To display installation state of Direct Print PDF when transfer is disabled.
	Use case	When checking whether Direct Print PDF is installed
	Adj/set/operate method	1) Select ST-PDFDR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PDFDR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PDFDR		Trns lcns key dspl of Direct Print PDF
Lv.2	Details	To display transfer license key to use Direct Print PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-PDFDR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PDFDR.
	Display/adj/set range	24 digits
ST-SCR		Install state dspl of Encry Secure Print
Lv.2	Details	To display installation state of Encrypted Secure Print when transfer is disabled.
	Use case	When checking whether Encrypted Secure Print is installed
	Adj/set/operate method	1) Select ST-SCR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SCR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SCR		Trns license key dspl: Encry Secure Pnt
Lv.2	Details	To display transfer license key to use Encrypted Secure Print when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-SCR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SCR.
	Caution	This mode is enabled when there is “3DES+USH-H” Board.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-HDCLR		Installation state display of Data Erase
Lv.2	Details	To display installation state of Data Erase (for old model) when transfer is disabled.
	Use case	When checking whether Data Erase (for old model) is installed
	Adj/set/operate method	1) Select ST-HDCLR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HDCLR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-HDCLR		Transfer license key dspl of Data Erase
Lv.2	Details	To display transfer license key to use Data Erase (for old model) when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-HDCLR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HDCLR.
	Caution	This mode is enabled when there is “3DES+USH-H” Board.
	Display/adj/set range	24 digits
ST-BRDIM		Install state dspl: PCL Barcode Printing
Lv.2	Details	To display installation state of Barcode Printing for PCL when transfer is disabled.
	Use case	When checking whether Barcode Printing for PCL is installed
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-BRDIM		Trns lcns key dspl: PCL Barcode Printing
Lv.2	Details	To display transfer license key to use Barcode Printing for PCL when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	24 digits

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ST-VNC		Install state dspl of Remote Oprtr Soft
Lv.2	Details	To display installation state of Remote Operators Software when transfer is disabled.
	Use case	When checking whether Remote Operators Software is installed
	Adj/set/operate method	1) Select ST-VNC. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-VNC.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-VNC		Trns lcns dspl of Remote Operators Soft
Lv.2	Details	To display transfer license key to use Remote Operators Software when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-VNC. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-VNC.
	Display/adj/set range	24 digits
ST-WEB		Install state dspl: Web Access Software
Lv.2	Details	To display installation state of Web Access Software when transfer is disabled.
	Use case	When checking whether Web Access Software is installed
	Adj/set/operate method	1) Select ST-WEB. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-WEB.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-WEB		Trns license key dspl of Web Access Soft
Lv.2	Details	To display transfer license key to use Web Access Software when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-WEB. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-WEB.
	Display/adj/set range	24 digits

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ST-HRPDF		Install state dspl of High Compress PDF
Lv.2	Details	To display installation state of High Compression PDF when transfer is disabled.
	Use case	When checking whether High Compression PDF is installed
	Adj/set/operate method	1) Select ST-HRPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HRPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	1
TR-HRPDF		Trns lcns key dspl of High Compress PDF
Lv.2	Details	To display transfer license key to use High Compression PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-HRPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HRPDF.
	Display/adj/set range	24 digits
ST-TRSND		Install state dspl: Trial SEND function
Lv.2	Details	To display installation state of Trial SEND function when transfer is disabled.
	Use case	When checking whether Trial SEND function is installed
	Adj/set/operate method	1) Select ST-TRSND. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-TRSND.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-TRSND		Trns lcns key dspl: Trial SEND function
Lv.2	Details	To display transfer license key to use Trial SEND function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-TRSND. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-TRSND.
	Display/adj/set range	24 digits

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ST-WTMRK		Install state dspl of Secure Watermark
Lv.2	Details	To display installation state of Secure Watermark when transfer is disabled.
	Use case	When checking whether Secure Watermark is installed
	Adj/set/operate method	1) Select ST-WTMRK. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-WTMRK.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-WTMRK		Trns license key dspl: Secure Watermark
Lv.2	Details	To display transfer license key to use Secure Watermark when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-WTMRK. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-WTMRK.
	Display/adj/set range	24 digits
ST-TSPDF		Install state dspl of Time Stamp PDF: JP
Lv.2	Details	To display installation state of Time Stamp PDF (JP only) when transfer is disabled.
	Use case	When checking whether Time Stamp PDF (JP only) is installed
	Adj/set/operate method	1) Select ST-TSPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-TSPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-TSPDF		Trns lcns key dspl of Time Stamp PDF: JP
Lv.2	Details	To display transfer license key to use Time Stamp PDF (JP only) when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-TSPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-TSPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits

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ST-USPDF		Install state dspl of Dgtl User Sign PDF
Lv.2	Details	To display installation state of Digital User Signature PDF when transfer is disabled.
	Use case	When checking whether Digital User Signature PDF is installed
	Adj/set/operate method	1) Select ST-USPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-USPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-USPDF		Trns lcns key dspl of Dgtl User Sign PDF
Lv.2	Details	To display transfer license key to use Digital User Signature PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-USPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-USPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits
ST-DVPDF		Install state dspl of Device Sign PDF
Lv.2	Details	To display installation state of Device Signature PDF when transfer is disabled.
	Use case	When checking whether Device Signature PDF is installed
	Adj/set/operate method	1) Select ST-DVPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-DVPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-DVPDF		Trns lcns key dspl of Device Sign PDF
Lv.2	Details	To display transfer license key to use Device Signature PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-DVPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-DVPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits

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ST-SCPDF		Install state dspl of Trace & Smooth PDF
Lv.2	Details	To display installation state of Trace & Smooth PDF when transfer is disabled.
	Use case	When checking whether Trace & Smooth PDF is installed
	Adj/set/operate method	1) Select ST-SCPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SCPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SCPDF		Trns lcns key dspl of Trace & Smooth PDF
Lv.2	Details	To display transfer license key to use Trace & Smooth PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-SCPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SCPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits
ST-AMS		Install state dspl of Access Mngm System
Lv.2	Details	To display installation state of Access Management System when transfer is disabled.
	Use case	When checking whether Access Management System is installed
	Adj/set/operate method	1) Select ST-AMS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-AMS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-AMS		Trns lcns key dspl of Access Mngm System
Lv.2	Details	To display transfer license key to use Access Management System when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-AMS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AMS.
	Display/adj/set range	24 digits

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ST-ERDS		Install state dspl: E-RDS 3rd Pty Expnsn
Lv.2	Details	To display installation state of E-RDS 3rd Party Expansion when transfer is disabled.
	Use case	When checking whether E-RDS 3rd Party Expansion is installed
	Adj/set/operate method	1) Select ST-ERDS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-ERDS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
	Supplement/memo	E-RDS 3rd Party Expansion: A function to send charge counter to the third party's charge server.
TR-ERDS		Trns lcns key dspl: E-RDS 3rd Pty Expnsn
Lv.2	Details	To display transfer license key to use E-RDS 3rd Party Expansion when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-ERDS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-ERDS.
	Display/adj/set range	24 digits
	Supplement/memo	E-RDS 3rd Party Expansion: A function to send charge counter to the third party's charge server.
ST-PS		Install state display of PS function
Lv.2	Details	To display installation state of PS function when transfer is disabled.
	Use case	When checking whether PS function is installed
	Adj/set/operate method	1) Select ST-PS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PS		Transfer license key dspl of PS function
Lv.2	Details	To display transfer license key to use PS function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-PS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PS.
	Display/adj/set range	24 digits

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ST-PCL		Install state display of PCL function
Lv.2	Details	To display installation state of PCL function when transfer is disabled.
	Use case	When checking whether PCL function is installed
	Adj/set/operate method	1) Select ST-PCL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PCL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PCL		Transfer license key dspl: PCL function
Lv.2	Details	To display transfer license key to use PCL function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-PCL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PCL.
	Display/adj/set range	24 digits
ST-PSLI5		Install state dspl: PS/LIPS4/LIPS LX: JP
Lv.2	Details	To display installation state of PS/LIPS4/LIPS LX function (JP only) when transfer is disabled.
	Use case	When checking whether PS/LIPS4/LIPS LX function (JP only) is installed
	Adj/set/operate method	1) Select ST-PSLI5. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSLI5.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSLI5		Trns lcns key dspl: PS/LIPS4/LIPS LX: JP
Lv.2	Details	To display transfer license key to use PS/LIPS4/LIPS LX function (JP only) when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-PSLI5. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSLI5.
	Display/adj/set range	24 digits

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ST-LIPS5		Install state dspl:LIPS LX/LIPS4 func:JP
Lv.2	Details	To display installation state of LIPS LX/LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether LIPS LX/LIPS4 function (JP only) is installed
	Adj/set/operate method	1) Select ST-LIPS5. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LIPS5.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-LIPS5		Trns lcns key dspl:LIPS LX/LIPS4 func:JP
Lv.2	Details	To display transfer license key to use LIPS LX/LIPS4 function (JP only) when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-LIPS5. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LIPS5.
	Display/adj/set range	24 digits
ST-LIPS4		Install state display of LIPS4 func: JP
Lv.2	Details	To display installation state of LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether LIPS4 function (JP only) is installed
	Adj/set/operate method	1) Select ST-LIPS4. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LIPS4.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-LIPS4		Trns license key dspl of LIPS4 func: JP
Lv.2	Details	To display transfer license key to use LIPS4 function (JP only) when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-LIPS4. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LIPS4.
	Display/adj/set range	24 digits

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ST-PSPCL		Install state dspl of PS/PCL function
Lv.2	Details	To display installation state of PS/PCL function when transfer is disabled.
	Use case	When checking whether PS/PCL function is installed
	Adj/set/operate method	1) Select ST-PSPCL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSPCL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSPCL		Transfer license key dspl of PS/PCL func
Lv.2	Details	To display transfer license key to use PS/PCL function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-PSPCL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSPCL.
	Display/adj/set range	24 digits
ST-PCLUF		Install state dspl: PCL/UFR II function
Lv.2	Details	To display installation state of PCL/UFR II function when transfer is disabled.
	Use case	When checking whether PCL/UFR II function is installed
	Adj/set/operate method	1) Select ST-PCLUF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PCLUF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PCLUF		Trns license key dspl of PCL/UFR II func
Lv.2	Details	To display transfer license key to use PCL/UFR II function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-PCLUF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PCLUF.
	Display/adj/set range	24 digits

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ST-PSLIP		Install state dspl of PS/LIPS4 func: JP
Lv.2	Details	To display installation state of PS/LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether PS/LIPS4 function (JP only) is installed
	Adj/set/operate method	1) Select ST-PSLIP. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSLIP.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSLIP		Trns license key dspl: PS/LIPS4 func:JP
Lv.2	Details	To display transfer license key to use PS/LIPS4 function (JP only) when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-PSLIP. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSLIP.
	Display/adj/set range	24 digits
ST-PSPCU		Install state dspl of PS/PCL/UFR II func
Lv.2	Details	To display installation state of PS/PCL/UFR II function when transfer is disabled.
	Use case	When checking whether PS/PCL/UFR II function is installed
	Adj/set/operate method	1) Select ST-PSPCU. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSPCU.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSPCU		Trns lcns key dspl of PS/PCL/UFR II func
Lv.2	Details	To display transfer license key to use PS/PCL/UFR II function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-PSPCU. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSPCU.
	Display/adj/set range	24 digits

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ST-LXUFR		Install state display of UFR II function
Lv.2	Details	To display installation state of UFR II function when transfer is disabled.
	Use case	When checking whether UFR II function is installed
	Adj/set/operate method	1) Select ST-LXUFR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LXUFR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	1
TR-LXUFR		Trns license key dspl of UFR II function
Lv.2	Details	To display transfer license key to use UFR II function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-LXUFR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LXUFR.
	Display/adj/set range	24 digits
ST-HDCR2		Install state dspl:HDD Init All Data/Set
Lv.2	Details	To display installation state of HDD Initialize All Data/Settings when transfer is disabled.
	Use case	When checking whether HDD Initialize All Data/Settings is installed
	Adj/set/operate method	1) Select ST-HDCR2. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HDCR2.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-HDCR2		Trns lcns key dspl:HDD Init All Data/Set
Lv.2	Details	To display transfer license key to use HDD Initialize All Data/Settings when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-HDCR2. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HDCR2.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-JBLK		Install state dspl of Document Scan Lock
Lv.2	Details	To display installation state of Document Scan Lock when transfer is disabled.
	Use case	When checking whether Document Scan Lock is installed
	Adj/set/operate method	1) Select ST-JBLK. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-JBLK.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-JBLK		Trns lcns key dspl of Document Scan Lock
Lv.2	Details	To display transfer license key to use Document Scan Lock when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-JBLK. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-JBLK.
	Display/adj/set range	24 digits
ST-AFAX		Installation state display of Remote Fax
Lv.2	Details	To display installation state of Remote Fax when transfer is disabled.
	Use case	When checking whether Remote Fax is installed
	Adj/set/operate method	1) Select ST-AFAX. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-AFAX.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-AFAX		Transfer license key dspl of Remote Fax
Lv.2	Details	To display transfer license key to use Remote Fax when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-AFAX. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AFAX.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-POPDF		Install state display of PDF w/ Policy
Lv.2	Details	To display installation state of PDF function with Policy when transfer is disabled.
	Use case	When checking whether PDF function with Policy is installed
	Adj/set/operate method	1) Select ST-POPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-POPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-POPDF		Trns lcns key display of PDF w/ Policy
Lv.2	Details	To display transfer license key to use PDF function with Policy when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-POPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-POPDF.
	Display/adj/set range	24 digits
ST-REPDF		Install state dspl:Reader Extensions PDF
Lv.2	Details	To display installation state of Reader Extensions PDF when transfer is disabled.
	Use case	When checking whether Reader Extensions PDF is installed
	Adj/set/operate method	1) Select ST-REPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-REPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-REPDF		Trns lcns key dspl:Reader Extensions PDF
Lv.2	Details	To display transfer license key to use Reader Extensions PDF when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-REPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-REPDF.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-OOXML		Install state display of Office Open XML
Lv.2	Details	To display installation state of Office Open XML when transfer is disabled.
	Use case	When checking whether Office Open XML is installed
	Adj/set/operate method	1) Select ST-OOXML. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-OOXML.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-OOXML		Trns lcns key display of Office Open XML
Lv.2	Details	To display transfer license key to use Office Open XML when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-OOXML. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-OOXML.
	Display/adj/set range	24 digits
ST-XPS		Install state dspl of Direct Print XPS
Lv.2	Details	To display installation state of Direct Print XPS when transfer is disabled.
	Use case	When checking whether Direct Print XPS is installed
	Adj/set/operate method	1) Select ST-XPS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-XPS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-XPS		Trns lcns key dspl of Direct Print XPS
Lv.2	Details	To display transfer license key to use Direct Print XPS when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-XPS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-XPS.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-2600		Instal state dspl: IEEE2600.1 scrty func
Lv.2	Details	To display installation state of the IEEE2600.1 security function when transfer is disabled.
	Use case	When checking whether the IEEE2600.1 security function is installed
	Adj/set/operate method	1) Select ST-2600. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-2600.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-2600		Trn lcns key dspl: IEEE2600.1 scrty func
Lv.2	Details	To display transfer license key of the IEEE2600.1 security function when transfer is disabled.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-2600. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-2600.
	Display/adj/set range	24 digits
ST-OPFNT		Install state display of PCL Font Set
Lv.2	Details	To display installation state of PCL Font Set when disabling the function with license transfer.
	Use case	When checking whether PCL Font Set is installed
	Adj/set/operate method	1) Select ST-OPFNT. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-OPFNT.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-OPFNT		Trns license key display of PCL Font Set
Lv.2	Details	To display transfer license key to use the PCL option Font when disabling the function with license transfer.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-OPFNT. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-OPFNT.
	Display/adj/set range	24 digits

COPIER > OPTION > LCNS-TR		
ST-NCAPT		Install state display of NetCap function
Lv.2	Details	To display installation state of network packet capture function when disabling the function with license transfer.
	Use case	When checking whether network packet capture function is installed
	Adj/set/operate method	1) Select ST-NCAPT. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-NCAPT.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-NCAPT		Transfer license key dspl of NetCap func
Lv.2	Details	To display transfer license key to use the network packet capture function when disabling the function with license transfer.
	Use case	• When replacing HDD • When replacing the device
	Adj/set/operate method	1) Select ST-NCAPT. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-NCAPT.
	Display/adj/set range	24 digits

T-8-71

TEST

PG

COPIER > TEST > PG		
TYPE		Test print
Lv.1	Details	To execute the test print.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value, and then press Start key. Test print is executed.
	Caution	Be sure to return the value to 0 after the test print output.
	Display/adj/set range	0 to 50 0: Normal print 1: Grid 2: 17 gradations Tbic rank 2 3: 17 gradations 600dpi (134-line screen or 141-line screen) 4: Solid white 5: Halftone (density: 80H, Tbic rank 2, without image correction) 6: Halftone (density: 80H, 134-line screen or 141-line screen, without image correction) 7: Solid black 8: Horizontal line (4 dots, 27 spaces) 9: Horizontal line (6 dots, 50 spaces) 10: Horizontal line (2 dots, 3 spaces) 11: Halftone (density: 60H, Tbic rank 2, without image correction) 12: Halftone (density: 80H, 134-line screen or 141-line screen, without image correction) 13: Halftone (density: 30H, Tbic rank 2, without image correction) 14: Halftone (density: 30H, 134-line screen or 141-line screen, without image correction) 15-50: For development
	Default value	0
TXPH		Setting of test print image mode
Lv.1	Details	To set the image mode at the time of test print output. This mode is enabled for test print only.
	Use case	At trouble analysis
	Display/adj/set range	0 to 6 0: Error diffusion 1: Low screen ruling (approx. 133 to 190 lines) 2: High screen ruling (approx. 200 to 268 lines) 3: Copy screen (approx. 220 lines) 4: REOS screen (no screen structure) 5: Error diffusion (with trailing edge adjustment) 6: High screen ruling (with trailing edge adjustment)

COPIER > TEST > PG		
DENS-K		Adj of Bk color density at test print
Lv.1	Details	To adjust Bk color density when performing test print (TYPE=5). As the greater value is set, the image gets darker.
	Use case	At test print (TYPE=5)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 25
F/M-SW		Setting of PG full color/mono color
Lv.1	Details	To set for the output in full color/monochrome color with PG.
	Use case	When separating (identifying) the cause whether it's due to color or monochrome.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Full color, 1: Single color
	Default value	0
PG-PICK		Setting of test print Pickup Cassette
Lv.1	Details	To set the Pickup Cassette for test print output.
	Use case	• At trouble analysis • At test print output
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	1 to 8 1: Cassette 1 (Right Deck), 2: Cassette 2 (Left Deck), 3: Cassette 3 (Option Cassette 2), 4: Cassette 4 (Option Cassette 2), 5: Paper Deck, 6: Multi-purpose Tray, 7 to 8: Not used
2-SIDE		Setting of PG 2-sided mode
Lv.1	Details	To set 1-sided/2-sided print for PG output.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
	Default value	0
PG-QTY		Setting of PG output quantity
Lv.1	Details	To set the number of sheets for PG output.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 999
	Default value	1

COPIER > TEST > PG		
FINISH		Accessory processing function test print
Lv.1	Details	To execute the test print relating to accessory processing function.
	Use case	When checking operation of accessory processing function
	Adj/set/operate method	1) Enter the number of sheets for PG-QTY, and then press OK key. 2) Enter the setting value, and then press OK key. 3) Press Start button. The machine outputs a test print.
	Display/adj/set range	0 to 99 0: N/A 1: Staple (front) *1 2: Staple (2 points) *1 3: Staple (rear) *1 4: Booklet (saddle stitch) *1 5: Z-fold (single sleeve) *1 6: 2-fold *1 7: C-fold *2 8: V-fold *2 9: 4-fold *2 10: Z-fold (out-3-fold) *2 11: Punch (Inner Puncher) *3 12: Multiple-hole punch *4 13: Shift *1 14 to 99: Spare (for future use) *1 Finisher, *2 Multi-folding machine, *3 Inner Puncher, *4 Multiple-hole Puncher
	Default value	0
	Related service mode	COPIER> TEST> PG> PG-QTY

T-8-72

NETWORK

COPIER > TEST > NETWORK		
PING		Network connection check
Lv.1	Details	To check connection between this machine and TCP/IP network.
	Use case	• When checking network connection at the time of installation • At network connection failure
	Adj/set/operate method	1) Turn OFF the main power switch. 2) Connect the network cable to this machine, and then turn ON the main power switch. 3) Inform the system administrator at user's site that installation of this machine is complete, and ask for network setting. 4) Ask the system administrator to check the network connection, and check the remote host address of PING transmission target. 5) Select the item and enter the remote host address, and then press OK key and Start key. OK: Connection is normal. Checking procedure is complete. NG: Connection failed. Go to step 6) if the cable connection is OK. In case of cable connection failure, connect again and then go to step 5). 6) Select the item and enter loopback address, and then press OK key and Start key. OK: TCP/IP setting of this machine is normal. Go to step 7) to check NIC. NG: TCP/IP setting of this machine has failure. Go to step 3) to check the setting again. 7) Select the item and enter the local host address, and then press OK key. OK: Network setting of this machine and NIC are normal. Inform the system administrator that the trouble is due to network environment and ask for countermeasure. NG: Connection failure/fault with NIC. Check connection of NIC/ replace NIC.
	Display/adj/set range	0.0.0.0 to 255.255.255.255 At normal state: OK At failure occurrence: NG
	Supplement/memo	• Remote host address: IP address of PC terminal in network. • Loopback address: 127.0.0.1. Checking TCP/IP of this machine is available because the signal is returned before NIC. • NIC: Network interface board • Local host address: IP address of this machine

COPIER > TEST > NETWORK		
IPV6-ADR		Setting of PING send address (IPv6)
Lv.1	Details	To set the IPv6 address to send PING. When PING is sent to this address by COPIER> TEST> NETWORK> PING-IP6, the network connection condition in the IPv6 environment can be checked.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	• Enter a consistent character string as an address of IPv6. • Enter an address within 39 characters including hexadecimal numbers (0-9, a-f) and a separator (:).
	Related service mode	COPIER> TEST> NETWORK> PING-IP6
PING-IP6		PING transmission to IPv6 address
Lv.1	Details	To send PING to the address specified by IPV6-ADR. The network connection condition in the IPv6 environment can be checked.
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> TEST> NETWORK> IPV6-ADR
IPSECPOL		Polling test of IPSec Encryption Board
Lv.1	Details	To execute polling test of IPSec Encryption Board. To check whether a hardware failure has occurred.
	Use case	When checking whether a hardware failure has occurred to the IPSec Encryption Board
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At normal state: OK At failure occurrence: NG (0: The board cannot be recognized. 1: An error occurred to the result.)
IPSECINT		Interrupt test of IPSec Encryption Board
Lv.1	Details	To execute the interrupt test of IPSec Encryption Board. To check whether a hardware failure has occurred.
	Use case	When checking whether a hardware failure has occurred to the IPSec Encryption Board
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At normal state: OK At failure occurrence: NG (0: The board cannot be recognized. 1: An error occurred to the result.)

T-8-73

■ NET-CAP

COPIER > TEST > NET-CAP		
CAPOFFON		ON/OFF of NetCap function
Lv.2	Details	To set ON/OFF of network packet capture function.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> TEST> NET-CAP
	Related UI menu	Store Network Packet Log
STT-STP		Start and stop of network packet capture
Lv.2	Details	To start and stop network packet capture.
	Related service mode	COPIER> TEST> NET-CAP
	Related UI menu	Store Network Packet Log
CAPSTATE		State display of network packet capture
Lv.2	Details	To display the state of network packet capture.
	Related service mode	COPIER> TEST> NET-CAP
	Related UI menu	Store Network Packet Log
PONSTART		Set network packet capture start timing
Lv.2	Details	To set whether to perform network packet capture from power-on.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> TEST> NET-CAP
	Related UI menu	Store Network Packet Log
OVERWRIT		Setting of NetCap data overwriting
Lv.2	Details	To set whether to finish network capturing or overwrite when HDD becomes full.
	Display/adj/set range	0 to 1 0: No overwriting (finish network packet capture), 1: Overwriting
	Default value	1
	Related service mode	COPIER> TEST> NET-CAP
	Related UI menu	Store Network Packet Log
PAYLOAD		Set network packet capture data save
Lv.2	Details	To set whether to discard payload when saving the captured packet data.
	Default value	0
	Related service mode	COPIER> TEST> NET-CAP
	Related UI menu	Store Network Packet Log
FILE-CLR		Deletion of network packet capture data
Lv.2	Details	To delete the captured packet data.

COPIER > TEST > NET-CAP		
SIMPFILT		Settings of packet data filtering
Lv.2	Details	To set whether to perform filtering when capturing packet data. When 0 is set, filtering is not performed (All the data are captured.) When 1 is set, packet data is captured only when the receiver's or sender's address coincides with the Mac address of this machine.
	Use case	At problem analysis (at packet data analysis)
	Display/adj/set range	0 to 1 0: Not filtered, 1: Filtered
ENCDATA		Setting of packet data encryption
Lv.2	Details	To set whether to encrypt the packet data when writing the captured packet data to the USB memory.
	Use case	• At problem analysis (at packet data analysis) • When improving security of written packet data
	Caution	This setting is enabled only when writing data to the USB memory. Even when the packet data is loaded using SST, the file is specified, therefore the setting is disabled.
	Display/adj/set range	0 to 2 0: Encrypted (encrypted file) 1: Not encrypted (plain text file) 2: Encrypted (encrypted file + plain text file)
	Default value	0

T-8-74

COUNTER

TOTAL

COPIER > COUNTER > TOTAL		
SERVICE1		Service-purposed total counter 1
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
SERVICE2		Service-purposed total counter 2
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 2, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
COPY		Total copy counter
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
PDL-PRT		PDL print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at PDL print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
FAX-PRT		FAX reception print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at FAX reception. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
RMT-PRT		Remote print counter
Lv.1	Details	To count up when the paper is delivered outside the machine and 2-sided print is stacked according to the charge counter at report print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
BOX-PRT		Inbox print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at Inbox print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999

COPIER > COUNTER > TOTAL		
RPT-PRT		Report print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at report print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
2-SIDE		2-sided copy/print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at 2-sided copy/print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
SCAN		Scan counter
Lv.1	Details	To count the number of scan operations according to the charge counter when the scanning operation is complete. Large size: 1, small size: 1
	Display/adj/set range	0 to 99999999

T-8-75

PICKUP

COPIER > COUNTER > PICKUP		
C1		Cassette 1 pickup total counter
Lv.1	Details	Small size: 1
C2		Cassette 2 pickup total counter
Lv.1	Details	Small size: 1
C3		Cassette 3 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
C4		Cassette 4 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
MF		Multi-purpose Tray pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
DK		Deck pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
2-SIDE		2-sided pickup total counter
Lv.1	Details	Large size: 1, Small size: 1

T-8-76

FEEDER

COPIER > COUNTER > FEEDER		
FEED		DADF original pickup total counter
Lv.1	Details	DADF original pickup total counter
	Use case	When checking the total counter of original pickup by DADF
	Display/adj/set range	0 to 99999999
L-FEED		DADF large size pickup total counter
Lv.1	Details	DADF large size pickup total counter
	Use case	When checking the total counter of large size pickup by DADF
	Display/adj/set range	0 to 99999999
S-FEED		DADF small size pickup total counter
Lv.1	Details	DADF small size pickup total counter
	Use case	When checking the total counter of small size pickup by DADF
	Display/adj/set range	0 to 99999999
DFOP-CNT		DADF hinge open/close counter
Lv.1	Details	DADF hinge open/close counter
	Use case	When checking the DADF hinge open/close counter
	Display/adj/set range	0 to 99999999

T-8-77

JAM

COPIER > COUNTER > JAM		
TOTAL		Host machine total jam counter
Lv.1	Details	Host machine total jam counter
	Use case	When checking the total jam counter of the host machine
FEEDER		Feeder total jam counter
Lv.1	Details	Feeder total jam counter
	Use case	When checking the total jam counter of feeder
SORTER		Finisher total jam counter
Lv.1	Details	Finisher total jam counter
	Use case	When checking the total jam counter of finisher
2-SIDE		Duplex Unit jam counter
Lv.1	Details	Duplex Unit jam counter
	Use case	When checking the jam counter of Duplex Unit
MF		Multi-purpose Tray jam counter
Lv.1	Details	Multi-purpose Tray jam counter
	Use case	When checking the jam counter of Multi-purpose Tray
C1		Right Deck jam counter
Lv.1	Details	Right Deck jam counter
	Use case	When checking the jam counter of machine's Right Deck
C2		Left Deck jam counter
Lv.1	Details	Left Deck jam counter
	Use case	When checking the jam counter of machine's Left Deck
C3		Cassette 3 pickup jam counter
Lv.1	Details	Cassette 3 pickup jam counter
	Use case	When checking the jam counter of machine's Cassette 3
C4		Cassette 4 pickup jam counter
Lv.1	Details	Cassette 4 pickup jam counter
	Use case	When checking the jam counter of machine's Cassette 4
DK		Pickup decks jam counter
Lv.1	Details	Pickup decks jam counter
	Use case	When checking the jam counter of all pickup decks

T-8-78

MISC

COPIER > COUNTER > MISC		
FIX-WEB		Fixing Cleaning Web counter
Lv.1	Details	The number of Fixing Cleaning Web Drive Solenoid (SL9) operations executed after the Fixing Cleaning Web Level Sensor (PS45) is ON. When the counter reaches 2000, E005-0001 occurs.
	Use case	At the time of Fixing Cleaning Web level detection/replacement
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key.
	Caution	Clear the counter value after replacement.
WST-TNR		Waste toner counter
Lv.1	Details	This item is used to clear the warning when the Waste Toner full warning is displayed.
	Use case	When replacing the Waste Toner Container
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key.
T-SPLY-K		Toner supply counter
Lv.1	Details	Number of toner supply blocks. Counted for every one rotation of Toner Feed Screw.
	Use case	When checking the usage status of toner
ALLPW-ON		Number of DCON PCB power-on times
Lv.1	Details	Number of power-on times (Non-all-night Power Unit). To count up when power is turned ON (Non-all-night Power Unit).
	Use case	When checking the usage status of the product
HDD-ON		Number of HDD start-up times
Lv.1	Details	To count up at HDD start-up.
	Use case	When checking the usage status of the product
ST-NDL		Staple needle counter: Fin-N1/P1
Lv.1	Details	To count the use of the staple needle.
ENT-PTH		Entrance paper path counter: Fin-N1/P1
Lv.1	Details	Entrance paper path counter
TRAY-CHA		Tray change counter: Fin-N1/P1
Lv.1	Details	Tray change counter
PUNCH		Punch Unit counter: Fin-N1/P1
Lv.1	Details	Punch Unit counter
PUN-CAB		Punch Unit Cable counter: Fin-N1/P1
Lv.1	Details	Punch Unit Cable counter
PUN-WST		Punch waste counter: Fin-N1/P1
Lv.1	Details	Punch Unit punch waste counter
ESC-PTH		Escape paper path counter: Fin-N1/P1
Lv.1	Details	Escape paper path counter

T-8-79

JOB

COPIER > COUNTER > JOB		
DVPAPLEN		Average paper length of job
Lv.1	Details	Average paper length in the period from when the printer engine starts printing operation to when it stops the operation. Since the printer engine considers small jobs that are executed continuously as a large job, the average paper length affects calculation of the life.
	Display/adj/set range	0 to 99999999
DVRUNLEN		Average distance of job
Lv.1	Details	Average running distance in the period from when the printer engine starts printing operation to when it stops the operation. Since the printer engine considers small jobs that are executed continuously as a large job, the average running distance affects calculation of the life.
	Display/adj/set range	0 to 99999999

T-8-80

PRDC-1

COPIER > COUNTER > PRDC-1		
PRM-WIRE		Primary Charging Wire parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	This is commonly used as operator maintenance parts counter.
PO-WIRE		Pre-transfer Charging Wire parts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PRM-CLN		Primary Charge Wire Clean Pad prts cntr
Lv.1	Details	Primary Charging Wire Cleaning Pad 1, 2 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PO-CLN		Pre-trn Charge Wire Clean Pad prts cntr
Lv.1	Details	Pre-transfer Charging Wire Cleaning Pad 1, 2 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > PRDC-1		
FIX-TH1		Fixing Main Thermistor parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FIX-TH2		Fixing Sub Thermistor parts counter
Lv.1	Details	Fixing Sub Thermistor 1, 2 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
OZ-FIL1		Fixing Ozone Filter parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	This is commonly used as operator maintenance parts counter.
AR-FIL1		Primary Suction Air Filter prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	This is commonly used as operator maintenance parts counter.

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DRBL-1

COPIER > COUNTER > DRBL-1		
PRM-UNIT		Primary Charging Assembly parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PO-UNIT		Pre-transfer Charging Ass'y parts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
T-CLN-BD		ETB Cleaning Blade parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
T-CN-BRU		Transfer Cleaner Brush prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
TR-BLT		Transfer Belt (ETB) parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Related service mode	COPIER> ADJUST> FEED-ADJ> TBLT-ADJ COPIER> FUNCTION> CLEAR> TR-BLT
TR-ROLL		Transfer Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	This is commonly used as operator maintenance parts counter.
PT-DRM		Photosensitive Drum parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
CLN-BLD		Drum Cleaning Blade parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
SP-CLAW		Drum Cleaner Separation Claw prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
BS-SL-F		Drum Cleaner Side Seal (Front) prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
BS-SL-R		Drum Cleaner Side Seal (Rear) prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
DVG-CYL		Developing Cylinder parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
DVG-ROLL		[Not used]

COPIER > COUNTER > DRBL-1		
C1-PU-RL		Right Deck Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C1-SP-RL		Right Deck Separation Roller parts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C1-FD-RL		Right Deck Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C2-PU-RL		Left Deck Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
C2-SP-RL		Left Deck Separation Roller prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C2-FD-RL		Left Deck Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C3-PU-RL		Cassette 3 Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C3-SP-RL		Cassette 3 Separation Roller parts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
C3-FD-RL		Cassette 3 Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C4-PU-RL		Cassette 4 Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C4-SP-RL		Cassette 4 Separation Roller parts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C4-FD-RL		Cassette 4 Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
M-SP-RL		Multi-purpose Tray Sprtn Roll prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
M-FD-RL		Multi-purpose Tray Feed Roll prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FX-UP-RL		Fixing Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FX-LW-RL		Pressure Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
FX-IN-BS		Fixing Roller Insulating Bush parts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FX-WEB		Fixing Cleaning Web parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FX-L-STC		Press Roller Static Eliminator prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
DLV-UCLW		Delivery Upper Separation Claw prts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-1		
FX-RTNR		Fixing Roller Thrust Stopper parts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
EXP-SCRP		Pre-exposure Scraper parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

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DRBL-2

COPIER > COUNTER > DRBL-2		
DF-PU-RL		Pickup Roller parts counter: DADF
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
DF-FD-RL		Feed Roller parts counter: DADF
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
DF-SP-RL		Separation Roller parts counter: DADF
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.

COPIER > COUNTER > DRBL-2		
LNT-TAP1		Dust Removal Sheet 1 counter: DADF
Lv.1	Details	Dust-colleting 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
LNT-TAP2		Dust Removal Sheet 2 counter: DADF
Lv.1	Details	Dust-colleting type E 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
STAMP		Stamp parts counter: DADF
Lv.1	Details	To display the estimated life and parts counter of DADF stamp. 1st line: Total counter value from the previous replacement 2nd line: Estimated life to be entered by operator
	Use case	At replacement
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-2		
PD-PU-RL		Pickup Roller parts counter: Deck
Lv.1	Details	Pickup Roller (Front/Rear) of Paper Deck/POD Deck Lite/Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PD-SP-RL		Separation Roller parts counter: Deck
Lv.1	Details	Separation Roller of Paper Deck/POD Deck Lite/Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PD-FD-RL		Feed Roller parts counter: Deck
Lv.1	Details	Feed Roller of Paper Deck/POD Deck Lite/Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FIN-STPR		Stapler parts counter: Fin-N1/P1
Lv.1	Details	Stapler Unit 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-2		
SDL-STPL		Saddle stitcher staple counter
Lv.1	Details	Saddle stitcher staple counter
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
FN-BFFRL		Buffer Roller parts counter: Fin-P1
Lv.1	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
DL-STC-L		Static Eliminator prts cntr: Fin-N1/P1
Lv.1	Details	Fin-N1: Swing Guide Assembly Static Eliminator (Front/Rear) Fin-P1: Delivery Static Eliminator (Left) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
DL-STC-R		Static Eliminator prts cntr: Fin-N1/P1
Lv.1	Details	Fin-N1: Feed Guide Assembly Static Eliminator Fin-P1: Delivery Static Eliminator (Right) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-2		
ENT-STC		Inlet Static Eliminator prts cntr:Fin-P1
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
CENT-STC		Swinging Sttc Elim prts cntr: Fin-P1
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
BACK-ROL		Paper Return Roller parts counter:Fin-P1
Lv.1	Details	Paper Return Roller (Front/Rear) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
IS-P-RL1		Pickup Roll prts cntr: INS-K1/L1, PF/INS
Lv.1	Details	INS-H1: Upper Tray Pickup Roller INS-J1, PF/INS: Inserter Pickup Roller 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-2		
IS-S-RL1		Sprtn Roll prts cntr: INS-K1/L1, PF/INS
Lv.1	Details	INS-H1: Upper Tray Separation Roller INS-J1, PF/INS: Inserter Separation Roller 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
IS-F-RL1		Feed Roller prts cntr: INS-K1/L1, PF/INS
Lv.1	Details	INS-H1: Upper Tray Feed Roller INS-J1, PF/INS: Inserter Feed Roller 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
IS-TQLM1		Drive Torque Limt cntr:INS-K1/L1,PF/INS
Lv.1	Details	INS-H1: Upper Tray Torque Limiter INS-J1, PF/INS: Inserter Drive Torque Limiter 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
IS-COLL1		Horz Feed Drive Roller prts cntr: PF/INS
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER > COUNTER > DRBL-2		
IS-COLL2		Fold Uni Ppr Fd Drv Rol prts cntr:PF/INS
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

T-8-83

LF

COPIER > COUNTER > LF		
K-DRM-LF		Display of Drum Unit (Bk) life
Lv.1	Details	To display how much the Drum Unit (Bk) is close to the end of life in % (percentage).
	Use case	When checking the life of Drum Unit
	Unit	1%
	Default value	0
	Related service mode	COPIER> FUNCTION> INSTALL> DRM-INIT

T-8-84

FEEDER

DISPLAY

FEEDER > DISPLAY		
FEEDSIZE		Dspl of original size detected by DADF
Lv.1	Details	To display the original size detected by DADF.
	Adj/set/operate method	N/A (Display only)
TRY-WIDE		Distance of Original Width Detect Slider
Lv.1	Details	To display the distance between the Original Width Detection Sliders.
	Use case	At original size detection error
	Adj/set/operate method	Check whether the value matching the slide position is displayed when the Original Width Slider is moved to the specified size width position.
	Display/adj/set range	0 to approx. 2970
SPSN-LMN		Dspl of Post-sprtn Sensr emit voltage
Lv.1	Details	To display the light-emitting voltage value for the Post-separation Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
SPSN-RCV		Dspl of Post-sprtn Sensr recv voltage
Lv.1	Details	To display the light-receiving voltage value for the Post-separation Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	Remove and insert the paper at the sensor position, and check the value at presence/absence of the paper.
	Display/adj/set range	0 to 1023
RDSN-LMN		Display of Lead Sensor emission voltage
Lv.1	Details	To display the light-emitting voltage value for the Lead Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
RDSN-RCV		Display of Lead Sensor reception voltage
Lv.1	Details	To display the light-receiving voltage value for the Lead Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	Remove and insert the paper at the sensor position, and check the value at presence/absence of the paper.
	Display/adj/set range	0 to 1023
DRSN-LMN		Dspl of Delivery Sensor emission voltg
Lv.1	Details	To display the light-emitting voltage value for the Delivery Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255

FEEDER > DISPLAY		
DRSN-RCV		Dspl of Delivery Sensor reception voltg
Lv.1	Details	To display the light-receiving voltage value for the Delivery Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	Remove and insert the paper at the sensor position, and check the value at presence/absence of the paper.
	Display/adj/set range	0 to 1023
RGSN-LMN		Display of Rgst Sensor emission voltage
Lv.1	Details	To display the light-emitting voltage value for the Registration Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 255
RGSN-RCV		Display of Rgst Sensor reception voltage
Lv.1	Details	To display the light-receiving voltage value for the Registration Sensor.
	Use case	When jams frequently occur
	Adj/set/operate method	Remove and insert the paper at the sensor position, and check the value at presence/absence of the paper.
	Display/adj/set range	0 to 1023

T-8-85

ADJUST

FEEDER > ADJUST		
DOCST		Adj of DADF img lead edge margin: front
Lv.1	Details	To adjust the margin at the leading edge of the image for DADF scanning. Execute when the output image after DADF installation is dislocated. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1mm. (The image moves in the direction of the leading edge of the sheet.)
	Use case	• When installing DADF • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0
LA-SPEED		Fine adj of DADF image magnifictn: front
Lv.1	Details	To adjust the image magnification in vertical scanning direction for DADF scanning. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction. (The feeding speed increases, and the image is reduced.)
	Use case	• When installing DADF • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-30 to 30
	Unit	0.1%
	Default value	0
DOCST2		Adj of DADF img lead edge margin: back
Lv.1	Details	To adjust the margin at the leading edge of the image for DADF scanning. Execute when the output image after DADF installation is dislocated. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1mm. (The image moves in the direction of the leading edge of the sheet.)
	Use case	• When installing DADF • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0

FEEDER > ADJUST		
LA-SPD2		Fine adj of DADF image magnifictn: back
Lv.1	Details	To adjust the image magnification in vertical scanning direction for DADF scanning. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction. (The feeding speed increases, and the image is reduced.)
	Use case	• When installing DADF • When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-20 to 20
	Unit	0.1%
	Default value	0
ADJMSCN1		Zoom adj in 2-sided horz scan way: front
Lv.1	Details	To make a fine adjustment of the front side image magnification in horizontal scanning direction at the time of DADF duplex scanning. As the value is incremented by 1, the image is reduced by 0.1% in horizontal scanning direction.
	Use case	When a displacement occurs to the front/back side image magnification at the time of duplex scanning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.1%
	Default value	0
ADJMSCN2		Zoom adj in 2-sided horz scan way: back
Lv.1	Details	To make a fine adjustment of the back side image magnification in horizontal scanning direction at the time of DADF duplex scanning. As the value is incremented by 1, the image is reduced by 0.1% in horizontal scanning direction.
	Use case	When a displacement occurs to the front/back side image magnification at the time of duplex scanning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.1%
	Default value	0
ADJSSCN1		Zoom adj in 2-sided vert scan way: front
Lv.1	Details	To make a fine adjustment of the front side image magnification in vertical scanning direction at the time of DADF duplex scanning. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction.
	Use case	When a displacement occurs to the front/back side image magnification at the time of duplex scanning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.1%
	Default value	0

FEEDER > ADJUST		
ADJSSCN2		Zoom adj in 2-sided vert scan way: back
Lv.1	Details	To make a fine adjustment of the back side image magnification in vertical scanning direction at the time of DADF duplex scanning. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction.
	Use case	When a displacement occurs to the front/back side image magnification at the time of duplex scanning
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.1%
	Default value	0

T-8-86

FUNCTION

FEEDER > FUNCTION		
SENS-INT		Initialization of DADF Sensors
Lv.1	Details	To initialize DADF Sensors.
	Use case	When replacing Reader Controller PCB / Post-separation Sensor 1 (SR2) / Post-separation Sensor 2 (SR3) / Post-separation Sensor 3 (PCB2) / Registration Sensor (PCB3) / Lead Sensor 1 (PCB4) / Lead Sensor 2 (SR5)
	Adj/set/operate method	Select the item, and then press OK key.
MTR-CHK		Specification of DADF Operation Motor
Lv.1	Details	To specify the DADF Motor to operate. The motor is activated by MTR-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 9 0: Pickup Motor (M1), 1: Feed Motor (M2), 2: Registration Motor (M3), 3: Read Motor (M4), 4: Delivery Motor (M5), 5: Disengagement Motor 1 (M6), 6: Disengagement Motor 2 (M7), 7: Tray Lifter Motor (M8), 8: Glass Shift Motor (M9), 9: Pickup Roller Unit Lifter Motor (M10)
	Related service mode	FEEDER> FUNCTION> MTR-ON
TRY-A4		Adj of DADF Tray width detect ref 1: A4
Lv.1	Details	To automatically adjust the paper width detection reference point 1 for the DADF Tray. (A4)
	Use case	• When replacing the Original Width Volume (VR) • When replacing the Reader Controller PCB/clearing RAM data
TRY-A5R		Adj of DADF Tray width detect ref 2: A5R
Lv.1	Details	To automatically adjust the paper width detection reference point 2 for the DADF Tray. (A5R)
	Use case	• When replacing the Original Width Volume (VR) • When replacing the Reader Controller PCB/clearing RAM data
TRY-LTR		Adj of DADF Tray width detect ref 1: LTR
Lv.1	Details	To automatically adjust the paper width detection reference point 1 for the DADF Tray. (LTR)
	Use case	• When replacing the Original Width Volume (VR) • When replacing the Reader Controller PCB/clearing RAM data
TRY-LTRR		Adj of DADF Tray width detect ref2: LTRR
Lv.1	Details	To automatically adjust the paper width detection reference point 2 for the DADF Tray. (LTRR)
	Use case	• When replacing the Original Width Volume (VR) • When replacing the Reader Controller PCB/clearing RAM data

FEEDER > FUNCTION		
FEED-CHK		Specify DADF individual feed mode
Lv.1	Details	To specify the feed mode for DADF. Feed operation is activated by FEED-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 3 0: 1-sided pickup/delivery operation 1: 2-sided pickup/delivery operation 2: 1-sided pickup/delivery operation (with stamp) 3: 2-sided pickup/delivery operation (with stamp)
	Related service mode	FEEDER> FUNCTION> FEED-ON
FAN-CHK		Specification of DADF Operation Fan
Lv.1	Details	To specify the DADF Fan to operate. The fan is activated by FAN-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 1 0: Motor Driver Cooling Fan (FM1) 1: Read Motor Cooling Fan (FM2)
	Related service mode	FEEDER> FUNCTION>FAN-ON
FAN-ON		Operation check of DADF Fan
Lv.1	Details	To start operation check for the fan specified by FAN-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution	Be sure to press the OK key again after execution. The operation automatically stops after approximately 5 seconds, but is not completed unless the OK key is pressed (STOP is not displayed).
	Related service mode	FEEDER> FUNCTION> FAN-CHK
SL-CHK		Specification of DADF Operation Solenoid
Lv.1	Details	To specify the DADF solenoid to operate. The solenoid is activated by SL-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 1 0: Disengagement Solenoid (SL1) 1: Stamp Solenoid (SL2)
	Related service mode	FEEDER> FUNCTION> SL-ON

FEEDER > FUNCTION		
SL-ON		Operation check of DADF Solenoid
Lv.1	Details	To start operation check for the solenoid specified by SL-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution	Be sure to press the OK key again after execution. The operation automatically stops after approximately 5 seconds, but is not completed unless the OK key is pressed (STOP is not displayed).
	Related service mode	FEEDER> FUNCTION> SL-CHK
MTR-ON		Operation check of Motor
Lv.1	Details	To start operation check for the motor specified by MTR-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution	Be sure to press the OK key again after execution. The operation automatically stops after approximately 5 seconds, but is not completed unless the OK key is pressed (STOP is not displayed).
	Related service mode	FEEDER> FUNCTION> MTR-CHK
ROLL-CLN		Rotation of DADF Rollers
Lv.1	Details	To rotate for cleaning the DADF Rollers. Clean the roller by putting the lint-free paper moistened with alcohol while it is rotating.
	Use case	At roller cleaning
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Clean the rotating rollers with lint-free paper moistened with alcohol. 3) Press OK key. The rollers stop.
FEED-ON		Operation check of DADF individual feed
Lv.1	Details	To start operation check for the feed mode specified by FEED-CHK.
	Use case	At operation check
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	FEEDER> FUNCTION> FEED-CHK

T-8-87

OPTION

FEEDER > OPTION		
SIZE-SW		ON/OFF of mixed paper detection:AB, Inch
Lv.1	Details	To set ON/OFF of mixed paper detection: AB configuration and Inch configuration
	Use case	When enabling to mix AB and Inch configuration sizes original
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF (Mixed paper is not detected), 1: ON (Mixed paper is detected)
	Default value	0

T-8-88

SORTER

ADJUST

SORTER > ADJUST		
STP-F1		Front 1-staple position (R size)
Lv.1	Details	To adjust the A4R/LGL/LTRR paper front 1-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear
	Use case	When the A4R/LGL/LTRR paper front staple position is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-6 to 6 (Even if the value out of range is set, the same result as that of maximum/minimum value is expected.)
	Unit	0.49mm
	Default value	0
STP-F2		Front 1-staple position(half size)
Lv.1	Details	To adjust the A3/B4/A4/B5/LDR/LTR/EXEC/8K/16K paper front 1-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear
	Use case	When the A3/B4/A4/B5/LDR/LTR/EXEC/8K/16K paper front staple position is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-6 to 6 (Even if the value out of range is set, the same result as that of maximum/minimum value is expected.)
	Unit	0.49mm
	Default value	0

SORTER > ADJUST		
STP-R1		Rear 1-staple position (R size)
Lv.1	Details	To adjust the A4R/LGL/LTRR paper rear 1-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear
	Use case	When the A4R/LGL/LTRR paper rear staple position is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-6 to 6 (Even if the value out of range is set, the same result as that of maximum/minimum value is expected.)
	Unit	0.49mm
	Default value	0
STP-R2		Rear 1-staple position (half size)
Lv.1	Details	To adjust the A3/B4/A4/B5/LDR/LTR/EXEC/8K/16K paper rear 1-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear
	Use case	When the A3/B4/A4/B5/LDR/LTR/EXEC/8K/16K paper rear staple position is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-6 to 6 (Even if the value out of range is set, the same result as that of maximum/minimum value is expected.)
	Unit	0.49mm
	Default value	0
STP-2P		Adj front/rear 2-staple position
Lv.1	Details	To adjust the front/rear 2-staple position on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward front -: Toward rear
	Use case	When the front/rear 2-staple position is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-50 to 50
	Default value	0

SORTER > ADJUST		
SDL-STP		Adj Saddle staple position: Fin-P1
Lv.1	Details	To adjust the staple position at the time of saddle stitching. As the value is incremented by 1, the staple position moves downward by 0.5 mm.
	Use case	When the fold position and the staple position are misaligned at the time of saddle stitching
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-3 to 3
	Unit	1mm
	Default value	0
SDL-ALG		Adj Saddle alignment position: Fin-P1
Lv.1	Details	To adjust the shift position of the Alignment Plate at the time of saddle stitching. As the value is incremented by 1, the alignment position moves toward the center of the paper by 0.1mm.
	Use case	When an alignment failure occurs at the time of saddle stitching
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1
	Unit	1mm
	Default value	0
ST-ALG1		Adj Stacker A4 size align pstn
Lv.1	Details	To adjust the A4 size paper alignment position of the Process Tray. As the value is incremented by 1, the Alignment Plate moves inward by 0.1 mm.
	Use case	When misalignment occurs in A4 size paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.42mm
	Default value	0
ST-ALG2		Adj Stacker LTR size align pstn
Lv.1	Details	To adjust the LTR size paper alignment position. As the value is incremented by 1, the travel length of the Alignment Plate is increased by 0.42 mm.
	Use case	When misalignment occurs in LTR size paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.42mm
	Default value	0

SORTER > ADJUST		
STP-F3		A4R front stpl pstn (<45 deg): Fin-P1
Lv.1	Details	To adjust the one front staple position on the A4R size paper. As the value is incremented by 1, the staple position moves to the rear side by 0.49 mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs at the front staple position on A4R size paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-6 to 6
	Unit	0.49mm
	Default value	0
STP-F4		LTRR frt stpl pstn (<45 deg): Fin-P1
Lv.1	Details	To adjust the one front staple position on the LTRR size paper. As the value is incremented by 1, the staple position moves to the rear side by 0.49 mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs at the front staple position on LTRR size paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-6 to 6
	Unit	0.49mm
	Default value	0
STP-R3		A4R rear stpl pstn (<45 deg): Fin-P1
Lv.1	Details	To adjust the one rear staple position on the A4R size paper. As the value is incremented by 1, the staple position moves to the rear side by 0.49 mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs at the rear staple position on A4R size paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-6 to 6
	Unit	0.49mm
	Default value	0

SORTER > ADJUST		
STP-R4		LTRR rear stpl pstn (<45 deg): Fin-P1
Lv.1	Details	To adjust the one rear staple position on the LTRR size paper. As the value is incremented by 1, the staple position moves to the rear side by 0.49 mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment occurs at the rear staple position on LTRR size paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-6 to 6
	Unit	0.49mm
	Default value	0
SW-UP-RL		Adj Swing Roller falling pstn: Fin-P1
Lv.1	Details	To adjust the Swing Roller fall position. As the value is incremented by 1, the Swing Roller fall position moves downward by 0.2 mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When paper fails to be transported to the Processing Tray and misalignment occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-17 to 33
	Unit	0.2mm
	Default value	0
PUN-V-RG		Adj punch vertical rgst pstn: Fin-P1
Lv.1	Details	To adjust the vertical registration position of the paper to be punched. As the value is incremented by 1, the punch hole position moves toward the edge by 1 mm. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment of punch hole position occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-4 to 2
	Unit	1mm
	Default value	0

SORTER > ADJUST		
PRCS-RET		Adj Process Tray return amount:Fin-P1
Lv.1	Details	To adjust the pull-back amount of the paper on the Processing Tray. As the value is incremented by 1, the amount to return papers to the Process Tray Stopper is increased by 1.4 mm (paper feed amount of the Swing Roller is increased). The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the paper is bent in the Processing Tray
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 5
	Unit	1.4mm
	Default value	0
UP-CL		Upward curl prevention mode: Fin-P1
Lv.1	Details	Set 1 when upward curl occurs on the paper delivered to the Stack Tray, and paper leaning due to the curl occurs. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When upward curl occurs on the paper delivered to the Stack Tray, and paper leaning due to the curl occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
DW-CL		ON/OFF of downward curl alleviation mode
Lv.1	Details	Set 1 when a stacking failure occurs due to downward curl on the paper delivered to the tray.
	Use case	When a stacking failure due to downward curl on the paper occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
THC-CL		Heavy ppr curl prevention mode:Fin-P1
Lv.1	Details	Set 1 when upward curl occurs on the heavy paper delivered. When 1 is set, the amount of Stack Tray descension for stack delivery increases. The paper surface detection is performed for every sheet, not for every 5 sheets. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When upward curl occurs on the heavy paper delivered
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER > ADJUST		
THC-PUSH		Heavy ppr out prevention mode:Fin-P1
Lv.1	Details	Set 1 when the already stacked paper is pushed out at the time of heavy paper delivery. When 1 is set, the Stack Tray moves down temporarily before the heavy paper is delivered to the Processing Tray if the leading sheet is heavy paper. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the already stacked paper is pushed out at the time of heavy paper delivery
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
OFST-STC		Poor offset stack prev mode:Fin-P1
Lv.1	Details	Set 1 when paper is not appropriately stacked in the small-size offset mode. When 1 is set, buffer operation is not performed in the small-size offset mode. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When paper is not appropriately stacked in the small-size offset mode
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
THN-STC		Poor thin ppr stack prev mode:Fin-P1
Lv.1	Details	Set 1 when thin paper is not appropriately stacked. When 1 is set, the stacking condition of thin paper improves. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When thin paper is not appropriately stacked
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER > ADJUST		
STP-P-CH		Stpl stack displace prev mode:Fin-P1
Lv.1	Details	Set 1 when the paper on the top is misaligned in the staple delivery mode. When 1 is set, paper stack alignment operation is executed twice immediately before stapling. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the paper on the top is misaligned in the staple delivery mode
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
TRY-NIS		Tray switch noise reduct mode:Fin-P1
Lv.1	Details	Set 1 when the operation noise after switching the Stack Tray is loud. When 1 is set, the Stack Tray rise operation becomes slow. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the operation noise after switching the Stack Tray is loud
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
TRY-SU		Tray switching speedup mode: Fin-P1
Lv.1	Details	Set 1 when the Stack Tray switching time is long. When 1 is set, the Stack Tray rise speed becomes fast. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the Stack Tray switching time is long
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
FIN-NIS		Tray drive noise reduct mode: Fin-P1
Lv.1	Details	Set 1 when the Finisher operation noise is loud. When 1 is set, the initial Finisher operation is minimized. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the Finisher operation noise is loud
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER > ADJUST		
1SHT-SHF		Set 1-sheet Offset+Collate: Fin-P1
Lv.1	Details	Set 1 when setting Offset and Collate for 1-sheet document. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When setting Offset and Collate for 1-sheet document
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
SDL-SWCH		Sddl stck capacity switch mode:Fin-P1
Lv.1	Details	Set 1 when increasing the stacking capacity for saddle stitching. When 1 is set, the stacking capacity increases over the upper limit. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When increasing the stacking capacity for saddle stitching
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
SDL-ALM		Saddle full stack alarm mode: Fin-P1
Lv.1	Details	Set 1 when disabling the stack full alarm for saddle stitching. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When disabling the stack full alarm for saddle stitching
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
Z-FL-CH		Set Z-fold stapleable quantity:Fin-P1
Lv.1	Details	To set the maximum number of stitch pages in Z-fold stapling. This item is used to prevent missing pages in Z-fold stapling by decreasing the maximum number of stitch pages. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When missing pages occurs in Z-fold stapling
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: 10 sheets, 1: 5 sheets
	Unit	5sheet
	Default value	0

SORTER > ADJUST		
THN-STCL		Set poor stack prev mode: large thin ppr
Lv.1	Details	Set 1 when large size thin paper is not appropriately stacked.
	Use case	When large size thin paper is not appropriately stacked
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

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FUNCTION

SORTER > FUNCTION		
FIN-BK-R		Finisher backup data saving: HDD
Lv.1	Details	To read the backup data from Finisher Controller PCB and save in HDD.
	Use case	When replacing the Finisher Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Related service mode	SORTER> FUNCTION> FIN-BK-W
FIN-BK-W		Fin Controller PCB backup data write
Lv.1	Details	To write the backup data saved in HDD to Finisher Controller PCB.
	Use case	When replacing the Finisher Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Related service mode	SORTER> FUNCTION> FIN-BK-R
FIN-CON		Controller PCB RAM clear
Lv.1	Details	To execute the RAM clear of Finisher Controller PCB to delete all the adjustment contents and counter information.
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	• Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. • The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
PF-CON		Controller PCB RAM clear: PFU
Lv.1	Details	To execute the RAM clear of Inserter/Folder Controller PCB on Paper Folding Unit to delete all the adjustment contents and counter information.
	Adj/set/operate method	Select the item, and then press OK key.
PF-SENS1		Adj Slowdown Timing Sensor output: PFU
Lv.1	Details	To adjust the output of Slowdown Timing Sensor on Paper Folding Unit automatically.
	Use case	• When replacing the Slowdown Timing Sensor • When replacing the Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
PF-SENS2		Adj Release Timing Sensor output: PFU
Lv.1	Details	To adjust the output of Release Timing Sensor on Paper Folding Unit automatically.
	Use case	• When replacing the Release Timing Sensor • When replacing the Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.

SORTER > FUNCTION		
PF-SENS3		Adj Fold Position Sensor output: PFU
Lv.1	Details	To adjust the output of Fold Position Sensor on Paper Folding Unit automatically.
	Use case	• When replacing the Fold Position Sensor • When replacing the Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
PF-SENS4		Adj Upper Stopper Path Sensor output:PFU
Lv.1	Details	To adjust the output of Upper Stopper Path Sensor on Paper Folding Unit automatically.
	Use case	• When replacing the Upper Stopper Path Sensor • When replacing the Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.

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OPTION

SORTER > OPTION		
BLNK-SW		Set Saddle Finisher fold position margin
Lv.1	Details	To set the margin width of fold position on Saddle Finisher.
	Use case	When changing the margin width of fold position
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Normal, 1: Wider, 2: Entire image (no margin)
	Default value	2
MD-SPRTN		Restricted operation at Finisher error
Lv.1	Details	To set whether to stop the machine when an error occurs at Finisher.
	Use case	When preferring to run the machine at Finisher error occurrence
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When “1” is set, staple operation or alignment operation is not executed. Set “0” normally.
	Display/adj/set range	0 to 1 0: Normal, 1: Restricted operation
	Default value	0
BUFF-SW		ON/OFF of finisher buffer opertn: Fin-P1
Lv.1	Details	To set ON/OFF of buffer operation in the Finisher. When misalignment occurs, set 1 to 4. When 1 is set, buffer operation is not performed for all jobs. Alignment performance is improved, but productivity decreases. When 2 is set, buffer operation is not performed only for non-binding jobs. Since buffer operation is performed for binding jobs, productivity improves, but alignment performance decreases. When 3 is set, buffer operation is not performed only for binding jobs. When 4 is set, it is not performed only for binding jobs with coated papers. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the misalignment of paper stack occurs (either lowest 3 sheets in side-stitching are displaced or center 3 sheets in saddle-stitching are displaced.)
	Adj/set/operate method	Enter the setting value and press OK.
	Caution	When the buffer operation is set to OFF, productivity is decreased.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0

SORTER > OPTION		
TRY-OVER		Set of fold ppr stack limit: Fin-P1
Lv.1	Details	To set the limit of stack capacity for half fold paper and Z-fold paper. When clearing the limit of stack capacity, paper can be stacked beyond the maximum stack capacity. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When stacking the paper beyond the maximum stack capacity of the Tray.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal operation, 1: Clearing limit of stack capacity
	Default value	0
PRCS-SP1		Proc Tr fd SPD accelerate ON/OFF: Fin-P1
Lv.1	Details	To set whether to accelerate the speed to feed paper to the Process Tray Stopper in the Process Tray of the Finisher. When misalignment occurs in the sort and staple mode due to paper return failure, set 1.
	Use case	When misalignment occurs in the sort and staple mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF (600mm/sec), 1: ON (700mm/sec)
	Default value	0
RTNRL-UP		Set Inserter pckup ppr drop prev:Fin-P1
Lv.1	Details	To set the Paper Return Roller rise timing when stacking papers (256 g/m2 or more) picked up from the Inserter on the Process Tray. Set 1 if papers picked up from the Inserter fall from the Finisher Tray when stacking on the Process Tray. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When papers picked up from the Inserter fall from the Finisher Tray at the time of stacking on the Process Tray
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal, 1: Slow down
	Default value	0

SORTER > OPTION		
FDPL-SL		Set soil prev for back of Saddle:Fin-P1
Lv.1	Details	To set ON/OFF of the Feed Plate Engagement Solenoid at the time of Saddle stacking operation. When 1 is set, the Intermediate Feed Roller is disengaged by turning OFF the Feed Plate Engagement Solenoid at the time of Saddle stacking operation. Set 1 when the back of paper is soiled by the Intermediate Feed Roller. But the alignment condition of papers at the time of saddle stitching decreases. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When the back of paper is soiled due to the Intermediate Feed Roller at the time of Saddle stacking operation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON (Engagement), 1: OFF (Disengagement)
	Default value	0
STCR-DWN		Set occasional misalign prev mode:Fin-P1
Lv.1	Details	When misalignment in feed direction occurs at approx. every 30 sheets for thin/plain paper, set 1. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When misalignment in feed direction occurs occasionally for thin/plain paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER > OPTION		
BUFF-INT		Ppr intvl after buffer ppr ejctn: Fin-P1
Lv.1	Details	In case of paper with excessive upward curl, paper right after the buffer paper is ejected at the Finisher hits the Stack Delivery Roller, causing Saddle Delivery Sensor stationary jam. When 1 is set, the jam can be avoided since the paper intervals between the present and the following papers after the buffer paper ejection become wider. The item can be also set with DIP switch of the Finisher (with common setting range and setting value). The latest setting value is enabled regardless of service mode/DIP switch.
	Use case	When stationary jam occurs at the Stack Delivery Roller at buffer operation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
PRCS-SP3		Proc Tr fd SPD decelerate ON/OFF: Fin-P1
Lv.1	Details	To set whether to decelerate the speed to feed paper to the Process Tray Stopper in the Process Tray of the Finisher. Set 1 to 5 when misalignment (buckling on the trailing edge) occurs in staple mode because papers without buffer return too much. As the value is incremented by 1, the feed speed is decelerated by 50 mm/sec.
	Use case	When misalignment occurs for thin/plain paper in the staple mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When changing the setting, adjustment of Process Tray return amount (SORTER> ADJUST> PRCS-RET) may be required.
	Display/adj/set range	0 to 8 0: OFF (700 mm/sec), 1: ON (650 mm/sec), 2: ON (600 mm/sec), 3: ON (550 mm/sec), 4: ON (500 mm/sec), 5: ON (450 mm/sec), 6 to 8: Not used
	Default value	0
	Related service mode	SORTER> ADJUST> PRCS-RET
NSRT-STC		Set poor stack prev mode at non-collate
Lv.1	Details	To set ON/OFF of poor stack prevention mode when not collating. Set 1 when the stackability is low when not collating.
	Use case	When the stackability at non-collating is low
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER > OPTION		
THN-TRSW		Set narrow width thin paper delvry dest
Lv.1	Details	When delivering thin paper (63 g/m2 and less) which width direction is 139.6 mm and smaller to the Stacker, delivery stationary jam may occur. When 1 is set, thin paper which width direction is 139.6 mm and smaller is forcibly delivered to the tray of the host machine.
	Use case	When delivery stationary jam occurs at the time of delivering narrow-width thin paper to the First/Second Delivery Tray
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Destination specified on UI, 1: Tray of the host machine
	Default value	0
THN-SW		Change of thin paper stack capacity
Lv.1	Details	To increase the stack capacity of the stacking tray for thin paper. As for the thin paper, the stack capacity same as the large size changes to its same as the small size.
	Use case	When a user wants to increase the stack capacity of the stacking tray for the thin paper.
	Adj/set/operate method	1) Enter the setting value and press OK key. 2) Turn OFF/ON the main power.
	Default value	0
	Supplement/memo	0: Thin paper stack capacity increment mode OFF 1: Thin paper stack capacity increment mode ON
SWGUP-SW		ON/OFF Swing Unit diseng oprtn:thin(1st)
Lv.1	Details	To set whether the Swing Unit performs disengagement operation when feeding the 1st sheet of thin paper.
	Use case	When the dog ear appears on the first sheet in the thin paper feeding
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
CALG-SW		ON/OFF ctr align oprtn: corner-stpl mode
Lv.1	Details	To set whether to perform center alignment operation in corner-staple mode.
	Use case	When switching the alignment position from center to front/rear side in corner-staple mode
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Center alignment, 1: Front/rear side alignment
	Default value	0

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BOARD

OPTION

BOARD > OPTION		
MENU-1		Hide/dspl of printer set menu level 1
Lv.2	Details	To set whether to display or hide the level 1 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
MENU-2		Hide/dspl of printer set menu level 2
Lv.2	Details	To set whether to display or hide the level 2 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
MENU-3		Hide/dspl of printer set menu level 3
Lv.2	Details	To set whether to display or hide the level 3 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
MENU-4		Hide/dspl of printer set menu level 4
Lv.2	Details	To set whether to display or hide the level 4 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
FONTDL		ON/OFF of font setting screen display
Lv.1	Details	To set whether to display the service-purposed setting screen of fonts which are listed using PS Kanji Font Downloader.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0

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9 Installation

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- Installation
- When Relocating the Machine
- Printer Cover -B1
- Shift Tray-E1
- Reader Heater Unit
- Cassette Heater Unit
- Paper Deck Heater Unit-A1
- Utility Tray-A2
- Card Reader-C1/Copy Card Reader-F1
- Voice Guidance Kit-F1/F2
- Installation Procedure for Expansion Bus-F1/F2, IPSec Board-B2 and Wireless LAN Board-B1
- Additional Memory Type B (512MB)
- Combination of HDD Options

Checking before Installation

Following shows requirements for the installation site.
Therefore, it is desirable to see the installation site in advance before bringing in the machine to the user's site.

Checking Power Supply

1) There must be a properly grounded source of power that can be used exclusively by the following machines:
- EUR: 200V/10A
- USA: 120V/16A

Checking the Installation Environment

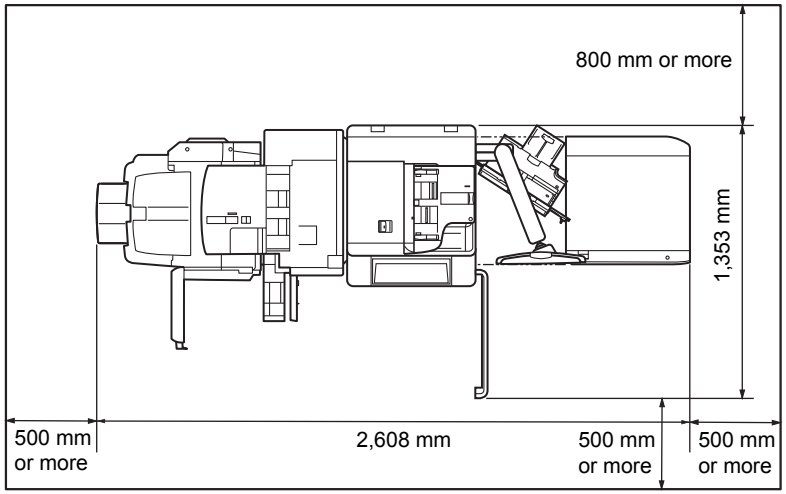
1) The environment of the installation site must be in the range as shown below. Avoid installation near the faucet, water boiler, humidifier or refrigerator.
Guaranteed range for operation/image Temperature: 10.0 to 30.0 deg C, Humidity: 20 to 80%
2) The machine must not be installed near a source of fire or in an area subject to dust or ammonium gas. If the area is exposed to direct rays of the sun, provide curtains to the window.
3) Be sure to provide adequate ventilation of the room to keep the work environment comfortable. Room odor can be bothering when running the machine for a long time in a poorly-ventilated room although the ozone amount generated while running this equipment does not harm human health.

Checking Installation Space

1) The foot of this equipment should be in contact with the floor. This equipment should be kept on the level.

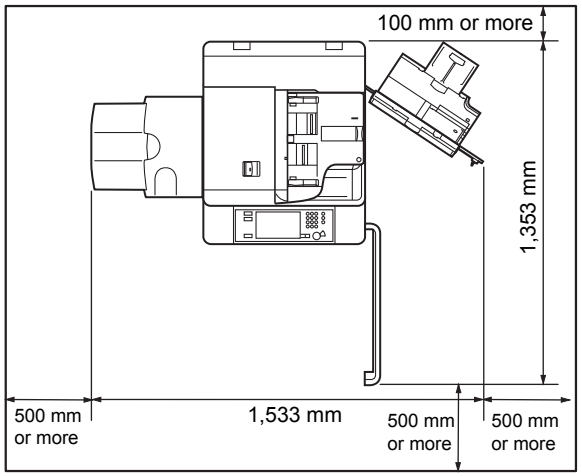
2) The machine must be away from the wall by 100mm or more to secure a sufficient space to operate the machine.

- The optional Booklet Finisher, External 2/3 Hole Puncher, Document Insertion/Folding Unit, Duplex Color Image Reader Unit, Upright Control Panel, and Paper Deck Unit-D1 are attached.



F-9-1

- The optional Copy Tray, Duplex Color Image Reader Unit are attached.



F-9-2

NOTE: Securing Space for Servicing
The space required behind the machine differs according to whether any of the following options is installed or not.
Be sure to make necessary space in accordance with the conditions.
- Document Insertion Unit-L1
- Document Insertion / Folding Unit-H1

<Space required behind the machine>
- When any of the foregoing options is installed: 800mm or more
- When any of the foregoing options is not installed: 100mm or more

3) To install the host machine, install it in a well-ventilated place. Especially when there are multiple host machine s, be sure to locate the machine where the machine is free from direct exhaust of other machines. Be sure to keep the machine away from the air-inlet duct which is used for ventilation of the room.

Points to Note at Installation Work

Take note of the following points when installing the host machine.

1) Moving the host machine from a cool place to a warm place can generate condensation, causing moisture beads on the metal surface. Using the host machine while the machine is condensed can cause image failure. Therefore, when moving the machine from a cool place to a warm place to install, unpack the host machine and leave it for 2 hours or more before the installation work so that the machine becomes used to the room temperature.
2) Be sure to work with a group of 4 or more people to install the host machine.

Table of Options Combination

NOTE:
Following table shows the combination of options to be installed at the right side of the host machine.
Refer to the table below to install the options described in the table. Be sure to check the combination before the installation work.

	Utility Tray	Voice Guidance Kit	Card Raeader	Voice Operation Kit
Utility Tray	-	No	Yes	No
Voice Guidance Kit	No	-	Yes	No
Card Reader	Yes	Yes	-	Yes
Voice Operation Kit	No	No	Yes	-

T-9-1

Yes: installation is available, No: installation is not available

Order to Install the Host machine and the Options

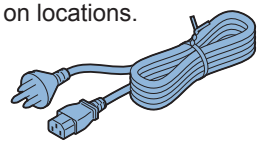
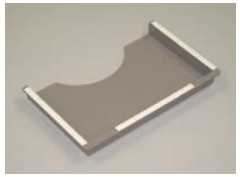
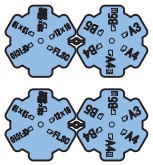
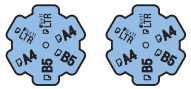
NOTE:
In the case of installing the host machine and the other options at the same time, follow the order as described below to install the options first so that the installation operability is improved.

1. Checking before Installation
2. Unpacking
3. Installation of the Reader Unit or the Printer Cover
4. Installation of the Developing Assembly
5. Installation of the Pickup Assembly
6. Installing the Fixing Assembly
7. Installation of Toner Container
8. Installing the Exhaust Filter
9. Setting the Environment Heater Switch
10. Turning ON the Main Power
11. Installation of the Host Machine
12. Other Installation Work
13. Setting the Deck and Paper Cassette
14. Auto Adjust Gradation
15. Image Position Adjustment

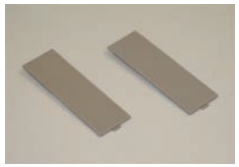
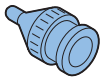
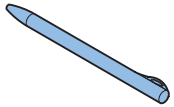
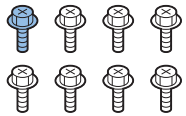
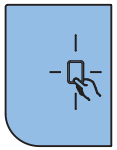
Checking the Contents

<Parts to Be Used to Install the Host Machine>

NOTE:
- Use the correct power code to mach the location/area of installation. Make sure not to leave unused power code at the site.
- The [13] and [14] are used both at installation of the host machine and at installation of the Reader Unit/Printer Cover.

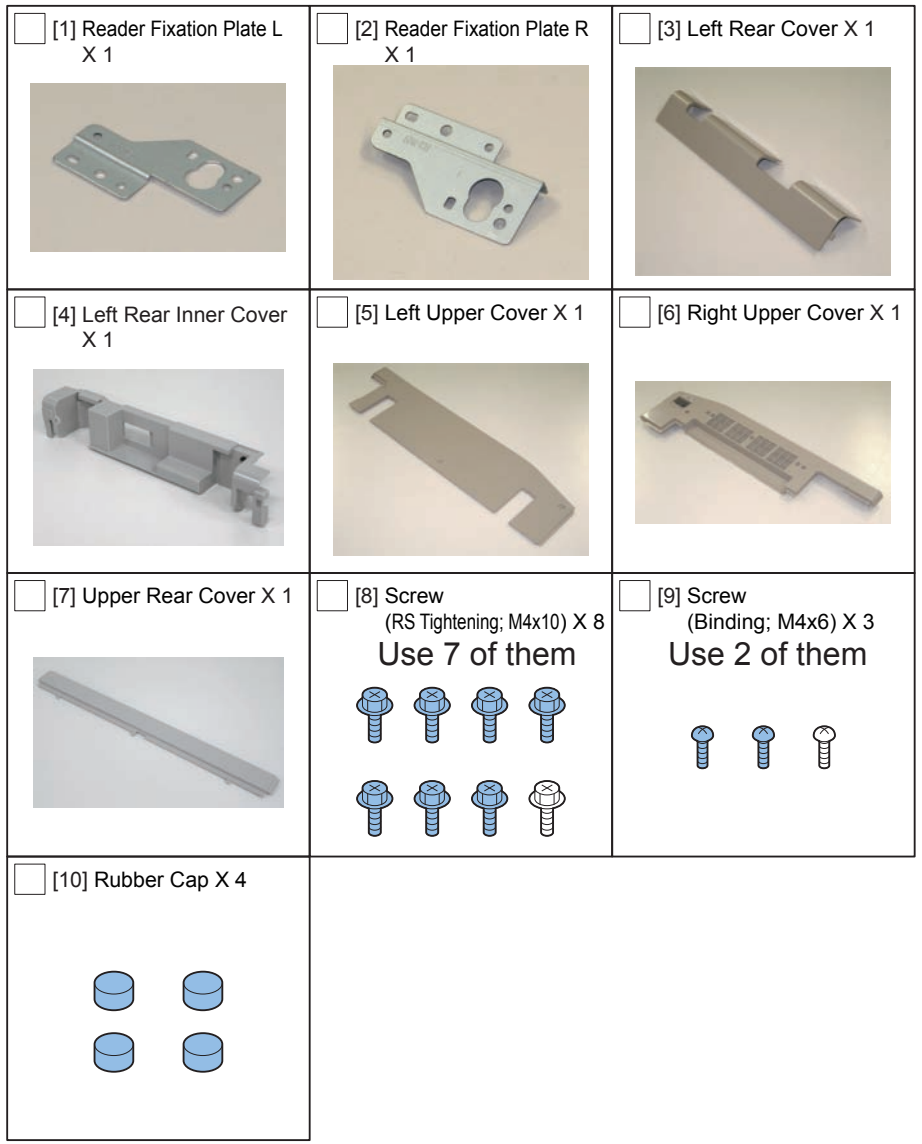
☐ [1] Developing Assembly X 1	☐ [2] Toner Container X 1 AUS only	☐ [3] Exhaust Filter X 1
☐ [4] Power Code X 1 230V region only The connector has a different shape depending on locations. 	☐ [5] Service Book Holder X 1 	☐ [6] Size Plate R X 2 
☐ [7] Size Plate L X 1 	☐ [8] Connection Seal (Middle) X 1	☐ [9] Connection Seal (Front) X 1

F-9-3

☐ [10] Finisher Connector Cover X 2 	☐ [11] Cleaning Tool X 1	☐ [12] Terminal Connector X 1 
☐ [13] Touch Pen X 1 	☐ [14] Screw (Binding; M4x6) X 3 Use 1 of them	☐ [15] Screw (RS Tightening ; M4x10) X 8 Use 1 of them 
☐ [16] Case Sheet (EU) X1 EUR only 	☐ [17] Hook-and-Loop Fastener X1 EUR only	

F-9-4

<Parts to Be Used to Install the Reader Unit or the Printer Cover>



F-9-5

<CD/GUIDES>

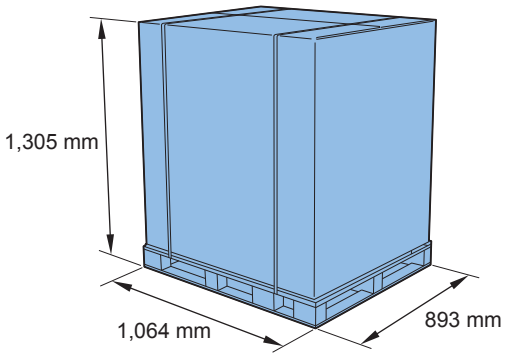
CD/GUIDES	North America	EUR	ASIA / AUS
e-Manual	1	2 (UK, FRA/SPA, ITA/GER)	1
Users Guide	-	1	-
Setup Guide	1	-	1
Basic Operation Guide	1	-	1
Before Using This Machine	1	-	1
Drum Unit Warranty	1	-	-
UFR II User Software	1	1	1
iW Enterprise Management Console	1	-	-
iW Management Console	-	1	1
PCL User Software	-	1	-
AMS KIT Software / Manual CD	1	-	-
Features of AMS	1	-	-

T-9-2

Unpacking

CAUTION:
- The host machine weighs about 240kg. For safety, be sure to work carefully to move and install the machine.
- Be sure to work with a group of 4 or more people to install the host machine.

NOTE:
- The dimension of the host machine and the transport container is as shown in the figure.
- Be sure to secure a space to unpack, and then start the installation work.

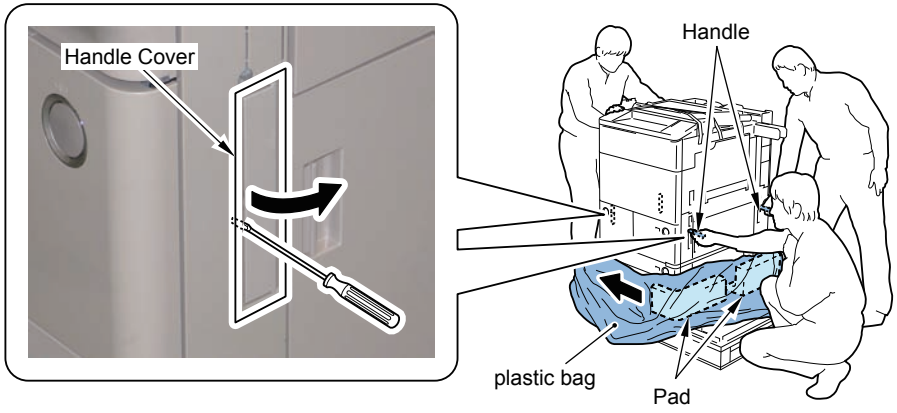


F-9-6

1) Pull the plastic bag all the way down.
2) Open 4 Handle Covers.
- 1 Claw each

3) Hold the handles at the right side of the host machine and lift the host machine to remove the pad. Put the plastic bag aside in the direction of the arrow.

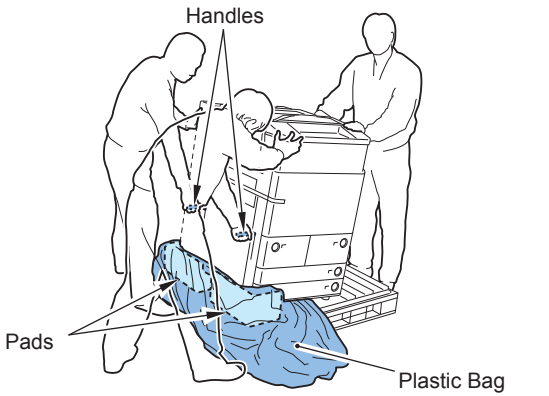
CAUTION:
Be sure not to lift the host machine too much. Otherwise, it will lose the balance.



F-9-7

4) Hold the handles at the left side of the host machine and lift the host machine to remove the pad and the plastic bag.

CAUTION:
Be sure not to lift the host machine too much. Otherwise, it will lose the balance.

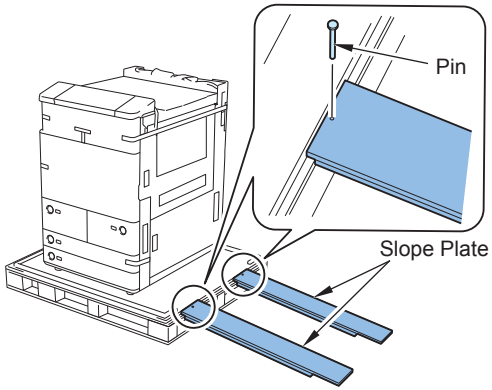


F-9-8

□

5) Take out the 2 Slope Plates stored at the right side of the Pallet and remove the 2 pins which are secured at the back of the Slope Plate with tape.

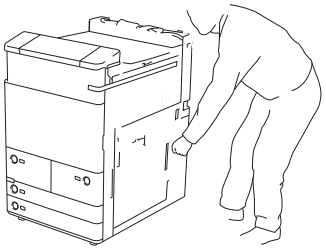
6) Turn around the 2 Slope Plates to install as shown in the figure, and then fit the pin-holes of the pallet with the pin-holes of the Slope Plates to put the 2 pins into the holes.



□

7) Hold the handles at the right side of the host machine, and then, while supporting the corner of the host machine, fit the casters to the center of the Slope Plate to slowly bring the machine down.

CAUTION:
Be careful not to make the casters off from the Slope Plate.



Installation

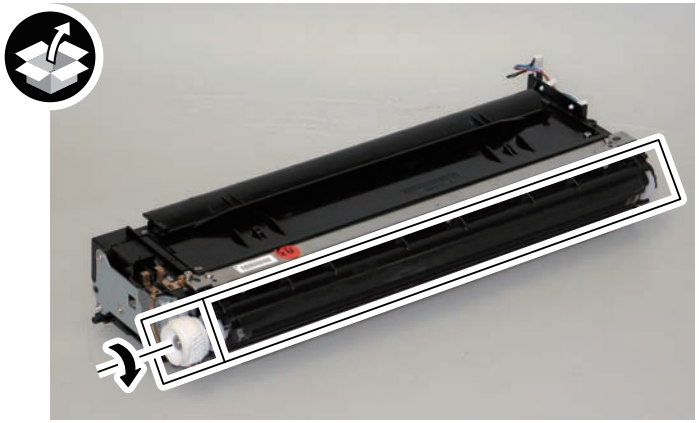
Installing the Developing Assembly

□

1) Unpack the Developing Assembly.
2) Check if there are any scratches on the cylinder while rotating the gear manually in the direction of the arrow.

CAUTION:

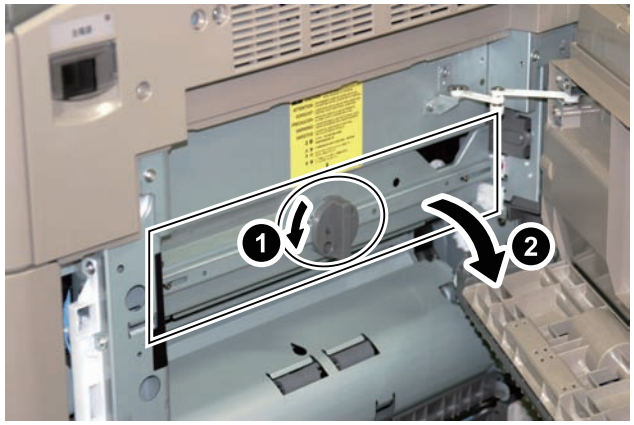
- Do not damage and touch the cylinder.
- Do not turn the gear inversely.



F-9-12

□

3) Open the Right Cover.
4) Turn the Lock Lever, and open the Developing Assembly Pressure Cover.

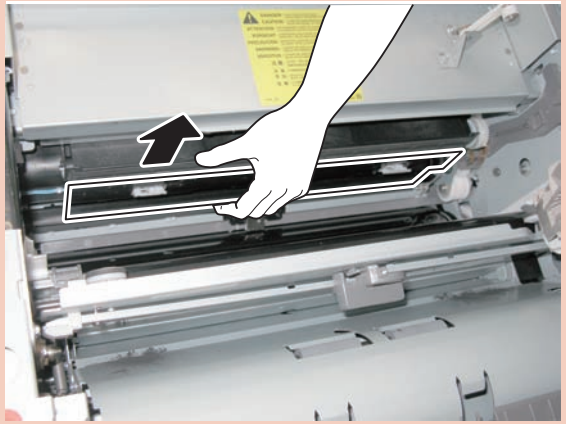


F-9-13

CAUTION:

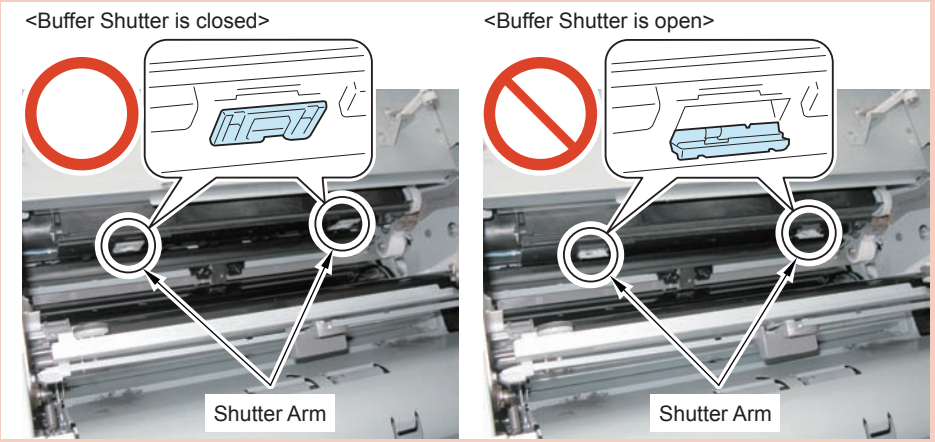
Before installing the Developing Assembly, be sure to check that the Buffer Shutter is not opened.

If forcedly inserting the Developing Assembly while the Buffer Shutter is open, the Buffer Shutter may get damage. When the Buffer Shutter is open, be sure to close it by pulling it toward the front.



F-9-14

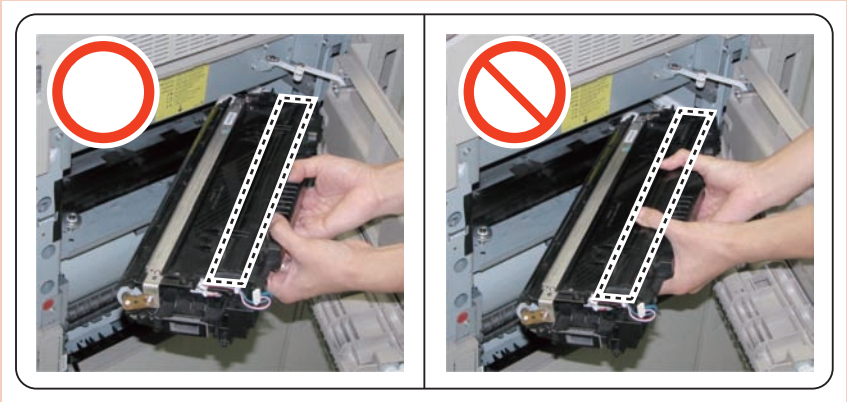
Whether the Developing Assembly is installed properly can be checked with the Shutter Arm.



F-9-15

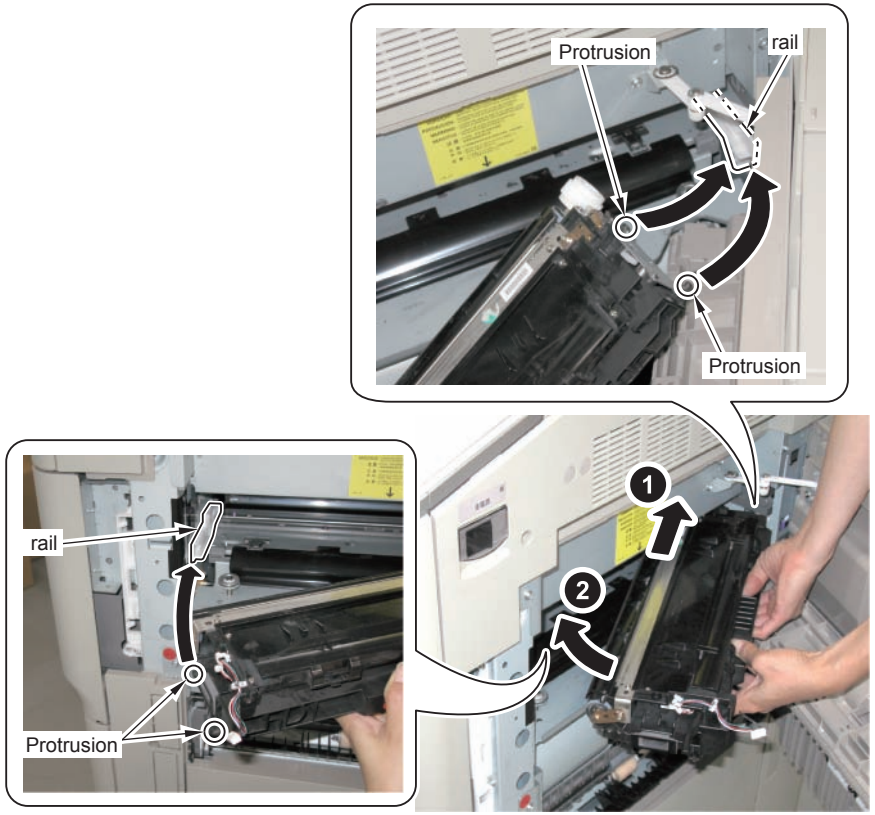
CAUTION: How to Hold the Developing Assembly

- When holding the Developing Assembly, be sure to hold the handle of the Developing Assembly as shown in the figure.
- Do not touch the shutter area of the Developing Assembly. The shutter area is slippery, so it may cause a fall of the assembly.



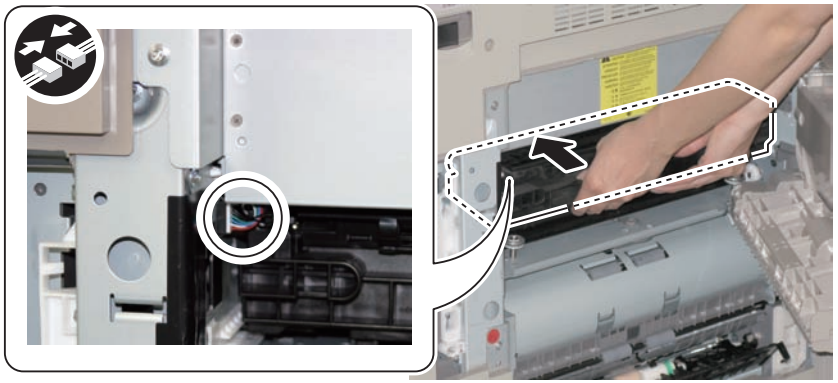
F-9-16

☐
5) Hold the Developing Assembly as shown in the figure, and align the protrusions at both sides of the assembly with the rails on the host machine.



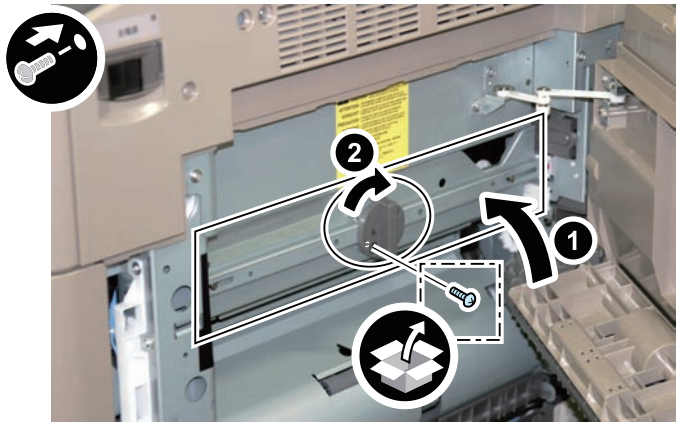
F-9-17

☐
6) Along the rails, insert the Developing Assembly horizontally.
- 1 Connector



F-9-18

☐
7) Close the Developing Assembly Pressure Cover and return the Lock Lever to the original position.
8) Secure with the Screw (Binding; M4x6).



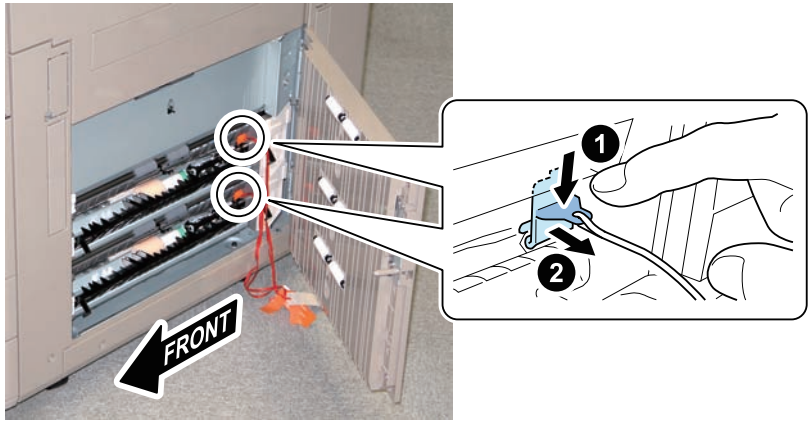
F-9-19

☐
9) Close the Right Cover.

Installing the Pickup Assembly

☐

1) Remove tapes securing tags from the Vertical Path Cover.
2) Open the Vertical Path Cover and remove 2 Pressure Release Spacers at pickup slot for each cassette.



F-9-20

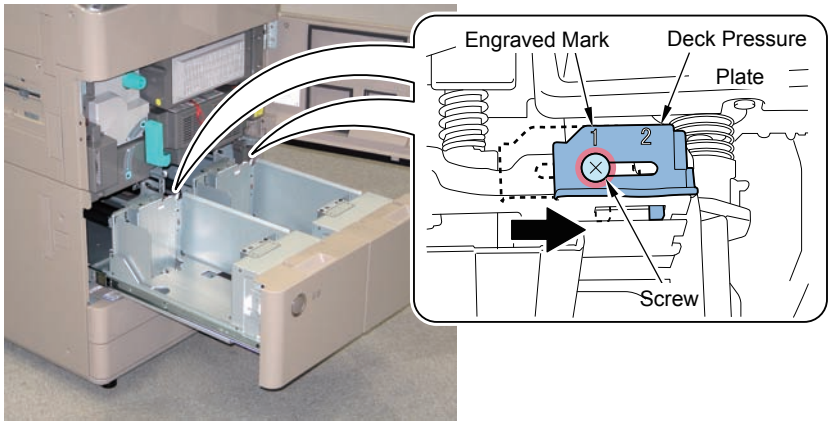
☐

3) Close the Vertical Path Cover.
4) Open the Front Cover.
5) Press the Release Button to open the Left and Right Decks, and remove the tape.

NOTE:
Be sure to release the Release button slowly because it may not come out if releasing it abruptly.

☐

6) Loosen the screw and slide the Deck Pressure Plate in the direction of the arrow. Check that the screw position is at the engraved mark [1], and then tighten the screw.



F-9-21

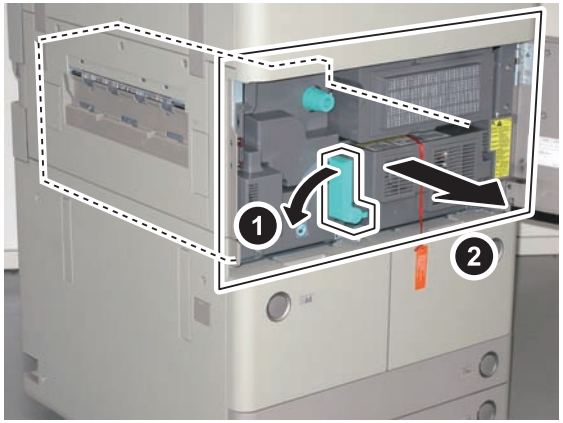
☐

7) Close the Left and Right Decks.

Installing the Fixing Assembly

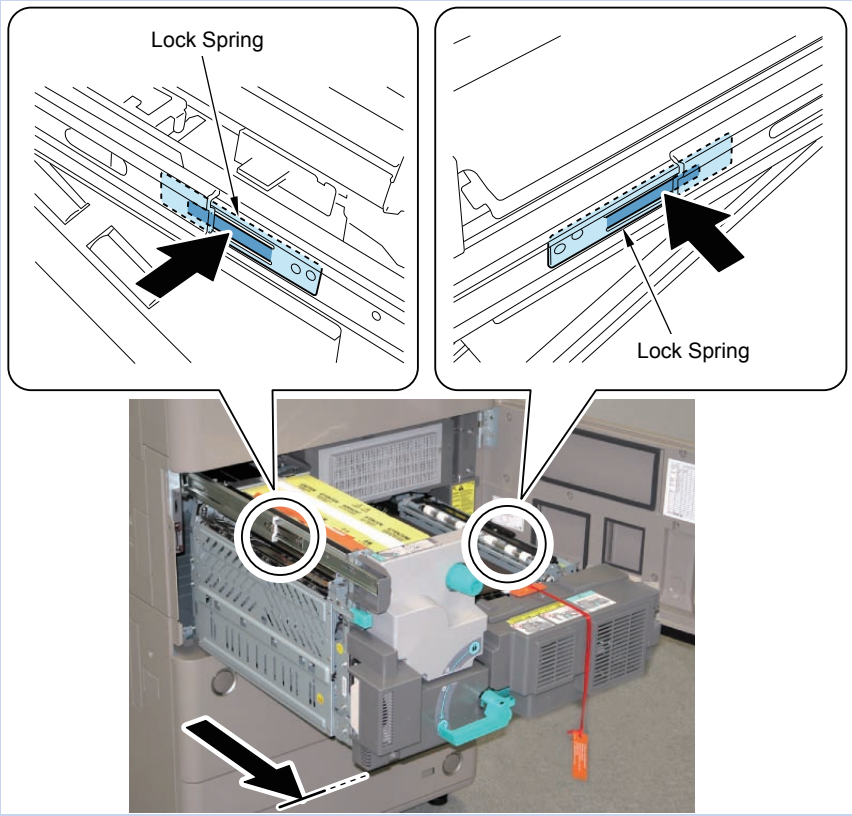
□

1) Remove the tapes securing the tag.
2) Turn the Fixing Feed Unit Release Lever in the direction of the arrow and pull the Fixing Feed Unit all the way out.



F-9-22

NOTE:
In the case that the Fixing Nip Pressure Release Screw is hard to be removed, release the lock by pressing the Lock Springs at both rails, and pull out the Fixing Feed Unit further until it stops.

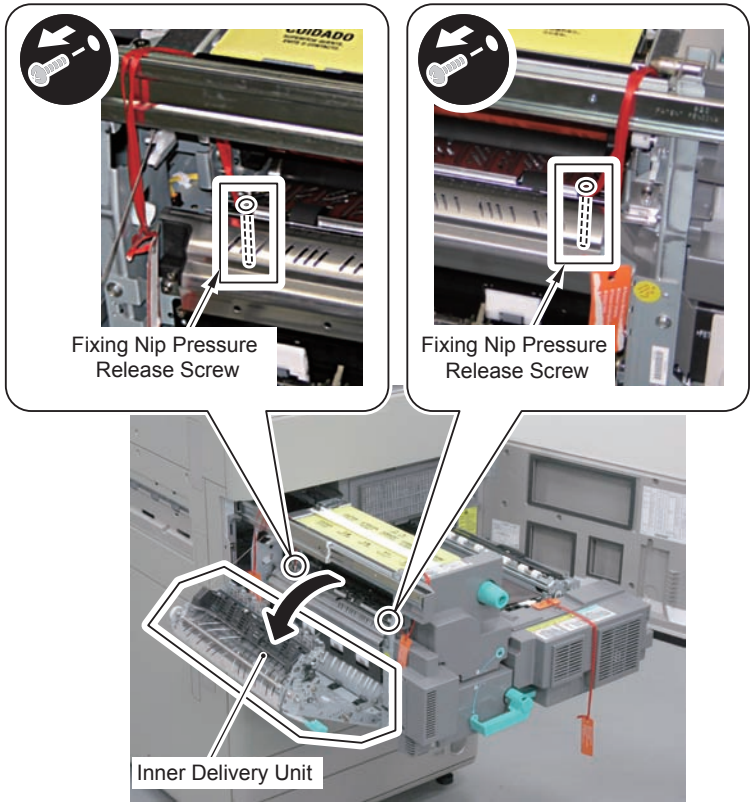


F-9-23

□

3) Remove the tape securing a tag on the Fixing Upper Cover.

4) Open the Inner Delivery Unit, and remove the 2 Fixing Nip Pressure Release Screws.

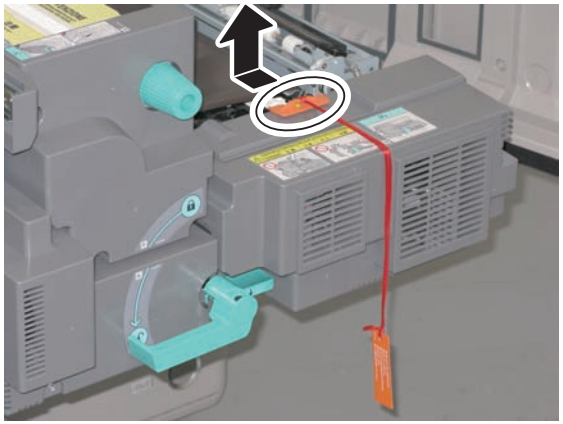


F-9-24

□

5) Close the Inner Delivery Unit.

6) Remove the ETB Spacer.



F-9-25

□

7) Return the Fixing Feed Unit and lock the Fixing Feed Unit Release Lever.

NOTE:
In the case of pulling out the Fixing Feed Unit further, be sure to return the Fixing Feed Unit while releasing the Lock Spring.

8) Close the Front Cover.

Installing the Toner Container

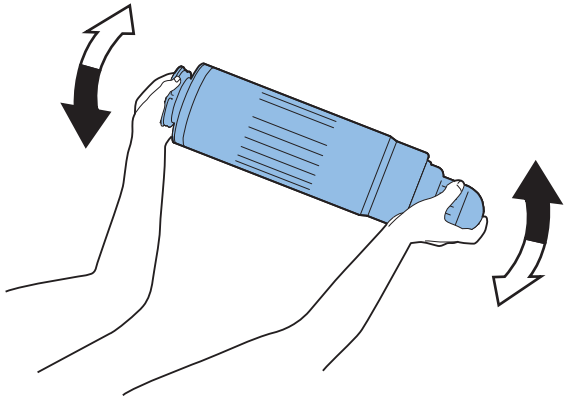
□

1) Open the Toner Exchange Cover, and turn the Lock Lever in the direction of the arrow to release.

F-9-26

□

2) Unpack the Toner Container and shake it approx. 10 times horizontally.



F-9-27

□

3) Remove the cap of the Toner Container.

4) Set the Toner Container to the Main Body, and turn the Lock Lever in the direction of the arrow to secure the Toner Container in place.

F-9-28

□

5) Close the Toner Exchange Cover.

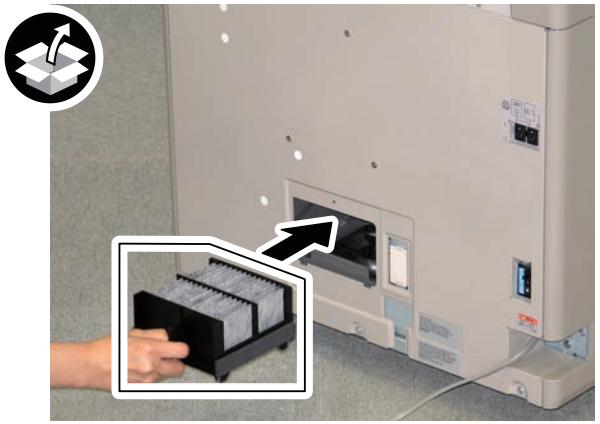
Installing the Exhaust Filter

□

1) Remove the tape, and remove the Filter Cover.

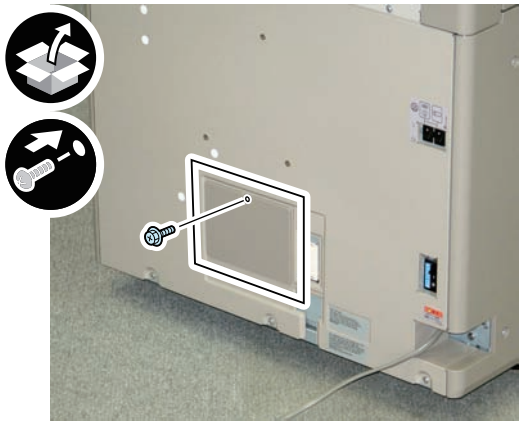
F-9-29

□
2) Hold the Exhaust Filter as shown in the figure, and install it to the Main Body.



F-9-30

□
3) Install the Filter Cover.
- 1 Screw (RS Tightening; M4x10)

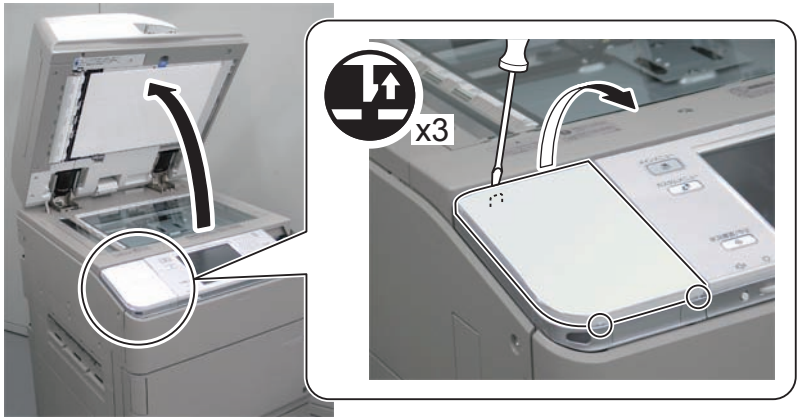


F-9-31

Installing the USB Device Port (only with the products designed for Europe)

CAUTION:
- Use the Card Reader prepared by each sales company.
- When installing the Multimedia Reader/Writer-A2, refer to "Installation" > "USB Device Port-A2/Multimedia Reader/Writer-A2 (p. 9-321)" > "Install the Multimedia Reader/Writer (p. 9-9)" of this Service Manual.

□
1) Open the DADF, and remove the Transparent Cover and the Device Port Sheet of the Upper Left Cover.
- 3 Claws



F-9-32

□

2) Connect the Card Reader to the PCB, and store the cable inside the Upper Cover by rolling it up.

F-9-33

□

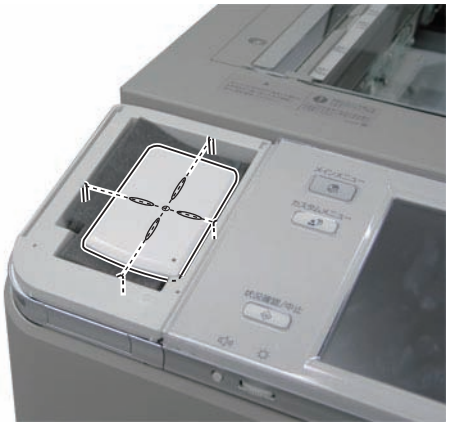
3) Put 4 cushions by piling them up.

NOTE:
Be sure to adjust the number of cushions according to how the cable of the Card Reader is stored.

F-9-34

□

4) Place the Card Reader by aligning it with the position where the cover is installed.



F-9-35

□

5) Replace the Device Port Sheet with the Case Sheet.
6) Install the Transparent Cover and the Case Sheet.

F-9-36

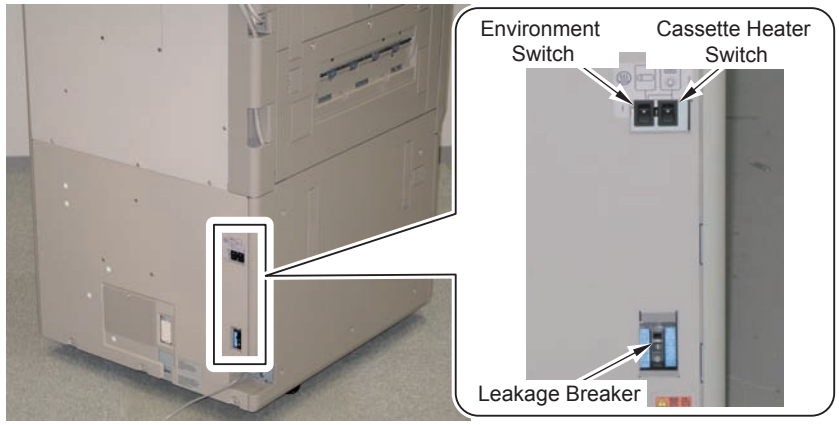
□

7) Close the DADF.

Setting the Environment Heater Switch

□

1) Check that the Leakage Breaker is ON.
2) Turn ON the Environment Heater Switch and the Cassette Heater Switch in accordance with the installation environment.
   Set the environment switches in accordance with the installation environment.
   In the case of high humidity environment, turn ON the Environment Switch. (The Drum Heater is turned ON regardless of the main switch status).



F-9-37

Turning ON the Main Power

□

1) Connect the power plug of the host machine to the power outlet.
2) Remove the protection sheet on the control panel.
3) Open the switch cover and turn ON the main power switch.

CAUTION:
If "E732-8888" is displayed after turning ON the main power switch, turn OFF and then ON the main power switch, and then perform the following steps.

4) Check that the following service mode (Level 1) value is set to "1".
- COPIER > OPTION > CUSTOM > SCANTYPE

5) Exit the Service Mode.
6) Change the operation panel screen to "Scan and Send", and press "Other Function".
7) Press "Finished Stamp" in the second page of the "Other Function" screen.
8) Set to the feeder and conduct transmission test to check that the originals are stamped.

NOTE: Turning OFF the Main Power
1) Open the Switch Cover and turn OFF the main power switch.
2) Check that the control panel display and the main power lamp are OFF, and then disconnect the power plug.

Toner Stirring

□

1) Check that "Check the developer" is displayed in the following service mode (Level 1).
   COPIER > FUNCTION > INSTALL > TONER-S
2) Press “OK” after checking the installation of the Developing Assembly and the Developing Assembly Pressure Plate.
3) Toner supply is executed. (For approx. 17 minutes. Countdown is shown on the screen)

NOTE:
While stirring toner,"Installation of the Host Machine", "Other Installation Work", "Setting the Deck" and "Setting the Paper Cassette" can be executed.

Installation of the Host Machine

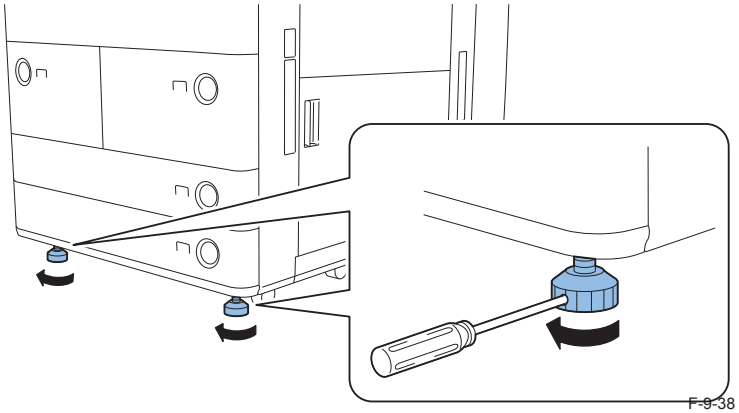
□

1) Confirm the position to install the Host Machine and turn the 2 adjusters with your hand until they closely contact the floor.

NOTE:
If you failed to turn the adjusters with your hand, use a screwdriver so that they can be turned by your hand.

2) Use a screwdriver to turn the adjusters in the direction of the arrow to make them secured.

NOTE:
Securing of the adjuster is not earthquake resistant.



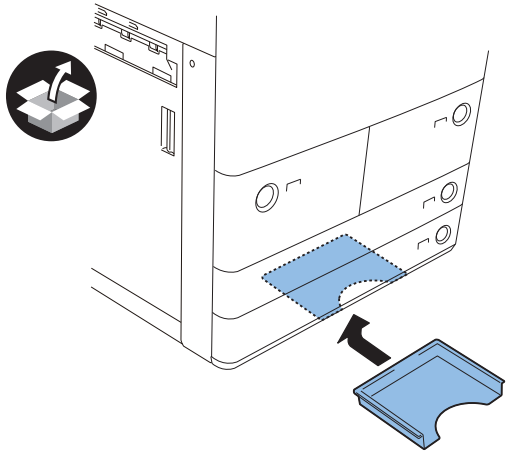
F-9-38

Other Installation Work

<Service Book Holder>

□

Remove the double-sided tape on back side of the Service Book Holder, and affix the holder on the Base Plate of the host machine.



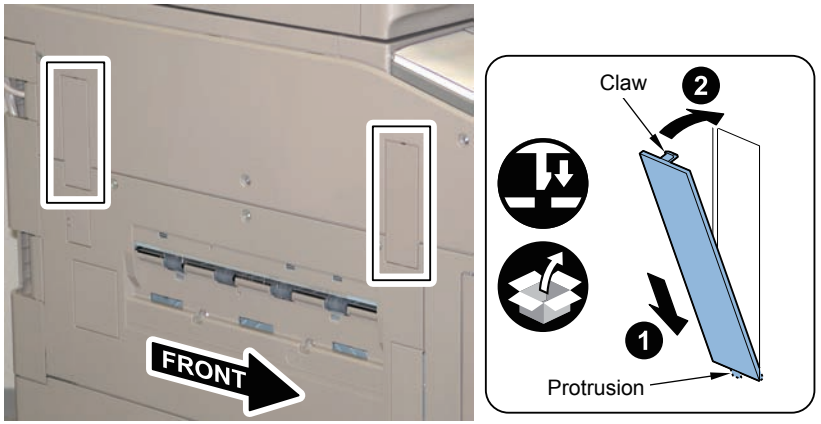
F-9-39

<Finisher Connector Cover>

□

Install the 2 Finisher Connector Covers to the left side of the host machine.

- 1 Protrusion each
- 1 Claw each

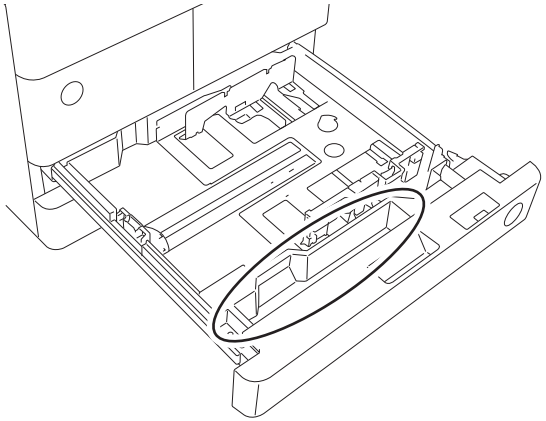


F-9-40

<Cleaning Tool>

□

Store in an empty space at front side of the Cassette 3 to use for maintenance.



F-9-41

<Touch Pen>

□

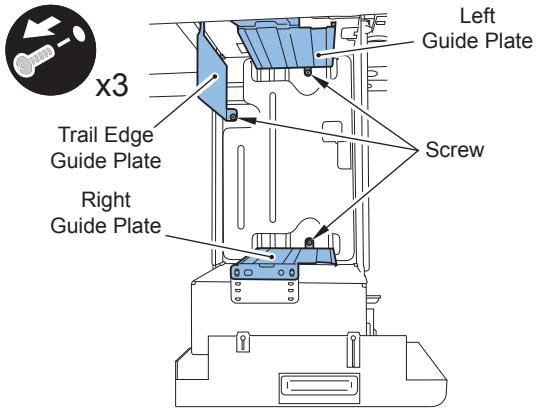
Open the Upper Right Cover, and store the Touch Pen.

Setting the Deck

□

1) Push the Deck Release Button to pull out the Left and the Right Decks to the front.
2) Remove the 3 screws fixing the Trailing Edge Guide Plate, Left Guide Plate, and Right Guide Plate in place, and fix each of the guide plates at user's desired size.

NOTE:
Setting at the time of shipment: A4 size



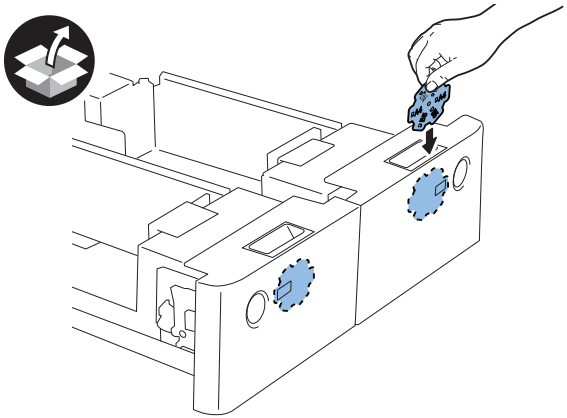
F-9-42

□

3) Put the specified size of papers in the Left/Right Deck.

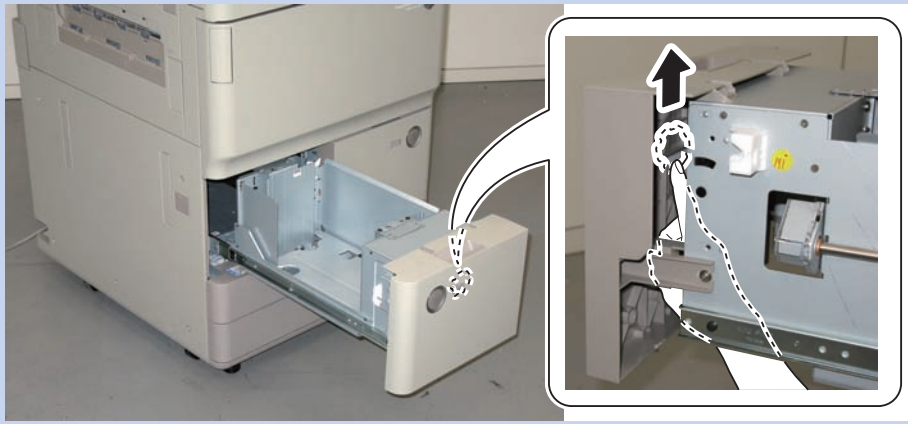
☐

4) Following the paper size, put the Size Plate L in the Right and Left Deck through the clearance at the handle area.



F-9-43

NOTE:
When taking out the size plate, access it from back side of the Deck Cover and push it out upward.



F-9-44

☐

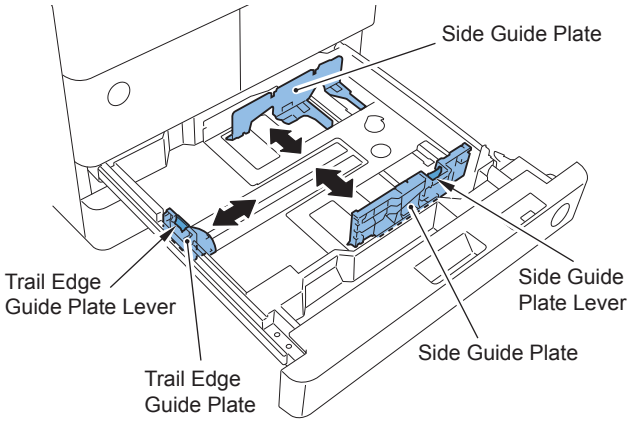
5) Push the Left/Right Deck in.

6) When the size is switched, register paper size for the Front Deck in service mode (Level 1).
Right Deck: COPIER > OPTION > CST > P-SZ-C1
Left Deck: COPIER > OPTION > CST > P-SZ-C2
A4=0, B5=1, LTR=2

7) Exit from the service mode.

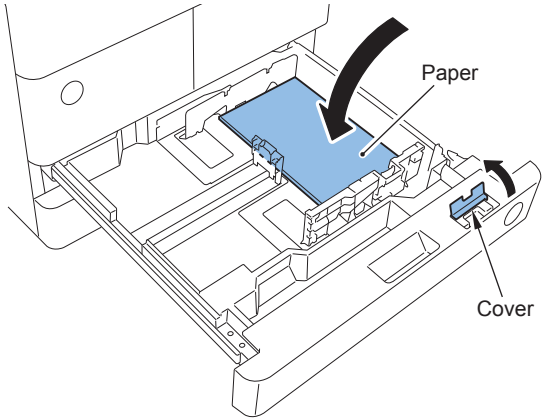
Setting the Paper Cassette

□
1) Push the Cassette Release Button to pull out the Cassette to the front.
2) Hold the Lever of the Side Guide Plate to set the Side Guide Plate to the specified size.
3) Hold the Lever of the Trail Edge Guide Plate to set the Trail Edge Guide Plate to the specified size.



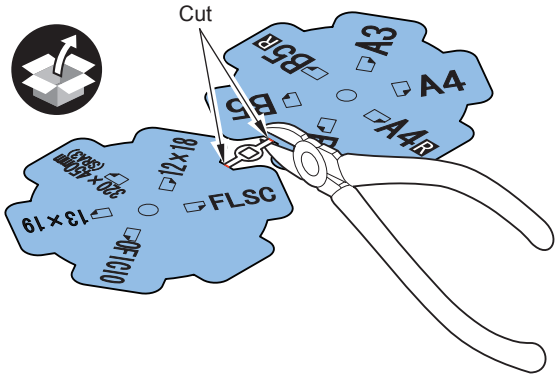
F-9-45

□
4) Set paper and open the cover at the insertion area of the Size Plate.



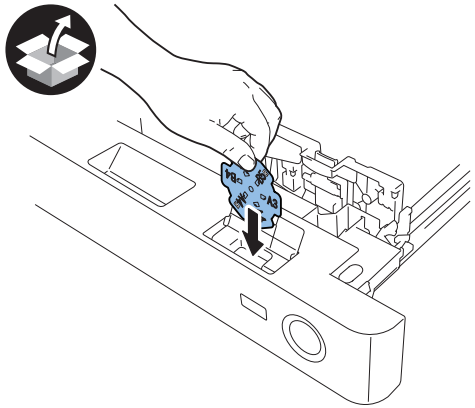
F-9-46

□
5) Cut the 2 points of the Size Plate R with nippers.



F-9-47

□
6) Following the paper size, set the Size Plate R (unused size plates should be put together).



F-9-48

□
7) Close the cover at the insertion area of the Size Plate and push in the Cassette.
8) Set another cassette as well.

NOTE:
Paper size is set to be automatically recognized.

Auto Adjust Gradation

<In the Case of Copier Model only>

□

1) Clean the Copyboard Glass surface of the host machine.
2) Set A3, A4, 11x17, or LTR size papers in a cassette. (Refer to the cassette settings.)
3) Select [Settings/Registration] > [Adjustment /Maintenance] > [Adjust Image Quality] > [Auto Adjust Gradation].
4) Select the source of paper for test print, and press [OK].
5) From this point on, follow the instruction on UI.

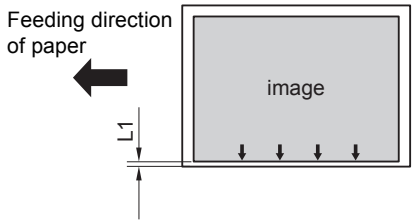
Image Position Adjustment

Left Edge Margin Adjustment (1st side)

Adjustment of Cassette/Deck

Print from each cassette/deck, and check that the left edge margin of the image (L1) is within 2.5 +/- 1.5mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-49

□

1) Adjust the image position in service mode (Level 1).

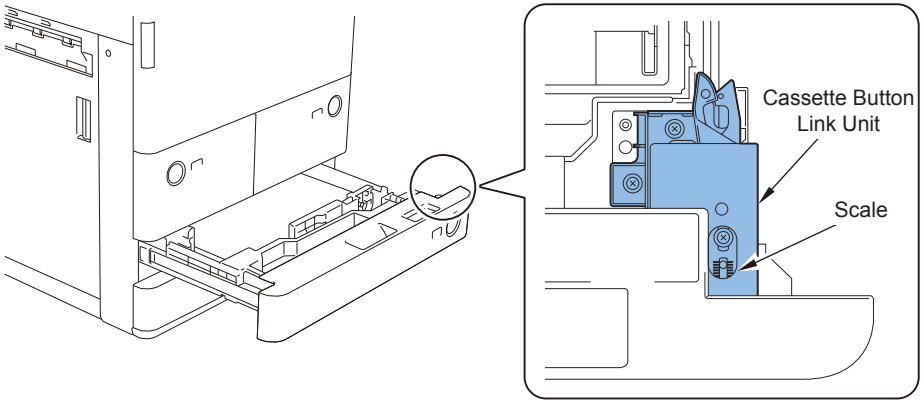
- Right Deck: COPIER > ADJUST > FEED-ADJ > ADJ-C1
- Left Deck: COPIER > ADJUST > FEED-ADJ > ADJ-C2
- Cassette 3: COPIER > ADJUST > FEED-ADJ > ADJ-C3
- Cassette 4: COPIER > ADJUST > FEED-ADJ > ADJ-C4

NOTE:
<Setting Range>
-20 to 20 (0.1mm per unit)
As the value is incremented by 1, the left edge margin is increased by 0.1mm.

2) When the setting value was changed in step 1), write down the new numerical value in the service label.
3) Exit from the service mode.
4) Print from the cassette/deck, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.

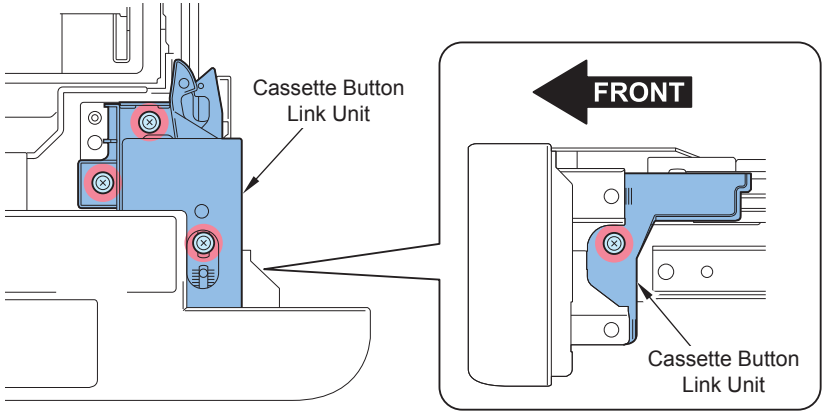
NOTE:
If the adjustment cannot be made with the setting value of -20 to 20 (adjustment amount: -2.0 to 2.0mm), execute step 5) and later steps.

☐
5) Pull out the Cassette.
6) Check the Cassette position by the scale of the Cassette Button Link Unit.



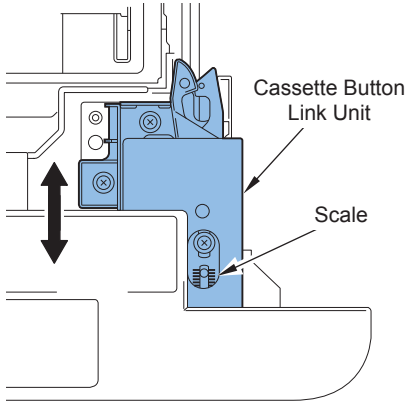
F-9-50

☐
7) Loosen the 4 screws of the Cassette Button Link Unit.



F-9-51

☐
8) According to the scale in which the position was checked in step 6), adjust the position of the Cassette Button Link Button.
- In the case of larger margin at the rear side, move the Cassette Button Link Unit to the rear side.
- In the case of larger margin at the front side, move the Cassette Button Link Unit to the front side.



F-9-52

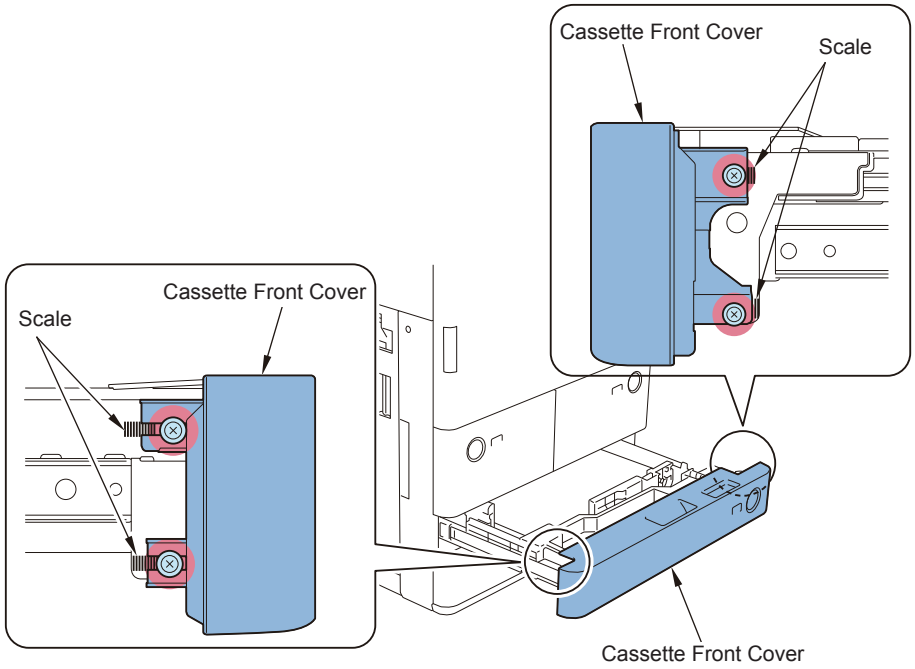
☐
9) Tighten the 4 screws (which have been loosened in step 7)).

□

NOTE:
If you concern alignment of the Cassette Front Cover, adjust the left and right sides of the cover as necessary.

10) Loosen the 4 screws and adjust the position of the Cassette Front Cover by referring to the scale.

11) When moving the Cassette Button Link Unit, adjust the left side of the Cassette Front Cover by shifting it with the same shifting amount of the unit.



F-9-53

□

12) Once the position of the Cassette Front Cover is confirmed, tighten the 4 screws (which have been loosened in step 10)).

13) Print from the cassette/deck, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.

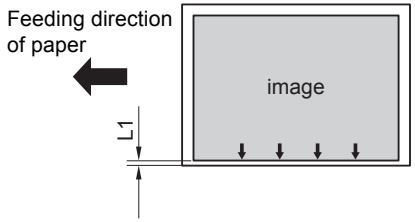
NOTE:
When a mechanical adjustment was made, be sure to execute the service mode in step 1) again.

Left Edge Margin Adjustment (2nd side)

NOTE:
By executing the margin adjustment (2nd side) for the Cassette 3, the adjustment is applied to all source of paper.

Execute duplex printing from the Cassette 3, and check that the left edge margin is within 2.5 +/- 1.5mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-54

□

1) Adjust the image position in service mode (Level 1).
- COPIER > ADJUST > FEED-ADJ > ADJ-REFE
  As the value is incremented by 1, the left edge margin is increased by 0.1mm.

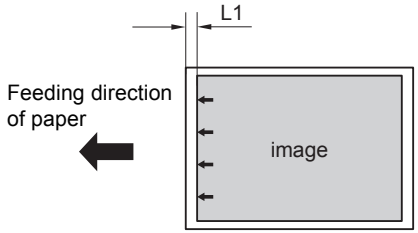
2) Execute duplex printing from the Cassette 3, and check that the left edge margin is within 2.5 +/- 1.5mm.
3) When the setting value was changed in step 1), write down the new numerical value in the service label.
4) Exit from the service mode.

Leading Edge Margin Adjustment (1st side)

NOTE:
By executing the leading edge margin adjustment for the Cassette 3, the adjustment is applied to all source of paper.

Execute printing from the Cassette 3, and check that the leading edge margin is within L1 2.5 +1.5/- 0.5mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-55

□

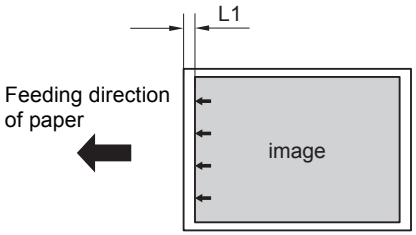
1) Adjust the image position in service mode (Level 1).
- COPIER > ADJUST > FEED-ADJ > REGIST
  As the value is incremented by 1, the leading edge margin is decreased by 0.1mm.

2) Execute duplex printing from the Cassette 3, and check that the leading edge margin is within 2.5 +1.5/- 0.5mm.
3) When the setting value was changed in step 1), write down the new numerical value in the service label.
4) Exit from the service mode.

Leading Edge Margin Adjustment (2nd side)

NOTE:
By executing the leading edge margin adjustment for the Cassette 3, the adjustment is applied to all source of paper.

Execute duplex printing from the Cassette 3, and check that the leading edge margin on the 2nd side is within L1=2.5 +1.5/- 0.5mm.
If it is not within the range, execute adjustment by following the procedure below.



F-9-56

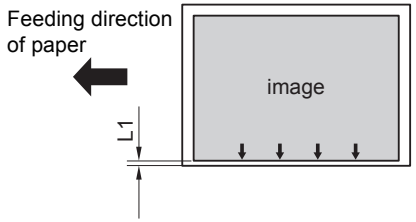
□

1) Adjust the image position in service mode (Level 1).
- COPIER > ADJUST > FEED-ADJ > REG-DUP1
  As the value is incremented by 1, the leading edge margin is decreased by 0.1mm.

2) Execute duplex printing from the Cassette 3, and check that the leading edge margin is within 2.5 +1.5/- 0.5mm.
3) When the setting value was changed in step 1), write down the new numerical value in the service label.
4) Exit from the service mode.

Adjusting margin of Multi-purpose Pickup Tray

Print from the Multi-purpose Tray Pickup, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.
If it is not within the range, execute adjustment by following the procedure below.



F-9-57

□

1) Adjust the image position in service mode (Level 1).
- COPIER > ADJUST > FEED-ADJ > ADJ-MF

NOTE:
<Setting Range>
-20 to 20 (0.1mm per unit)
As the value is incremented by 1, the left edge margin is increased by 0.1mm.

2) When the setting value was changed in step 1), write down the new numerical value in the service label.
3) Exit from the service mode.
4) Print from the Multi-purpose Tray Pickup, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.

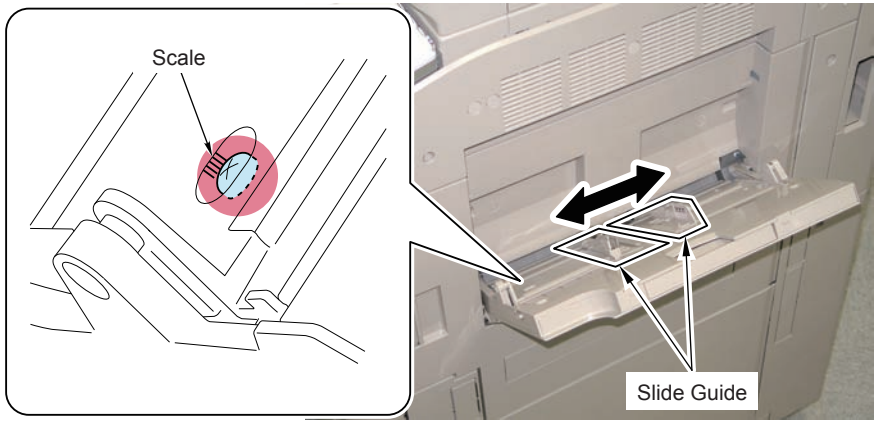
NOTE:
If the adjustment cannot be made with the setting value of -20 to 20 (adjustment amount: -2.0 to 2.0mm), execute step 5) and later steps.

□

5) Open the MP Pickup Tray.

6) Loosen the screw and adjust the position of the Slide Guide by referring to the scale.

- In the case of larger margin at the rear side, move the Slide Guide to the front side.
- In the case of larger margin at the front side, move the Slide Guide to the rear side.



F-9-58

□

7) Tighten the screw loosened in step 6).

8) Print from the Multi-purpose Tray Pickup, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.

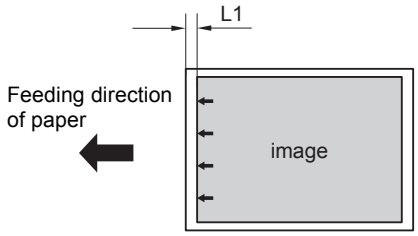
NOTE:
When a mechanical adjustment was made, be sure to execute the service mode in step 1) again.

Leading Edge Margin Adjustment (Multi-purpose Tray Pickup)

NOTE:
By executing the leading edge margin adjustment for the Multi-purpose Tray Pickup, the adjustment is applied to all source of paper.

Execute duplex printing from the Multi-purpose Tray Pickup, and check that the leading edge margin is within L12.5 +1.5/- 0.5mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-59

□

1) Adjust the image position in service mode (Level 1).

- COPIER > ADJUST > FEED-ADJ > RG-MF
  As the value is incremented by 1, the leading edge margin is decreased by 0.1mm.

2) Execute duplex printing from the Cassette 3, and check that the leading edge margin is within 2.5 +1.5/- 0.5mm.

3) When the setting value was changed in step 1), write down the new numerical value in the service label.

4) Exit from the service mode.

Checking the Network Connection

Overview

If the user's network environment is TCP/IP, use the Ping function to check that the network setting is properly performed.
If the user's network environment is IPX/SPX or Apple Talk, there is no need to check the network environment.

Checking the Network Connection

CAUTION:

Be sure to use the network cable with Category 5e or higher. In addition, a sealed type (STP cable) is recommended.

Using the non-shield type can affect the peripheral electrical equipment through the network cable.

□

1) Turn OFF the main power switch.
2) Connect the network cable to the Host Machine and turn ON the main power switch.
3) Inform the system administrator at the installation site that installation of the Host Machine is complete, and then, ask for the network setting.

NOTE:
Network setting cannot be executed unless logging in as an administrator.
Factory default password is as follows.
- System administration division ID: 7654321
- System administration password: 7654321

CAUTION:

To perform the network setting, the following Additional Functions items must be set "ON".

- [Additional Functions] > [Configuration] > [Network] > [Change network settings/ check connection]
- [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Use IPv4]

4) Turn OFF and then ON the main power.

Operation Procedure Using Ping

CAUTION:

To execute Ping command with the Windows Vista-installed PC, set OFF the firewall, or execute Ping command from the Windows Vista-installed PC to the Host Machine.

□

1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP setting] > [IPv4 setting] > [PING command]
2) Enter the IP address with the numeric keypad on the Control Panel and press "Execute" key. "Response from the host" is displayed if Ping command is succeeded while "no response from the host" is displayed if failed.

Checking by the Remote Host Address

Using the remote host address to execute Ping can check whether connection to the network is enabled or not.
Remote host address: IP address of PC terminal connected/running on TCP/IP network environment that connects to this equipment.

□

1) Inform the system administrator about checking of the network connection using Ping.
2) Confirm the remote host address with the system administrator.
3) Enter the remote host address to Ping.
- The network is properly connected if the message say "Response from the host".
- The network is not properly connected if the message say "No response from the host", therefore, execute the following troubleshooting.

Network Troubleshooting

Checking Connection of the Network Cable

To check whether the network cable is properly connected to the Ethernet Port.

Operation Procedure Using Ping

1) Ask the network administrator at the user's site to write down the IP address of the PC that is connected to the network.
2) [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address of the PC with the numeric keypad and press Execute key.

- The network is properly connected if the message say "Response from the host".
- If the message say "No response from the host", check the following.

NOTE:
The IP address of the PC can be checked by the following procedure:
Select the following on a Windows PC: Start > Program > Accessory > Command Prompt; and enter "ipconfig" and press Enter key to display information of the IP address.

Checking the Network Setting of the Host Machine

Check if the IP address specified in the Host Machine is correct.

1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [IP address setting]; and write down the address in the IP address field.
2) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address.

- The IP address specified in the Host Machine is correct if the message say "Response from the host".
- If the message say "No response from the host", check the following.

NOTE:
When setting the address by manually input, set the Subnet Mask by following the instruction of the administrator.

Checking Network Function on the Main Controller

Perform checking by the loopback address.

1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address, "127.0.0.1" with the numeric keypad and enter Execute key.

- The network function of the Main Controller is working properly if the message say "Response from the host".
- If the message say "No response from the host", the network function of the Main Controller is faulty.

2) Replace with a Main Controller that works properly, and then check connection.

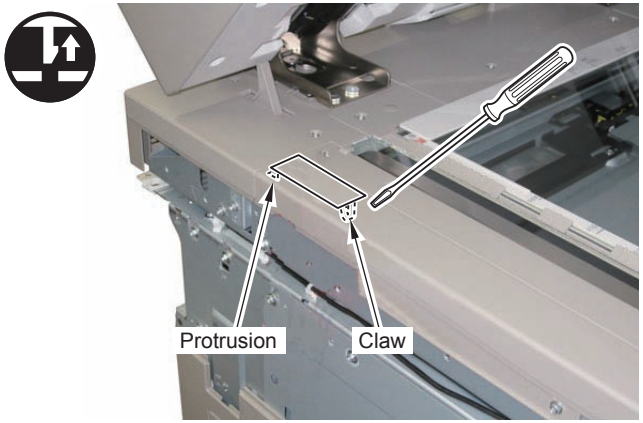
When Relocating the Machine

When moving the host machine to another place after installation, execute the operation shown below.

☐
1) Move the Scanner Unit to the position where it is going to be secured.
- Service Mode (Level 2) > COPIER > FUNCTION > MISC-R > RD-SHPOS

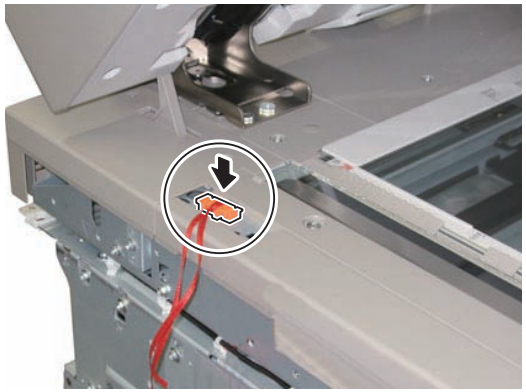
☐
2) Turn OFF the main power switch.
3) Check that the control panel display and the main power lamp are OFF, and then disconnect the power plug.

☐
4) Open the DADF, and remove the Left Upper Small Cover.
- 1 Protrusion
- 1 Claw



F-9-60

☐
5) Secure the Scanner Unit with the Scanner Fixation Tool that have been kept in a safe place since image Reader Unit installation.



F-9-61

☐
6) Close the DADF.

☐
7) Lower lifters inside the Pickup Decks and cassettes.
   7-1) Pull out all Pickup Decks and cassettes.
   7-2) Confirm that lifters are lowered and close all Pickup Decks and cassettes.

CAUTION:
- Make sure to turn the Main Power OFF and then perform these procedures. If the Main Power is ON, lifters may rise again after closing Pickup Decks and cassettes.
- If the machine is moved with lifters raised, the Lifter Drive Gear may be damaged due to the shaking.

☐
8) Lift the host machine off the floor by turning the 2 adjusters with a screwdriver.

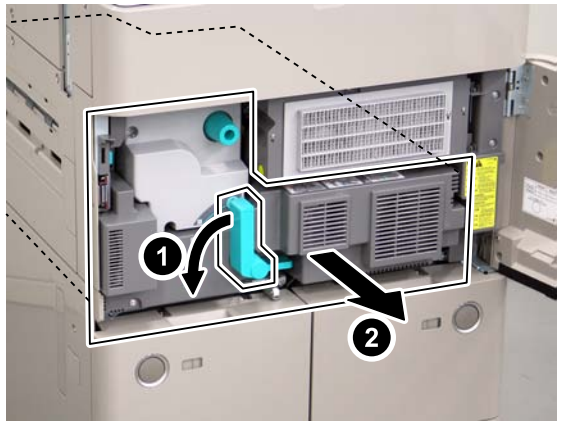
□

9) After moving the host machine, be sure that there is no toner scattering on the Registration Assembly and the Pre-transfer Charging Assembly. If there is any toner scattering, wipe off the toner.

<Registration Assembly Cleaning Procedure>

□

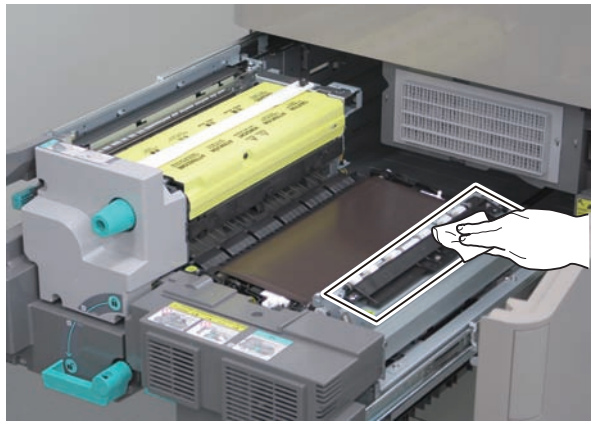
1) Open the Front Cover.
2) Turn the Fixing Feed Unit Pressure Release Lever in the direction of the arrow to pull out the Fixing Feed Unit.



F-9-62

□

3) Wipe the top surface of the Registration Assembly with lint-free paper.



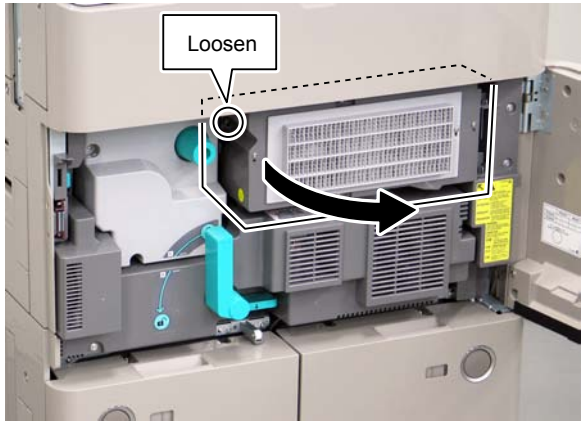
F-9-63

<Pre-transfer Charging Assembly Cleaning Procedure>

□

1) Open the Front Cover.
2) Open the Inner Cover.

- 1 Screw (to loosen)



F-9-64

CAUTION:

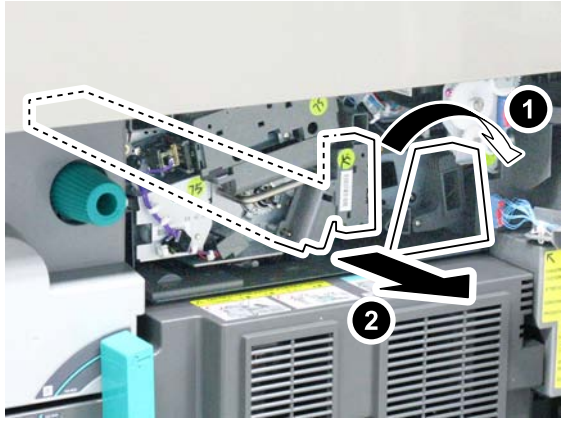
When removing the Primary Charging Assembly and the Pre-transfer Charging Assembly, go through the following procedure while the Charging Shutter is open.

- At sleep mode, press the Power Switch on the Control Panel, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.
- In the case that the condition of the Charging Shutter (open/close) is unknown while the power of the host machine is OFF, turn ON the power, check that the machine is in standby condition, turn OFF the Main Power, and then perform removing.

If the above operations are not performed, it may be possible to remove the assembly while the Charging Shutter is closed, which may damage the drum or the shutter.

□

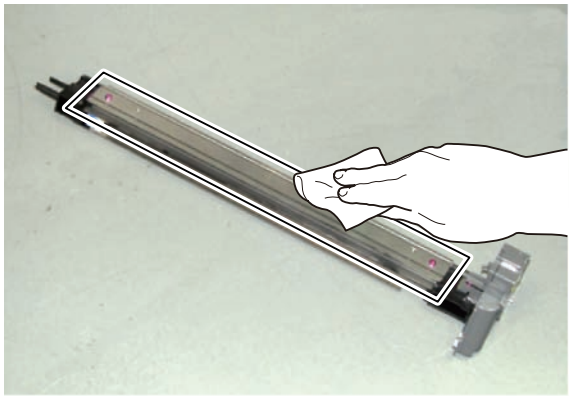
3) Turn the Lock Lever in the direction of the arrow to pull out the Pre-transfer Charging Assembly.



F-9-65

□

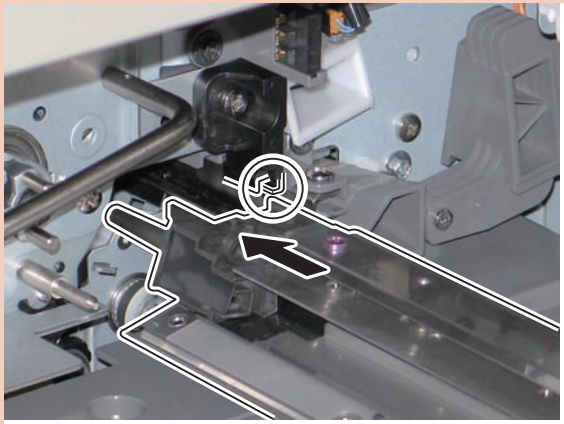
4) Wipe the top surface of the Pre-transfer Charging Assembly with lint-free paper.



F-9-66

CAUTION: Points to Caution at Installation

Be sure to fit the Transfer Charging Assembly to the groove on the host machine and install it horizontally.



F-9-67

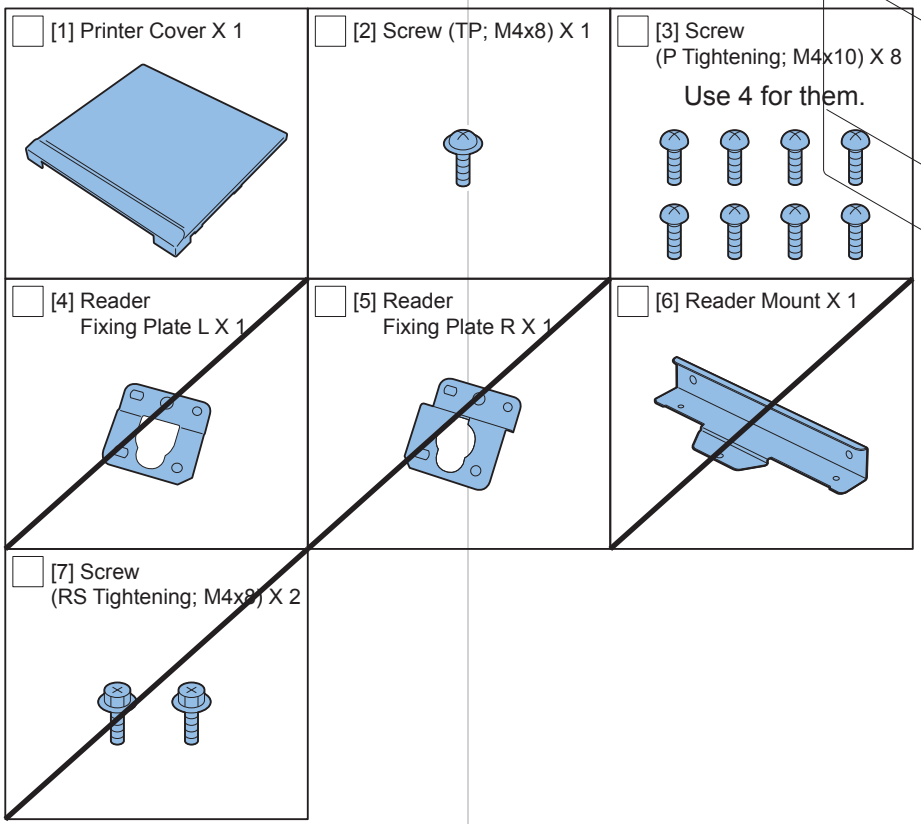
Printer Cover -B1

Points to Note at Installation

Be sure to install this equipment after installing the Upright Control Panel.

Checking the Contents

NOTE:
Parts other than those shown in the figure below are included in the package of the host machine. Therefore, use the parts contained in the package of the host machine to install the equipment.



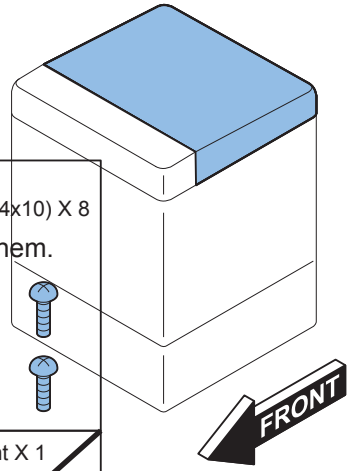
F-9-68

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-69

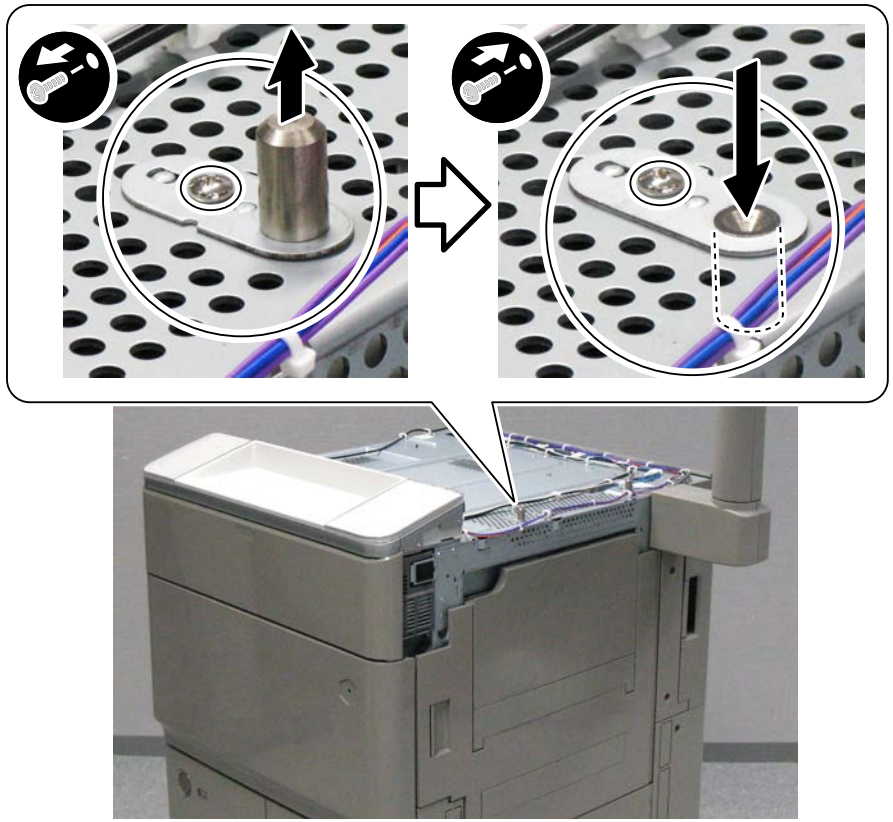
Installation Procedure

NOTE:
Installation procedures for iR-ADV 8205PRO/8295PRO/8285PRO Series and iR-ADV 6275/6265/6255 Series are the same.
Subsequent illustrations and pictures are the case of iR-ADV 8205PRO/8295PRO/8285PRO Series.

□

1) Remove the Reader Positioning Shaft, and secure it in the hole as shown in the figure.

- 1 Screw

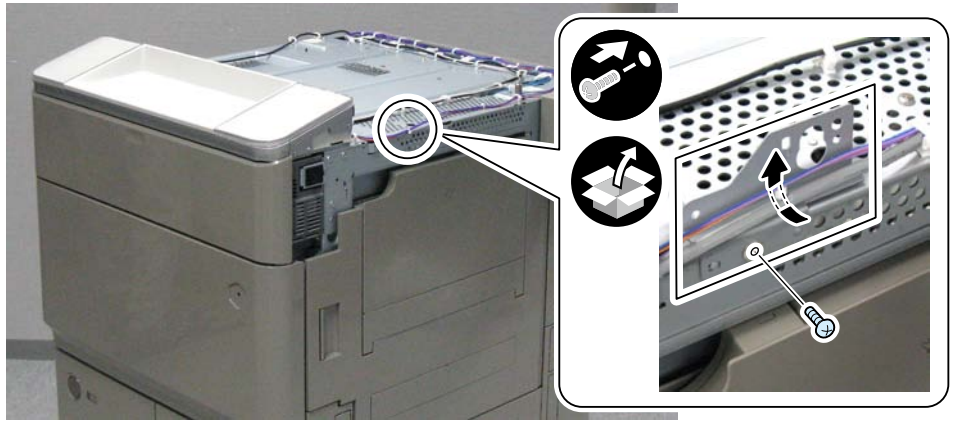


F-9-70

□

2) Install the Reader Fixation Plate R (Included in the host machine) to the installation position of front side.
Flat Control Panel model only: Install the Reader Fixation Plate R to make the Control Panel Cable and the Power Supply Cable over the plate.

- 2 Bosses
- 1 Screw (RS tight: M4x8) (Included in the host machine)

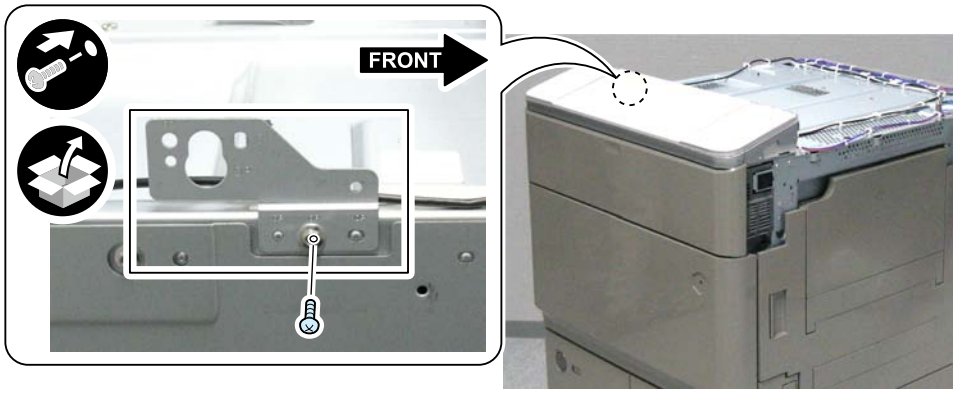


F-9-71

□

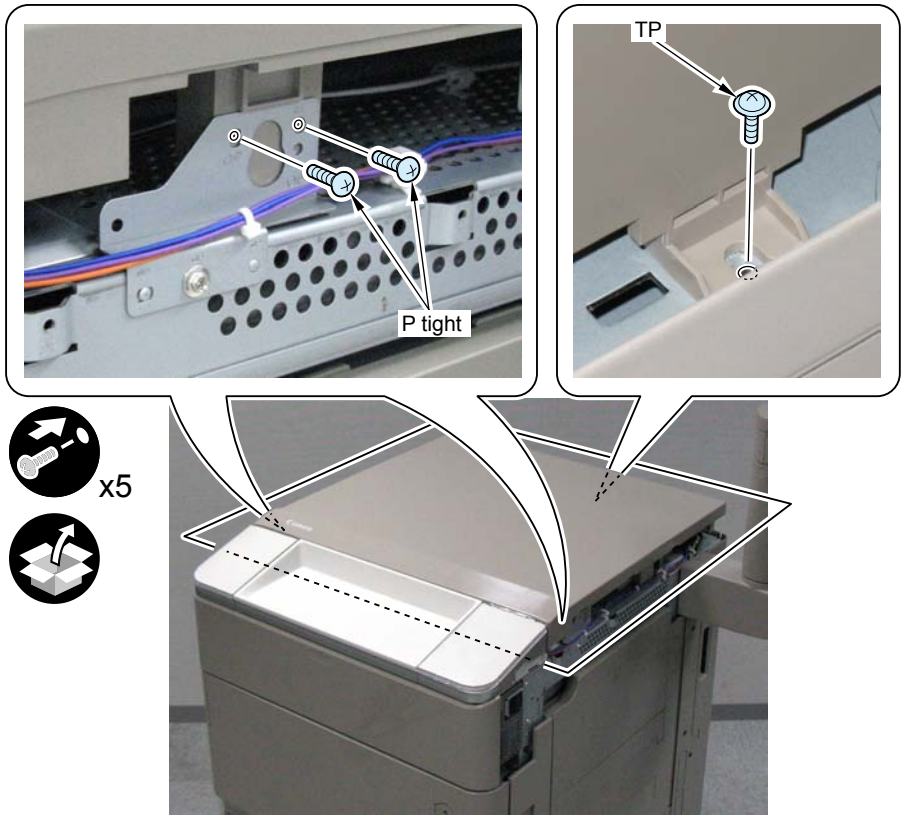
3) Install the Reader Fixation Plate L (Included in the host machine) to the installation position of front side.

- 2 Bosses
- 1 Screw (RS tight: M4x8) (Included in the host machine)



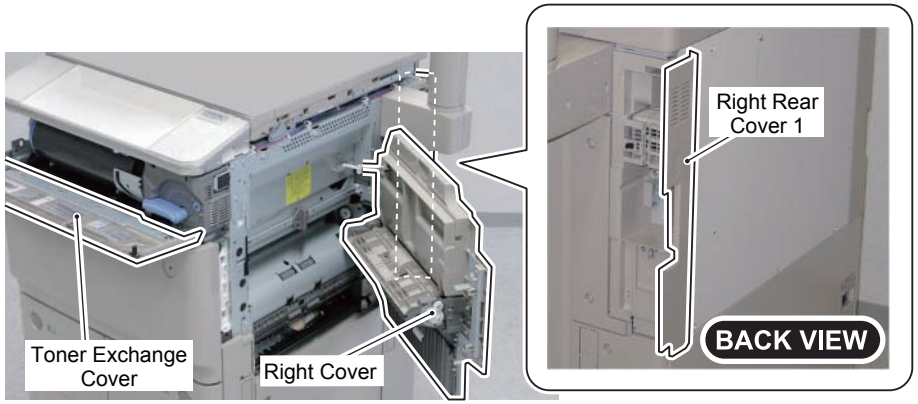
F-9-72

☐
4) Install the Printer Cover.
- 4 Screws (P tight: M4x10)
- 1 Screw (TP: M4x8)



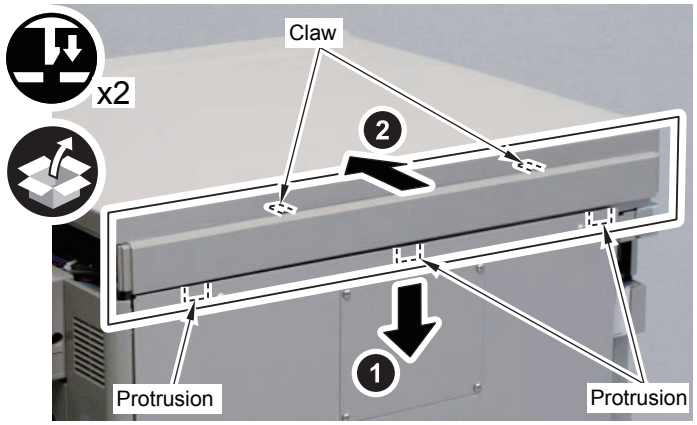
F-9-73

☐
5) Open the covers.
- Front Cover
- Right Door
- Box Cover



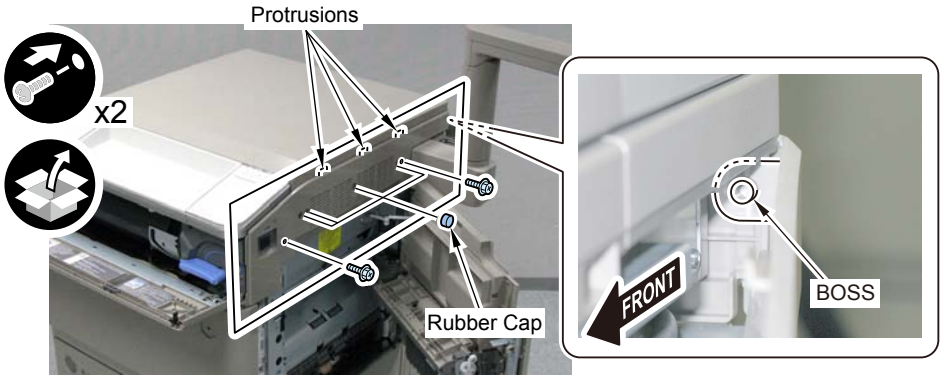
F-9-74

☐
6) Install the Upper Rear Cover (Included in the host machine).
- 3 Protrusion
- 2 Claws



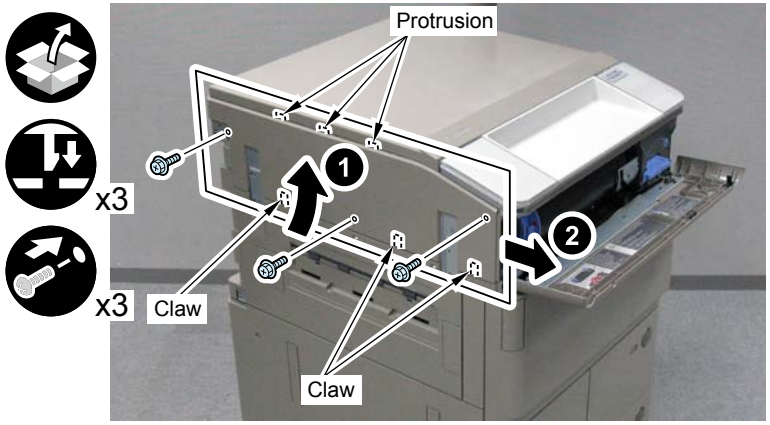
F-9-75

☐
7) Install the Right Upper Cover (Included in the host machine).
- 3 Protrusions
- 2 Screws (RS tight: M4x10) (Included in the host machine)
- 4 Rubber Caps (Included in the host machine)



F-9-76

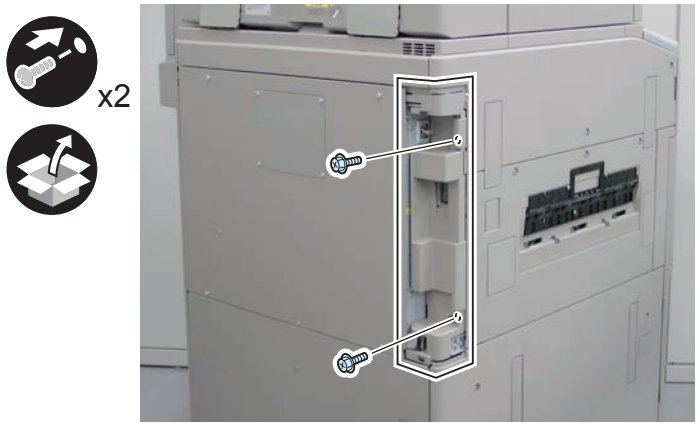
☐
8) stall the Left Upper Cover (Included in the host machine) in the direction of the arrow.
- 4 Protrusions
- 3 Claws
- 3 Screws (RS tight: M4x10) (Included in the host machine)



F-9-77

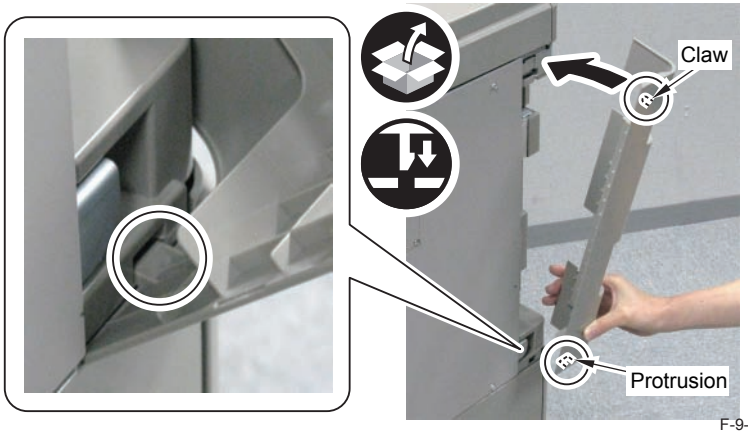
☐
9) Close the covers.
- Front Cover
- Right Door
- Box Cover

☐
10) Install the Left Rear Inner Cover (Included in the host machine).
- 2 Screws (RS tight: M4x10) (Included in the host machine)



F-9-78

☐
11) Install the Left Rear Cover (Included in the host machine).
- 1 Protrusion
- 1 Claw



F-9-79

Operation Check

1) Connect the power plug of the host machine to the outlet.
2) Turn ON the main power switch.
3) A message is displayed prompting to check that the Reader Unit Cable is connected properly.
4) Select "0" for the following service mode (Level 1).
- COPIER > OPTION > FNC-SW > W/SCNR

5) Get out from service mode.
6) Turn OFF and then ON the main power switch..

Auto Adjust Gradation

1) Set A3, A4, 11x17, or LTR size papers in a cassette. (Refer to the cassette settings.)
2) Select [Settings/Registration] > [Adjustment /Maintenance] > [Adjust Image Quality] > [Auto Adjust Gradation], and execute the item.

Shift Tray-E1

Checking the Contents

☐ [1] Shift Tray x 1	☐ [2] Shift Drive Unit x 1	☐ [3] Shift Tray Cover x 1
☐ [4] Shift Tray Support Base x 1	☐ [5] Reinforcing Plate x 1	☐ [6] Shift Delivery Support Base (1) x 1
☐ [7] Shift Delivery Support Base (2) x 1	☐ [8] Face Cover x 1	☐ [9] Rubber Cap x 3
☐ [10] Shift Tray Shaft x 1	☐ [11] Screw (RS Tightening; M4x20) x 2	☐ [12] Screw (RS Tightening; M4x8) x 4 ☐ [13] Screw (Binding; M4x6) x 2

F-9-80

Checking before Installation

Check that the main power switch is OFF.

1 Turn OFF the main power switch of the host machine.

2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

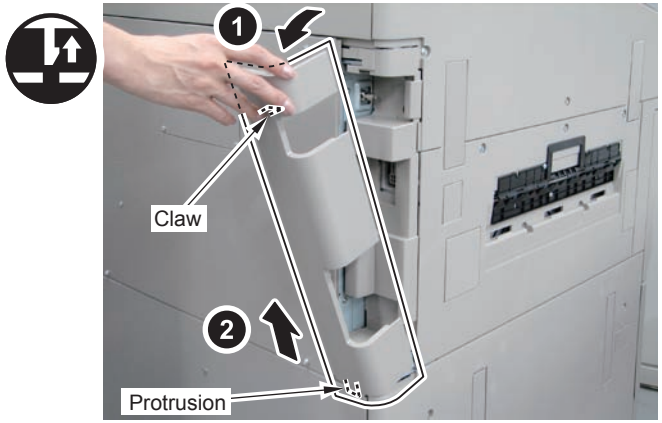
Installation Outline Drawing

Installation Procedure

□

1) Remove the Left Rear Cover.

- 2 Protrusion



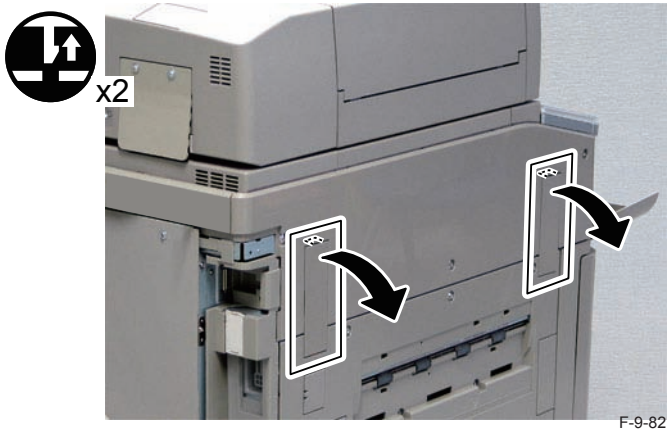
F-9-81

□

2) Open the Toner Replacement Cover.

3) Remove the 2 Finisher Connection Covers. (The removed Finisher Connection Cover will not be used.)

- 1 Claw each

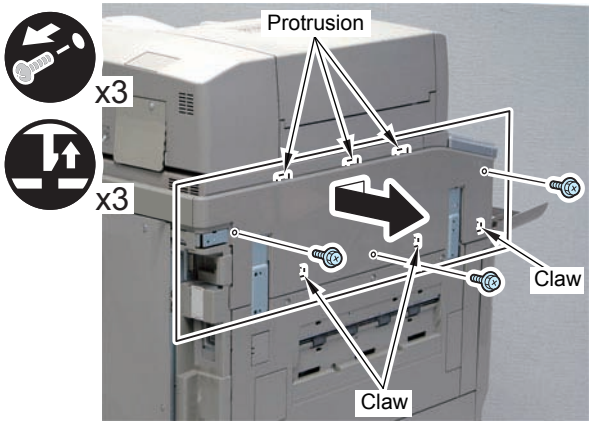


F-9-82

□

4) Remove the Left Upper Cover.

- 3 Screws
- 3 Claws
- 3 Protrusions

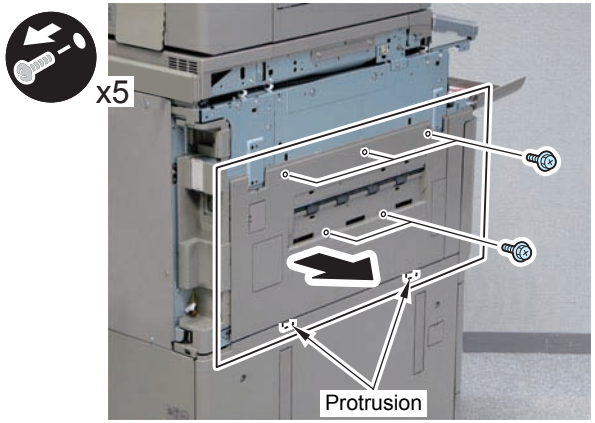


F-9-83

□

5) Remove the Delivery Cover.

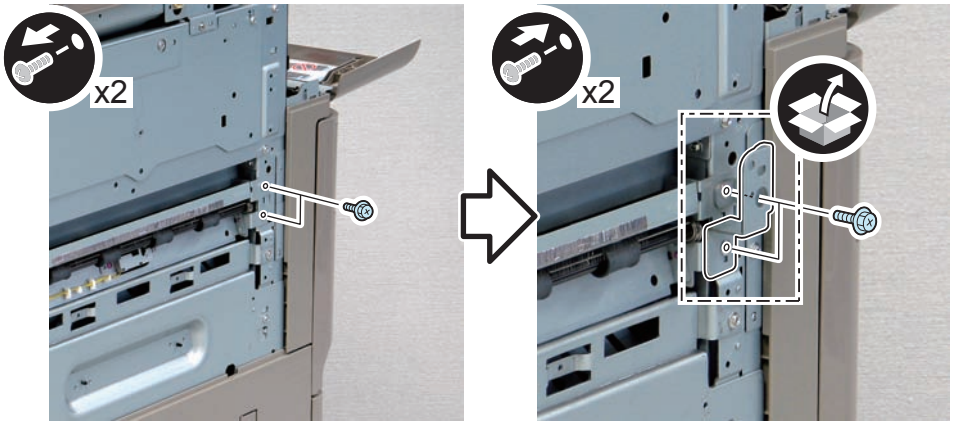
- 5 Stepped Screws (The 3 removed Stepped Screws will be used in step 9).)
- 2 Protrusions



F-9-84

□

6) Remove the 2 screws, and install the Shift Delivery Support Base (1) using the removed screws.



F-9-85

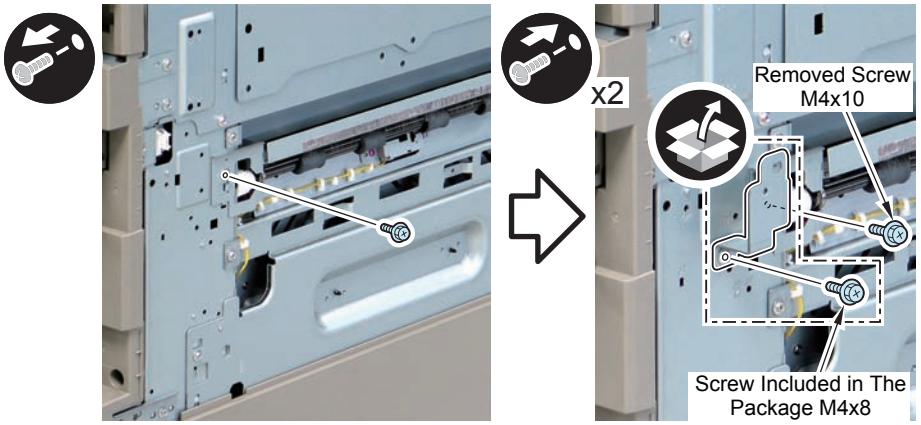
□

7) Remove the screw, and install the Shift Delivery Support Base (2) using the removed screw and the screw included in the package.

- 1 Screw (RS Tightening; M4x8)

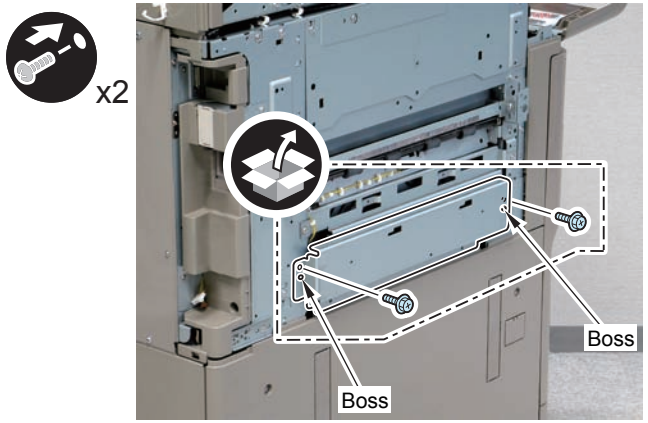
CAUTION:

The 2 screws used are different in length. Be sure to install them to the correct positions.



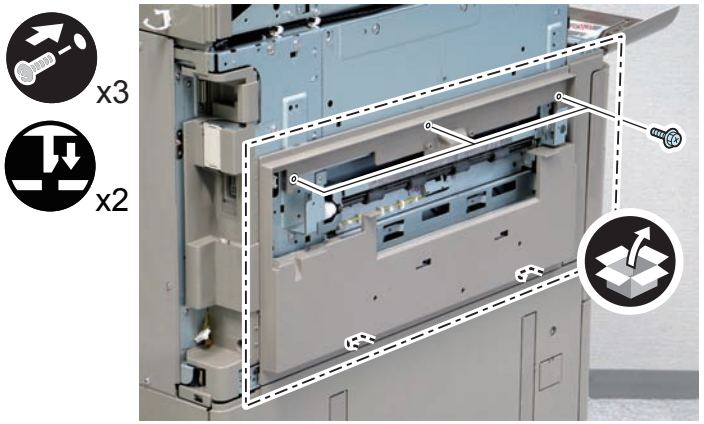
F-9-86

☐
8) Install the Shift Tray Support Base.
- 2 Bosses
- 2 Screws (RS Tightening; M4x8)



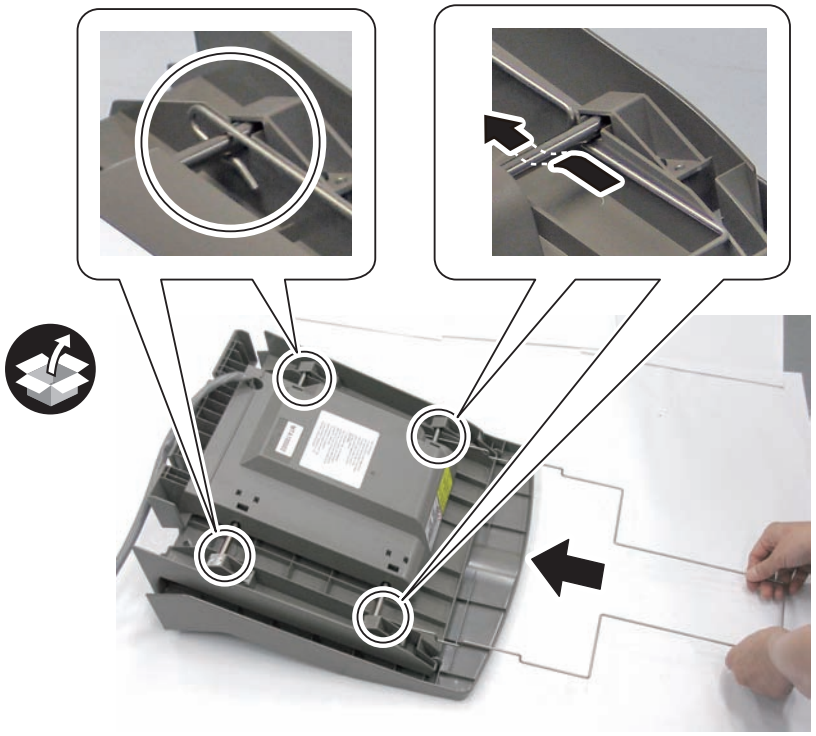
F-9-87

☐
9) Install the Shift Tray Cover.Install the Shift Tray Cover.
- 2 Claws
- 3 Stepped Screws (Use the screws removed in step 5.)



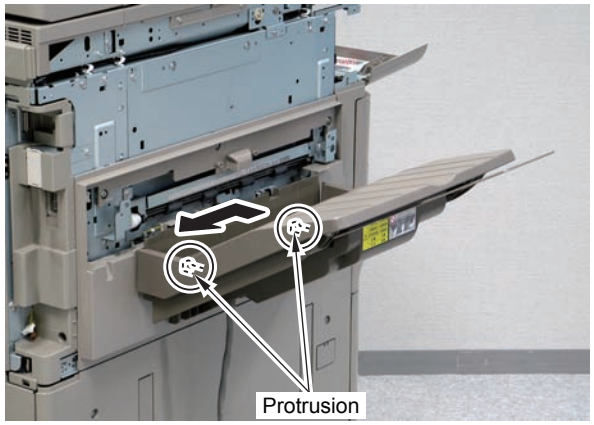
F-9-88

☐
10) Install the Shift Tray Shaft.



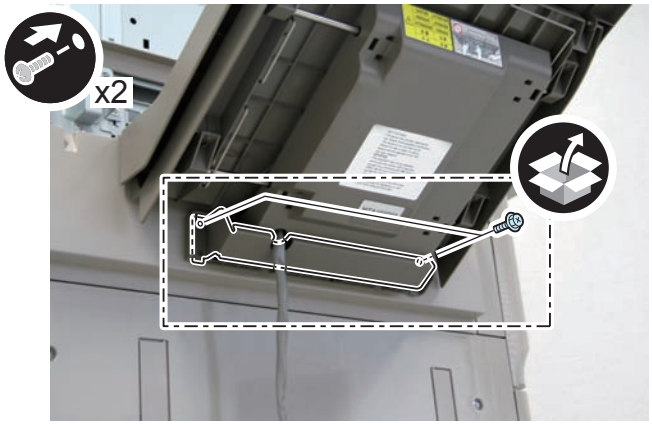
F-9-89

☐
11) Install the Shift Tray.
- 2 Protrusions



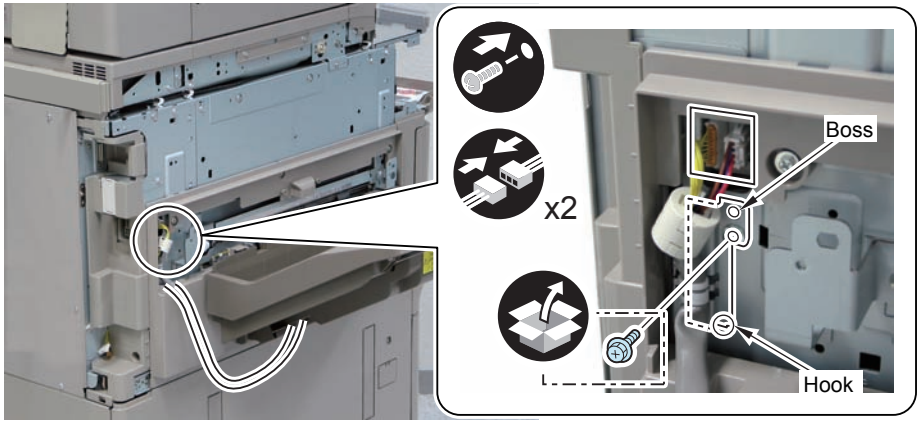
F-9-90

☐
12) Install the Reinforcing Plate.
- 2 Screws (RS Tightening; M4x20)



F-9-91

☐
13) Install the Harness Fixing Plate attached to the end of the Shift Tray Cable.
- 1 Claw
- 1 Boss
- 1 Screw (RS Tightening; M4x8)
- 2 connectors

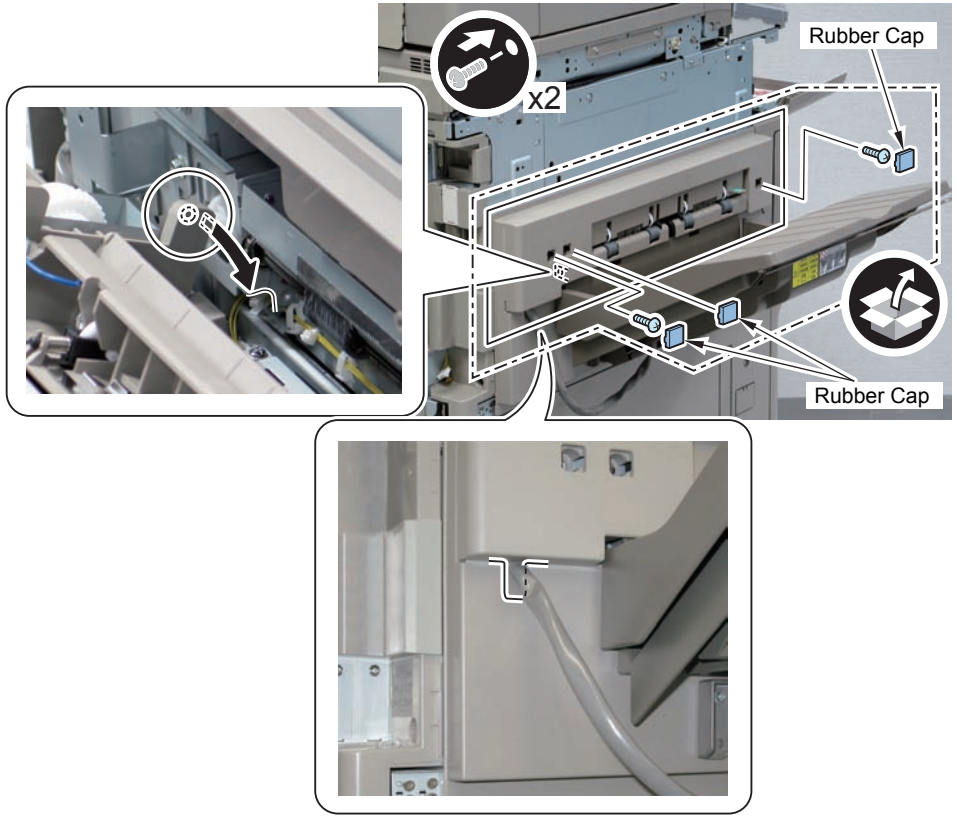


F-9-92

☐
14) Install the Shift Drive Unit.

- 2 Screws (Binding; M4x6)
- 3 Rubber Caps

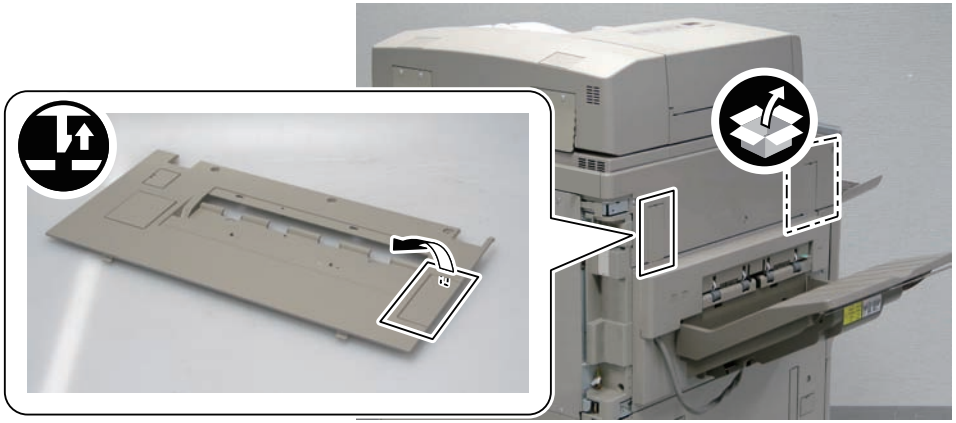
CAUTION:
Be sure to put the harness for connecting to the host machine into the groove when installing the unit.



F-9-93

☐
15) Install the Left Upper Cover. (3 Screws)

☐
16) Remove the Face Cover from the Delivery Cover removed in step 5).
17) Install the Face Cover removed in step 16) and the Face Cover included in the package.



F-9-94

☐
18) Close the Toner Replacement Cover.
19) Return the Reader Communication Cable and the Reader Power Supply Cable to their original position.

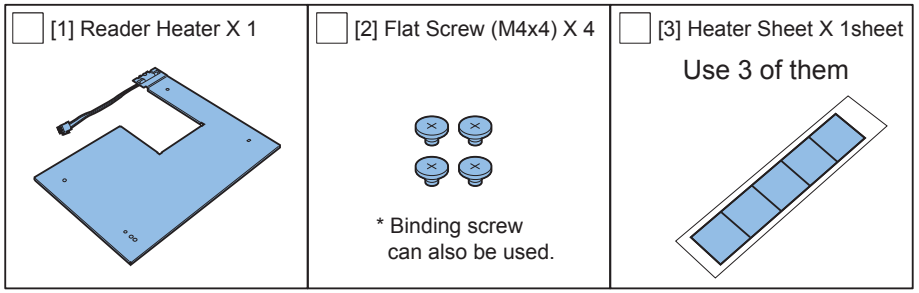
Checking after Installation

1) Connect the power plug of the host machine to the power outlet.
2) Turn ON the main power switch.
3) Press the counter check key on the control panel.
4) Press [Check Device Configuration].
5) Check that "Shift Tray-E1" is displayed in option field.

Reader Heater Unit

Checking the Contents (ASIA only)

Reader Heater Unit-G1



F-9-95

Checking the Parts to be Installed (Europe only)

Reader Heater Unit

Prepare the following parts because each part of the Cassette Heater Unit is assigned as service part.

NO.	Parts name	Parts Number.	Q'ty
[1]	Reader Heater (200V)	FK2-7164-000	1 pc
[2]	Flat Screw (M4 x4)	XA9-1956-000	4 pc
[3]	Heater Sheet	FC8-6060-000	1 sheet

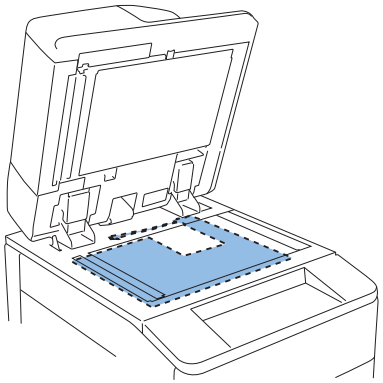
T-9-3

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

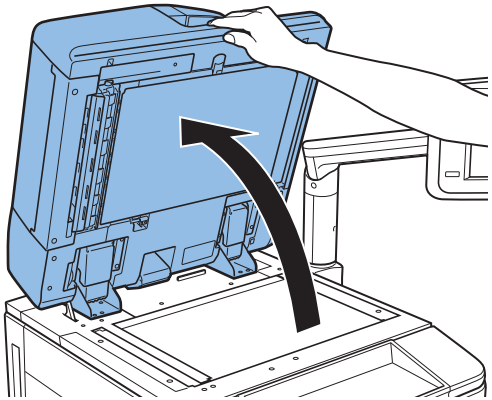


F-9-96

Installation Procedure

□

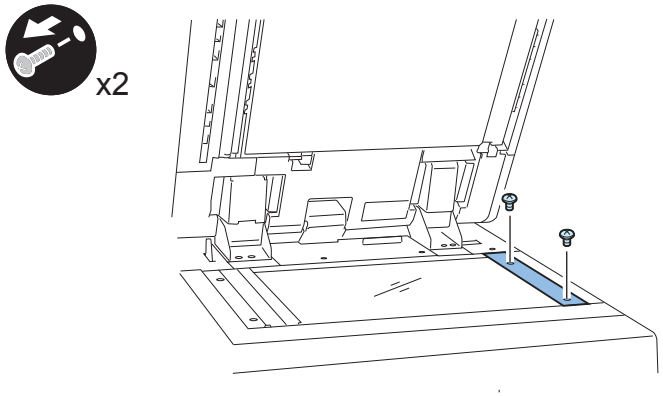
1) Open the DADF.



F-9-97

☐
2) Remove the Right Retainer Cover.

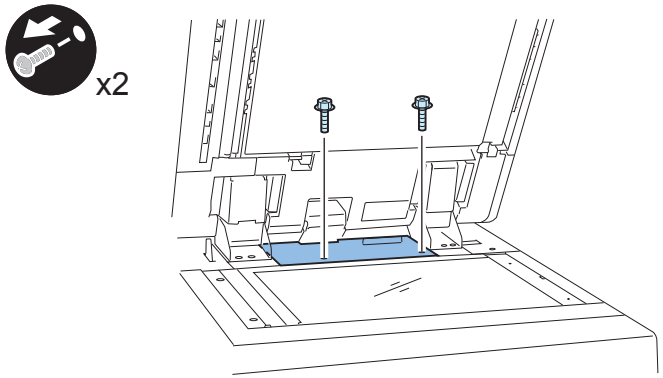
- 2 Screws



F-9-98

☐
3) Remove the DF Cable Cover.

- 2 Screws



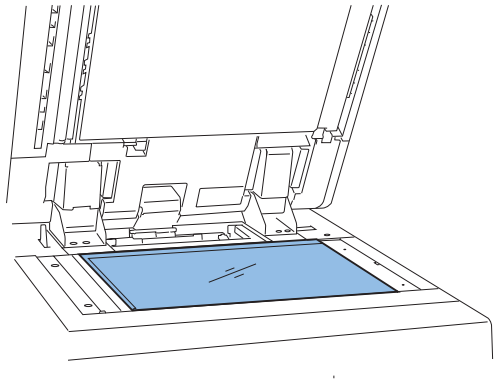
F-9-99

CAUTION:

When removing the copyboard glass, be sure not to get your fingers touched with the glass surface or the backside of the white plate.In case the glass is soiled, clean it with lint-free paper.

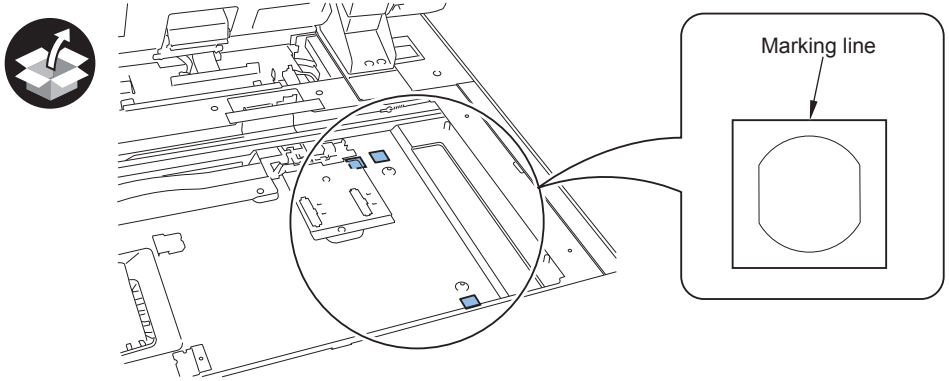
F-9-100

☐
4) Remove the Copyboard Glass.



F-9-101

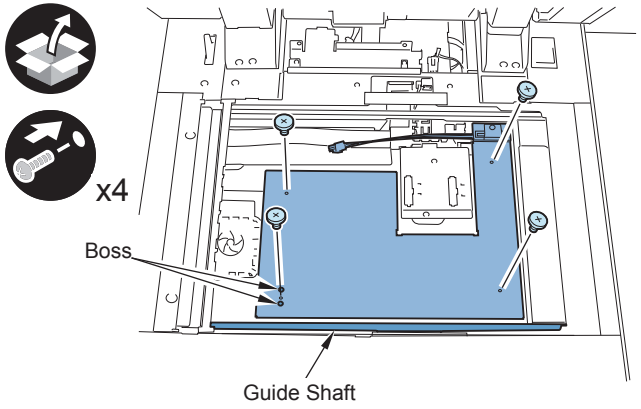
☐
5) Align the 5 Heater Sheets in the marking line and put them on.



F-9-102

☐
6) Install the Reader Heater.
- 4 Screws (flat-head ;M4X4)
- 2 Bosses

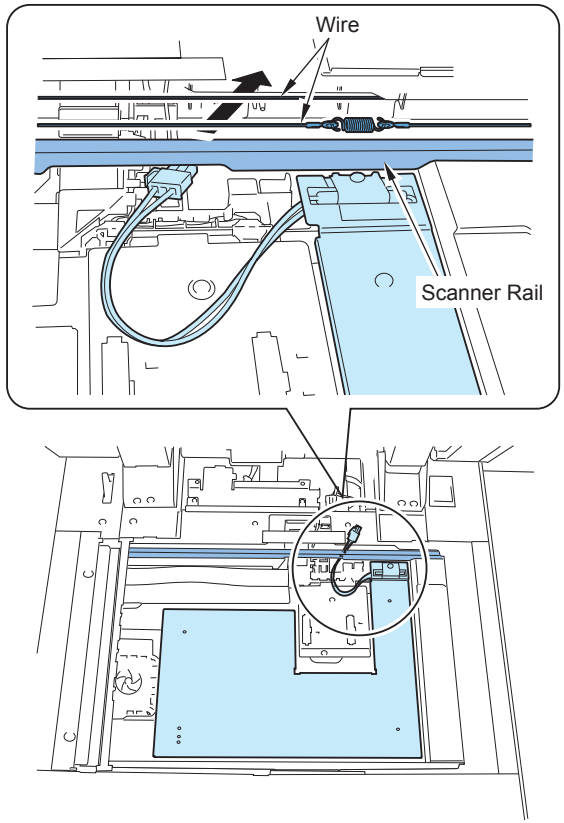
CAUTION:
Do not scratch surface of the wire and the Scanner Rail.



F-9-103

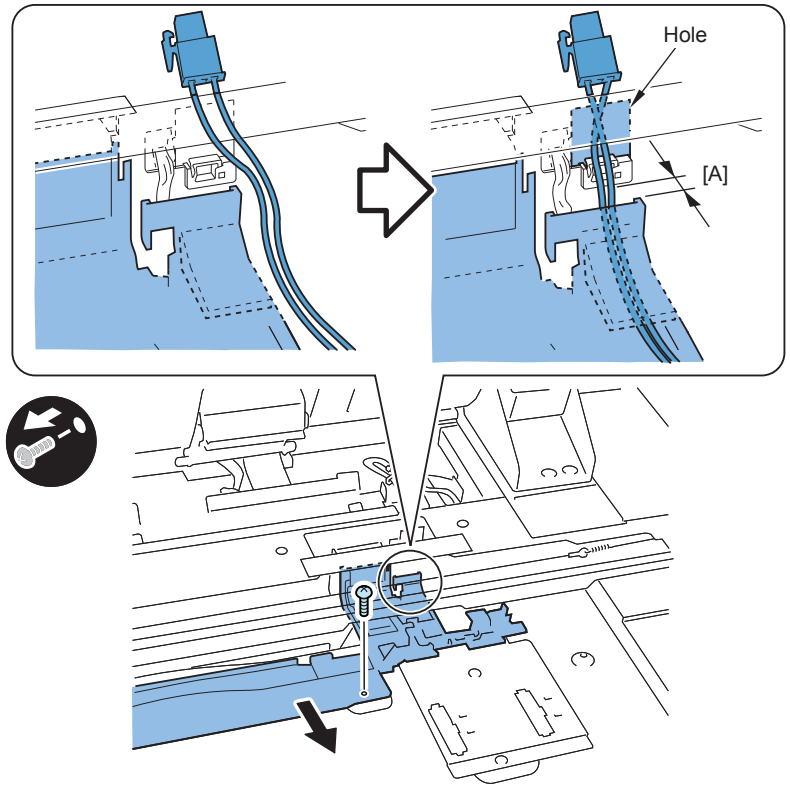
☐
7) Pass the connecter under the wire and the Scanner Rail.

CAUTION:
Do not scratch surface of the wire and the Scanner Rail.



F-9-104

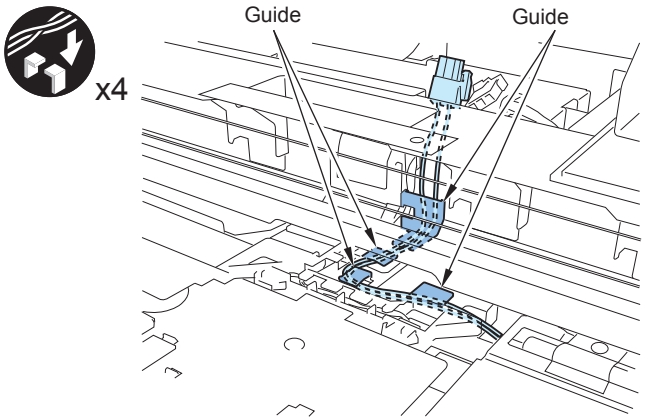
☐
8) To make a space [A] to put the harness through, remove the screw.



F-9-105

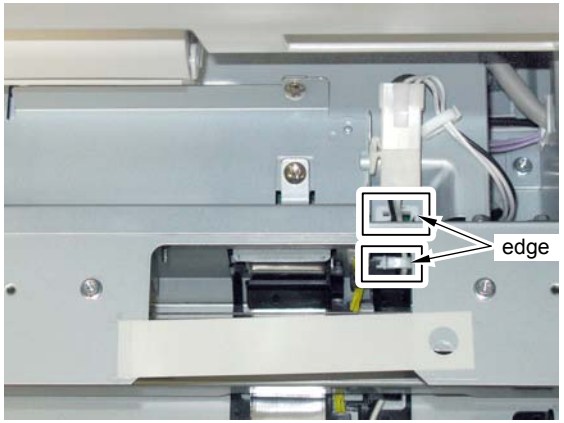
☐
9) Put the harness along the claws of FFC Guide in the 4 places.

NOTE:
Make sure to keep the harness tightly put.



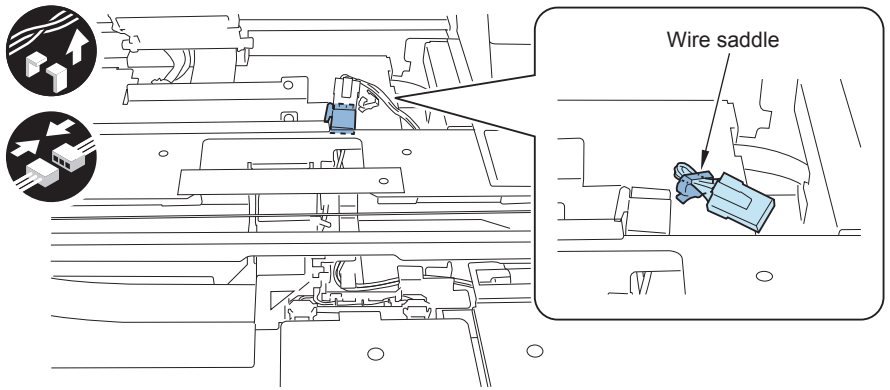
F-9-106

☐
10) Open the 2 Edge Saddles, put the connector through a hole of the plate, and then secure in place using the 2 Edge Saddles.



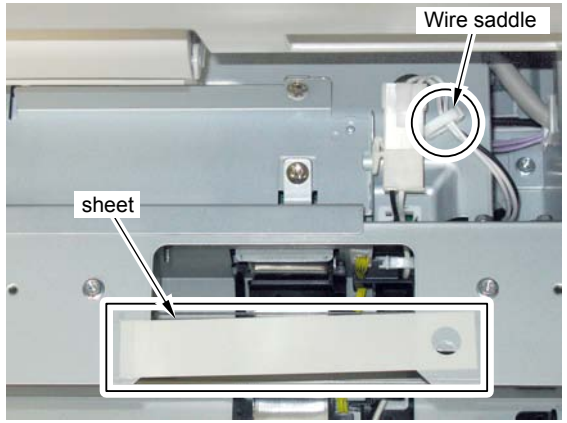
F-9-107

☐
11) Release the Wire Saddle and connect the Connector.



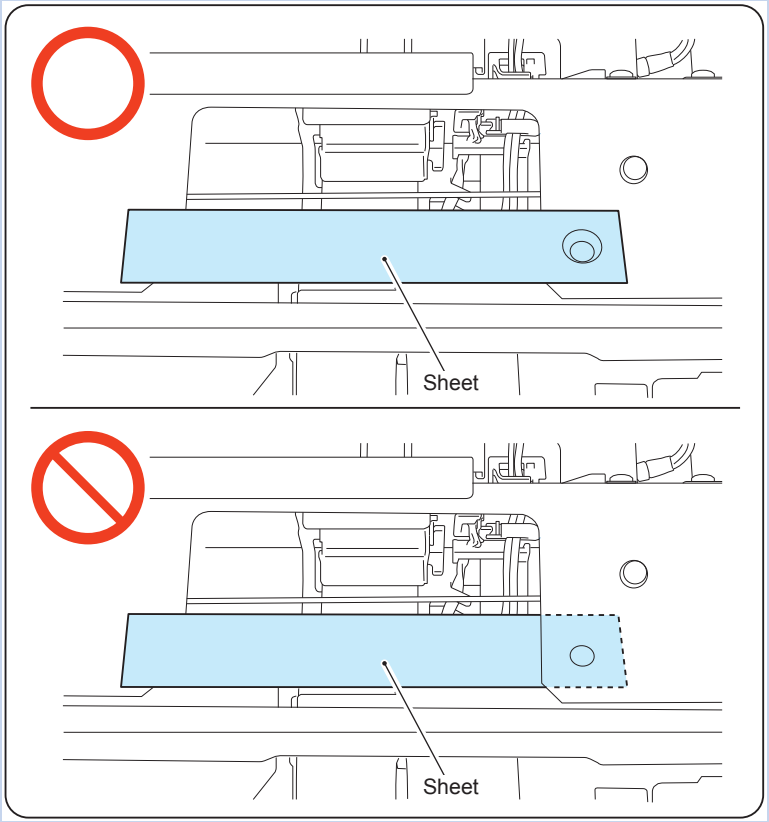
F-9-108

☐
12) Secure the harness in place using the Wire Saddle.



F-9-109

NOTE:
Be sure to check that the sheet is on the plate.



F-9-110

☐
13) Aligning with the boss, tighten the screw that has been removed in step 8).
14) Install the removed cover.
- Copyboard Glass
- DF Cable Cover (2 Screws)
- Right Retainer Cover (2 Screws)

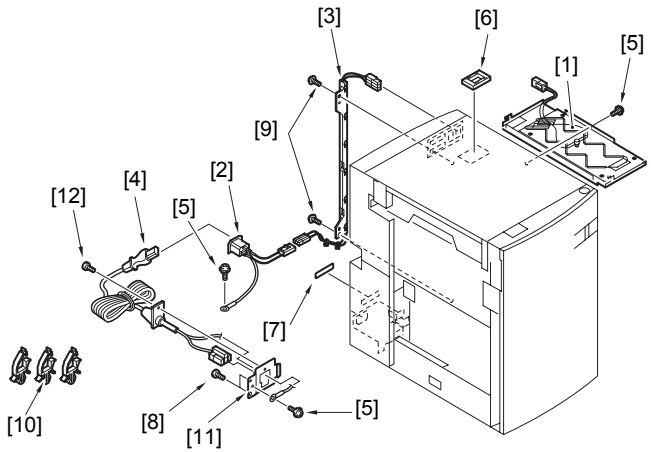
15) Close the DADF.
16) Turn ON the environment switch
17) Insert the power plug to the outlet.
18) Turn the main power switch ON.

Paper Deck Heater Unit-A1

Checking the Contents

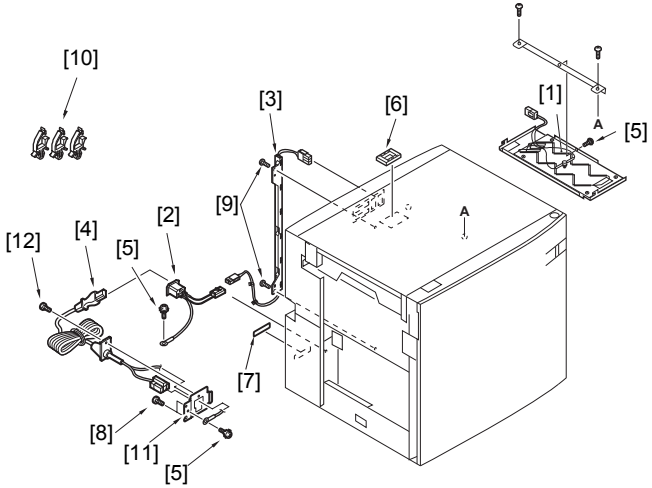
NOTE:
Every components of the paper deck heater unit (paper deck heater unit-A1) are supplied as service parts, so have the following parts on hand.

< Paper Deck Unit-A1 >



F-9-111

< Paper Deck Unit-D1 >



F-9-112

No.	Parts Name	Parts Number	Q'ty
[1]	Heater Unit	FG6-9651	1pc.
[2]	AC Input Connector	FK3-0631	1pc.
[3]	Relay Harness Unit	FG6-2957	1pc.
[4]	AC Cable	FG6-1117	1pc.
[5]	Screw with Toothed Washer	XB2-7400-607	3pcs.
[6]	Cable Protection Bushing	WT2-5098-000	1pc.
[7]	Power Supply Label	FS6-8725	1pc.
[8]	Screw (Binding; M4x4)	XB1-2400-409	2pcs.
[9]	Screw (RS-tight; M4x8)	XA9-0732-000	2pcs.
[10]	Wire Saddle	WT2-5018-000	3pcs.
[11]	Cord Mount	FC7-5473	1pc.
[12]	Screw with Flat Spring	XB2-8401-007	1pc.

T-9-4

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

CAUTION:

When installing the heater to the paper deck, take the following precautions.

a. The AC power plug of the host machine must have been removed from the outlet.

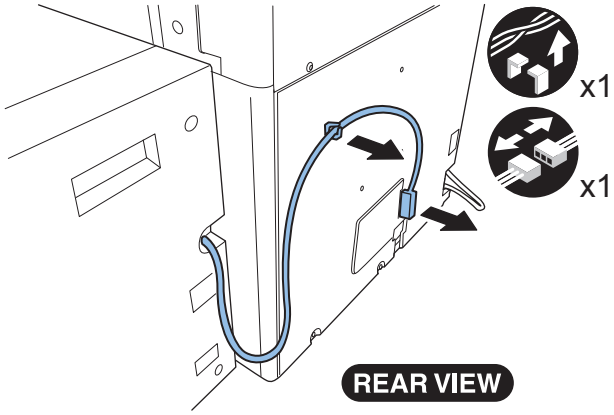
b. Install the heater after installing the host machine and paper deck.

c. Use correct screws (length and diameters) at correct positions.

Installation Procedure (Paper Deck Unit-A1)

□

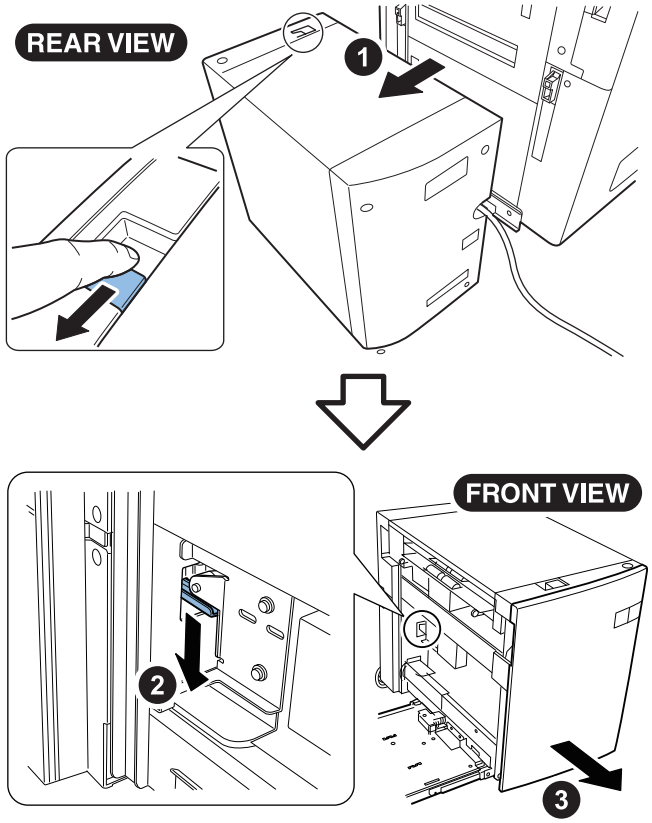
1) Disconnect the connector of the paper deck from the host machine.



F-9-113

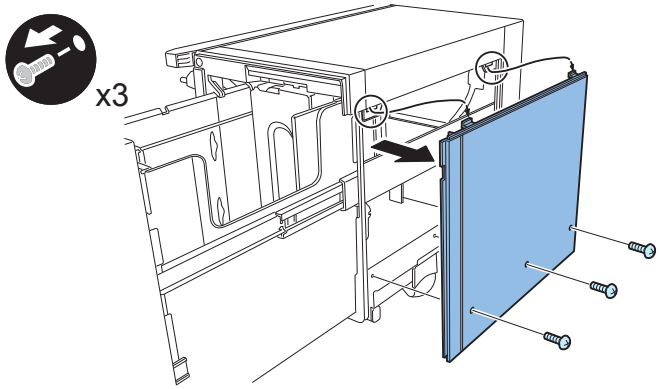
□

2) Release the paper deck from the host machine, and then press down the latch plate of the paper deck housing with your finger to open the housing.



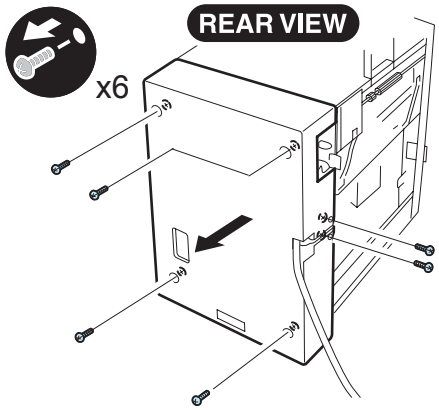
F-9-114

☐
3) Detach the right cover of the paper deck.
- 3 screws



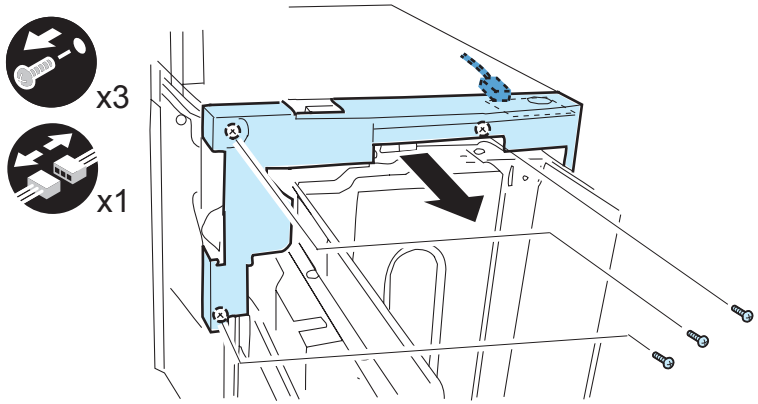
F-9-115

☐
4) Detech the rear cover of the paper deck.
- 6 screws (M3x8: 2pcs, M4x8: 4pcs)



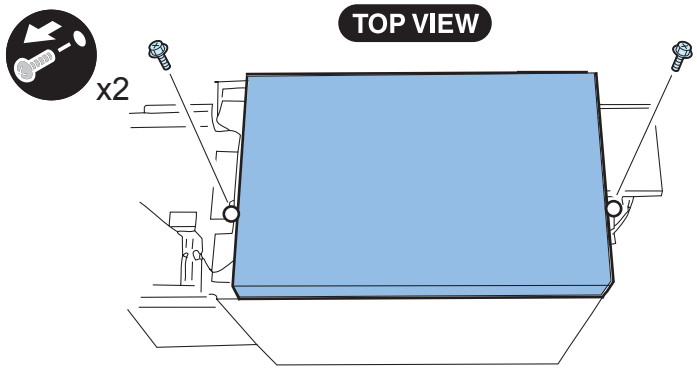
F-9-116

☐
5) Detach the front-upper cover.
- 3 screws
- 1 connector



F-9-117

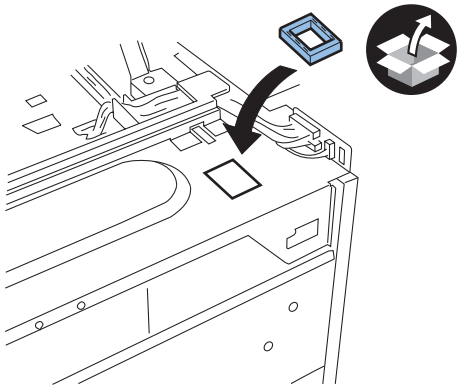
☐
6) Detach the top cover.
- 2 screws



F-9-118

☐

7) Atach the supplied cable protection bushing into the hole on the top panel of the paper deck.



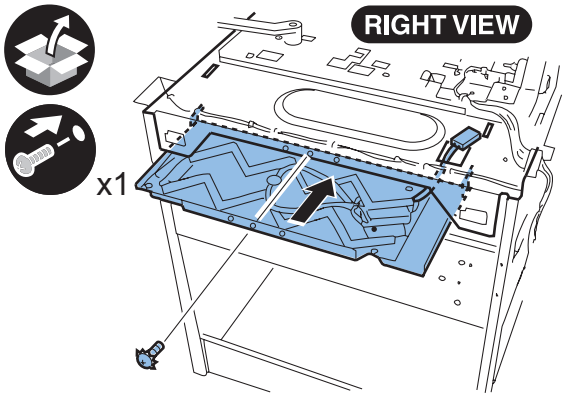
F-9-119

☐

8) Place the heater unit under the top panel of the paper deck, and then take the connector out from the hole on the top plate.

9) Insert 2 hooks of the heater unit into the holes on the top plate of the paper deck, and then secure the heater unit to the main body of the paper deck.

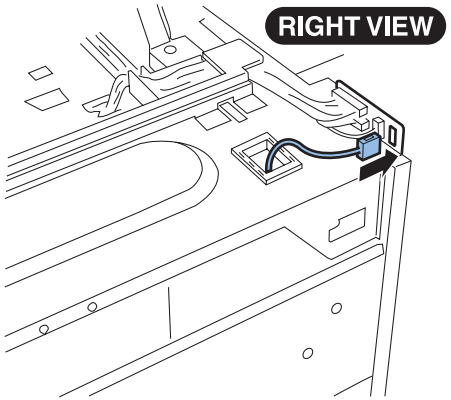
- 1 screw with toothed washer



F-9-120

☐

10) Attach the heater connector to the panel mount.

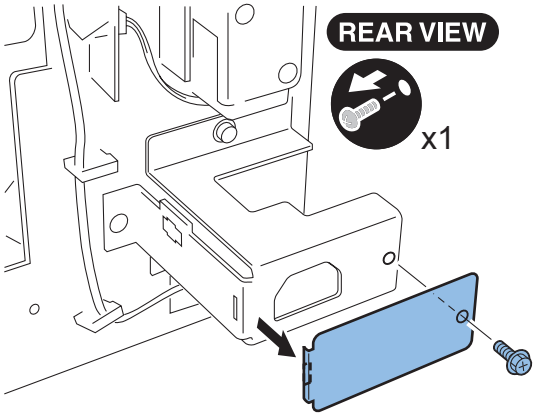


F-9-121

☐

11) Remove the blindfold plate from the power core mount of the papar deck.

- 1 screw



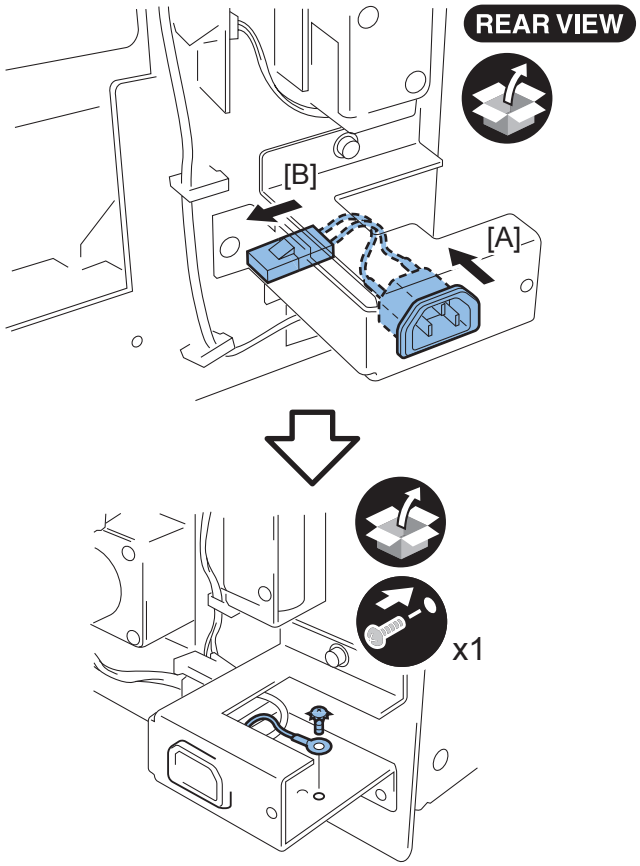
F-9-122

NOTE:
Removed blindfold plate and screw are no longer reused.

☐

12) Install the supplied AC input connector in 2 steps ([A] > [B]).
Secure the ground cable.

- 1 screw with toothed washer

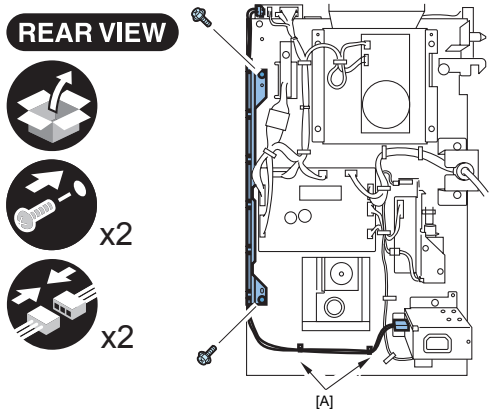


F-9-123

☐

13) Install the relay hareness unit to the rear side panel of the paper deck.

- 2 screws (RS-tight; M4x8)



F-9-124

☐

14) Insert the bind locks of the cable ties in the holes (at [A] shown below) in the rear side panel to secure the relay harness.

15) Connect the connector at both ends of the relay harness unit to the heater connector and AC power connector respectively.

☐

16) Reatach the exterior covers of the paper deck in the following sequence;

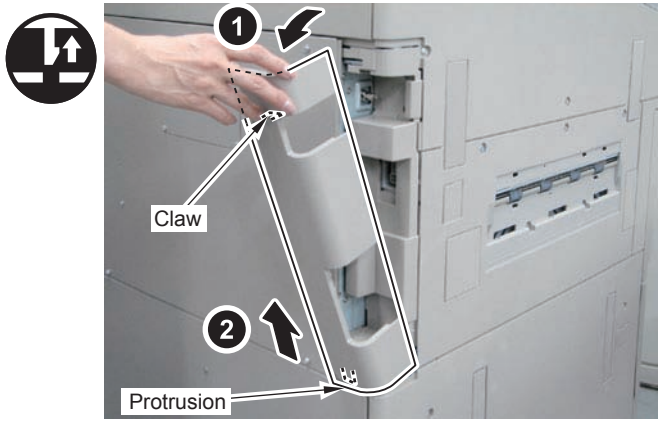
[1] Top cover (take care not to have the cables caught)
- 2 screws (RS-tight; M4x8)

[2] Front-upper cover (insert the connector)
- 3 screws (RS-tight; M4x8)

[3] Rear cover
- 4 screws (RS-tight; M4x8)
- 2 screws (Binding; M3x8)

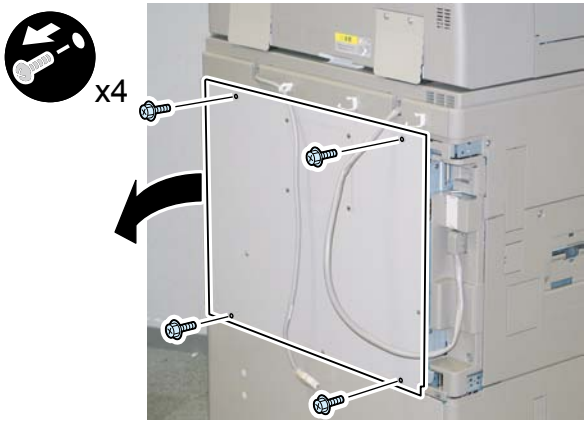
[4] Right cover
- 3 screws (RS-tight; M4x8)

☐
17) Remove the Left Rear Cover.
- 1 claw
- 1 protrusion



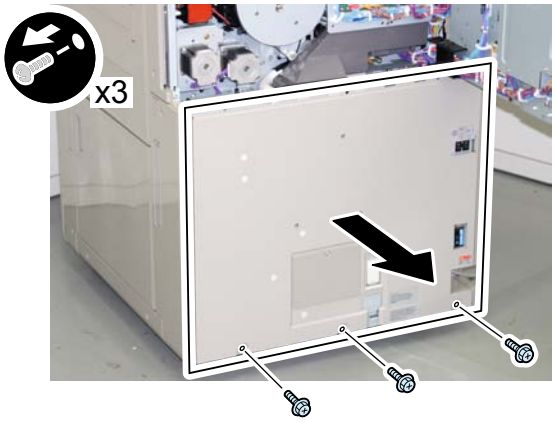
F-9-125

☐
18) Open the Controller Box in the direction of the arrow.
- 4 screws



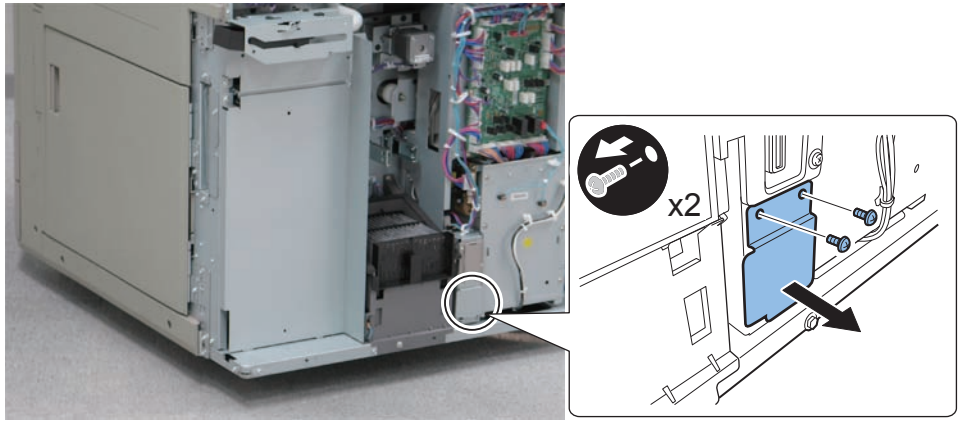
F-9-126

☐
19) Remove the Rear Lower Cover in the direction of the arrow.
- 3 screws



F-9-127

☐
20) Remove the blindfold plate.
- 2 screws



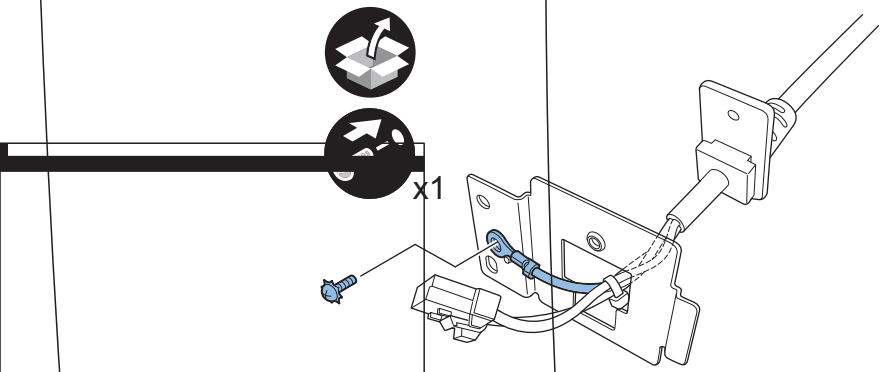
F-9-128

NOTE:
Removed blindfold plate and screw are no longer reused.

☐

21) Insert the AC cord into the hole of the cord mount, and then secure the ground cable to the cord mount.

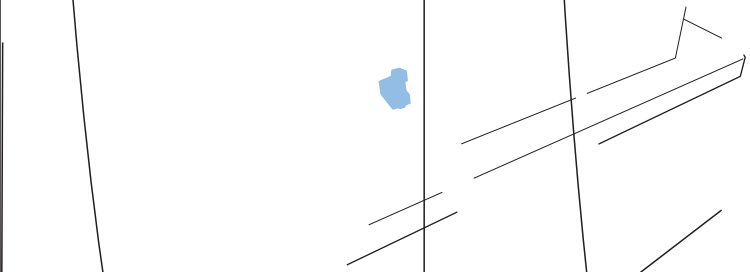
- 1 screw with toothed washer



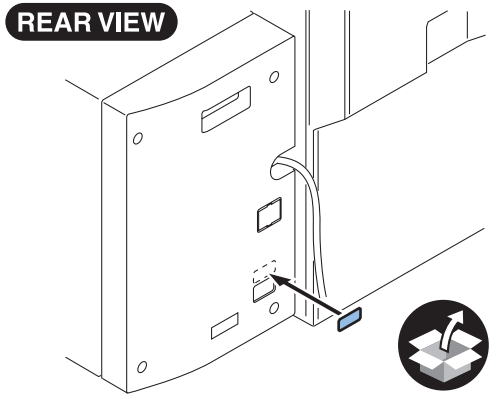
☐

22) Attach the cord mount on the host machine.

- 1 connector
- 2 screws (Binding; M4x4)

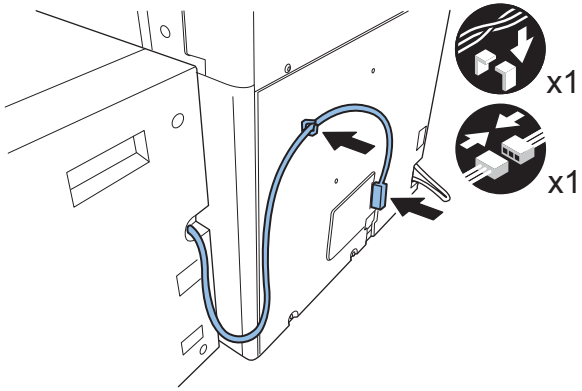


☐
26) Stick the power supply label on the rear panel of the paper deck.



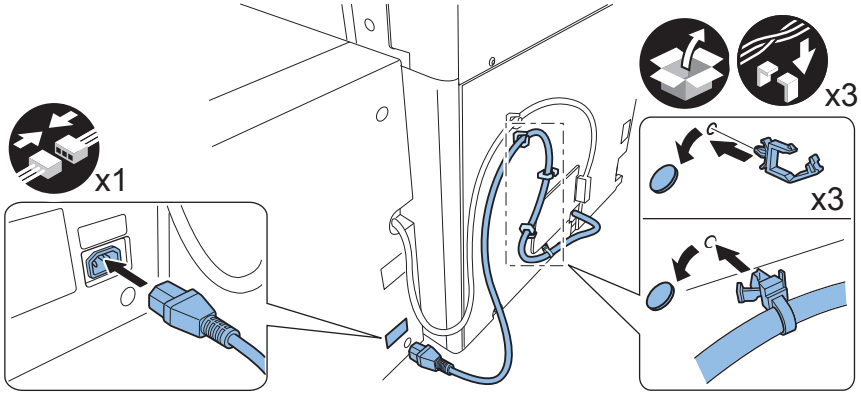
F-9-132

☐
27) Fix the paper deck cable in the wire saddle and joint the connector to the host machine.



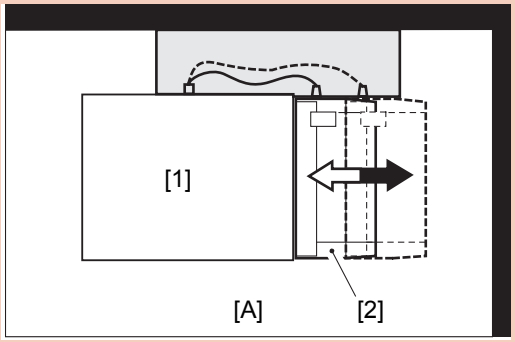
F-9-133

☐
28) Peel off the 4 blindfold seal at the rear side of the host machine, then fit the reuse band of the AC cable and 3 wire saddles as shown.
Wire the AC cable as shown in the figure and joint the AC connector to the power cord mount of the heater.



F-9-134

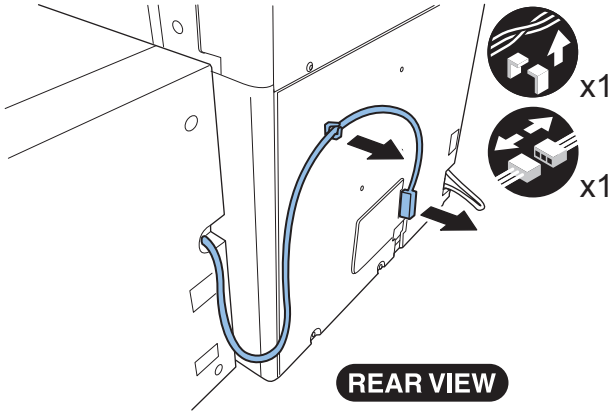
CAUTION:
To ensure smooth connection of the heater power connectors,
explain to the user that any obstacle that can prevent the paper deck from opening should not be placed in the hatched area.
[1]: Host machine [2]: Paper deck [A]: Front



F-9-135

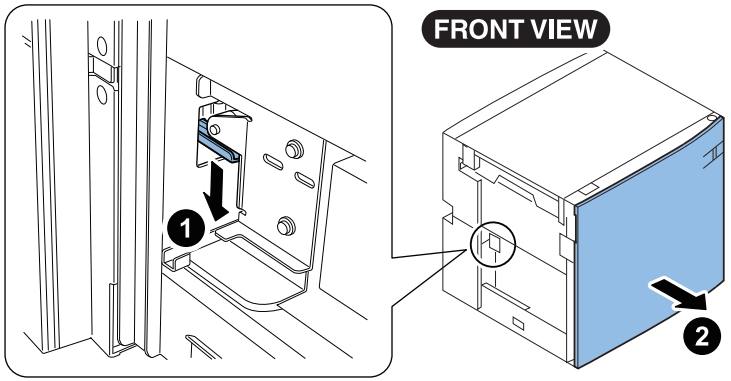
Installation Procedure (Paper Deck Unit-D1)

☐
1) Disconnect the connector of the paper deck from the host machine.



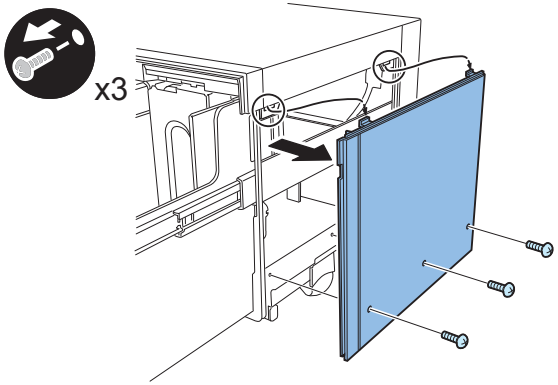
F-9-136

☐
2) Release the paper deck from the host machine, and then press down the latch plate of the paper deck housing with your finger to open the housing.



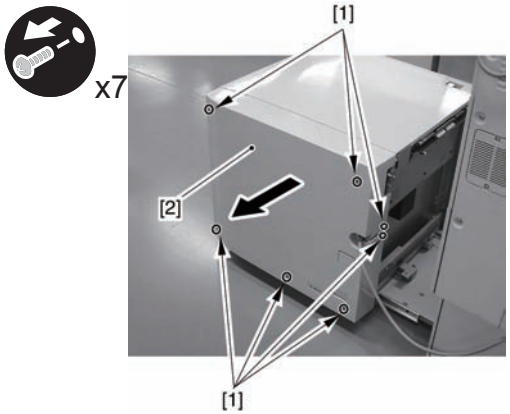
F-9-137

☐
3) Detach the right cover of the paper deck.
- 3 screws



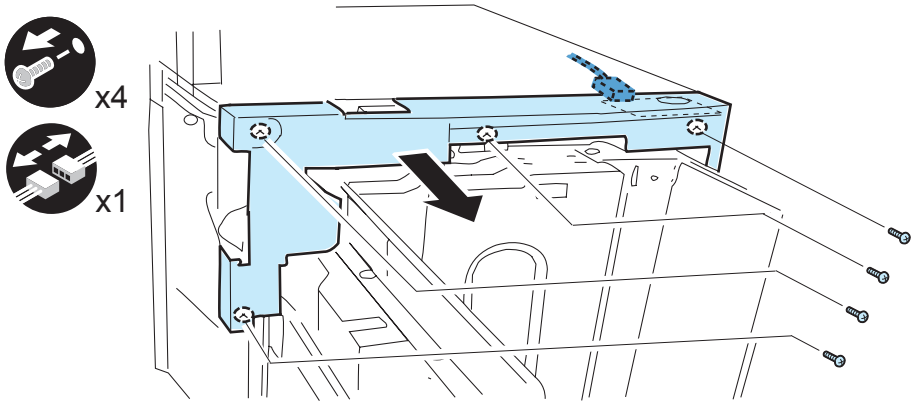
F-9-138

☐
4) Detech the rear cover of the paper deck.
- 7 screws (M3x8: 2pcs, M4x8: 5pcs) [1]



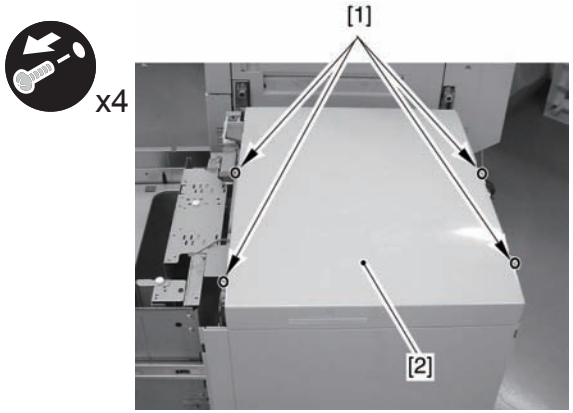
F-9-139

☐
5) Detach the front-upper cover.
- 4 screws
- 1 connector



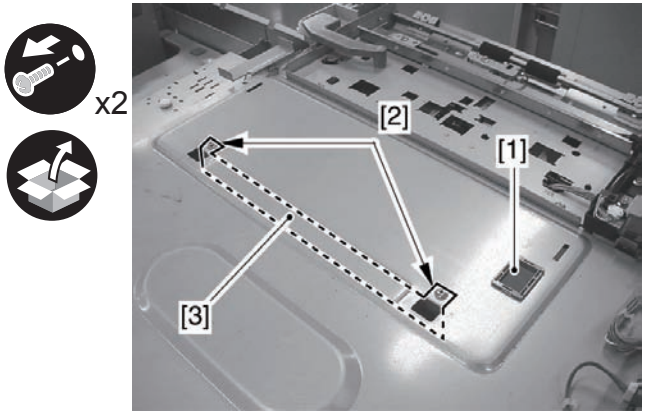
F-9-140

☐
6) Detach the top cover [2].
- 4 screws [1]



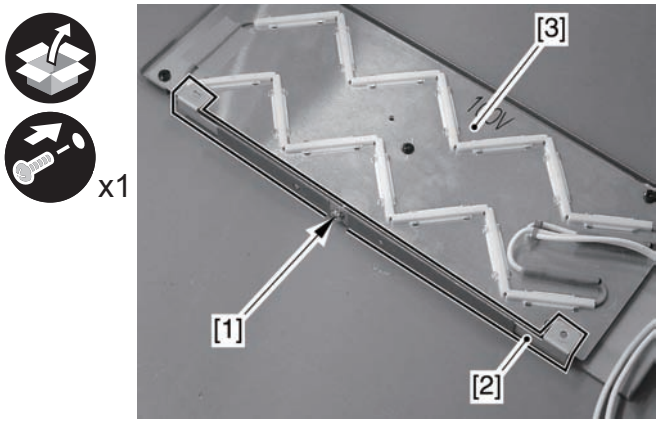
F-9-141

☐
7) Atach the supplied cable protection bushing [1] into the hole on the top panel of the paper deck.
8) Detach the heater support plate [3].
- 2 screws [2]



F-9-142

☐
9) Atach the heater support plate [2] to the heater unit [3].
- 1 screw with toothed washer [1]

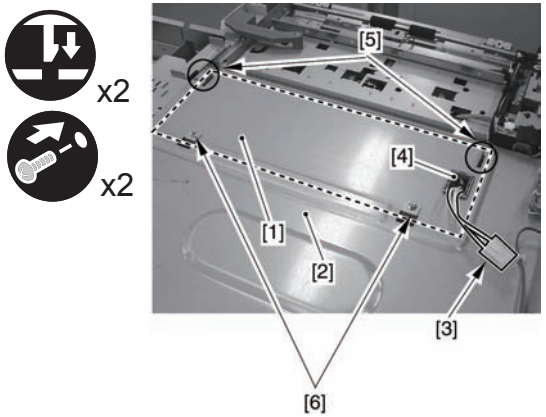


F-9-143

☐

10) Place the heater unit [1] under the top plate [2], and take out the connector [3] from the hole [4] of the top plate.

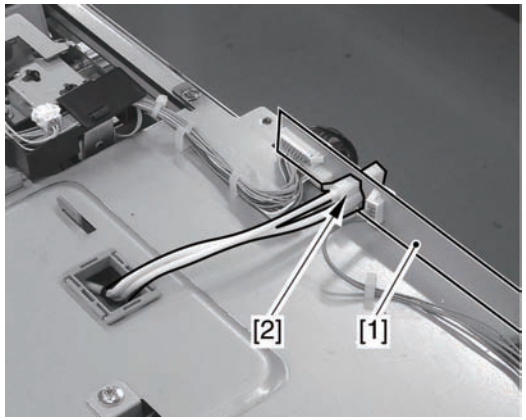
11) Hang the two hooks [5] of the heater unit on the top plate, and fix by the 2 screws [6].



F-9-144

☐

12) Attach the heater connector [2] to the panel mount [1].

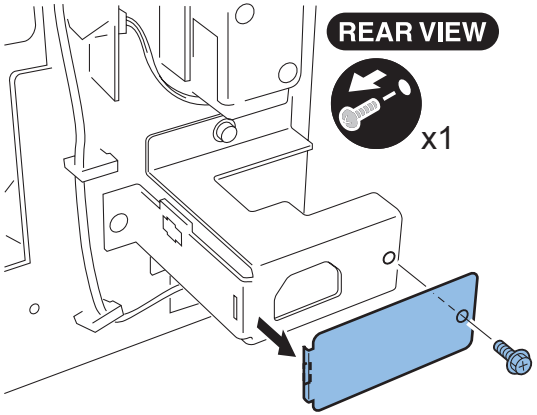


F-9-145

☐

13) Remove the blindfold plate from the power core mount of the papar deck.

- 1 screw



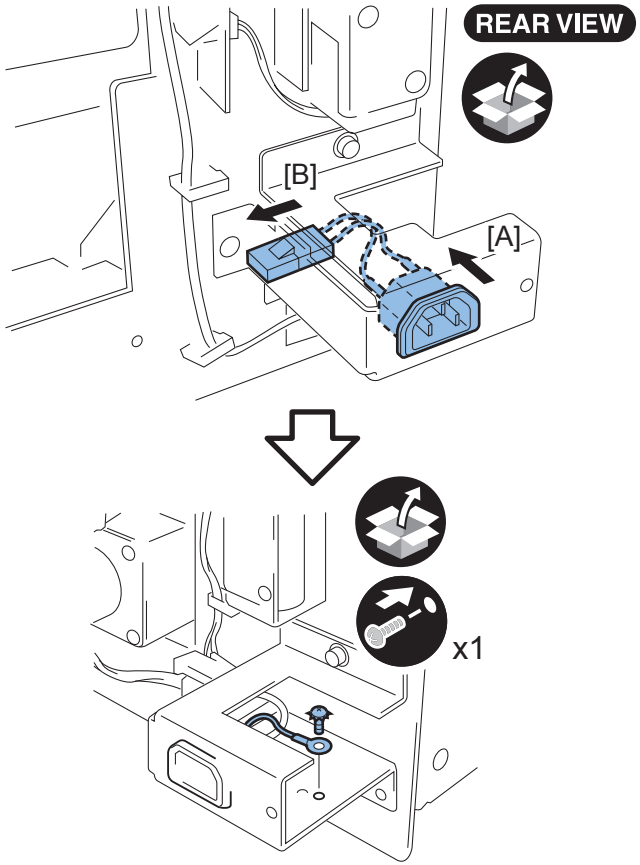
F-9-146

NOTE:
Removed blindfold plate and screw are no longer reused.

☐

14) Install the supplied AC input connector in 2 steps ([A] > [B]).
Secure the ground cable

- 1 screw with toothed washer



F-9-147

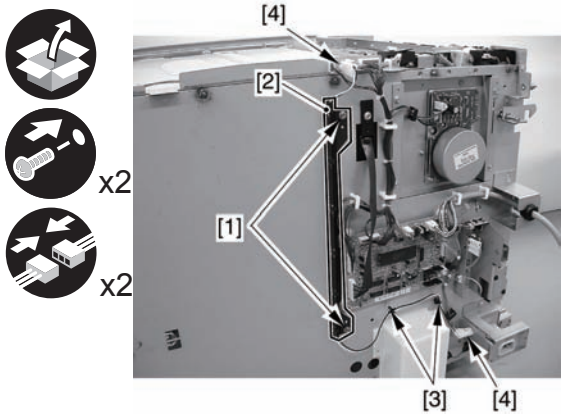
☐

15) Install the relay hareness unit [2] to the rear side panel of the paper deck.

- 2 screws (RS-tight, M4x8) [1]

16) Insert the bind locks of the cable ties in the holes (at [3] shown below) in the rear side panel to secure the relay harness.

17) Connect the connector at both ends of the relay harness unit to the heater connector [4] and AC power connector [4] respectively.



F-9-148

☐

18) Reatach the exterior covers of the paper deck in the following sequence;

[1] Top cover (take care not to have the cables caught)

- 4 screws (RS-tight; M4x8)

[2] Front-upper cover (insert the connector)

- 4 screws (RS-tight; M4x8)

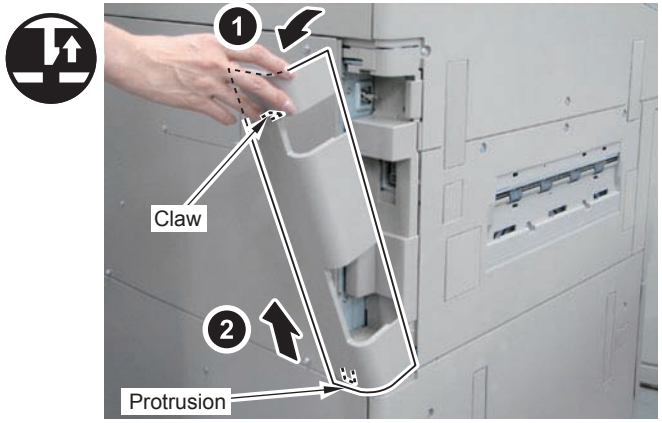
[3] Rear cover

- 5 screws (RS-tight; M4x8)
- 2 screws (Binding; M3x8)

[4] Right cover

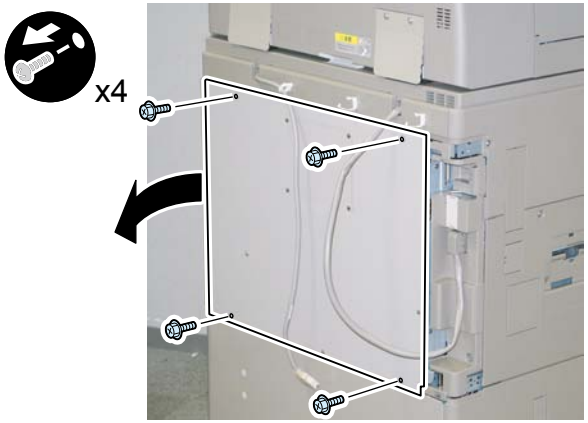
- 3 screws (RS-tight; M4x8)

☐
19) Remove the Left Rear Cover.
- 1 claw
- 1 protrusion



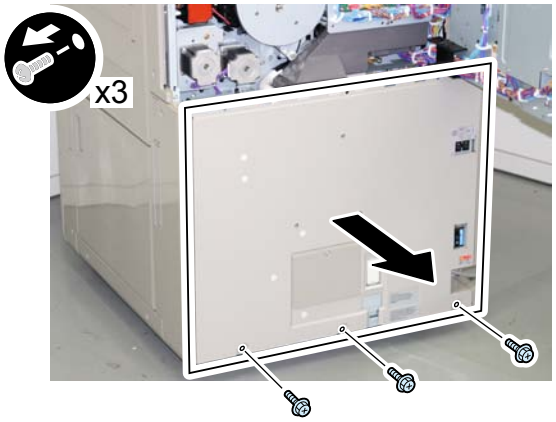
F-9-149

☐
20) Open the Controller Box in the direction of the arrow.
- 4 screws



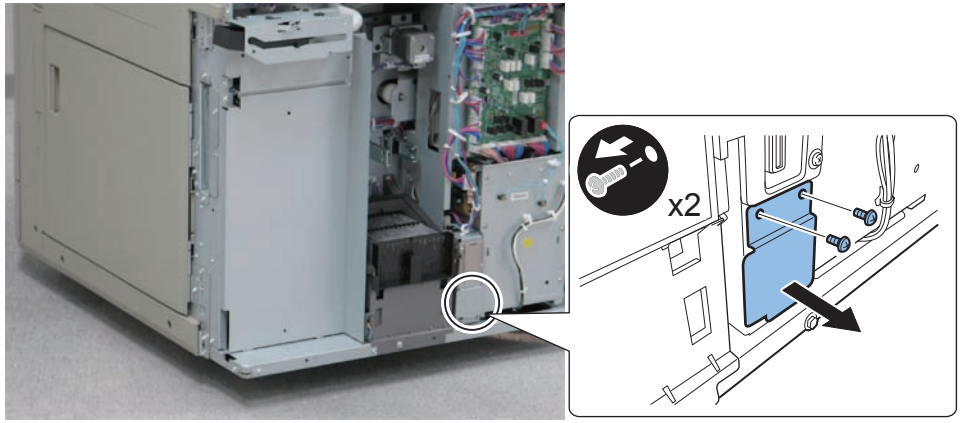
F-9-150

☐
21) Remove the Rear Lower Cover in the direction of the arrow.
- 3 screws



F-9-151

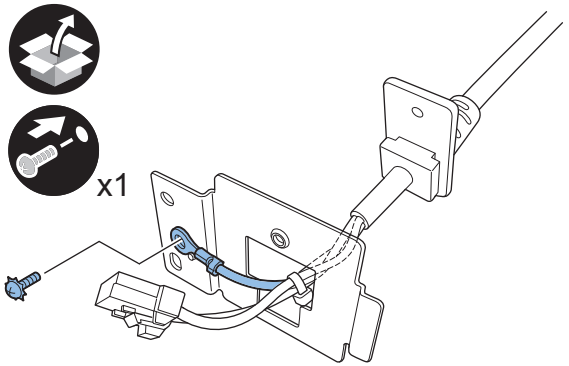
☐
22) Remove the blindfold plate.
- 2 screws



F-9-152

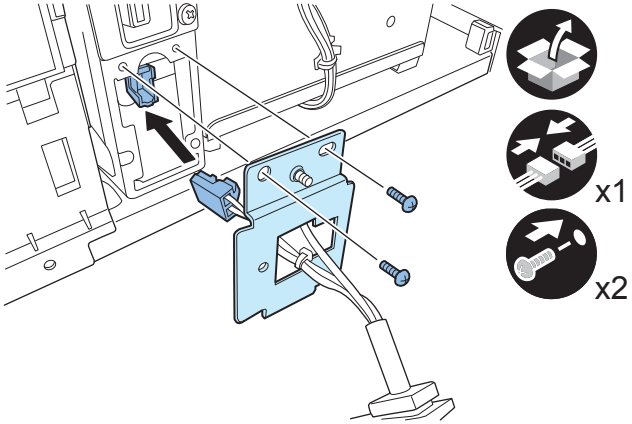
NOTE:
Removed blindfold plate and screw are no longer reused.

☐
23) Insert the AC cord into the hole of the cord mount, and then secure the ground cable to the cord mount.
- 1 screw with toothed washer



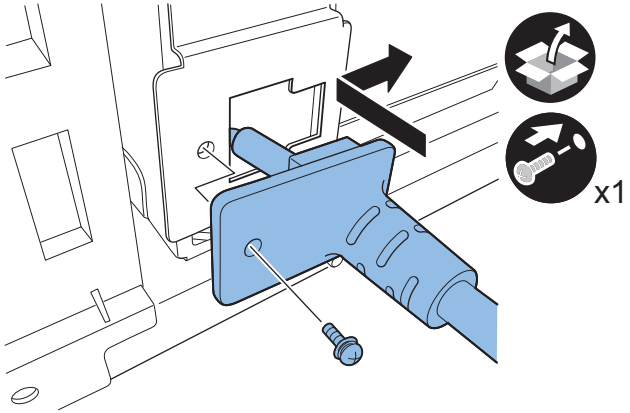
F-9-153

☐
24) Attach the cord mount on the host machine.
- 1 connector
- 2 screws (Binding; M4x4)



F-9-154

☐
25) Secure the AC cord to the cord mount.
- 1 screw with flat spring



F-9-155

☐
26) Reatach the exterior covers of the host machine in the following sequence;
[1] Rear Lower Cover
- 3 screws (RS-tight; M4x10)

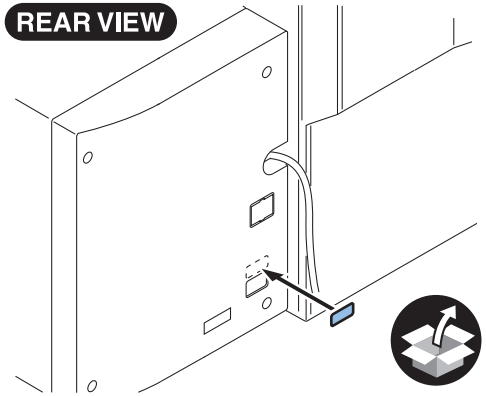
[2] Close the Controller Box.
- 4 screws (RS-tight; M4x10)

[3] Connect the Reader Communication Cable.
- 1 claw
- 1 protrusion

[4] Fix the Harness
- 2 wire saddles

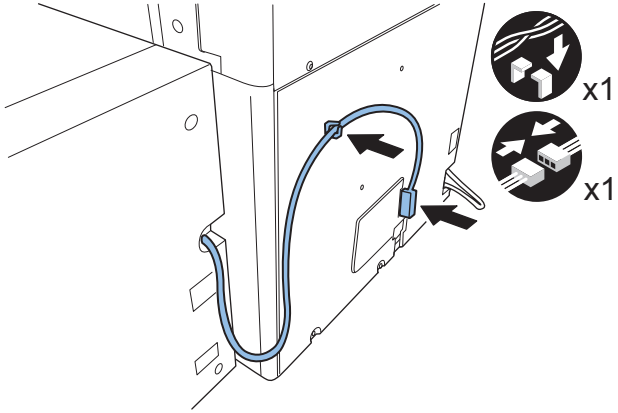
☐
27) Close the deck compartment.
Manually slide the paper deck to the left place in aside of the host machine.

☐
28) Stick the power supply label on the rear panel of the paper deck.



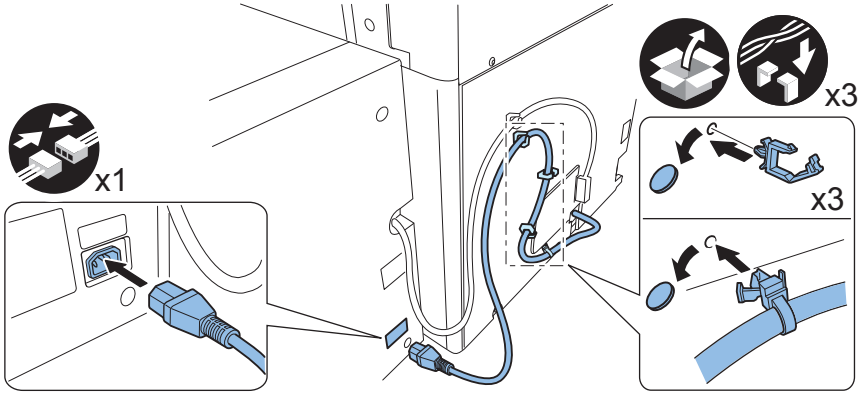
F-9-156

☐
29) Fix the paper deck cable in the wire saddle and joint the connector to the host machine.



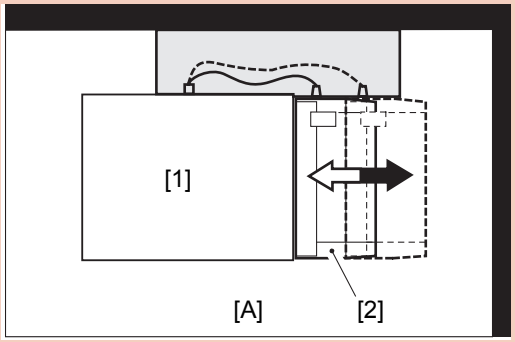
F-9-157

☐
30) Peel off the 4 blindfold seals at the rear side of the host machine, then fit the reuse band of the AC cable and 3 wire saddles as shown.
Wire the AC cable as shown in the figure and joint the AC connector to the power cord mount of the heater.



F-9-158

CAUTION:
To ensure smooth connection of the heater power connectors,
explain to the user that any obstacle that can prevent the paper deck from opening should not be placed in the hatched area.
[1]: Host machine [2]: Paper deck [A]: Front



F-9-159

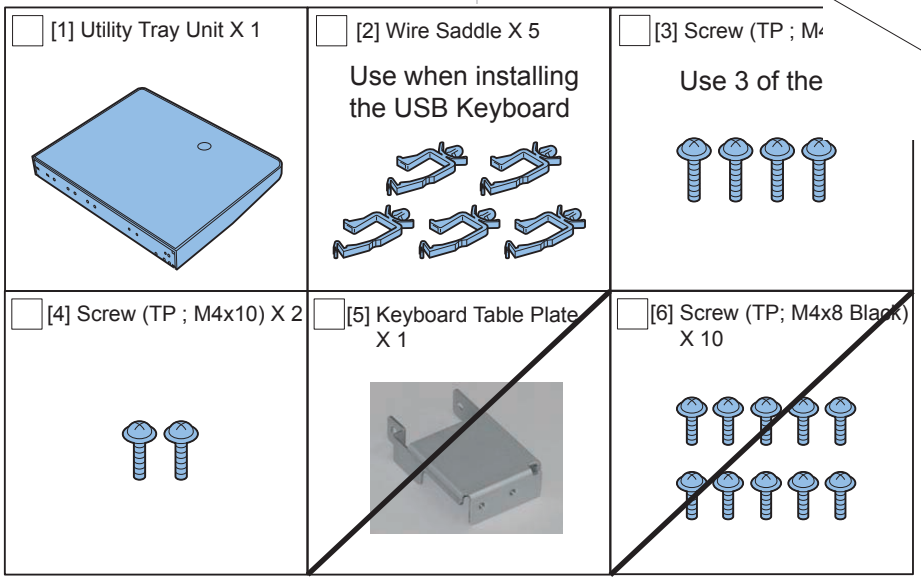
Utility Tray-A2

Points to Note at Installation

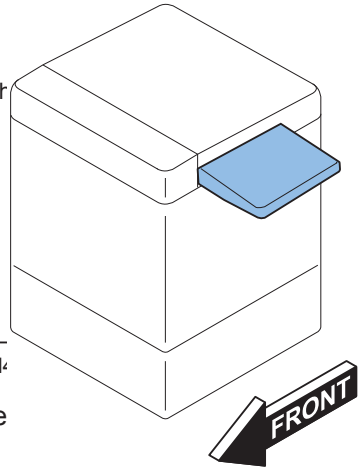
- Although model with the Upright Control Panel is used for illustration in this procedure, the same procedure is applied to model with
- Refer to "Combination of options" when installing this equipment before operation.

Checking the Contents

The parts with a diagonal line in the contents list will not be used.



F-9-160



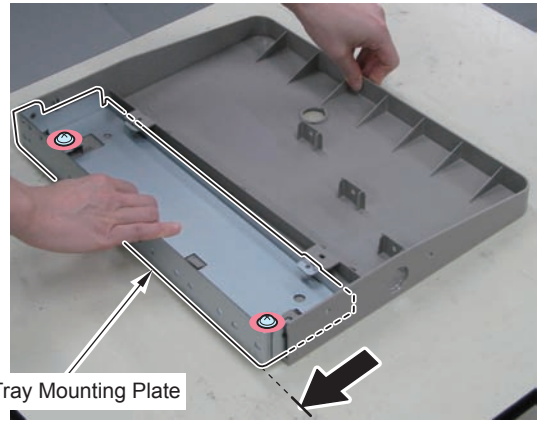
F-9-161

Checking the Contents

Installation Procedure

☐
1) Remove packing tapes.

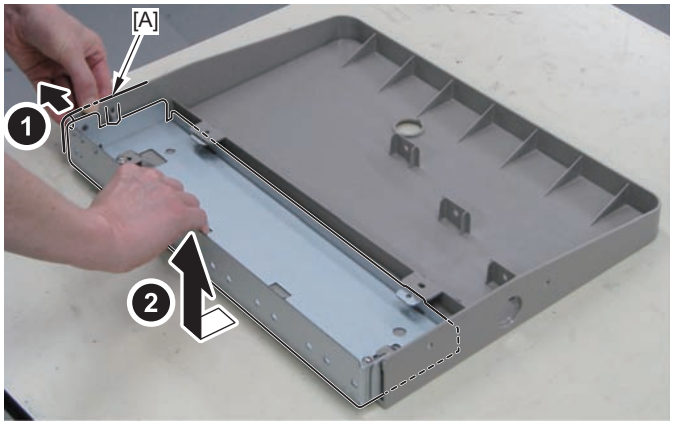
☐
2) Loosen the 2 screws, and move the Utility Tray Mounting Plate in the direction of the arrow until it stops.



F-9-162

☐
3) While pulling the [A] part of the Utility Tray, remove the Utility Tray Mounting Plate.

CAUTION:
To avoid damage, do not pull the [A] part of the Utility Tray too much.

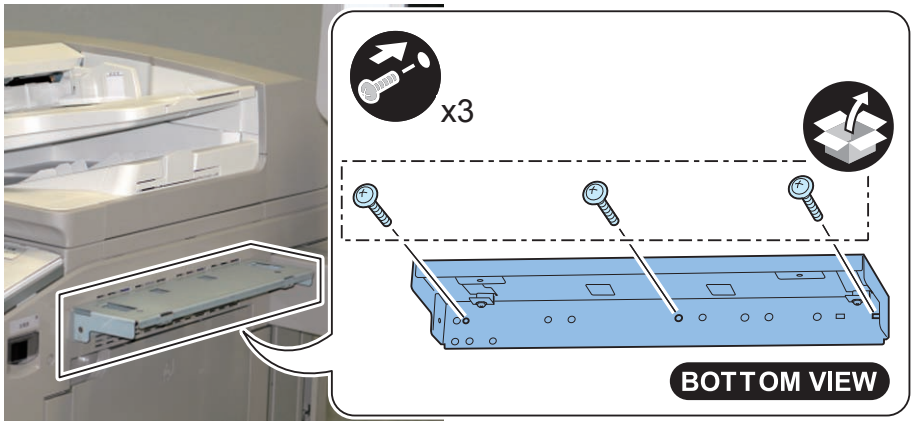


F-9-163

☐
4) Remove the 3 Rubber Caps from the Right Upper Cover. (The removed Rubber Caps will not be used.)

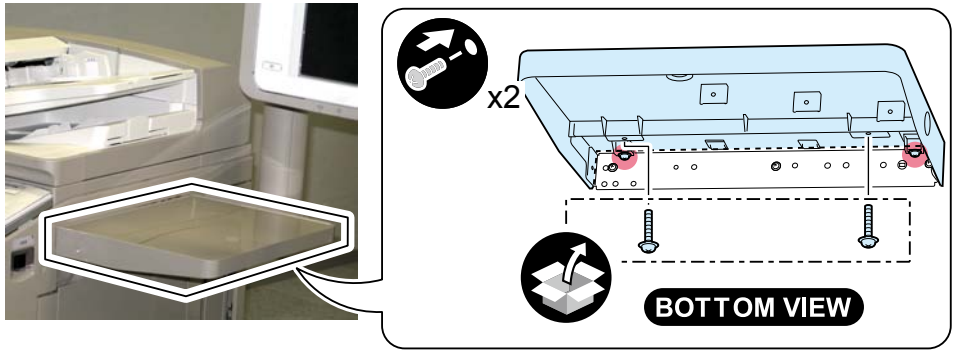
F-9-164

□
5) Install the Mounting Plate.
- 3 Screws (TP; M4x14)



F-9-165

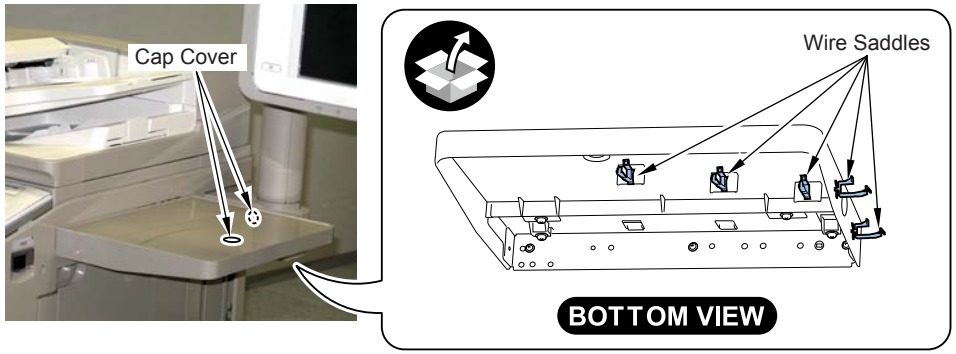
□
6) Install the Utility Tray.
- 2 Screws (TP; M4x10)
- 2 Screws (TP; The screws loosened in step 2.)



F-9-166

When Installing the USB Keyboard

□
1) Remove the 2 Cap Covers, and install the 5 Wire Saddles.



F-9-167

Card Reader-C1/Copy Card Reader-F1

Points to Note at Installation

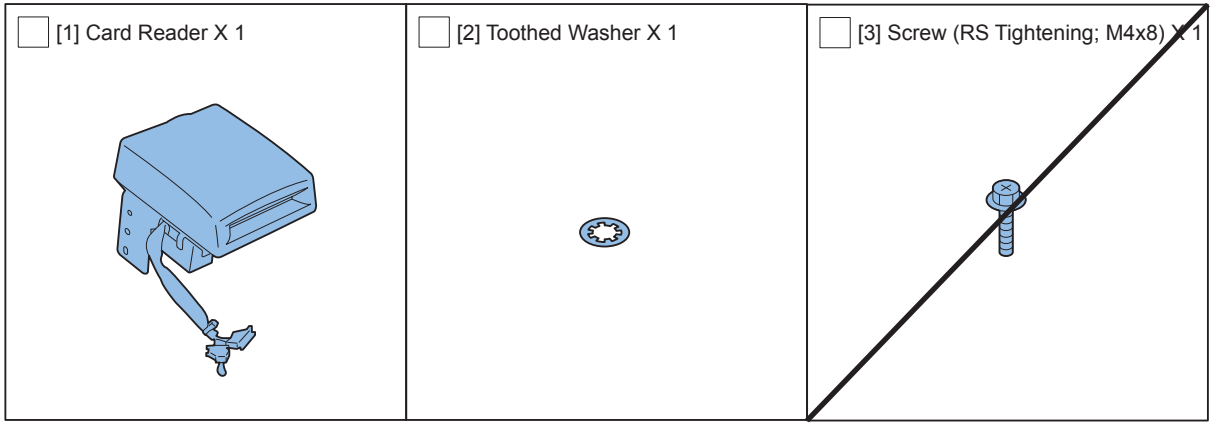
CAUTION:

To install this equipment, the Copy Card Reader Attachment-A2 is required.

Checking the Contents

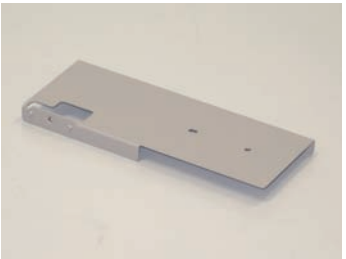
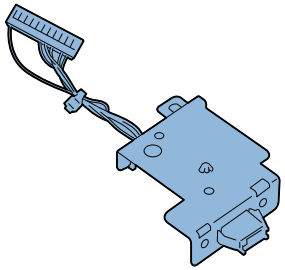
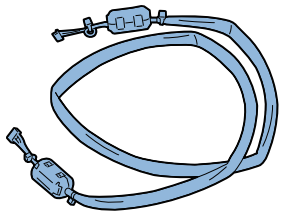
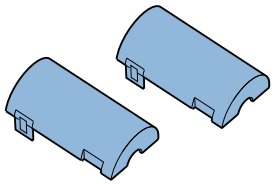
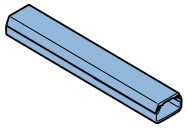
Contents of Card Reader-C1

The parts with a diagonal line in the contents list will not be used.



F-9-168

Contents of Copy Card Reader Attachment-A2

☐ [1] Card Reader Mounting Plate X 1 	☐ [2] Card Reader X 1 	☐ [3] Connector Cover1 X 1	☐ [4] Connector Cover2 X 1	☐ [5] Card Reader External Relay Harness X 1 
☐ [6] Connector Case X 2 	☐ [7] Cord Guide X 1 	☐ [8] PCB Spacer X 1	☐ [9] Screw (TP; M4x12) X 1	☐ [10] Screw (RS tight; M4x8) X 1
☐ [11] Screw (Bindeing; M4x20) X 1	☐ [12] Screw (TP; M3x6) X 1			

F-9-169

Copy Card Reader-F1

Points to Note at Installation

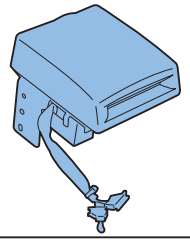
CAUTION:

To install this equipment, the Copy Card Reader Attachment-A2 is required.

NOTE:
Illustrations and photo of these steps may differ from the actual shape of parts but the installation steps remain similar.

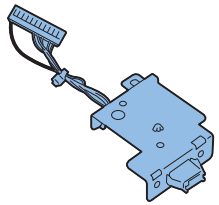
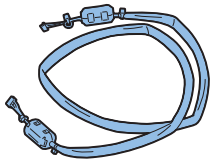
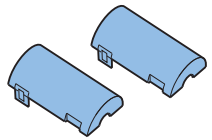
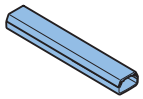
Checking the Contents

Copy Card Reader-F1

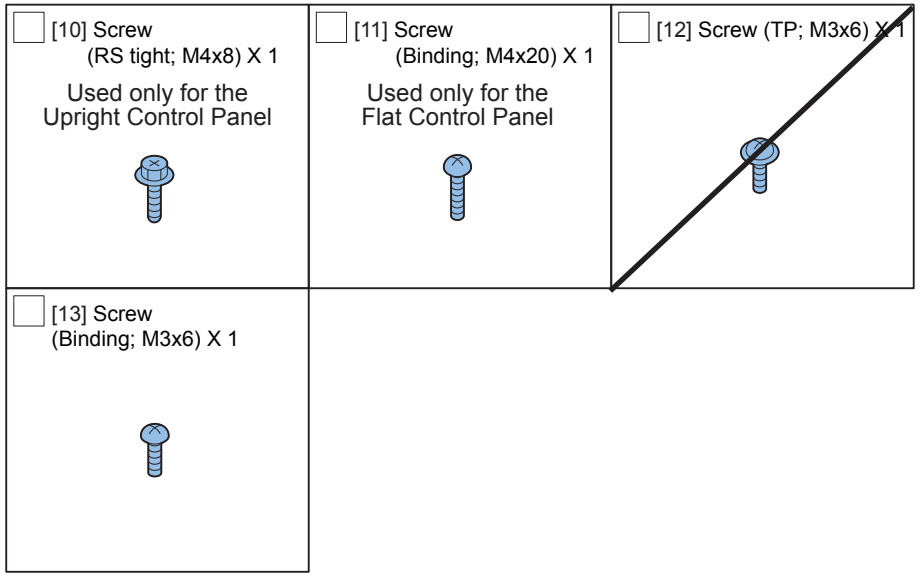
☐ [1] Card Reader X 1 	☐ [2] Toothed Washer X 1	☐ [3] Screw (RS Tightening; M4x10) X 1

F-9-170

Copy Card Reader Attachment-A2

☐ [1] Card Reader Mounting Plate X 1 Used only for the Upright Control Panel	☐ [2] Card Reader X 1 	☐ [3] Connector Cover1 X 1
☐ [4] Connector Cover2 X 1	☐ [5] Card Reader External Relay Harness X 1 	☐ [6] Connector Case X 2 
☐ [7] Cord Guide X 1 	☐ [8] PCB Spacer X 1	☐ [9] Screw (TP; M4x12) X 1 Used only for the Upright Control Panel

F-9-171



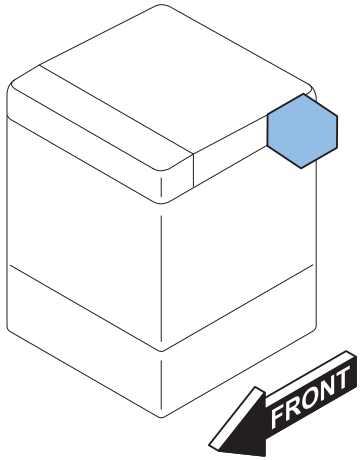
F-9-172

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-173

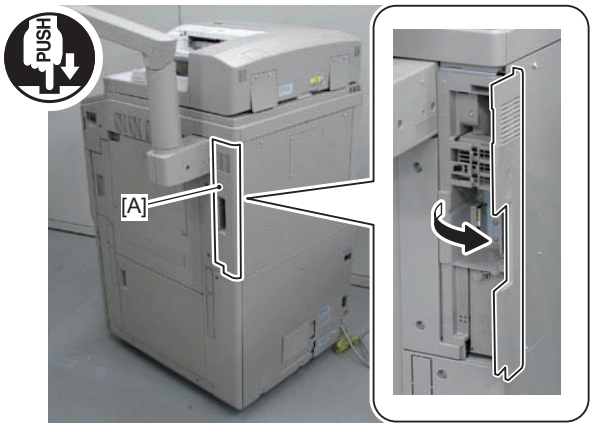
Installation Procedure

CAUTION:

- Refer to "Combination of options" when installing this equipment before operation.
- After installing the Card Reader, enter the card number to be used in the following service mode of this equipment: COPIER > FUNCTION > INSTALL > CARD. Otherwise, the card will not be recognized even inserting it.

□

1) Press [A] part, and open the Right Rear Cover 1.

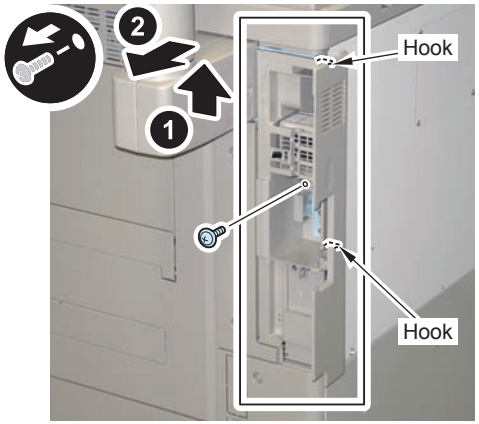


F-9-174

□

2) Remove the Side Cover.

- 1 Screw (The removed screw will be used in step 13.)
- 2 Hooks



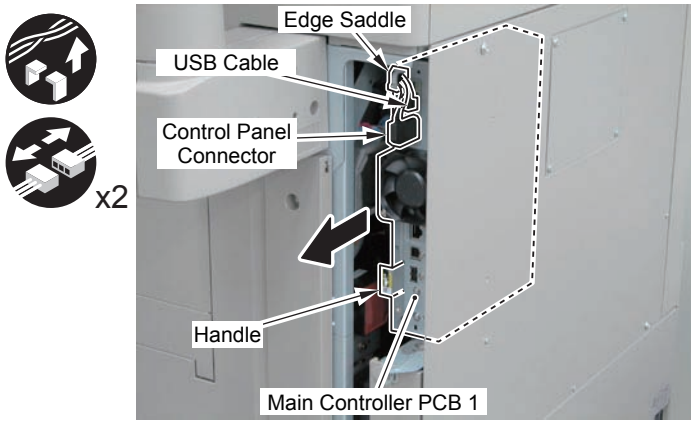
F-9-175

□

3) Disconnect the USB Cable and the Control Panel Cable.

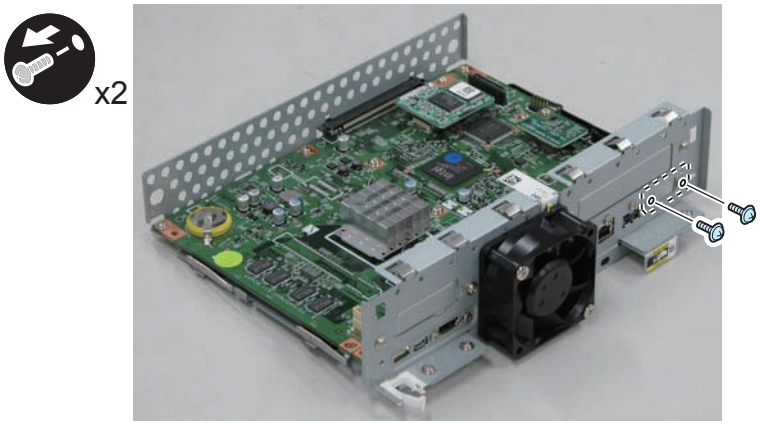
- 1 Edge Saddle

4) Route the removed cable to the open space and remove the Main Controller PCB 1.



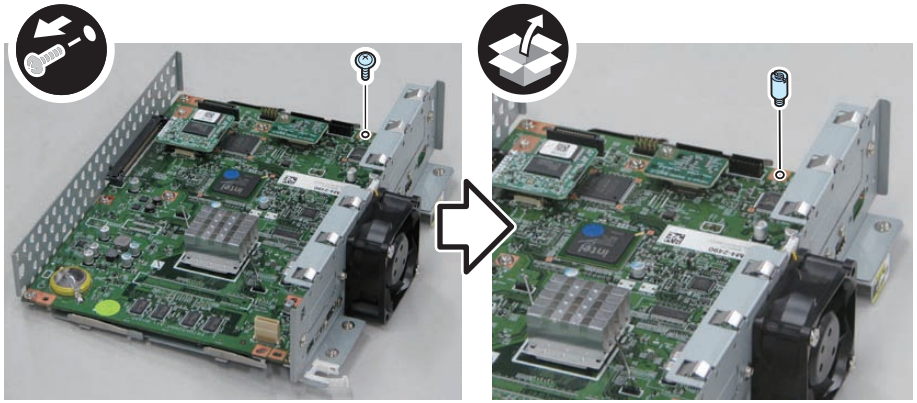
F-9-176

☐
5) Remove the Face Cover. (The removed Face Cover will not be used.)
- 2 Screws (The removed screws will be used in step 7.)



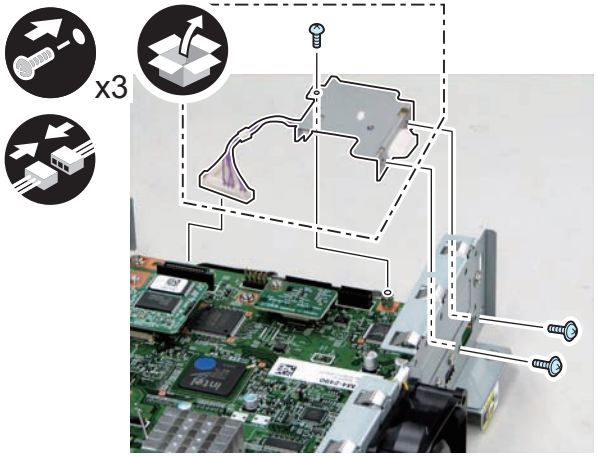
F-9-177

☐
6) Remove the screw, and install the PCB Spacer. (The removed screws will not be used.)



F-9-178

☐
7) Install the Card Reader Reply Unit.
- 2 Screws (Use the screws removed in step 5.)
- 1 Screw (Binding; M3x6)
- 1 Connector

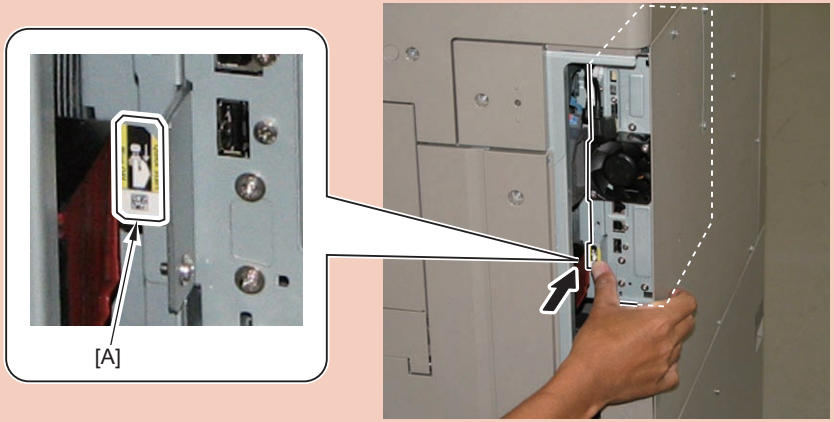


F-9-179

☐
8) Insert the Main Controller PCB 1 until it stops.

CAUTION: Points to Note when Inserting the Main Controller PCB 1

- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Be sure to push the handle [A] in horizontally. If pushing any part other than the handle, the Main Controller PCB 1 may not be inserted horizontally. In such case, note that connector connection error (or damage of connector) or deformation of plate may occur.

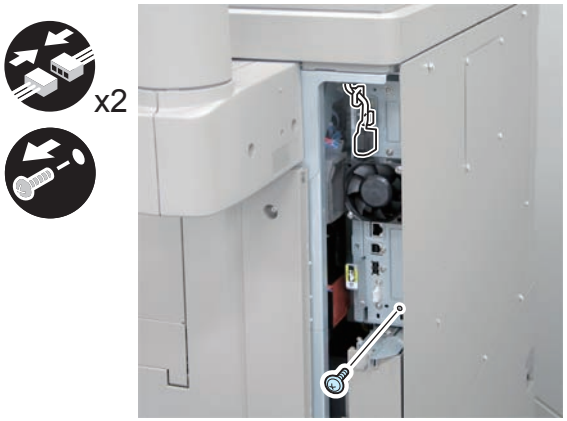


F-9-180

9) Connect the USB Cable and the Control Panel Cable.

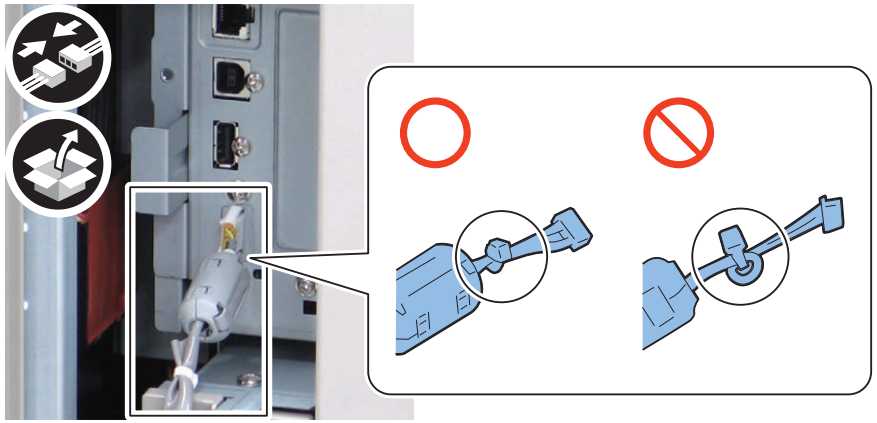
- 1 Edge Saddle

☐
10) Remove the screw. (The removed screw will be used in step 12).



F-9-181

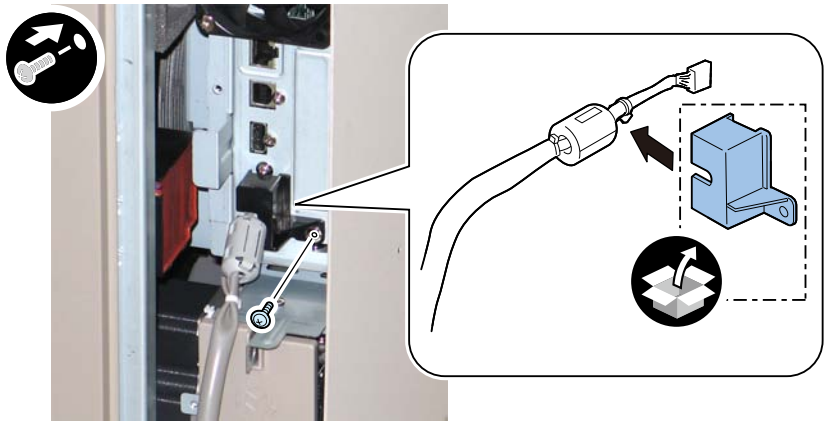
☐
11) Connect the Card Reader External Relay Harness.



F-9-182

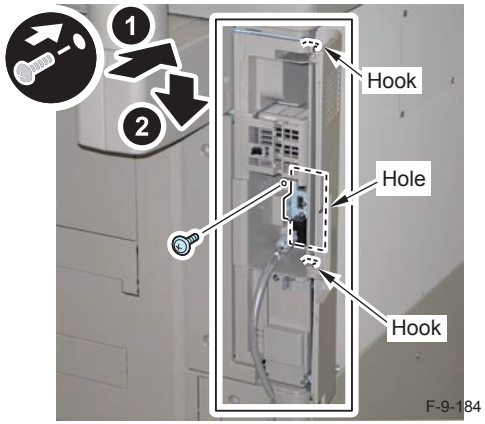
☐
12) Install the Connector Cover to the Card Reader External Relay Harness.
- 1 Screw (Use the screws removed in step 10.)

CAUTION:
When installing the Connector Cover, be sure to place the tie-wrap on the Card Reader External Relay Harness on the inside of the Connector Cover.



F-9-183

☐
13) Install the Side Cover by putting the Card Reader External Relay Harness through a hole of the cover.
- 2 Hooks
- 1 Screw (Use the screw removed in step 2.)

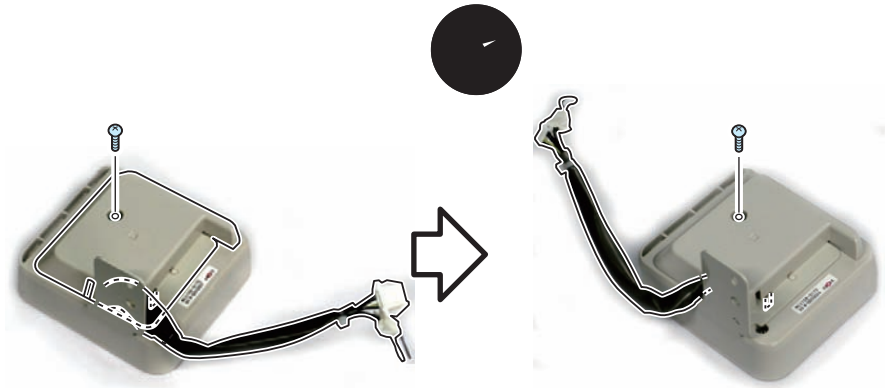


F-9-184

☐
14) Close the Right Rear Cover 1.

☐
15) Remove the Lower Cover of the Card Reader Unit, and change the position of the cable.
- 1 Screw
- 1 Claw

16) Install the Lower Cover of the Card Reader Unit.
- 1 Claw

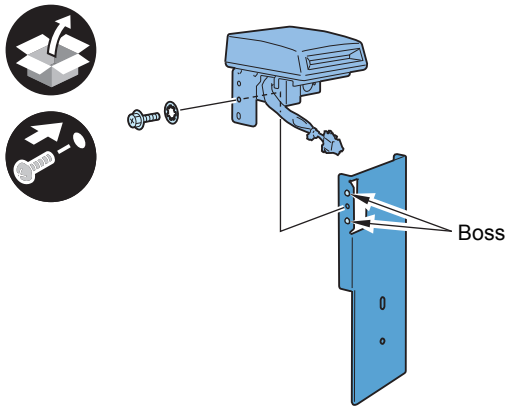


□
18) Install the Card Reader.

<In the Case of Upright Control Panel>

□
18-1) Install the Card Reader to the Card Reader Mounting Plate.

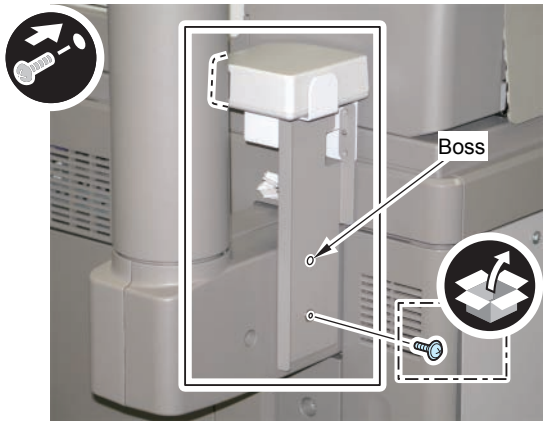
- 2 Bosses
- 1 Toothed Washer
- 1 Screw (RS Tightening; M4x8)



F-9-187

□
18-2) Install the Card Reader Unit assembled in step 18-1).

- 1 Boss
- 1 Screw (TP; M4x12)

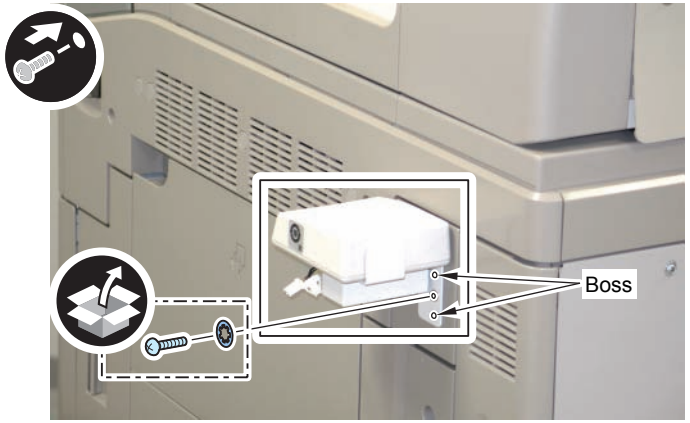


F-9-188

<In the Case of Flat Control Panel>

□
18-1) Install the Card Reader.

- 2 Bosses
- 1 Toothed Washer
- 1 Screw (Binding; M4x20)



F-9-189

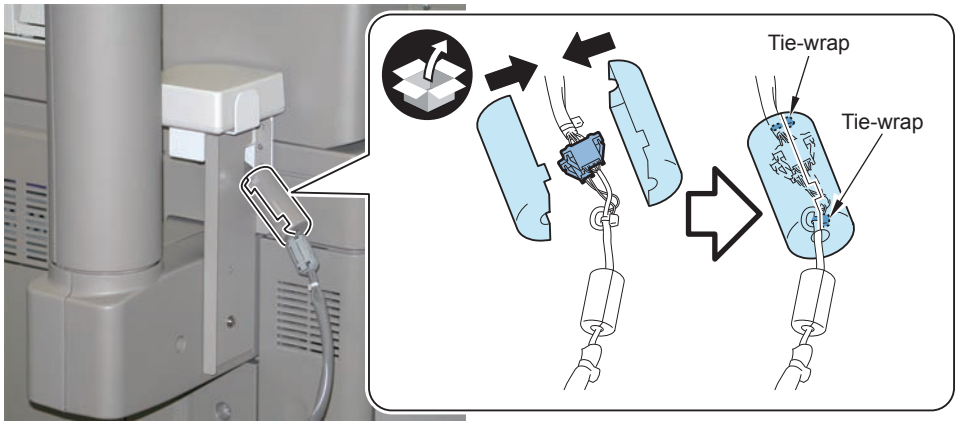
□
19) Put the connector of the Card Reader Unit through the hole on the Card Reader Mounting Plate.(Upright Control Panel only)

20) Connect the connectors of the Card Reader Unit and the Card Reader External Relay Harness.

F-9-190

□
21) Install the Connector Case.

CAUTION:
When installing the Connector Cases, be sure to place the tie-wrap on the Card Reader External Relay Harness on the inside of the Connector Cases.

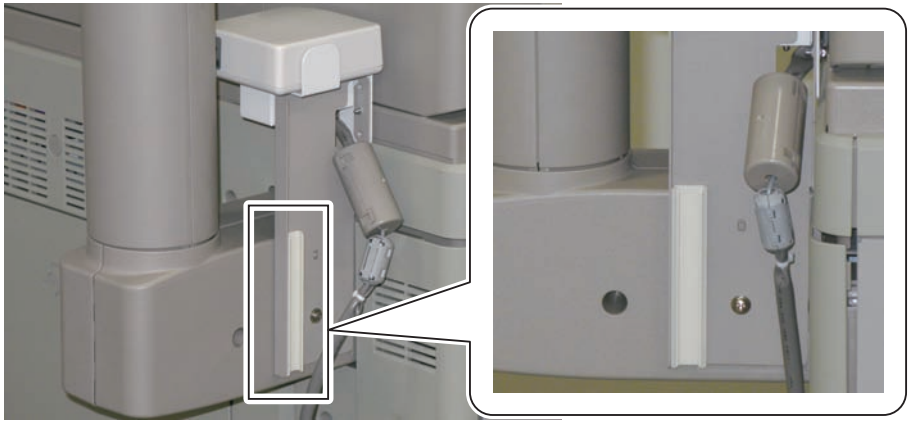


F-9-191

□
22) Secure the Card Reader External Relay Harness to the Cord Guide.

<In the Case of Upright Control Panel>

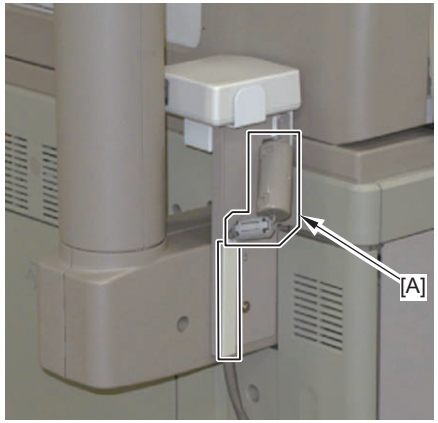
□
22-1) Remove the cover of Cord Guide, and affix it to the area indicated in the figure.



F-9-192

□
22-2) Put the Card Reader External Relay Harness through the Cord Guide, and install the cover of the guide.

NOTE:
When installing it, be sure [A] part does not interfere when opening/closing the Right Rear Cover 1.

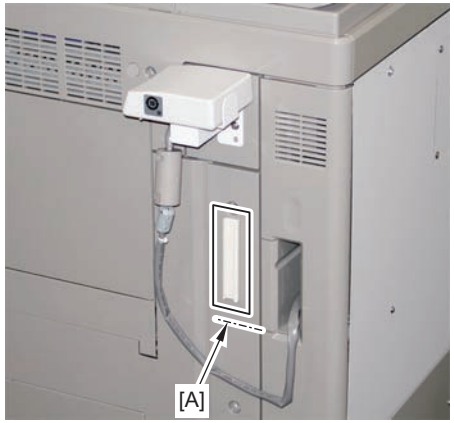


F-9-193

<In the Case of Flat Control Panel>

□ 22-1) Remove the cover of Cord Guide, and affix it to the area indicated in the figure.

NOTE:
Be sure to affix the Cord Guide above the [A] parts for not interfering to open/close the Right Rear Cover 1.



F-9-194

□ 22-2) Put the Card Reader External Relay Harness through the Cord Guide, and install the cover of the guide.

F-9-195

□ 22-3) Push the Card Reader External Relay Harness in the Right Rear Cover 1.

NOTE:
When pushing the Card Reader External Relay Harness in the Right Rear Cover 1, be sure the guide does not interfere when opening/closing the cover.

F-9-196

□
23) Connect the power plug of the host machine to the power outlet.
24) Turn the main power switch ON.

Setting After Installation

□

1) Select "0" for the following service mode.

Service Mode (Level 1) > COPIER > OPTION > ACC > CR-TYPE

NOTE:
The number of card (number of department) can be changed if a request arises from a user. Make this setting before the step 3).
- Specify the number of cards to be used in service mode (Level 2) > COPIER > OPTION > FNC-SW > CARD-RNG.
- To enable the number of sheets, turn OFF/ON the main power switch.
- After that, go through the procedure from step 2).

2) Enter the card number to be used (1 to 2001).
- Service Mode (Level 1) > COPIER > FUNCTION > INSTALL > CARD

NOTE:
1000 cards from the inputted number can be used.

3) To enable the number of sheets, turn OFF/ON the main power switch.

4) Insert the registered card, and check that it is in standby.

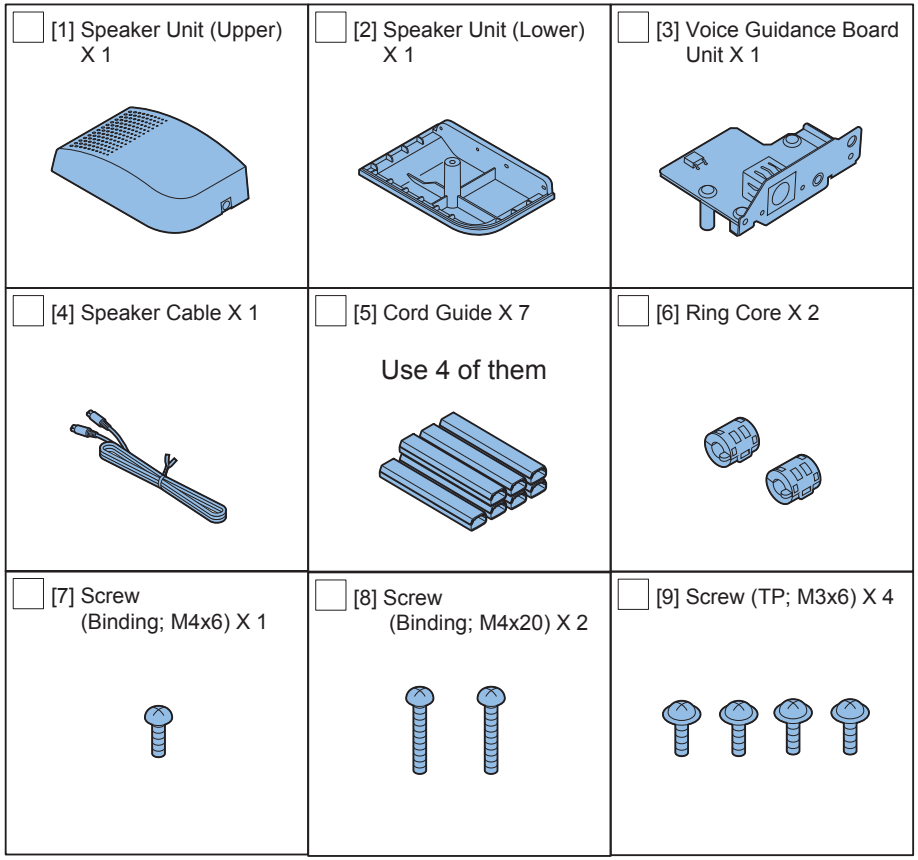
NOTE:
After setting, if a request arises from a user and changing the number of card (number of department), make a following setting. In that case, the current counter information by department will be reset.
- Execute in service mode (Level 1) > COPIER > FUNCTION > CLEAR > CARD.
- Specify the number of cards to be used in service mode (Level 2) > COPIER > OPTION > FNC-SW > CARD-RNG.
- To enable the number of sheets, turn OFF/ON the main power switch.
- After that, go through the procedure from step 2).

Voice Guidance Kit-F2

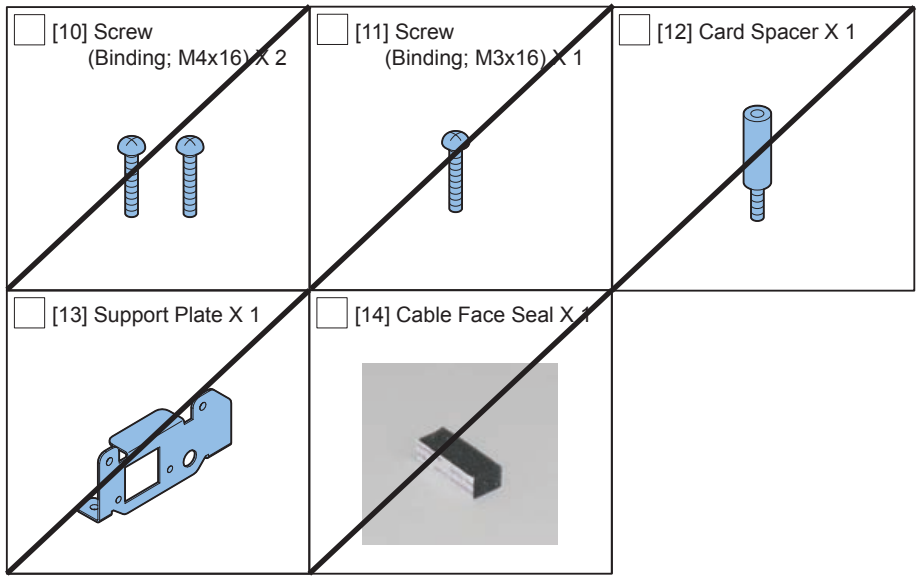
Points to Note at Installation

- To use the equipment, the Reader Unit is required.
- Although model with the Upright Control Panel is used for illustration in this procedure, the same procedure is applied to model with the Flat Control Panel.
- Refer to "Combination of options" when installing this equipment before operation.

Checking the Contents



F-9-197



F-9-198

<CD/Guides>

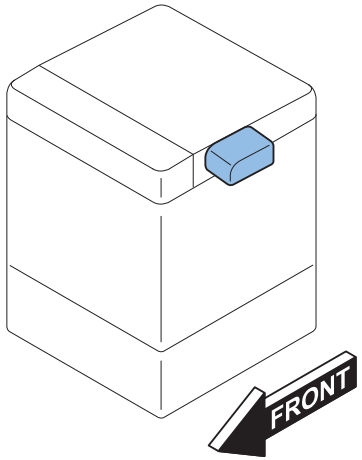
- User's Guide
- Voice Guidance Kit User's Guide
- Voice Guidance Manual CD
- FCC/IC-A DOCUMENT

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

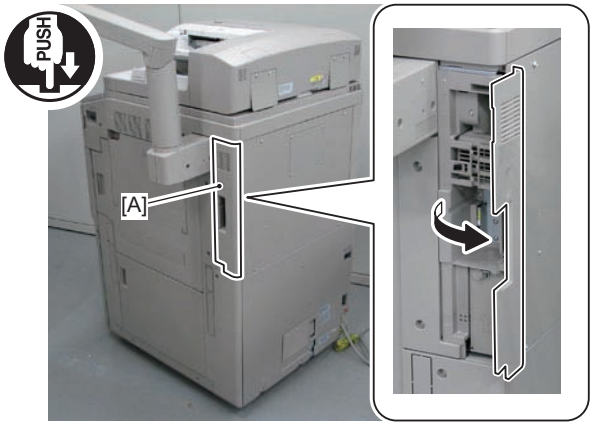


F-9-199

Installation Procedure

□

1) Press [A] part, and open the Right Rear Cover 1.

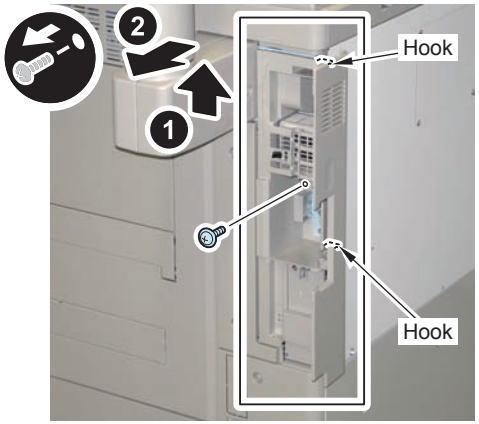


F-9-200

□

2) Remove the Side Cover.

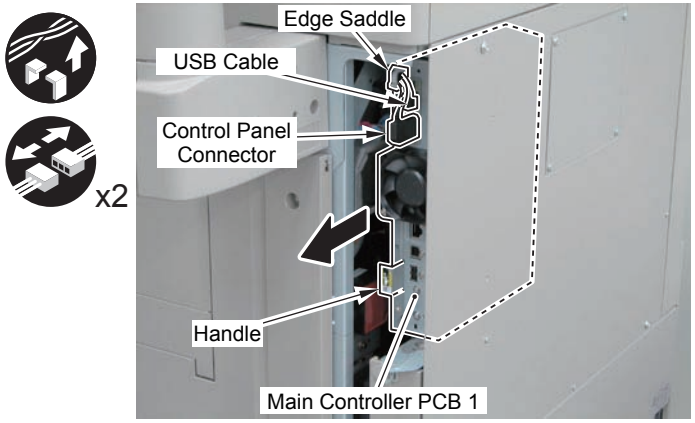
- 1 Screw (The removed screw will be used in step 12.)
- 2 Hooks



F-9-201

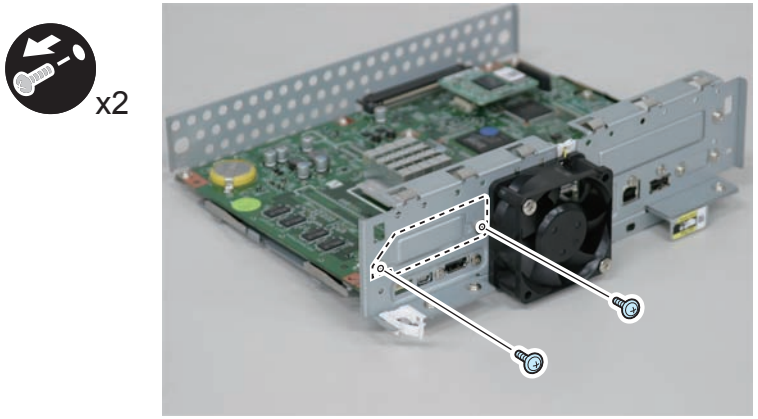
☐
3) Disconnect the USB Cable and the Control Panel Cable.
- 1 Edge Saddle

4) Route the removed cable to the open space and remove the Main Controller PCB 1.



F-9-202

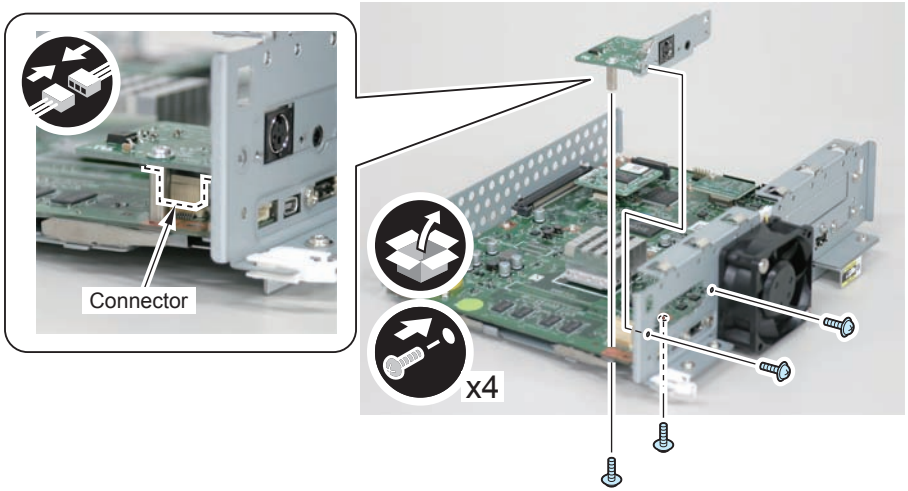
☐
5) Remove the Face Plate. (The removed Face Plate and screws will not be used.)
- 2 Screws



F-9-203

☐
6) Install the Voice Guidance Board Unit to the Main Controller PCB 1.
- 1 Connector
- 4 Screws (TP; M3x6)

NOTE:
Check that the connector is connected properly.

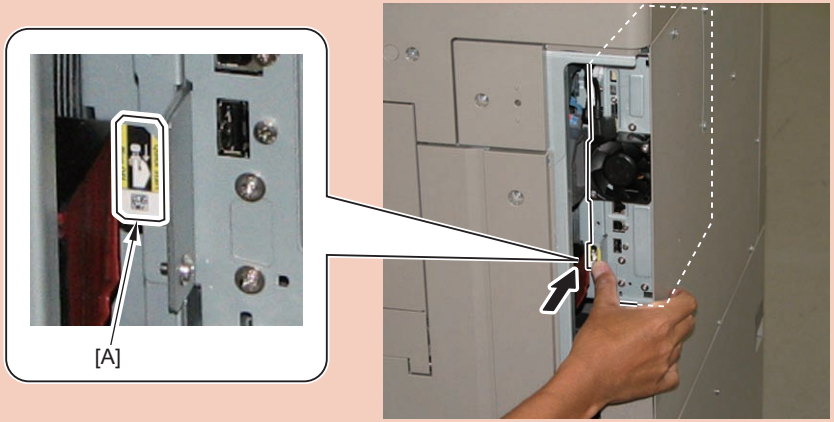


F-9-204

☐
7) Insert the Main Controller PCB 1 until it stops.

CAUTION: Points to Note when Inserting the Main Controller PCB 1

- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Be sure to push the handle [A] in horizontally. If pushing any part other than the handle, the Main Controller PCB 1 may not be inserted horizontally. In such case, note that connector connection error (or damage of connector) or deformation of plate may occur.



F-9-205

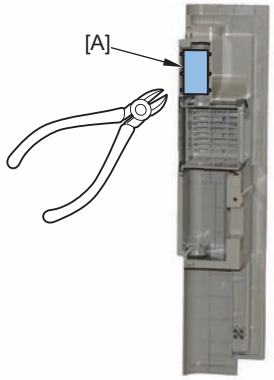
8) Connect the USB Cable and the Control Panel Cable.

- 1 Edge Saddle

☐
9) Cut off [A] part of the Side Cover with nippers.

CAUTION:

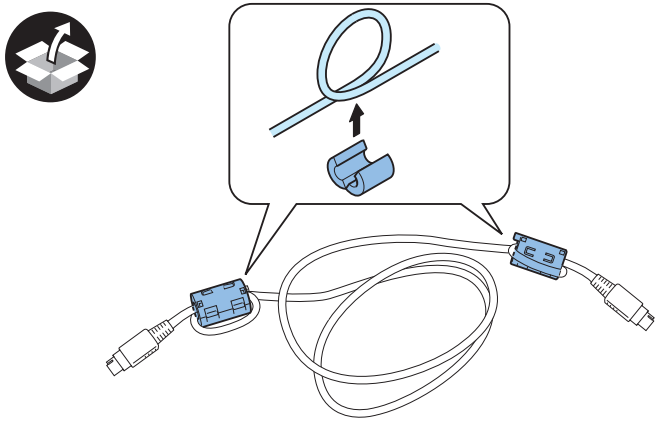
When cutting off the part, be sure not to make burrs.



F-9-206

☐

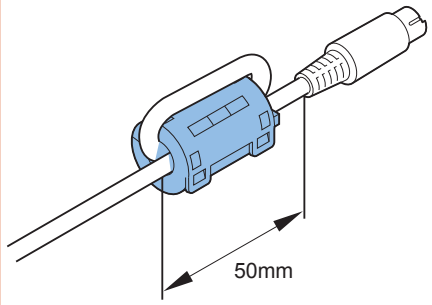
10) Attach the 2 Ring Cores to both ends of the Speaker Cable.



F-9-207

CAUTION:

Be sure to attach the Ring Cores within 50mm from the end of the Speaker Cable.



F-9-208

☐

11) Connect the Speaker Cable to the Voice Guidance Board Unit.

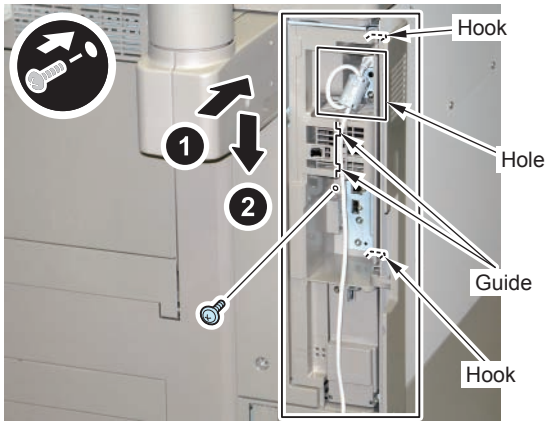
F-9-209

☐

12) Install the Side Cover by putting the Speaker Cable through a hole of the cover.

- 2 Hooks
- 1 Screw (Use the screw removed in step 2.)

13) Put the Speaker Cable through the guide.

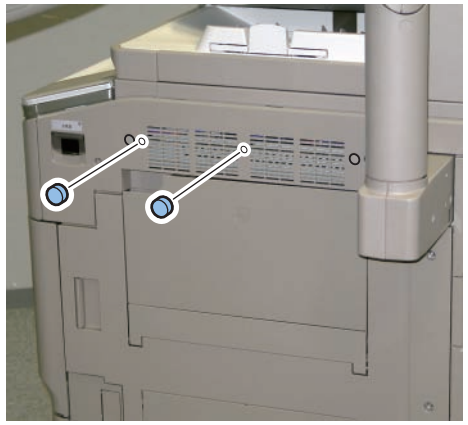


F-9-210

☐

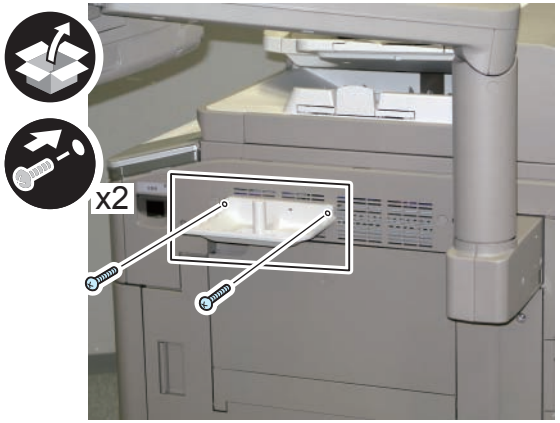
14) Close the Right Rear Cover 1.

☐
15) Remove the 2 Rubber Caps from the Right Upper Cover. (The removed Rubber Caps will not be used.)



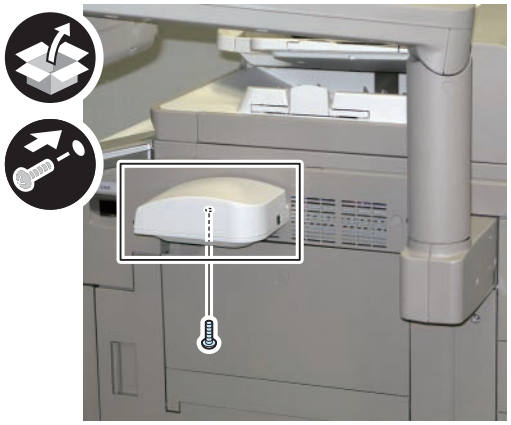
F-9-211

☐
16) Install the Speaker Unit (Lower).
- 2 Screws (Binding; M4x20)



F-9-212

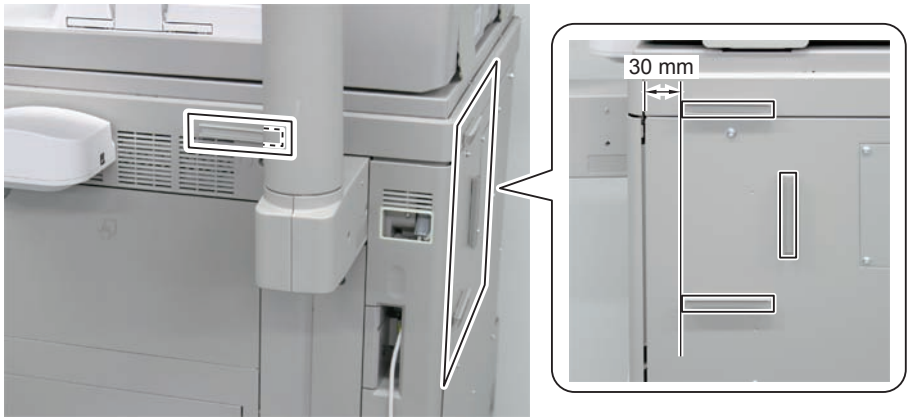
☐
17) Install the Speaker Unit (Upper).
- 1 Screw (Binding; M4x6)



F-9-213

☐
18) Remove the covers of 4 Cord Guides, and affix them to the area indicated in the figure.

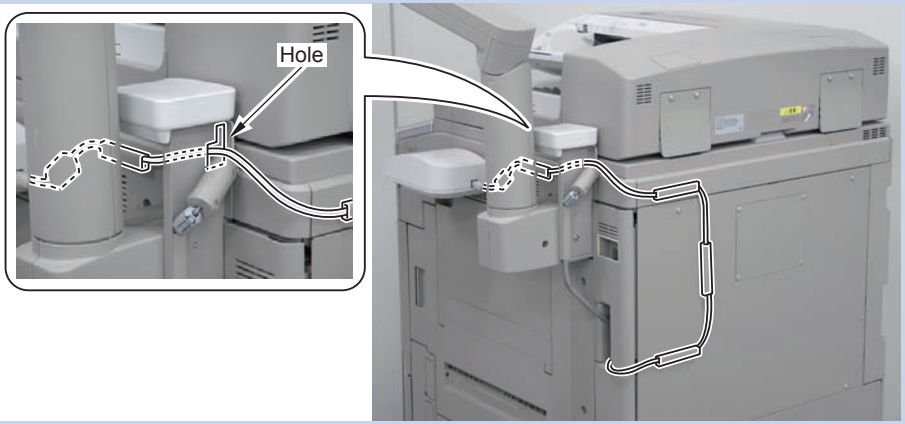
NOTE:
When affixing it, be sure to keep 30mm or more distance from the end of the Rear Upper Cover to prevent interfering with opening/closing the Right Rear Cover 1.



F-9-214

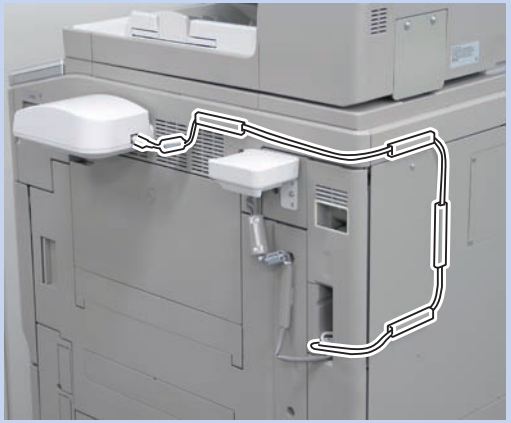
NOTE: When using together with the Copy Card Reader

<In the Case of Upright Control Panel>
- Insert the Speaker cable into the hole.



F-9-215

<In the Case of Flat Control Panel>



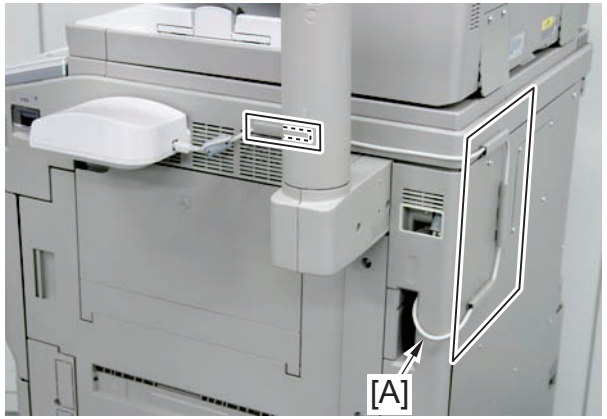
F-9-216

☐
19) Insert the Speaker Cable to the Speaker Unit (Upper).

F-9-217

☐
20) Put the Speaker Cable through the Cord Guide, and install the cover of the guide.

CAUTION:
Be sure to slack off [A] part for not interfering to open/close the Right Rear Cover 1.



F-9-218

☐
21) Connect the power plug of the host machine to the power outlet.
22) Turn the main power switch ON.

Checking after Installation

NOTE:
When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.

☐
1) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings > Use Voice Navigation, and check that the setting is ON.
2) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings > Voice Guide from Speakers, and check that the setting is ON.

Operation Check

<When Starting to Use>

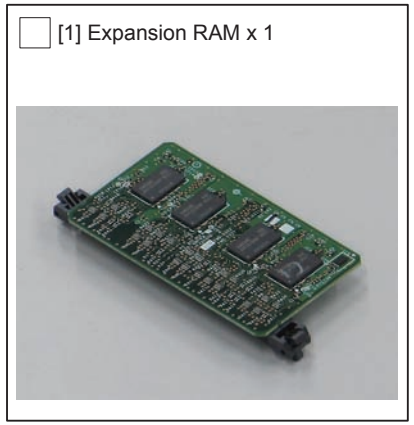
☐
1) Press reset key 3 secs or more.
2) Press [Main Menu] in Control Panel.
3) If the display in panel screen is boxed with red frame, "Voice Guidance Kit" is available.
   If "Voice Guidance Kit" doesn't properly operate, check the below.
   - Enter Service Mode (Level 1) > COPIER > DISPLAY > VERSION, and check whether languages to be used for TTS-JA / TTS-EN / TTS-IT / TTS-FR / TTS-ES / TTS-DE are properly installed.

<When Stopping to Use>

☐
1) Press the Reset Key for 3 secs or more.

Additional Memory Type B (512MB)

Checking the Contents



F-9-219

< CD/Guides >

- China RoHS Notice sheet

Checking before Installation

□

1) Check the memory capacity.
- Service Mode (Level 1) > COPIER > DISPLAY > ACC-STS > RAM

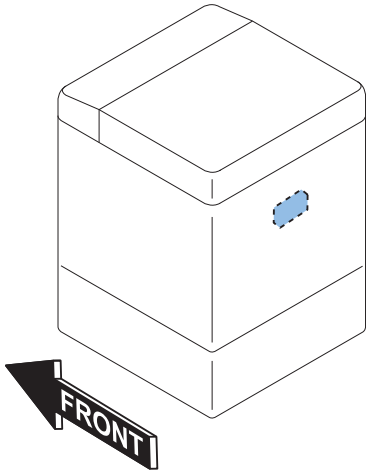
2) Get out from service mode.

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

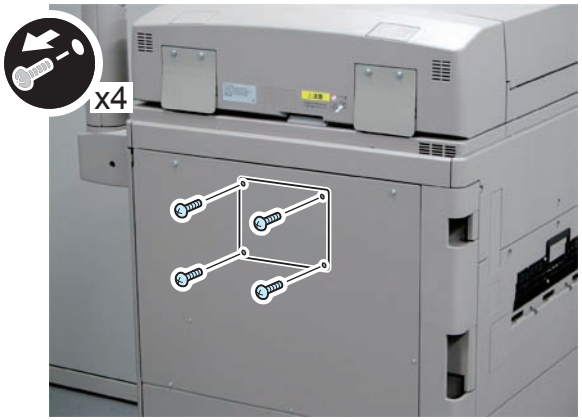


F-9-220

Installation Procedure

□

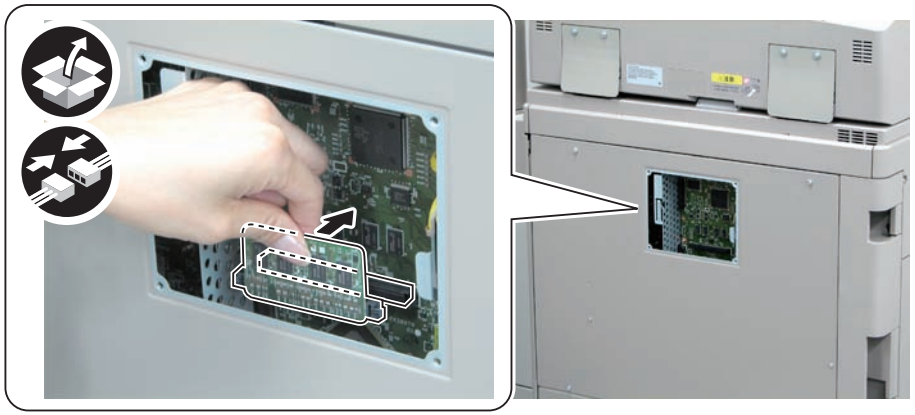
1) Remove the Rear Small Cover.
- 4 Screws



F-9-221

□
2) Install the Expansion RAM.

NOTE:
Be sure to insert it until it stops.



F-9-222

□
3) Return the Rear Small Cover to its original position. (4 Screws)
4) Connect the power plug of the host machine to the power outlet.
5) Open the switch cover and turn ON the main power switch.

Checking after Installation

□
1) Check that the memory capacity is increased.
- Service Mode (Level 1) > COPIER > DISPLAY > ACC-STS > RAM

2) Get out from service mode.

Combination of HDD Options

When installing the HDD options (5 products indicated below), refer to the pages indicated in the following table.

- 2.5inch/160GB HDD-J1
- 2.5inch/1TB HDD-K1
- Removable HDD Kit-AG1
- HDD Mirroring Kit-G1
- HDD Data Encryption & Mirroring Kit-C5

CAUTION:
When using the mirroring function, be sure to install 2 HDDs of the same capacity.

Reference Pages in the Manual According to Product Combination:

Title	Combination of Product	Reference Pages	Remarks
TYPE-1	Option HDD (1TB)	p. 9-109 to p. 9-113	
TYPE-2	Standard HDD + Removable HDD Kit	p. 9-114 to p. 9-125	
TYPE-3	Option HDD (1TB) + Removable HDD Kit	p. 9-126 to p. 9-139	
TYPE-4	Standard HDD + Option HDD (160GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit	p. 9-140 to p. 9-155	TYPE-4 to 11 correspond to “CASE-8” described in “HDD Data Encryption & Mirroring Kit-C Series Installation Procedure” included in HDD Data Encryption & Mirroring Kit-C5.
TYPE-5	2 Option HDDs (1TB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit	p. 9-161 to p. 9-176	
TYPE-6	Standard HDD + HDD Data Encryption & Mirroring Kit	p. 9-182 to p. 9-193	
TYPE-7	Option HDD (1TB) + HDD Data Encryption & Mirroring Kit	p. 9-199 to p. 9-212	
TYPE-8	Standard HDD + Option HDD (160GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit	p. 9-219 to p. 9-241	
TYPE-9	2 Option HDDs (1TB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit	p. 9-246 to p. 9-266	
TYPE-10	Standard HDD + Removable HDD Kit + HDD Data Encryption & Mirroring Kit	p. 9-271 to p. 9-288	
TYPE-11	Option HDD (1TB) + Removable HDD Kit + HDD Data Encryption & Mirroring Kit	p. 9-294 to p. 9-312	

T-9-5

Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.
Backup or export work must not be performed by the service person because of security considerations.
In this Installation Procedure, a series of backup or export procedures are described for reference.

[List of Data to be Deleted]

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Data stored in Mail Boxes or the Advanced Box	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box	Yes

T-9-6

*1 Can only be backed up using the Remote UI.
*2 Depending on the MEAP application.
*3 Only the following items are backed up.
- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image

*4 You may not be able to back up, depending on the type of the password.
*5 Only the stored Favorite Settings can be backed up.

[List of Data that can be backed up]

Data that can be backed up	Reference
Address Book	See the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings (Forwarding Settings, Address List, Favorite Settings)	
Printer Settings	
Paper Information	
Image forms stored in the Superimpose Image	
Quick Menu Information	
User Information of the Advanced Box	
Favorite Settings for Web browser	See the e-Manual > Web Access. (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box	See the e-Manual > Remote UI "Setting the Backup Location for Stored Data ".
SSO-H (Single Sign-On H) user authentication information	see the "e-Manual > MEAPI".

T-9-7

CAUTION: Work to Perform After Installing the Kit
- When you start using this product, passwords set for Mail Boxes, Confidential Fax Inboxes, and the Memory RX Inbox are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the e-Manual > MEAP.

Making a Backup of the Data (reference only)

The data items that have been backed up may be restored when the HDD Data Encryption & Mirroring Kit-C Series has been installed.
These data items are property of the user, and the restoration work must be performed by the system administrator.
The method of restoration is described in the Users Guide. See Table T-1-2/T-1-4 (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

Procedure for Import/Export ALL of User Settings

Following data can be batch exported.

- Address Book
- Settings/Registration settings
- Device Settings (Forwarding Settings, Address List, Favorite Settings)
- Printer Settings
- Paper Information
- Image forms stored in the Superimpose Image
- Quick Menu Information
- User Information of the Advanced Box

1) Access the URL given below, and then access Remote UI.
   http://[IP address of the device]/
   If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export ALL] > [Export].
3) Select items to export.

> CAUTION:
> When exporting only specific items, this may cause setting information relating to multiple items to lose its relations and cause setting details to be switched. In this case, export all related items simultaneously.

4) Enter the password into [Encryption Password] and click on [Start Exporting].
5) Click [Check Status].
6) Check the batch export result.

Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide

Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

1) Select the URL given below and access SMS.
   http://[IP address of the device]:8000/sms/
   The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

> CAUTION:
> The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

2) Click [MEAP Application Management].
3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
4) Check the status of MEAP Application is [Stop],
5) Click on the name of applications to disable.
6) Click [License Control], and then click [Disable].
7) Click [Yes] in a confirmation window for disabling the license.
8) Return to the MEAP Application Management page and click on the appropriate application names.
9) Click [License Management] on the Application/License Information page.
10) Click [Download].

11) Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
12) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
13) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

1) Access the URL given below.
   http://[IP address of the device]:8000/sso/
2) Login with the user name and password registered as an administrator in SSO-H.
   The default administrator user name and password are as follows:
   User Name: Administrator
   Password: password
3) Click [User Control].
4) Put a checkmark to Select All, and then click [Export].
5) Leave the file format and character code as defaults and click [Start Export].
6) Following the instructions on the window, specify the location to save the file and click [Save].

Backup of User inbox and Advanced Box document data

CAUTION: Backup of "Advanced Box"

When setting a SMB server as a backup destination, Advanced Box data saved in a large capacity HDD cannot be backed up. The Advanced Box data backed up from the large capacity HDD cannot be restored to the standard HDD. Depending on the system version of the machine, both backup and restoration might not be performed.

The procedure of backup and restoration of a box document data is described below.
Specify the backup destination of a document data:

- Backup to SMB server
  Select SMB as a backup destination and specify an address, a user name, a password, and a path to the SMB server to which saved data is backed up.
- Backup to USB HDD
  Select USB HDD as a backup destination and specify a path to the USB HDD folder to which saved data is backed up.

CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

- CAUTION:
- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,', 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

[Backup method of User inbox and Advanced Box document data]

1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
2) Select 'All' or 'Changes' for the backup method.
3) Click [Execute].

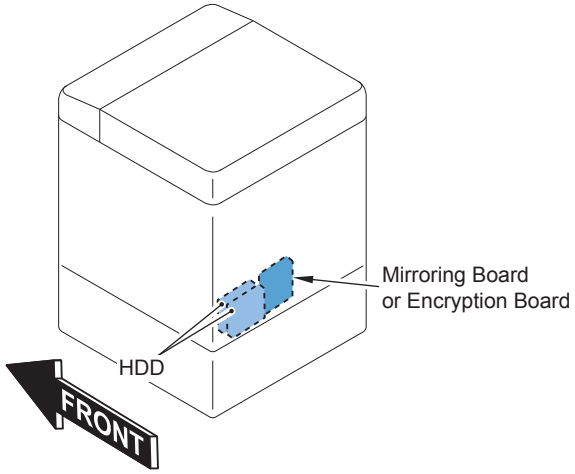
- CAUTION:
- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- If you select to encrypt the backup data, the backup process may take longer.

[Restoring the backup data of User inbox and Advanced Box document data]

1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
2) Click [Display Backup Data].
3) Select the backup data to restore from the list and then click [Execute].

- CAUTION:
- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

Installation Outline Drawing



F-9-223

[TYPE-1] Option HDD (1TB)

Checking the Contents

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

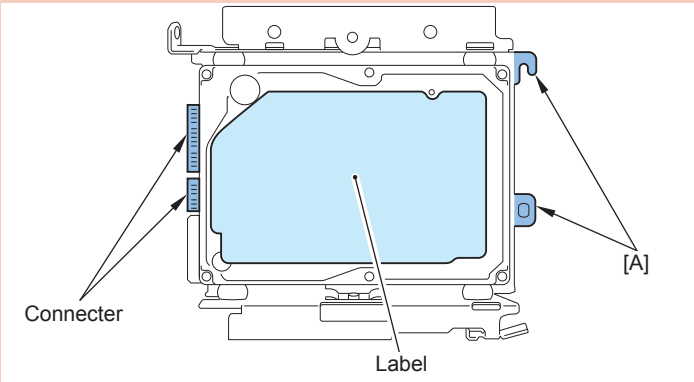
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Assembling the Option HDD

CAUTION:

When assembling the Option HDD, be sure to pay attention to the direction.

- Be sure that the label face of the Option HDD is up.
- Be sure that the [A] part of the HDD Support Plate is on the other side of the connecter.



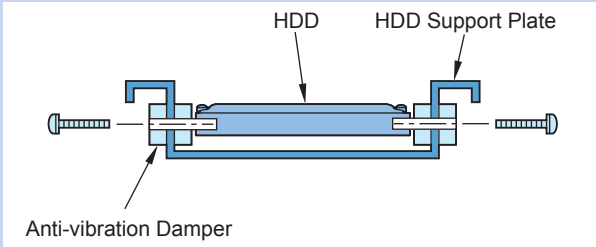
F-9-225

□

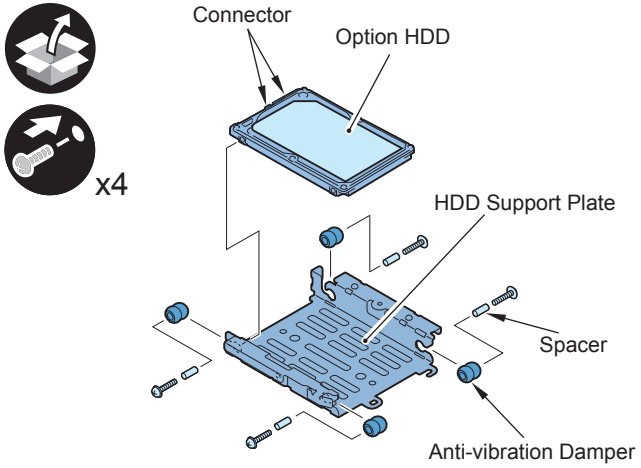
1) Assemble the Option HDD (1TB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



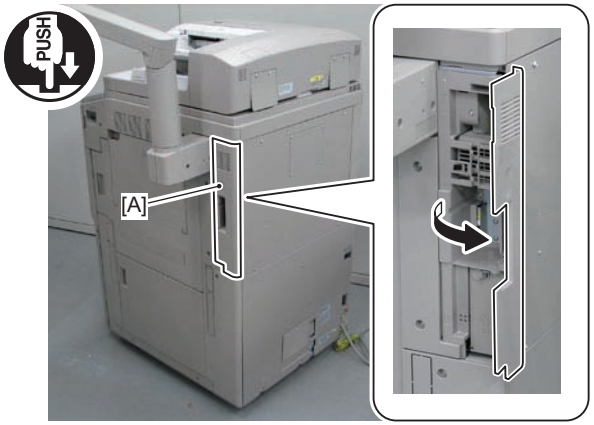
F-9-226



F-9-227

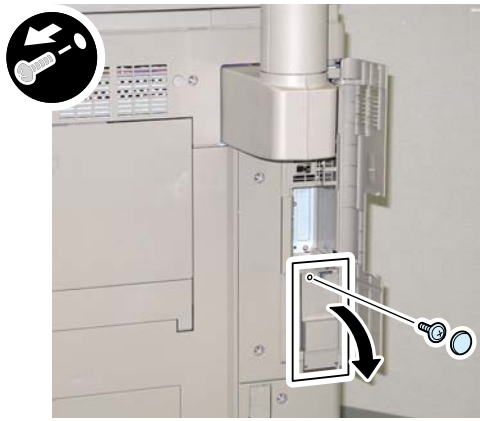
Procedure to Replace with the HDD

□
1) Push [A] part, and open the Right Rear Cover 1.



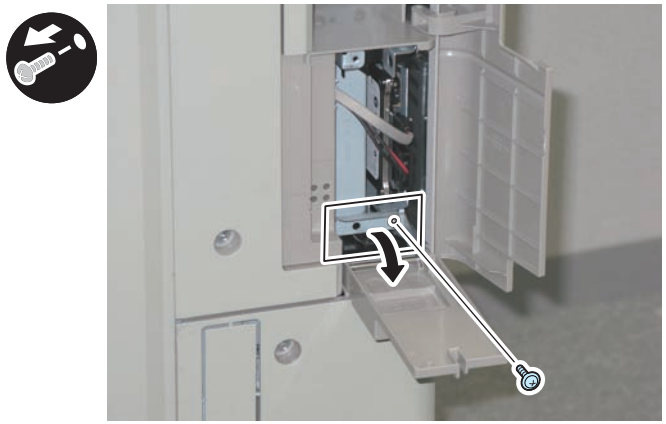
F-9-228

□
2) Open the HDD Cap.
- 1 Rubber Cap
- 1 Screw



F-9-229

□
3) Turn the HDD Fixed Plate toward the front.
- 1 Screw

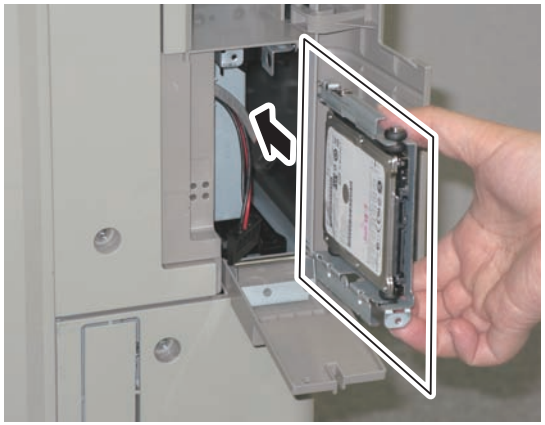


F-9-230

□
4) Remove the HDD. (The removed HDD will not be used.)
- 2 Connecters

F-9-231

☐
5) Insert the assembled Option HDD.



F-9-232

☐
6) Connect 2 connecters to the Option HDD.

F-9-233

☐
7) Return the HDD Fixed Plate to its original position.
- 1 Screw

8) Close the HDD Cap.
- 1 Screw
- 1 Rubber Cap

9) Close the Right Rear Cover 1.
10) Connect the power plug to the outlet.

Installing the System Software Using the SST

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

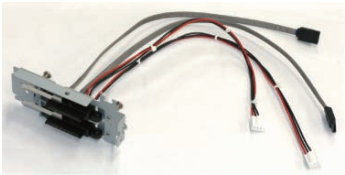
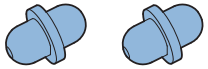
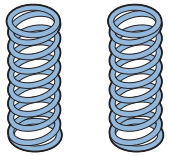
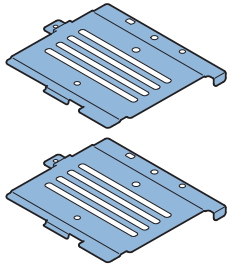
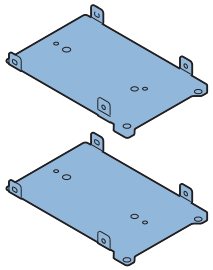
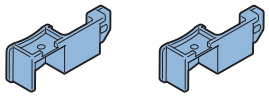
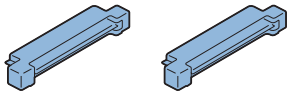
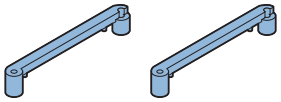
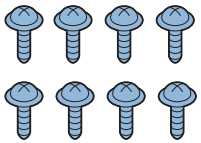
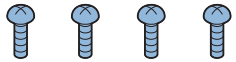
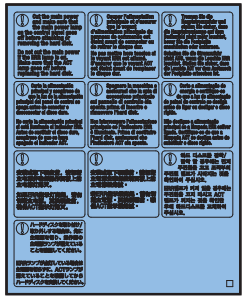
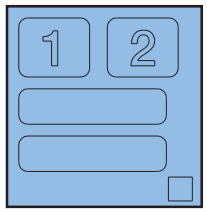
1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

[TYPE-2] Removable HDD Kit

Checking the Contents

☐ [1] HDD Drawer Unit X 1 	☐ [2] HDD Lock Pin X 2 	☐ [3] HDD Lock Pin X 2 	☐ [4] HDD Cover X 2 Use 1 of them. 	☐ [5] HDD Connector Plate X 2 Use 1 of them. 
☐ [6] HDD Connector Plate X 2 Use 1 of them. 	☐ [7] Conversion Connector X 2 Use 1 of them. 	☐ [8] Connector Fixation Block X 2 Use 1 of them. 	☐ [9] Screw (TP Round End; M3x6) X 8 Use 6 of them. 	☐ [10] Screw (P Tightening; M3x8) X 4 Use 2 of them. 
☐ [11] HDD Caution Label X 1 	☐ [12] R-HDD Label X 1 			

F-9-234

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

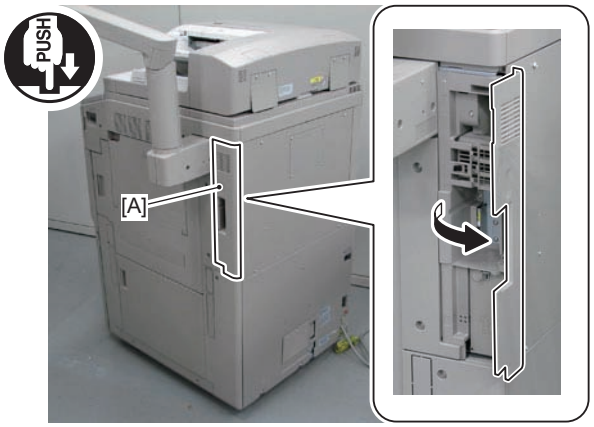
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Installation Procedure

Removing the HDD and HDD Case Unit

□

1) Push [A] part, and open the Right Rear Cover 1.

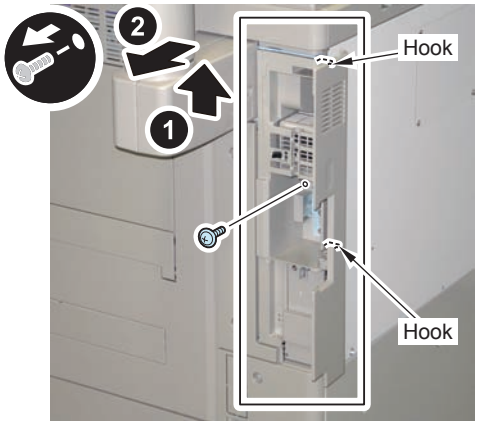


F-9-235

□

2) Remove the Side Cover.

- 1 Screw
- 2 Hooks

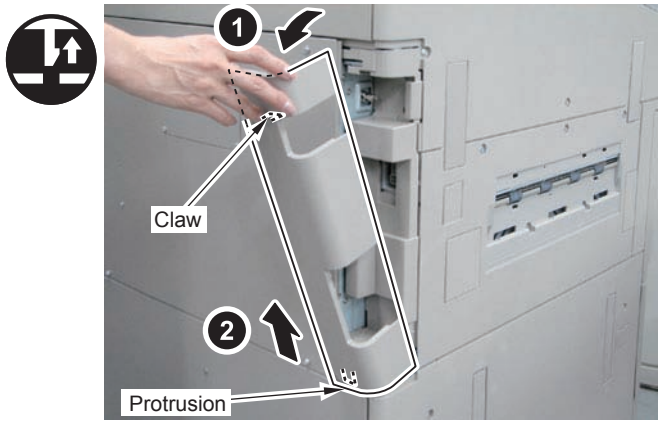


F-9-236

□

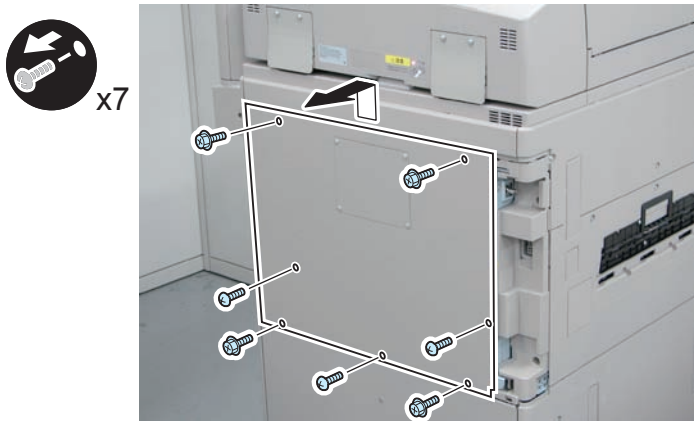
3) Remove the Left Rear Cover.

- 1 Claw
- 1 Protrusions



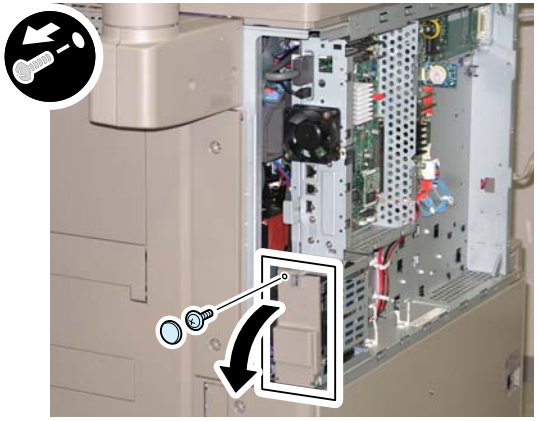
F-9-237

☐
4) Remove the Rear Upper Cover.
- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)



F-9-238

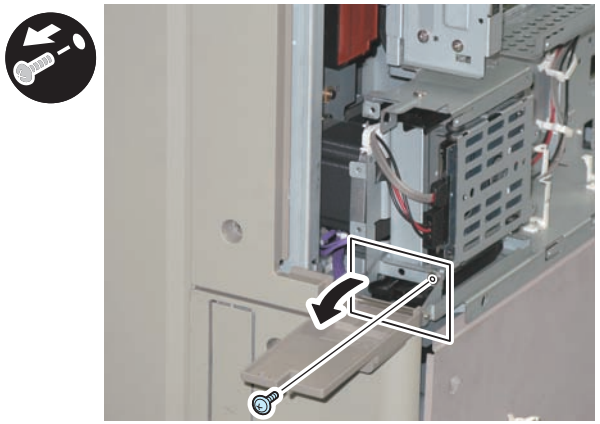
☐
5) Open the HDD Cap.
- 1 Rubber Cap
- 1 Screw (The removed screw will not be used.)



F-9-239

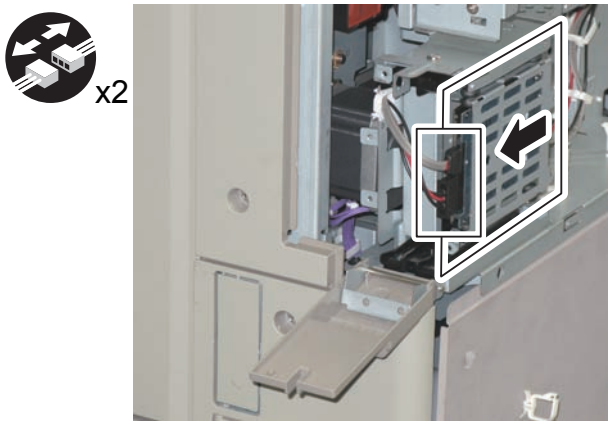
☐
6) Return the rubber cap to the HDD Cap.

☐
7) Turn the HDD Fixed Plate toward the front.
- 1 Screw (The removed screw will not be used.)



F-9-240

☐
8) Remove the HDD.
- 2 Connectors

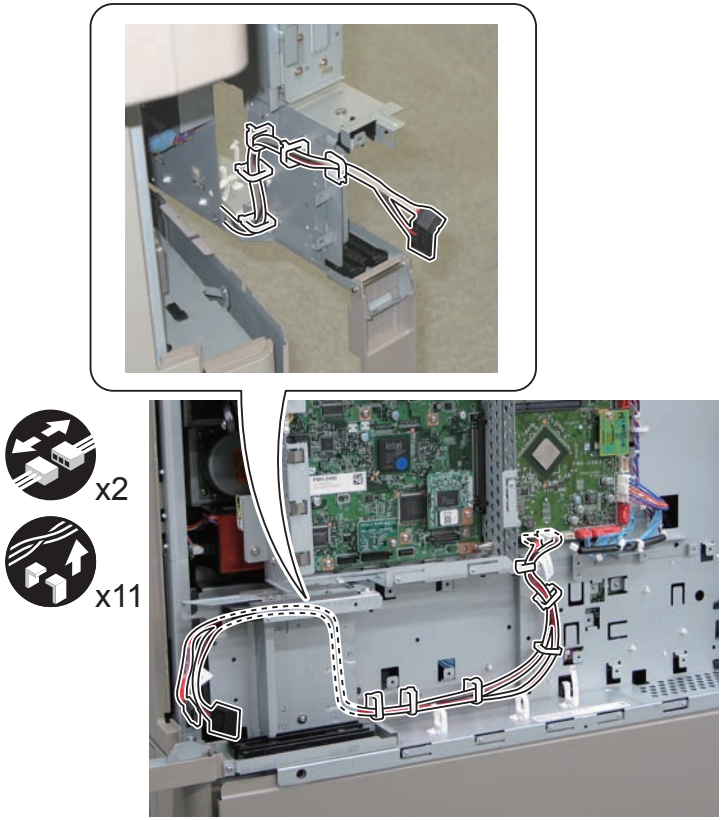


F-9-241

☐

9) Open the Controller Box, and disconnect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) on the host machine. (Disconnected Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) will not be used.)

- 2 Connectors
- 9 Wire Saddles
- 2 Edge Saddles

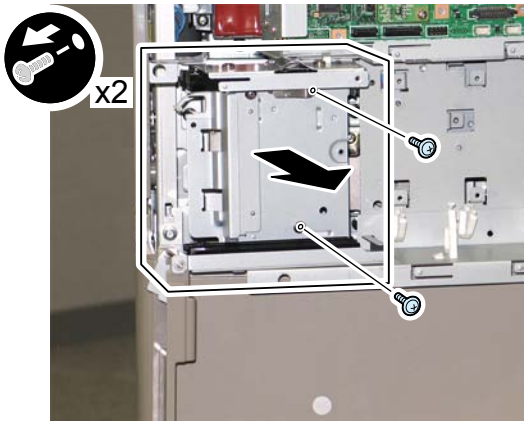


F-9-242

☐

10) Remove the HDD Case Unit.

- 2 Screws (The removed screws will be used in “Installing the HDD Case Unit” step 1).)



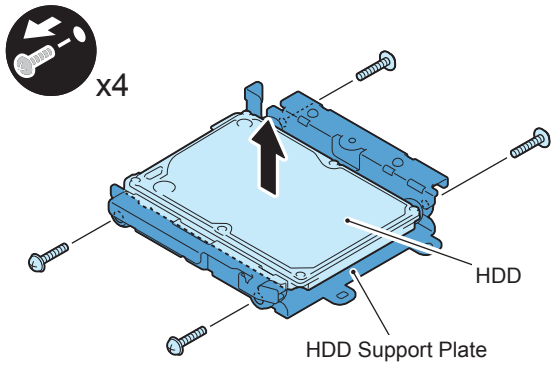
F-9-243

Disassembling and Assembling of the HDD Removed from the Host Machine

□

1) Disassemble the removed HDD.

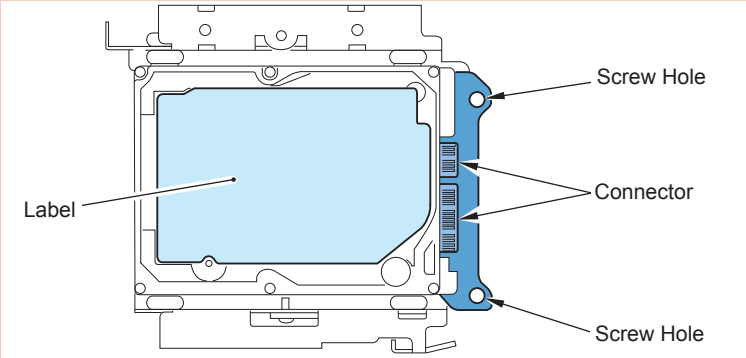
- 4 Screws (W Sems)
- 1 HDD Support Plate



F-9-244

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



F-9-245

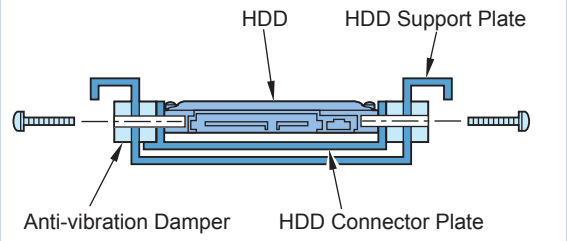
NOTE:
Use the parts disassembled in step 1) and parts included in the Removable HDD Kit.

□

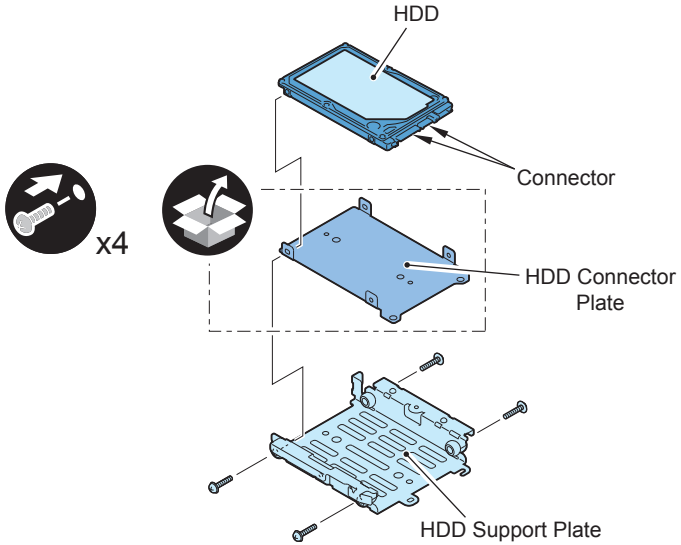
2) Assemble the HDD disassembled in step 1).

- 1 HDD Support Plate
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 HDD
- 4 Screws (W Sems)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-246



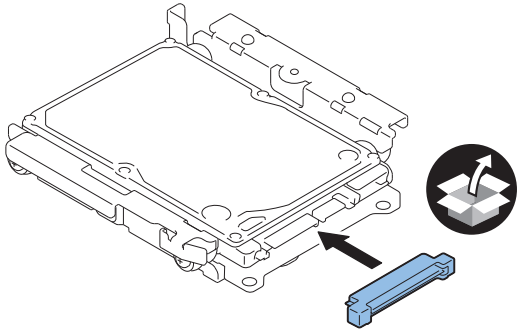
F-9-247

□

3) Install the Conversion Connector.

CAUTION:

Be sure that there is no gap between the HDD Connector and the Conversion Connector.



F-9-248

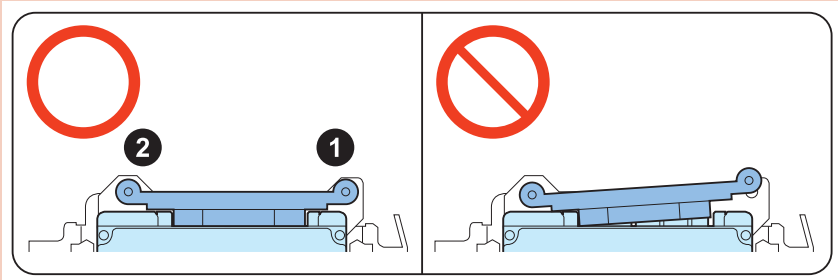
□

4) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.

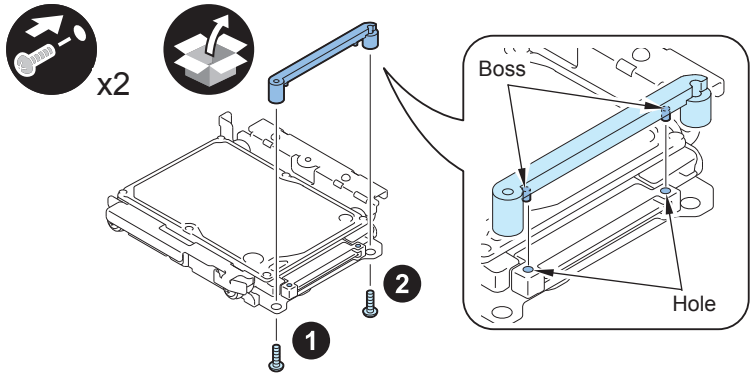
- 2 Screws (P Tightening; M3x8)

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-249



F-9-250

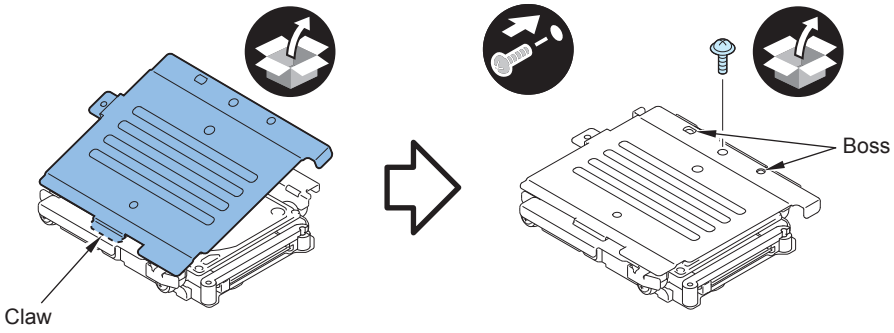
□

5) Install the HDD Cover.

- 1 Claw
- 1 Boss
- 1 Screw (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-251

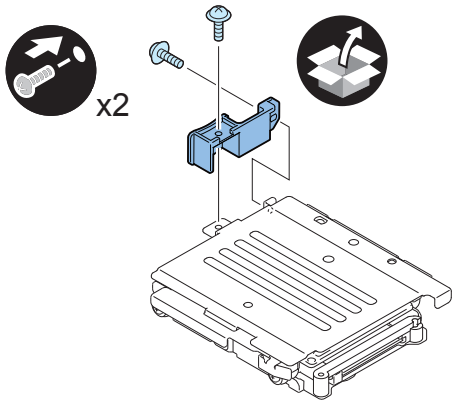
□

6) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

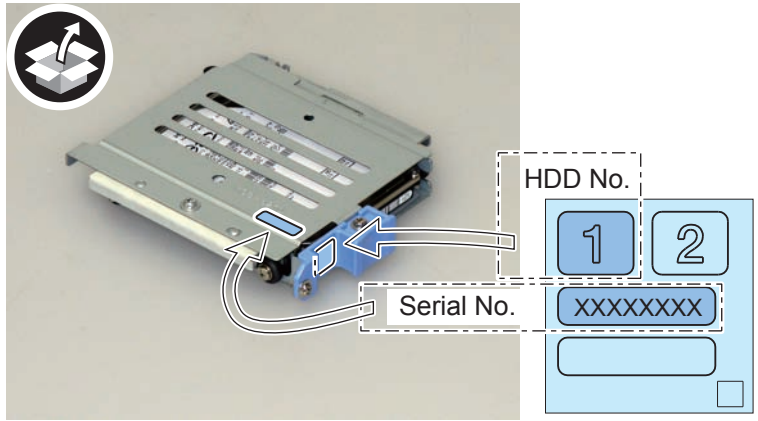


F-9-252

□

7) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.

8) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

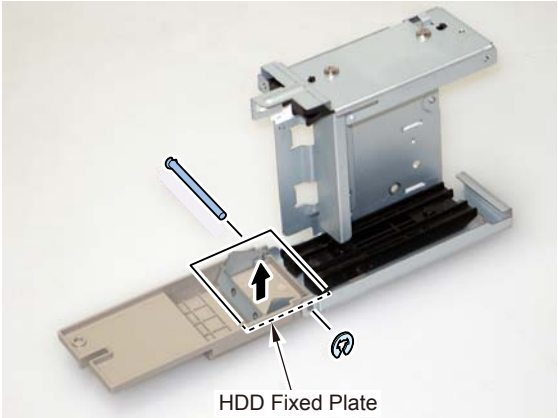


F-9-253

Changing Configuration inside of HDD Case Unit

□

1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-254

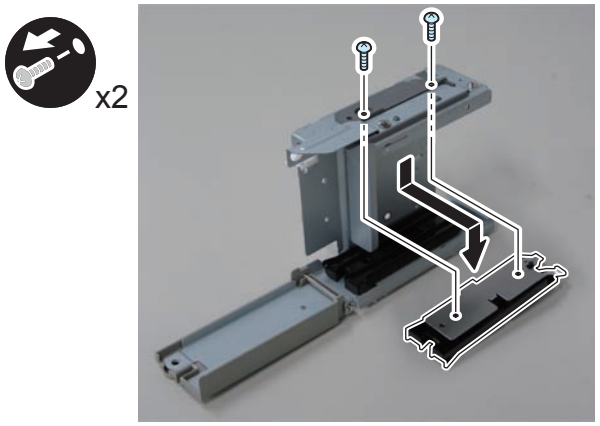
□

2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

□

3) Remove the Upper Rail from the HDD Case Unit.

- 2 Screws (The removed screws will be used in step 6).)

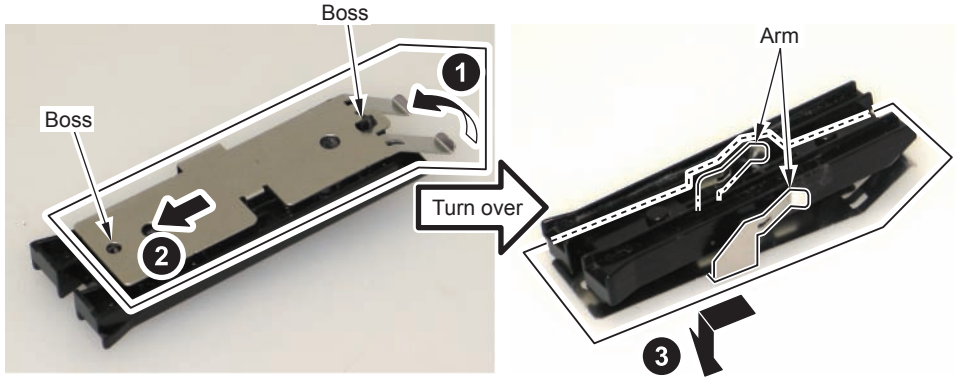


F-9-255

□

4) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)

- 2 Bosses
- 2 Arms



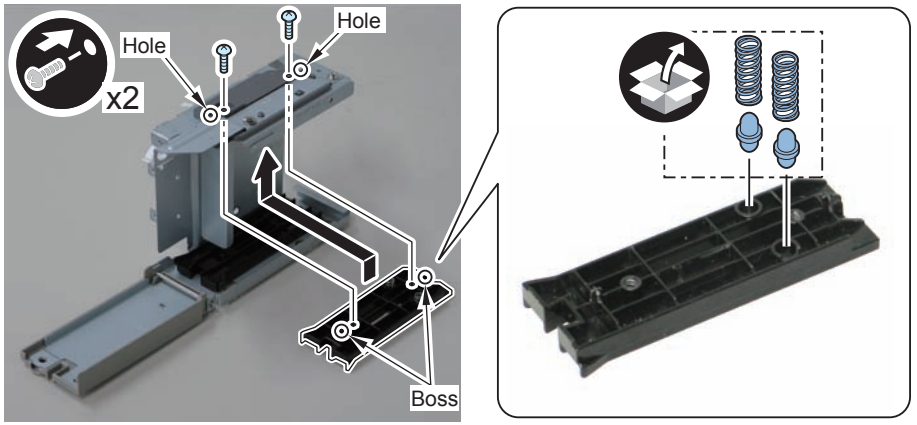
F-9-256

□

5) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

6) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 3).)



F-9-257

☐

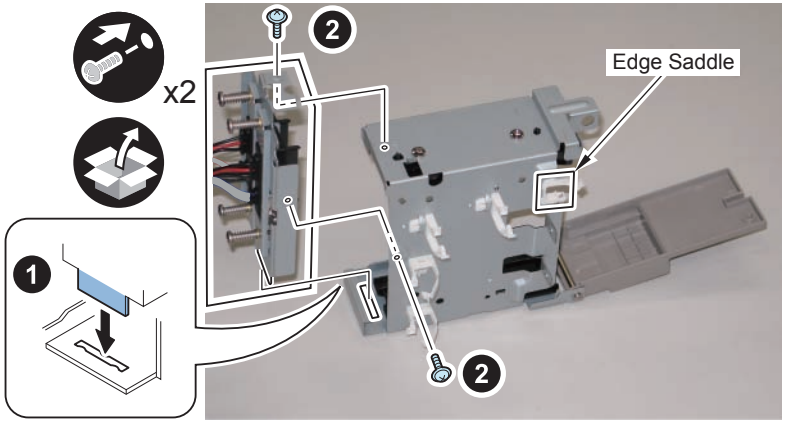
7) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

8) Close the Edge Saddle.



F-9-258

Installing the HDD Case Unit

☐

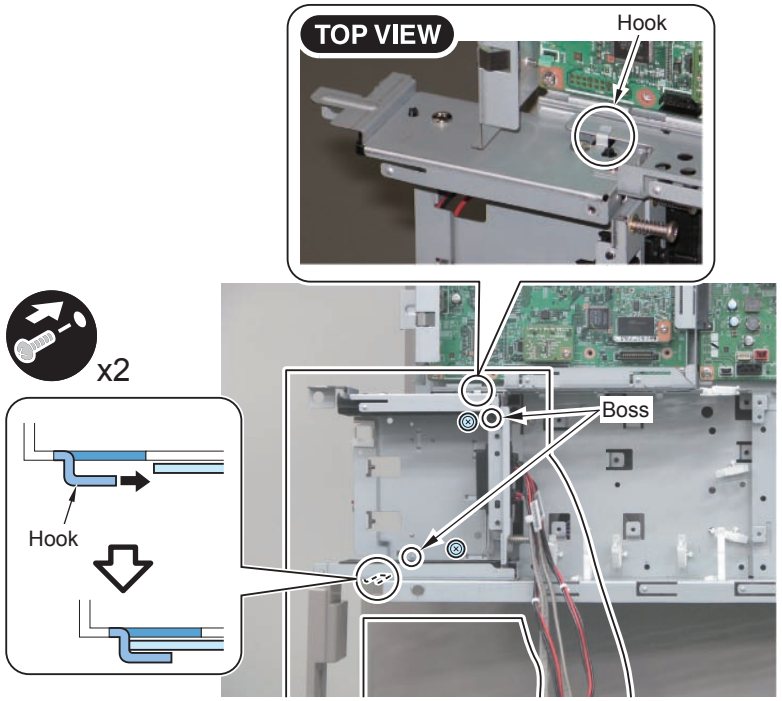
1) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in “Removing the HDD and HDD Case Unit” step 10).)

CAUTION:

Make sure that the bosses is fitted properly.

NOTE:
Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.



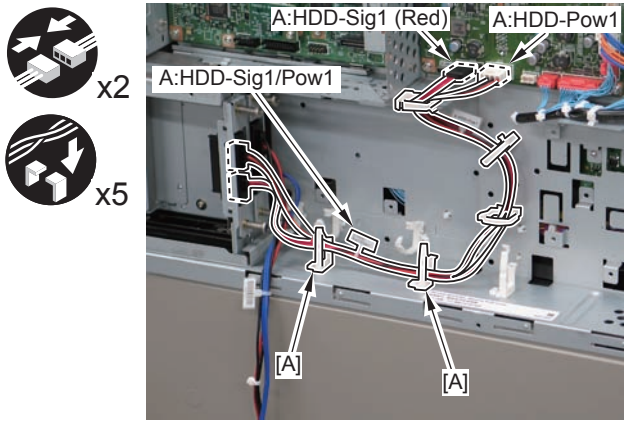
F-9-259

□

2) Connect the Signal Cable (A:HDD-Sig1 Red) and Power Supply Cable (A:HDD-Pow1) of the HDD Drawer Unit to the Main Controller PCB 2.

- 2 Connectors
- 1 Edge Saddle
- 4 Wire Saddles

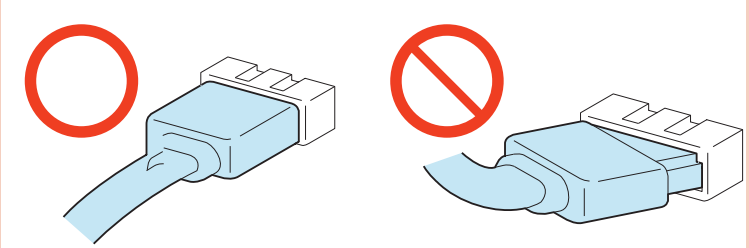
NOTE:
Be sure not to close the 2 Wire Saddles [A] in this step.



F-9-260

CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



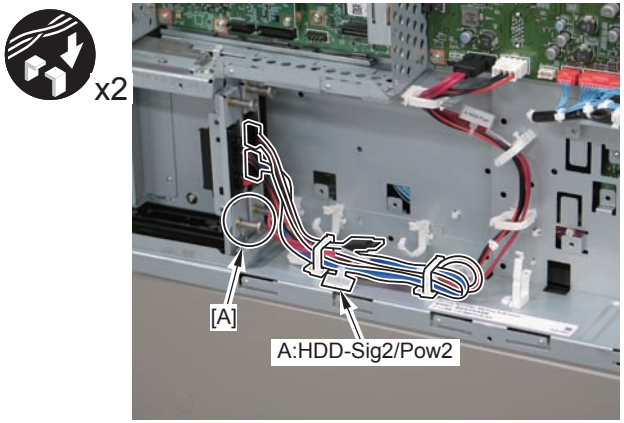
F-9-261

□

3) Fold the extra length of "A:HDD-Sig2/Pow2" cable of the HDD Drawer Unit and secure using 2 Wire Saddles.

CAUTION:

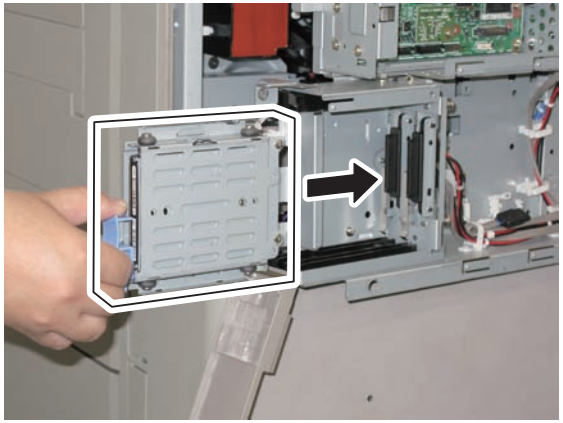
- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-262

□

4) Insert the assembled Removable HDD.

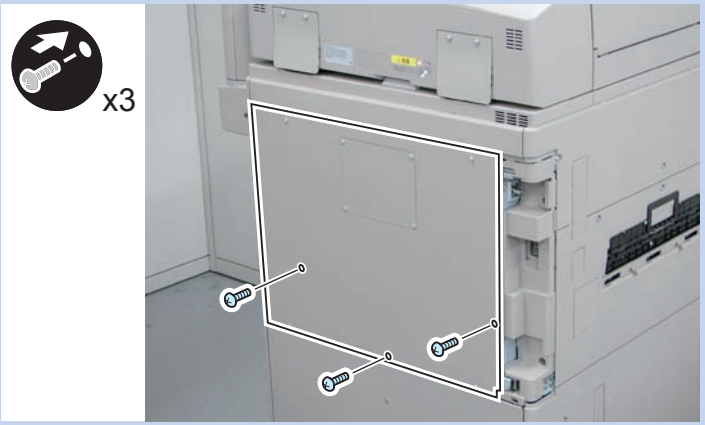


F-9-263

☐
5) Close the Controller Box.

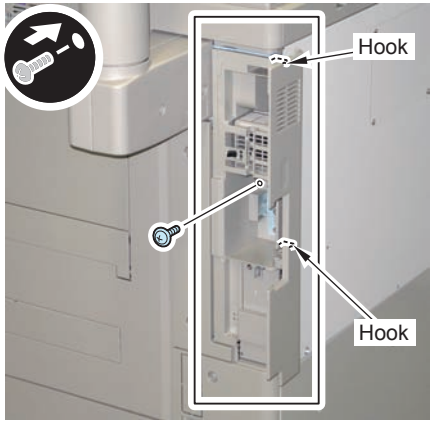
☐
6) Install the Rear Upper Cover.
- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.



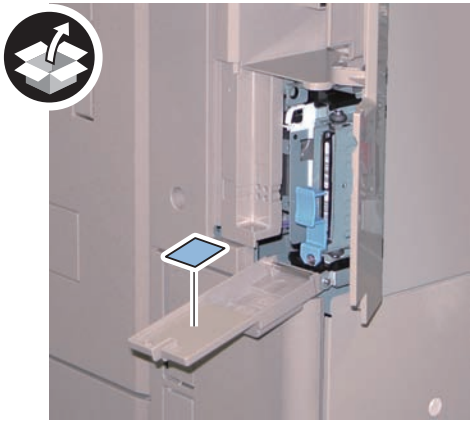
F-9-264

☐
7) Install the Side Cover.
- 2 Hooks
- 1 Screw



F-9-265

☐
8) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-266

□
9) Close the HDD Cap, and install the key prepared by the user for locking.

NOTE:
Be sure to use the locking key which size is the one indicated below or smaller.
- Size (width x depth x height) : 67mm x 14mm x 64mm

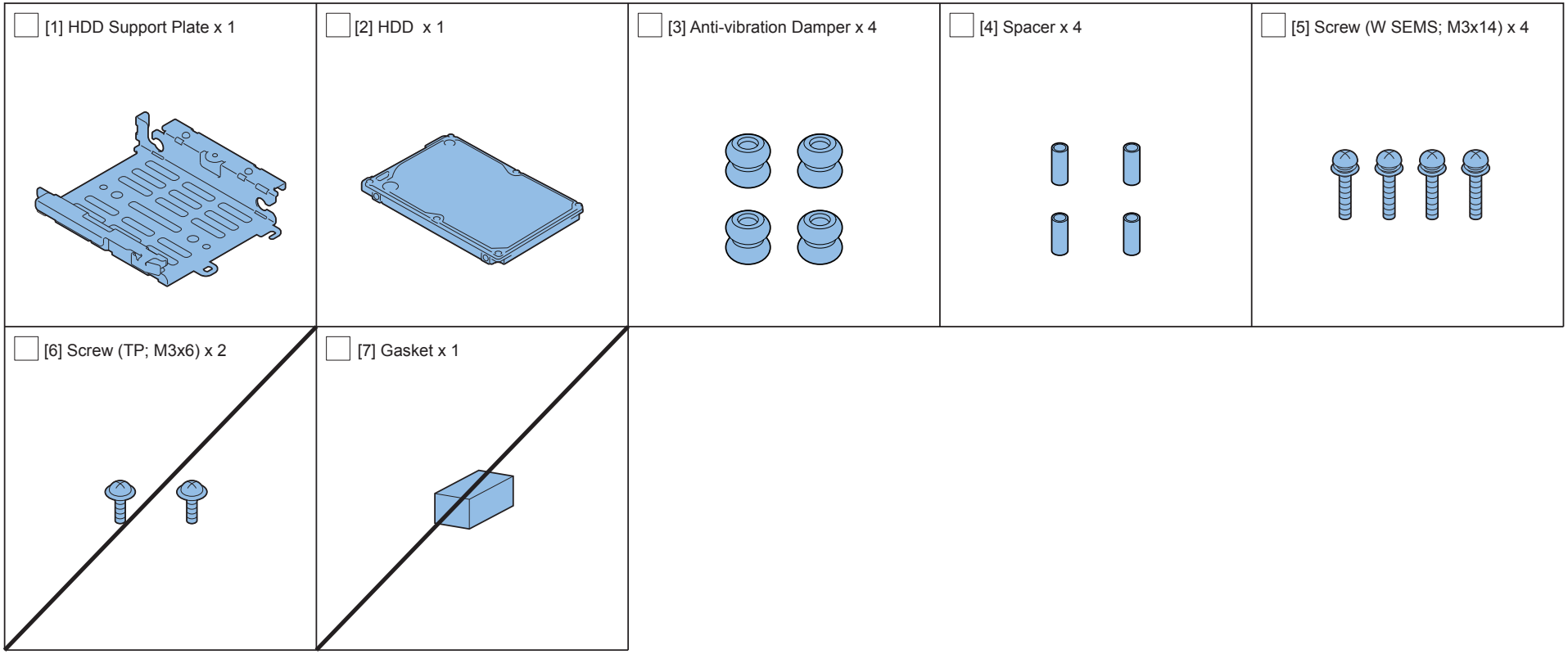
F-9-267

□
10) Close the Right Rear Cover 1.
11) Return the Left Rear Cover to its original position.
12) Connect the power plug to the outlet.
13) Turn ON the main power switch.

[TYPE-3] Option HDD (1TB) + Removable HDD Kit

Checking the Contents

Option HDD (1TB)



F-9-268

< CD/Guides >

- FCC/IC Sheet

Removable HDD Kit

☐ [1] HDD Drawer Unit X 1	☐ [2] HDD Lock Pin X 2	☐ [3] HDD Lock Pin X 2	☐ [4] HDD Cover X 2 Use 1 of them.	☐ [5] HDD Connector Plate X 2 Use 1 of them.
☐ [6] HDD Connector Plate X 2 Use 1 of them.	☐ [7] Conversion Connector X 2 Use 1 of them.	☐ [8] Connector Fixation Block X 2 Use 1 of them.	☐ [9] Screw (TP Round End; M3x6) X 8 Use 6 of them.	☐ [10] Screw (P Tightening; M3x8) X 4 Use 2 of them.
☐ [11] HDD Caution Label X 1	☐ [12] R-HDD Label X 1			

F-9-269

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

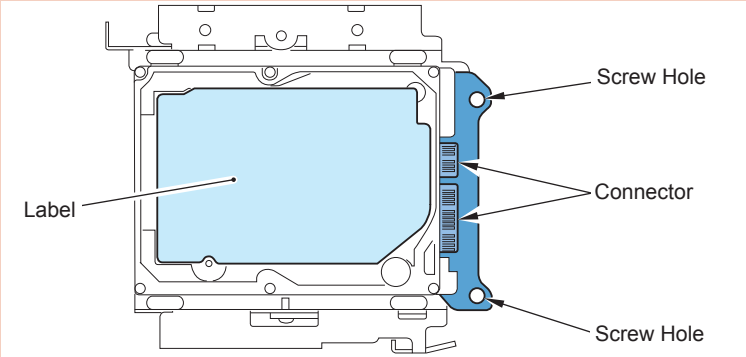
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Installation Procedure

Assembling the Option HDD

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



F-9-270

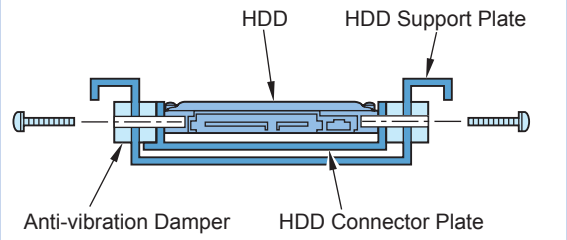
NOTE:
Use the parts included in the package of the Option HDD and the Removable HDD Kit.

□

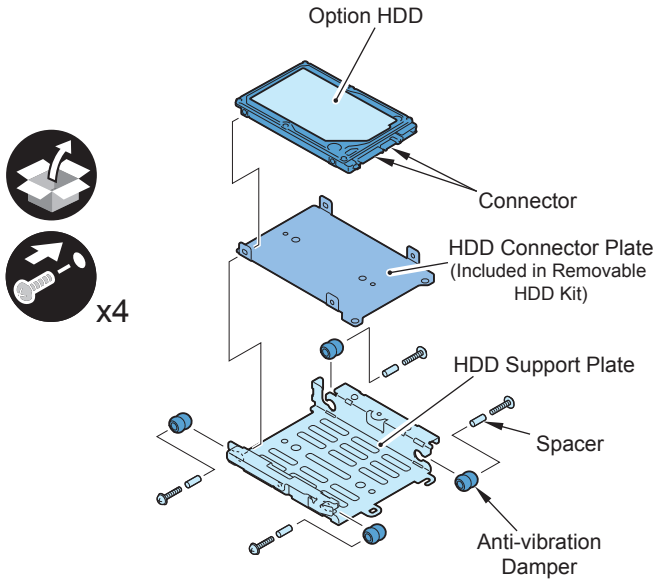
1) Assemble the Option HDD (1TB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-271



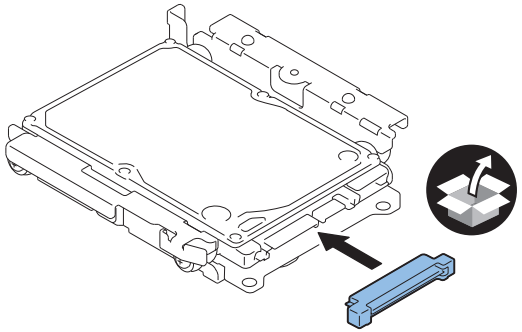
F-9-272

☐

2) Install the Conversion Connector.

CAUTION:

Be sure that there is no gap between the HDD Connector and the Conversion Connector.



F-9-273

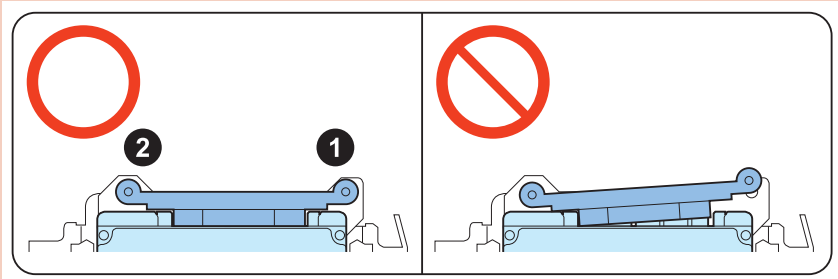
☐

3) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.

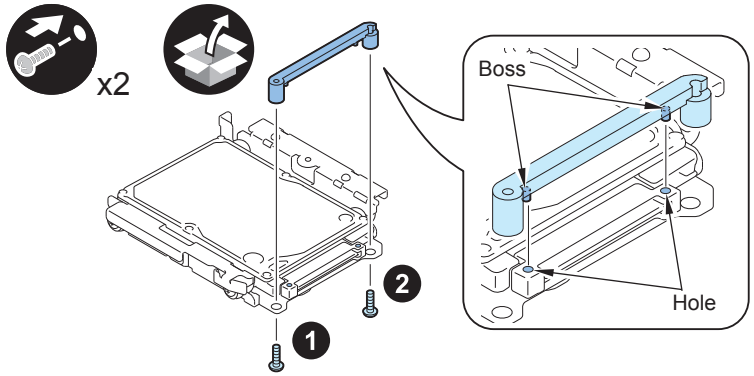
- 2 Screws (P Tightening; M3x8)

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



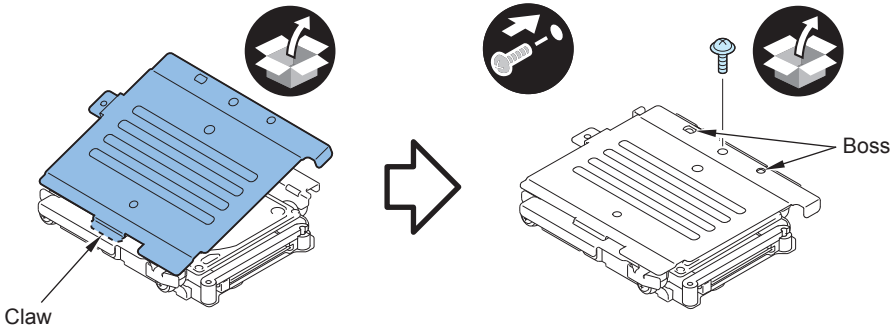
F-9-274



F-9-275

□
4) Install the HDD Cover.
- 1 Claw
- 1 Boss
- 1 Screw (TP Round End; M3x6)

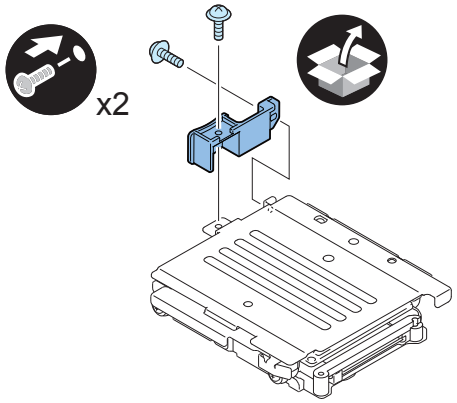
CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-276

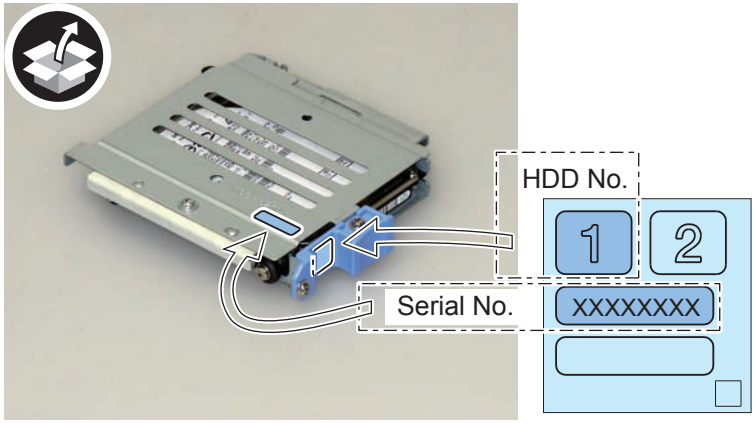
□
5) Install the HDD Handle.
- 2 Screws (TP Round End; M3x6)

CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-277

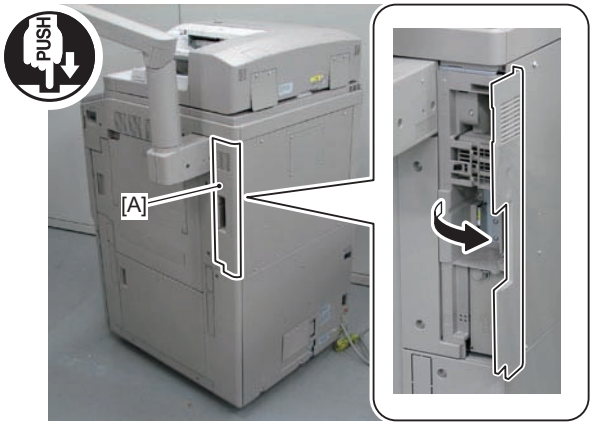
□
6) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.
7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-278

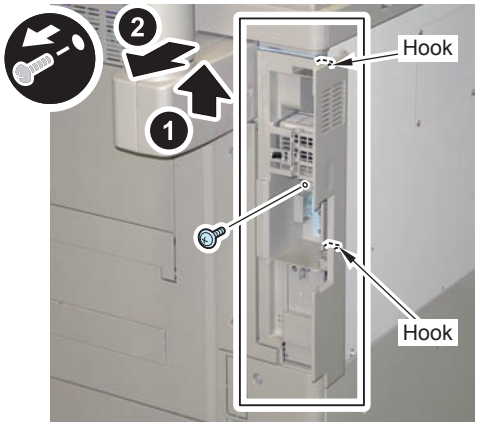
Removing the HDD and HDD Case Unit

□
1) Push [A] part, and open the Right Rear Cover 1.



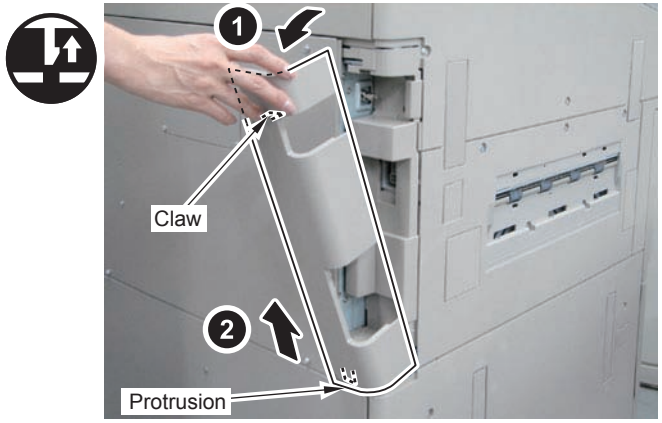
F-9-279

□
2) Remove the Side Cover.
- 1 Screw
- 2 Hooks



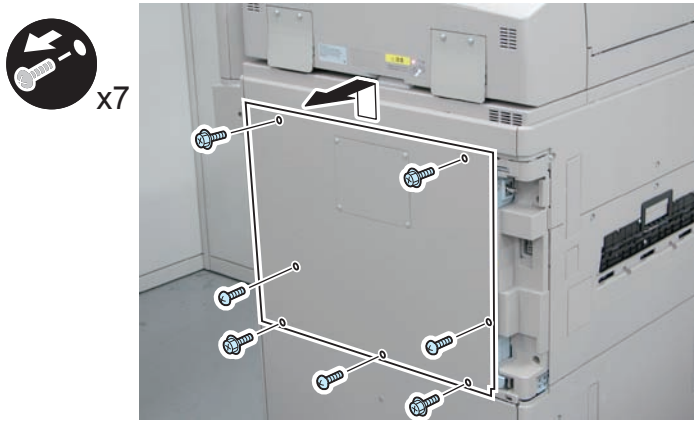
F-9-280

□
3) Remove the Left Rear Cover.
- 1 Claw
- 1 Protrusions



F-9-281

□
4) Remove the Rear Upper Cover.
- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)

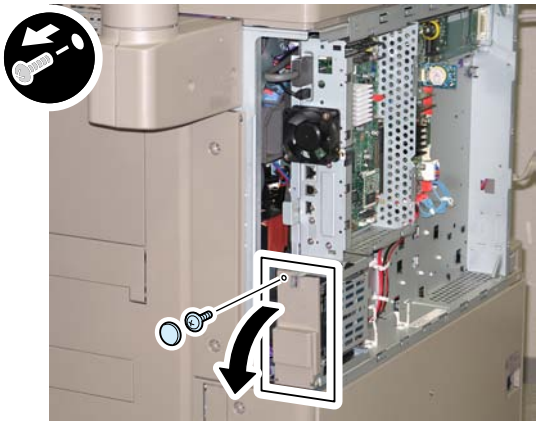


F-9-282

☐

5) Open the HDD Cap.

- 1 Rubber Cap
- 1 Screw (The removed screw will not be used.)



F-9-283

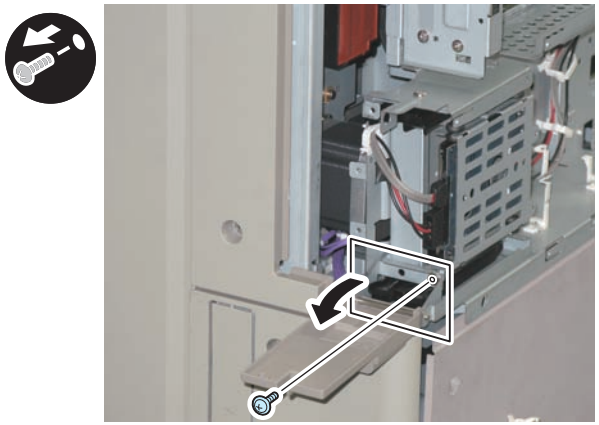
☐

6) Return the rubber cap to the HDD Cap.

☐

7) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will not be used.)

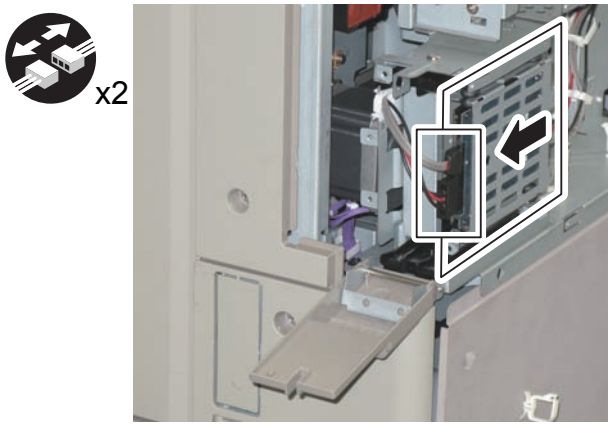


F-9-284

☐

8) Remove the HDD. (The removed HDD will not be used.)

- 2 Connectors

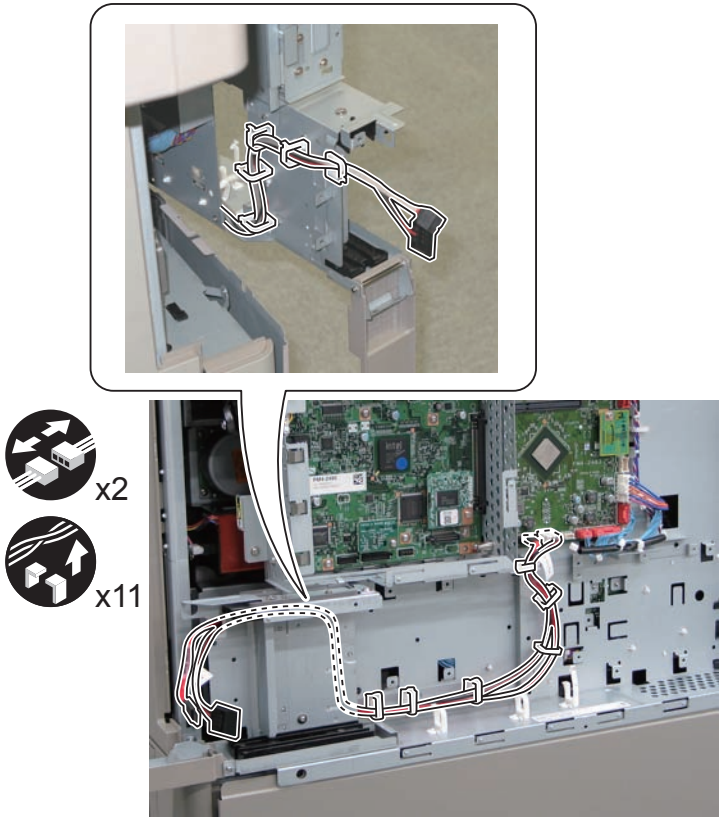


F-9-285

□

9) Open the Controller Box, and disconnect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) on the host machine. (Disconnected Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) will not be used.)

- 2 Connectors
- 9 Wire Saddles
- 2 Edge Saddles

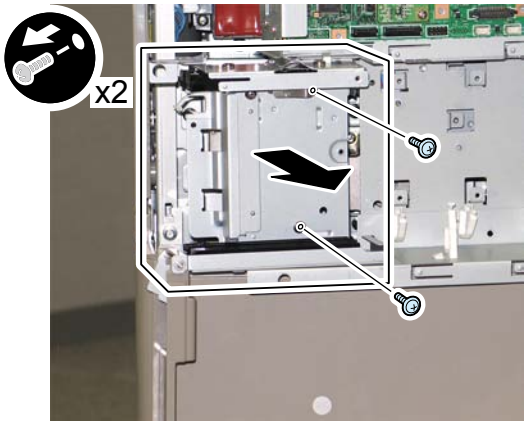


F-9-286

□

11) Remove the HDD Case Unit.

- 2 Screws (The removed screws will be used in “Installing the HDD Case Unit” step 1).)

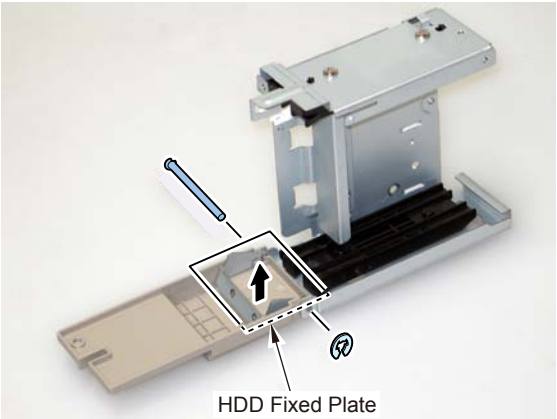


F-9-287

Changing Configuration inside of HDD Case Unit

□

1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-288

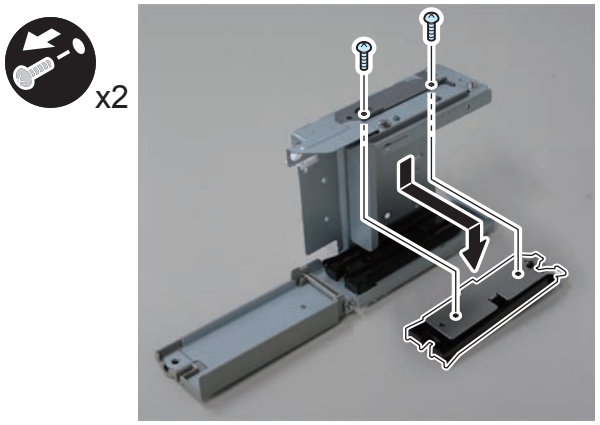
□

2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

□

3) Remove the Upper Rail from the HDD Case Unit.

- 2 Screws (The removed screws will be used in step 6).)

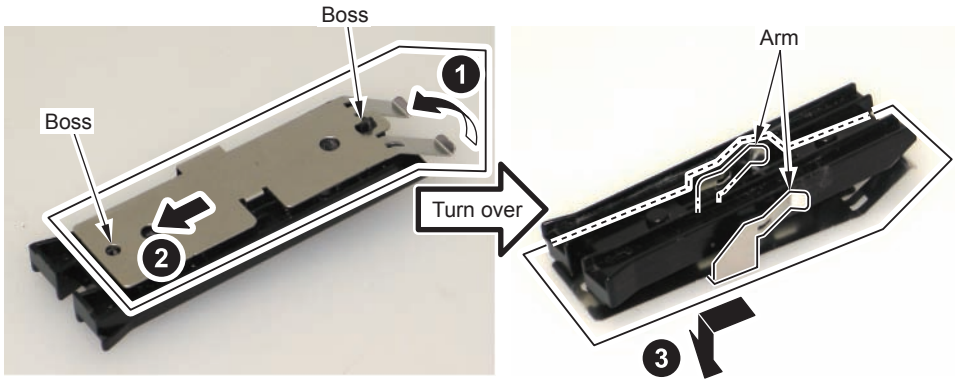


F-9-289

□

4) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)

- 2 Bosses
- 2 Arms



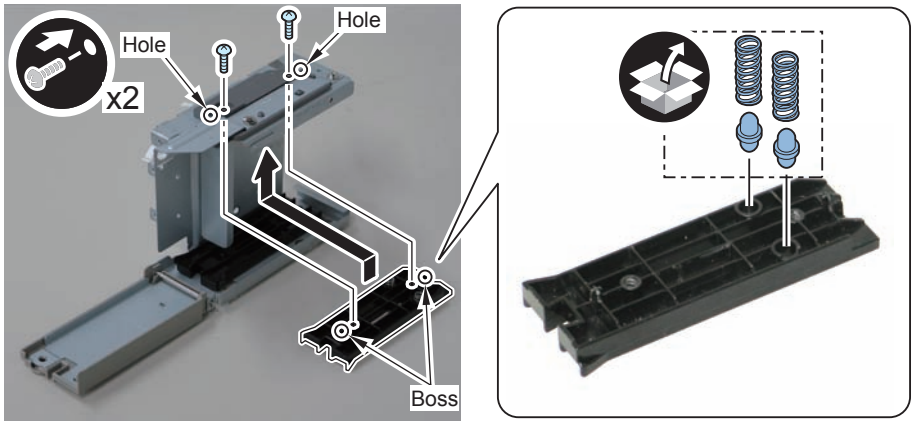
F-9-290

□

5) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

6) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 3).)



F-9-291

□

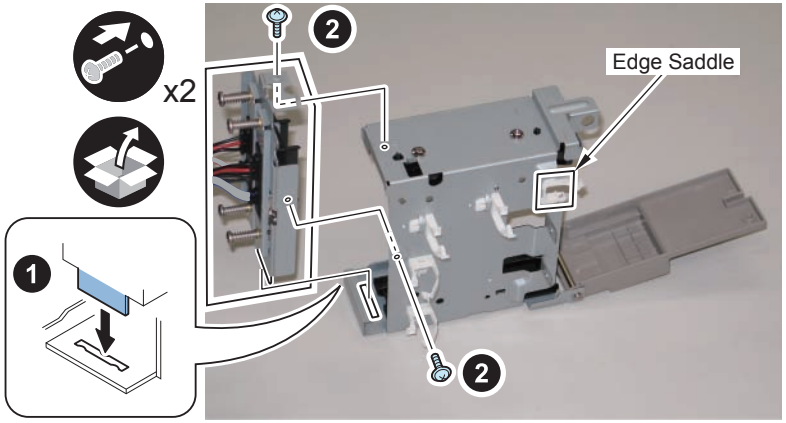
7) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

8) Close the Edge Saddle.



F-9-292

Installing the HDD Case Unit

□

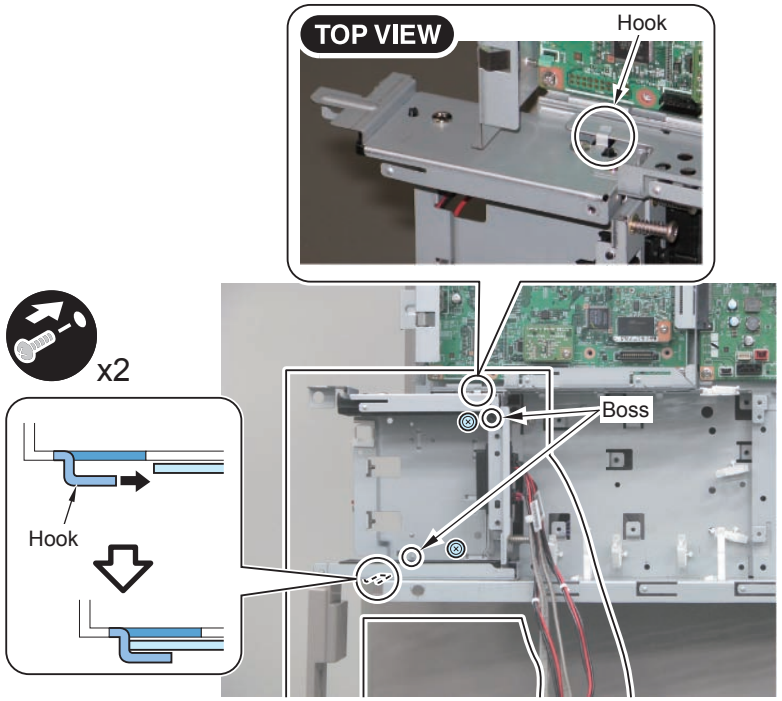
1) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in “Removing the HDD and HDD Case Unit” step 10).)

CAUTION:

Make sure that the bosses is fitted properly.

NOTE:
Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.



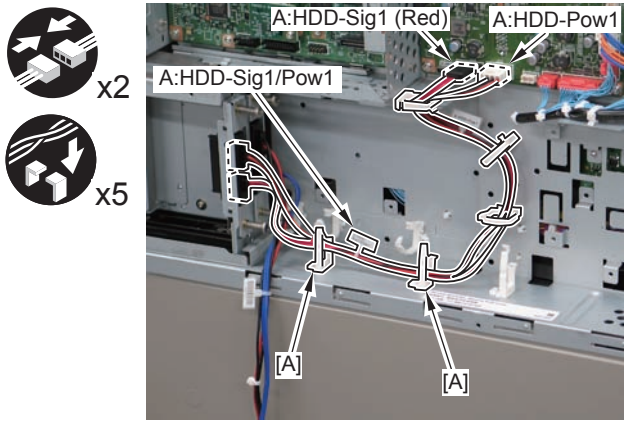
F-9-293

□

2) Connect the Signal Cable (A:HDD-Sig1 Red) and Power Supply Cable (A:HDD-Pow1) of the HDD Drawer Unit to the Main Controller PCB 2.

- 2 Connectors
- 1 Edge Saddle
- 4 Wire Saddles

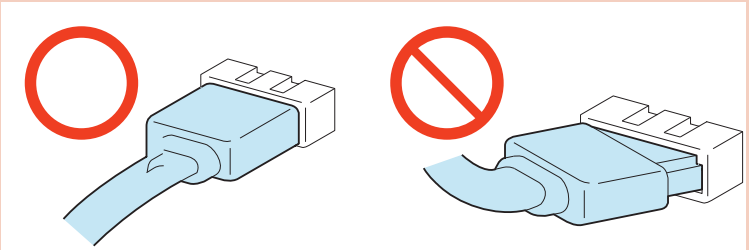
NOTE:
Be sure not to close the 2 Wire Saddles [A] in this step.



F-9-294

CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



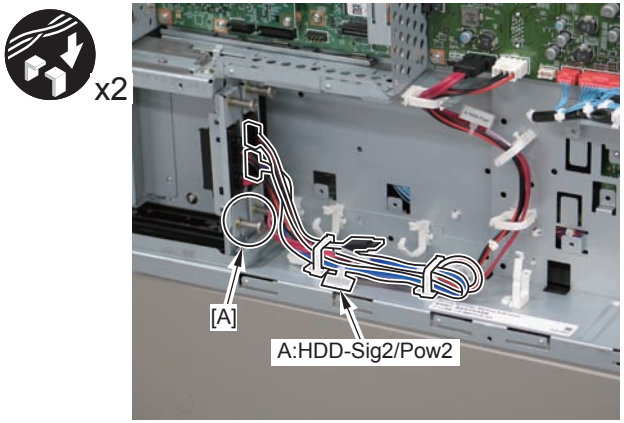
F-9-295

□

3) Fold the extra length of "A:HDD-Sig2/Pow2" cable of the HDD Drawer Unit and secure using 2 Wire Saddles.

CAUTION:

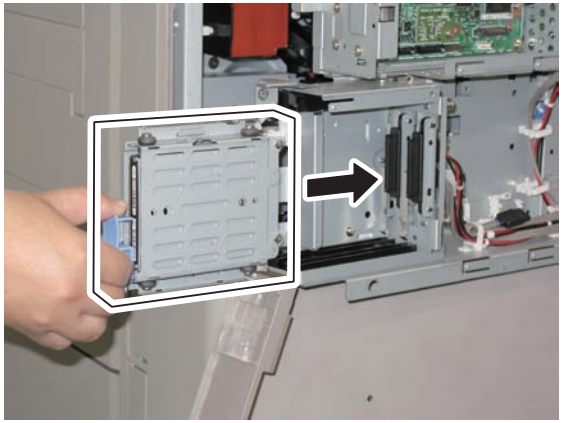
- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-296

□

4) Insert the assembled Removable HDD.

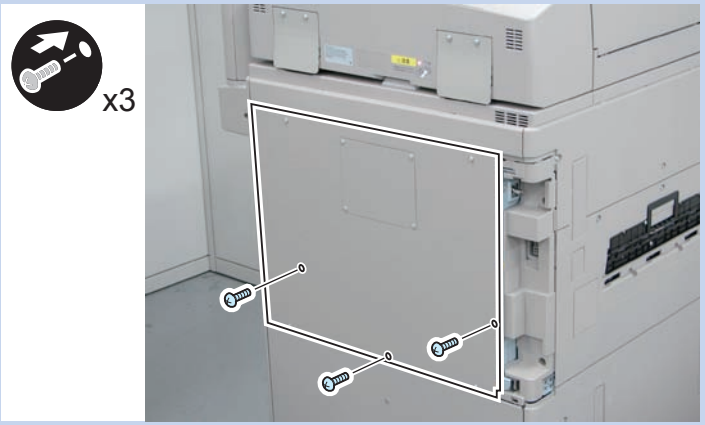


F-9-297

☐
5) Close the Controller Box.

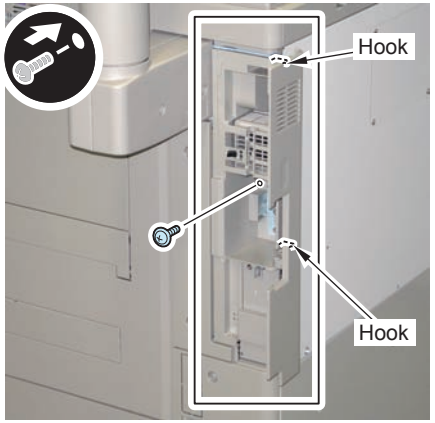
☐
6) Install the Rear Upper Cover.
- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.



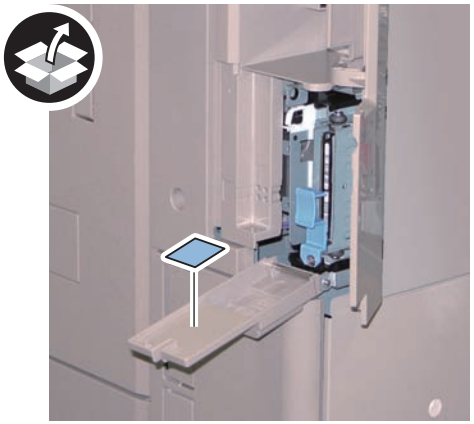
F-9-298

☐
7) Install the Side Cover.
- 2 Hooks
- 1 Screw



F-9-299

☐
8) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-300

□
9) Close the HDD Cap, and install the key prepared by the user for locking.

NOTE:
Be sure to use the locking key which size is the one indicated below or smaller.
- Size (width x depth x height) : 67mm x 14mm x 64mm

F-9-301

□
10) Close the Right Rear Cover 1.
11) Return the Left Rear Cover to its original position.
12) Connect the power plug to the outlet.

Installing the System Software Using the SST

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

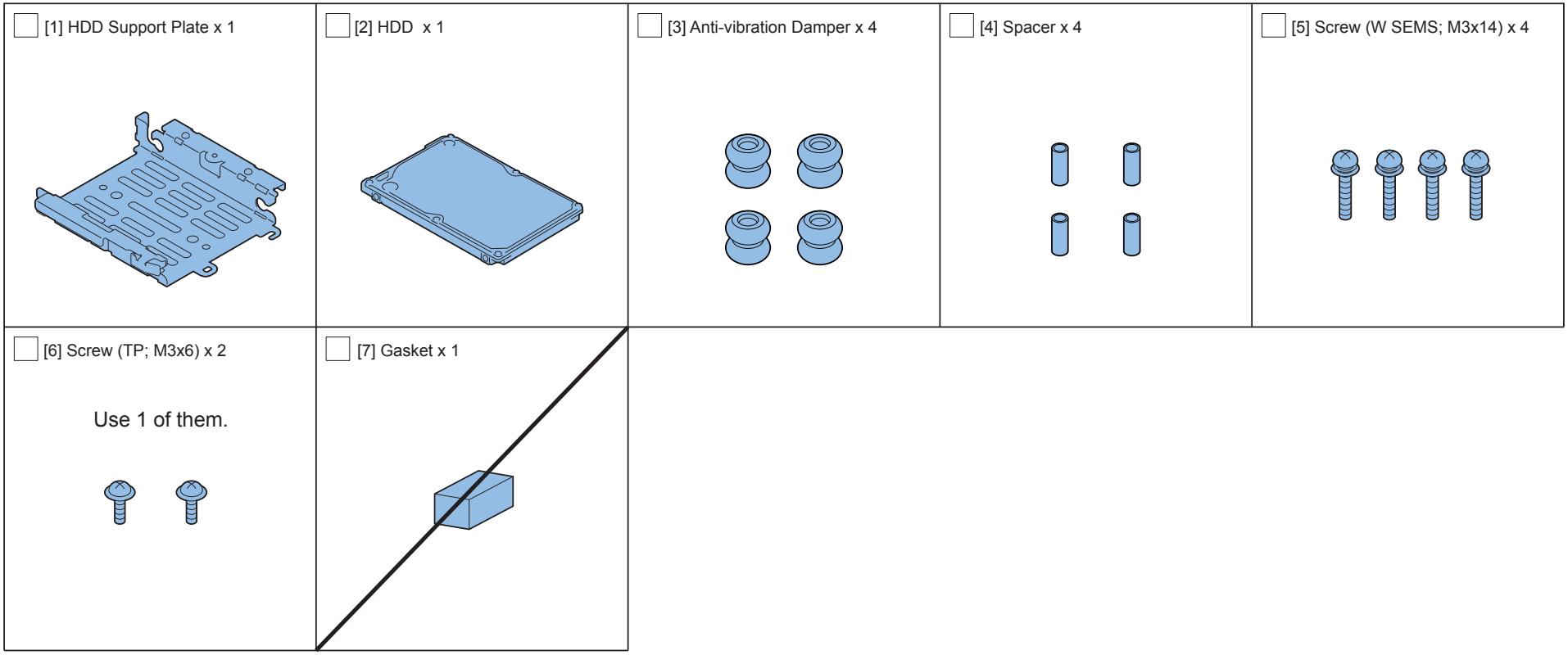
[TYPE-4] Option HDD (160GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

Option HDD (160GB)



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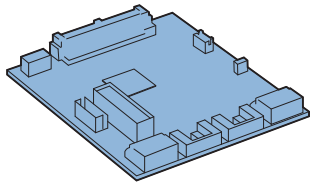
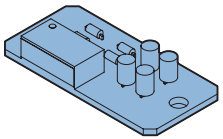
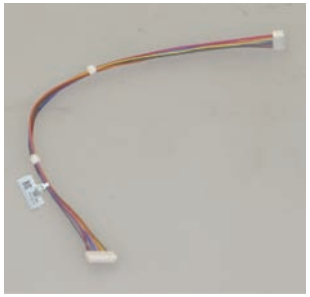
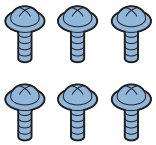
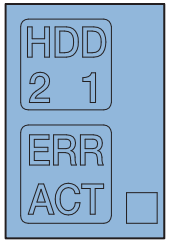
< CD/Guides >

- FCC/IC Sheet

HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

☐ [1] Encryption Board X 1 	☐ [2] LED Board (A: LED) X 1 	☐ [3] Power Supply Cable (A:HDD-Pow1) X 1	☐ [4] Power Supply Cable (A:HDD-Pow2) X 1	☐ [5] Signal Cable (A:HDD-Sig1 (Red)) X 1
☐ [5] Signal Cable (A:HDD-Sig2 (Blue)) X 1	☐ [7] LED Cable (A:LED-Sig) X 1 	☐ [8] Screw (TP; M3x6) X 6 	☐ [9] LED Label X 1 	

F-9-303

< CD/Guides of HDD Mirroring Kit >
- HDD Mirroring Kit User Guide
- FCC/IC Sheet

< CD/Guides of HDD Data Encryption & Mirroring Kit >
- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD

Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.

□

1) Execute the following service mode (level 1).

- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

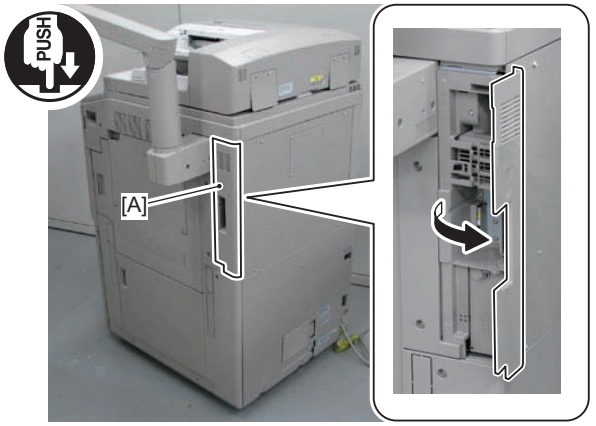
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Installation Procedure

Removing the Covers

□

1) Push [A] part, and open the Right Rear Cover 1.

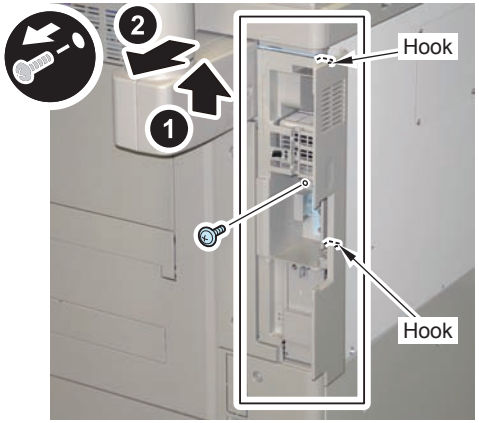


F-9-304

□

2) Remove the Side Cover.

- 1 Screw
- 2 Hooks

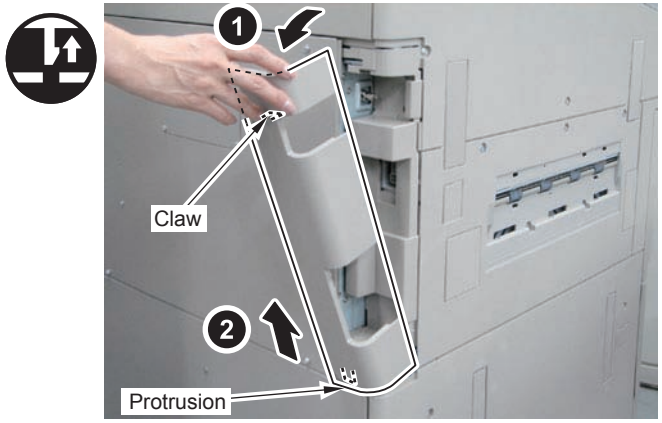


F-9-305

☐

3) Remove the Left Rear Cover.

- 1 Claw
- 1 Protrusions

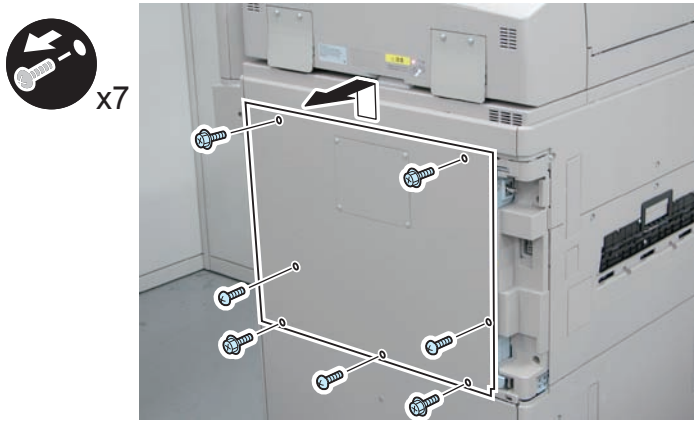


F-9-306

☐

4) Remove the Rear Upper Cover.

- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)

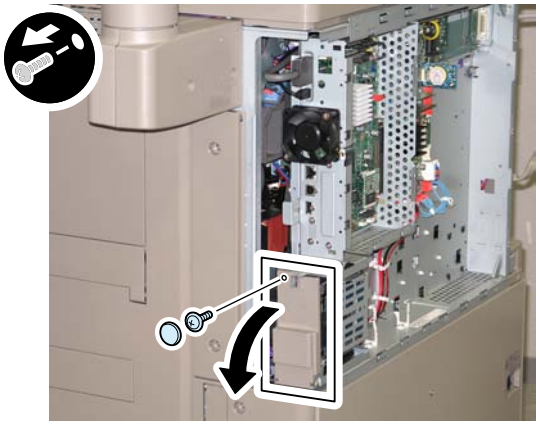


F-9-307

☐

5) Open the HDD Cap.

- 1 Rubber Cap
- 1 Screw

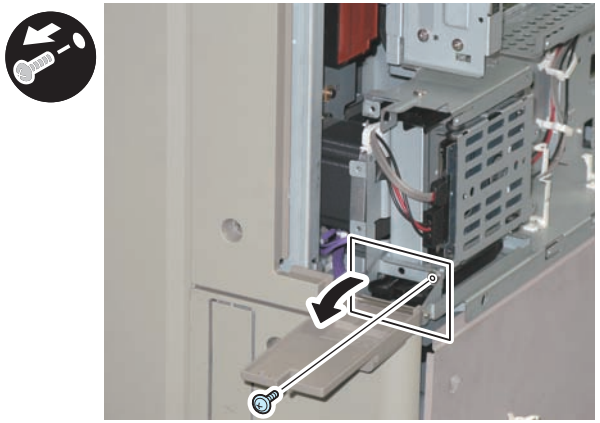


F-9-308

☐

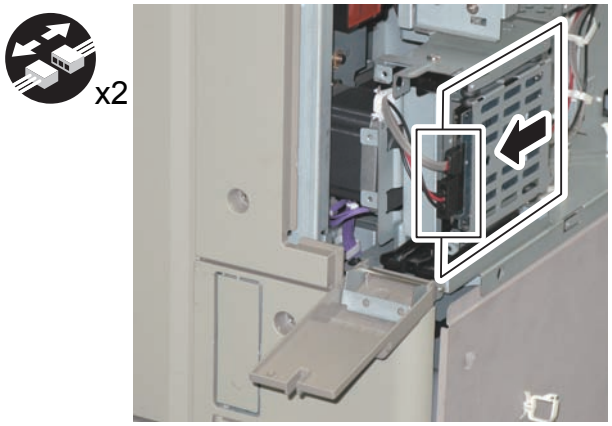
6) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will be used in “Installing the Mirroring Board or Encryption Board” step 12).)



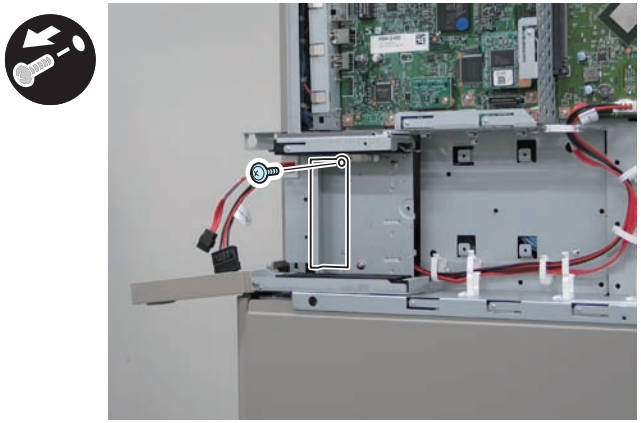
F-9-309

☐
7) Remove the HDD.
- 2 Connectors



F-9-310

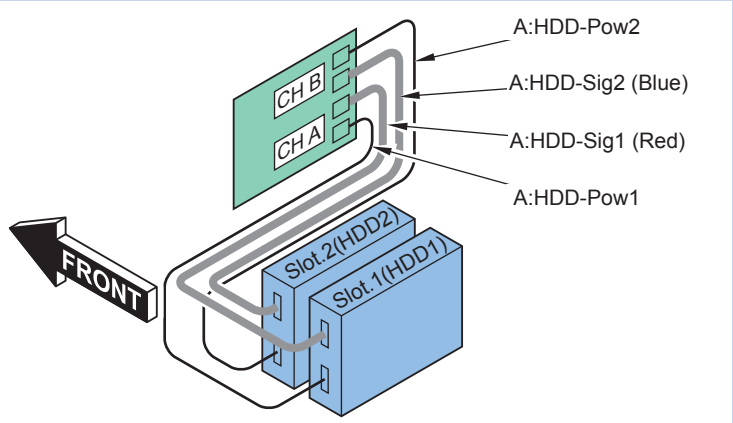
☐
9) Remove the Face Plate. (The removed Face Plate and screw will not be used.)
- 1 Screw



F-9-311

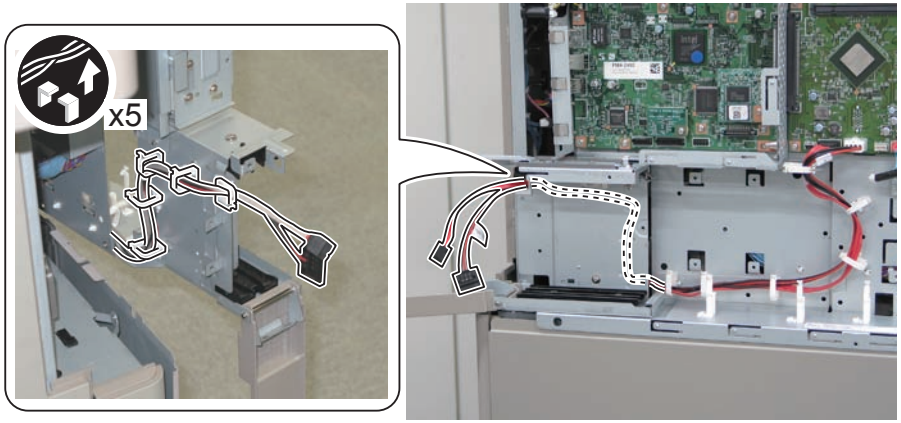
Installing the Mirroring Board or Encryption Board

NOTE:
The following shows combination of the HDD and the Mirroring Board or Encryption Board.
- Connect “CH A” to Slot.1 (The original HDD)
- Connect “CH B” to Slot.2 (The new HDD)



F-9-312

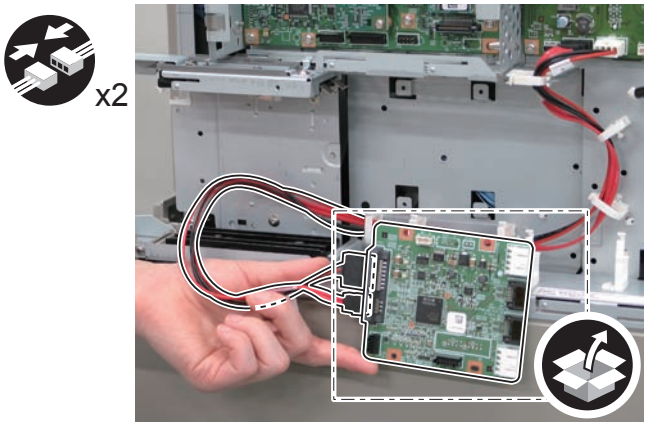
☐
1) Open the Controller Box, and free the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



F-9-313

☐

2) Pull out the cables to the front, and connect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) to the Mirroring Board or Encryption Board.



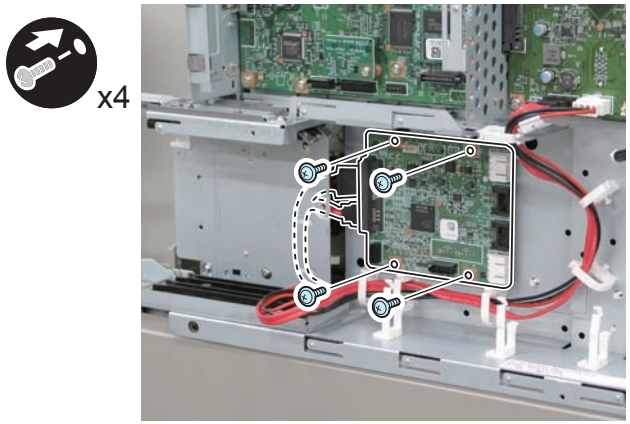
F-9-314

☐

3) Install the Mirroring Board or Encryption Board.

- 4 Screws (TP; M3x6)

NOTE:
When installing the Encryption Board, the Signal Cable (A:Cont-Sig) and Power Supply Cable (A:Cont-Pow) along the wavy line should be located on the back side of the HDD Case Unit.

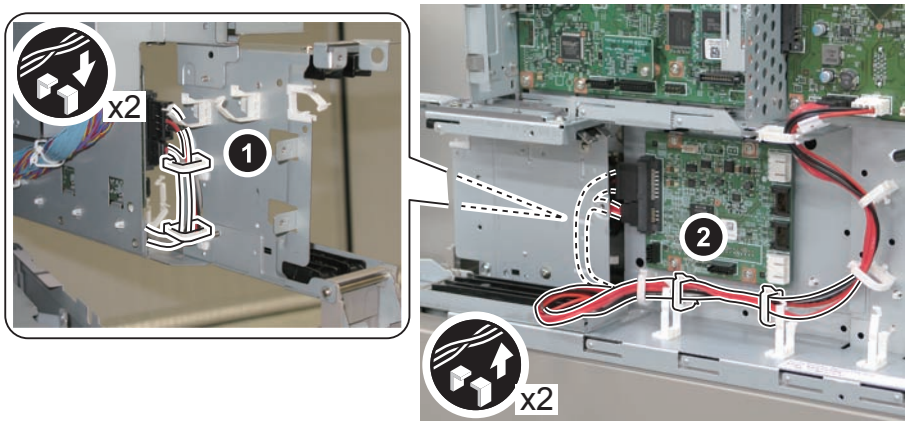


F-9-315

☐

4) Secure the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) in place using the 2 Wire Saddles at the back of the HDD Case Unit.

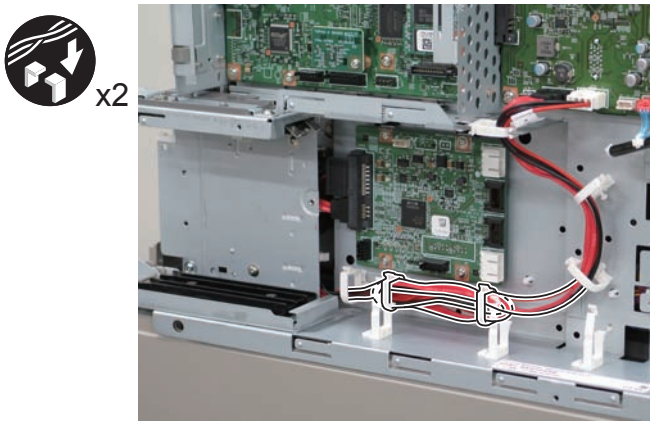
5) Free the cables from the 2 Wire Saddles at the front.



F-9-316

☐

6) Fold extra length of the cable and secure it with the 2 Wire Saddles.

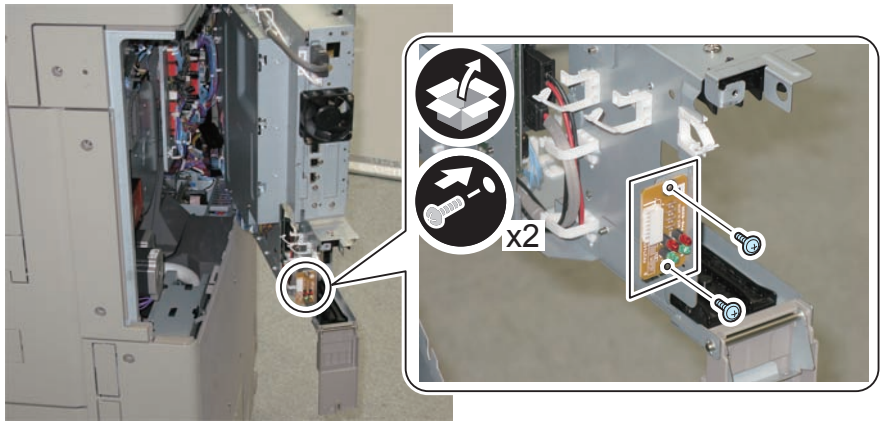


F-9-317

☐

7) Install the LED Board (A: LED) to the side surface of the HDD Case Unit.

- 2 Screws (TP; M3x6)



F-9-318

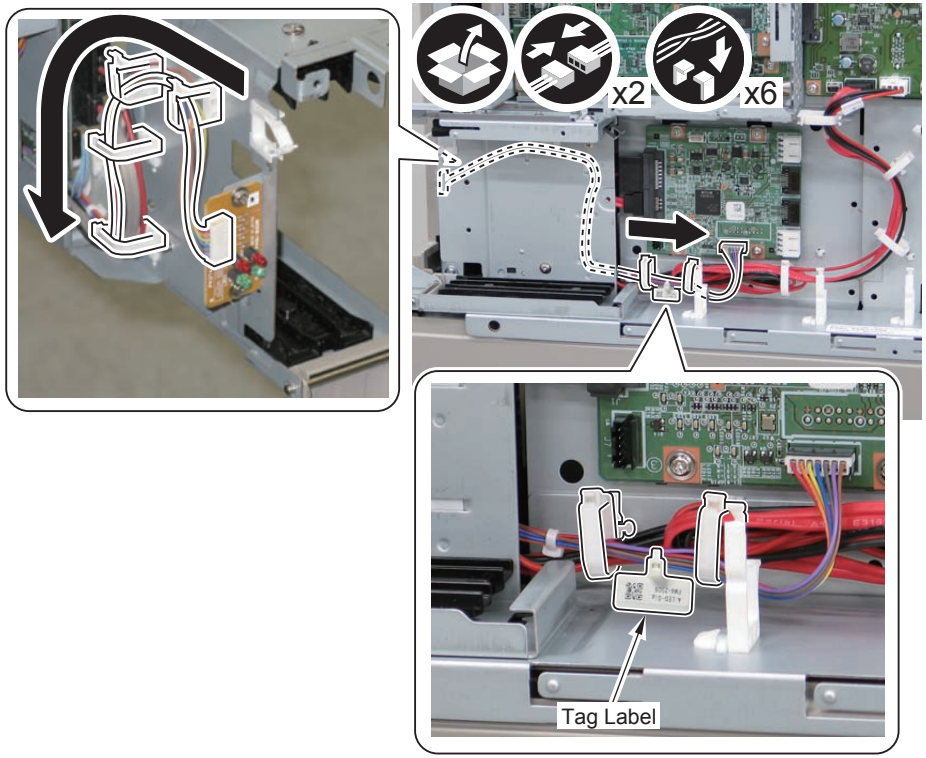
☐

8) Connect the LED Cable (A: LED-Sig) to the LED Board (A: LED) and the Mirroring Board or Encryption Board.

- 2 Connectors
- 6 Wire Saddles

CAUTION:

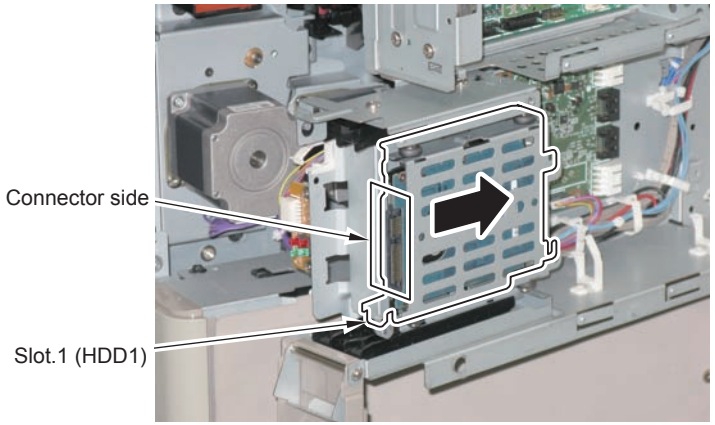
- The tag label of "A:LED-Sig" should be located between Wire Saddles.
- Secure the LED Cable (A: LED-Sig) in the direction of the arrow.
- Check that the LED Cable (A: LED-Sig) is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-319

☐

9) Insert the removed HDD into the Slot.1.

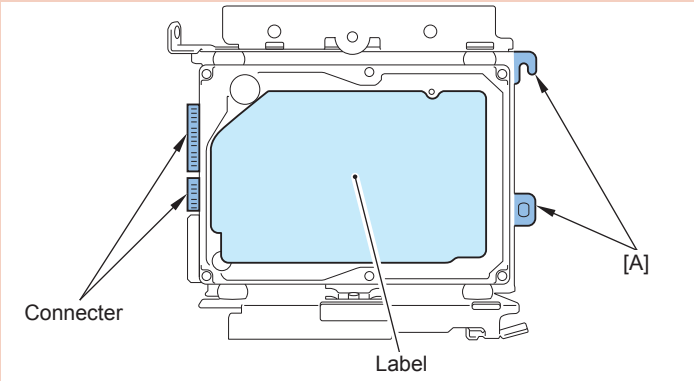


F-9-320

CAUTION:

When assembling the Option HDD, be sure to pay attention to the direction.

- Be sure that the label face of the Option HDD is up.
- Be sure that the [A] part of the HDD Support Plate is on the other side of the connecter.



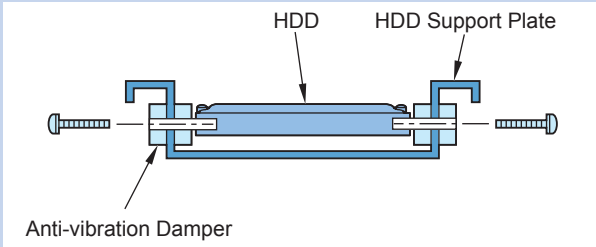
F-9-321

☐

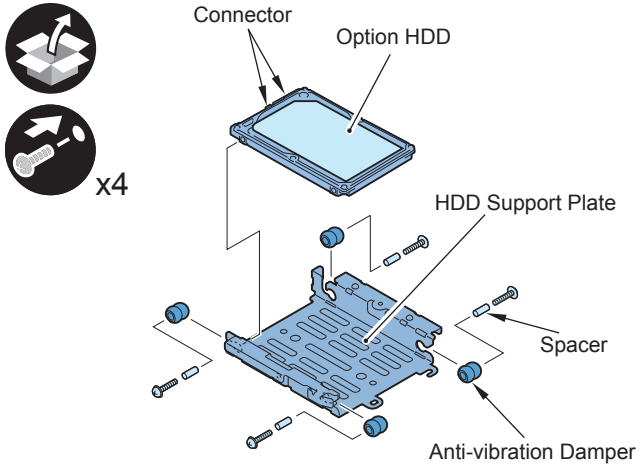
10) Assemble the Option HDD (160GB). (for the second HDD)

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



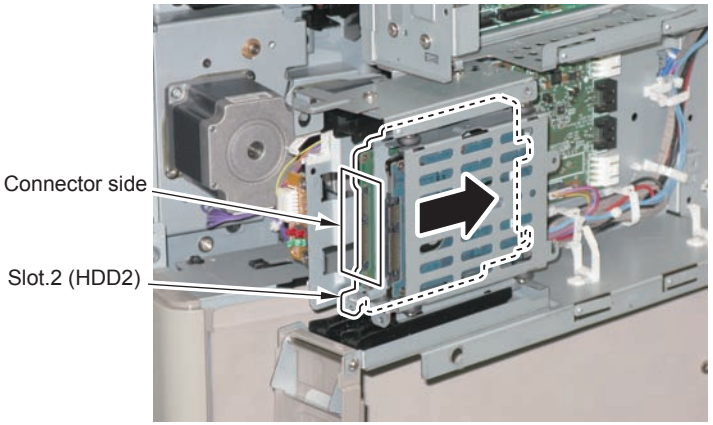
F-9-322



F-9-323

☐

11) Insert the assembled Option HDD into the Slot.2.

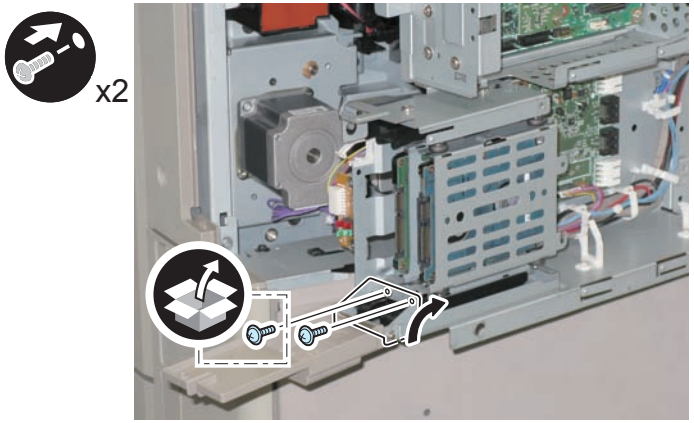


F-9-324

☐

12) Secure the HDD Fixed Plate.

- 1 screw (Use the screws removed in “Removing the Covers” step 6).)
- 1 Screw (TP; M3x6) (Use the contents included in the Option HDD.)



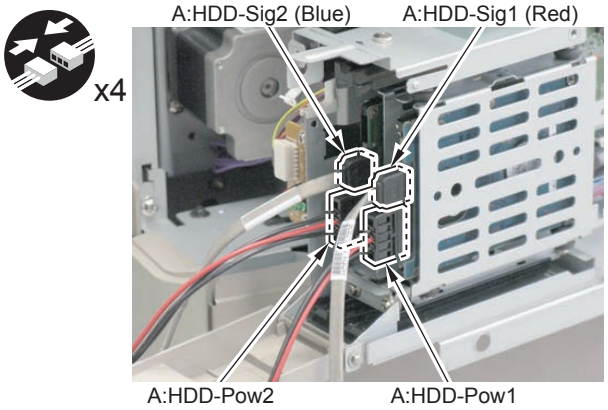
F-9-325

☐

13) Connect the Signal Cables (A:HDD-Sig1 Red) and (A:HDD-Sig2 Blue) and Power Supply Cables (A:HDD-Pow1) and (A:HDD-Pow2) included in the HDD Data Encryption/Mirroring Kit.

NOTE:

- Connect the Signal Cable (A:HDD-Sig2 Blue) and Power Supply Cable (A: HDD-Pow2) to the Slot.2.
- Connect the Signal Cable (A:HDD-Sig1 Red) and Power Supply Cable (A: HDD-Pow1) to the Slot.1.



F-9-326

☐

14) Put the Signal Cables (A:HDD-Sig1 Red) (A:HDD-Sig2 Blue) and the Power Supply Cables (A:HDD-Pow1) (A:HDD-Pow2) through [A] part.

15) Connect the 4 connectors of the Signal Cables (A:HDD-Sig1 Red) (A:HDD-Sig2 Blue) and the Power Supply Cables (A:HDD-Pow1) (A:HDD-Pow2) to the Mirroring Board or Encryption Board.

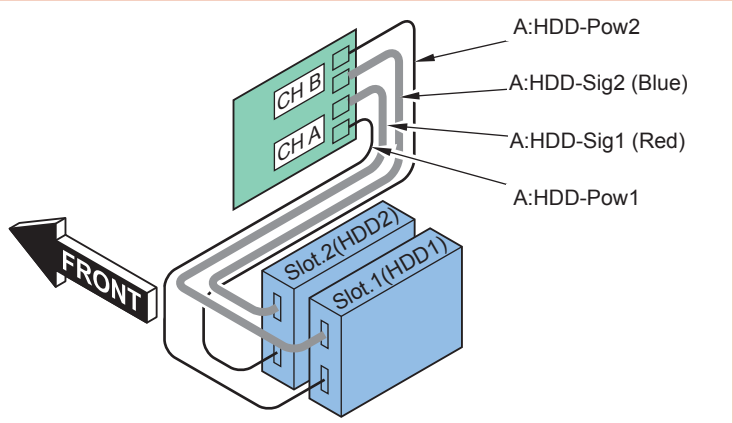
CAUTION:

- Slot.1 side:

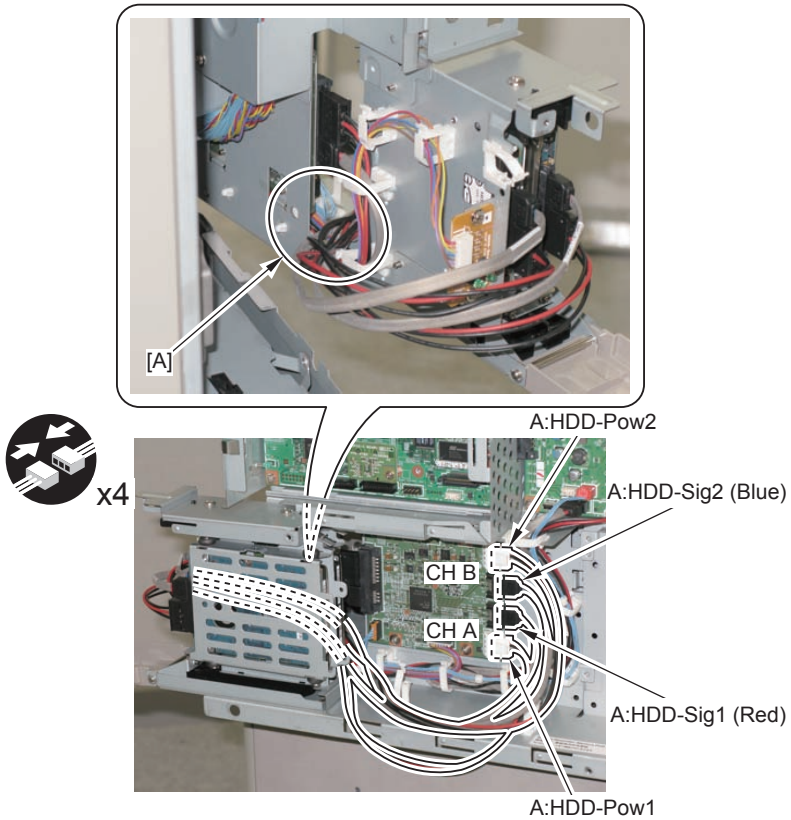
Be sure to connect "A:HDD-Sig1 (Red)" and "A:HDD-Pow1" to CH-A of the PCB.

- Slot.2 side:

Be sure to connect "A:HDD-Sig2 (Blue)" and "A:HDD-Pow2" to CH-B of the PCB.



F-9-327



F-9-328

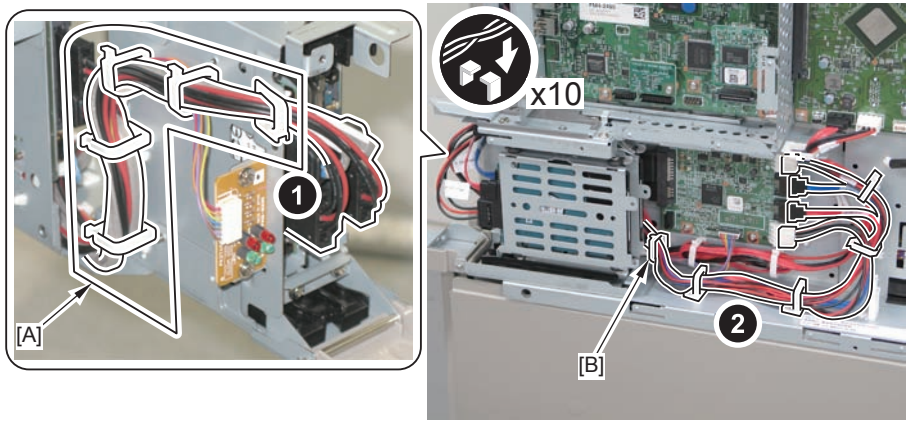
☐

16) Secure the Signal Cables (A:HDD-Sig1 Red) and (A:HDD-Sig2 Blue) and Power Supply Cables (A:HDD-Pow1) and (A:HDD-Pow2) as shown in the figure.

- 1 Edger Saddle
- 9 Wire Saddles

CAUTION:

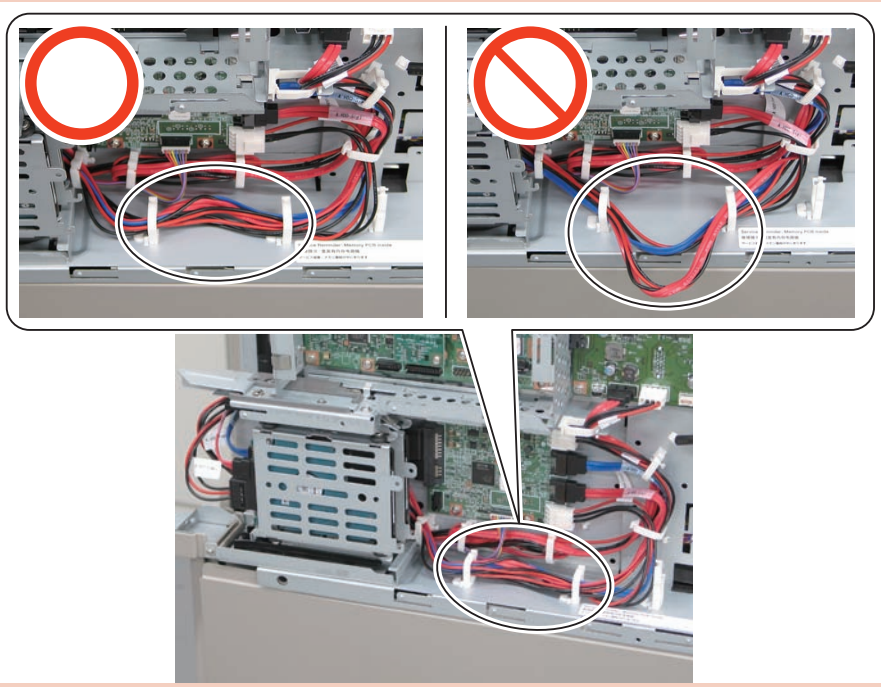
- Secure the cables so that there is no extra slack of the cables at [A] part.
- Be sure that the Wire Saddle [B] is properly securing the cables.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-329

CAUTION:

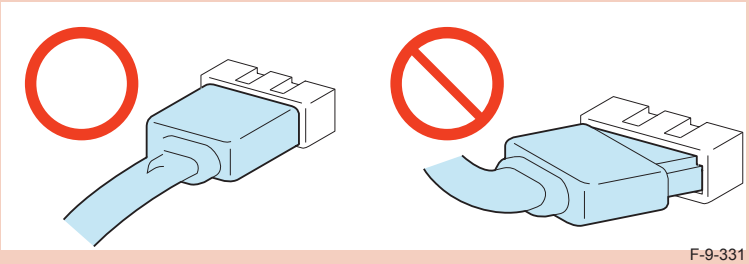
If there is extra slack of the cables, be sure to tuck them to the host machine side.



F-9-330

CAUTION:

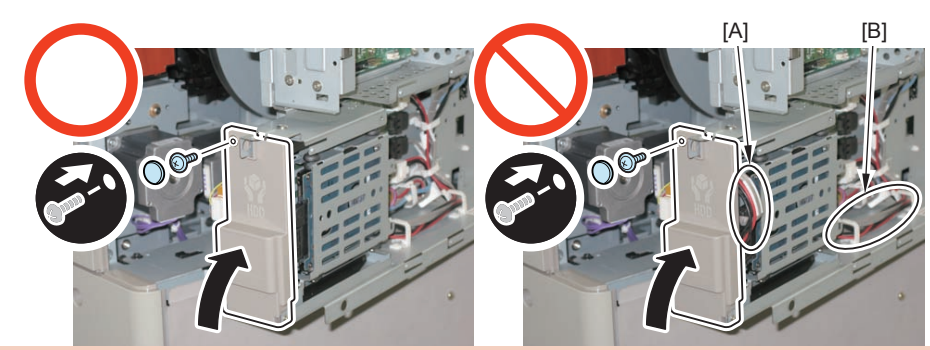
Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-331

☐
17) Close the HDD Cap.
- 1 Screw
- 1 Rubber Cap

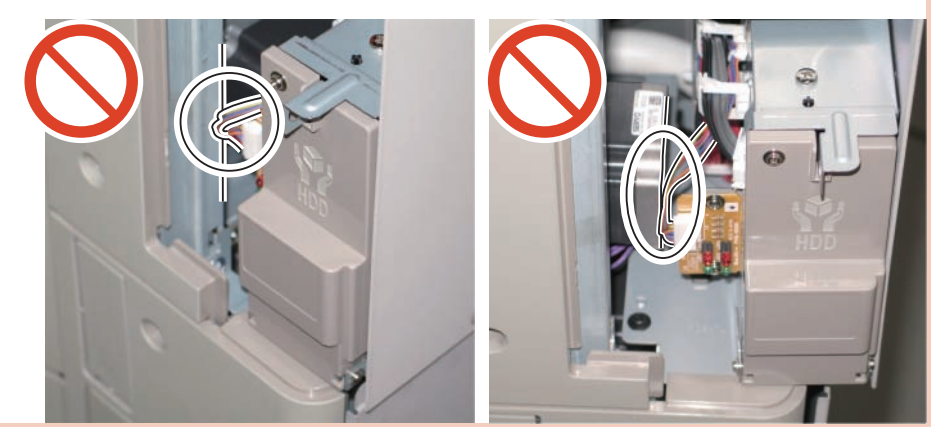
CAUTION:
- Be sure that the cables do not protrude from the [A] part of the HDD Cap.
- If the cables protrude from the [A] part, allow extra slack of the cables at the [B] part and tuck them to the host machine side.



F-9-332

☐
18) Close the Controller Box.

CAUTION:
When closing the Controller Box, check that the LED Cable (A: LED-Sig) is not trapped or does not contact with it.



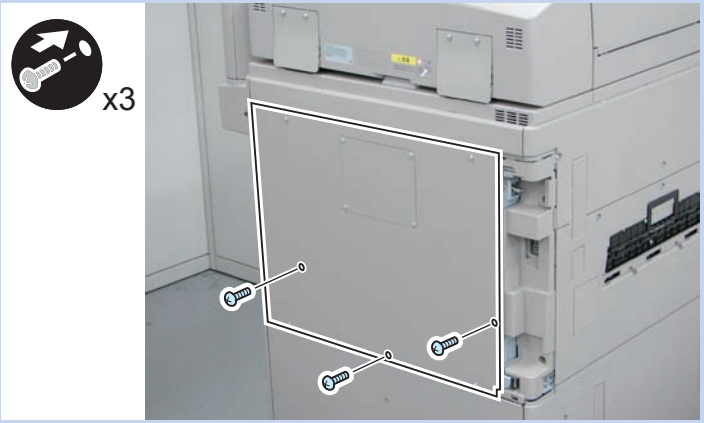
F-9-333

☐

19) Install the Rear Upper Cover.

- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.

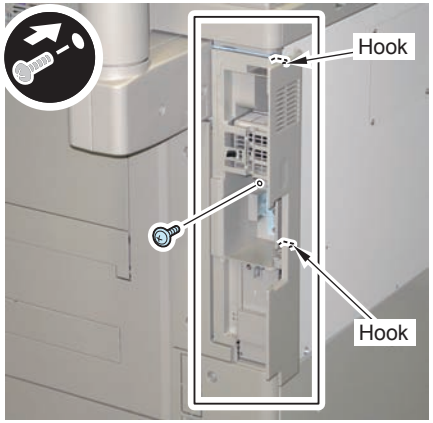


F-9-334

☐

20) Install the Side Cover.

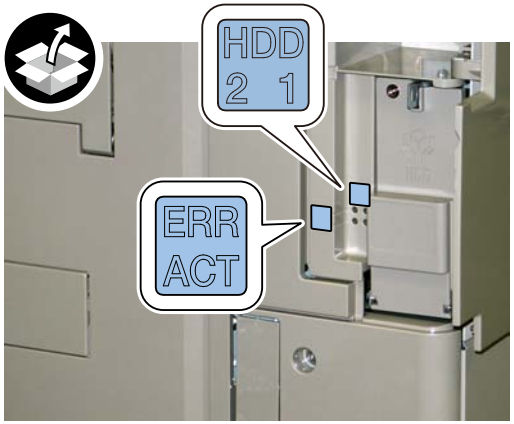
- 2Hooks
- 1 Screw



F-9-335

☐

21) Affix the LED Label.



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☐

22) Close the Right Rear Cover 1.

23) Return the Left Rear Cover to its original position.

24) Connect the power plug to the outlet.

25) Turn ON the main power switch. (Only when installing HDD Mirroring Kit)

Installing the System Software Using the SST (Only when installing HDD Data Encryption & Mirroring Kit)

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version (Only when installing HDD Data Encryption & Mirroring Kit)

1) Press the Counter key (123 key) on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC authentication is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

Checking the Security Mark (Only when installing HDD Data Encryption & Mirroring Kit)

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark( ) is displayed on the lower left corner of a panel screen.

Setting the Mirroring

1) Make a setting of mirroring.
- Specify “1” under “Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID”.

2) Turn OFF/ON the main power of the host machine to enable the setting value.
3) Make sure that the UI screen is activated correctly.
4) Make sure that the LED blinks.
- HDD1 (Slot 1): The green LED blinks.
- HDD2 (Slot 2): The green and red LEDs blink.

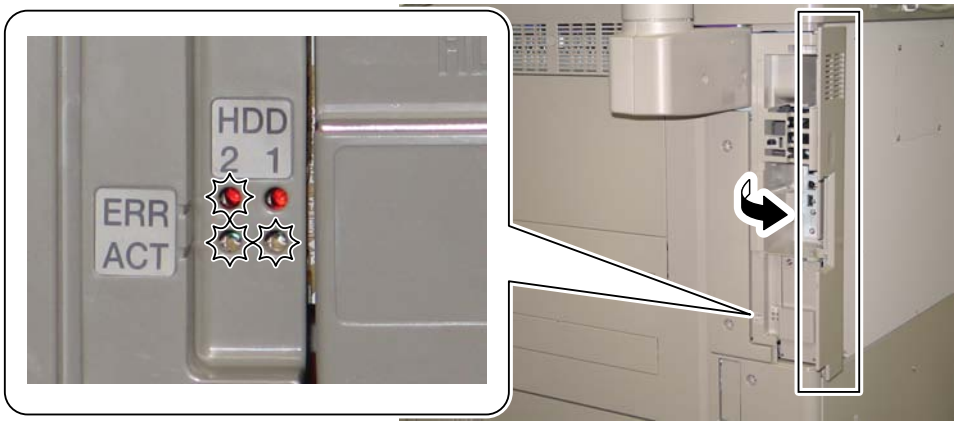
CAUTION:

Rebuild process starts after setting “1” for W/RAID. If an error occurs during the rebuild process at the initial installation The hard disk needs to be replaced. (Call service rep.), reexecute the process with the following procedure.

1) Check that the lighting red LED is HDD2.
2) Select Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID, and set “0”.
3) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.
4) Select Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID, and set "1".
5) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.

The foregoing procedure is limited to the rebuild process at the initial installation.

An error during the rebuild process that is executed during operation is not included in the consideration.



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Reporting to the System Administrator at the End of the Work (Only when installing HDD Data Encryption & Mirroring Kit)

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation (Only when installing HDD Data Encryption & Mirroring Kit)

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

9-157
9 Installation > [TYPE-4] Option HDD (160GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit > Execution of Auto Adjust Gradation (O

9-159
9 Installation > [TYPE-4] Option HDD (160GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit > Execution of Auto Adjust Gradation (O

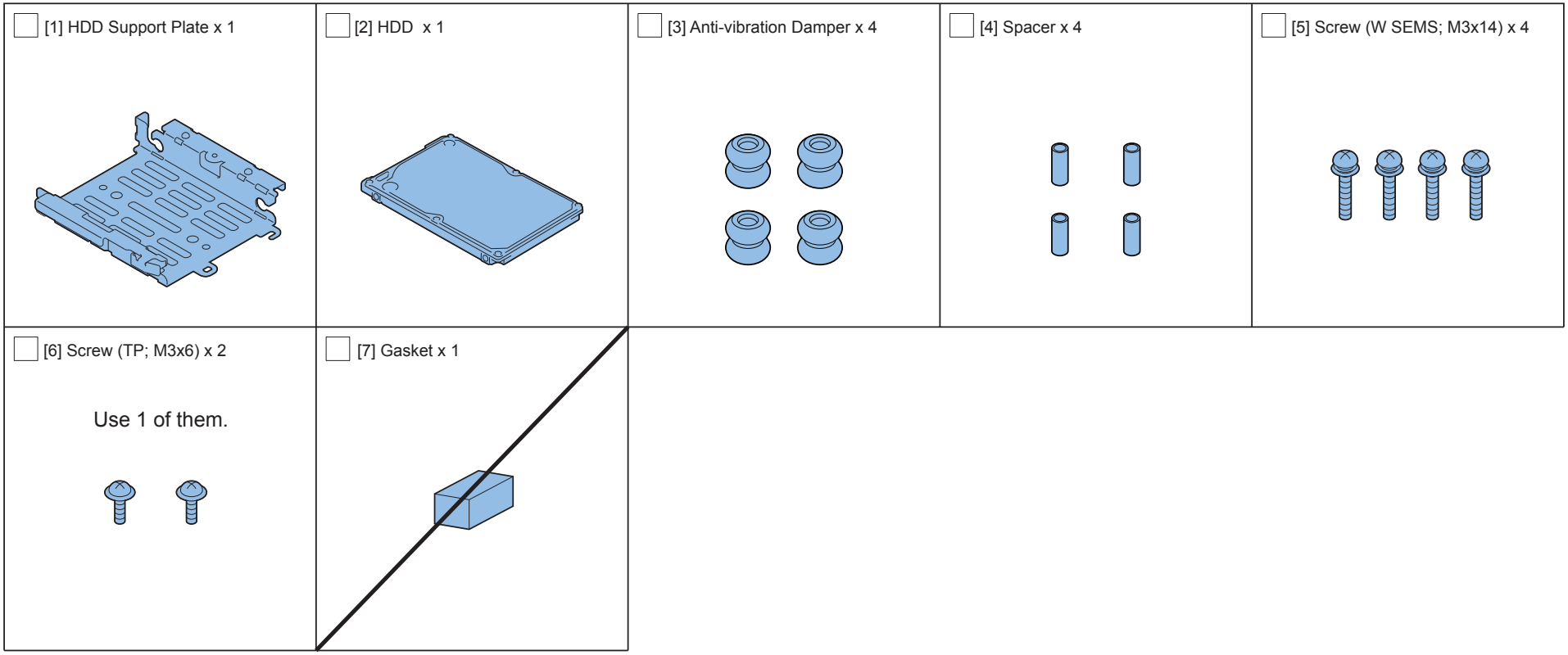
[TYPE-5] 2 Option HDDs (1TB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

Option HDD (1TB)



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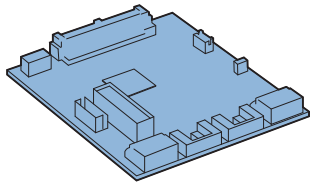
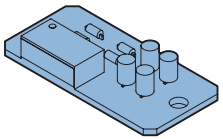
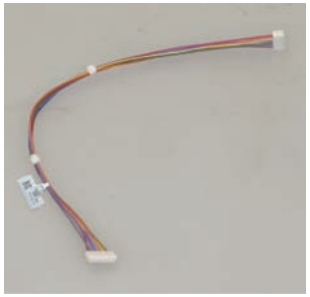
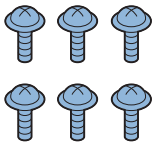
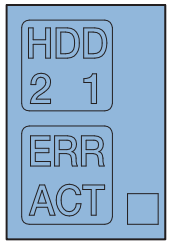
< CD/Guides >

- FCC/IC Sheet

HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

☐ [1] Encryption Board X 1 	☐ [2] LED Board (A: LED) X 1 	☐ [3] Power Supply Cable (A:HDD-Pow1) X 1	☐ [4] Power Supply Cable (A:HDD-Pow2) X 1	☐ [5] Signal Cable (A:HDD-Sig1 (Red)) X 1
☐ [5] Signal Cable (A:HDD-Sig2 (Blue)) X 1	☐ [7] LED Cable (A:LED-Sig) X 1 	☐ [8] Screw (TP; M3x6) X 6 	☐ [9] LED Label X 1 	

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< CD/Guides of HDD Mirroring Kit >
- HDD Mirroring Kit User Guide
- FCC/IC Sheet

< CD/Guides of HDD Data Encryption & Mirroring Kit >
- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD

Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.

□

1) Execute the following service mode (level 1).

- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

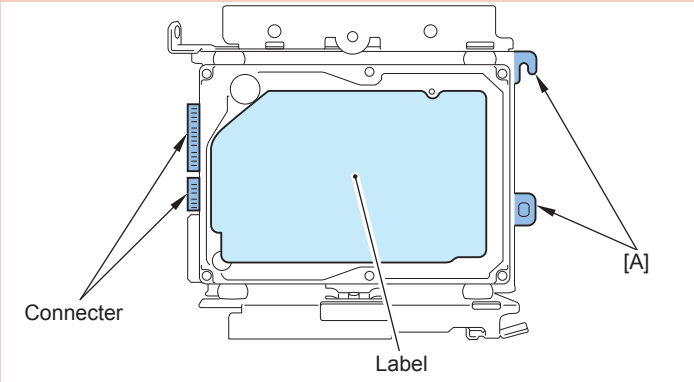
Installation Procedure

Assembling the Option HDD

CAUTION:

When assembling the Option HDD, be sure to pay attention to the direction.

- Be sure that the label face of the Option HDD is up.
- Be sure that the [A] part of the HDD Support Plate is on the other side of the connecter.



F-9-340

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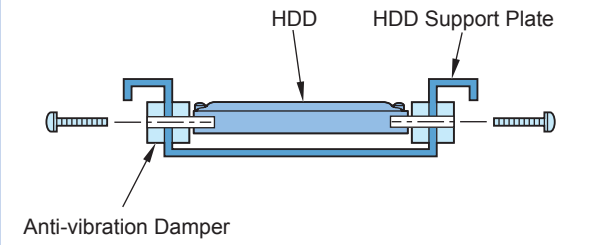
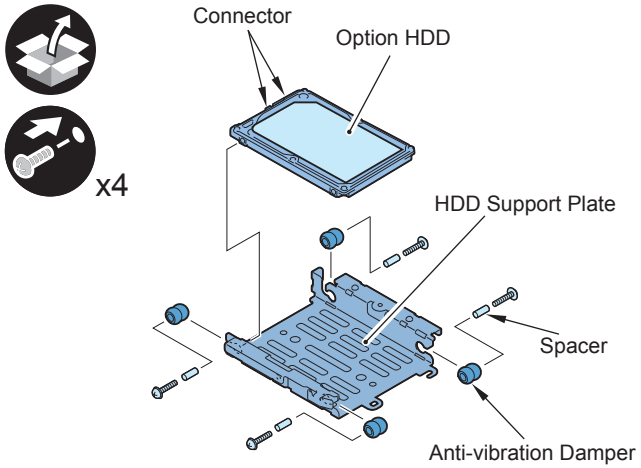
1) Assemble the Option HDD (1TB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-341



F-9-342

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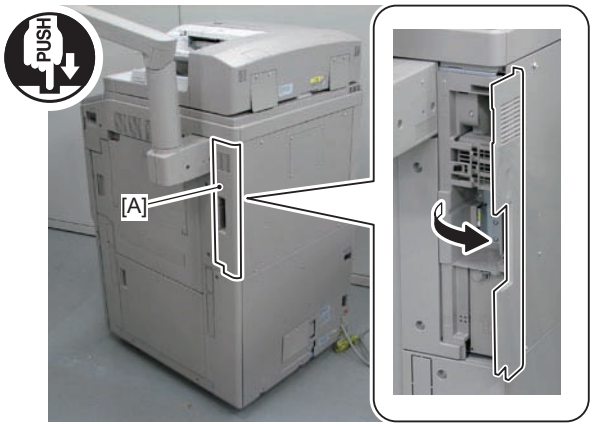
2) Assemble the other Option HDD (1TB) in the same way.

Removing the Covers

☐

1) Push [A] part, and open the Right Rear Cover 1.



F-9-343

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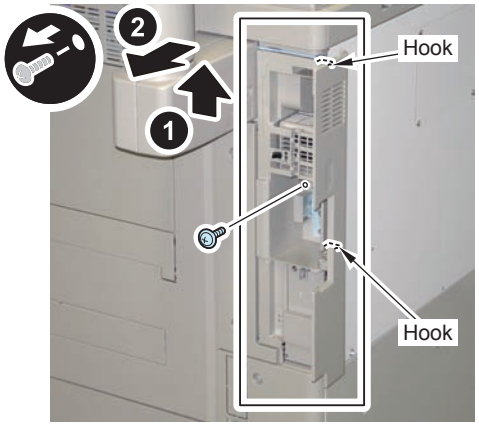
2) Remove the Side Cover.

- 1 Screw
- 2 Hooks



F-9-344

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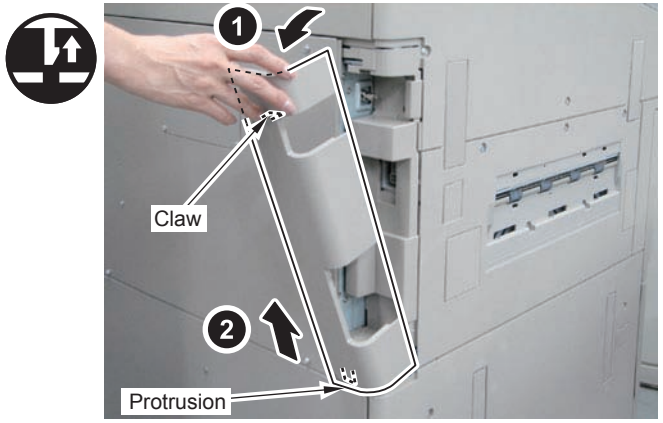
3) Remove the Left Rear Cover.

- 1 Claw
- 1 Protrusions



F-9-345

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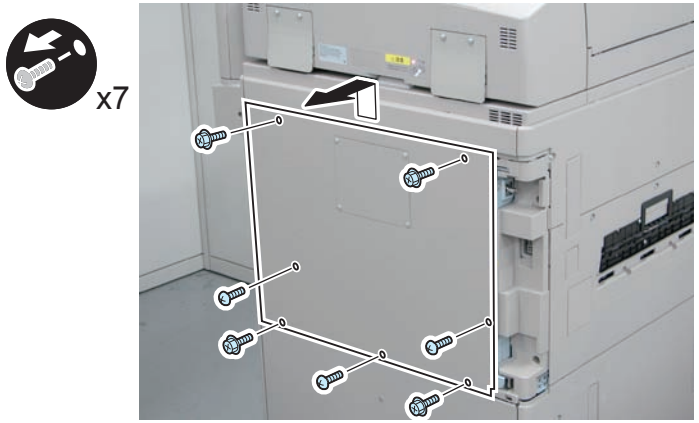
4) Remove the Rear Upper Cover.

- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)



F-9-346

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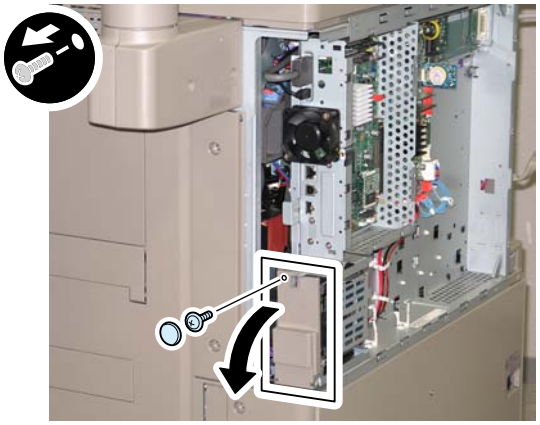
5) Open the HDD Cap.

- 1 Rubber Cap
- 1 Screw

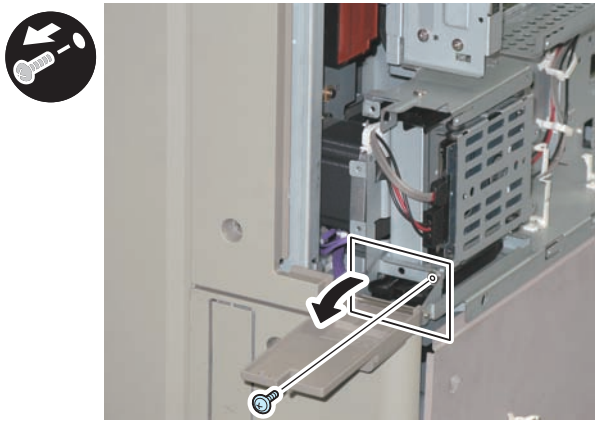


F-9-347

☐

6) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will be used in “Installing the Mirroring Board or Encryption Board” step 10).)

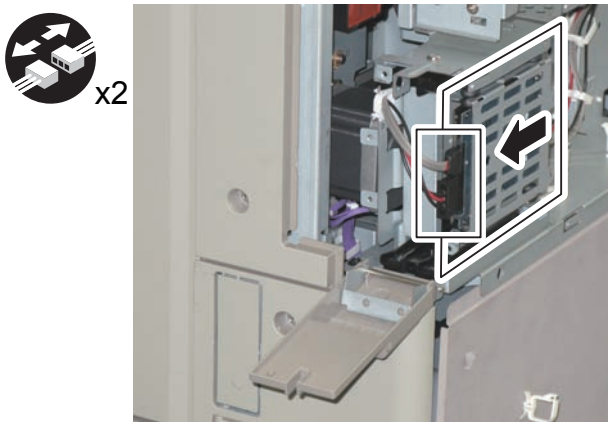


F-9-348

☐

7) Remove the HDD. (The removed HDD will not be used.)

- 2 Connectors

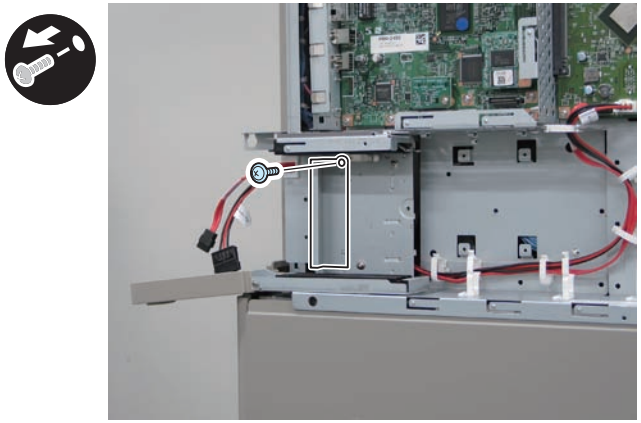


F-9-349

☐

9) Remove the Face Plate. (The removed Face Plate and screw will not be used.)

- 1 Screw

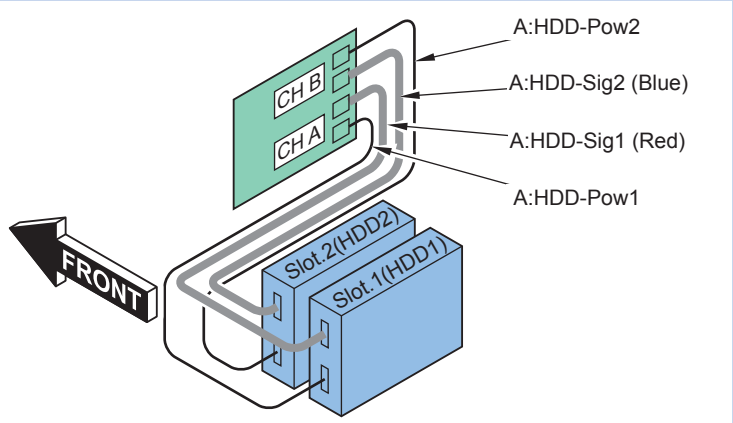


F-9-350

Installing the Mirroring Board or Encryption Board

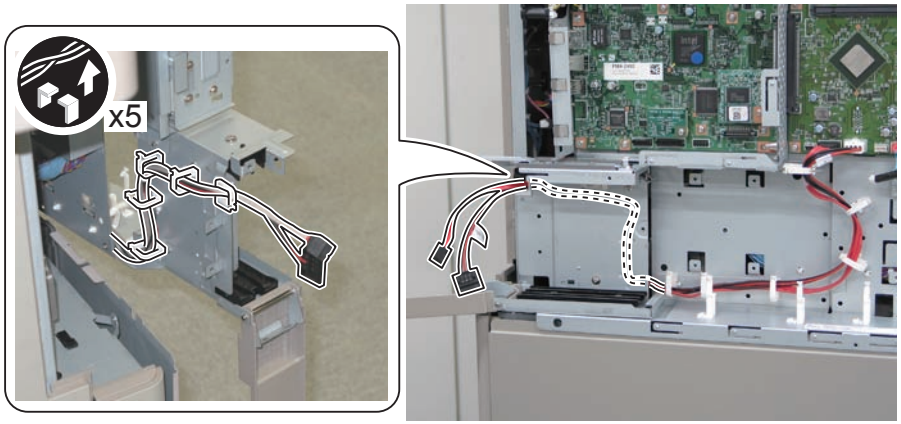
NOTE:
The following shows combination of the HDD and the Mirroring Board or Encryption Board.

- Connect “CH A” to Slot.1 (The new HDD)
- Connect “CH B” to Slot.2 (The new HDD)



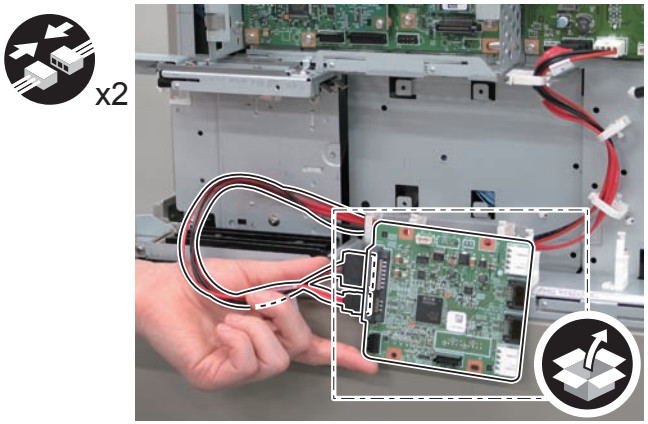
F-9-351

1) Open the Controller Box, and free the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



F-9-352

2) Pull out the cables to the front, and connect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) to the Mirroring Board or Encryption Board.

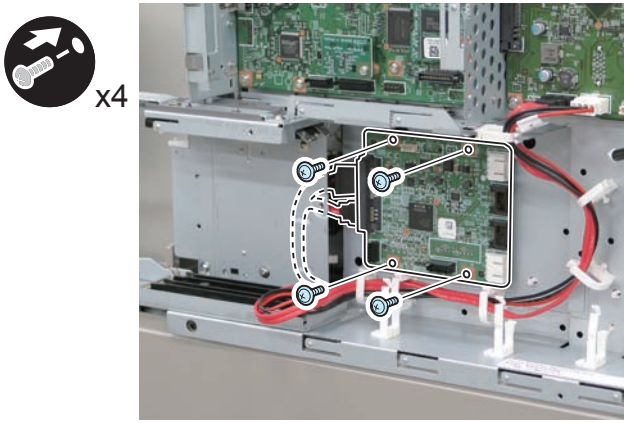


F-9-353

3) Install the Mirroring Board or Encryption Board.

- 4 Screws (TP; M3x6)

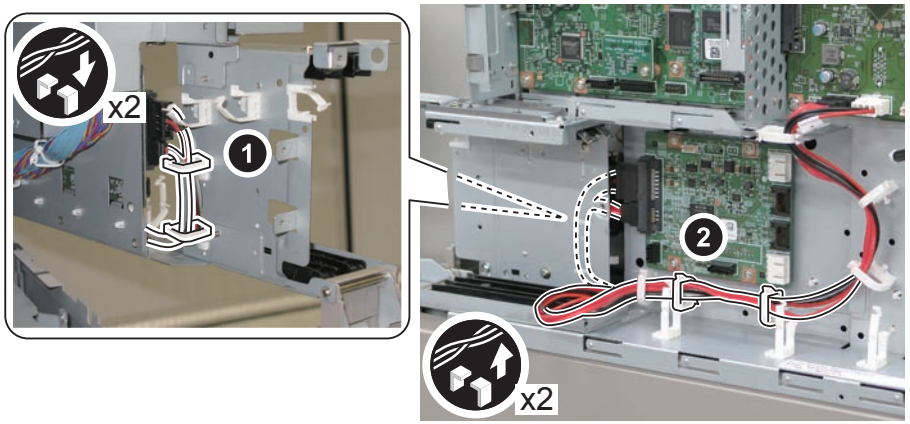
NOTE:
When installing the Encryption Board, the Signal Cable (A:Cont-Sig) and Power Supply Cable (A:Cont-Pow) along the wavy line should be located on the back side of the HDD Case Unit.



F-9-354

4) Secure the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) in place using the 2 Wire Saddles at the back of the HDD Case Unit.

5) Free the cables from the 2 Wire Saddles at the front.



F-9-355

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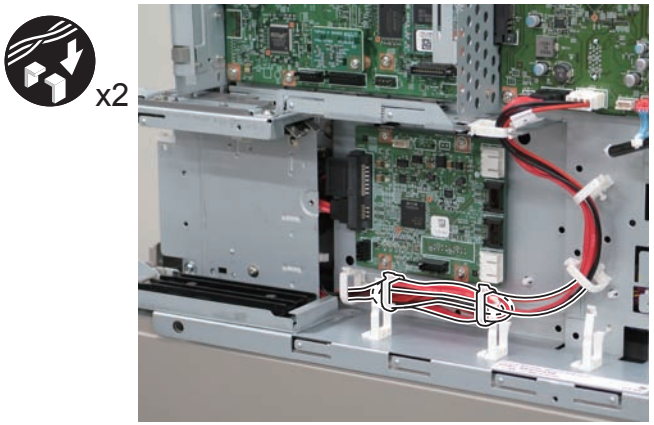
6) Fold extra length of the cable and secure it with the 2 Wire Saddles.



F-9-356

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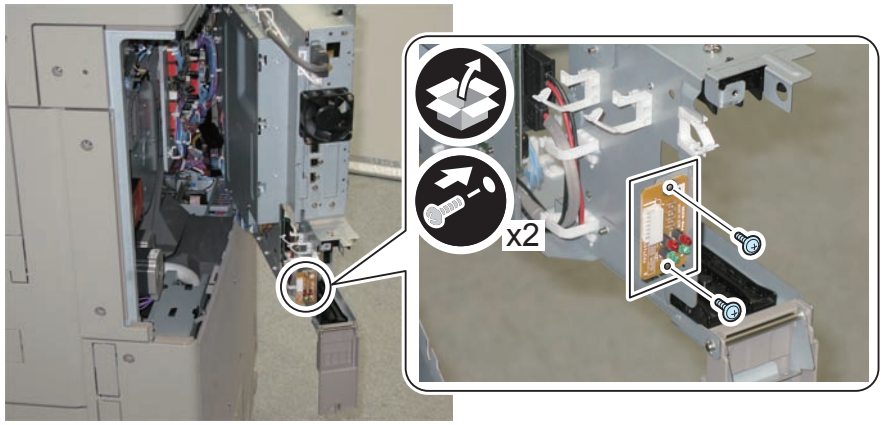
7) Install the LED Board (A: LED) to the side surface of the HDD Case Unit.

- 2 Screws (TP; M3x6)



F-9-357

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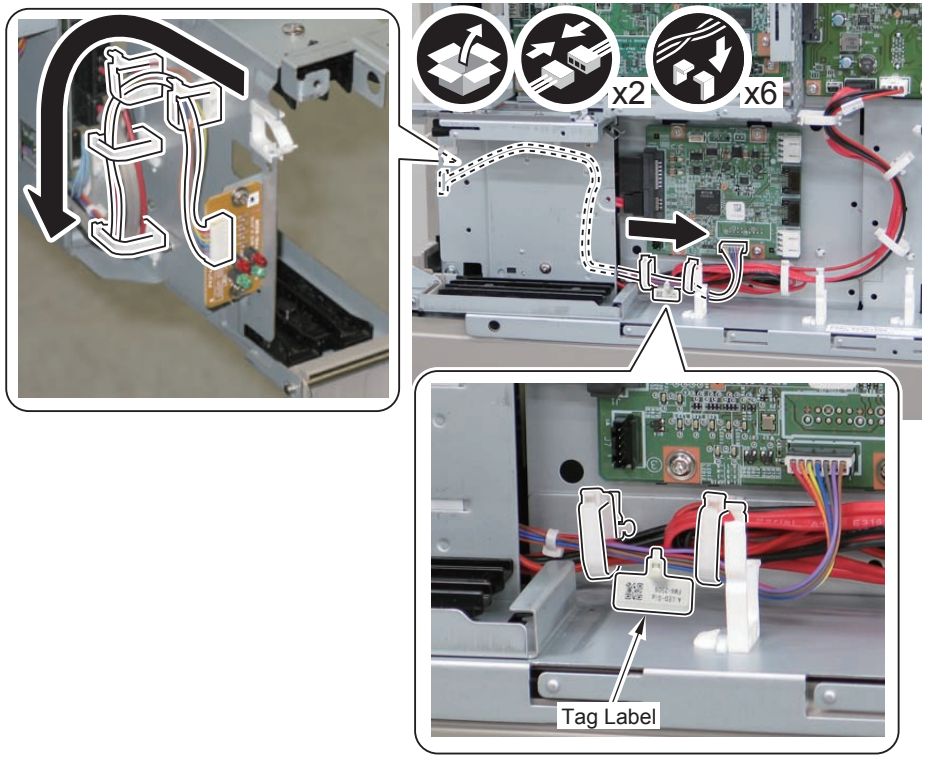
8) Connect the LED Cable (A: LED-Sig) to the LED Board (A: LED) and the Mirroring Board or Encryption Board.

- 2 Connectors
- 6 Wire Saddles

CAUTION:

- The tag label of "A:LED-Sig" should be located between Wire Saddles.
- Secure the LED Cable (A: LED-Sig) in the direction of the arrow.
- Check that the LED Cable (A: LED-Sig) is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-358

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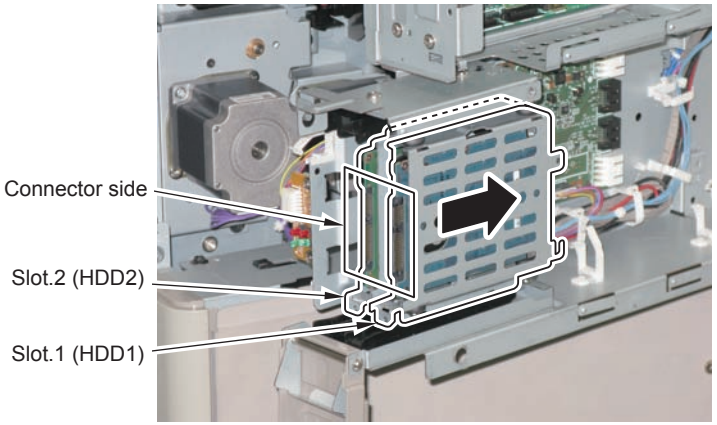
9) Insert the assembled 2 Option HDDs.



F-9-359

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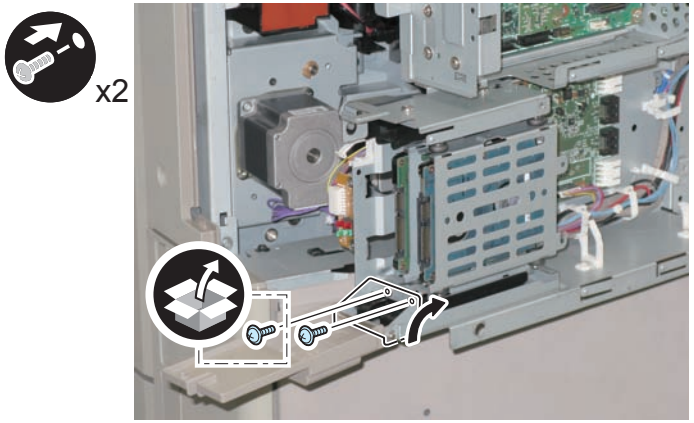
10) Secure the HDD Fixed Plate.

- 1 screw (Use the screws removed in “Removing the Covers” step 6).)
- 1 Screw (TP; M3x6) (Use the contents included in the Option HDD.)



F-9-360

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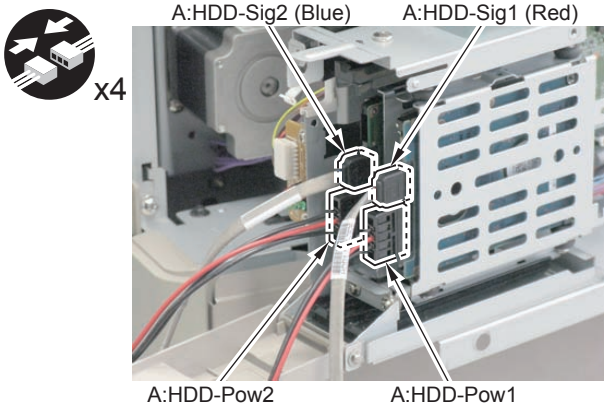
11) Connect the Signal Cables (A:HDD-Sig1 Red) and (A:HDD-Sig2 Blue) and Power Supply Cables (A:HDD-Pow1) and (A:HDD-Pow2) included in the HDD Data Encryption/Mirroring Kit.

NOTE:
- Connect the Signal Cable (A:HDD-Sig2 Blue) and Power Supply Cable (A: HDD-Pow2) to the Slot.2.
- Connect the Signal Cable (A:HDD-Sig1 Red) and Power Supply Cable (A: HDD-Pow1) to the Slot.1.



F-9-361

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12) Put the Signal Cables (A:HDD-Sig1 Red) (A:HDD-Sig2 Blue) and the Power Supply Cables (A:HDD-Pow1) (A:HDD-Pow2) through [A] part.

13) Connect the 4 connectors of the Signal Cables (A:HDD-Sig1 Red) (A:HDD-Sig2 Blue) and the Power Supply Cables (A:HDD-Pow1) (A:HDD-Pow2) to the Mirroring Board or Encryption Board.

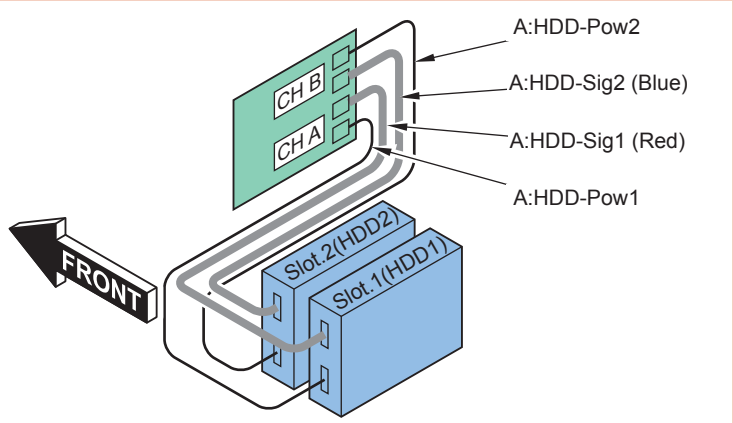
CAUTION:

- Slot.1 side:

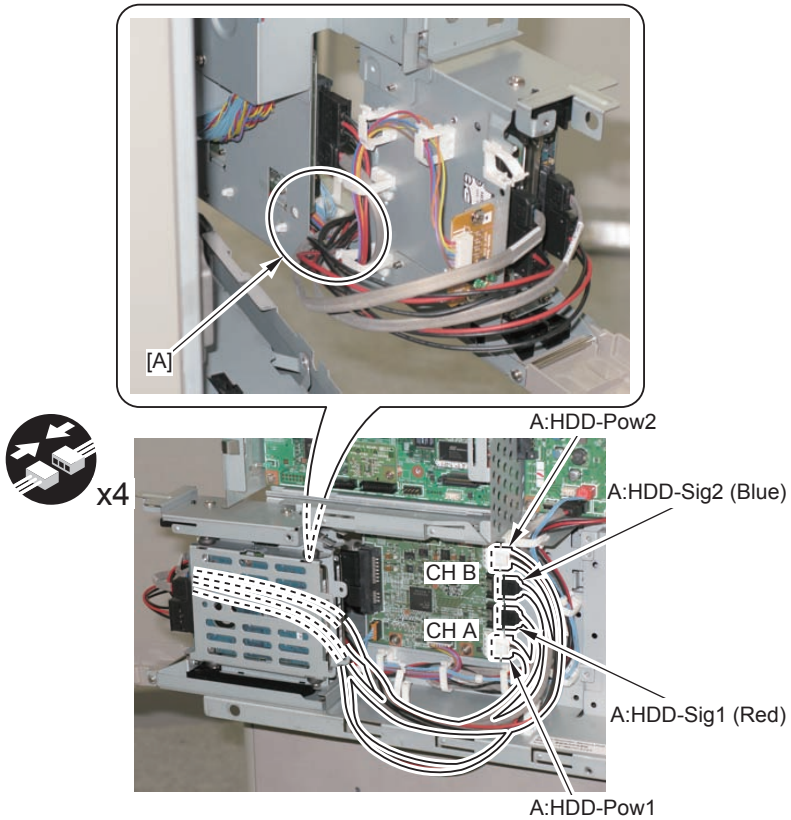
Be sure to connect "A:HDD-Sig1 (Red)" and "A:HDD-Pow1" to CH-A of the PCB.

- Slot.2 side:

Be sure to connect "A:HDD-Sig2 (Blue)" and "A:HDD-Pow2" to CH-B of the PCB.



F-9-362



F-9-363

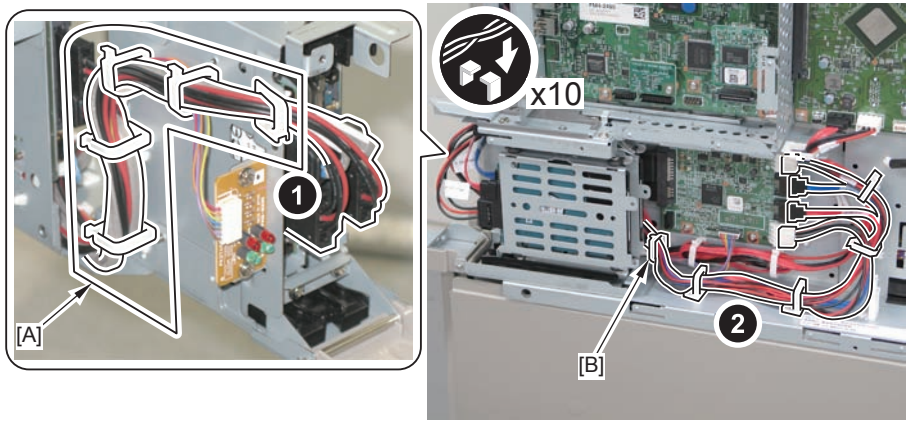
☐

14) Secure the Signal Cables (A:HDD-Sig1 Red) and (A:HDD-Sig2 Blue) and Power Supply Cables (A:HDD-Pow1) and (A:HDD-Pow2) as shown in the figure.

- 1 Edger Saddle
- 9 Wire Saddles

CAUTION:

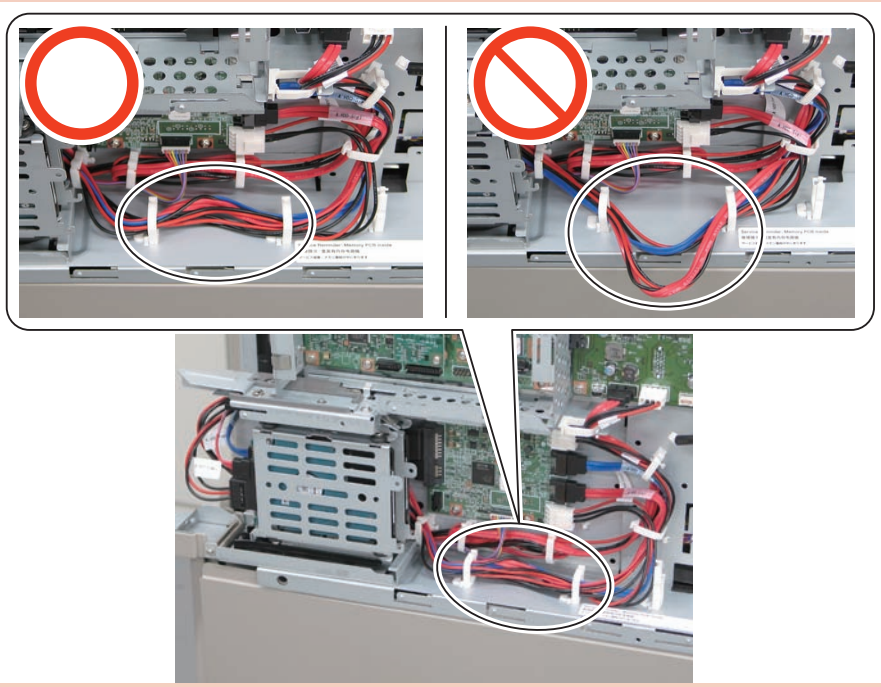
- Secure the cables so that there is no extra slack of the cables at [A] part.
- Be sure that the Wire Saddle [B] is properly securing the cables.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-364

CAUTION:

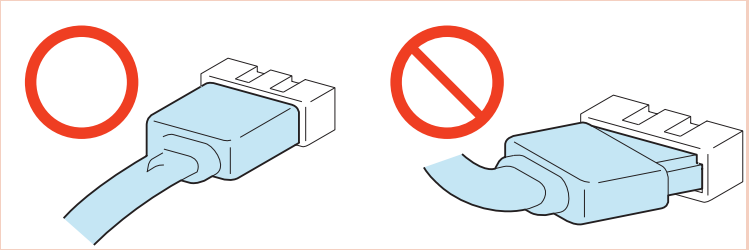
If there is extra slack of the cables, be sure to tuck them to the host machine side.



F-9-365

CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-366

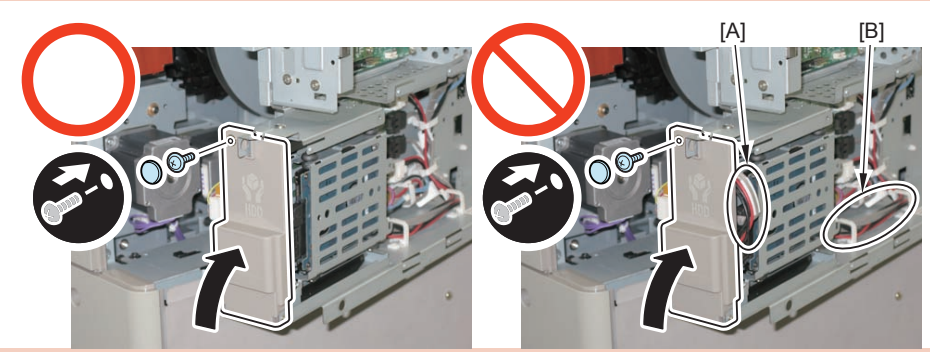
☐

15) Close the HDD Cap.

- 1 Screw
- 1 Rubber Cap

CAUTION:

- Be sure that the cables do not protrude from the [A] part of the HDD Cap.
- If the cables protrude from the [A] part, allow extra slack of the cables at the [B] part and tuck them to the host machine side.



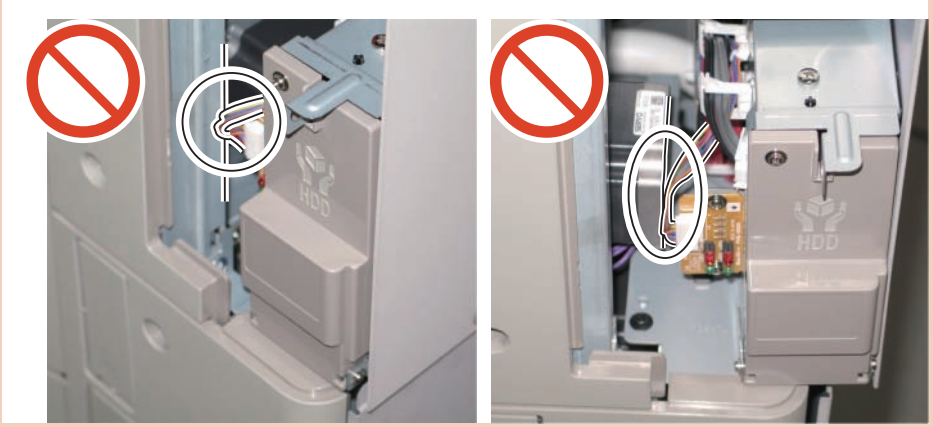
F-9-367

☐

16) Close the Controller Box.

CAUTION:

When closing the Controller Box, check that the LED Cable (A: LED-Sig) is not trapped or does not contact with it.



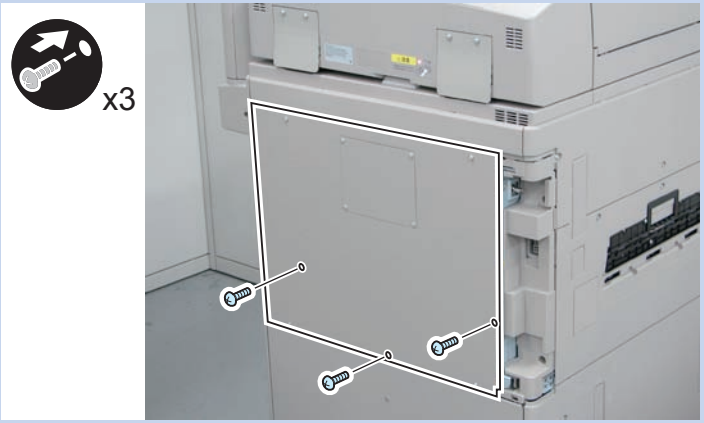
F-9-368

☐

17) Install the Rear Upper Cover.

- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.

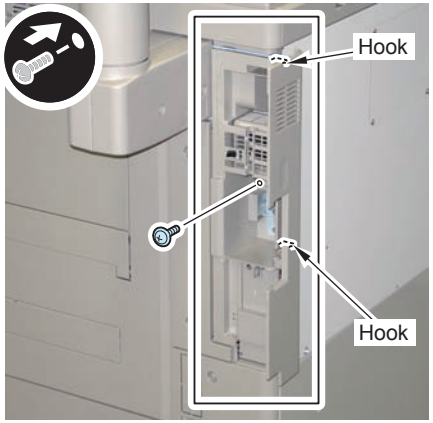


F-9-369

☐

18) Install the Side Cover.

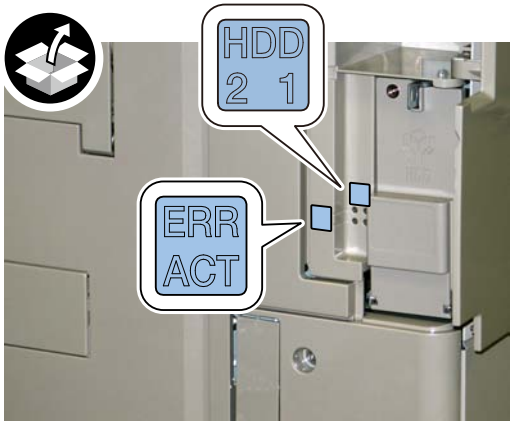
- 2 Hooks
- 1 Screw



F-9-370

☐

19) Affix the LED Label.



F-9-371

☐

20) Close the Right Rear Cover 1.

21) Return the Left Rear Cover to its original position.

22) Connect the power plug to the outlet.

Installing the System Software Using the SST (Only when installing HDD Data Encryption & Mirroring Kit)

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version (Only when installing HDD Data Encryption & Mirroring Kit)

1) Press the Counter key (123 key) on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC authentication is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

Checking the Security Mark (Only when installing HDD Data Encryption & Mirroring Kit)

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark( ) is displayed on the lower left corner of a panel screen.

Setting the Mirroring

1) Make a setting of mirroring.
- Specify “1” under “Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID”.

2) Turn OFF/ON the main power of the host machine to enable the setting value.
3) Make sure that the UI screen is activated correctly.
4) Make sure that the LED blinks.
- HDD1 (Slot 1): The green LED blinks.
- HDD2 (Slot 2): The green and red LEDs blink.

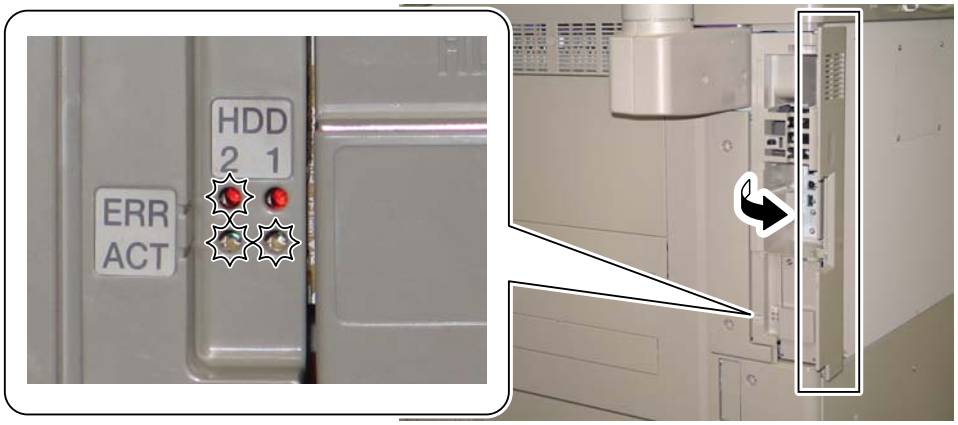
CAUTION:

Rebuild process starts after setting “1” for W/RAID. If an error occurs during the rebuild process at the initial installation The hard disk needs to be replaced. (Call service rep.), reexecute the process with the following procedure.

1) Check that the lighting red LED is HDD2.
2) Select Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID, and set “0”.
3) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.
4) Select Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID, and set "1".
5) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.

The foregoing procedure is limited to the rebuild process at the initial installation.

An error during the rebuild process that is executed during operation is not included in the consideration.



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Reporting to the System Administrator at the End of the Work (Only when installing HDD Data Encryption & Mirroring Kit)

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation (Only when installing HDD Data Encryption & Mirroring Kit)

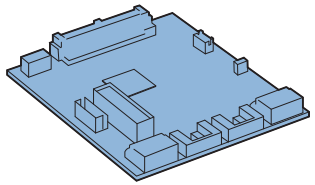
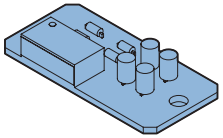
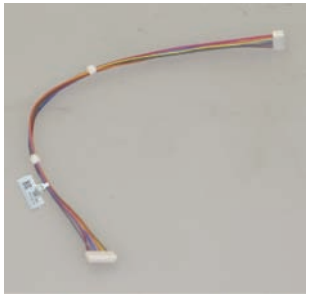
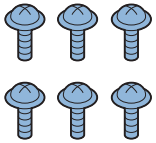
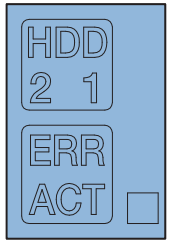
When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

[TYPE-6] HDD Data Encryption & Mirroring Kit

Points to Note when HDD Data Encryption & Mirroring Kit has been Installed

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

☐ [1] Encryption Board X 1 	☐ [2] LED Board (A: LED) X 1 	☐ [3] Power Supply Cable (A:HDD-Pow1) X 1	☐ [4] Power Supply Cable (A:HDD-Pow2) X 1	☐ [5] Signal Cable (A:HDD-Sig1 (Red)) X 1
☐ [5] Signal Cable (A:HDD-Sig2 (Blue)) X 1	☐ [7] LED Cable (A:LED-Sig) X 1 	☐ [8] Screw (TP; M3x6) X 6 	☐ [9] LED Label X 1 	

F-9-373

< CD/Guides >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD

Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.

□

1) Execute the following service mode (level 1).

- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

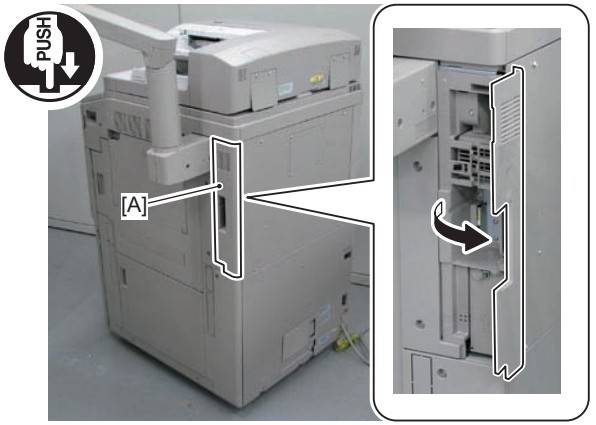
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Installation Procedure

Removing the Covers

□

1) Push [A] part, and open the Right Rear Cover 1.

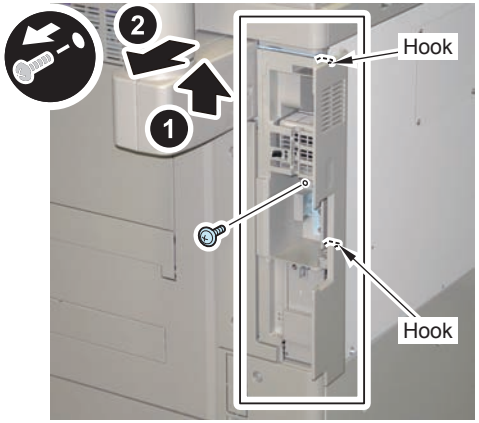


F-9-374

□

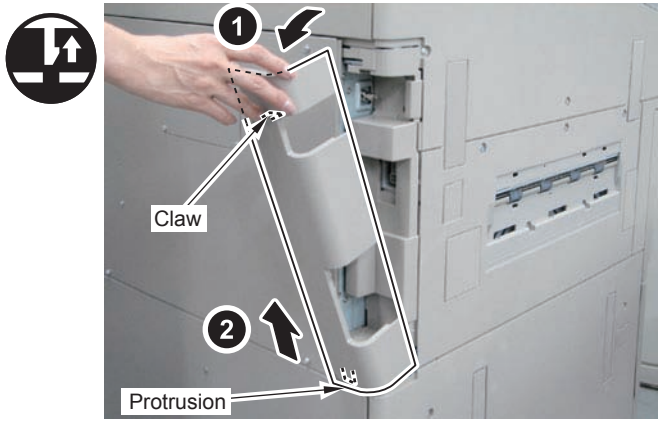
2) Remove the Side Cover.

- 1 Screw
- 2 Hooks



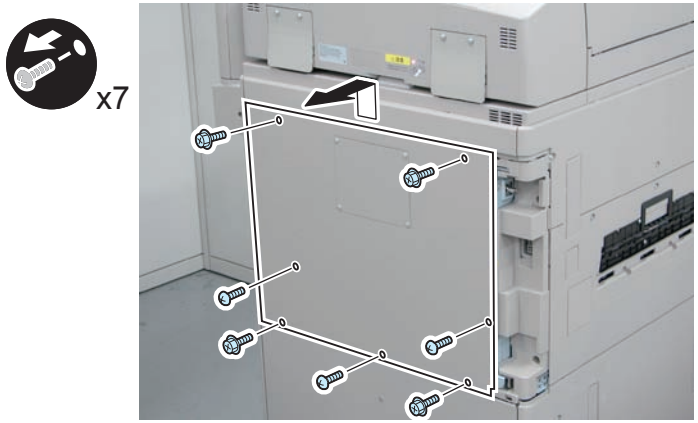
F-9-375

☐
3) Remove the Left Rear Cover.
- 1 Claw
- 1 Protrusions



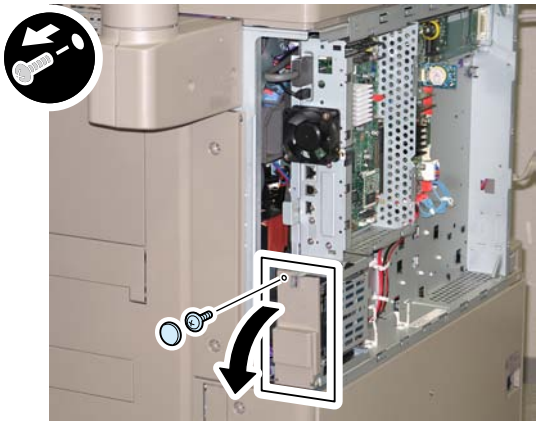
F-9-376

☐
4) Remove the Rear Upper Cover.
- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)



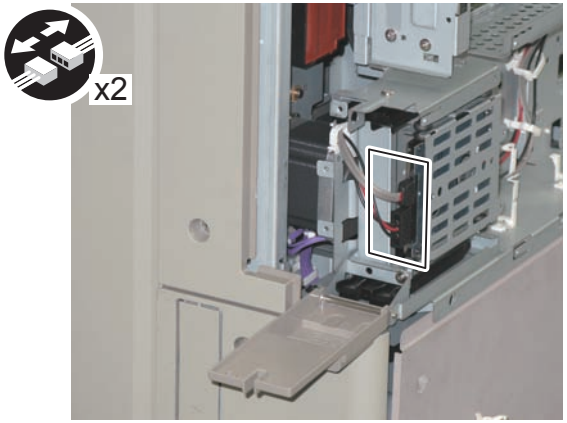
F-9-377

☐
5) Open the HDD Cap.
- 1 Rubber Cap
- 1 Screw



F-9-378

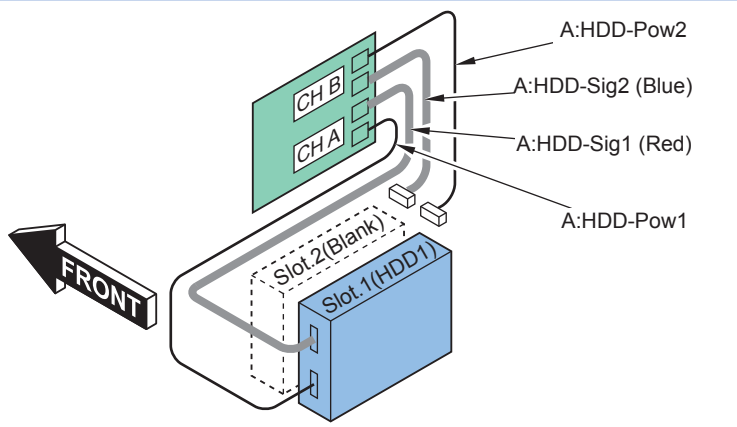
☐
6) Disconnect 2 connectors from the HDD.



F-9-379

Installing the Encryption Board

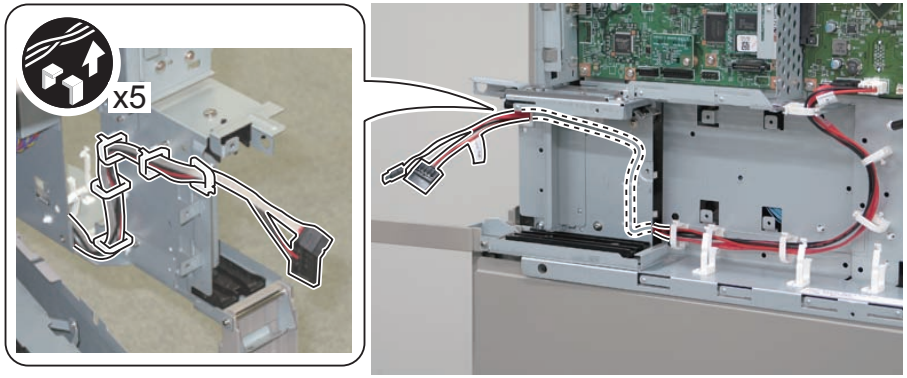
NOTE:
The following shows combination of the HDD and the Encryption Board.
- Connect “CH A” to Slot.1 (The original HDD)
- No HDD to Slot.2



F-9-380

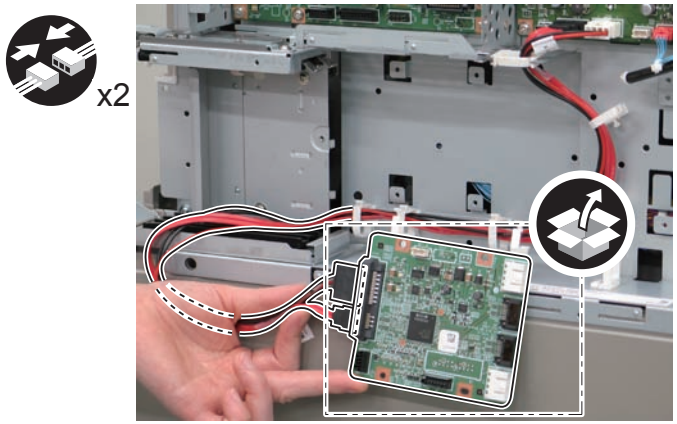
NOTE:
The HDD has been removed in the figures of the following steps 1) to 9), but it is not necessary to remove the HDD to perform this procedure.

☐
1) Open the Controller Box, and free the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



F-9-381

☐
2) Pull out the cables to the front, and connect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) to the Encryption Board.



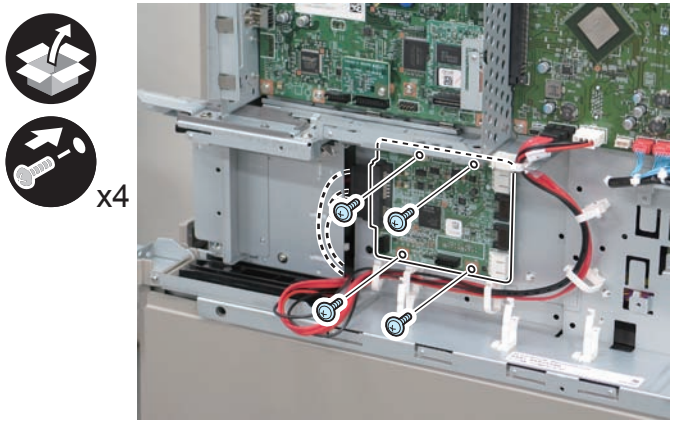
F-9-382

☐

3) Install the Encryption Board.

- 4 Screws (TP; M3x6)

NOTE:
When installing the Encryption Board, the Signal Cable (A:Cont-Sig) and Power Supply Cable (A:Cont-Pow) along the wavy line should be located on the back side of the HDD Case Unit.

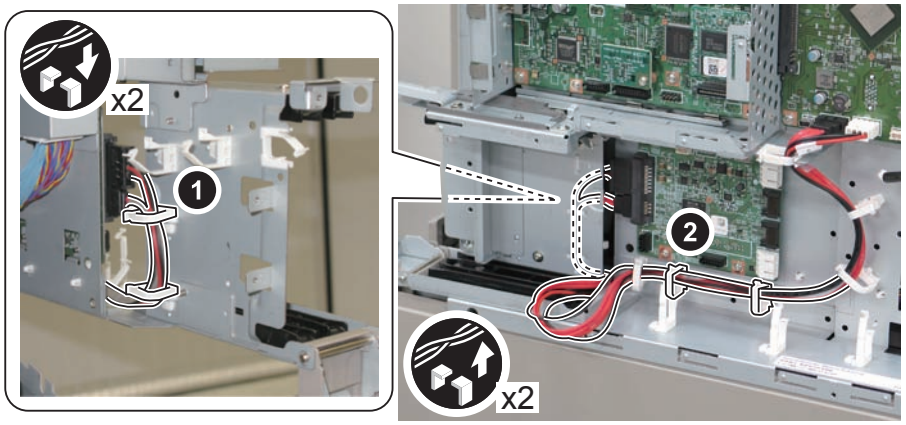


F-9-383

☐

4) Secure the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) in place using the 2 Wire Saddles at the back of the HDD Case Unit.

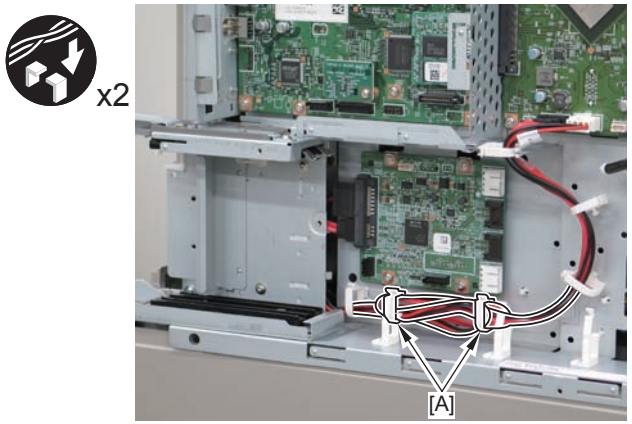
5) Free the cables from the 2 Wire Saddles at the front.



F-9-384

☐

6) Fold extra length of the cable and secure it with the 2 Wire Saddles [A].

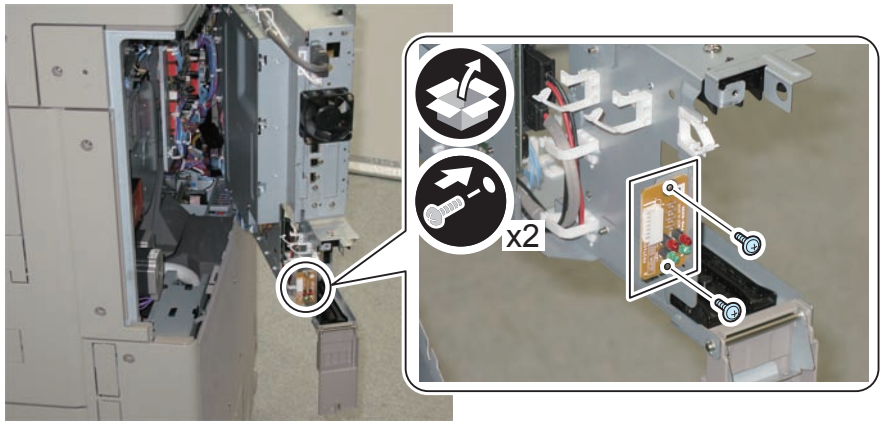


F-9-385

☐

7) Install the LED Board (A: LED) to the side surface of the HDD Case Unit.

- 2 Screws (TP; M3x6)



F-9-386

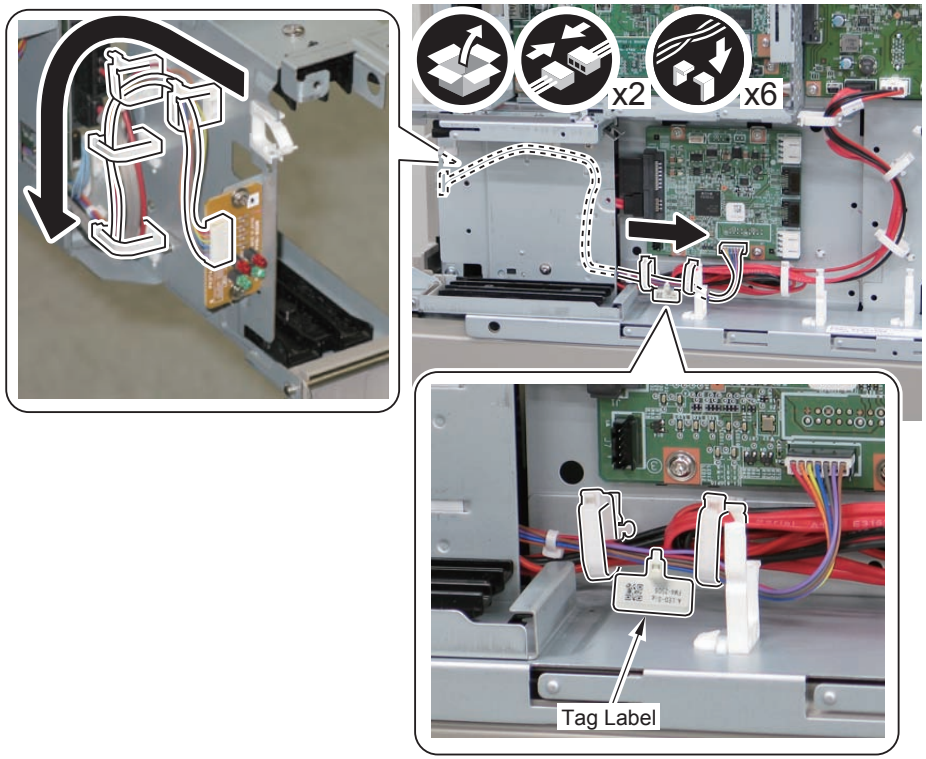
☐

8) Connect the LED Cable (A: LED-Sig) to the LED Board (A: LED and the Encryption Board.

- 2 Connectors
- 6 Wire Saddles

CAUTION:

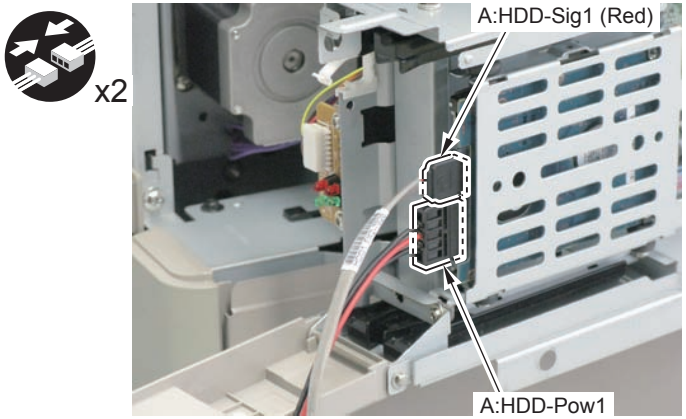
- The tag label of "A:LED-Sig" should be located between Wire Saddles.
- Secure the LED Cable (A: LED-Sig) in the direction of the arrow.
- Check that the LED Cable (A: LED-Sig) is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



F-9-387

☐

9) Connect the Signal Cable (A:HDD-Sig1 Red) and the Power Supply Cable (A:HDD-Pow1) to Slot.1.



F-9-388

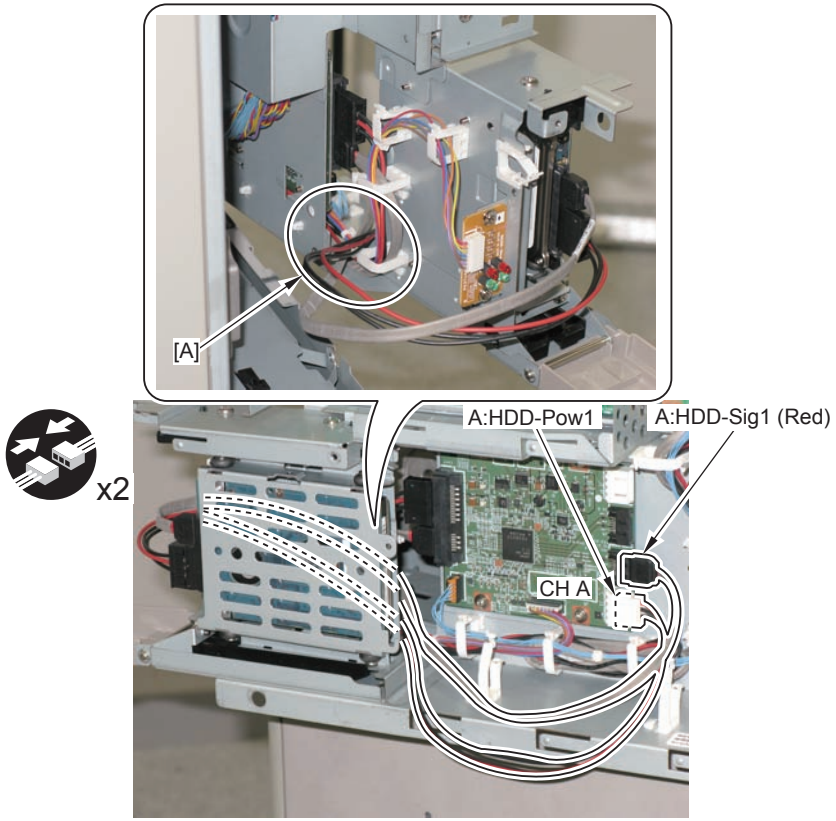
☐

10) Put the Signal Cable (A:HDD-Sig1 Red) and the Power Supply Cable (A:HDD-Pow1) through [A] part.

11) Connect the 2 connectors of the Signal Cables(A:HDD-Sig1 Red) and the Power Supply Cables (A:HDD-Pow1) to the Encryption Board.

CAUTION:

Connect the Signal Cable (A:HDD-Sig1 Red) and Power Supply Cable (A: HDD-Pow1) to the CH-A of the Encryption Board.



F-9-389

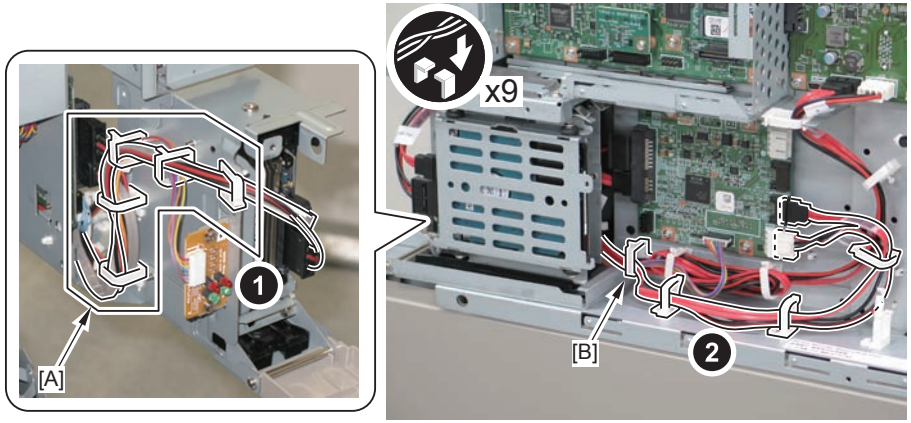
☐

12) Secure the Signal Cable (A:HDD-Sig1 Red) and the Power Supply Cable (A:HDD-Pow1).

- 1 Edger Saddle
- 8 Wire Saddles

CAUTION:

- Secure the cables so that there is no extra slack of the cables at [A] part.
- Be sure that the Wire Saddle [B] is properly securing the cables.

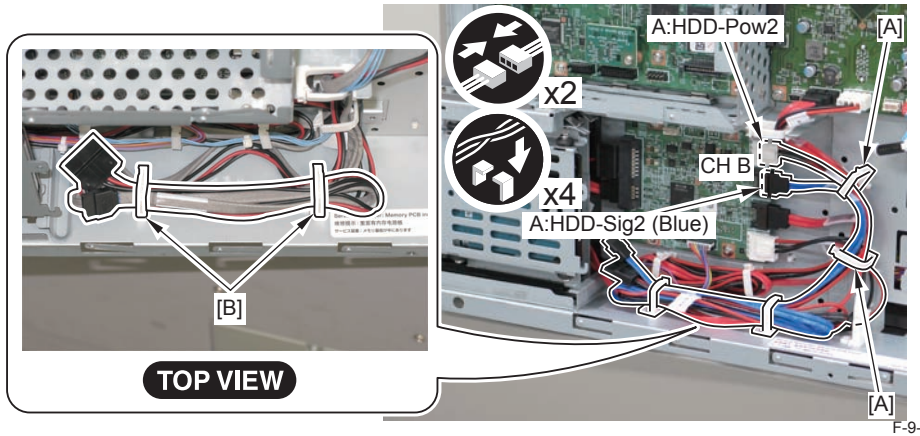


F-9-390

☐

13) Connect the Signal Cable (A:HDD-Sig2 Blue) and the Power Supply Cable (A:HDD-Pow2) to CH B, and secure them in place using the 2 Wire Saddles [A].

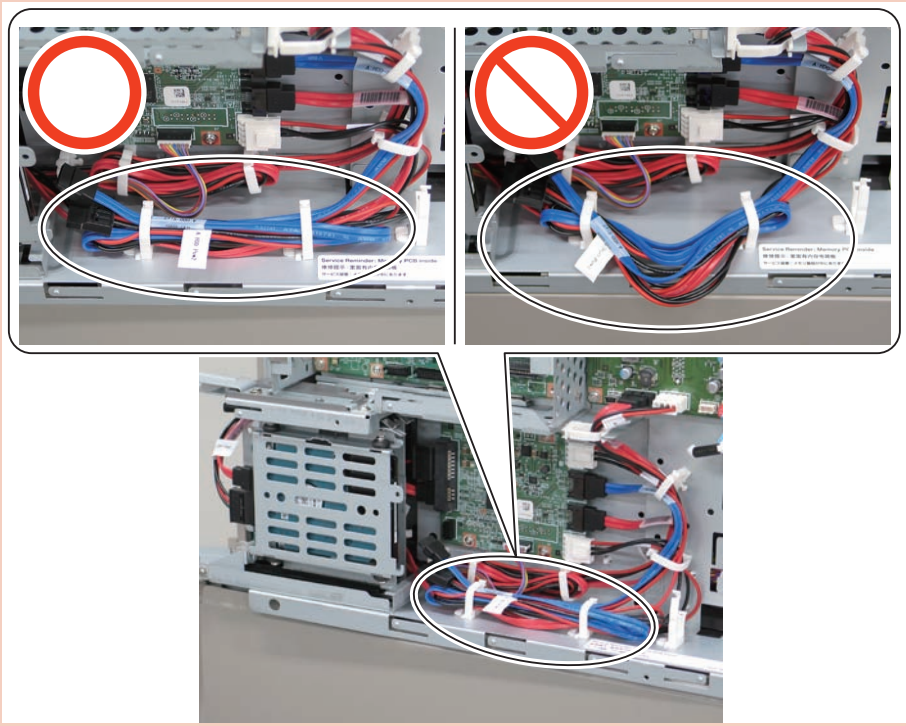
14) Fold extra length of the cables and secure them in place using the 2 Wire Saddles [B].



F-9-391

CAUTION:

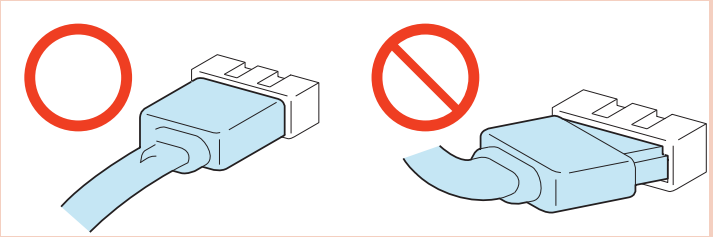
If there is extra slack of the cables, be sure to tuck them to the host machine side.



F-9-392

CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



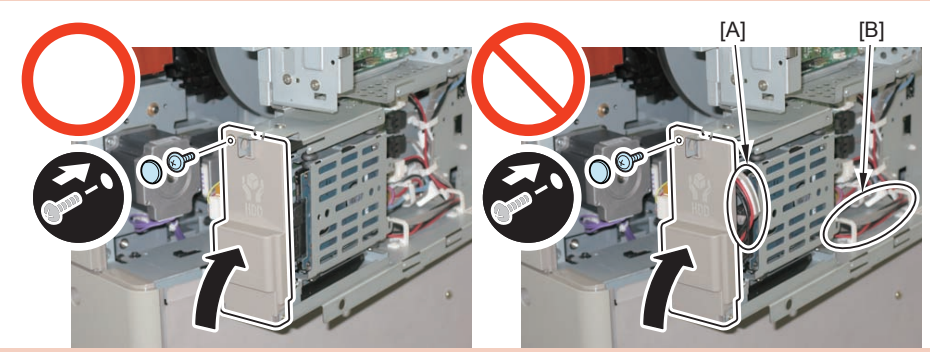
F-9-393

☐
15) Close the HDD Cap.

- 1 Screw
- 1 Rubber Cap

CAUTION:

- Be sure that the cables do not protrude from the [A] part of the HDD Cap.
- If the cables protrude from the [A] part, allow extra slack of the cables at the [B] part and tuck them to the host machine side.

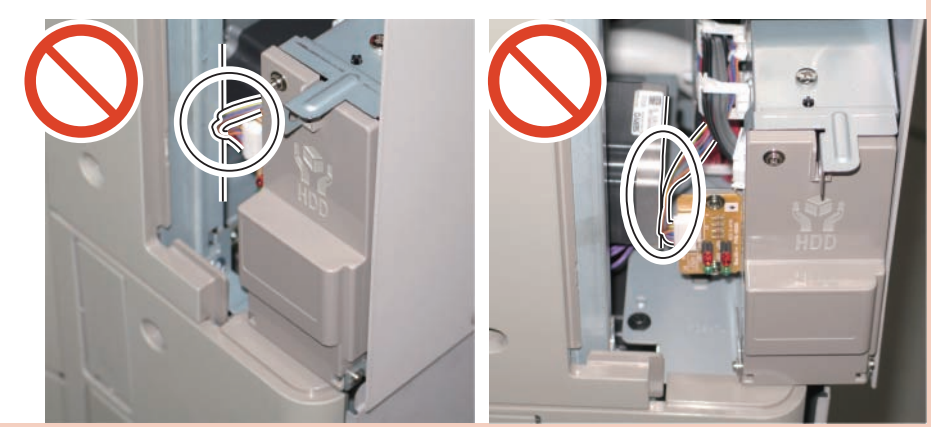


F-9-394

☐
16) Close the Controller Box.

CAUTION:

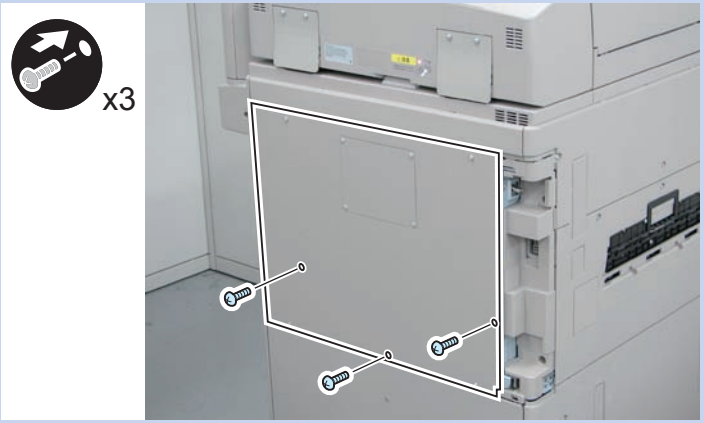
When closing the Controller Box, check that the LED Cable (A: LED-Sig) is not trapped or does not contact with it.



F-9-395

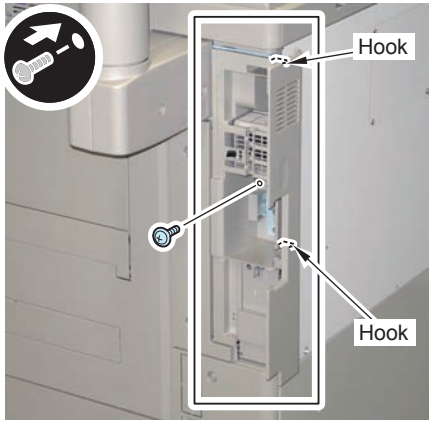
☐
17) Install the Rear Upper Cover.
- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.



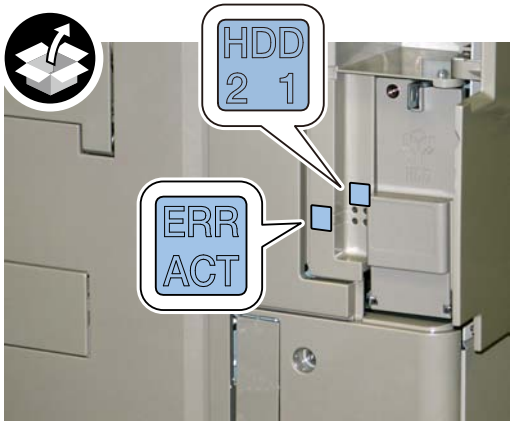
F-9-396

☐
18) Install the Side Cover.
- 2 Hooks
- 1 Screw



F-9-397

☐
19) Affix the LED Label.



F-9-398

☐
20) Close the Right Rear Cover 1.
21) Return the Left Rear Cover to its original position.
22) Connect the power plug to the outlet.

Installing the System Software Using the SST

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC authentication is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

Checking the Security Mark

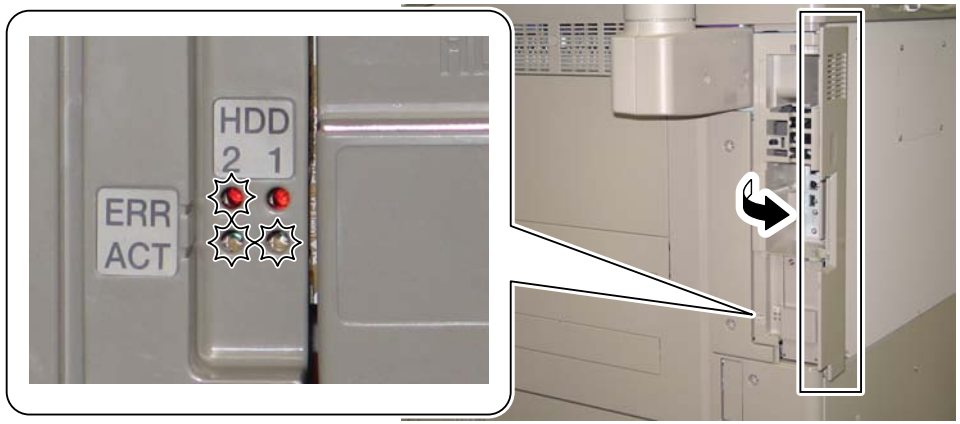
The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark( ) is displayed on the lower left corner of a panel screen.

Checking after Installation

1) Open the HDD Cover, and check that the LED is flashing.

- The green LED of HDD1 (Slot1) is flashing.



F-9-399

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

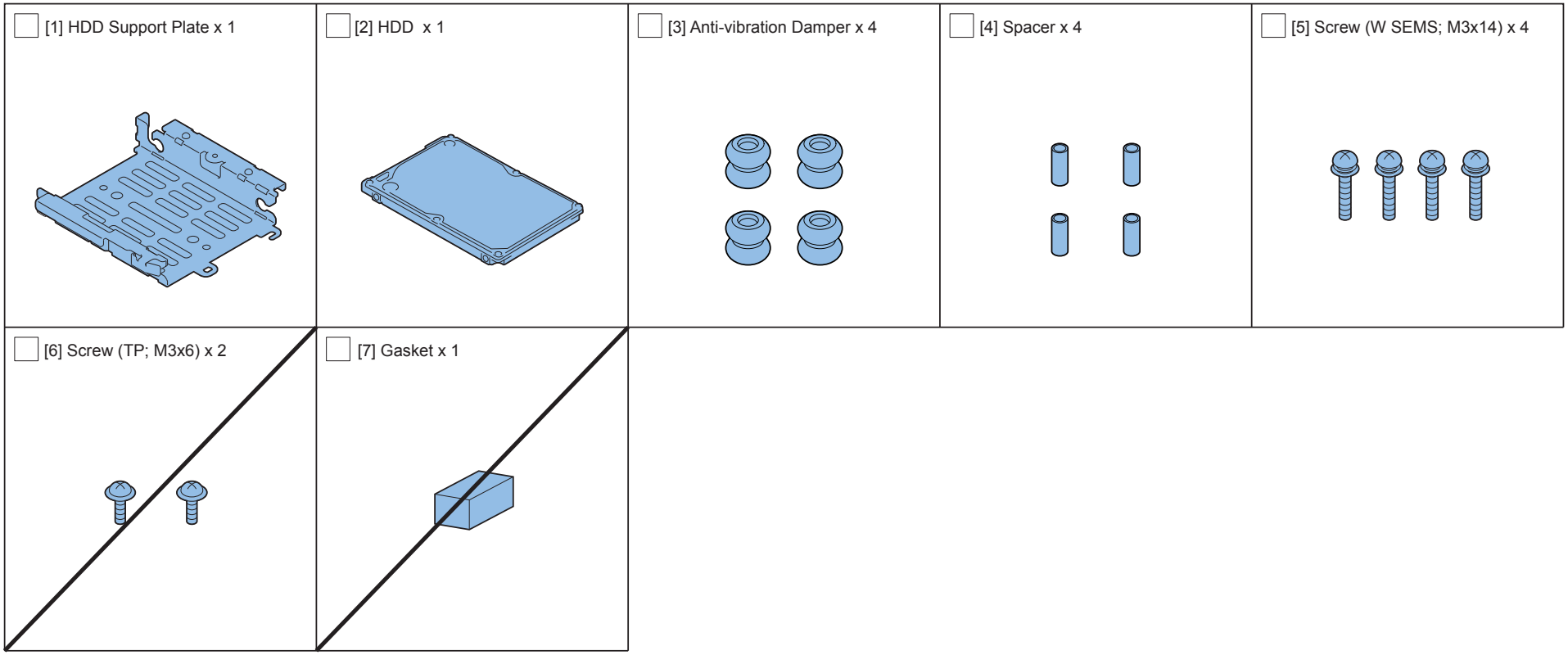
[TYPE-7] Option HDD (1TB) + HDD Data Encryption & Mirroring Kit

Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

Option HDD (1TB)

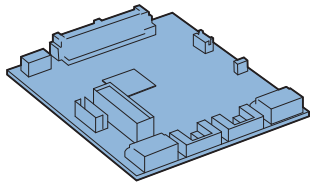
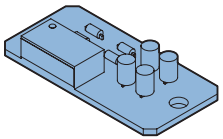
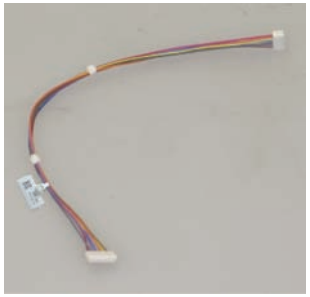
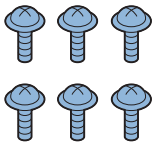
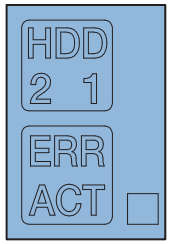


F-9-400

< CD/Guides >

- FCC/IC Sheet

HDD Data Encryption & Mirroring Kit

☐ [1] Encryption Board X 1 	☐ [2] LED Board (A: LED) X 1 	☐ [3] Power Supply Cable (A:HDD-Pow1) X 1	☐ [4] Power Supply Cable (A:HDD-Pow2) X 1	☐ [5] Signal Cable (A:HDD-Sig1 (Red)) X 1
☐ [5] Signal Cable (A:HDD-Sig2 (Blue)) X 1	☐ [7] LED Cable (A:LED-Sig) X 1 	☐ [8] Screw (TP; M3x6) X 6 	☐ [9] LED Label X 1 	

F-9-401

< CD/Guides >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD

Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.

□

1) Execute the following service mode (level 1).

- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

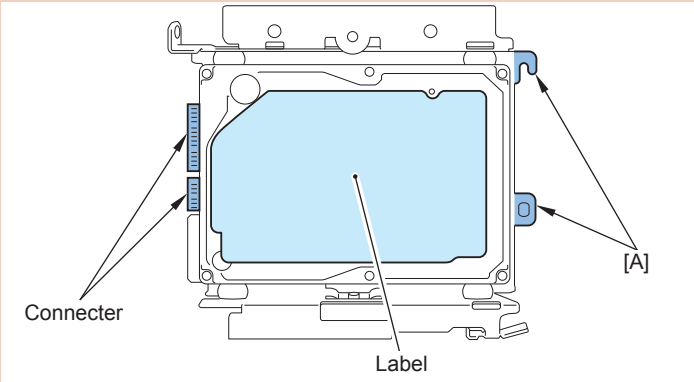
Installation Procedure

Assembling the Option HDD

CAUTION:

When assembling the Option HDD, be sure to pay attention to the direction.

- Be sure that the label face of the Option HDD is up.
- Be sure that the [A] part of the HDD Support Plate is on the other side of the connecter.



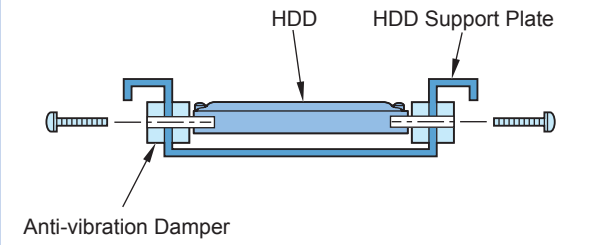
F-9-402

□

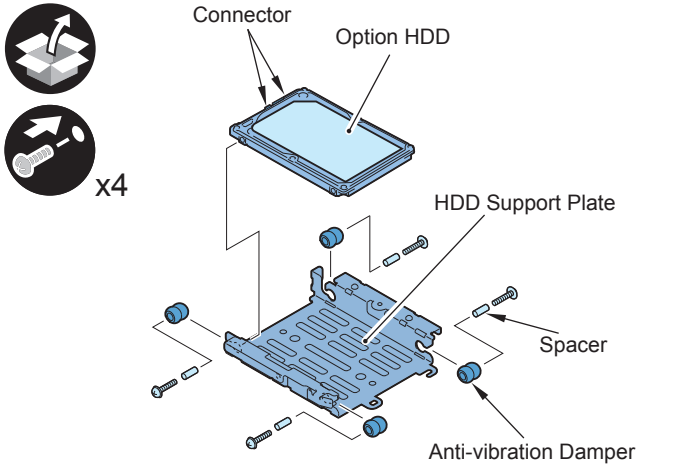
1) Assemble the Option HDD (1TB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-403

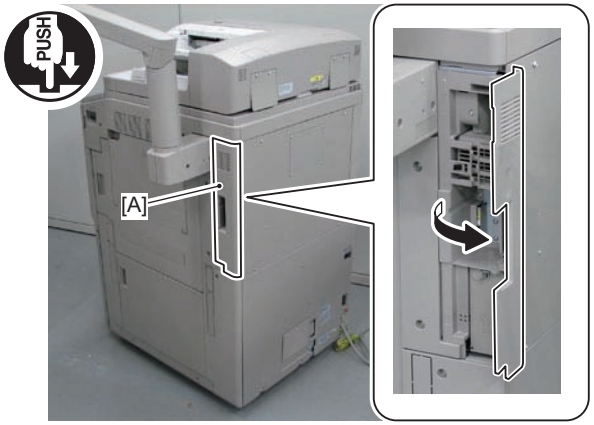


F-9-404

Removing the Covers

□

1) Push [A] part, and open the Right Rear Cover 1.

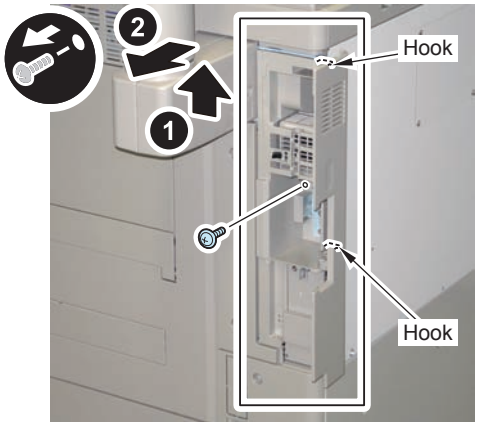


F-9-405

□

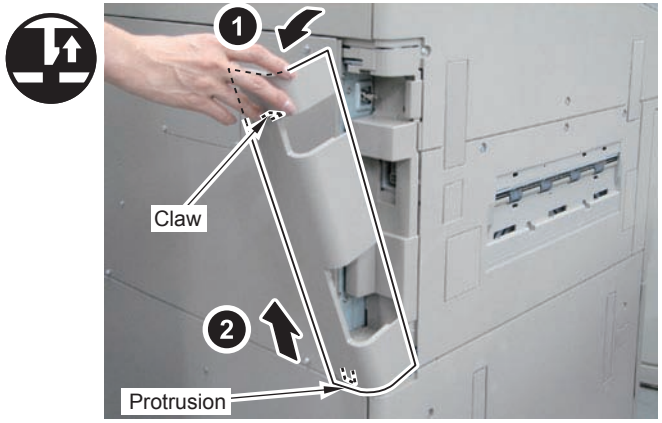
2) Remove the Side Cover.

- 1 Screw
- 2 Hooks



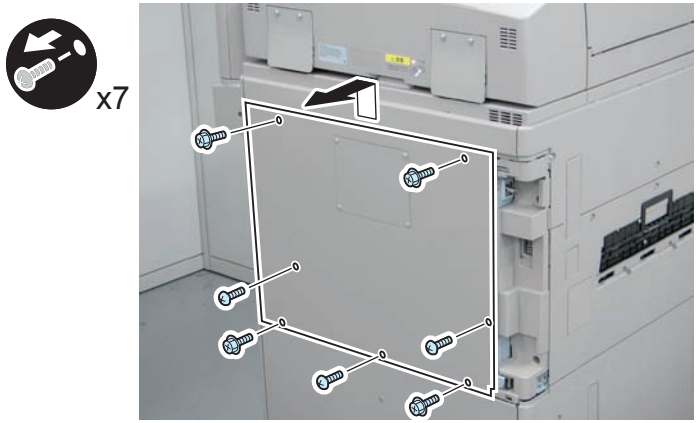
F-9-406

☐
3) Remove the Left Rear Cover.
- 1 Claw
- 1 Protrusions



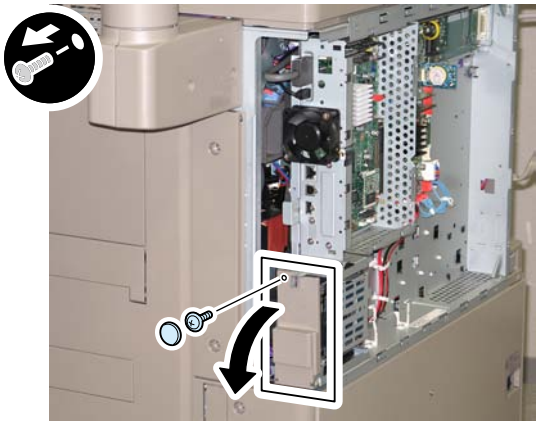
F-9-407

☐
4) Remove the Rear Upper Cover.
- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)



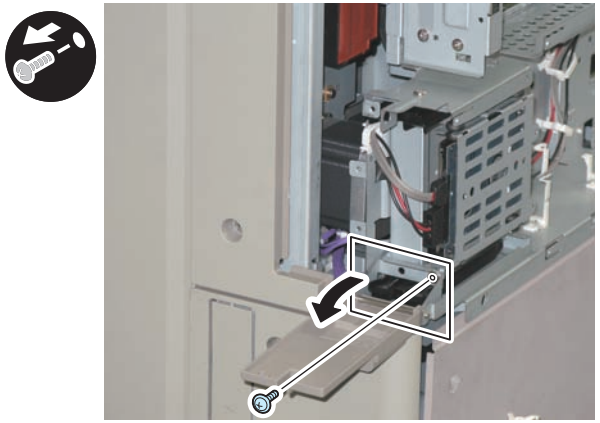
F-9-408

☐
5) Open the HDD Cap.
- 1 Rubber Cap
- 1 Screw



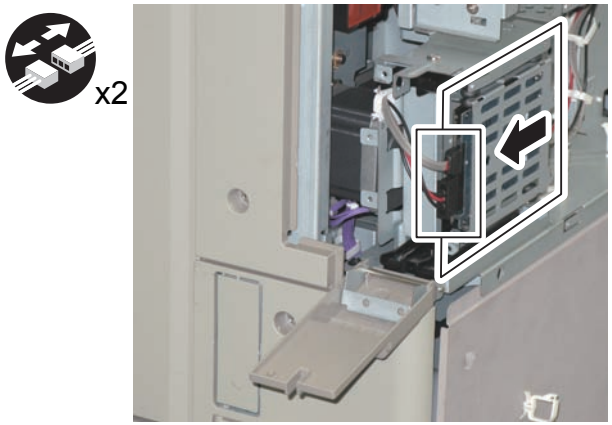
F-9-409

☐
6) Turn the HDD Fixed Plate toward the front.
- 1 Screw (The removed screw will be used in “Installing the Encryption Board” step 10).)



F-9-410

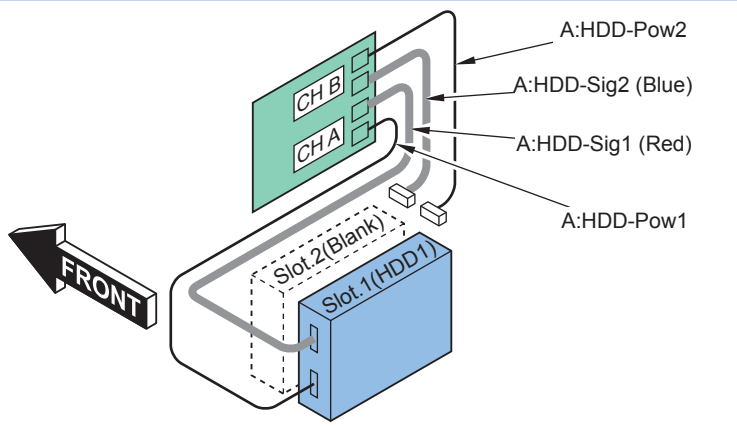
☐
7) Remove the HDD. (The removed HDD will not be used.)
- 2 Connectors



F-9-411

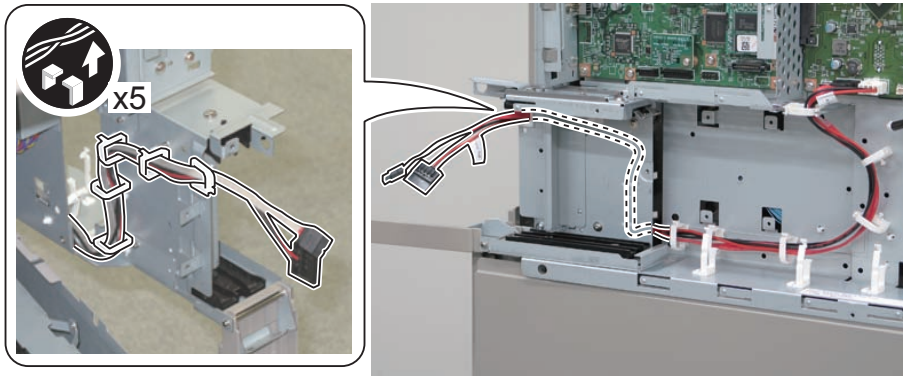
Installing the Encryption Board

NOTE:
The following shows combination of the HDD and the Encryption Board.
- Connect "CH A" to Slot.1 (The new HDD)
- No HDD to Slot.2



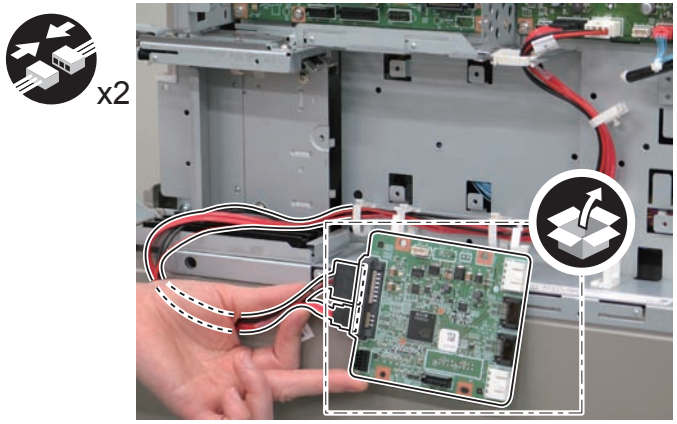
F-9-412

☐
1) Open the Controller Box, and free the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.



F-9-413

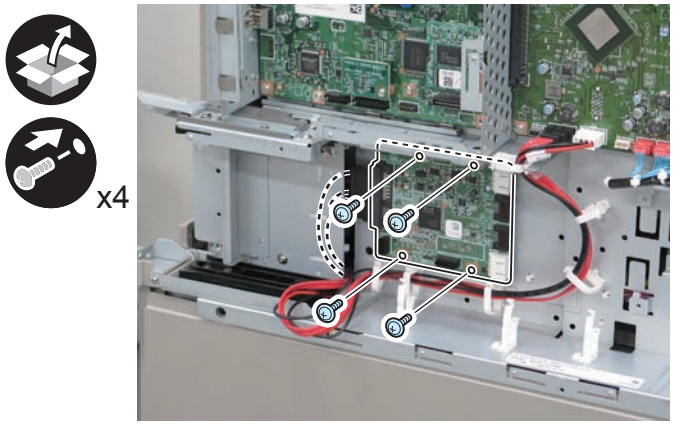
☐
2) Pull out the cables to the front, and connect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) to the Encryption Board.



F-9-414

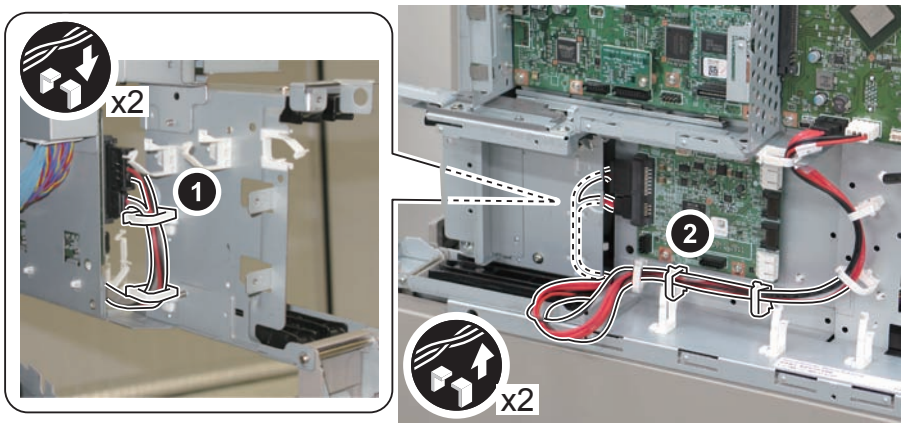
☐
3) Install the Encryption Board.
- 4 Screws (TP; M3x6)

NOTE:
When installing the Encryption Board, the Signal Cable (A:Cont-Sig) and Power Supply Cable (A:Cont-Pow) along the wavy line should be located on the back side of the HDD Case Unit.



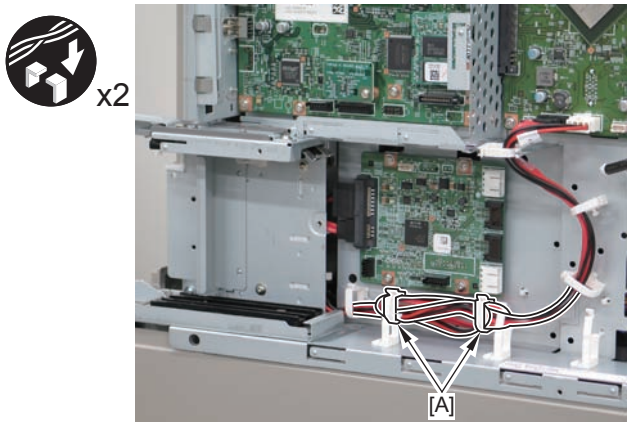
F-9-415

☐
4) Secure the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) in place using the 2 Wire Saddles at the back of the HDD Case Unit.
5) Free the cables from the 2 Wire Saddles at the front.



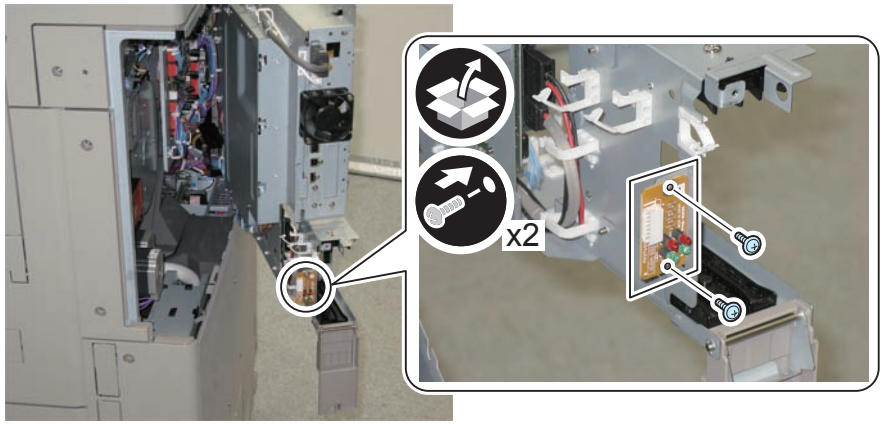
F-9-416

☐
6) Fold extra length of the cable and secure it with the 2 Wire Saddles [A].



F-9-417

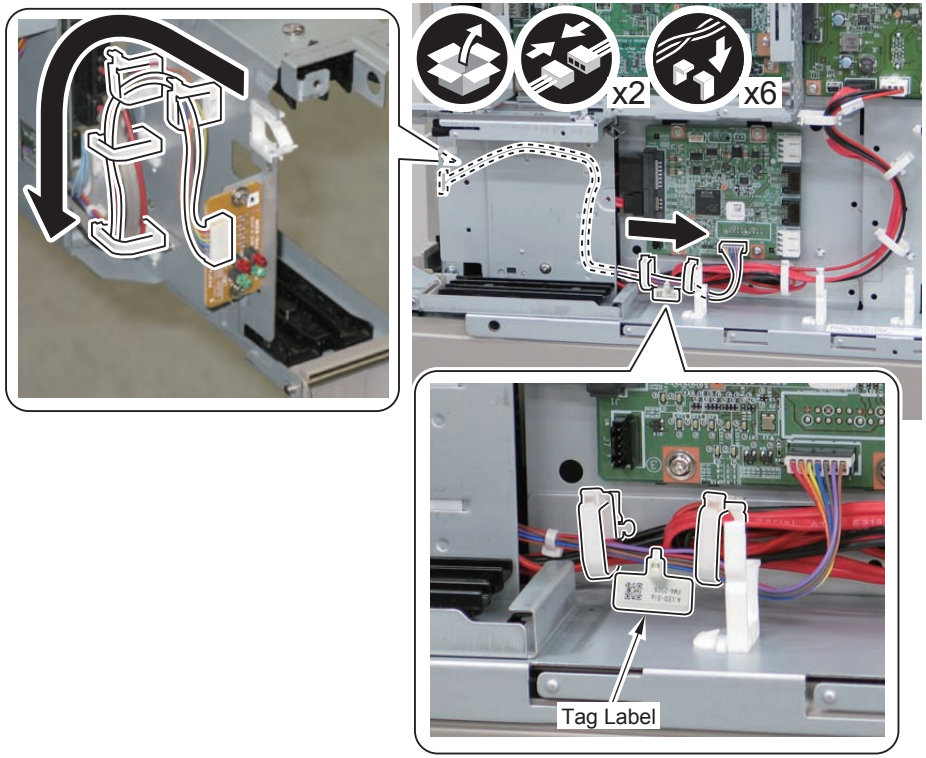
☐
7) Install the LED Board (A: LED) to the side surface of the HDD Case Unit.
- 2 Screws (TP; M3x6)



F-9-418

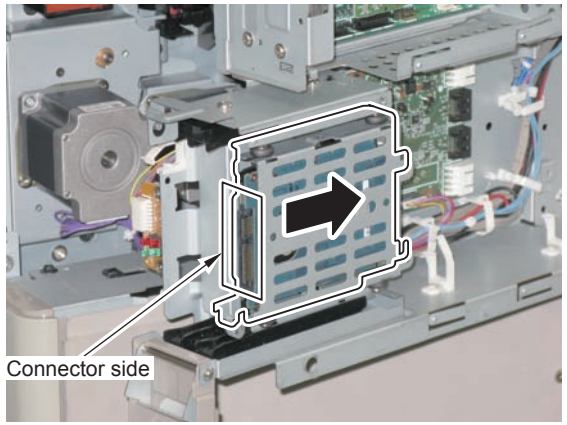
☐
8) Connect the LED Cable (A: LED-Sig) to the LED Board (A: LED) and the Encryption Board.
- 2 Connectors
- 6 Wire Saddles

CAUTION:
- The tag label of "A:LED-Sig" should be located between Wire Saddles.
- Secure the LED Cable (A: LED-Sig) in the direction of the arrow.
- Check that the LED Cable (A: LED-Sig) is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



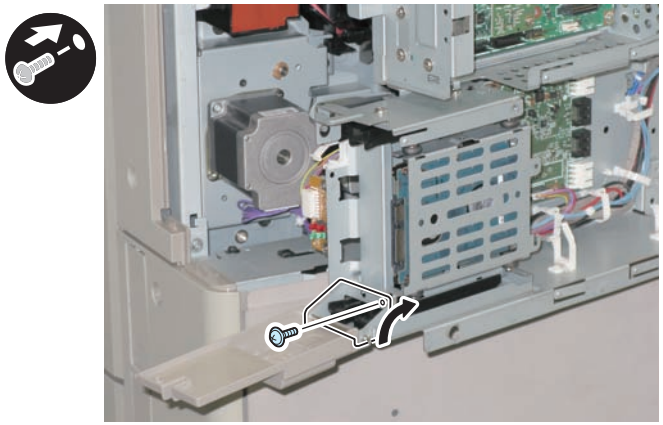
F-9-419

☐
9) Insert the assembled HDD.



F-9-420

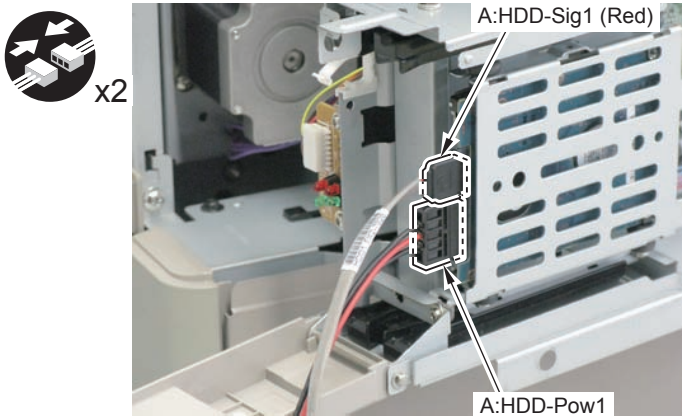
☐
10) Secure the HDD Fixed Plate.
- 1 Screw (Use the screws removed in “Removing the Covers” step 6).)



F-9-421

☐

11) Connect the Signal Cable (A:HDD-Sig1 Red) and the Power Supply Cable (A:HDD-Pow1) to Slot.1.



F-9-422

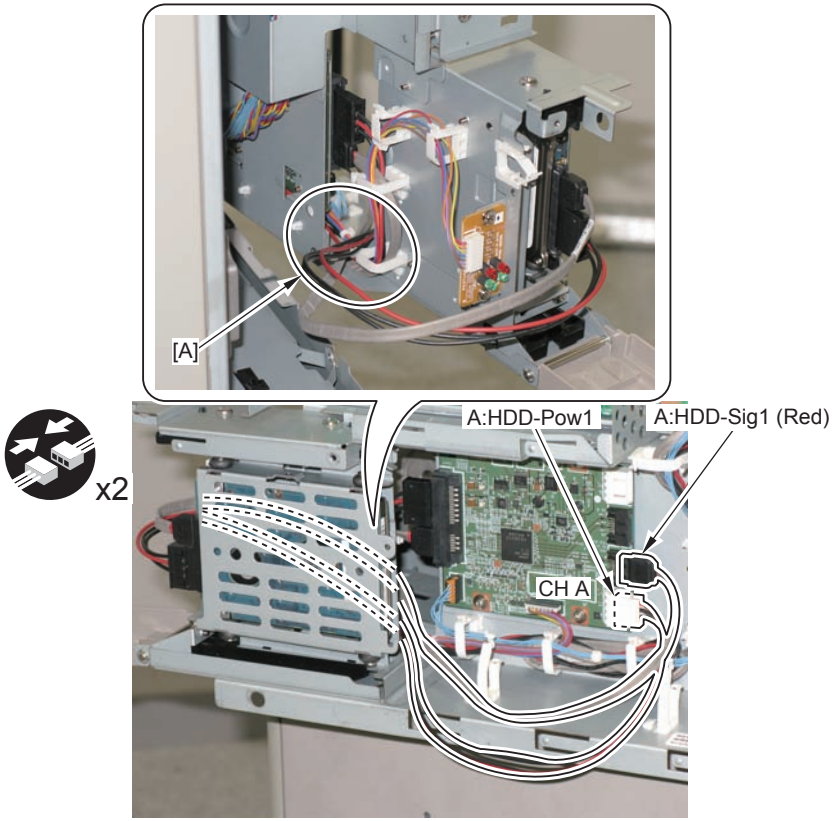
☐

12) Put the Signal Cable (A:HDD-Sig1 Red) and the Power Supply Cable (A:HDD-Pow1) through [A] part.

13) Connect the 2 connectors of the Signal Cable (A:HDD-Sig1 Red) and the Power Supply Cable (A:HDD-Pow1) to the Encryption Board.

CAUTION:

Connect the Signal Cable (A:HDD-Sig1 Red) and Power Supply Cable (A: HDD-Pow1) to the CH-A of the Encryption Board.



F-9-423

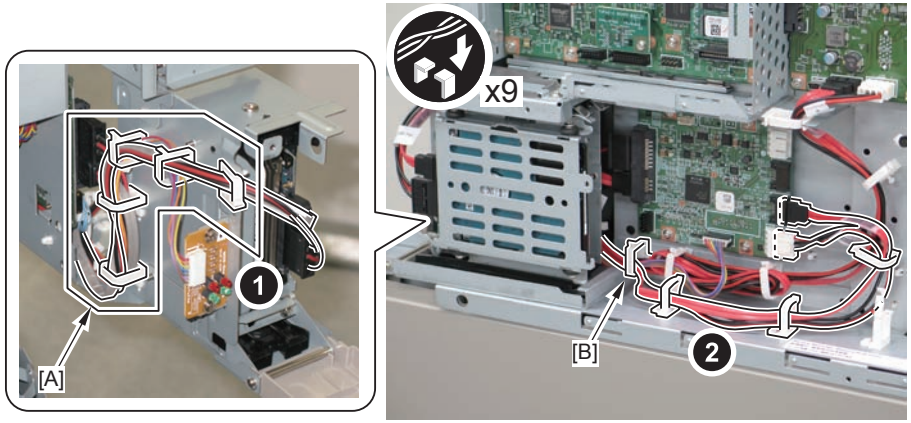
☐

14) Secure the Signal Cable (A:HDD-Sig1 Red) and the Power Supply Cable (A:HDD-Pow1).

- 1 Edger Saddle
- 8 Wire Saddles

CAUTION:

- Secure the cables so that there is no extra slack of the cables at [A] part.
- Be sure that the Wire Saddle [B] is properly securing the cables.

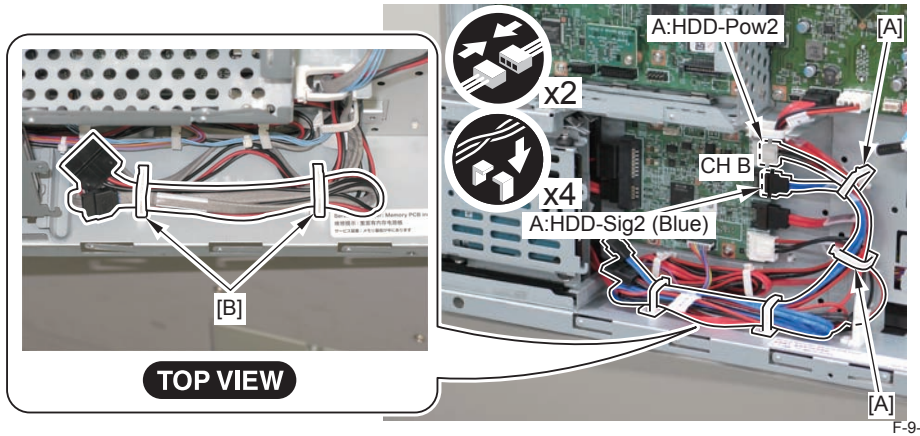


F-9-424

☐

15) Connect the Signal Cable (A:HDD-Sig2 Blue) and the Power Supply Cable (A:HDD-Pow2) to CH B, and secure them in place using the 2 Wire Saddles [A].

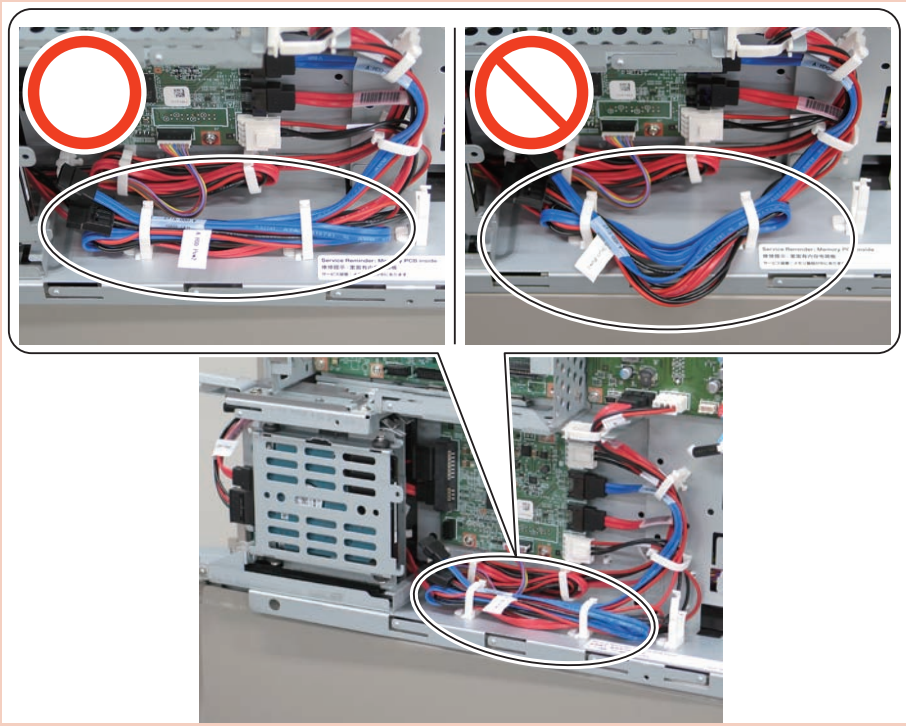
16) Fold extra length of the cables and secure them in place using the 2 Wire Saddles [B].



F-9-425

CAUTION:

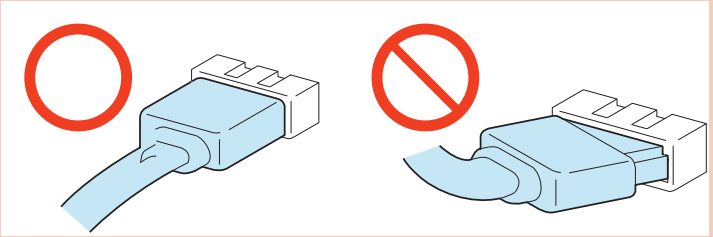
If there is extra slack of the cables, be sure to tuck them to the host machine side.



F-9-426

CAUTION:

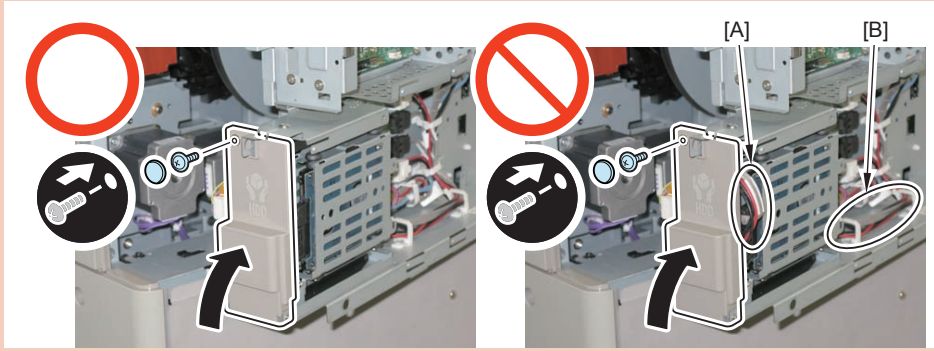
Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-427

☐
17) Close the HDD Cap.
- 1 Screw
- 1 Rubber Cap

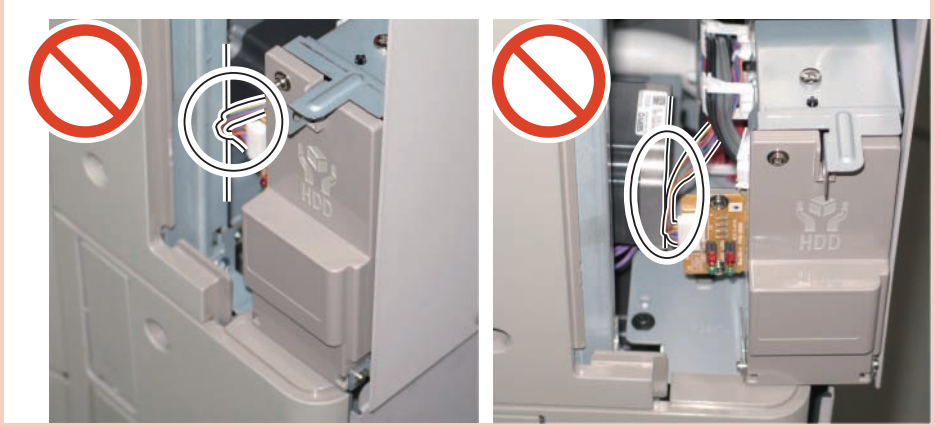
CAUTION:
- Be sure that the cables do not protrude from the [A] part of the HDD Cap.
- If the cables protrude from the [A] part, allow extra slack of the cables at the [B] part and tuck them to the host machine side.



F-9-428

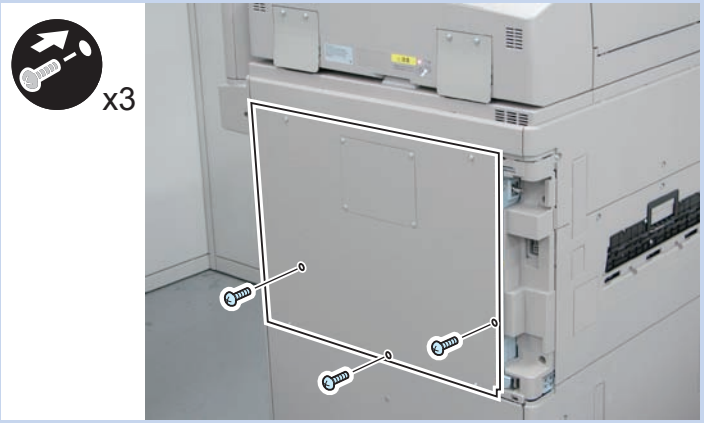
☐
18) Close the Controller Box.

CAUTION:
When closing the Controller Box, check that the LED Cable (A: LED-Sig) is not trapped or does not contact with it.


F-9-429

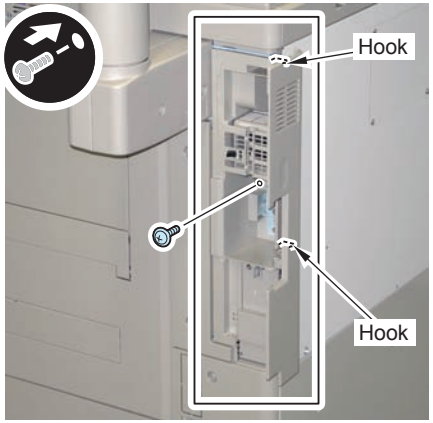
☐
19) Install the Rear Upper Cover.
- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.



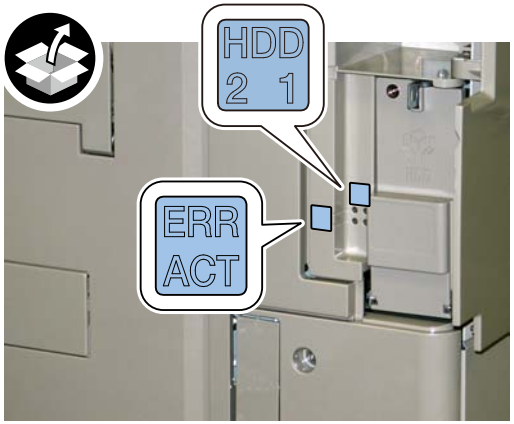
F-9-430

☐
20) Install the Side Cover.
- 2 Hooks
- 1 Screw



F-9-431

☐
21) Affix the LED Label.



F-9-432

☐
22) Close the Right Rear Cover 1.
23) Return the Left Rear Cover to its original position.
24) Connect the power plug to the outlet.

Installing the System Software Using the SST

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC authentication is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

Checking the Security Mark

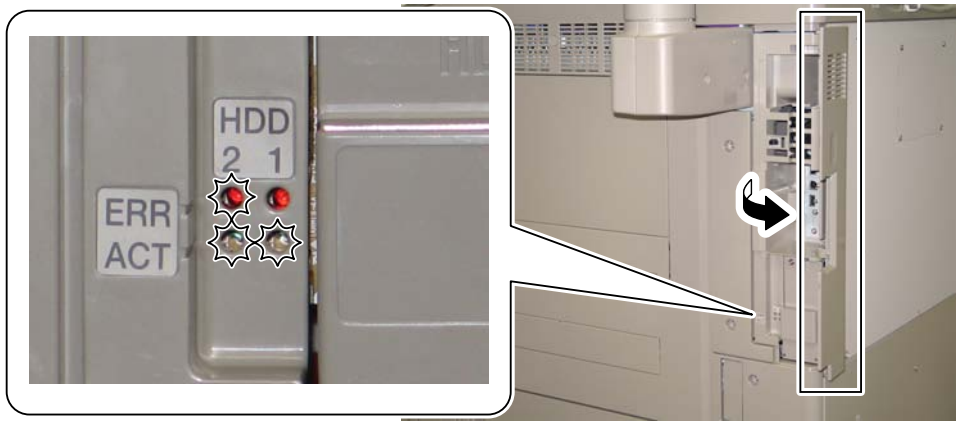
The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark( ) is displayed on the lower left corner of a panel screen.

Checking after Installation

1) Open the HDD Cover, and check that the LED is flashing.

- The green LED of HDD1 (Slot1) is flashing.



F-9-433

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

9-214
9 Installation > [TYPE-7] Option HDD (1TB) + HDD Data Encryption & Mirroring Kit > Execution of Auto Gradation Adjustment

9-215
9 Installation > [TYPE-7] Option HDD (1TB) + HDD Data Encryption & Mirroring Kit > Execution of Auto Gradation Adjustment

9-218
9 Installation > [TYPE-7] Option HDD (1TB) + HDD Data Encryption & Mirroring Kit > Execution of Auto Gradation Adjustment

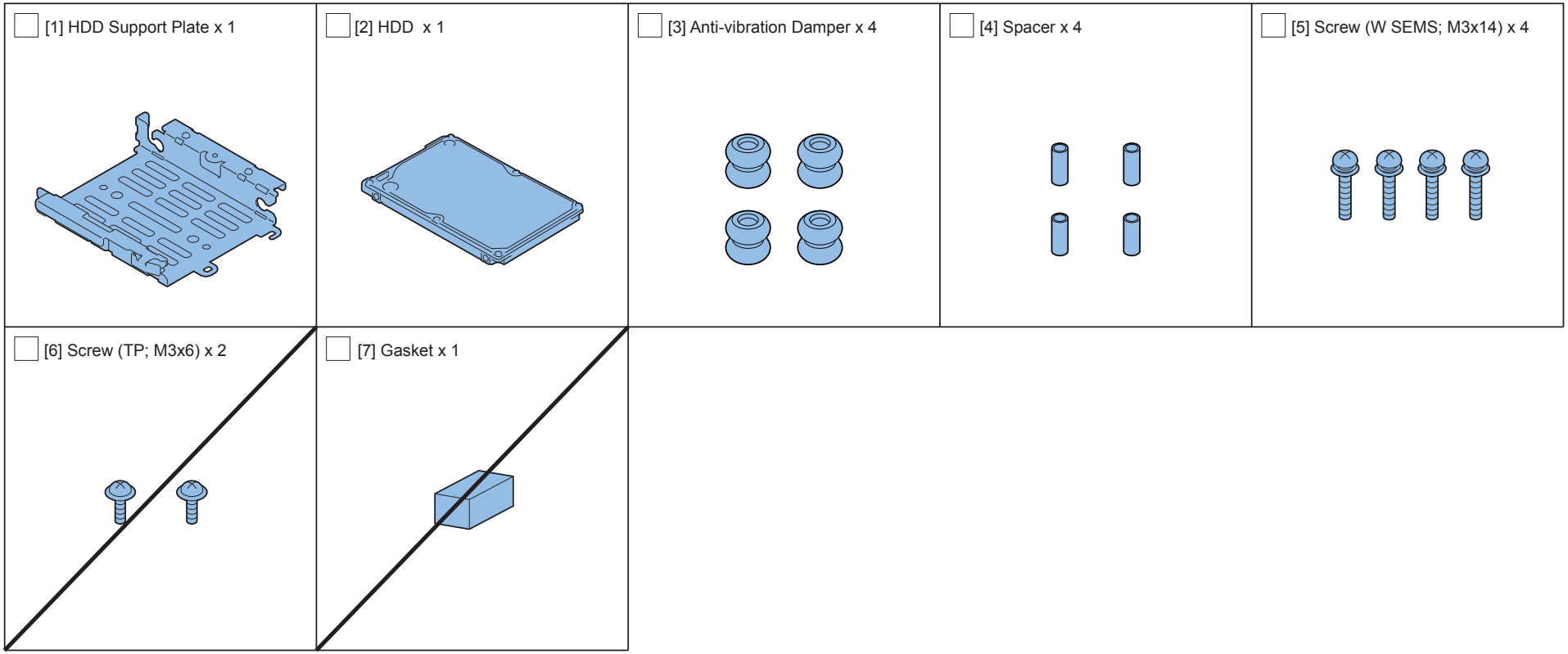
[TYPE-8] Option HDD (160GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

Option HDD (160GB)



F-9-434

< CD/Guides >

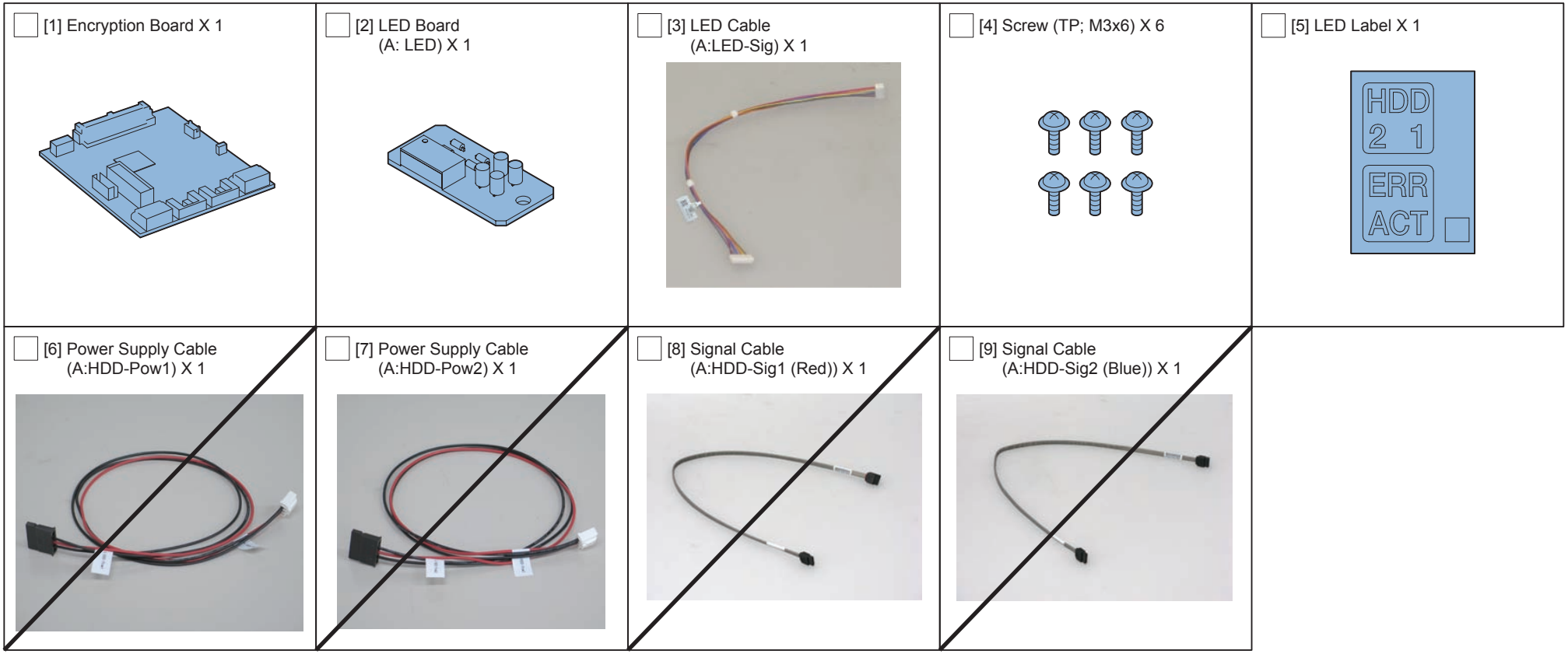
- FCC/IC Sheet

Removable HDD Kit

☐ [1] HDD Drawer Unit X 1	☐ [2] HDD Lock Pin X 2	☐ [3] HDD Lock Pin X 2	☐ [4] HDD Cover X 2	☐ [5] HDD Connector Plate X 2
☐ [6] HDD Connector Plate X 2	☐ [7] Conversion Connector X 2	☐ [8] Connector Fixation Block X 2	☐ [9] Screw (TP Round End; M3x6) X 8	☐ [10] Screw (P Tightening; M3x8) X 4
☐ [11] HDD Caution Label X 1	☐ [12] R-HDD Label X 1			

F-9-435

HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit



F-9-436

< CD/Guides of HDD Mirroring Kit >
- HDD Mirroring Kit User Guide
- FCC/IC Sheet

< CD/Guides of HDD Data Encryption & Mirroring Kit >
- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD

Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.

□

1) Execute the following service mode (level 1).

- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

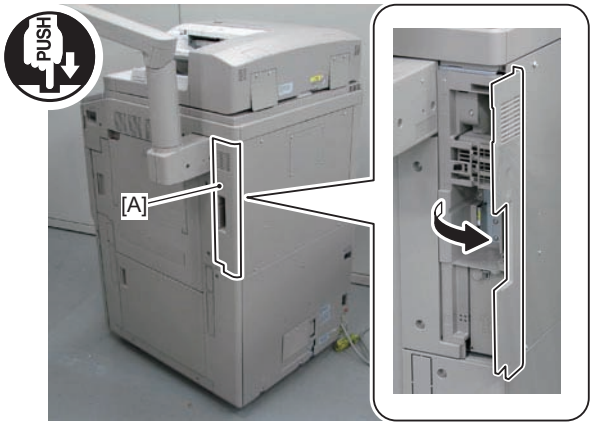
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Installation Procedure

Removing the HDD and HDD Case Unit

□

1) Push [A] part, and open the Right Rear Cover 1.

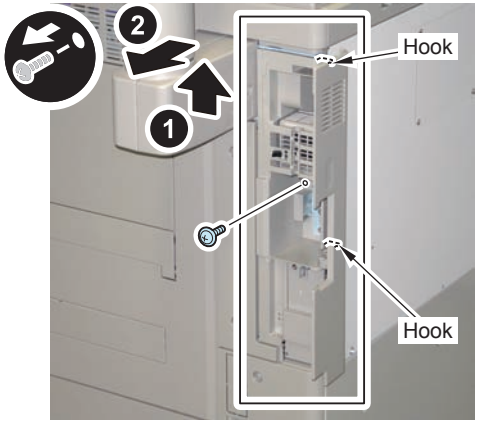


F-9-437

□

2) Remove the Side Cover.

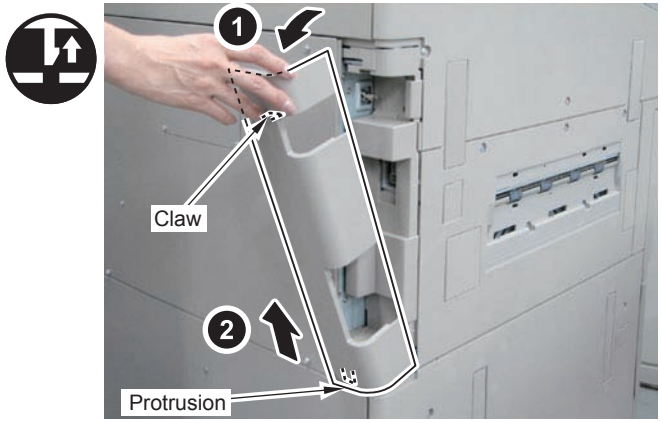
- 1 Screw
- 2 Hooks



F-9-438

3) Remove the Left Rear Cover.

- 1 Claw
- 1 Protrusions

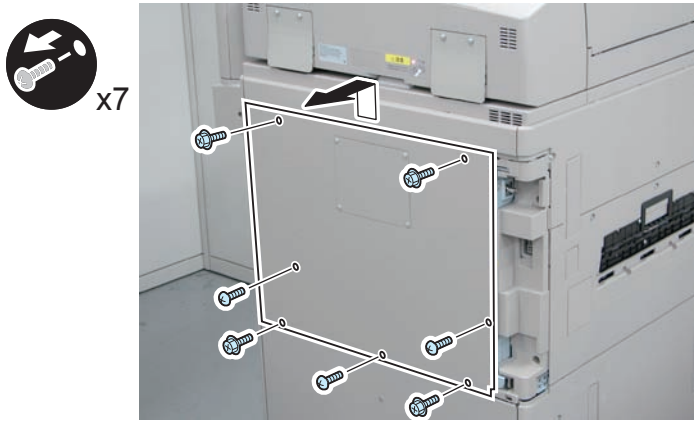


F-9-439

☐

4) Remove the Rear Upper Cover.

- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)

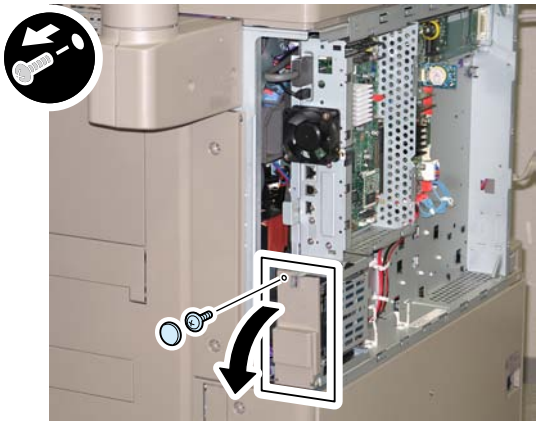


F-9-440

☐

5) Open the HDD Cap.

- 1 Rubber Cap
- 1 Screw (The removed screw will not be used.)



F-9-441

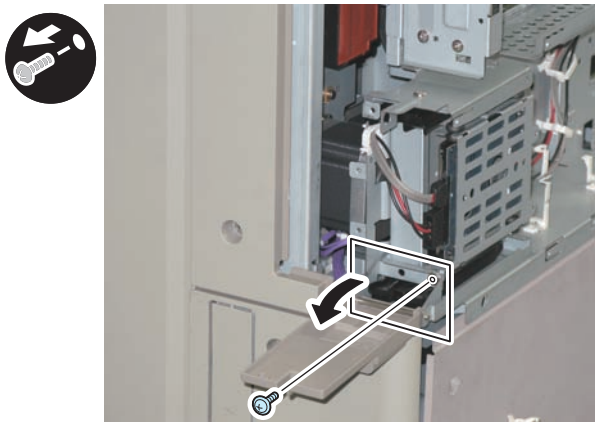
☐

6) Return the rubber cap to the HDD Cap.

☐

7) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will not be used.)

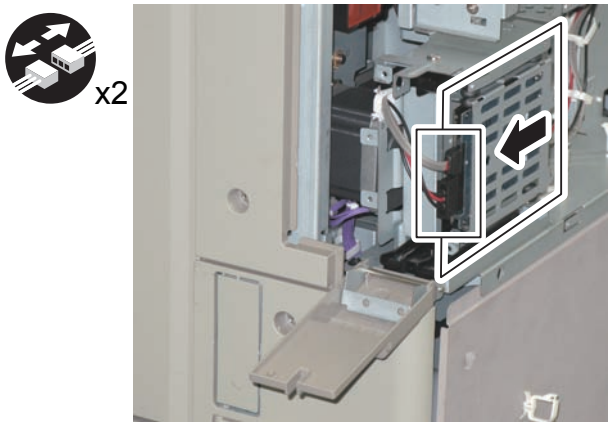


F-9-442

□

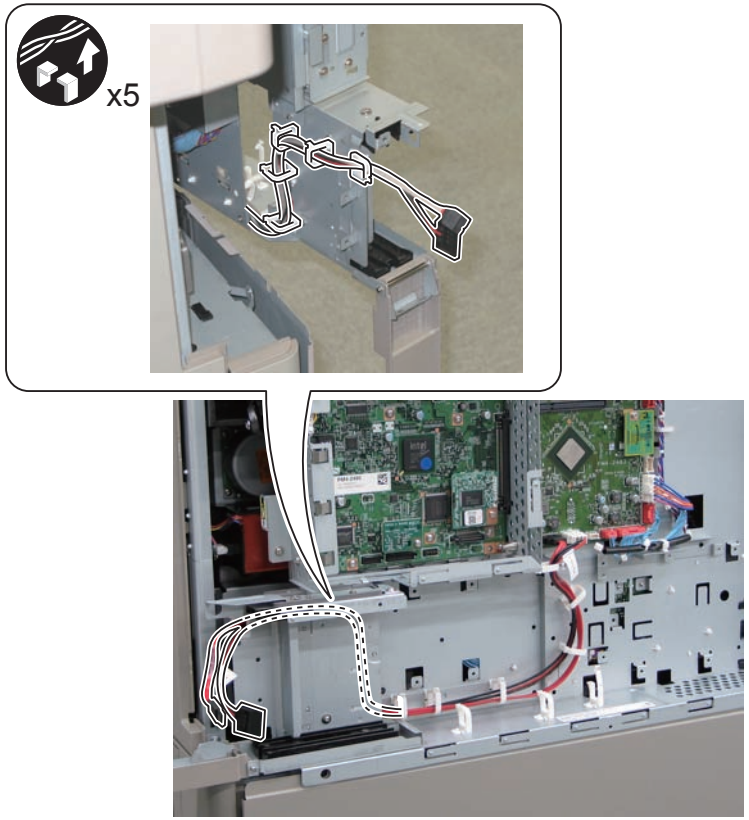
8) Remove the HDD.

- 2 Connectors



F-9-443

9) Open the Controller Box, and free the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.

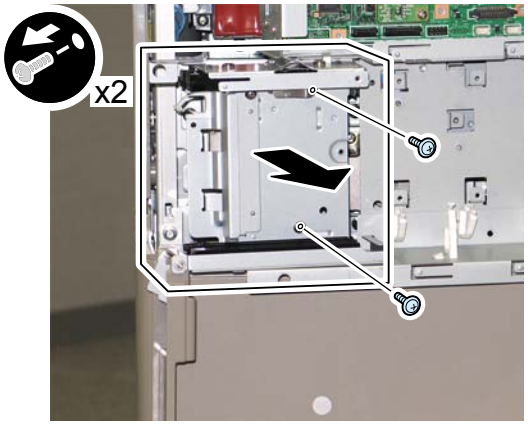


F-9-444

□

10) Remove the HDD Case Unit.

- 2 Screws (The removed screws will be used in “Installing the Mirroring Board or Encryption Board and HDD Case Unit” step 3).)



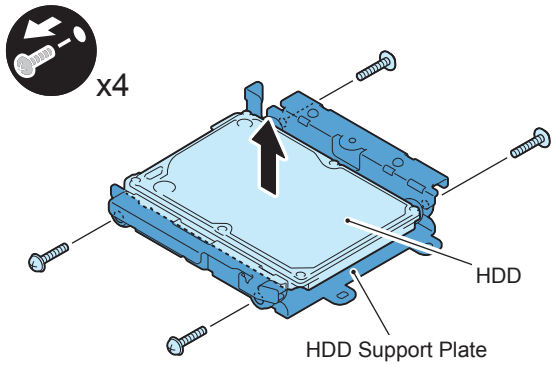
F-9-445

Disassembling and Assembling of the HDD Removed from the Host Machine (the First HDD)

□

1) Disassemble the removed HDD.

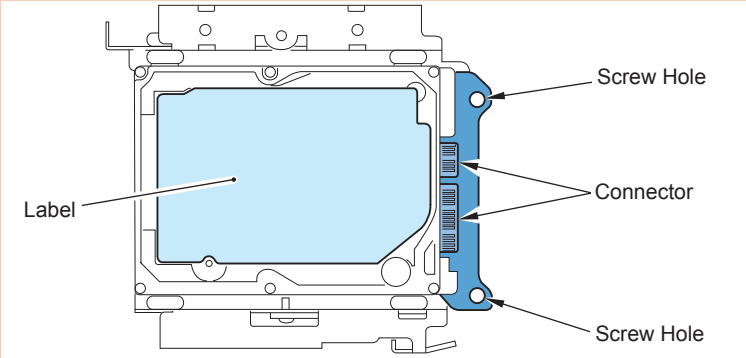
- 4 Screws (W Sems)
- 1 HDD Support Plate



F-9-446

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



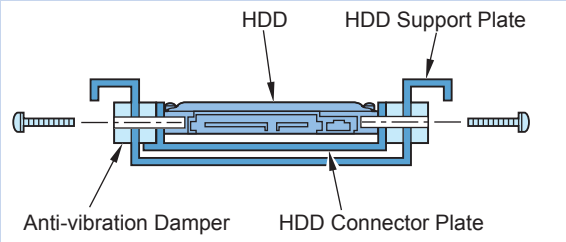
F-9-447

NOTE:
Use the parts disassembled in step 1) and parts included in the Removable HDD Kit.

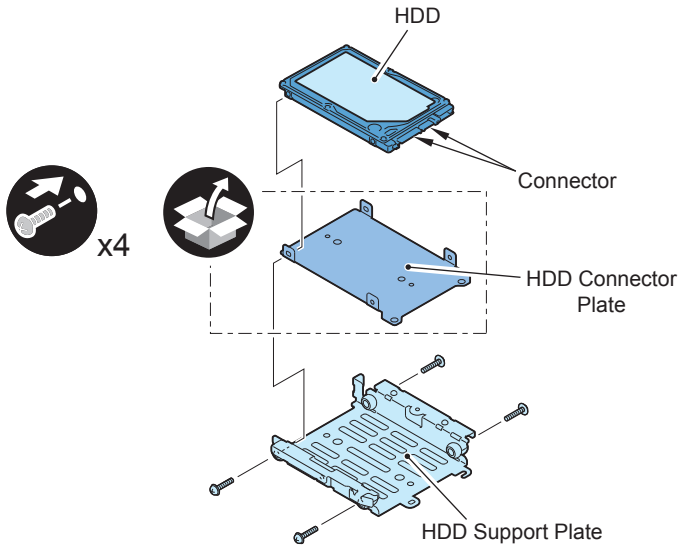
□
2) Assemble the HDD disassembled in step 1).

- 1 HDD Support Plate
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 HDD
- 4 Screws (W Sems)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



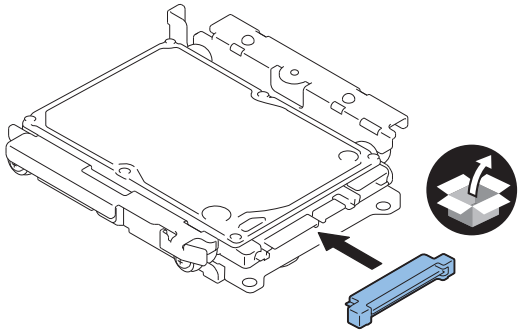
F-9-448



F-9-449

□
3) Install the Conversion Connector.

CAUTION:
Be sure that there is no gap between the HDD Connector and the Conversion Connector.



F-9-450

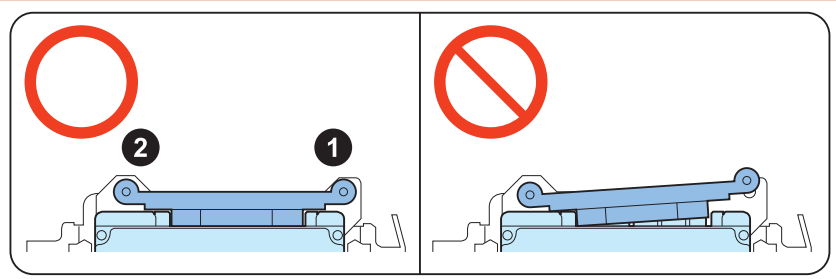
☐

4) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.

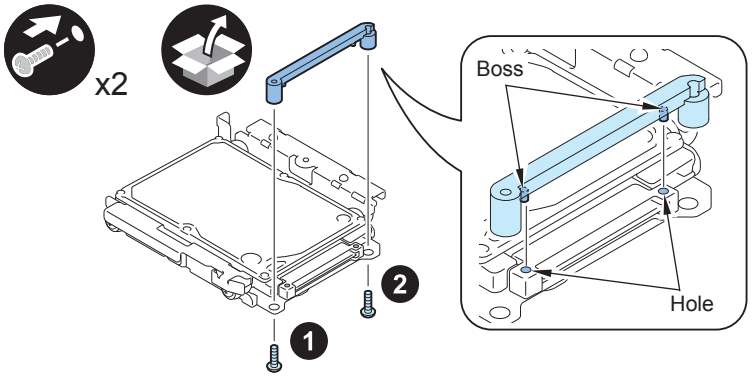
- 2 Screws (P Tightening; M3x8)

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-451



F-9-452

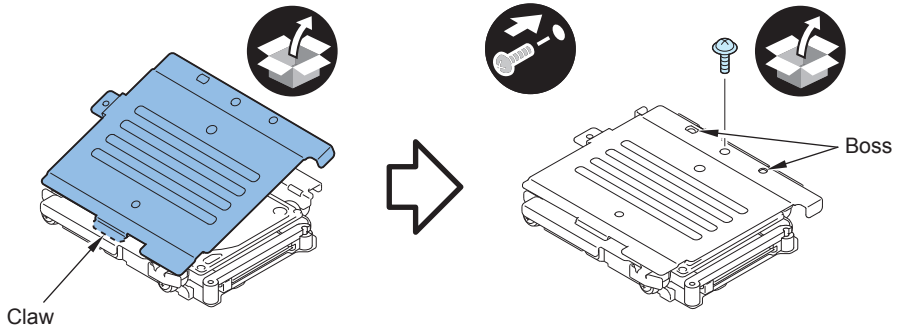
☐

5) Install the HDD Cover.

- 1 Claw
- 1 Boss
- 1 Screw (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-453

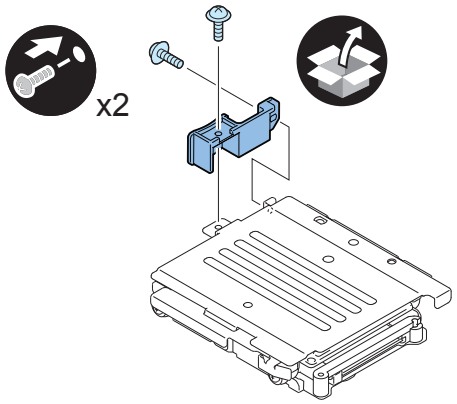
□

6) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

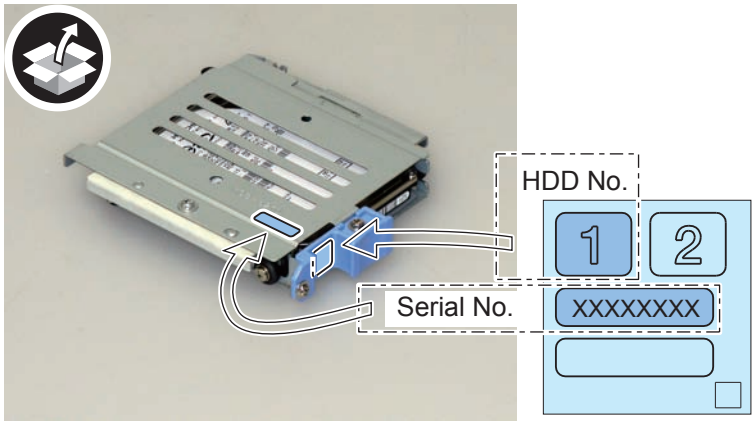


F-9-454

□

7) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.

8) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

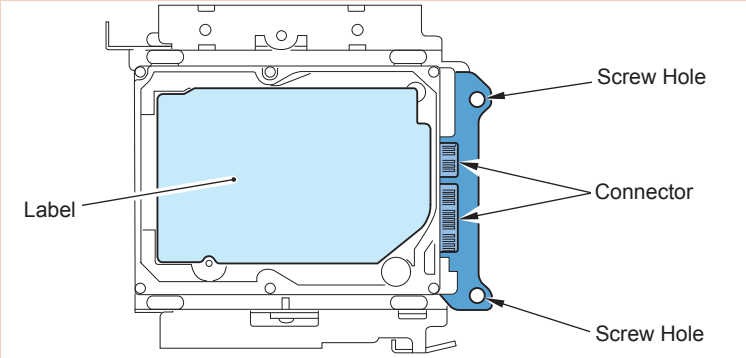


F-9-455

Assembling the Option HDD (the Second HDD)

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



F-9-456

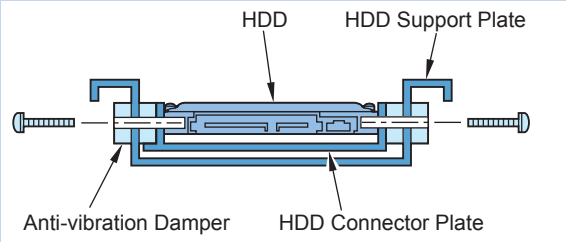
NOTE:
Use the parts included in the package of the Option HDD and the Removable HDD Kit.

□

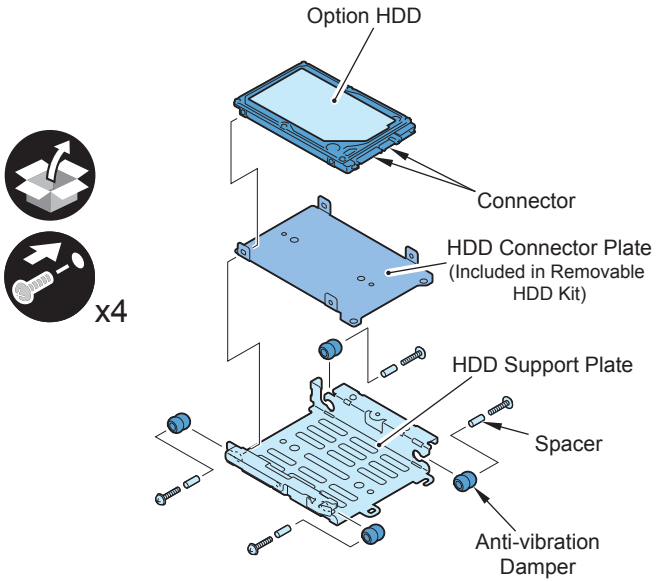
1) Assemble the Option HDD.

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



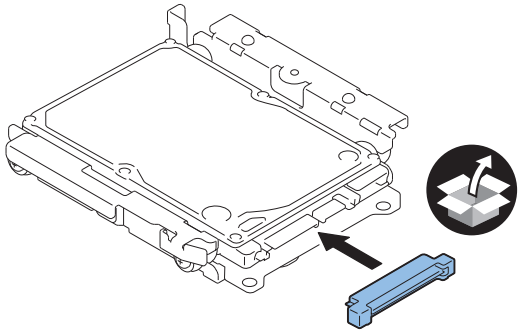
F-9-457



F-9-458

☐
2) Install the Conversion Connector.

CAUTION:
Be sure that there is no gap between the HDD Connector and the Conversion Connector.



F-9-459

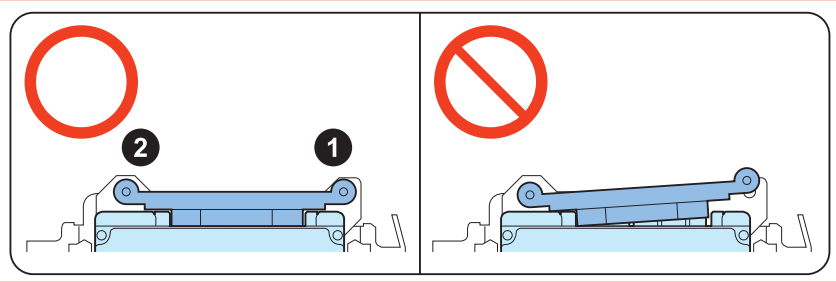
☐

3) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.

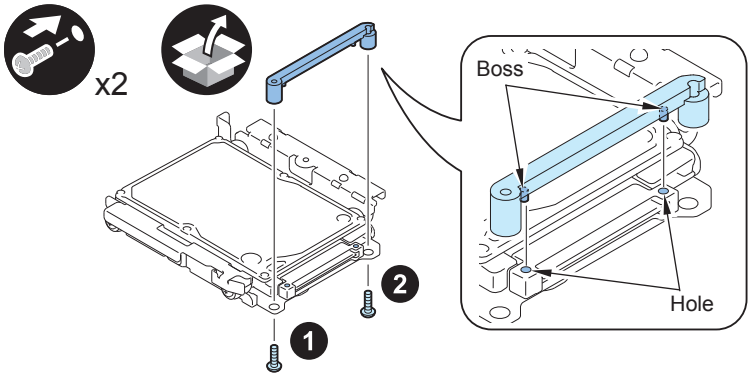
- 2 Screws (P Tightening; M3x8)

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-460



F-9-461

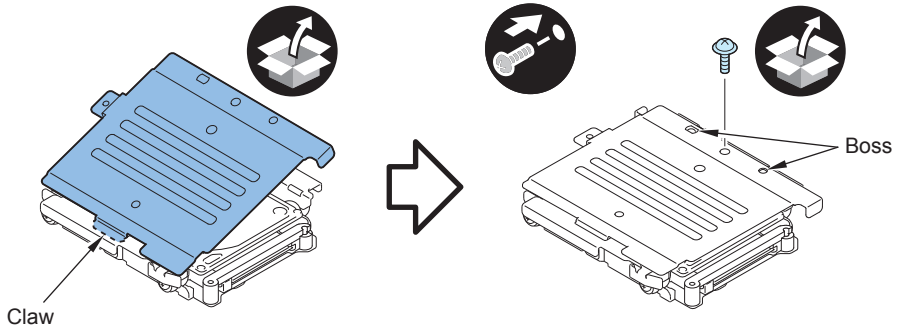
☐

4) Install the HDD Cover.

- 1 Claw
- 1 Boss
- 1 Screw (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-462

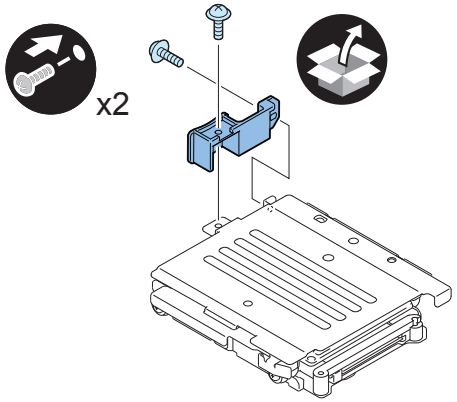
□

5) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

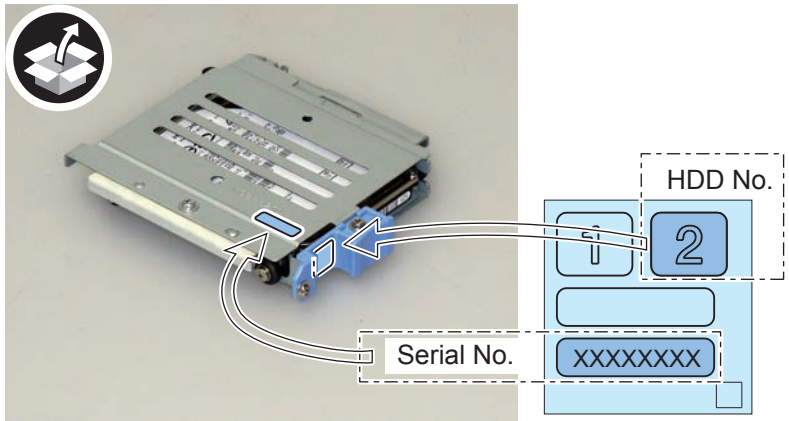


F-9-463

□

6) Affix the HDD No.2 of the R-HDD Label to the handle of the Removable HDD.

7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

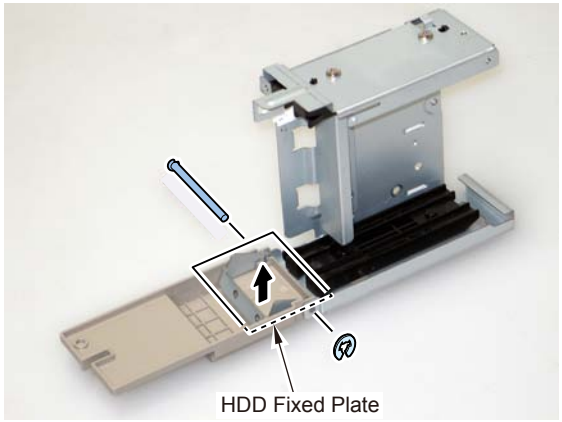


F-9-464

Changing Configuration inside of HDD Case Unit

□

1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-465

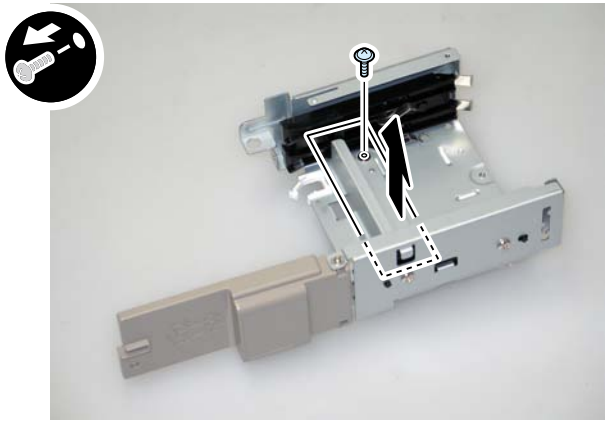
□

2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

□

3) Remove the Face Plate. (The removed Face Plate and Screw will not be used.)

- 1 Screw

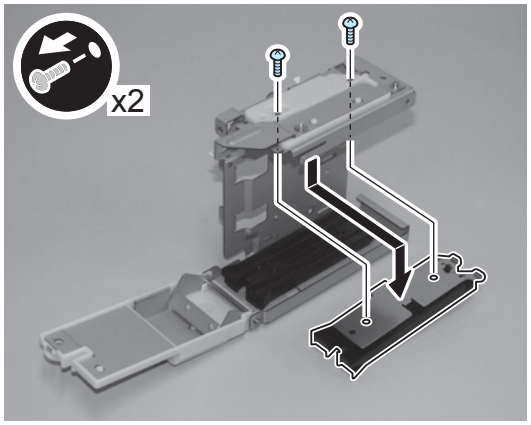


F-9-466

☐

4) Remove the Upper Rail from the HDD Case Unit.

- 2 Screws (The removed screws will be used in step 7).)

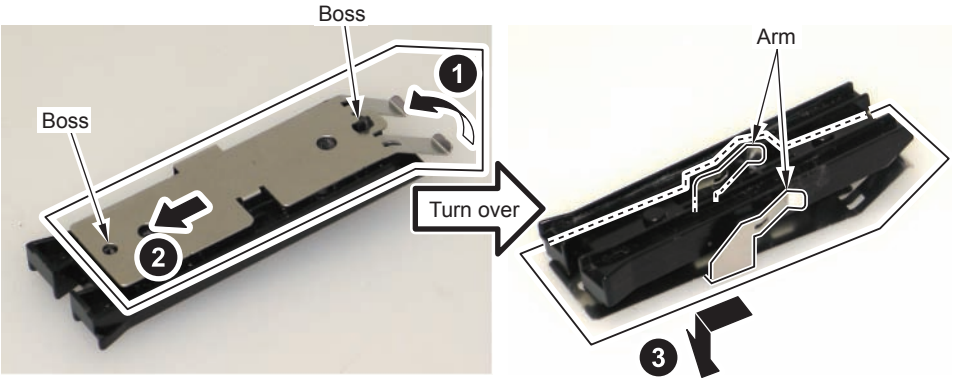


F-9-467

☐

5) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)

- 2 Bosses
- 2 Arms



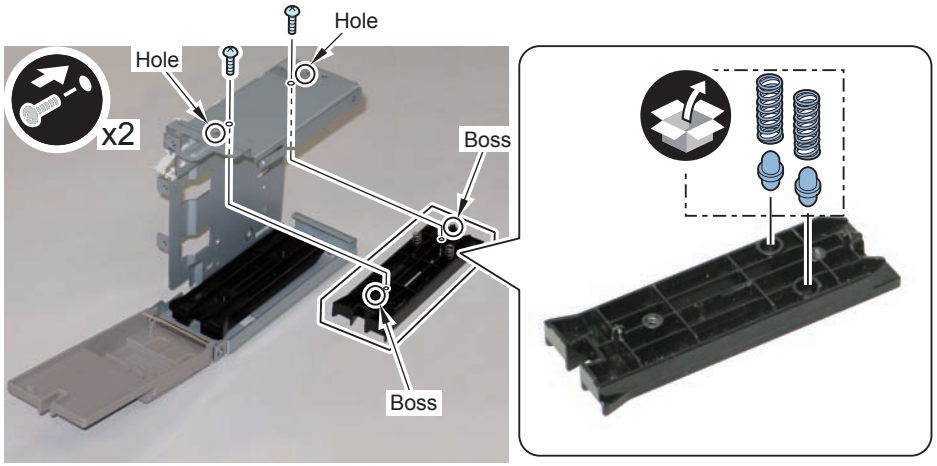
F-9-468

☐

6) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

7) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 4).)



F-9-469

□

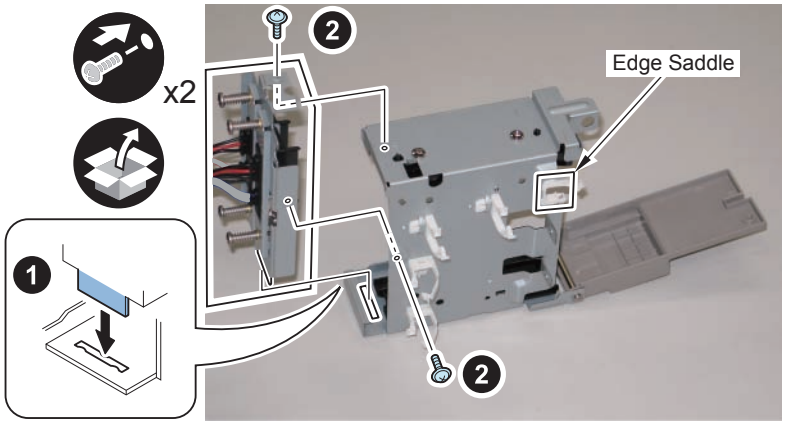
8) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

9) Close the Edge Saddle.

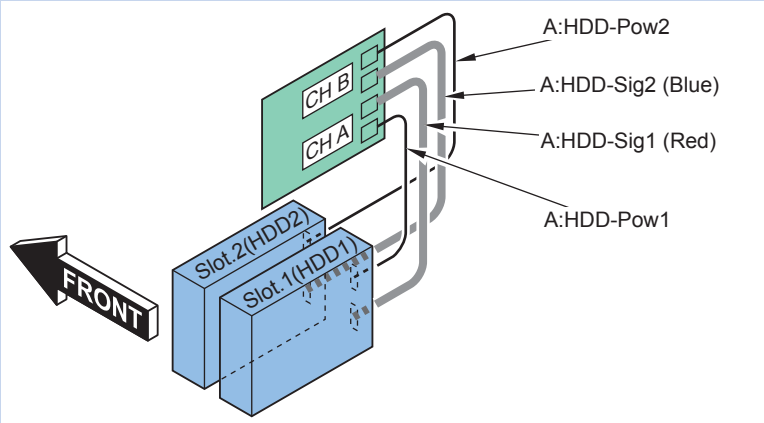


F-9-470

Installing the Mirroring Board or Encryption Board and HDD Case Unit

NOTE:
The following shows combination of the HDD and the Mirroring Board or Encryption Board.

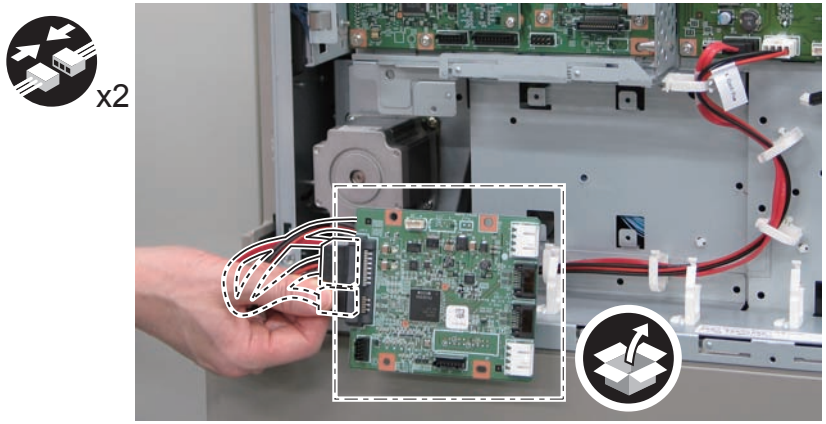
- Connect "CH A" to Slot.1 (The original HDD)
- Connect "CH B" to Slot.2 (The new HDD)



F-9-471

☐

1) Connect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine to the Encryption Board.

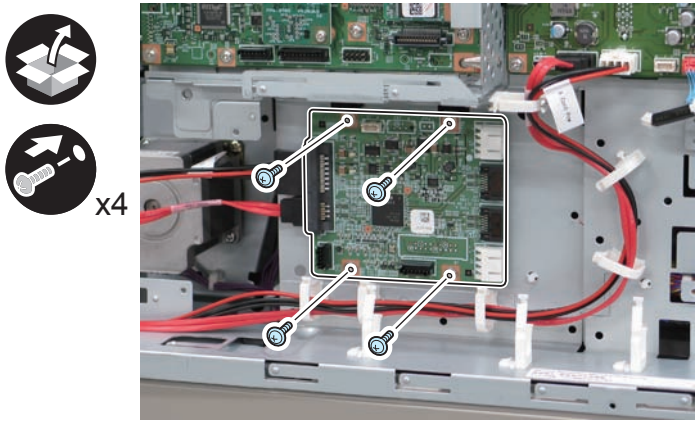


F-9-472

☐

2) Install the Encryption Board.

- 4 Screws (TP; M3x6)



F-9-473

☐

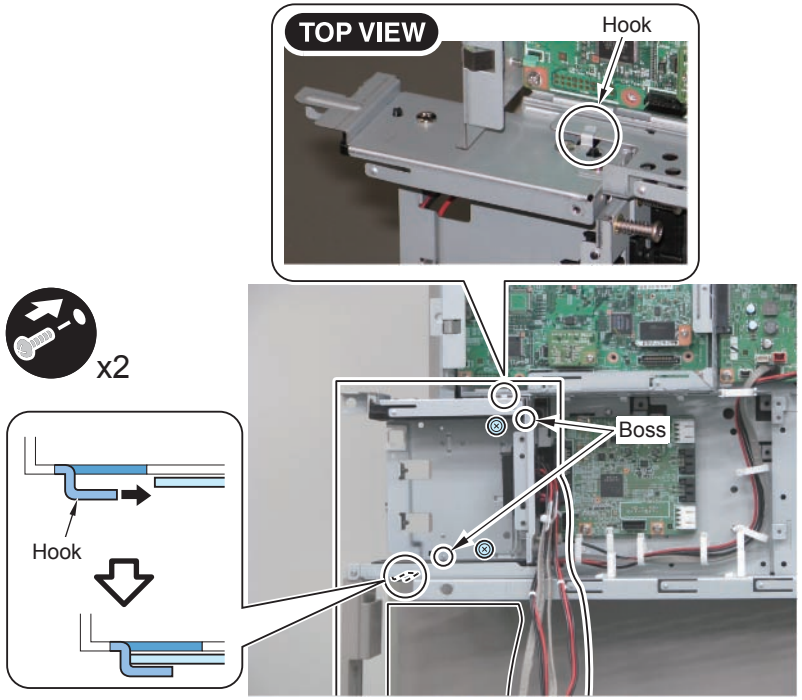
3) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in “Removing the HDD and HDD Case Unit” step 10).)

CAUTION:

Make sure that the bosses is fitted properly.

NOTE:
Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.

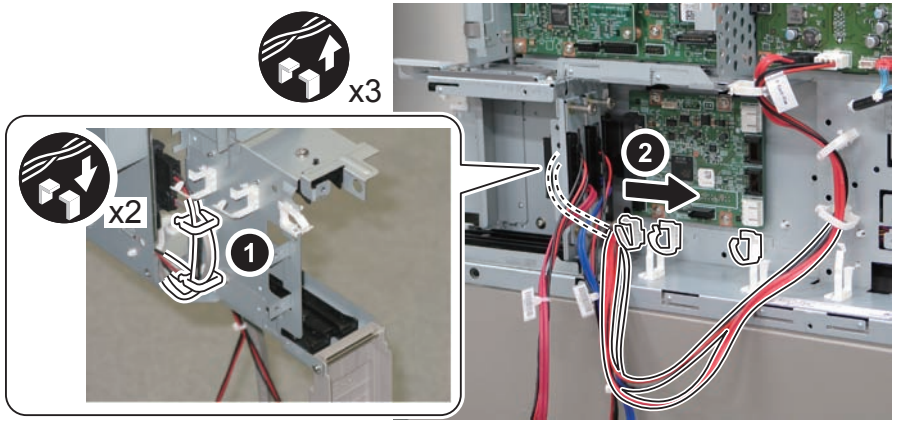


F-9-474

☐

4) Secure the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) in place using the 2 Wire Saddles at the back of the HDD Case Unit.

5) Free the cables from the 3 Wire Saddles at the front, and pull out the extra lengths of the cables to the front.

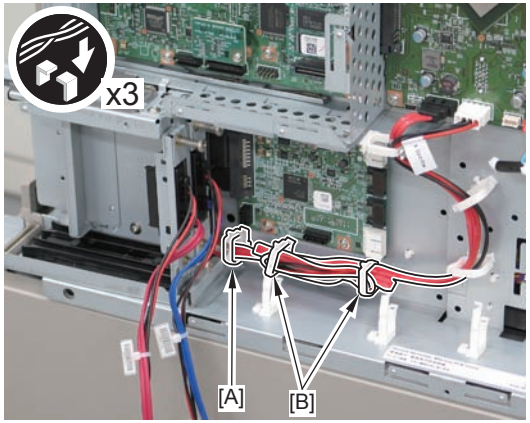


F-9-475

☐

6) Put cables through the Wire Saddle [A] and secure it.

7) Fold extra length of the Cable and secure it in place using the 2 Wire Saddles [B].

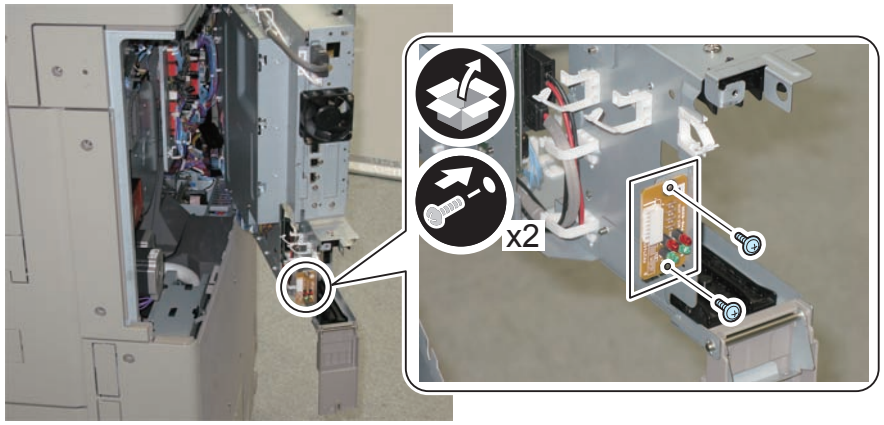


F-9-476

☐

8) Install the LED Board (A: LED) to the side surface of the HDD Case Unit.

- 2 Screws (TP; M3x6)



F-9-477

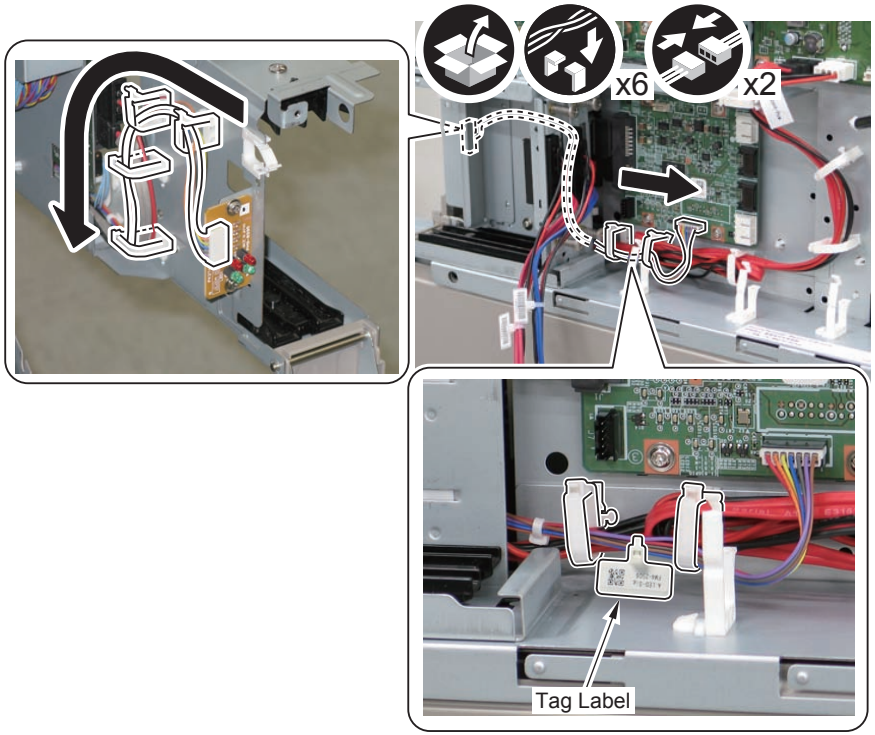
☐

9) Connect the LED Cable (A: LED-Sig) to the LED Board (A: LED) and the Encryption Board.

- 2 Connectors
- 6 Wire Saddles

CAUTION:

- The tag label of "A:LED-Sig" should be located between Wire Saddles.
- Secure the LED Cable (A: LED-Sig) in the direction of the arrow.
- Check that the LED Cable (A: LED-Sig) is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



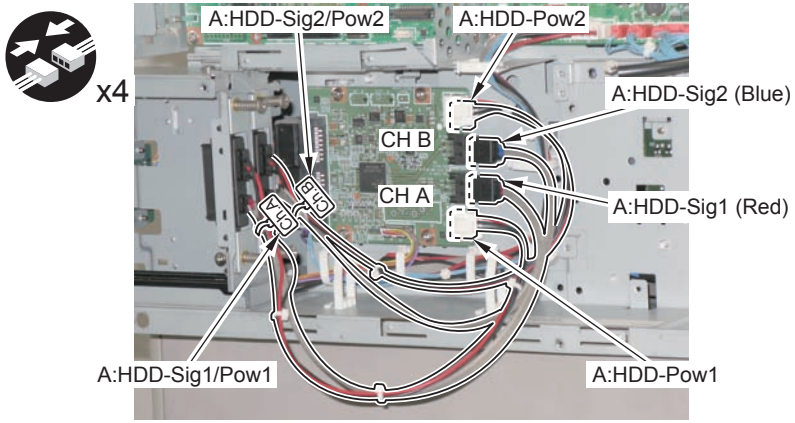
F-9-478

☐

10) Connect the 4 Connectors of the Signal Cables (A:HDD-Sig1 Red) (A:HDD-Sig2 Blue) and the Power Supply Cables (A:HDD-Pow1) (A:HDD-Pow2) to the Encryption Board.

CAUTION:

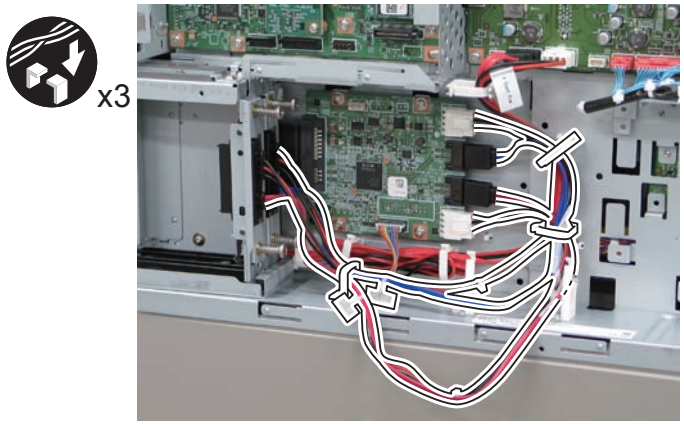
- Connect "A:HDD-Sig1/Pow1" to the location of CH-A.
- Connect "A:HDD-Sig2/Pow2" to the location of CH-B.



F-9-479

☐

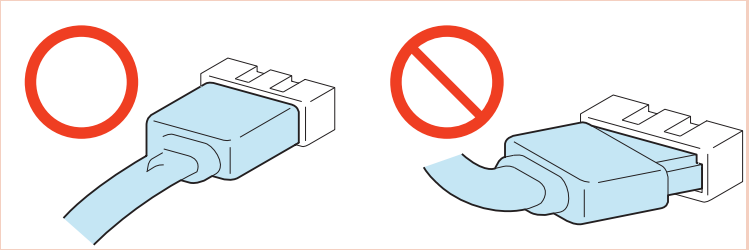
11) Secure the "A:HDD-Sig2/Pow2" cable and "A:HDD-Sig1/Pow1" cable using the total of 3 Wire Saddles as shown in the figure.



F-9-480

CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-481

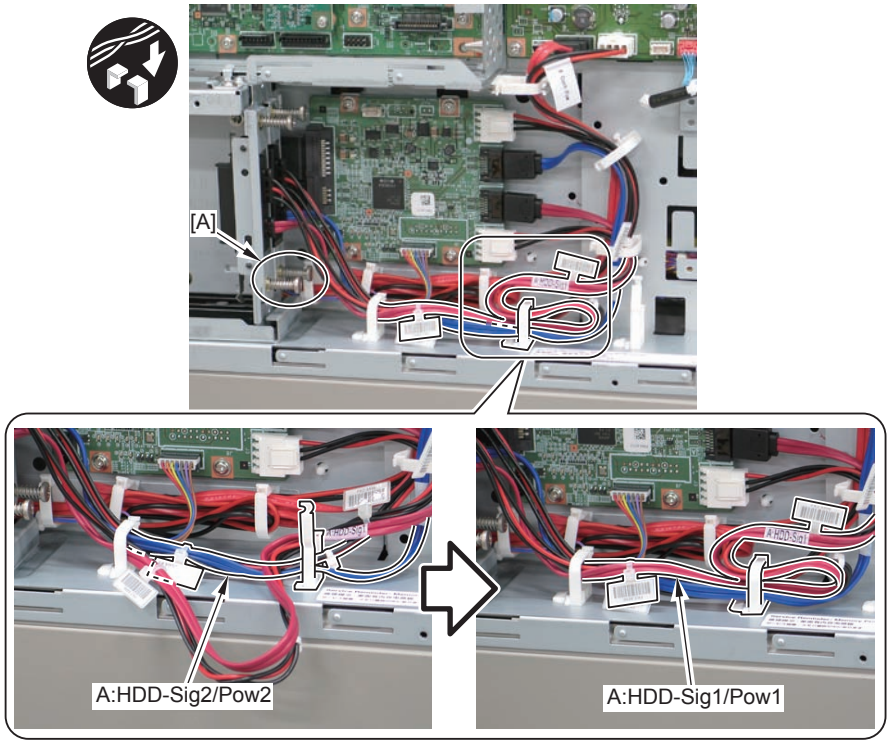
☐

12) Put the "A:HDD-Sig2/Pow2" cables through the Wire Saddle.

13) Fold the extra length of the "A:HDD-Sig1/Pow1" cables, and secure it with the Wire Saddle.

CAUTION:

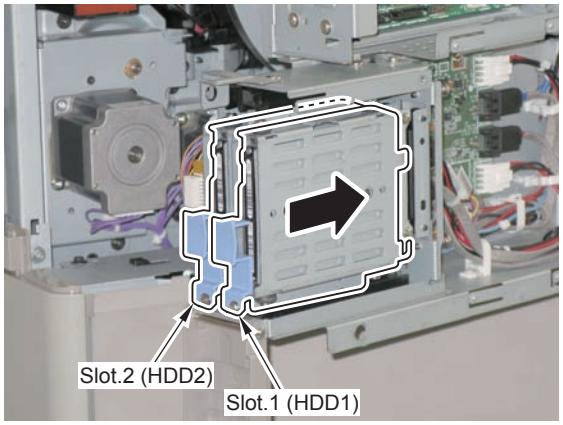
- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-482

☐
14) Insert the assembled Removable HDD.

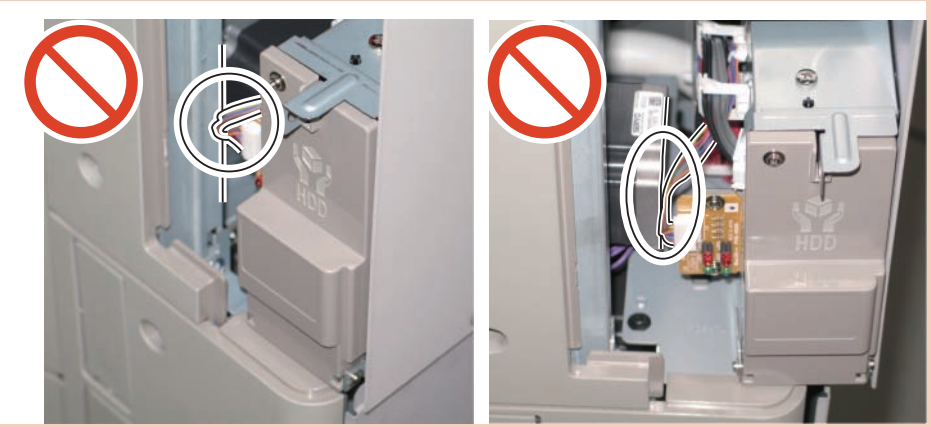
CAUTION:
Be sure to insert the HDD No.1 to the Slot.1, and the HDD No.2 to the Slot.2.



F-9-483

☐
15) Close the Controller Box.

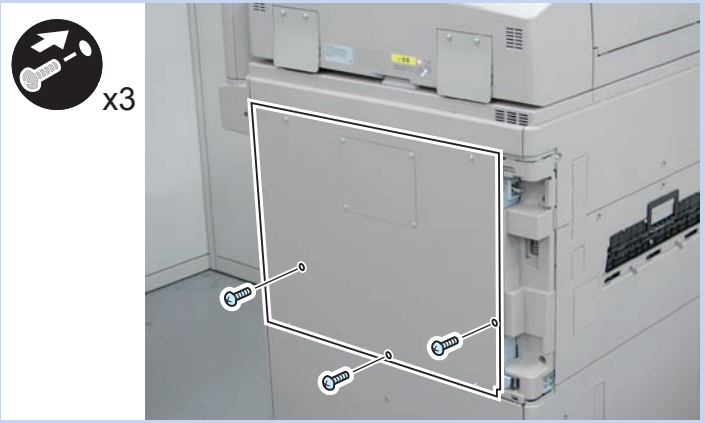
CAUTION:
When closing the Controller Box, check that the LED Cable (A: LED-Sig) is not trapped or does not contact with it.



F-9-484

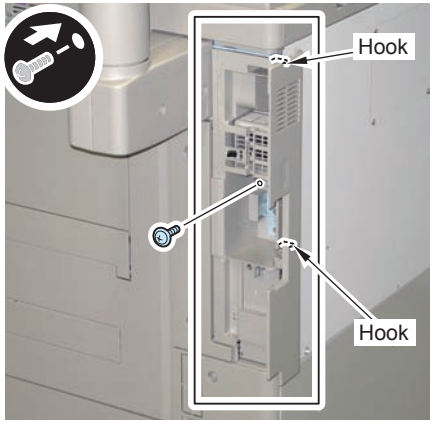
☐
16) Install the Rear Upper Cover.
- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.



F-9-485

☐
17) Install the Side Cover.
- 2 Hooks
- 1 Screw

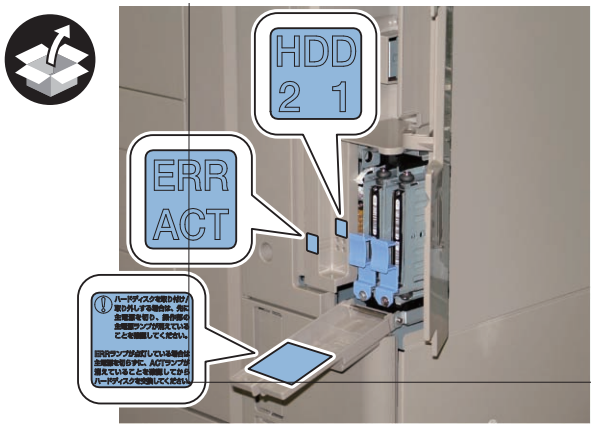


F-9-486

□

18) Affix the LED Label.

19) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-487

□

20) Close the HDD Cap, and install the key prepared by the user for locking.

NOTE:
Be sure to use the locking key which size is the one indicated below or smaller.
- Size (width x depth x height) : 67mm x 14mm x 64mm

F-9-488

□

21) Close the Right Rear Cover 1.

22) Return the Left Rear Cover to its original position.

23) Connect the power plug to the outlet.

24) Turn ON the main power switch. (Only when installing HDD Mirroring Kit)

After Installing HDD Data Encryption & Mirroring Kit

Installing the System Software Using the SST

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC

Service support tool in the version that supports this host machine must be installed.

2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC authentication is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark( ) is displayed on the lower left corner of a panel screen.

Setting for Mirroring

1) Make a setting of mirroring.
- Specify "1" under "Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID".

2) Turn OFF/ON the main power of the host machine to enable the setting value.
3) Make sure that the UI screen is activated correctly.
4) Make sure that the LED blinks.
- HDD1 (Slot 1): The green LED blinks.
- HDD2 (Slot 2): The green and red LEDs blink.

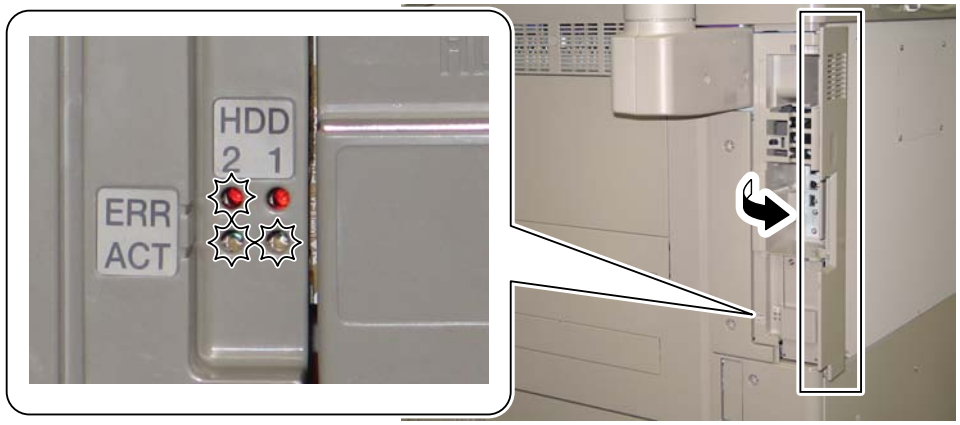
CAUTION:

Rebuild process starts after setting "1" for W/RAID. If an error occurs during the rebuild process at the initial installation The hard disk needs to be replaced. (Call service rep.), reexecute the process with the following procedure.

1) Check that the lighting red LED is HDD2.
2) Select Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID, and set "0".
3) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.
4) Select Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID, and set "1".
5) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.

The foregoing procedure is limited to the rebuild process at the initial installation.

An error during the rebuild process that is executed during operation is not included in the consideration.



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After Installing HDD Data Encryption & Mirroring Kit

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

9-242
9 Installation > [TYPE-8] Option HDD (160GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit > After Installing

9-243
9 Installation > [TYPE-8] Option HDD (160GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit > After Installing

9-244
9 Installation > [TYPE-8] Option HDD (160GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit > After Installing

9-245
9 Installation > [TYPE-8] Option HDD (160GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit > After Installing

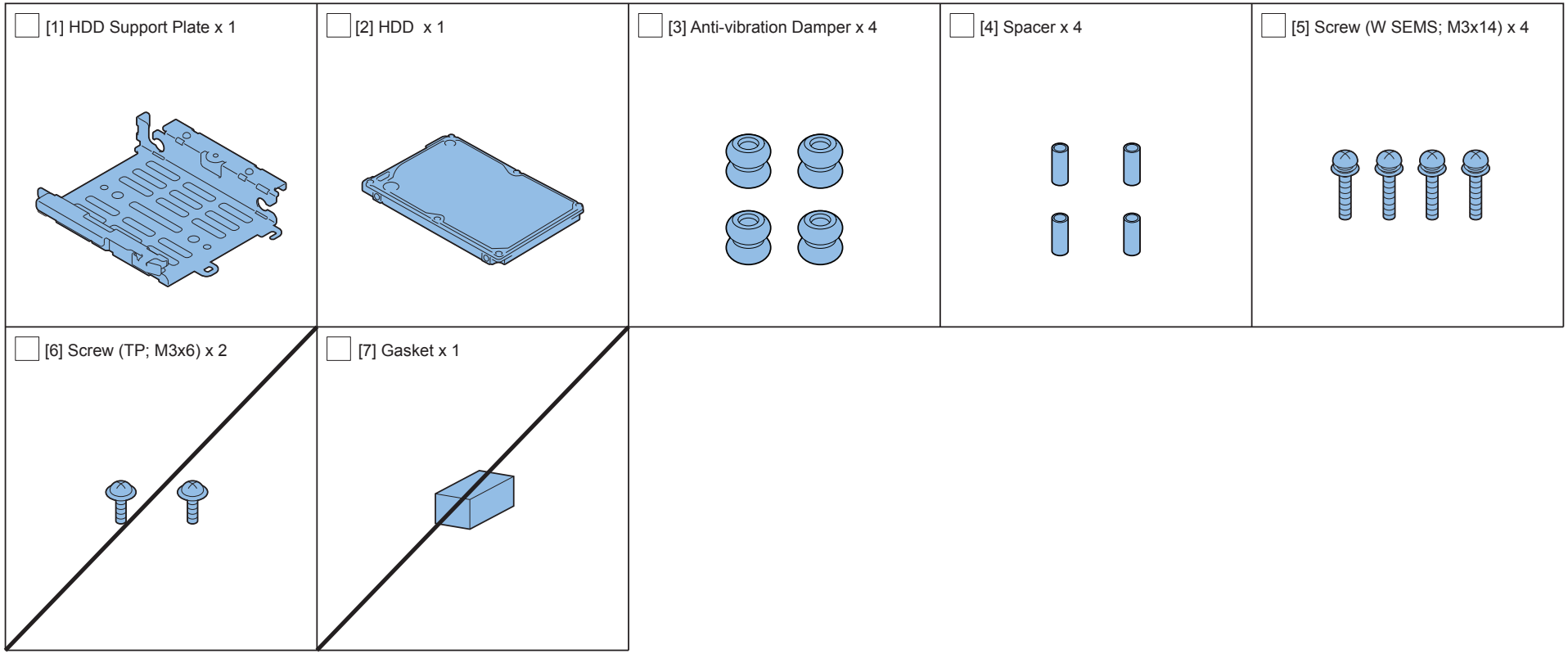
[TYPE-9] 2 Option HDDs (1TB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

Points to Note when HDD Data Encryption & Mirroring Kit has been Installed

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

Option HDD (1TB)



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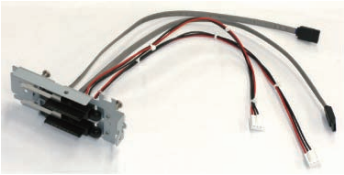
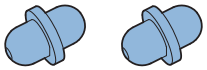
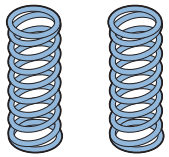
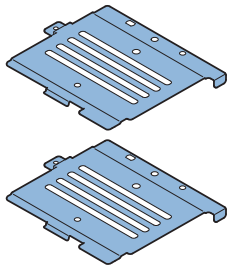
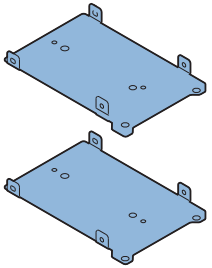
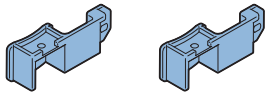
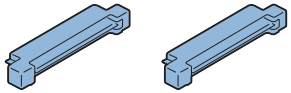
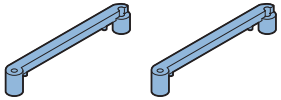
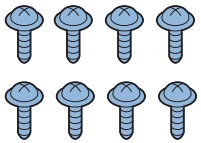
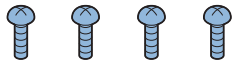
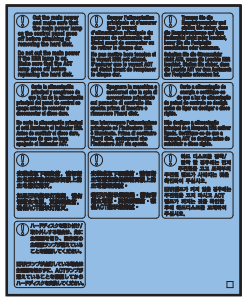
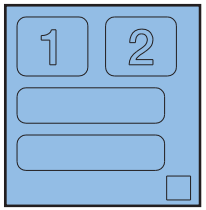
< CD/Guides >

- FCC/IC Sheet

Removable HDD Kit

☐ [1] HDD Drawer Unit X 1 	☐ [2] HDD Lock Pin X 2 	☐ [3] HDD Lock Pin X 2 	☐ [4] HDD Cover X 2 	☐ [5] HDD Connector Plate X 2 
☐ [6] HDD Connector Plate X 2 	☐ [7] Conversion Connector X 2 	☐ [8] Connector Fixation Block X 2 	☐ [9] Screw (TP Round End; M3x6) X 8 	☐ [10] Screw (P Tightening; M3x8) X 4 
☐ [11] HDD Caution Label X 1 	☐ [12] R-HDD Label X 1 			

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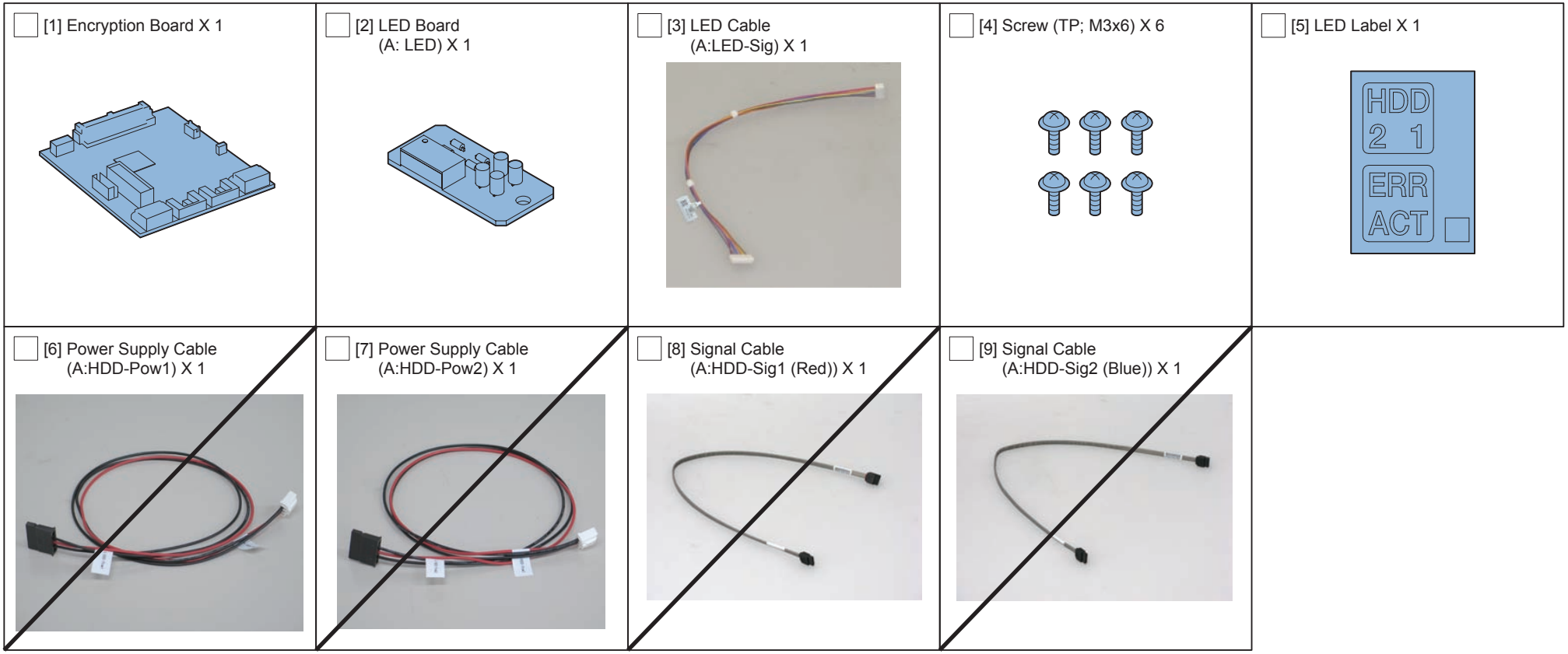
HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit



F-9-492

< CD/Guides of HDD Mirroring Kit >
- HDD Mirroring Kit User Guide
- FCC/IC Sheet

< CD/Guides of HDD Data Encryption & Mirroring Kit >
- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD

Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.

□

1) Execute the following service mode (level 1).

- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

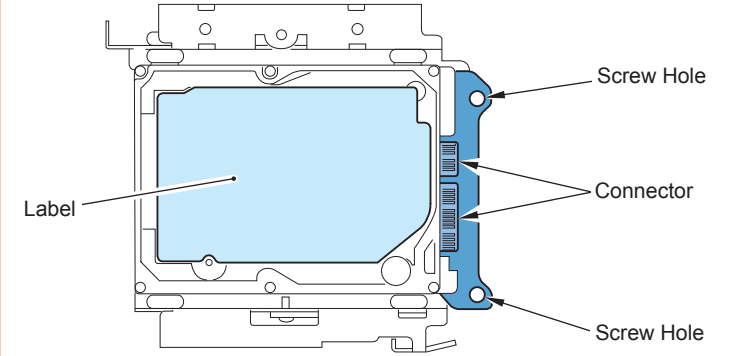
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Installation Procedure

Assembling the Option HDD

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



F-9-493

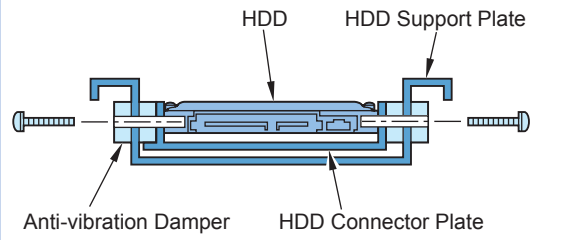
NOTE:
Use the parts included in the package of the Option HDD and the Removable HDD Kit.

□

1) Assemble the Option HDD (1TB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



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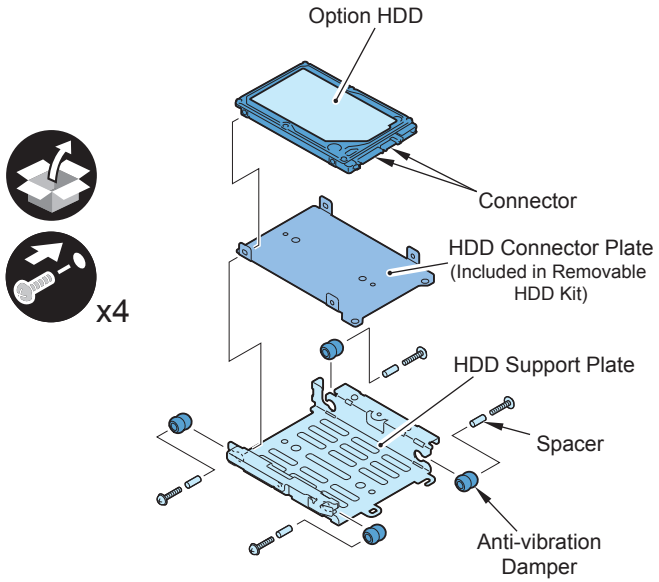
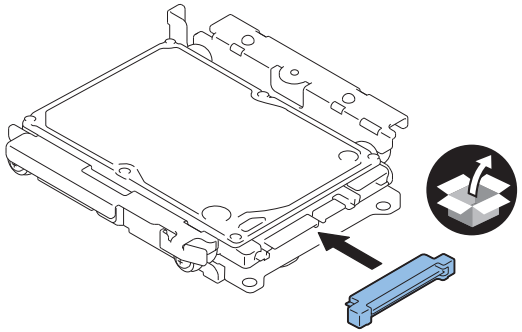


F-9-495

☐
2) Install the Conversion Connector.

CAUTION:
Be sure that there is no gap between the HDD Connector and the Conversion Connector.



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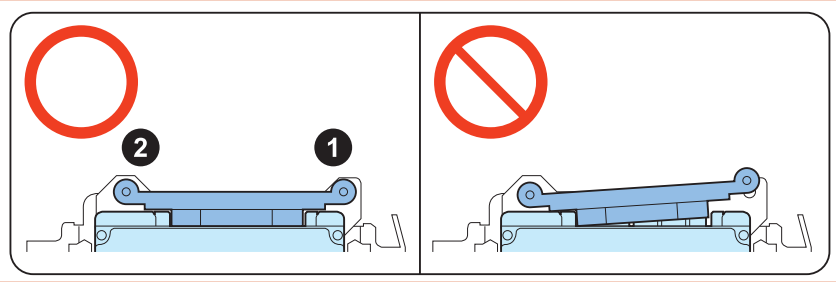
☐

3) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.

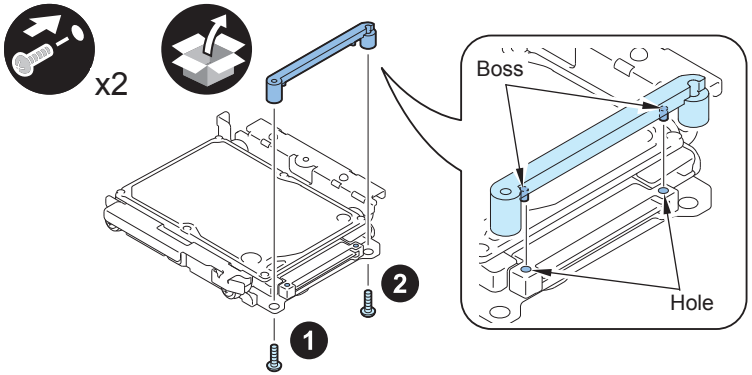
- 2 Screws (P Tightening; M3x8)

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-497



F-9-498

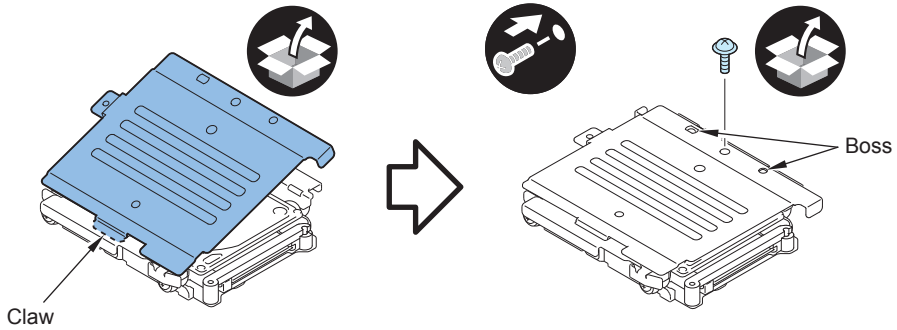
☐

4) Install the HDD Cover.

- 1 Claw
- 1 Boss
- 1 Screw (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-499

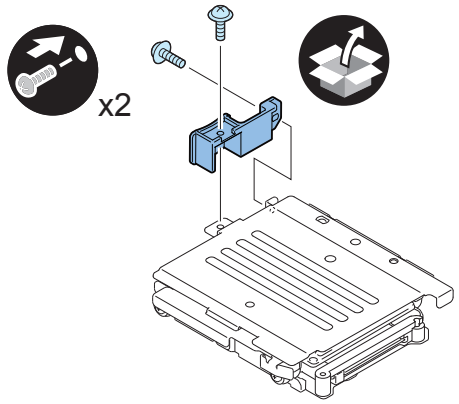
□

5) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

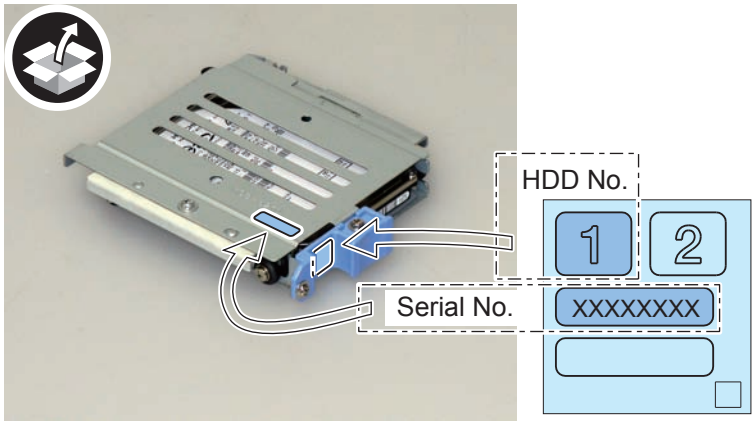


F-9-500

□

6) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.

7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-501

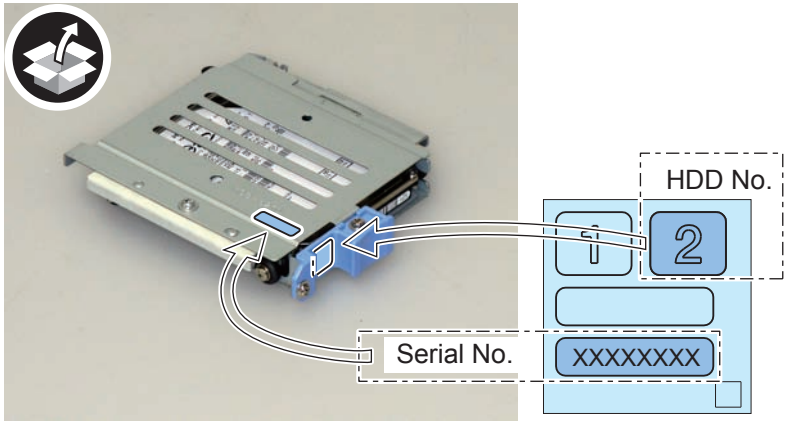
□

8) Assemble the other Option HDD (1TB) in the same way according to steps 1) to 5).

□

9) Affix the HDD No.2 of the R-HDD Label to the handle of the Removable HDD.

10) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

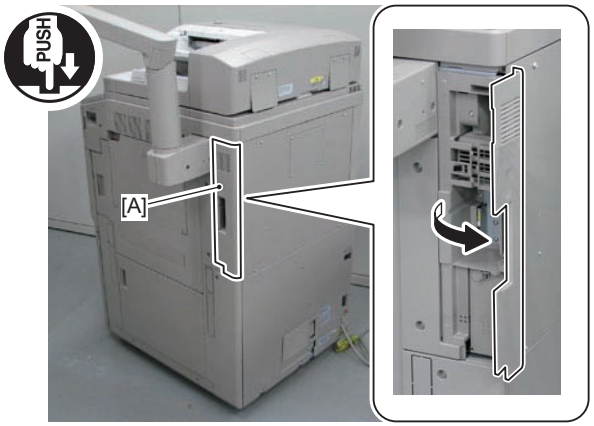


F-9-502

Removing the HDD and HDD Case Unit

□

1) Push [A] part, and open the Right Rear Cover 1.

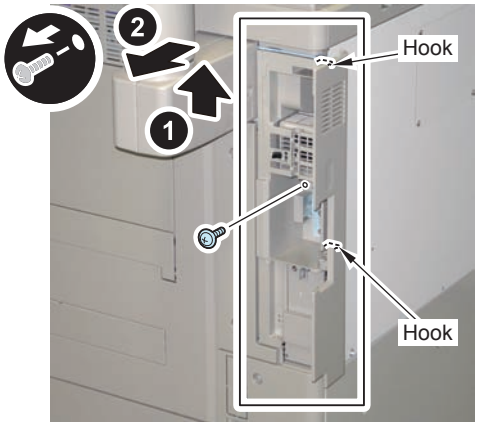


F-9-503

□

2) Remove the Side Cover.

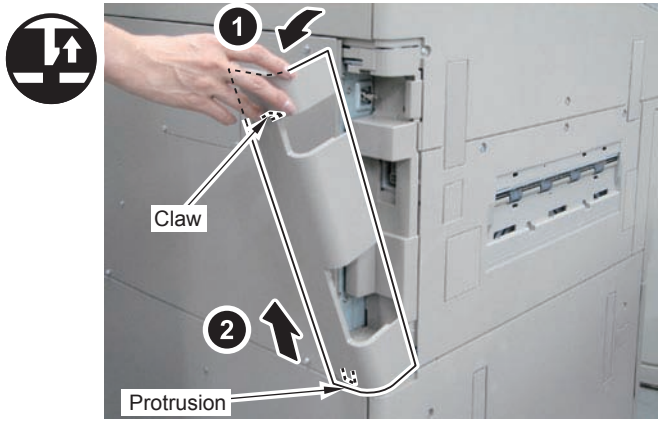
- 1 Screw
- 2 Hooks



F-9-504

3) Remove the Left Rear Cover.

- 1 Claw
- 1 Protrusions

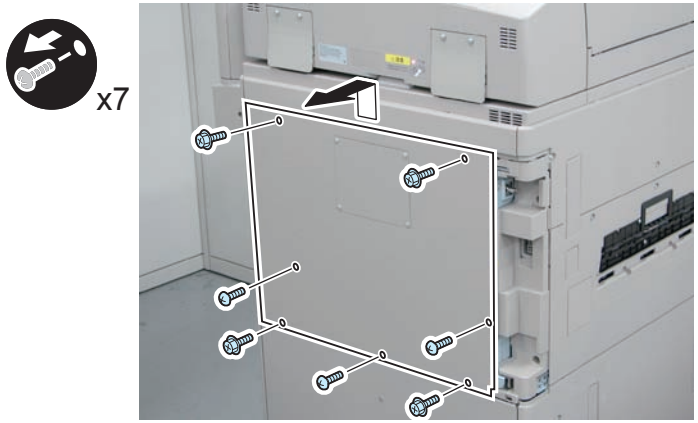


F-9-505

□

4) Remove the Rear Upper Cover.

- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)



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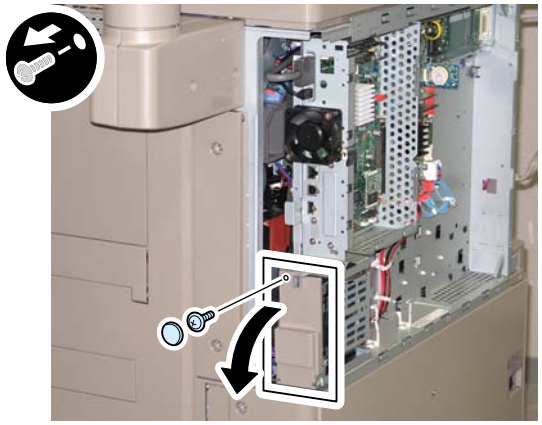
☐

5) Open the HDD Cap.

- 1 Rubber Cap
- 1 Screw (The removed screw will not be used.)



F-9-507

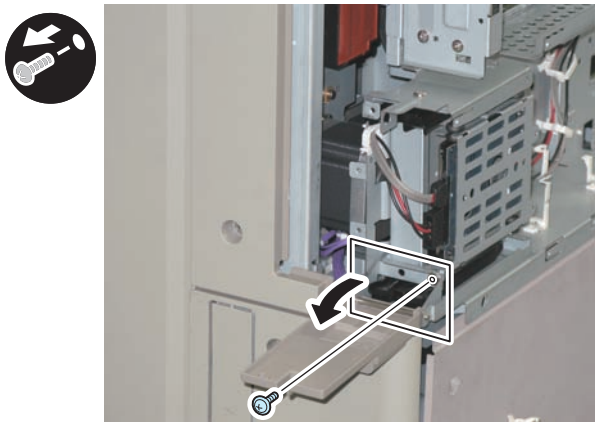
☐

6) Return the rubber cap to the HDD Cap.

☐

7) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will not be used.)

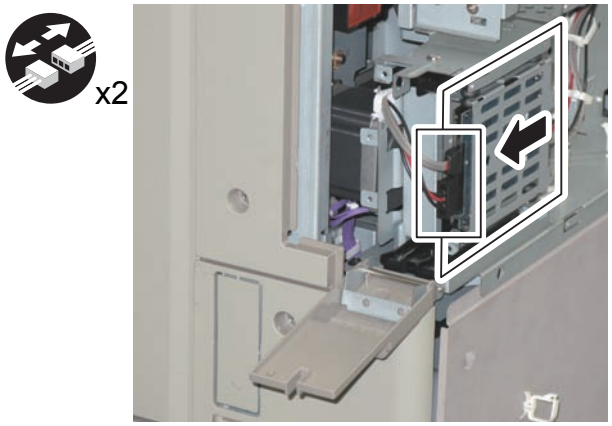


F-9-508

☐

8) Remove the HDD. (The removed HDD will not be used.)

- 2 Connectors



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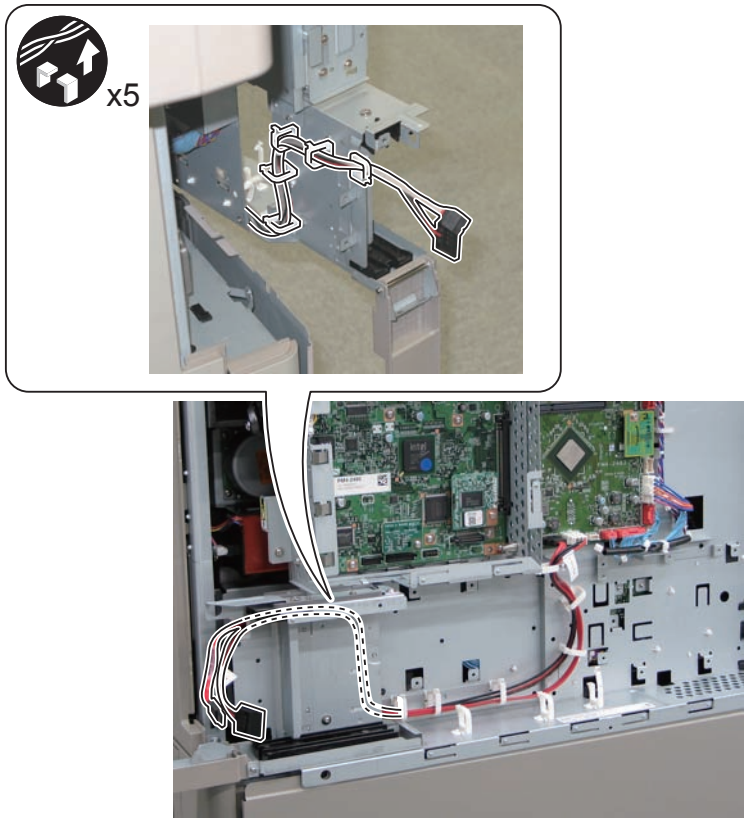
☐

9) Open the Controller Box, and free the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.

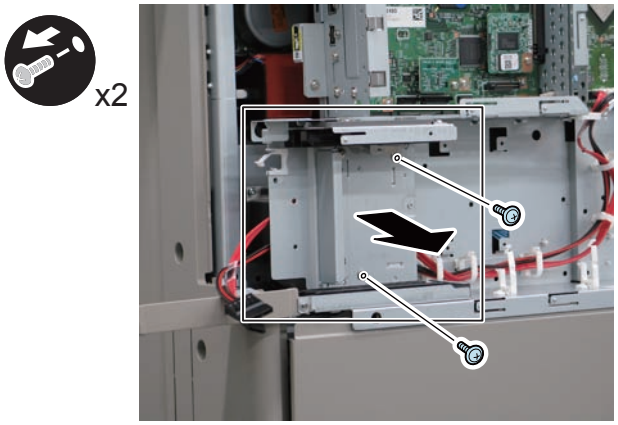


F-9-510

☐

10) Remove the HDD Case Unit.

- 2 Screws (The removed screws will be used in “Installing the Encryption Board and HDD Case Unit” step 3).)

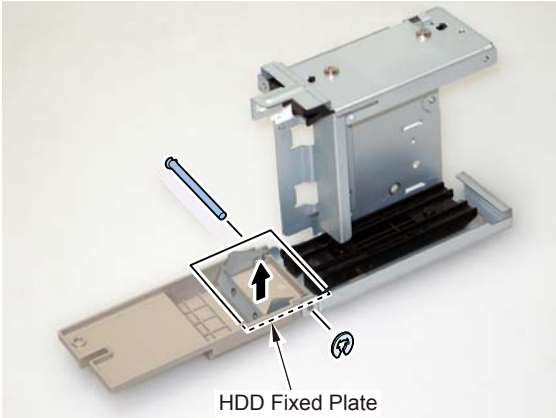


F-9-511

Changing Configuration inside of HDD Case Unit

☐

1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



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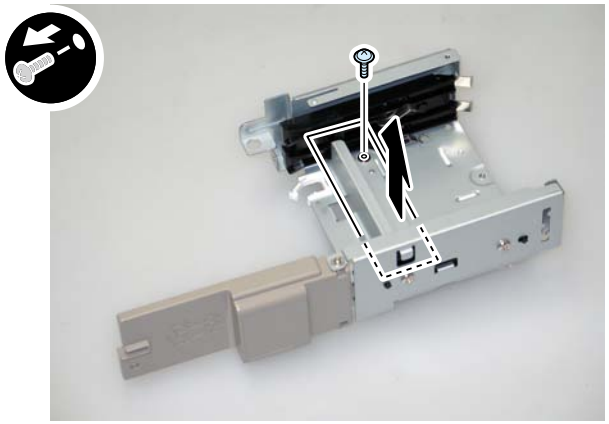
☐

2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

☐

3) Remove the Face Plate. (The removed Face Plate and screw will not be used.)

- 1 Screw

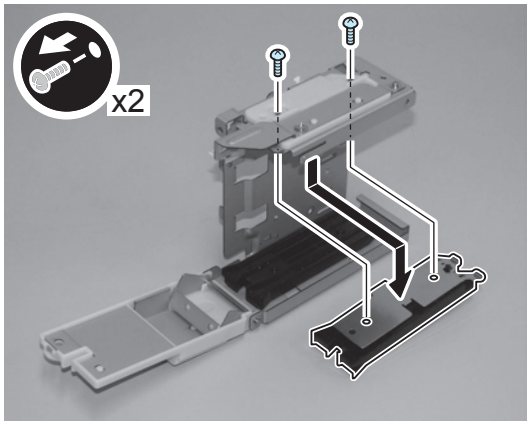


F-9-513

☐

4) Remove the Upper Rail from the HDD Case Unit.

- 2 Screws (The removed screws will be used in step 7).)

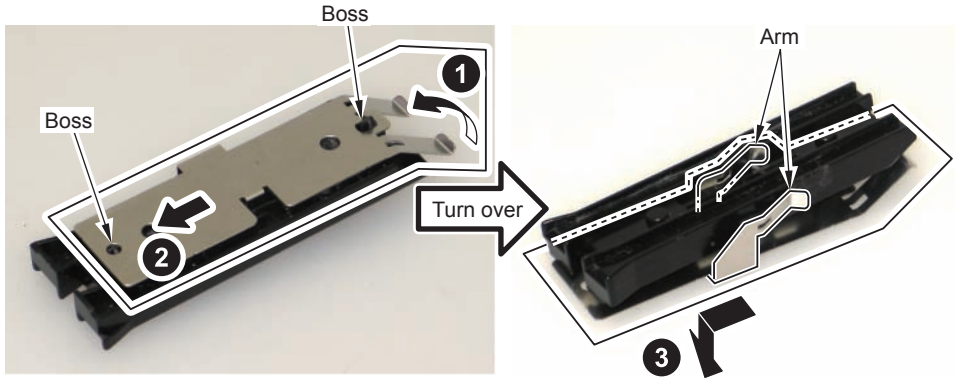


F-9-514

☐

5) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)

- 2 Bosses
- 2 Arms



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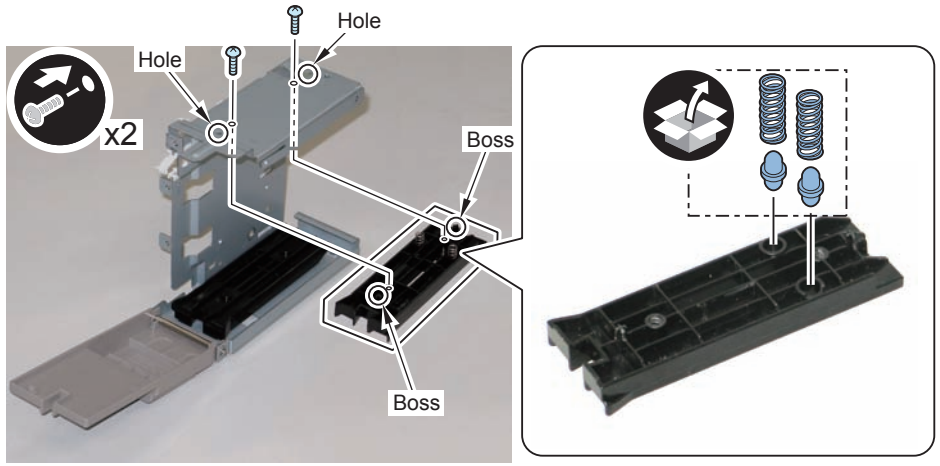
☐

6) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

7) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 4).)



F-9-516

☐

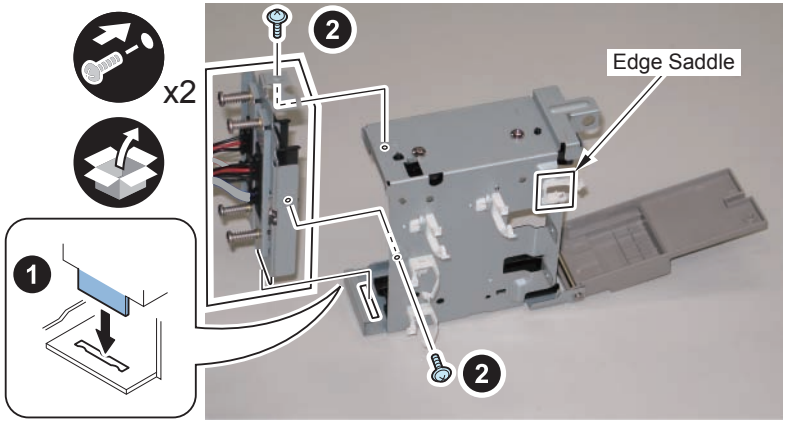
8) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

9) Close the Edge Saddle.

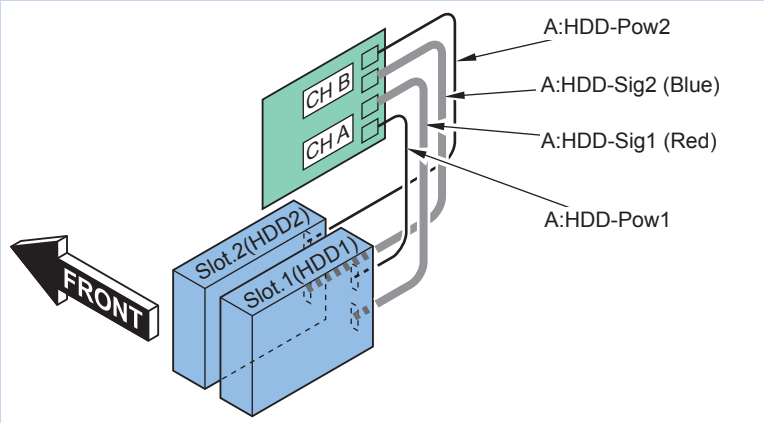


F-9-517

Installing the Mirroring Board or Encryption Board and HDD Case Unit

NOTE:
The following shows combination of the HDD and the Mirroring Board or Encryption Board.

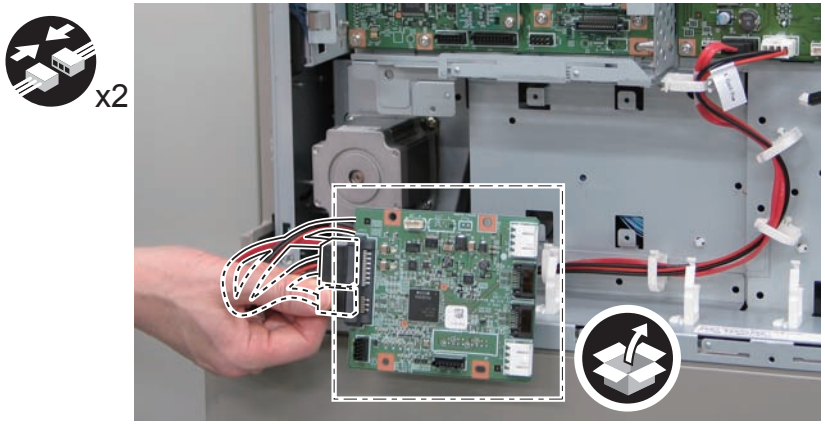
- Connect “CH A” to Slot.1 (The new HDD)
- Connect “CH B” to Slot.2 (The new HDD)



F-9-518

☐

1) Connect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine to the Encryption Board.

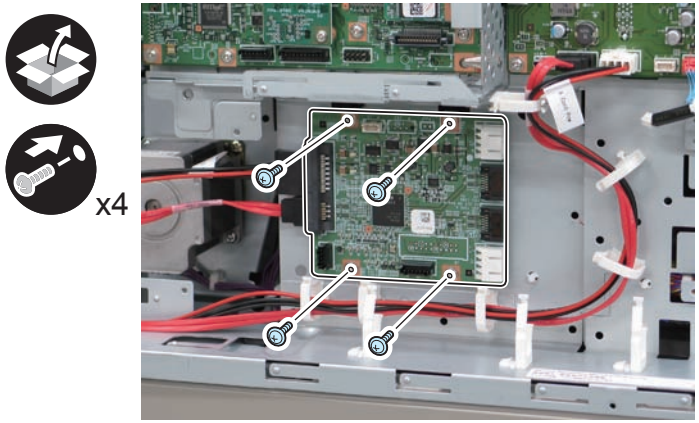


F-9-519

☐

2) Install the Encryption Board.

- 4 Screws (TP; M3x6)



F-9-520

☐

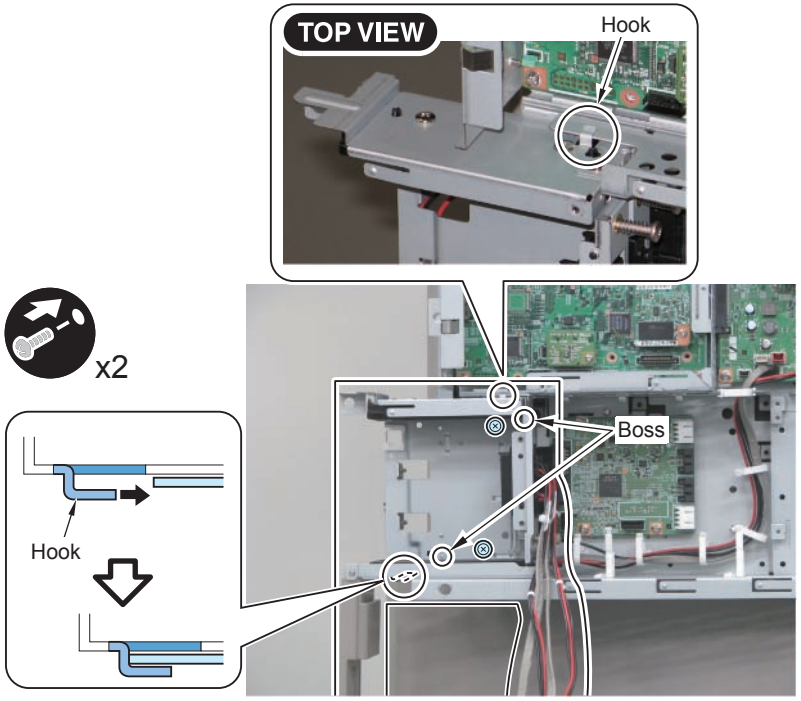
3) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in “Removing the HDD and HDD Case Unit” step 10).)

CAUTION:

Make sure that the bosses is fitted properly.

NOTE:
Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.

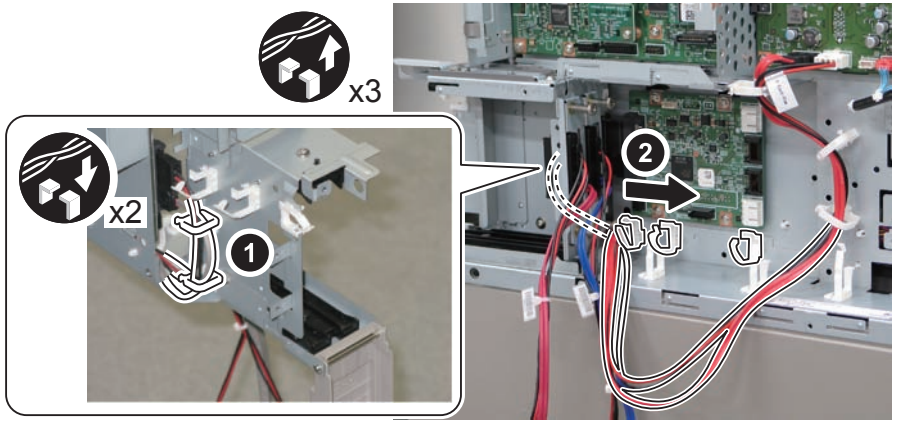


F-9-521

☐

4) Secure the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) in place using the 2 Wire Saddles at the back of the HDD Case Unit.

5) Free the cables from the 3 Wire Saddles at the front, and pull out the extra lengths of the cables to the front.

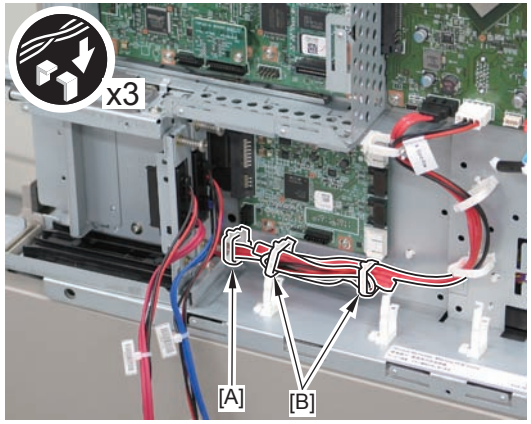


F-9-522

☐

6) Put cables through the Wire Saddle [A] and secure it.

7) Fold extra length of the Cable and secure it in place using the 2 Wire Saddles [B].

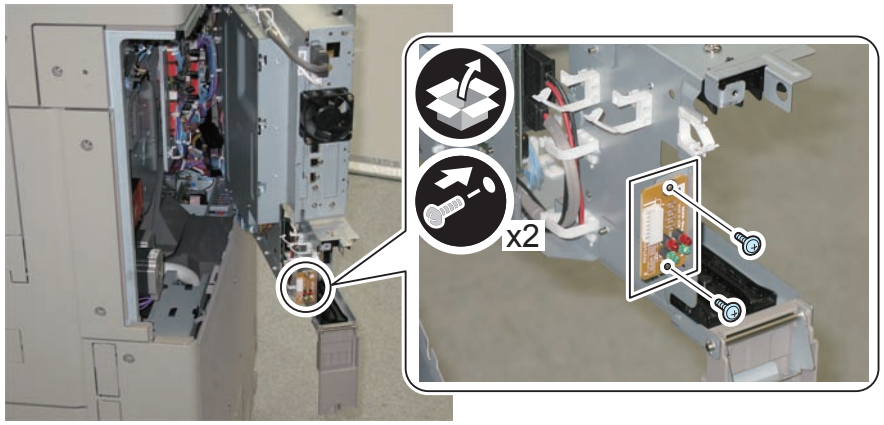


F-9-523

☐

8) Install the LED Board (A: LED) to the side surface of the HDD Case Unit.

- 2 Screws (TP; M3x6)



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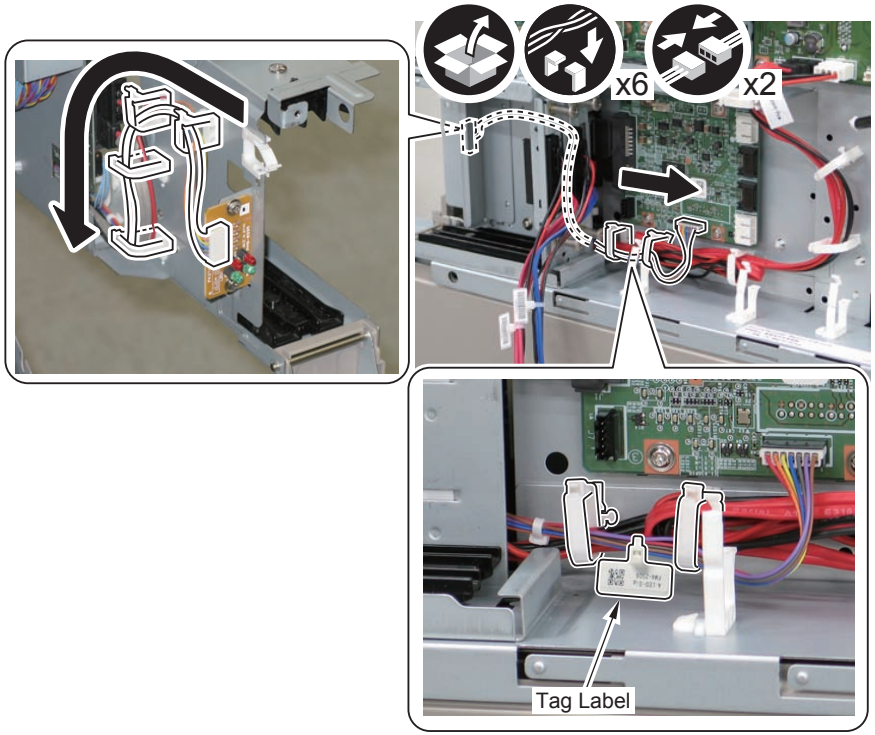
☐

9) Connect the LED Cable (A: LED-Sig) to the LED Board (A: LED) and the Encryption Board.

- 2 Connectors
- 6 Wire Saddles

CAUTION:

- The tag label of "A:LED-Sig" should be located between Wire Saddles.
- Secure the LED Cable (A: LED-Sig) in the direction of the arrow.
- Check that the LED Cable (A: LED-Sig) is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



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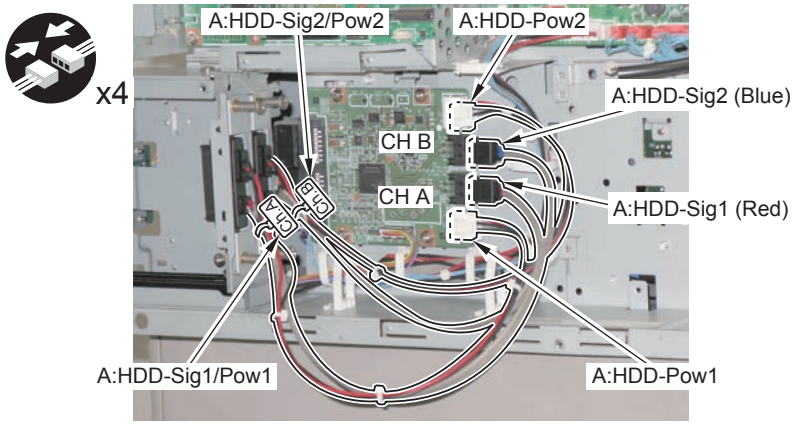
☐

10) Connect the 4 Connectors of the Signal Cables (A:HDD-Sig1 Red) (A:HDD-Sig2 Blue) and the Power Supply Cables (A:HDD-Pow1) (A:HDD-Pow2) to the Encryption Board.

CAUTION:

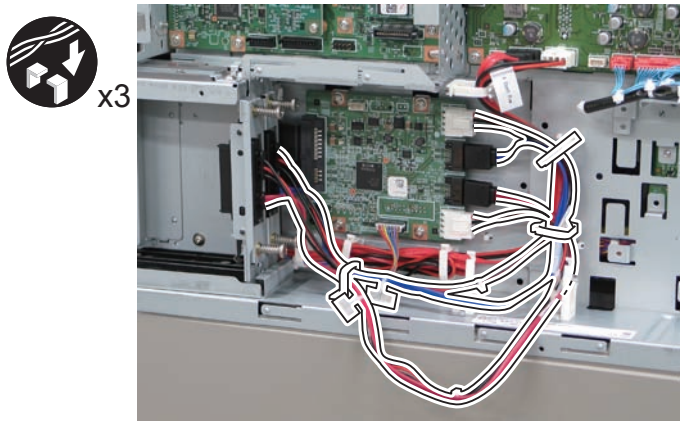
- Connect "A:HDD-Sig1/Pow1" to the location of CH-A.
- Connect "A:HDD-Sig2/Pow2" to the location of CH-B.



F-9-526

☐

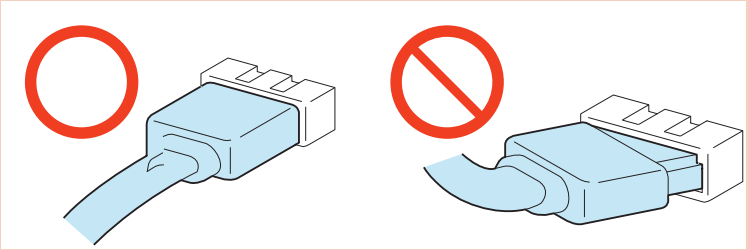
11) Secure the "A:HDD-Sig2/Pow2" cable and "A:HDD-Sig1/Pow1" cable using the total of 3 Wire Saddles as shown in the figure.



F-9-527

CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-528

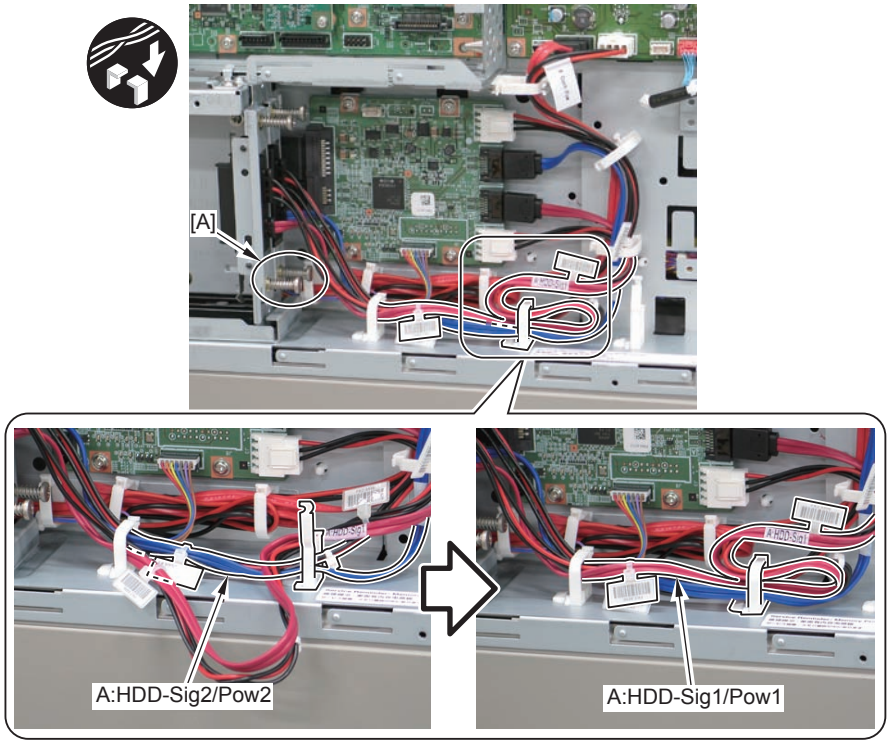
☐

12) Put the "A:HDD-Sig2/Pow2" cables through the Wire Saddle.

13) Fold the extra length of the "A:HDD-Sig1/Pow1" cables, and secure it with the Wire Saddle.

CAUTION:

- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



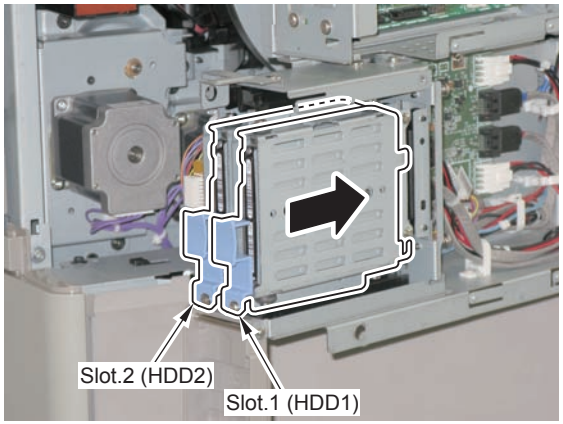
F-9-529

☐

14) Insert the assembled Removable HDD.

CAUTION:

Be sure to insert the HDD No.1 to the Slot.1, and the HDD No.2 to the Slot.2.



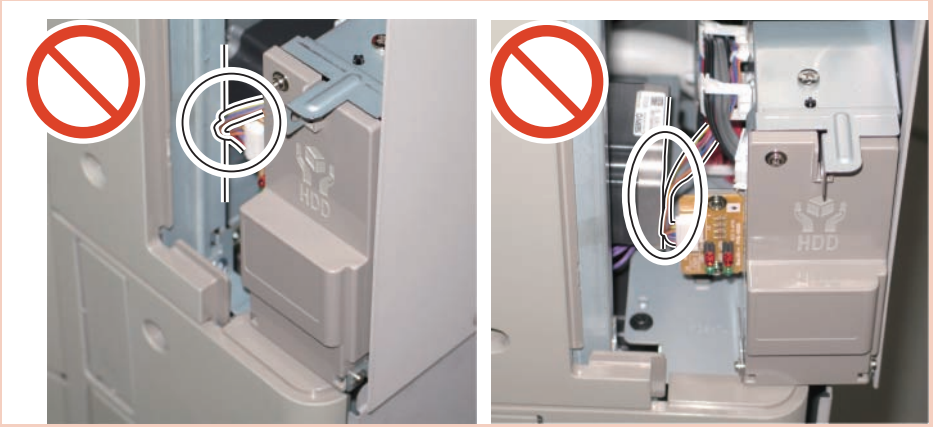
F-9-530

☐

15) Close the Controller Box.

CAUTION:

When closing the Controller Box, check that the LED Cable (A: LED-Sig) is not trapped or does not contact with it.



F-9-531

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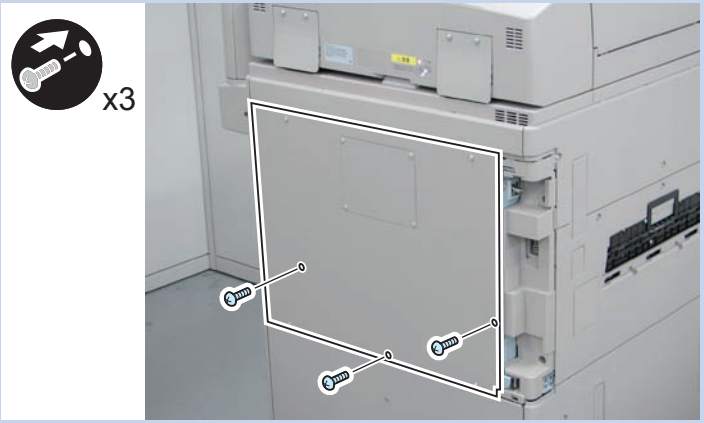
16) Install the Rear Upper Cover.

- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.

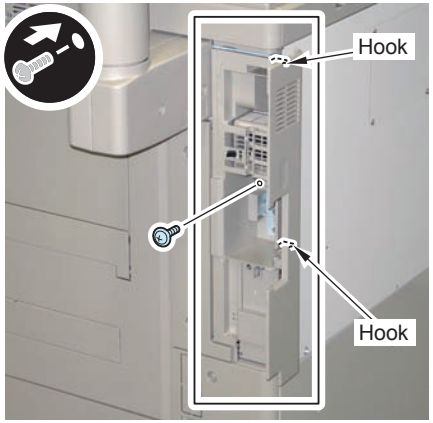


F-9-532

☐

17) Install the Side Cover.

- 2 Hooks
- 1 Screw



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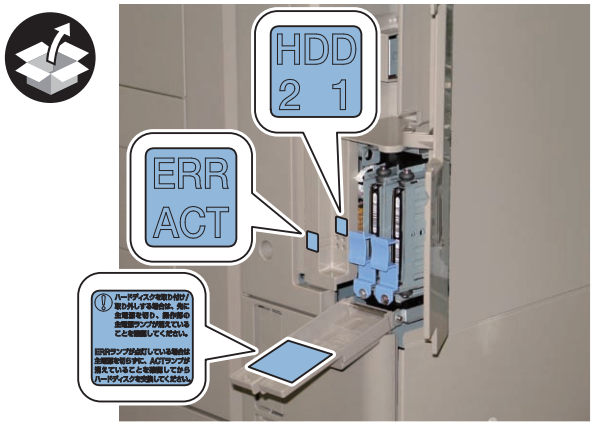
☐

18) Affix the LED Label.

19) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-534

☐

20) Close the HDD Cap, and install the key prepared by the user for locking.

NOTE:
Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mm x 14mm x 64mm

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☐

21) Close the Right Rear Cover 1.

22) Return the Left Rear Cover to its original position.

23) Connect the power plug to the outlet.

Installing the System Software Using the SST

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

After Installing HDD Data Encryption & Mirroring Kit

Checking the Security Version

1) Press the Counter key (123 key) on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC authentication is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark( ) is displayed on the lower left corner of a panel screen.

Setting for Mirroring

1) Make a setting of mirroring.
- Specify “1” under “Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID”.

2) Turn OFF/ON the main power of the host machine to enable the setting value.
3) Make sure that the UI screen is activated correctly.
4) Make sure that the LED blinks.
- HDD1 (Slot 1): The green LED blinks.
- HDD2 (Slot 2): The green and red LEDs blink.

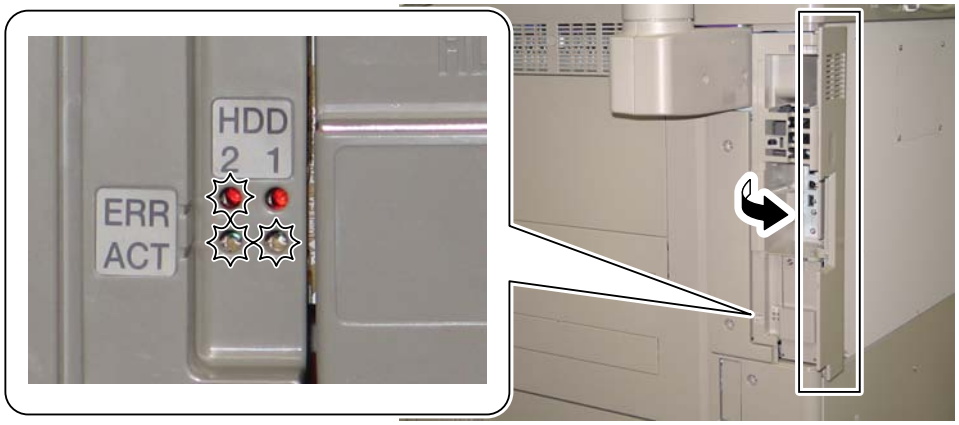
CAUTION:

Rebuild process starts after setting “1” for W/RAID. If an error occurs during the rebuild process at the initial installation The hard disk needs to be replaced. (Call service rep.), reexecute the process with the following procedure.

1) Check that the lighting red LED is HDD2.
2) Select Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID, and set “0”.
3) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.
4) Select Service Mode (Level 1) > COPIER > OPTION > FNCSW > W/RAID, and set "1".
5) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.

The foregoing procedure is limited to the rebuild process at the initial installation.

An error during the rebuild process that is executed during operation is not included in the consideration.



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Reporting to the System Administrator at the End of the Work (Only When HDD Data Encryption & Mirroring Kit has been Installed)

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

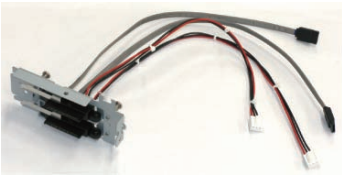
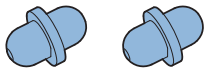
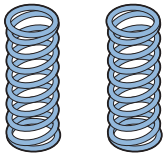
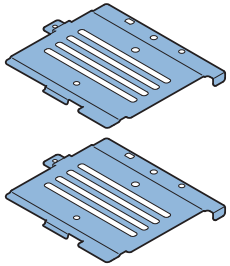
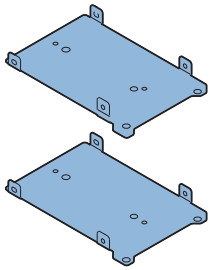
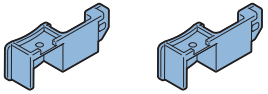
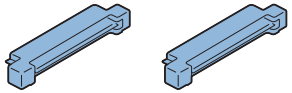
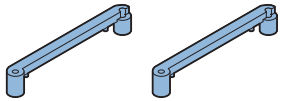
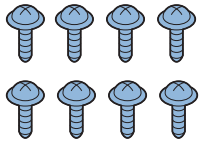
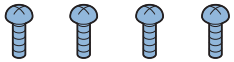
[TYPE-10] Removable HDD Kit + HDD Data Encryption & Mirroring Kit

Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

Removable HDD Kit

☐ [1] HDD Drawer Unit X 1 	☐ [2] HDD Lock Pin X 2 	☐ [3] HDD Lock Pin X 2 	☐ [4] HDD Cover X 2 Use 1 of them. 	☐ [5] HDD Connector Plate X 2 Use 1 of them. 
☐ [6] HDD Connector Plate X 2 Use 1 of them. 	☐ [7] Conversion Connector X 2 Use 1 of them. 	☐ [8] Connector Fixation Block X 2 Use 1 of them. 	☐ [9] Screw (TP Round End; M3x6) X 8 Use 6 of them. 	☐ [10] Screw (P Tightening; M3x8) X 4 Use 2 of them. 

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< CD/Guides >
- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD

Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.

□

1) Execute the following service mode (level 1).
- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

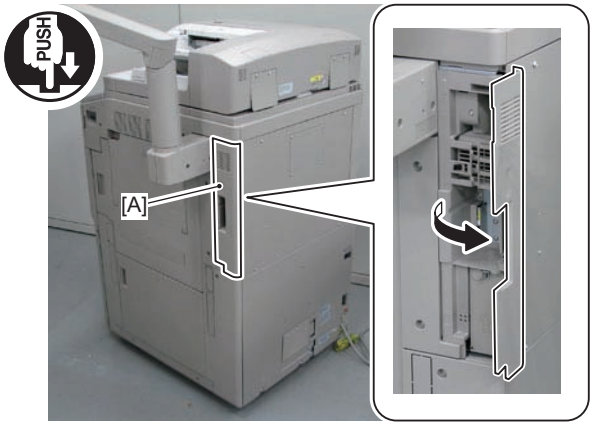
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Installation Procedure

Removing the HDD and HDD Case Unit

□

1) Push [A] part, and open the Right Rear Cover 1.



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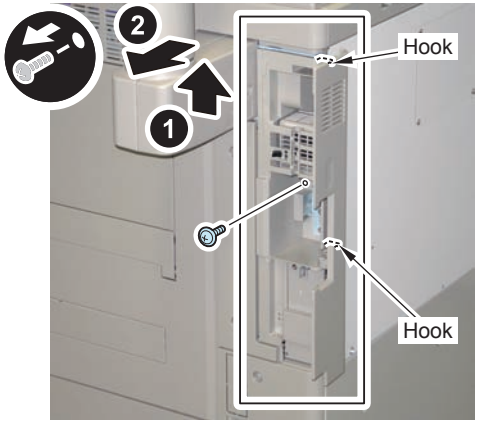
□

2) Remove the Side Cover.
- 1 Screw
- 2 Hooks



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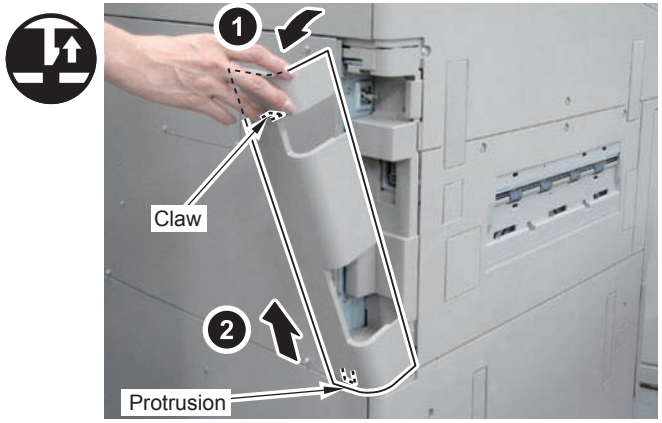
3) Remove the Left Rear Cover.

- 1 Claw
- 1 Protrusions



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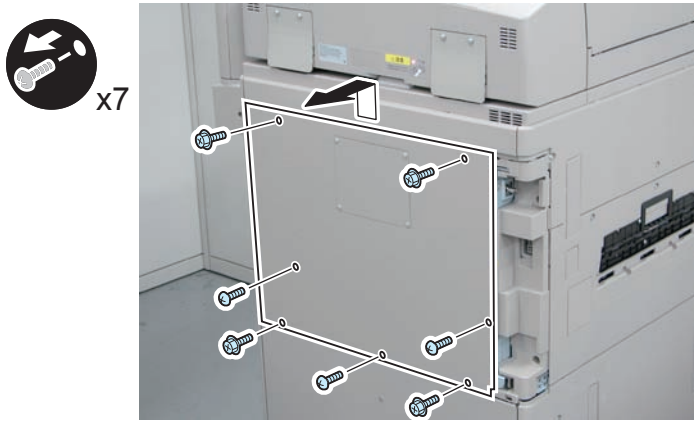
☐

4) Remove the Rear Upper Cover.

- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)

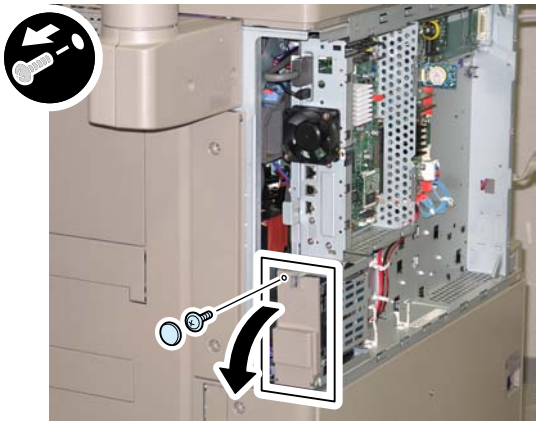


F-9-542

☐

5) Open the HDD Cap.

- 1 Rubber Cap
- 1 Screw (The removed screw will not be used.)



F-9-543

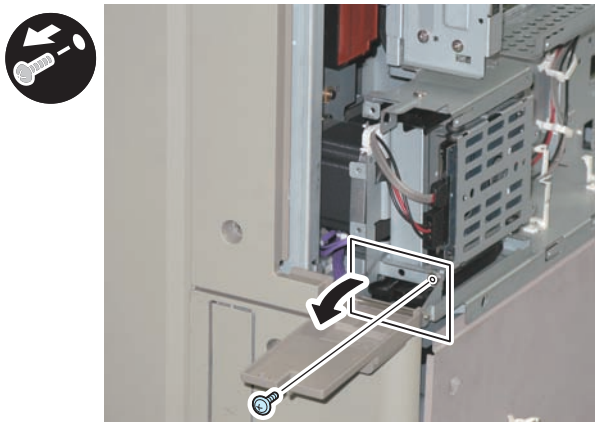
☐

6) Return the rubber cap to the HDD Cap.

☐

7) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will not be used.)

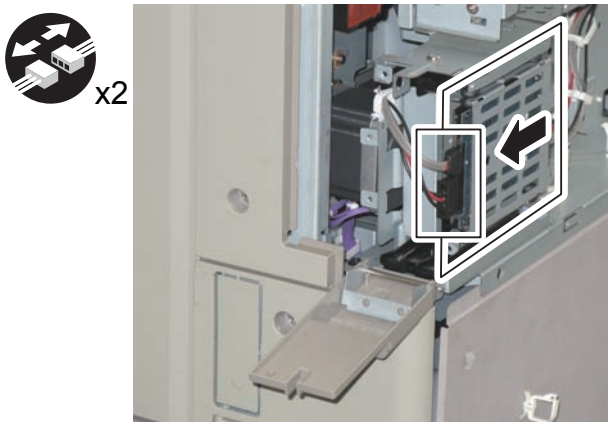


F-9-544

□

8) Remove the HDD.

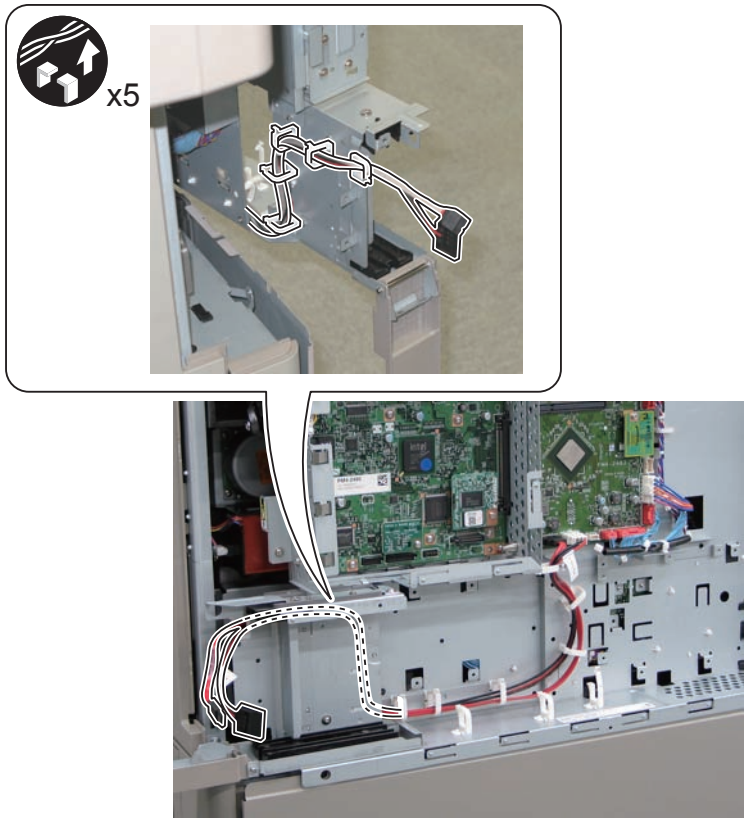
- 2 Connectors



F-9-545

□

9) Open the Controller Box, and free the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.

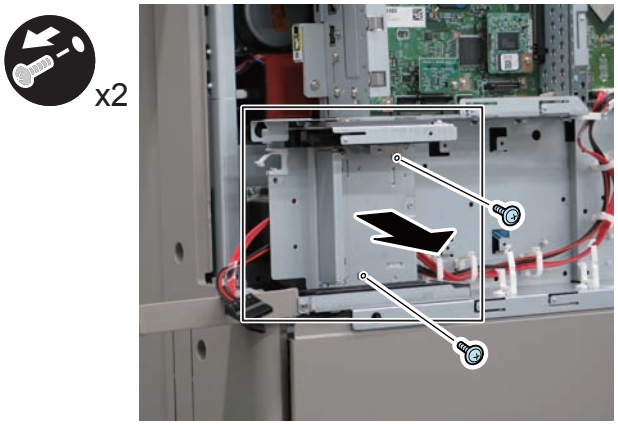


F-9-546

□

10) Remove the HDD Case Unit.

- 2 Screws (The removed screws will be used in “Installing the Encryption Board and HDD Case Unit” step 3).)



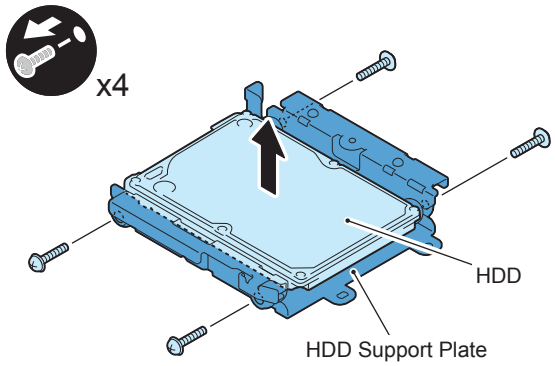
F-9-547

Disassembling and Assembling of the HDD Removed from the Host Machine

□

1) Disassemble the removed HDD.

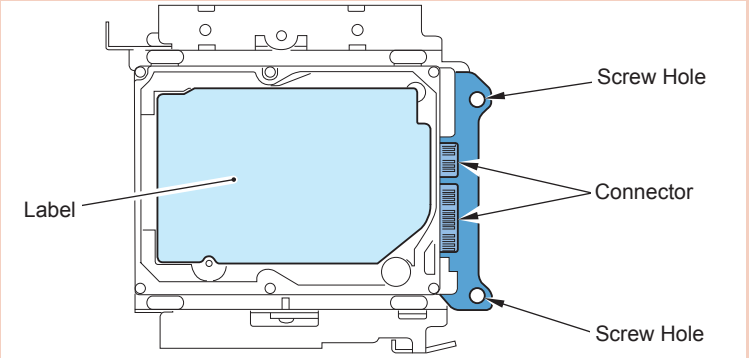
- 4 Screws (W Sems)
- 1 HDD Support Plate



F-9-548

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



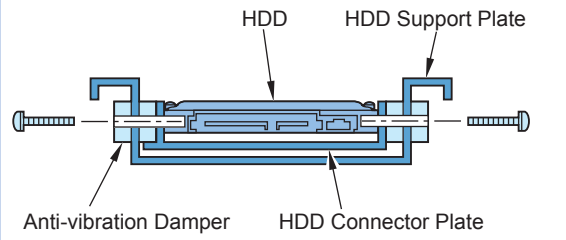
F-9-549

NOTE:
Use the parts disassembled in step 1) and parts included in the Removable HDD Kit.

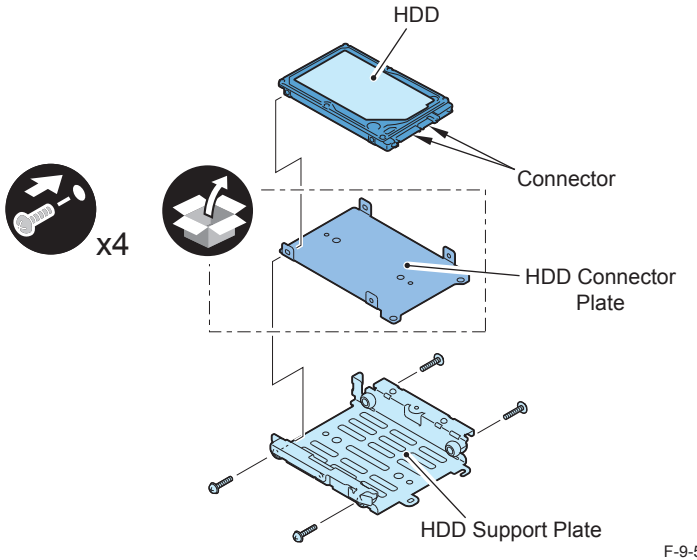
☐
2) Assemble the HDD disassembled in step 1).

- 1 HDD Support Plate
- 1 HDD Connector Plate (Included in the Removable HDD Kit)
- 1 HDD
- 4 Screws (W Sems)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



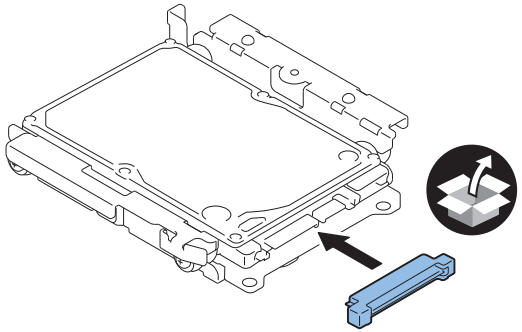
F-9-550



F-9-551

☐
3) Install the Conversion Connector.

CAUTION:
Be sure that there is no gap between the HDD Connector and the Conversion Connector.



F-9-552

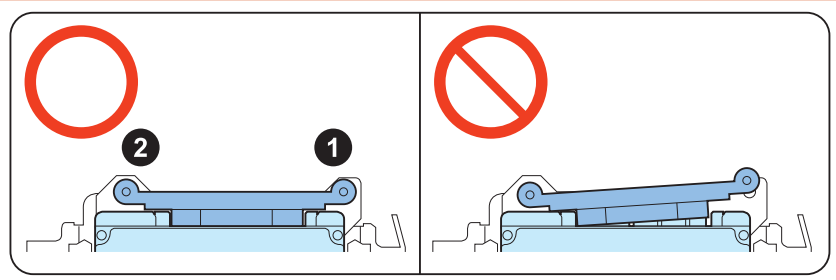
☐

4) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.

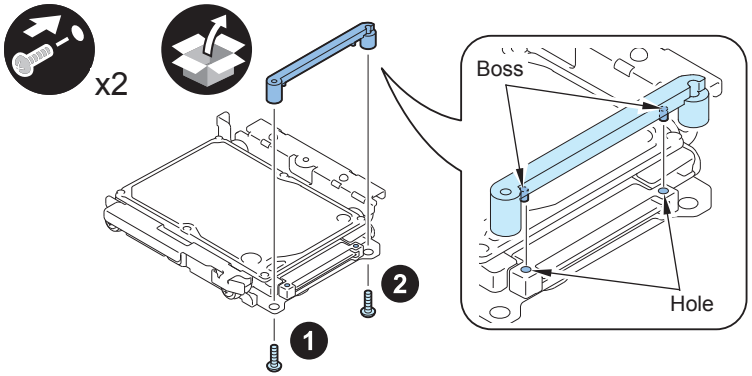
- 2 Screws (P Tightening; M3x8)

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-553



F-9-554

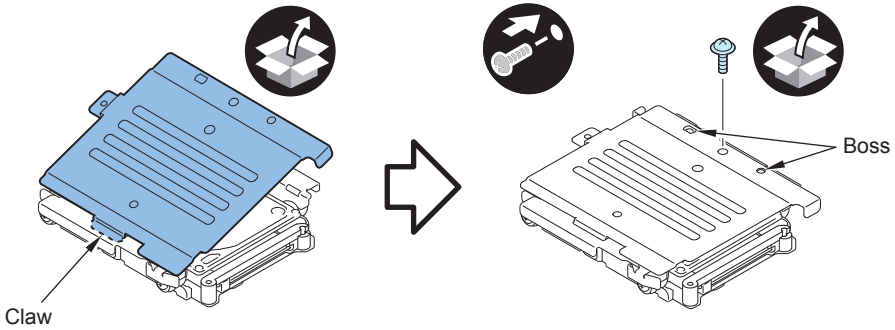
☐

5) Install the HDD Cover.

- 1 Claw
- 1 Boss
- 1 Screw (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



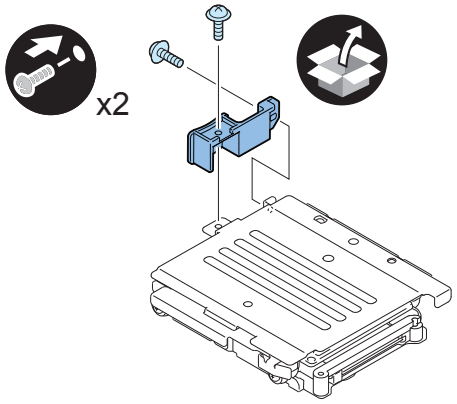
F-9-555

6) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

CAUTION:

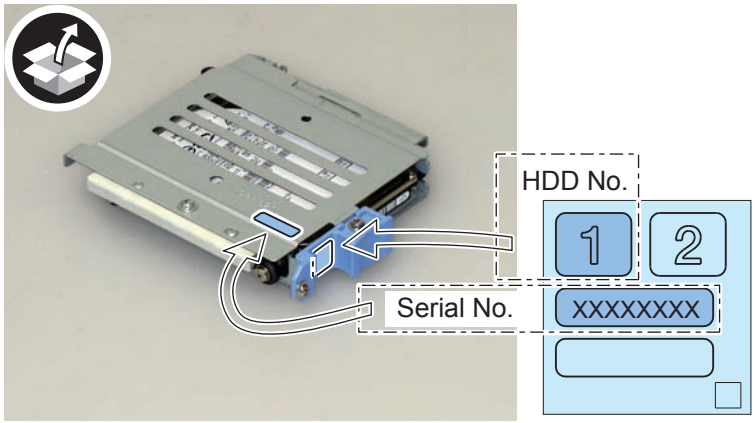
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-556

7) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.

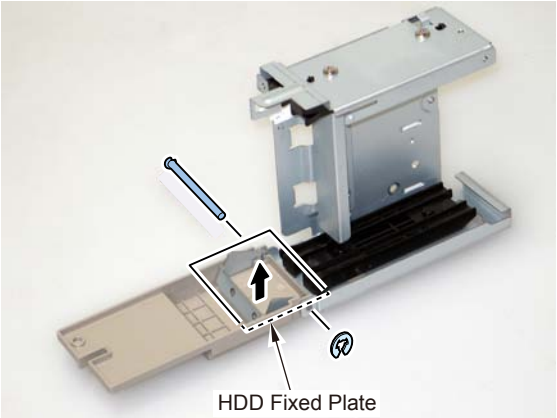
8) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-557

Changing Configuration inside of HDD Case Unit

1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)

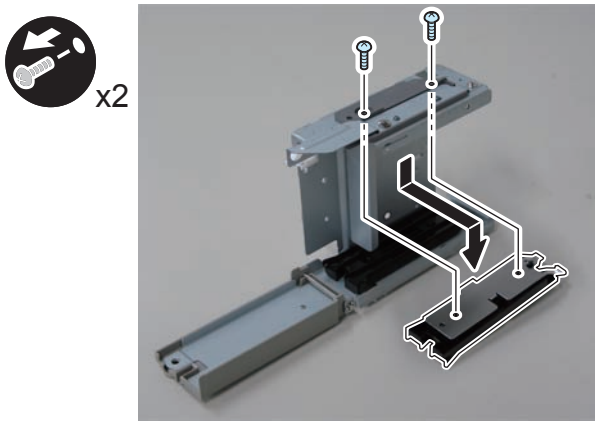


F-9-558

2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

3) Remove the Upper Rail from the HDD Case Unit.

- 2 Screws (The removed screws will be used in step 6).)

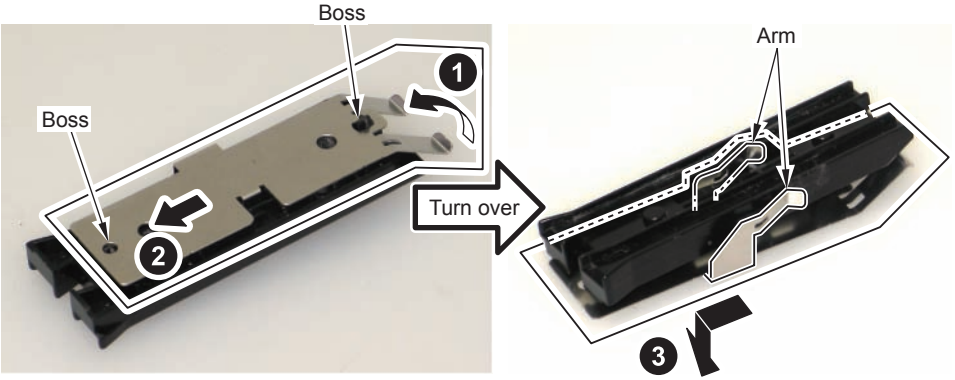


F-9-559

☐

4) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)

- 2 Bosses
- 2 Arms



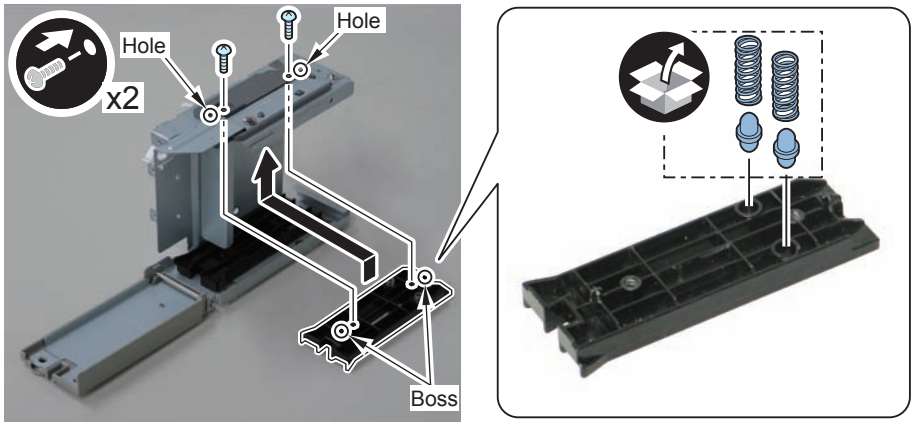
F-9-560

☐

5) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

6) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 3).)



F-9-561

☐

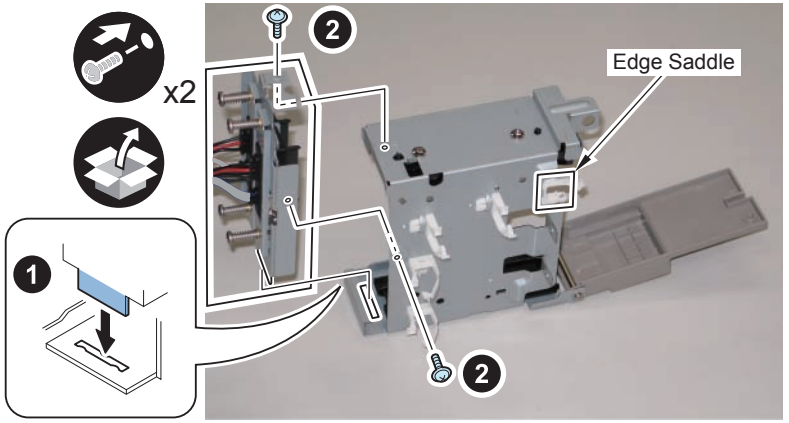
7) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

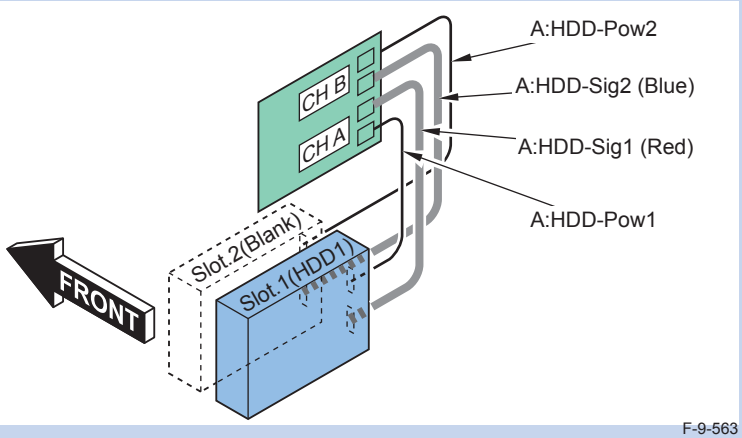
8) Close the Edge Saddle.



F-9-562

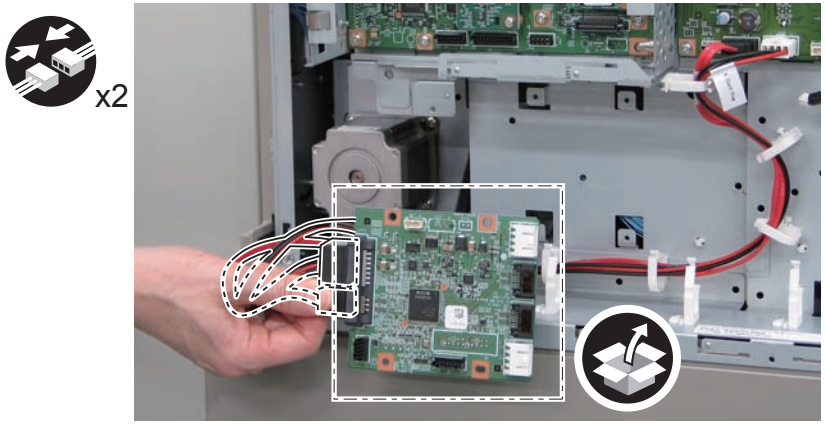
Installing the Encryption Board and HDD Case Unit

NOTE:
The following shows combination of the HDD and the Encryption Board.
- Connect “CH A” to Slot.1 (The original HDD)
- No HDD to Slot.2



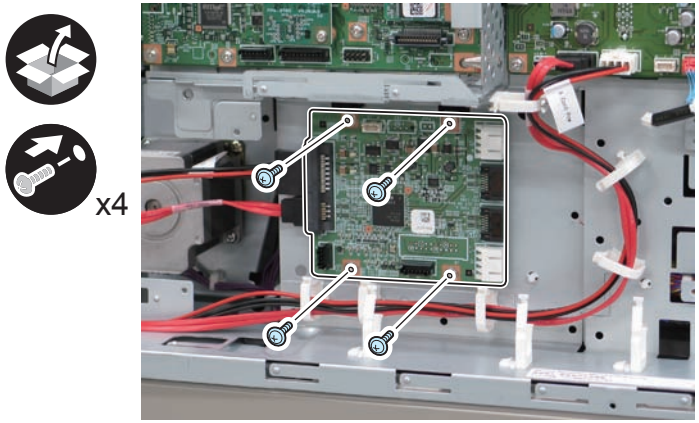
F-9-563

□
1) Connect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine to the Encryption Board.



F-9-564

□
2) Install the Encryption Board.
- 4 Screws (TP; M3x6)



F-9-565

☐

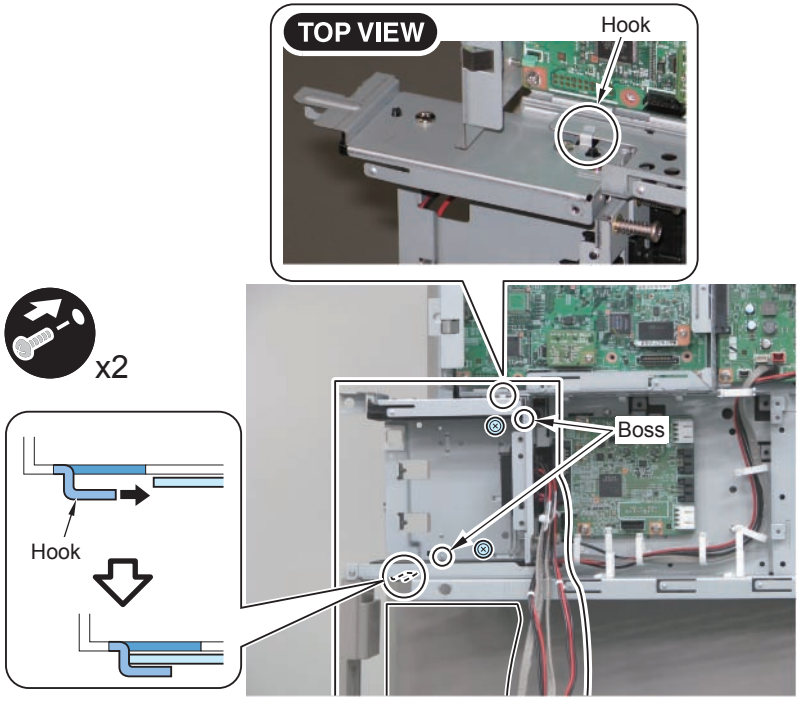
3) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in “Removing the HDD and HDD Case Unit” step 10).)

CAUTION:

Make sure that the bosses is fitted properly.

NOTE:
Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.

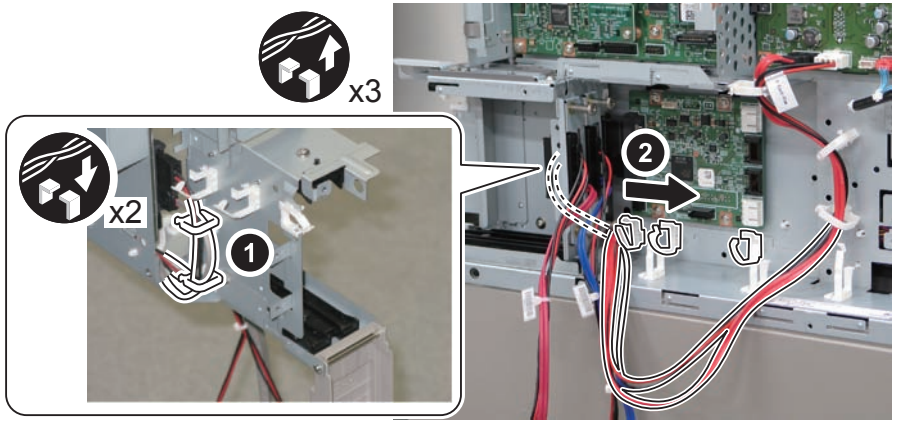


F-9-566

☐

4) Secure the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) in place using the 2 Wire Saddles at the back of the HDD Case Unit.

5) Free the cables from the 3 Wire Saddles at the front, and pull out the extra lengths of the cables to the front.

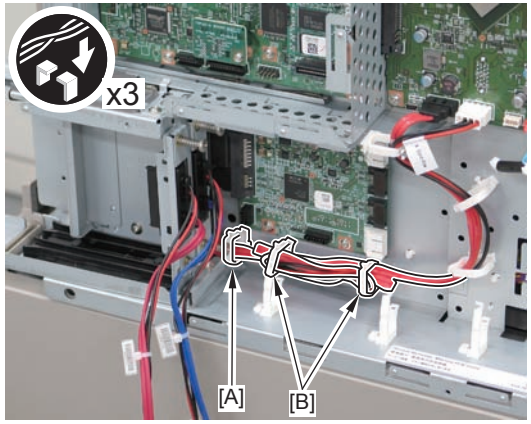


F-9-567

☐

6) Put cables through the Wire Saddle [A] and secure it.

7) Fold extra length of the Cable and secure it in place using the 2 Wire Saddles [B].

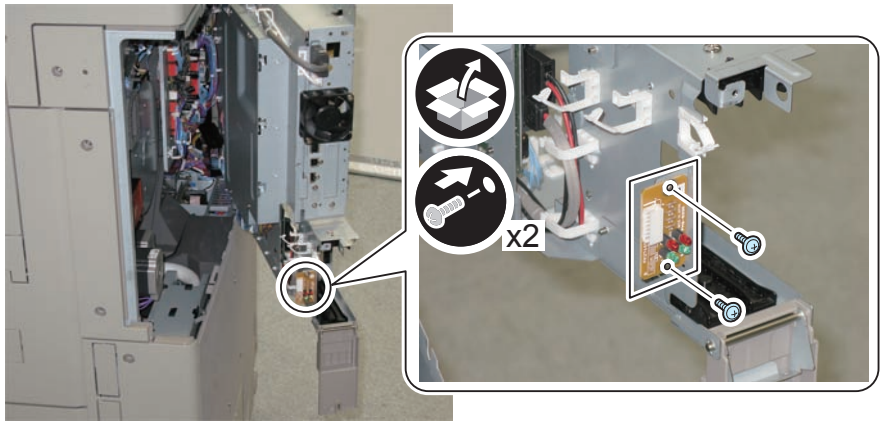


F-9-568

☐

8) Install the LED Board (A: LED) to the side surface of the HDD Case Unit.

- 2 Screws (TP; M3x6)



F-9-569

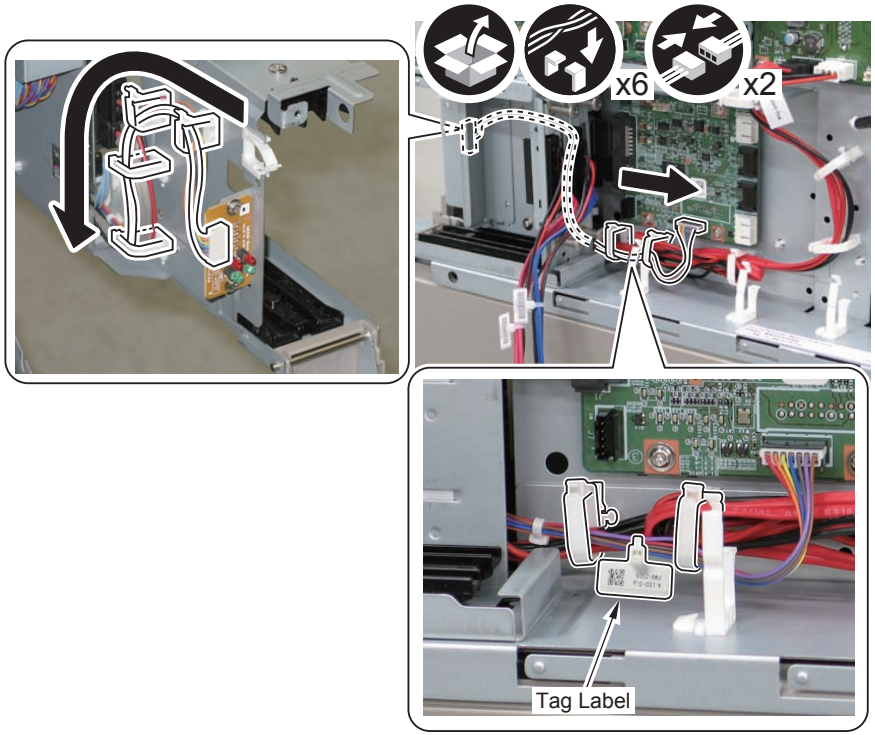
☐

9) Connect the LED Cable (A: LED-Sig) to the LED Board (A: LED) and the Encryption Board.

- 2 Connectors
- 6 Wire Saddles

CAUTION:

- The tag label of "A:LED-Sig" should be located between Wire Saddles.
- Secure the LED Cable (A: LED-Sig) in the direction of the arrow.
- Check that the LED Cable (A: LED-Sig) is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



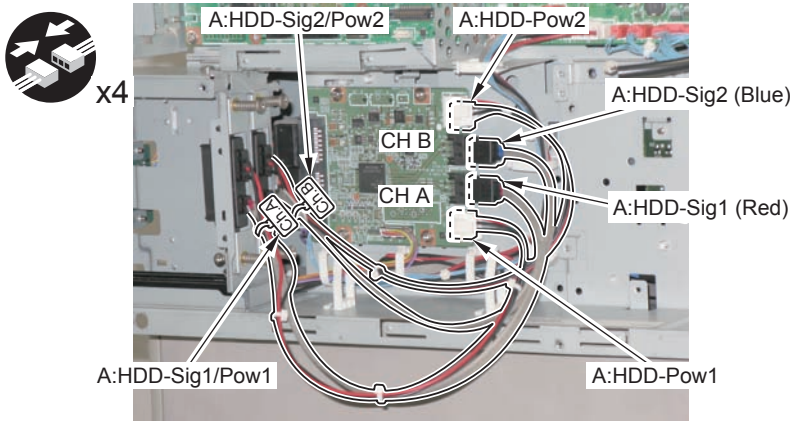
F-9-570

☐

10) Connect the 4 Connectors of the Signal Cables (A:HDD-Sig1 Red) (A:HDD-Sig2 Blue) and the Power Supply Cables (A:HDD-Pow1) (A:HDD-Pow2) to the Encryption Board.

CAUTION:

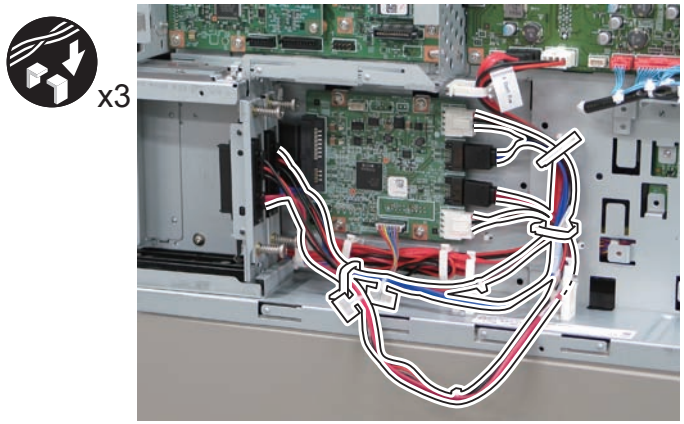
- Connect "A:HDD-Sig1/Pow1" to the location of CH-A.
- Connect "A:HDD-Sig2/Pow2" to the location of CH-B.



F-9-571

☐

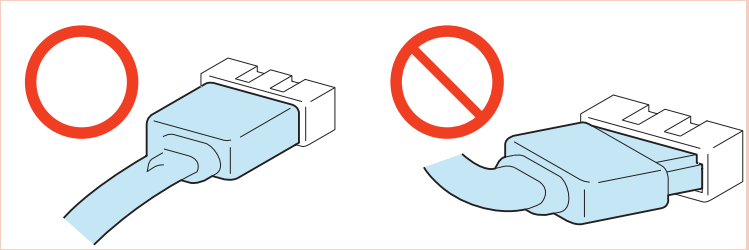
11) Secure the "A:HDD-Sig2/Pow2" cable and "A:HDD-Sig1/Pow1" cable using the total of 3 Wire Saddles as shown in the figure.



F-9-572

CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-573

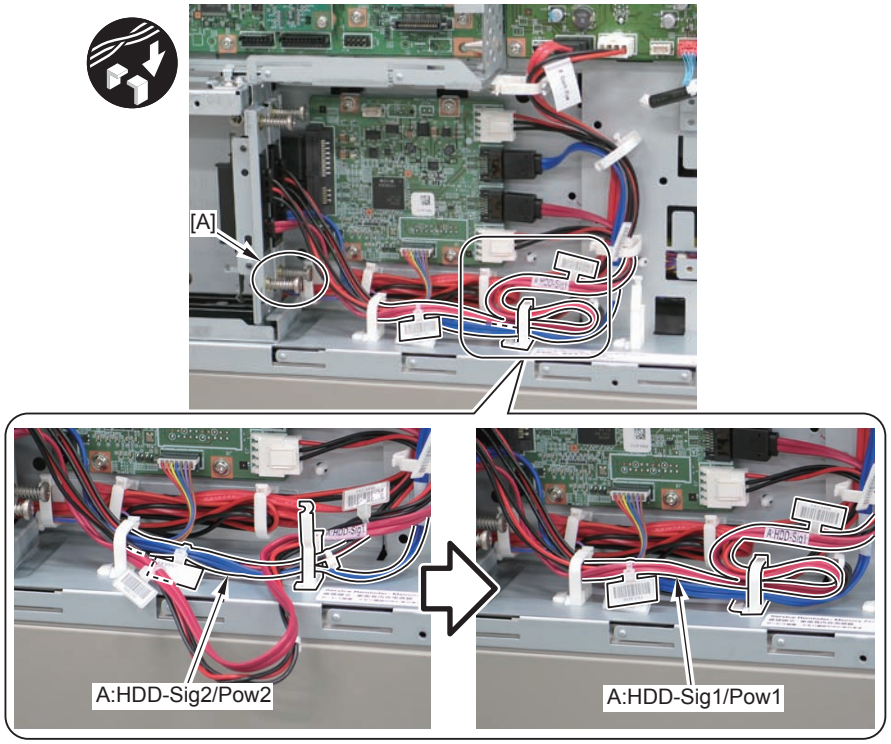
☐

12) Put the "A:HDD-Sig2/Pow2" cables through the Wire Saddle.

13) Fold the extra length of the "A:HDD-Sig1/Pow1" cables, and secure it with the Wire Saddle.

CAUTION:

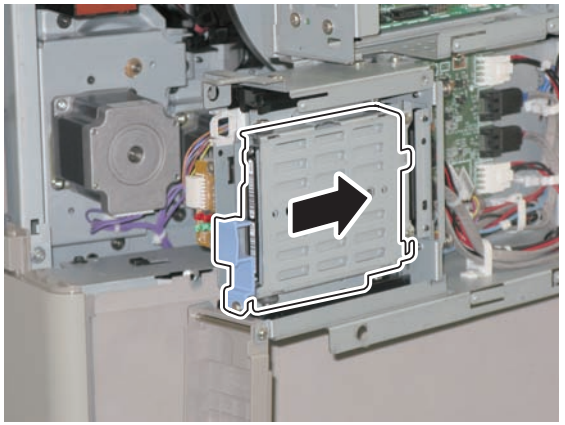
- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-574

☐

14) Insert the assembled Removable HDD.



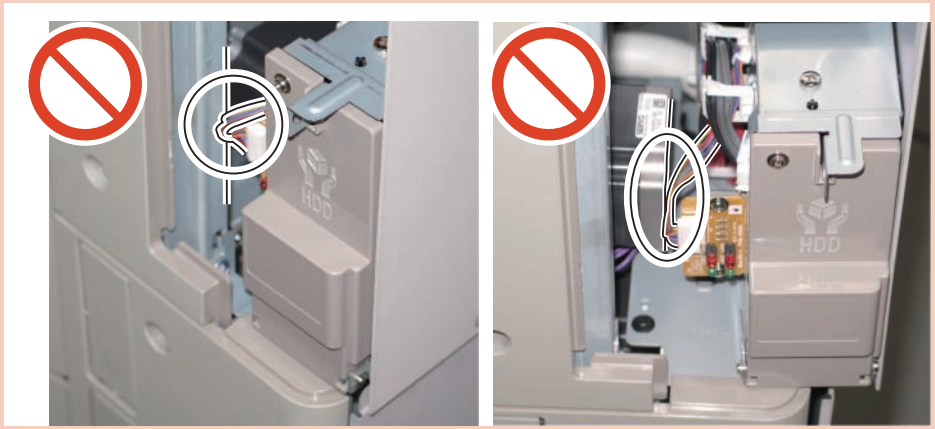
F-9-575

☐

15) Close the Controller Box.

CAUTION:

When closing the Controller Box, check that the LED Cable (A: LED-Sig) is not trapped or does not contact with it.



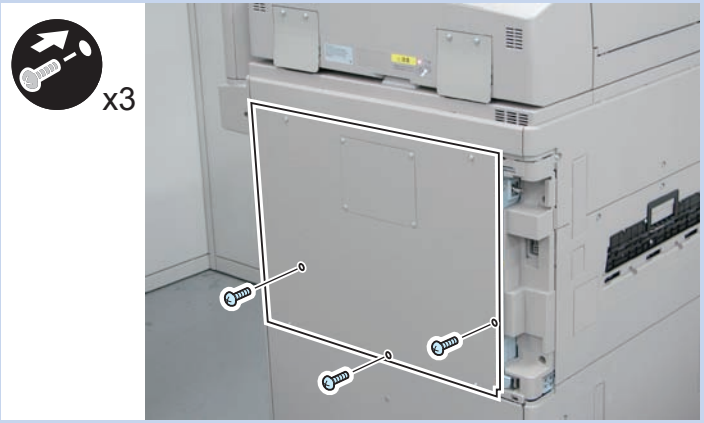
F-9-576

☐

16) Install the Rear Upper Cover.

- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.

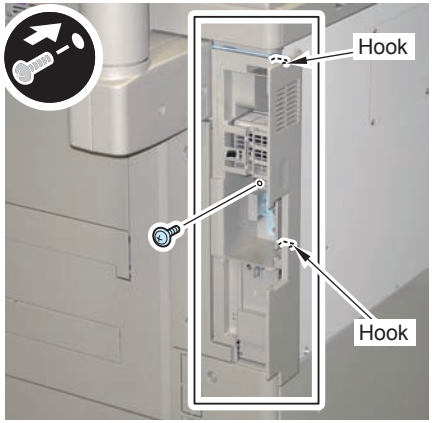


F-9-577

☐

17) Install the Side Cover.

- 2 Hooks
- 1 Screw

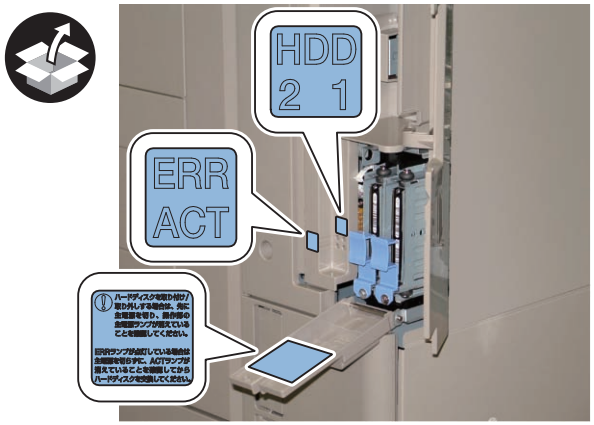


F-9-578

☐

18) Affix the LED Label.

19) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-579

☐

20) Close the HDD Cap, and install the key prepared by the user for locking.

NOTE:
Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mm x 14mm x 64mm

F-9-580

☐

21) Close the Right Rear Cover 1.

22) Return the Left Rear Cover to its original position.

23) Connect the power plug to the outlet.

Installing the System Software Using the SST

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC authentication is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

Checking the Security Mark

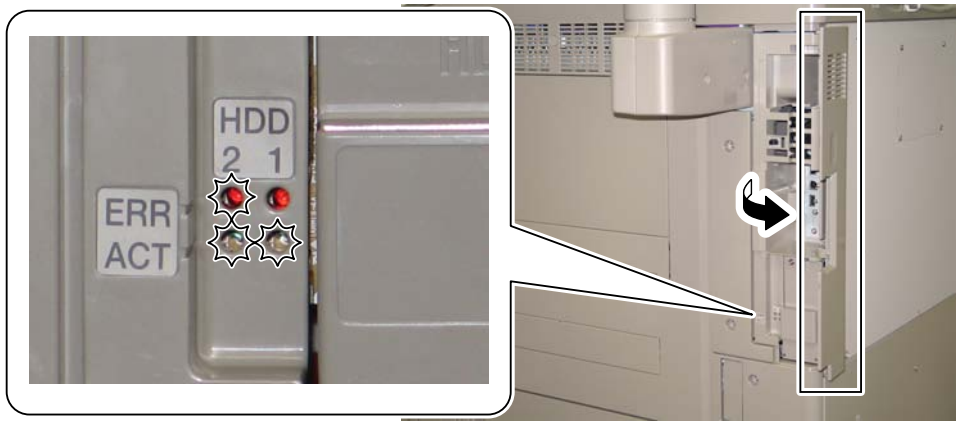
The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark( ) is displayed on the lower left corner of a panel screen.

Checking after Installation

1) Open the HDD Cover, and check that the LED is flashing.

- The green LED of HDD1 (Slot1) is flashing.



F-9-581

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

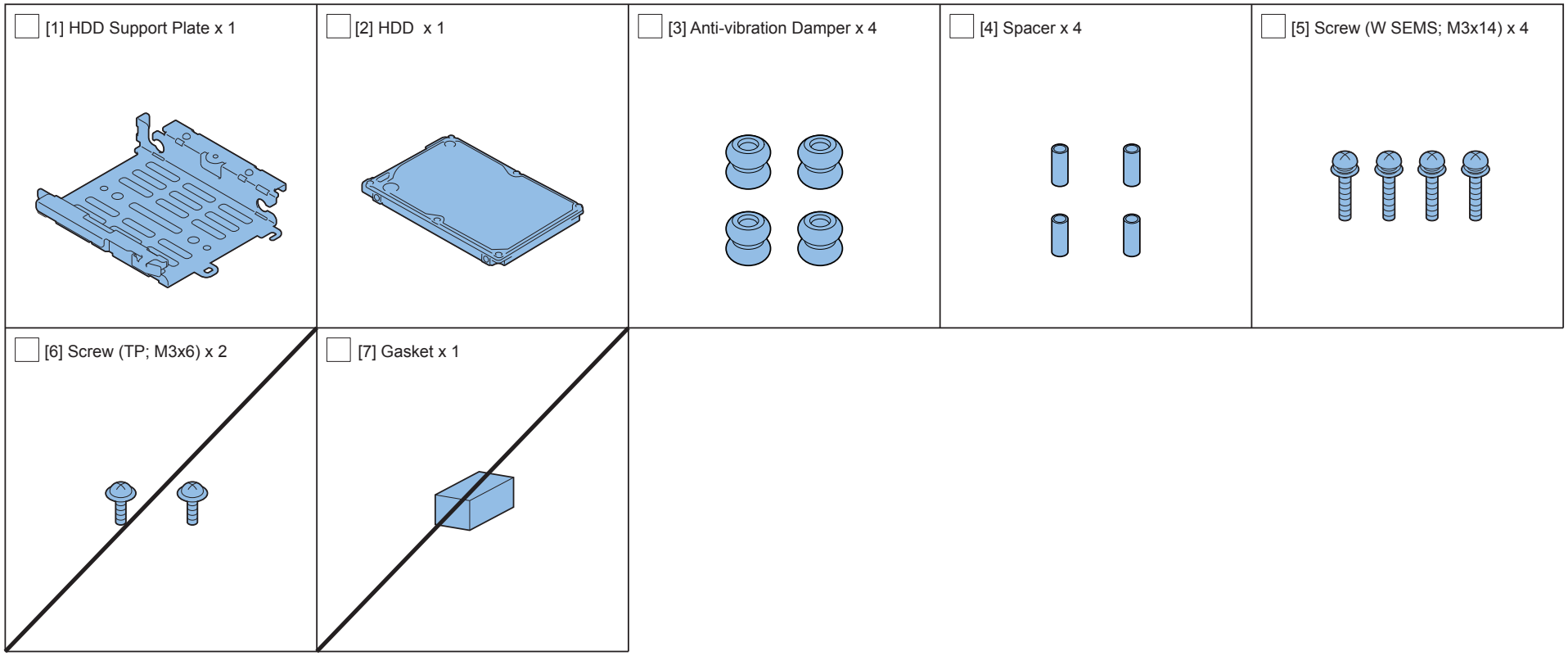
TYPE-11] Option HDD (1TB) + Removable HDD Kit + HDD Data Encryption & Mirroring Kit

Points to Note when Unpacking HDD Data Encryption & Mirroring Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.
If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

Option HDD (1TB)

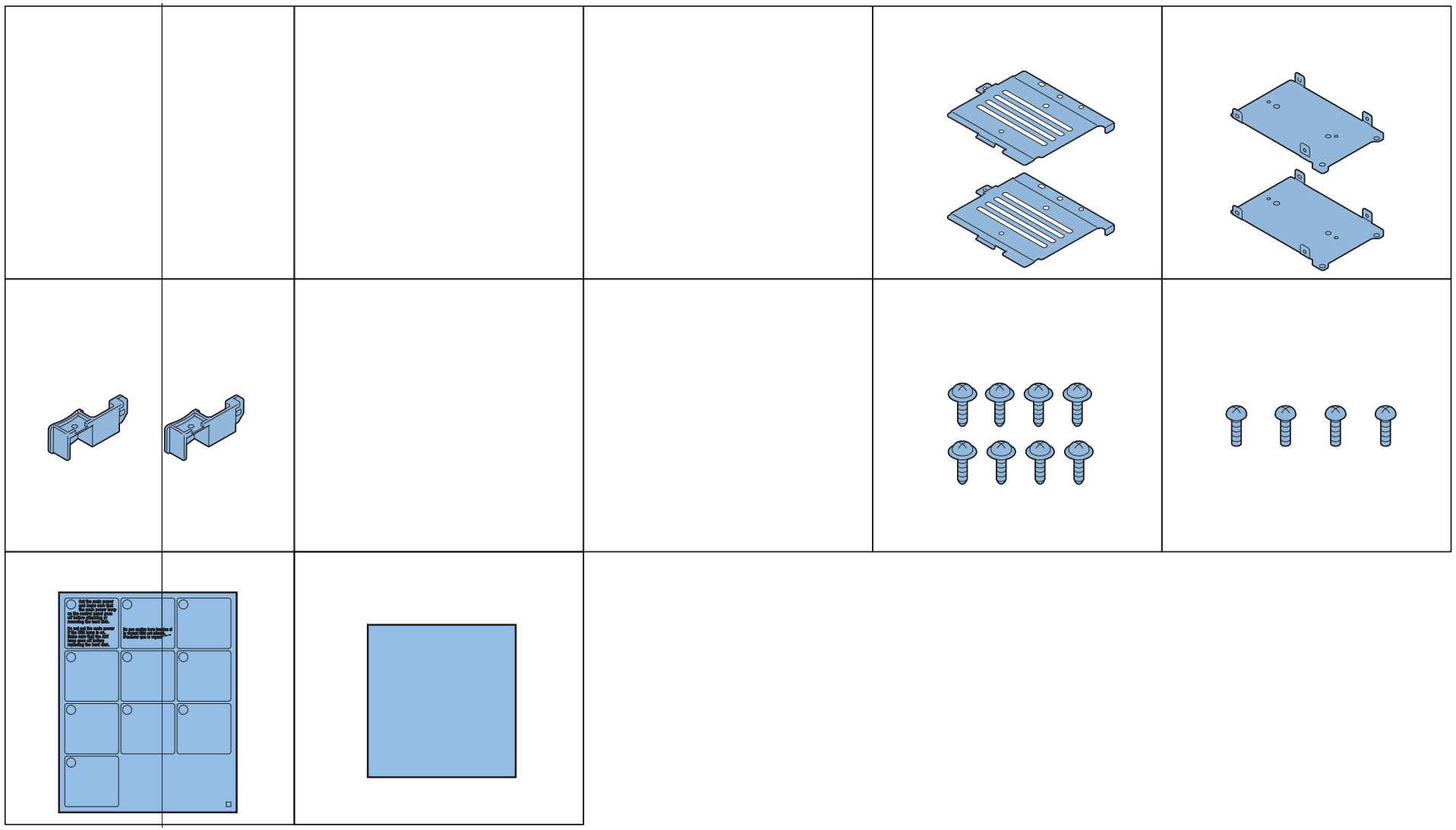


F-9-582

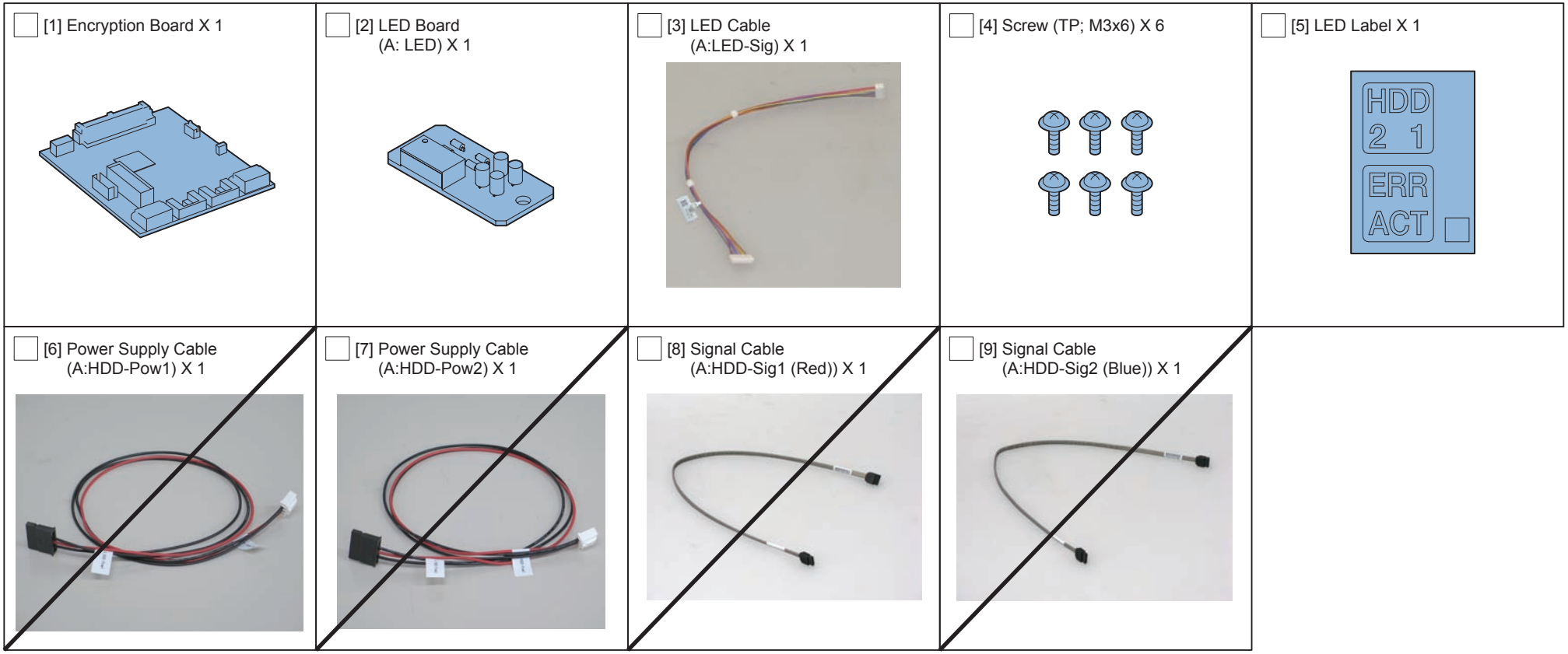
< CD/Guides >

- FCC/IC Sheet

Removable HDD Kit



HDD Data Encryption & Mirroring Kit



F-9-584

< CD/Guides >

- HDD Data Encryption & Mirroring Kit User Documentation
- HDD Data Encryption Kit Notice
- FCC/IC Sheet
- Installation Procedure

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD

Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.

□

1) Execute the following service mode (level 1).

- COPIER > FUNCTION > INSTALL > HD-CRYP

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

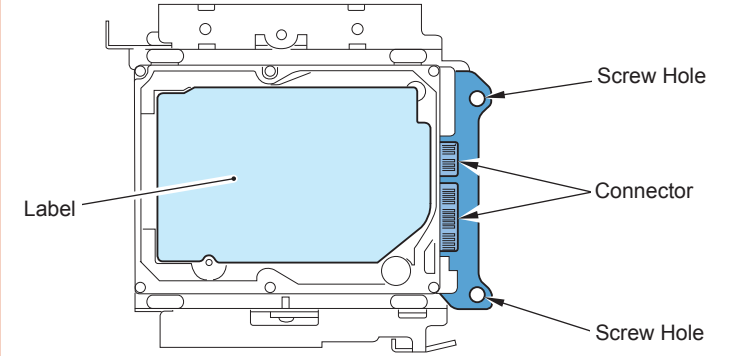
1) Turning off the Main Power Supply Switch of the Host Machine.
2) Check that the display on the Control Panel and the Main Power Supply Lamp are turned off before disconnecting the outlet.

Installation Procedure

Assembling the Option HDD

CAUTION: Points to Caution at Installation

Be sure to install the HDD Connector to the side with screw holes of the HDD Connector Plate.



F-9-585

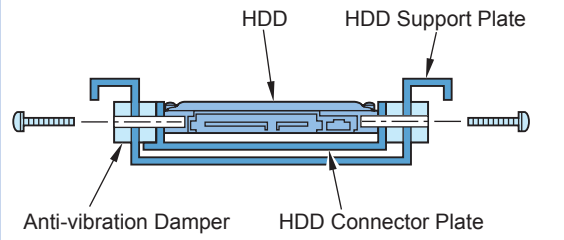
NOTE:
Use the parts included in the package of the Option HDD and the Removable HDD Kit.

□

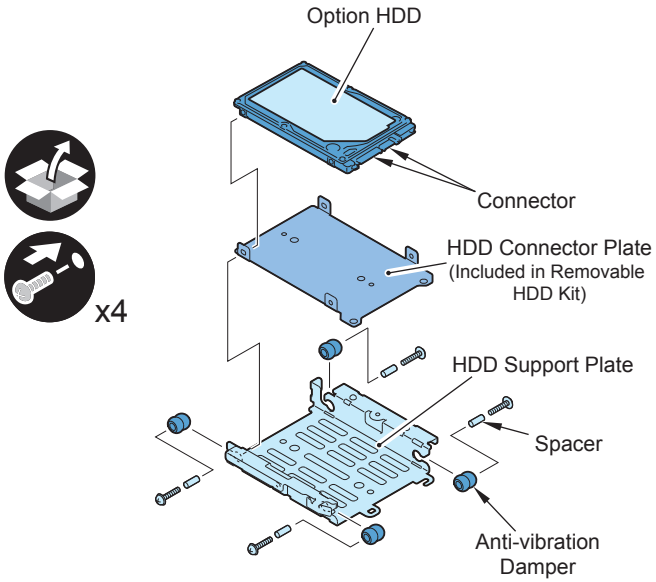
1) Assemble the Option HDD (1TB).

- 1 HDD Support Plate
- 4 Anti-vibration Dampers
- 4 Spacers
- 1 HDD Connector Plate (Included with the Removable HDD Kit)
- 1 Option HDD
- 4 Screws (W Sems; M3x14)

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



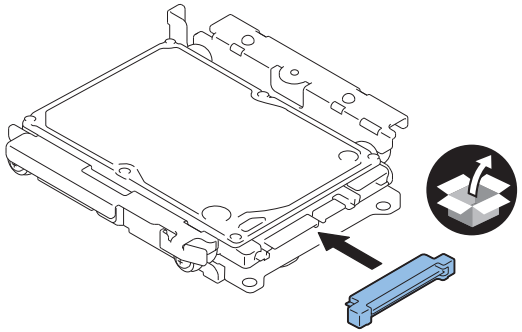
F-9-586



F-9-587

☐
2) Install the Conversion Connector.

CAUTION:
Be sure that there is no gap between the HDD Connector and the Conversion Connector.



F-9-588

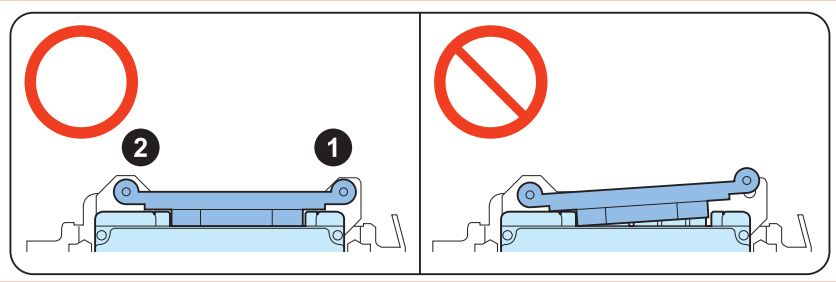
☐

3) Fit the 2 bosses of the Connector Fixation Screw into the holes of the Conversion Connector to install, and tighten the screws in the order specified below.

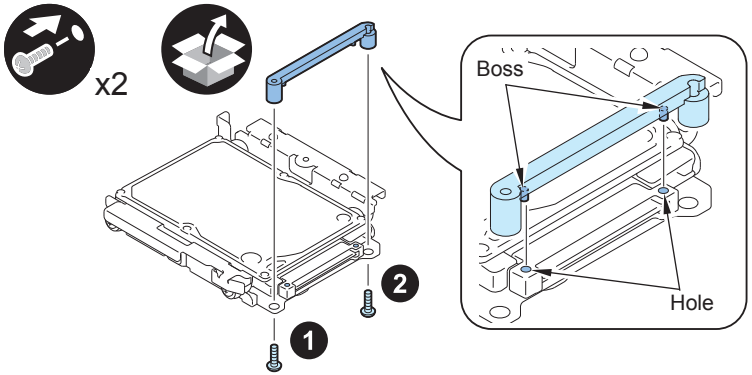
- 2 Screws (P Tightening; M3x8)

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-589



F-9-590

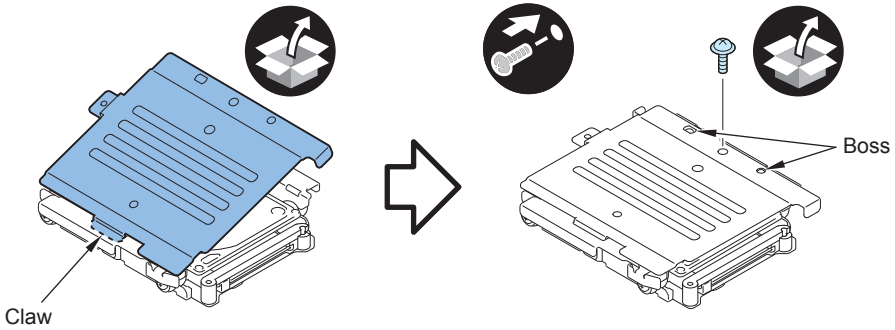
☐

4) Install the HDD Cover.

- 1 Claw
- 1 Boss
- 1 Screw (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-591

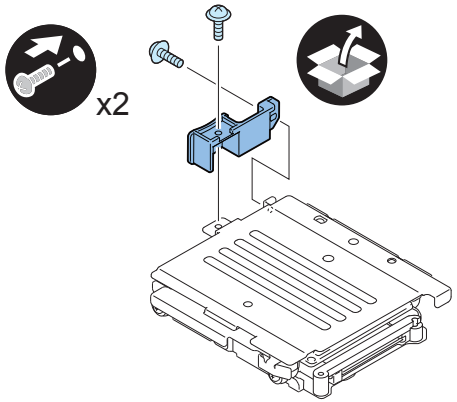
□

5) Install the HDD Handle.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

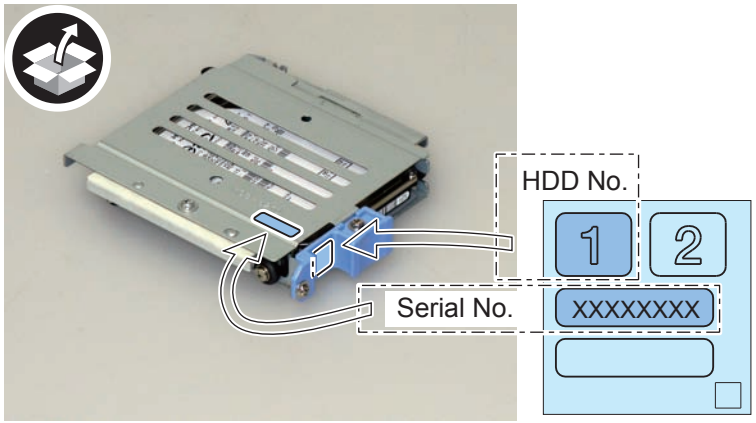


F-9-592

□

6) Affix the HDD No.1 of the R-HDD Label to the handle of the Removable HDD.

7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

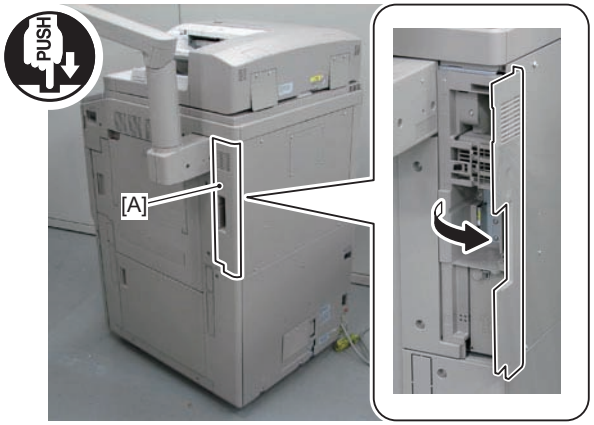


F-9-593

Removing the HDD and HDD Case Unit

□

1) Push [A] part, and open the Right Rear Cover 1.

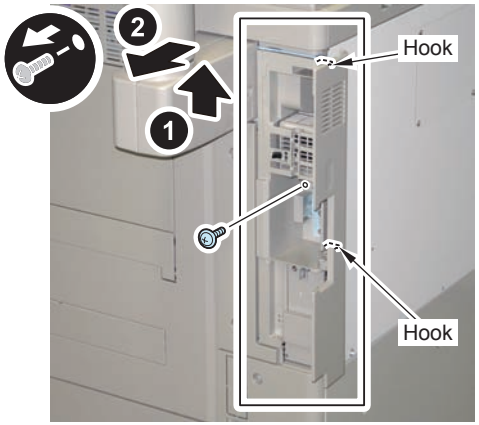


F-9-594

□

2) Remove the Side Cover.

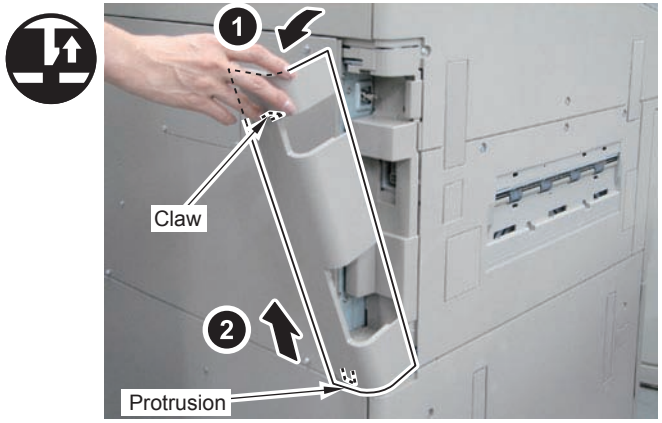
- 1 Screw
- 2 Hooks



F-9-595

3) Remove the Left Rear Cover.

- 1 Claw
- 1 Protrusions

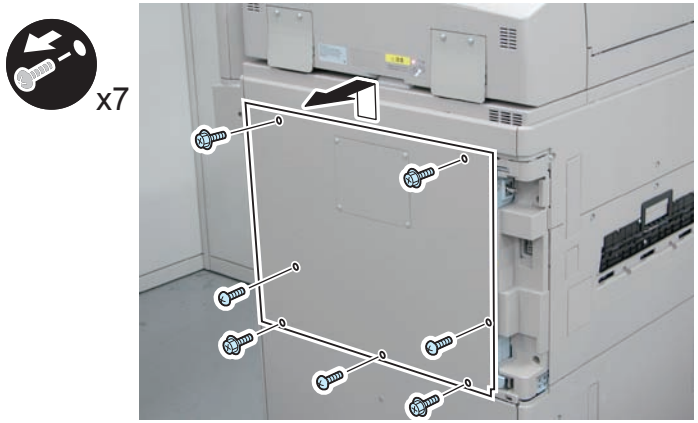


F-9-596

☐

4) Remove the Rear Upper Cover.

- 4 Screws (RS Tightening)
- 3 Screws (Bindeing)

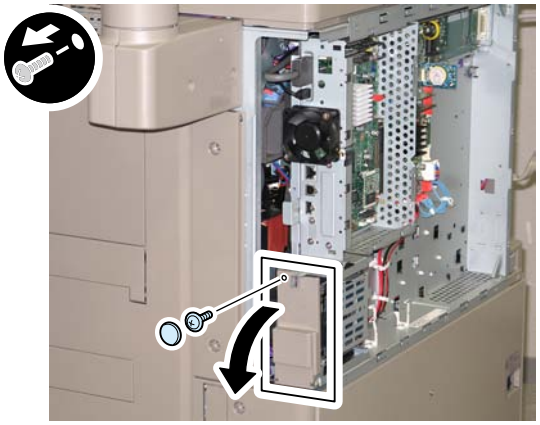


F-9-597

☐

5) Open the HDD Cap.

- 1 Rubber Cap
- 1 Screw (The removed screw will not be used.)



F-9-598

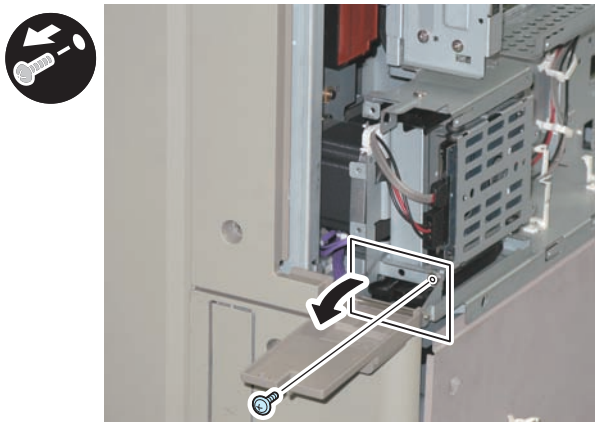
☐

6) Return the rubber cap to the HDD Cap.

☐

7) Turn the HDD Fixed Plate toward the front.

- 1 Screw (The removed screw will not be used.)

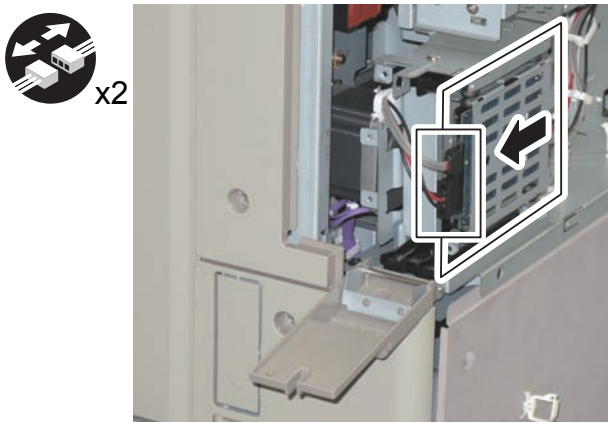


F-9-599

☐

8) Remove the HDD. (The removed HDD will not be used.)

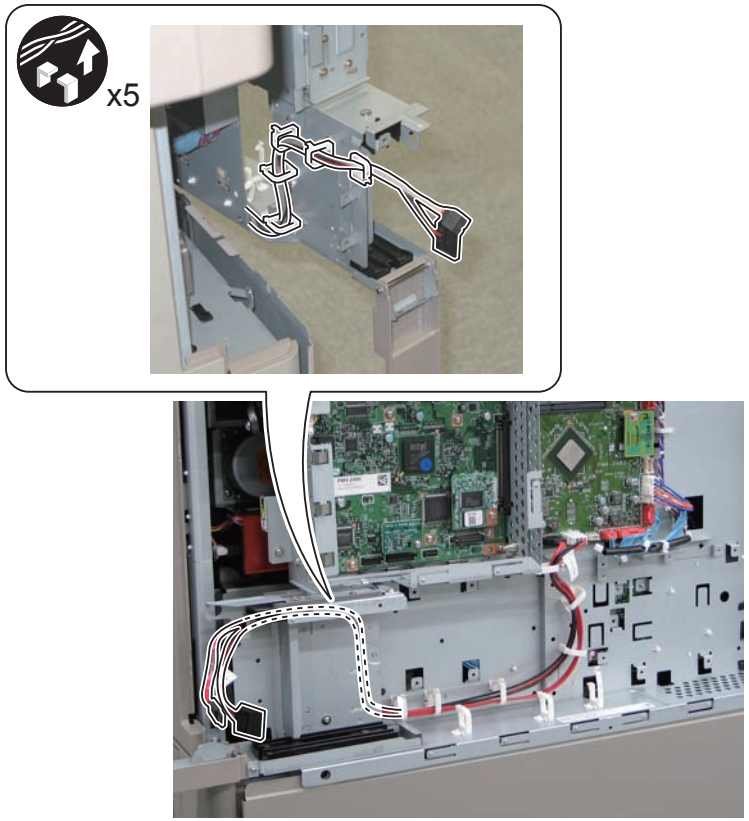
- 2 Connectors



F-9-600

☐

9) Open the Controller Box, and free the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine from the 4 Wire Saddles and the Edge Saddle at the back of the HDD Case Unit.

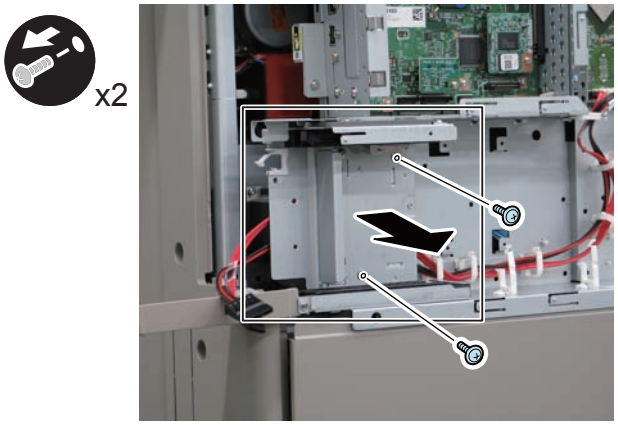


F-9-601

☐

10) Remove the HDD Case Unit.

- 2 Screws (The removed screws will be used in “Installing the Encryption Board and HDD Case Unit” step 3).)

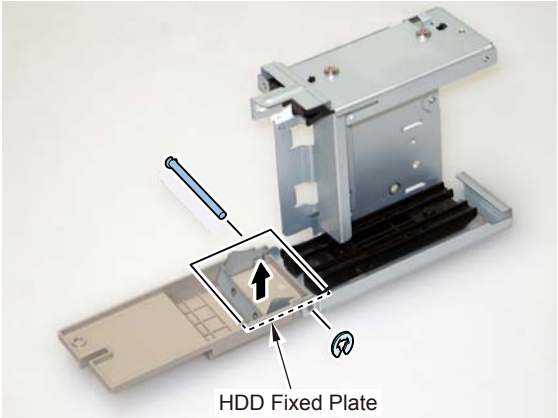


F-9-602

Changing Configuration inside of HDD Case Unit

☐

1) Remove the E-ring from the removed HDD Case Unit, remove the shaft of the HDD Cap, and then remove the HDD Fixed Plate. (The removed HDD Fixed Plate will not be used.)



F-9-603

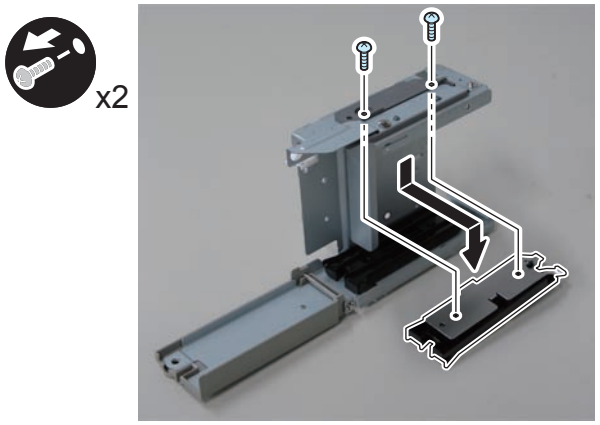
☐

2) Put the HDD Cap and the shaft back to the HDD Case Unit, and secure the HDD Case Unit with the E-ring.

☐

3) Remove the Upper Rail from the HDD Case Unit.

- 2 Screws (The removed screws will be used in step 6).)

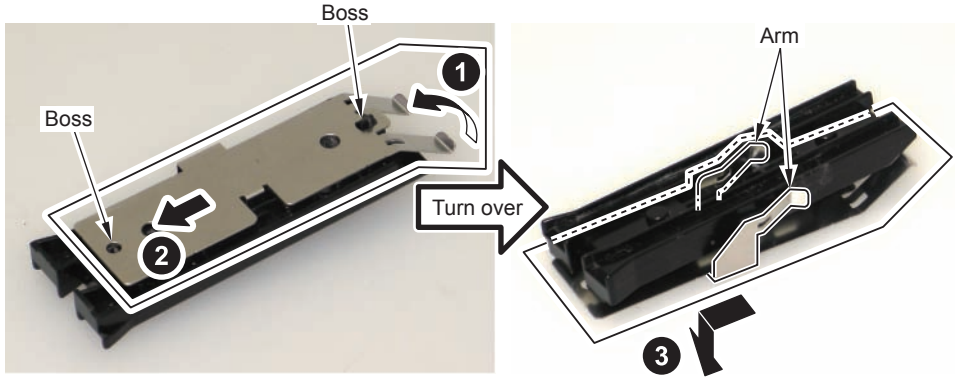


F-9-604

☐

4) Remove the Leaf Spring from the removed rail in the order of the arrows in the figure below. (The removed Leaf Spring will not be used.)

- 2 Bosses
- 2 Arms



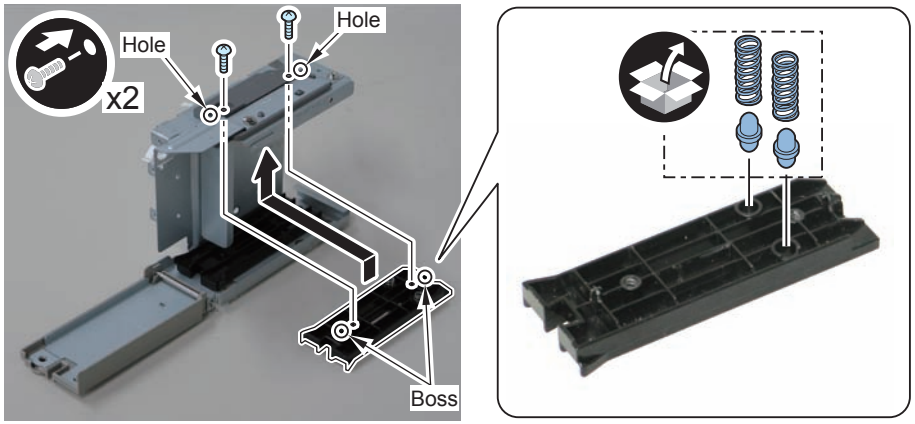
F-9-605

☐

5) Install the 2 HDD Lock Pins and the 2 HDD Lock Springs to the removed rail.

6) Return the rail to its original position.

- 2 Bosses
- 2 Screws (Use the screws removed in step 3).)



F-9-606

☐

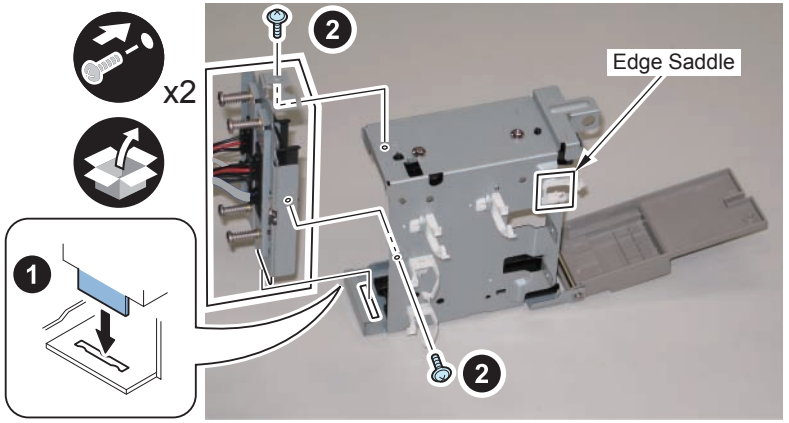
7) Insert the HDD Drawer Unit into the hole on the HDD Case Unit to install it.

- 2 Screws (TP Round End; M3x6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

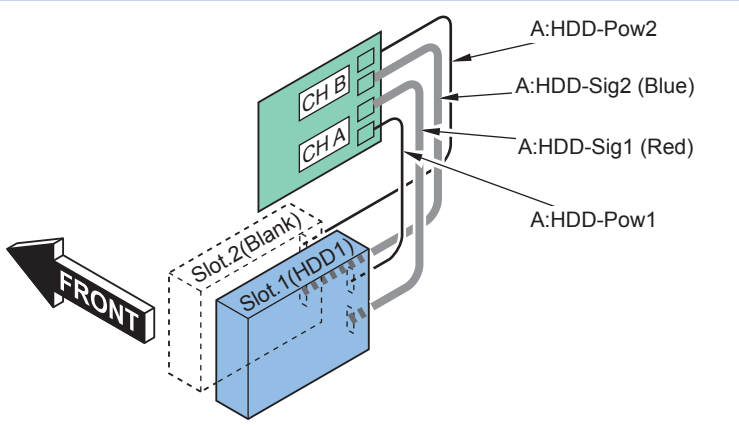
8) Close the Edge Saddle.



F-9-607

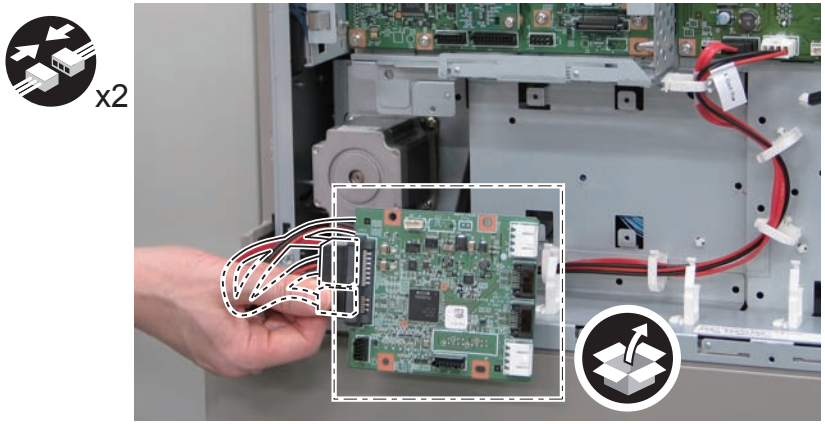
Installing the Encryption Board and HDD Case Unit

NOTE:
The following shows combination of the HDD and the Encryption Board.
- Connect "CH A" to Slot.1 (The new HDD)
- No HDD to Slot.2



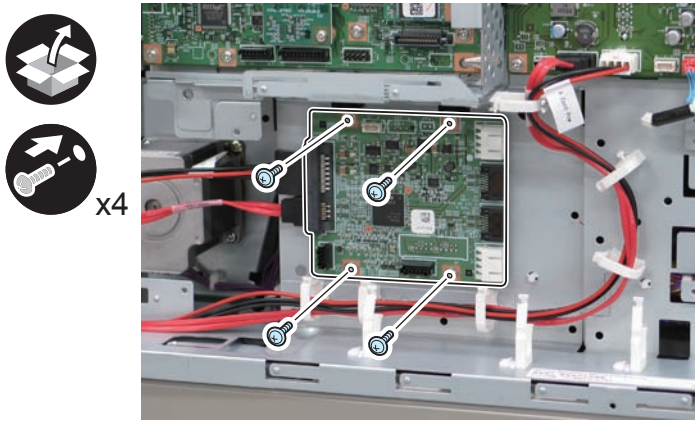
F-9-608

☐
1) Connect the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) of the host machine to the Encryption Board.



F-9-609

☐
2) Install the Encryption Board.
- 4 Screws (TP; M3x6)



F-9-610

☐

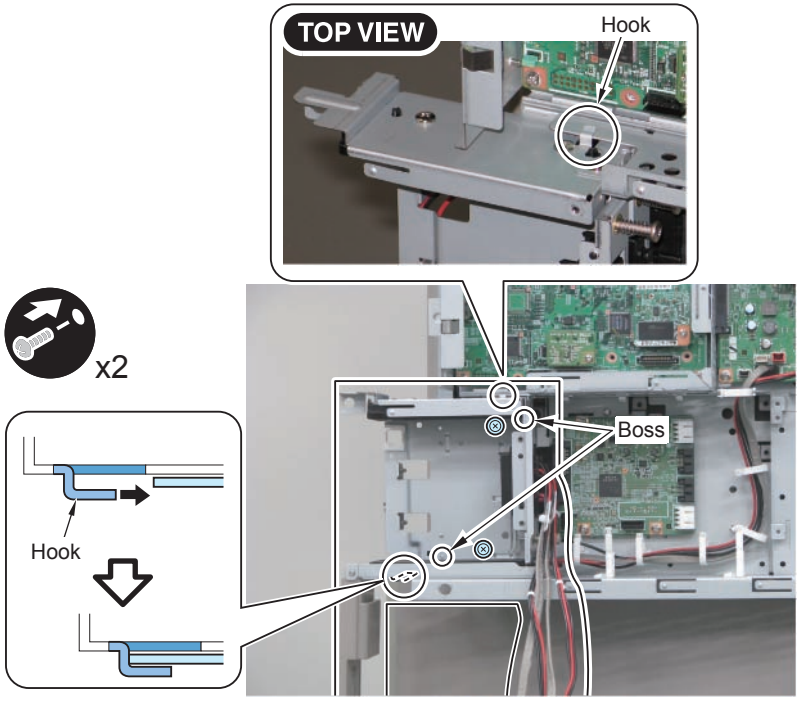
3) Install the HDD Case Unit.

- 2 Hooks
- 2 Bosses
- 2 Screws (Use the screws removed in “Removing the HDD and HDD Case Unit” step 10).)

CAUTION:

Make sure that the bosses is fitted properly.

NOTE:
Be careful not to catch the plate of the host machine with the Wire Saddles on the rear side of the HDD Case Unit, otherwise the installation work may become difficult.

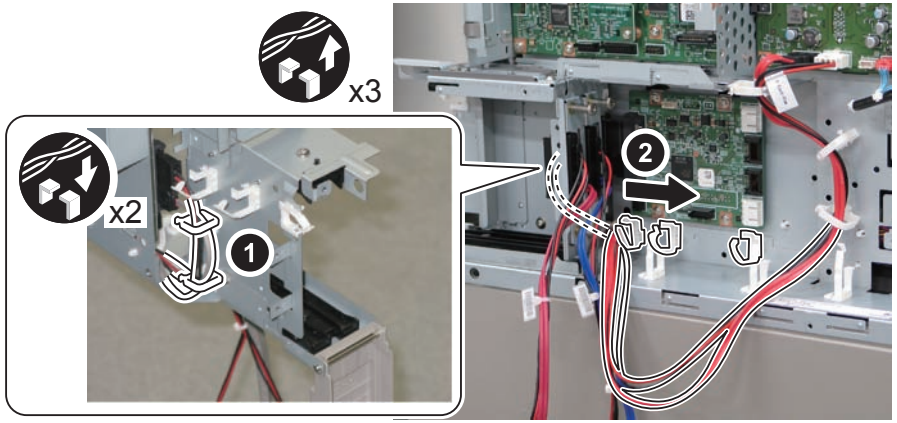


F-9-611

☐

4) Secure the Signal Cable (A:Cont-Sig) and the Power Supply Cable (A:Cont-Pow) in place using the 2 Wire Saddles at the back of the HDD Case Unit.

5) Free the cables from the 3 Wire Saddles at the front, and pull out the extra lengths of the cables to the front.

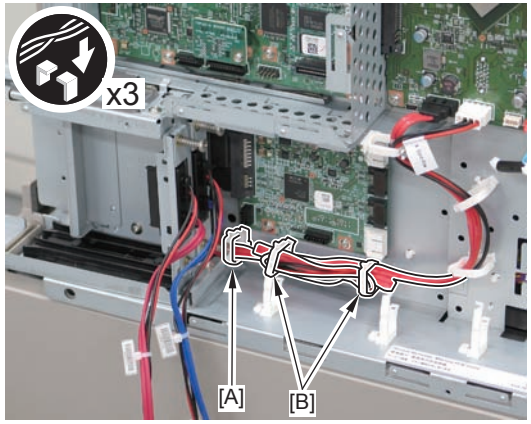


F-9-612

☐

6) Put cables through the Wire Saddle [A] and secure it.

7) Fold extra length of the Cable and secure it in place using the 2 Wire Saddles [B].

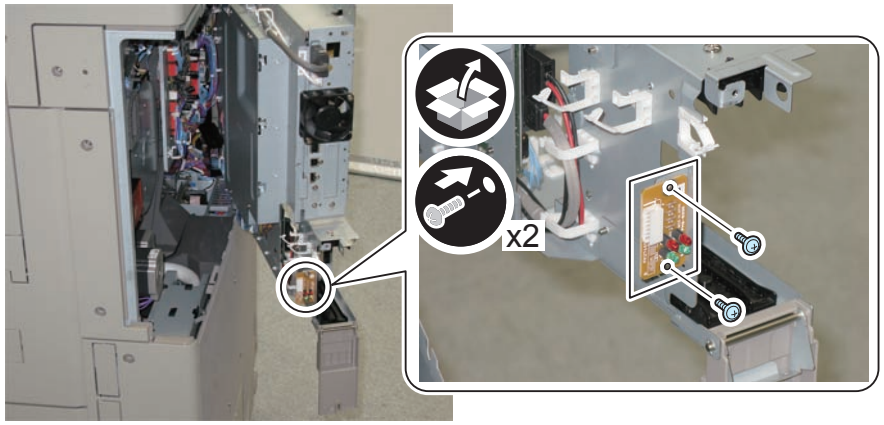


F-9-613

☐

8) Install the LED Board (A: LED) to the side surface of the HDD Case Unit.

- 2 Screws (TP; M3x6)



F-9-614

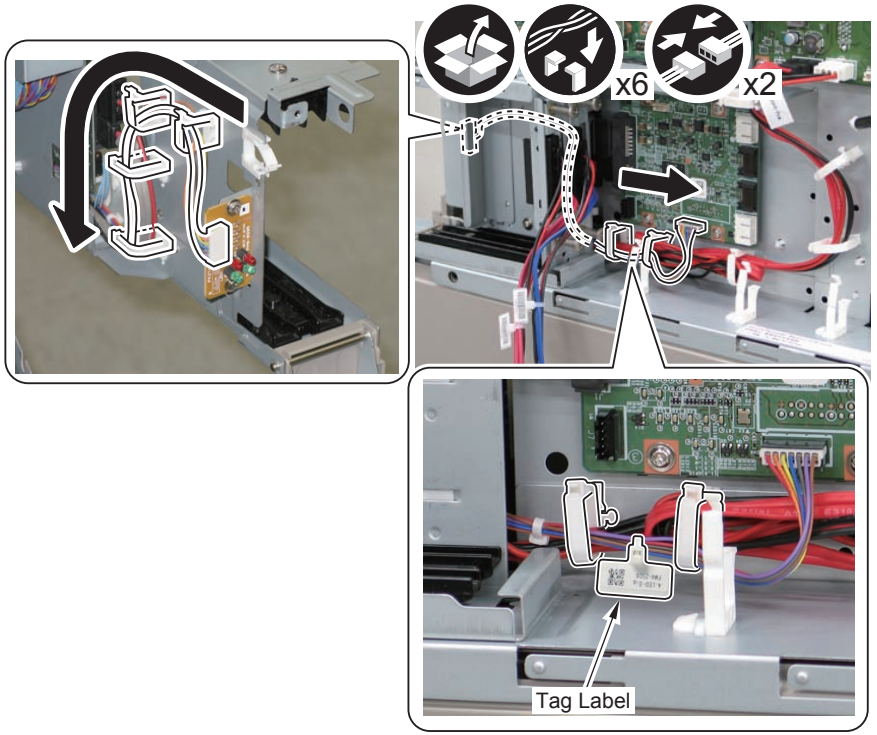
☐

9) Connect the LED Cable (A: LED-Sig) to the LED Board (A: LED) and the Encryption Board.

- 2 Connectors
- 6 Wire Saddles

CAUTION:

- The tag label of "A:LED-Sig" should be located between Wire Saddles.
- Secure the LED Cable (A: LED-Sig) in the direction of the arrow.
- Check that the LED Cable (A: LED-Sig) is connected properly at the time of installation because the machine can operate even when the cable is not connected properly.



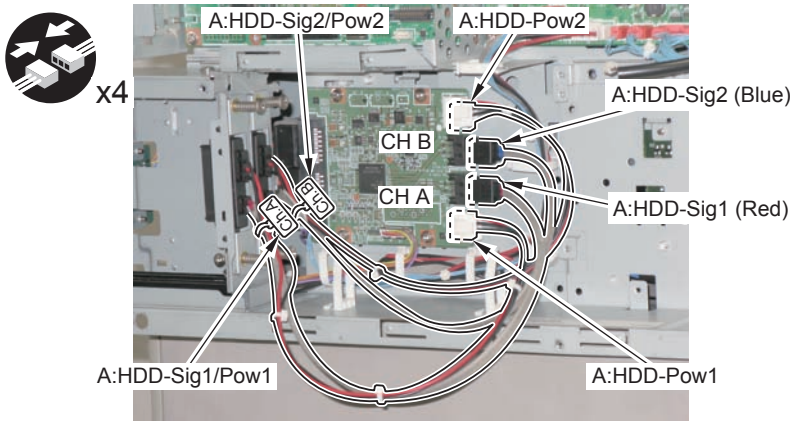
F-9-615

☐

10) Connect the 4 Connectors of the Signal Cables (A:HDD-Sig1 Red) (A:HDD-Sig2 Blue) and the Power Supply Cables (A:HDD-Pow1) (A:HDD-Pow2) to the Encryption Board.

CAUTION:

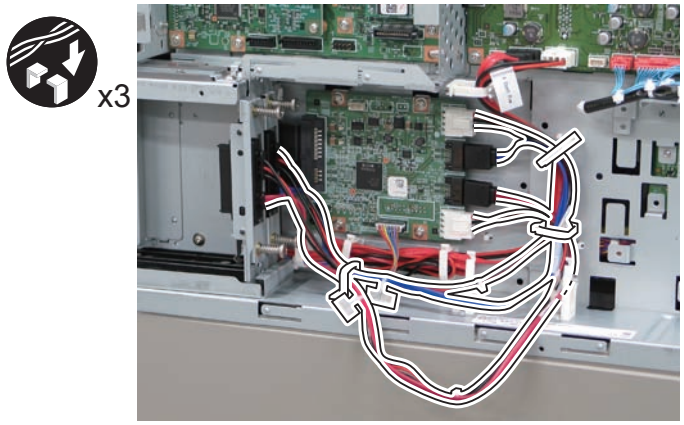
- Connect "A:HDD-Sig1/Pow1" to the location of CH-A.
- Connect "A:HDD-Sig2/Pow2" to the location of CH-B.



F-9-616

☐

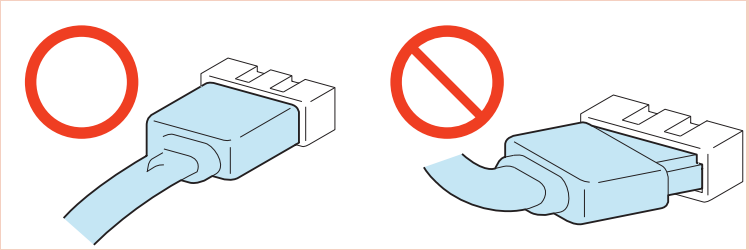
11) Secure the "A:HDD-Sig2/Pow2" cable and "A:HDD-Sig1/Pow1" cable using the total of 3 Wire Saddles as shown in the figure.



F-9-617

CAUTION:

Check that the connector of the Signal Cable is connected properly and that the cable is not overloaded.



F-9-618

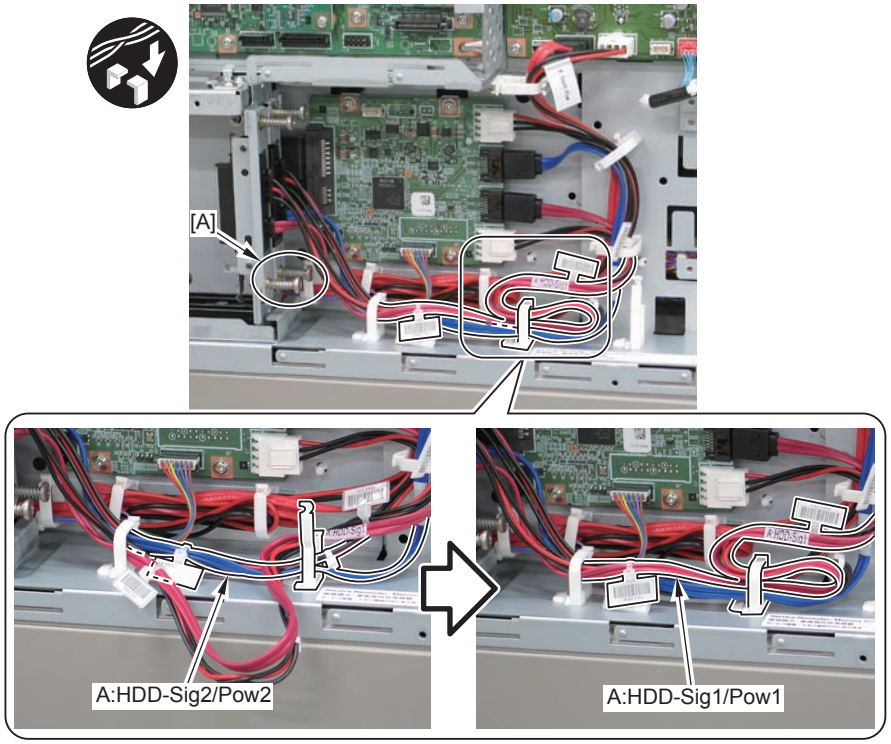
☐

12) Put the "A:HDD-Sig2/Pow2" cables through the Wire Saddle.

13) Fold the extra length of the "A:HDD-Sig1/Pow1" cables, and secure it with the Wire Saddle.

CAUTION:

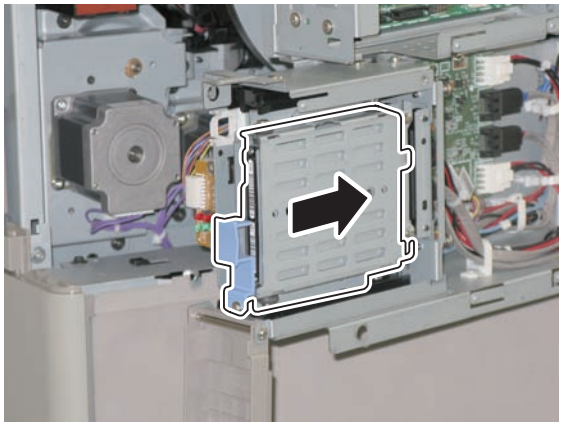
- Be sure that the cable is not in contact with the stepped screw [A] of Drawer.
- When securing the cable, be sure that it does not go over to the front.
- When the FAX Board is installed, be sure to avoid contact of the cable with the PCB to secure the cable.



F-9-619

☐

14) Insert the assembled Removable HDD.



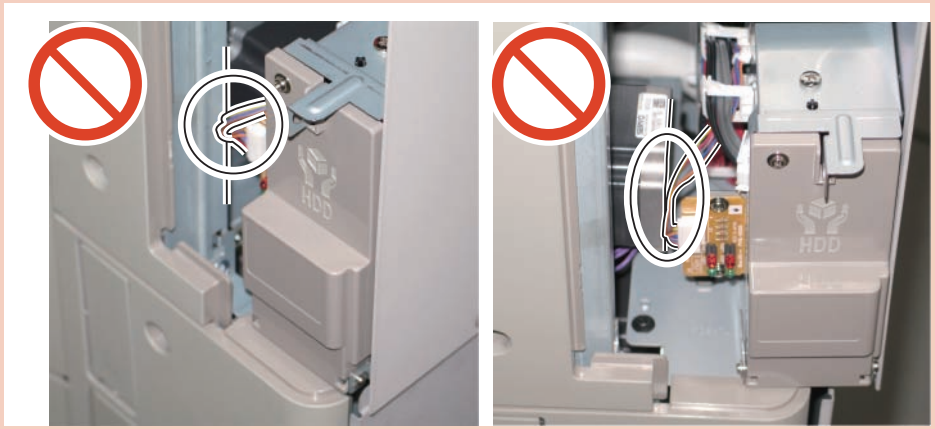
F-9-620

☐

15) Close the Controller Box.

CAUTION:

When closing the Controller Box, check that the LED Cable (A: LED-Sig) is not trapped or does not contact with it.



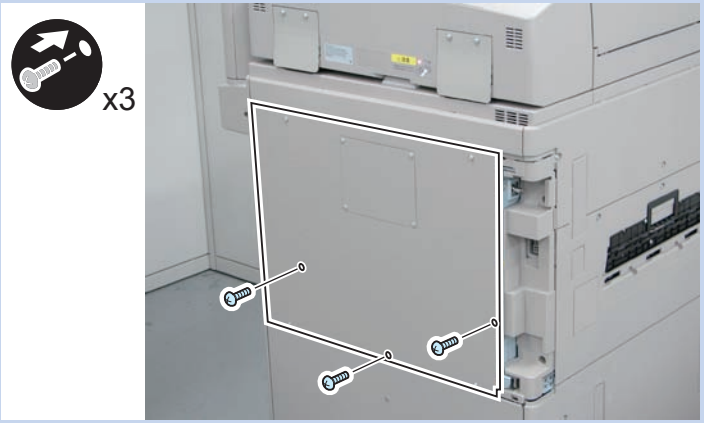
F-9-621

☐

16) Install the Rear Upper Cover.

- 3 Screws (Bindeing)
- 4 Screws (RS Tightening)

NOTE:
Be sure to install the 3 Bindeing screws show in the figure below.

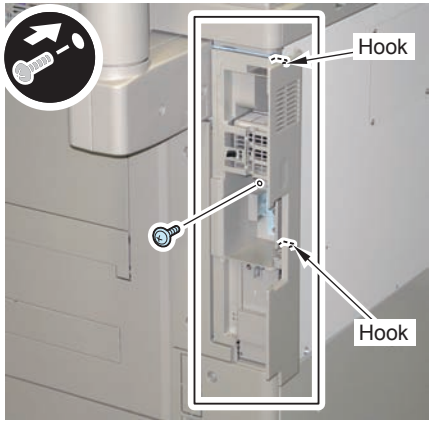


F-9-622

☐

17) Install the Side Cover.

- 2 Hooks
- 1 Screw

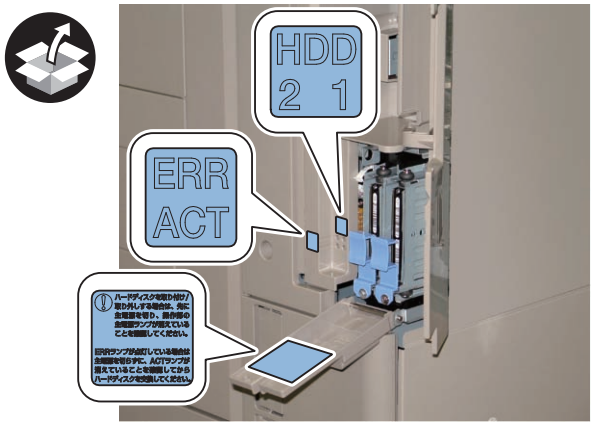


F-9-623

☐

18) Affix the LED Label.

19) Affix the HDD Caution Label in the appropriate language on the HDD Cap.



F-9-624

☐

20) Close the HDD Cap, and install the key prepared by the user for locking.

NOTE:
Be sure to use the locking key which size is the one indicated below or smaller.

- Size (width x depth x height) : 67mm x 14mm x 64mm

F-9-625

☐

21) Close the Right Rear Cover 1.

22) Return the Left Rear Cover to its original position.

23) Connect the power plug to the outlet.

Installing the System Software Using the SST

NOTE:
Use the Service Support Tool with "Ver.4.72" or higher.

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click "Start".
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC authentication is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark

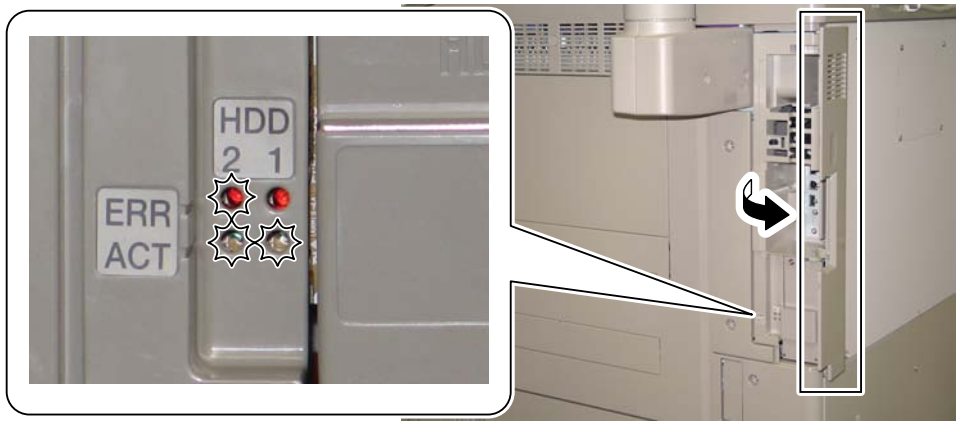
The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark( ) is displayed on the lower left corner of a panel screen.

Checking after Installation

1) Open the HDD Cover, and check that the LED is flashing.

- The green LED of HDD1 (Slot1) is flashing.



F-9-626

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

9-313
9 Installation > TYPE-11] Option HDD (1TB) + Removable HDD Kit + HDD Data Encryption & Mirroring Kit > Execution of Auto Gradation Adjustmen

9-314
9 Installation > TYPE-11] Option HDD (1TB) + Removable HDD Kit + HDD Data Encryption & Mirroring Kit > Execution of Auto Gradation Adjustmen

Document Scan Lock Kit-B1

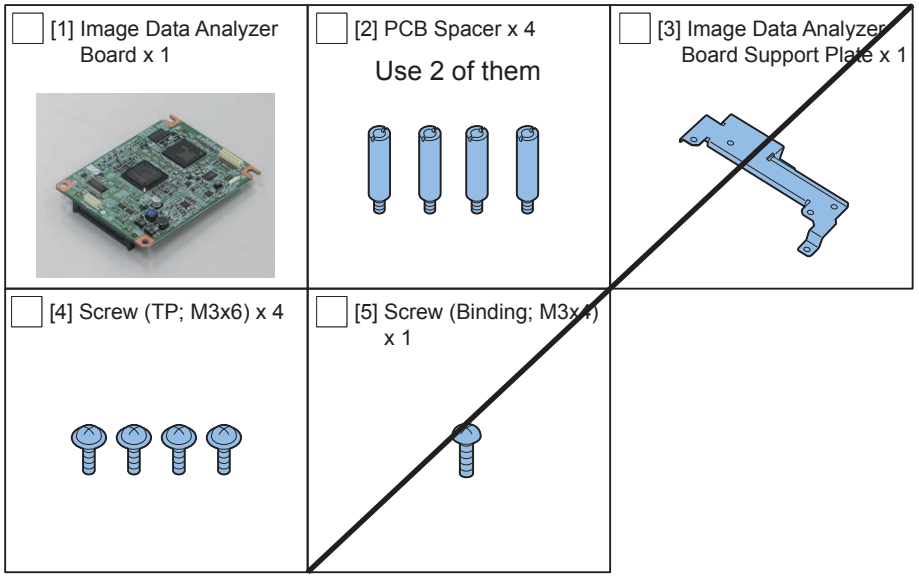
Points to Note Before Installation

- To enable the function of "Image Data Analyzer Board", it is necessary to install the license which comes with the product.
- Be sure to ask users to install the license after the installation.

CAUTION:

An error occurs when the license is installed before installing the Image Analysis Board, so make sure to install the license after installing the Image Analysis Board.

Checking the Contents



F-9-627

<CD/Guides>

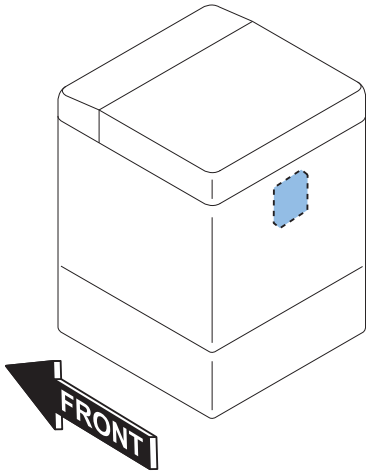
- License Access Number Certificate
- Document Scan Code Analyzer for MEAP CD
- FCC/IC sheet (only for USA/Europe)
- Notice for Delivered Installation sheet

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing

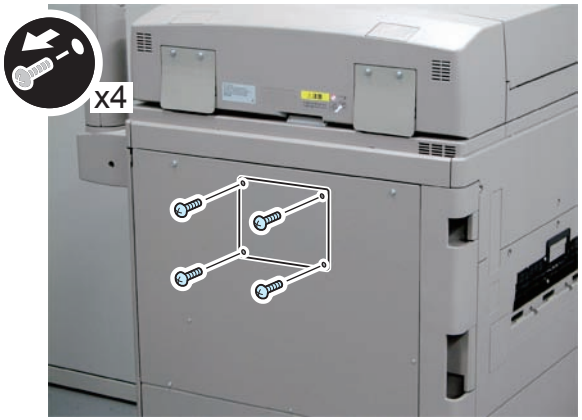


F-9-628

Installation Procedure

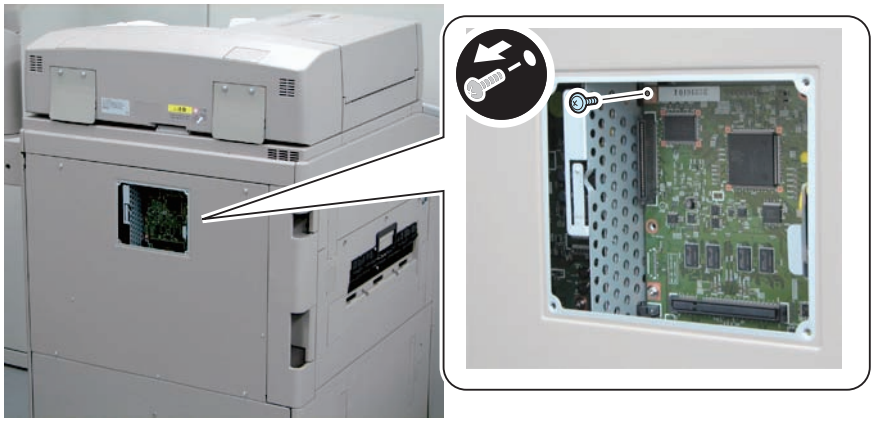
CAUTION:
Be careful not to drop the screw.

☐
1) Remove the Rear Small Cover.
- 4 Screws



F-9-629

☐
2) Remove the screw.(The removed screw will not be used.)

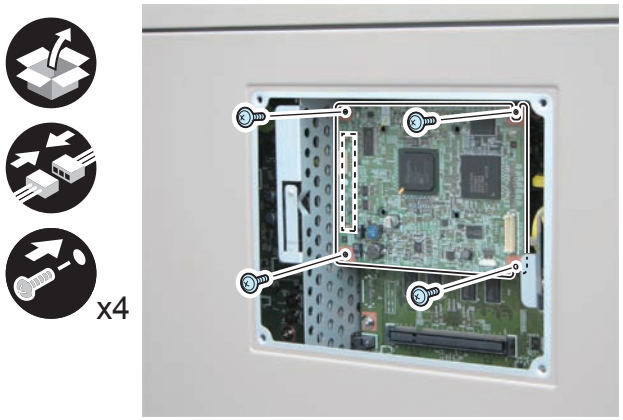


F-9-630

☐
3) Install the 4 PCB Spacers.

F-9-631

☐
4) Install the Image Data Analyzer Board.
- 4 Screws (TP; M3x6)



F-9-632

☐
5) Install the Rear Small Cover. (4 Screws)

Checking after Installation

□

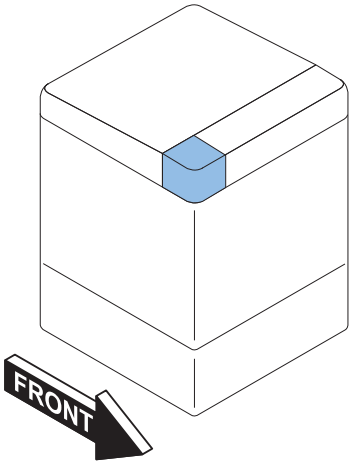
1) Connect the power plug of the host machine to the power outlet.
2) Turn ON the main power switch.
3) Ask users to install license.
4) Turn OFF/ON the main power switch.
5) Press the counter check key on the control panel.
6) Press "Check Device Configuration" key.
7) Check that "Image Data Analyzer Board" is displayed in option field.

USB Device Port-A2/Multimedia Reader/Writer-A2

Points to Note before Installation

- Be sure to install the USB Device Port before installing the Multimedia Reader/Writer or the Card Reader (sales company's option).
- The Multimedia Reader/Writer cannot be used in combination with the Card Reader (sales company's option).

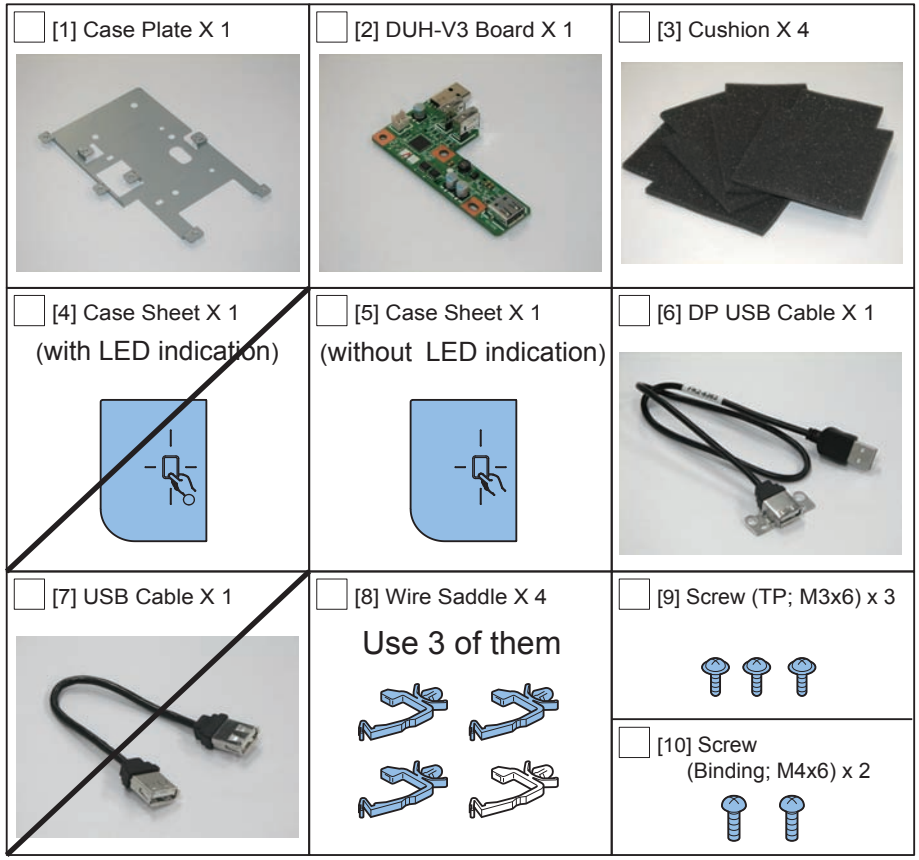
Installation Outline Drawing



F-9-633

Checking the Contents

USB Device Port-A2



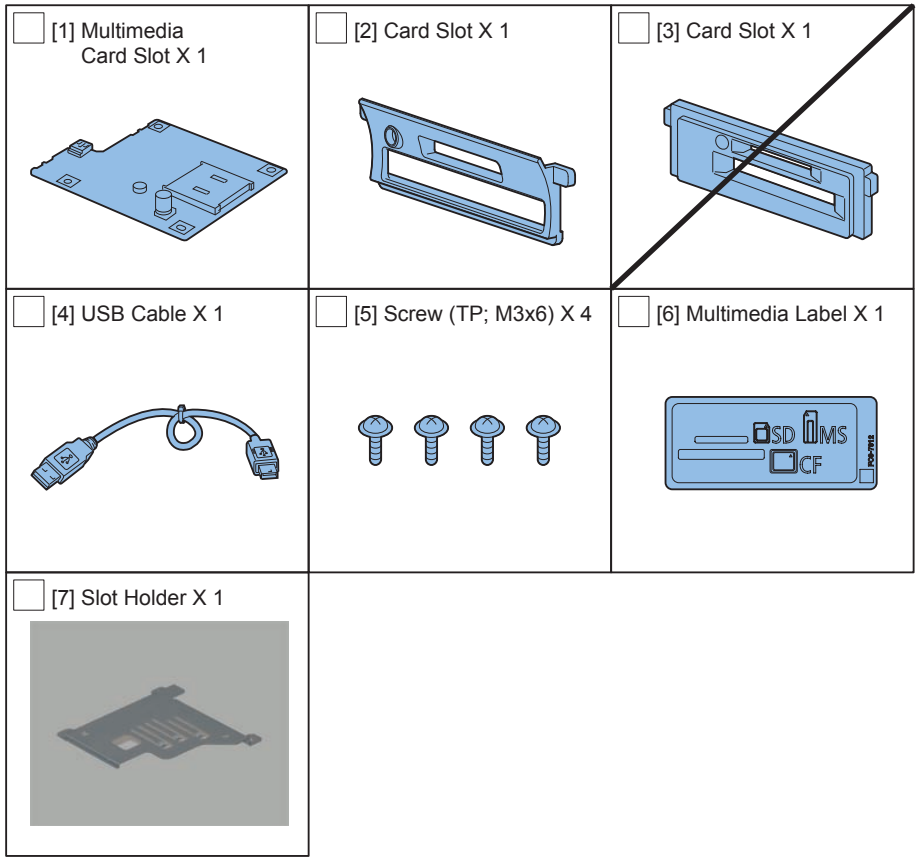
F-9-634

[3],[4]: Used when installing the Card Reader (sales company's option)

<CD/Guides>

- FCC/IC instruction sheet

Multimedia Reader/Writer-A2



F-9-635

<CD/Guides>

- FCC/IC instruction sheet

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

1) Turn OFF the main power switch.
2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installing the USB Device Port

☐

1) Open the Toner Exchange Cover.
2) Open the Upper Right Cover.
3) Remove the Upper Right Cover.

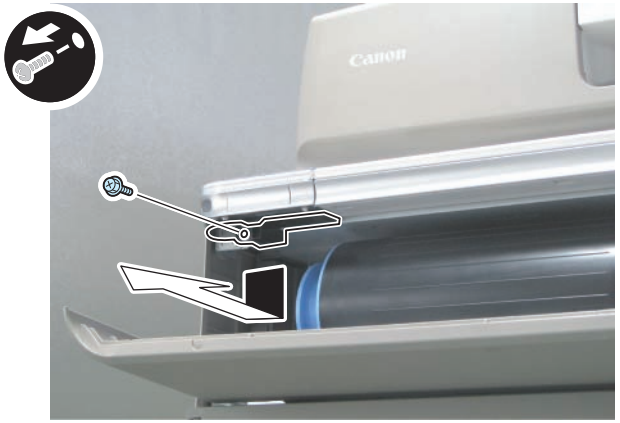
- 1 Screw

F-9-636

☐

4) Remove the Bottle Regulation Rail.

- 1 Screw

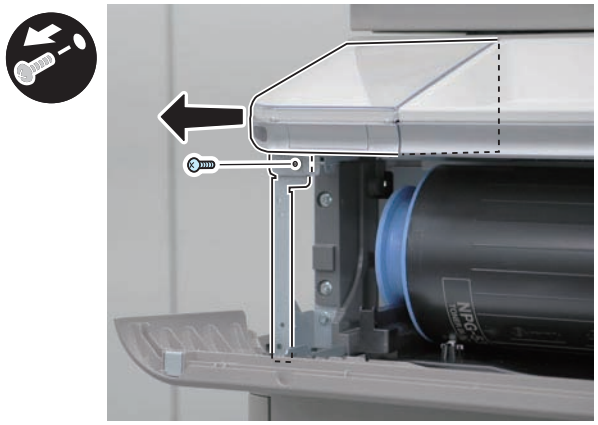


F-9-637

□

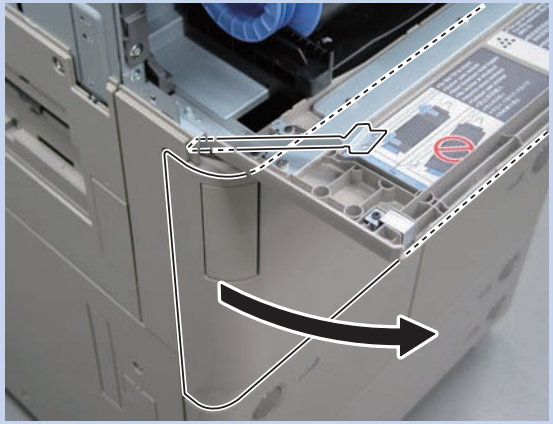
5) Remove the Upper Left Cover.

- 1 Screw



F-9-638

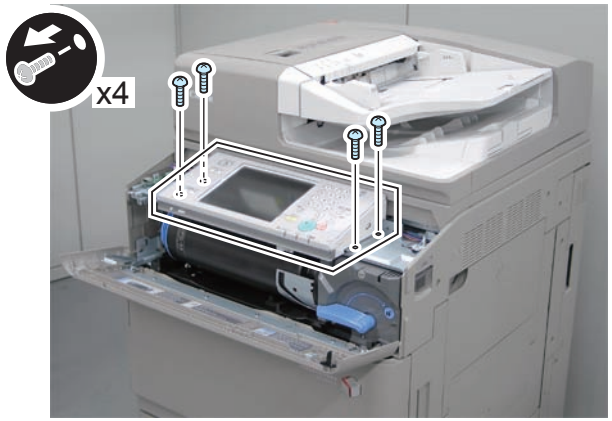
NOTE:
When removing the screw, the Control Panel Hold Plate is also removed.
When opening the Front Cover, be sure to do so while holding the Control Panel Hold Plate.



F-9-639

□

6) Remove the 4 screws of the Upper Middle Cover or the Control Panel.



F-9-640

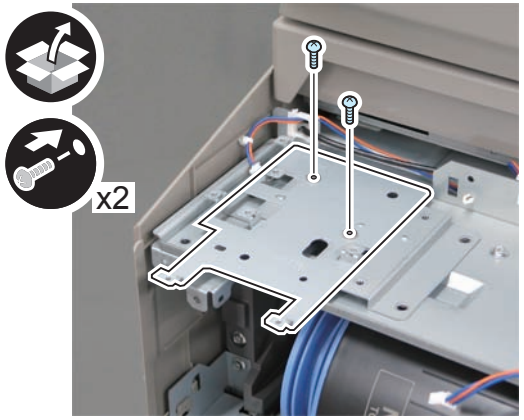
When removing the Upper Middle Cover: See <For Upper Middle Cover>
When removing the Control Panel: See <For Control Panel>

■ <For Upper Middle Cover>

□

1) Remove the Upper Middle Cover.
2) Install the Case Plate.

- 2 Screws (Binding; M4x6)

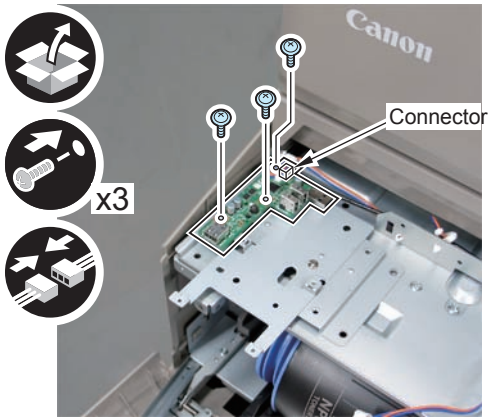


F-9-641

☐

3) Install the DUH-V3 Board.

- 3 Screws (TP; M3x6)
- 1 Connector

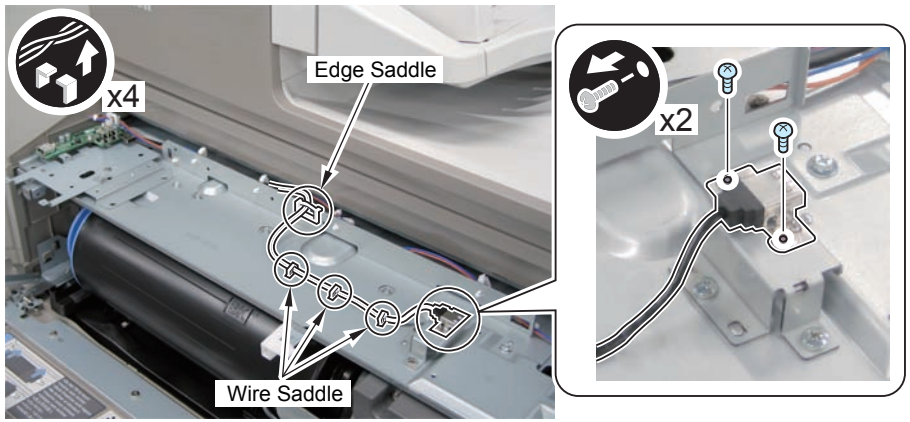


F-9-642

☐

4) Remove the USB Cable.

- 2 Screws
- 3 Wire Saddles
- 1 Edge Saddle (Close it after freeing the USB Cable)

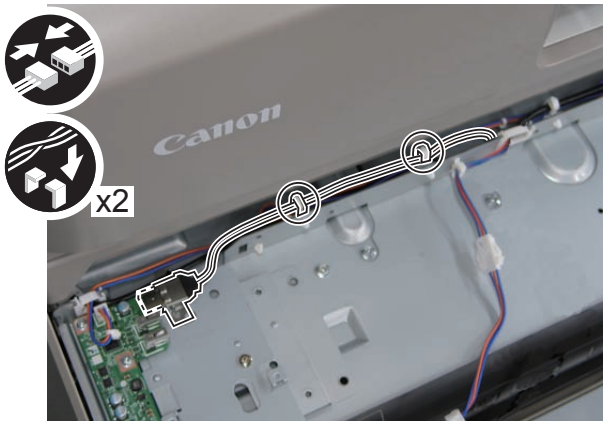


F-9-643

☐

5) Connect the removed USB Cable to the DUH-V3 Board.

- 2 Wire Saddles



F-9-644

☐

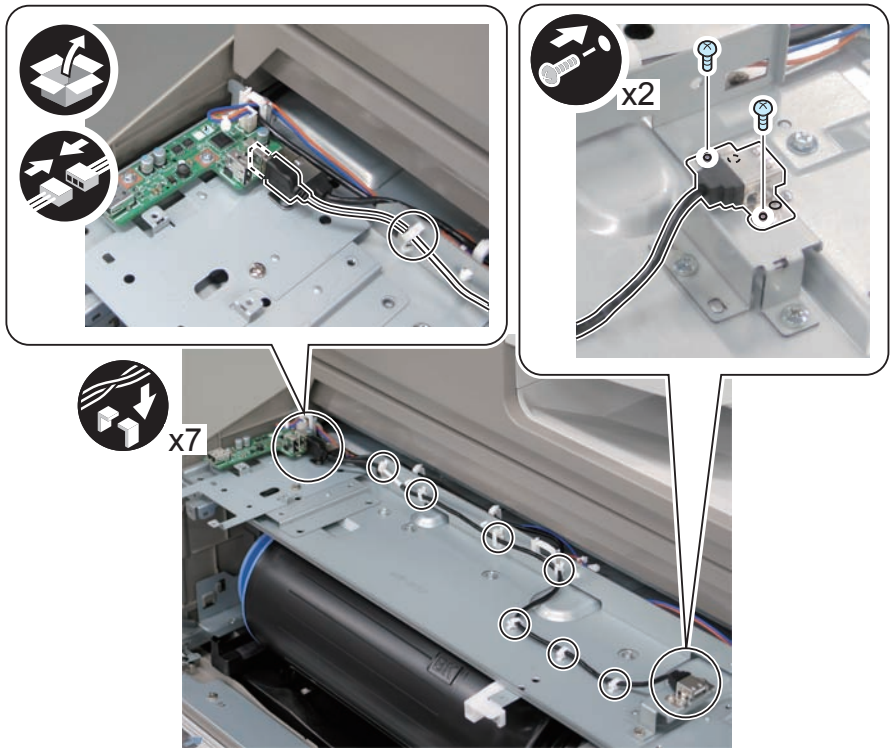
6) Install the 3 Wire Saddles to the Control Panel Plate.

F-9-645

☐

7) Connect one end of the DP USB Cable to the DUH-V3 Board, and connect its other end to the host machine.

- 2 Screws
- 7 Wire Saddles



F-9-646

☐

8) Install the Upper Middle Cover. (4 Screws)

9) Install the Upper Right Cover. (1 Screw)

NOTE:
When installing the Multimedia Reader/Writer simultaneously, it is efficient to install it before performing the following procedure.

10) Install the Upper Left Cover and Control Panel Hold Plate. (1 screw is used to tighten both parts)

11) Install the Bottle Regulation Rail. (1 Screw)

12) Close the Toner Exchange Cover.

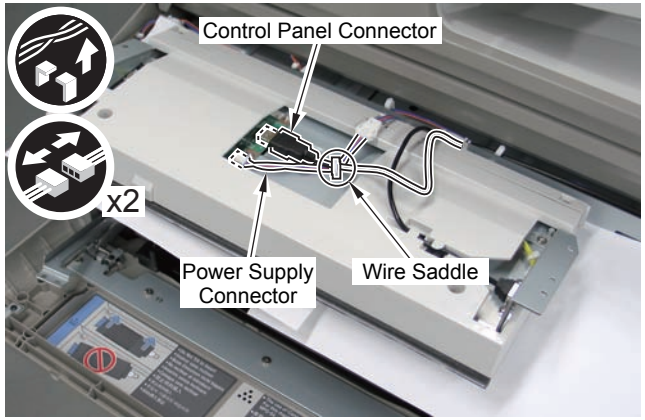
<For Control Panel>

☐

1) Place a sheet of paper, etc., to avoid damaging the Control Panel, and turn the Control Panel over.

2) Disconnect the Control Panel Cable and the Power Supply Cable.

- 1 Wire Saddle

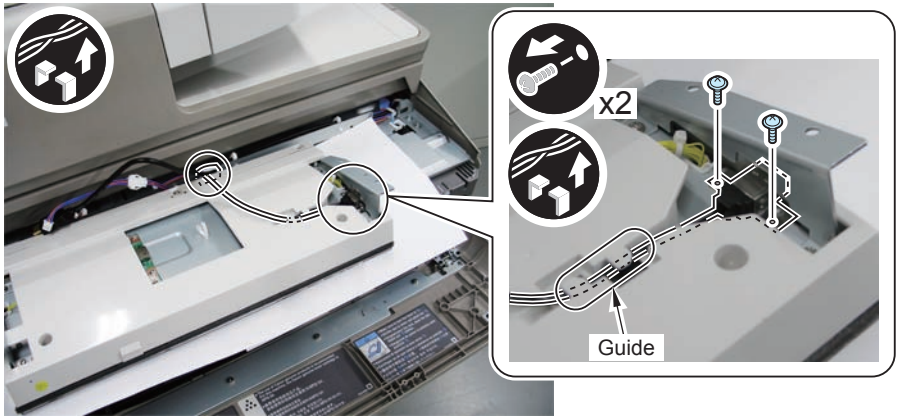


F-9-647

☐

3) Disconnect the USB Cable, and remove the Control Panel.

- 2 Screws
- Cable Guide
- 1edge saddle (Close it after freeing only the USB Cable)

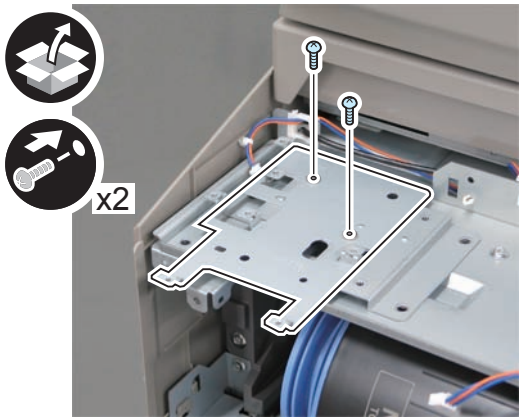


F-9-648

☐

4) Install the Case Plate.

- 2 Screws (Binding; M4x6)

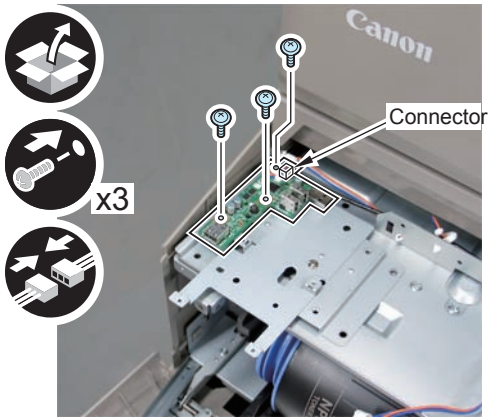


F-9-649

☐

5) Install the DUH-V3 Board.

- 3 Screws (TP; M3x6)
- 1 Connector

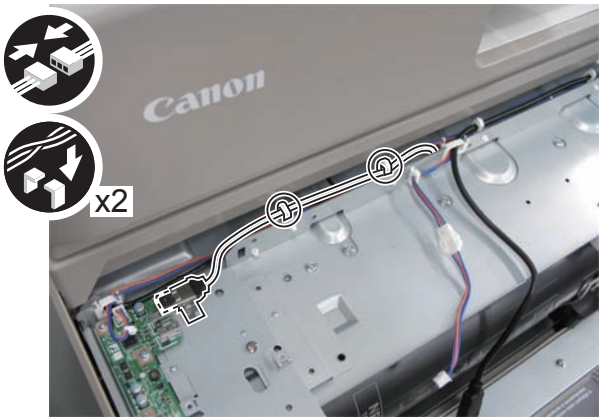


F-9-650

☐

6) Connect the removed USB Cable to the DUH-V3 Board.

- 2 Wire Saddles



F-9-651

☐

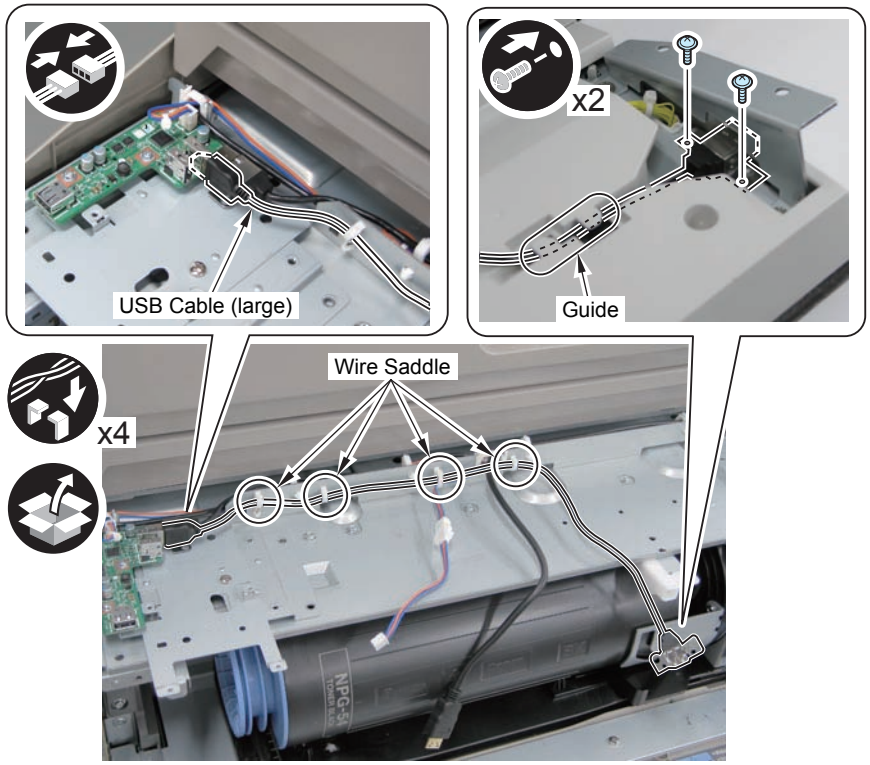
7) Install the 3 Wire Saddles to the Control Panel Plate.

F-9-652

☐

8) Connect one end of the DP USB Cable to the DUH-V3 Board, and connect its other end to the Control Panel by putting it through the guide.

- 2 Screws
- 4 Wire Saddles



F-9-653

☐

9) Connect the Control Panel Cable and the Power Supply Cable (1 Wire Saddle).

10) Install the Control Panel (4 Screws).

11) Install the Upper Right Cover. (1 Screw)

NOTE:
When installing the Multimedia Reader/Writer simultaneously, it is efficient to install it before performing the following procedure.

12) Install the Upper Left Cover and Control Panel Hold Plate. (1 screw is used to tighten both parts)

13) Install the Bottle Regulation Rail. (1 Screw)

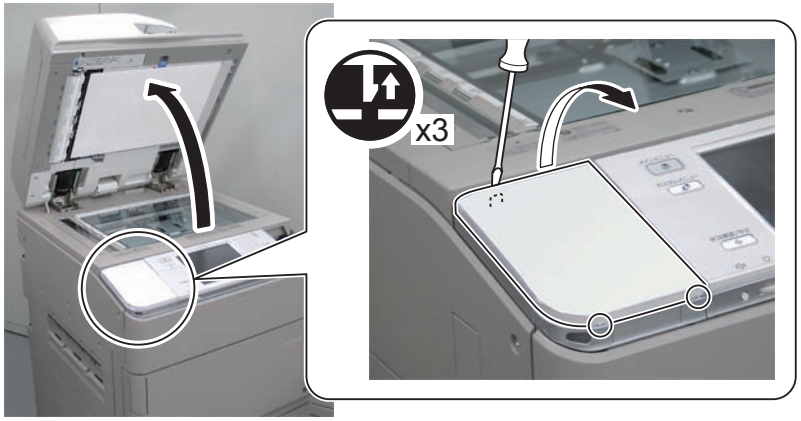
14) Close the Toner Exchange Cover.

Installing the Card Reader

☐

1) Open the DADF, and remove the Transparent Cover and the Device Port Sheet of the Upper Left Cover.

- 3 Claws



F-9-654

☐

2) Connect the Card Reader to the PCB, and store the cable inside the Upper Cover by rolling it up.

F-9-655

☐

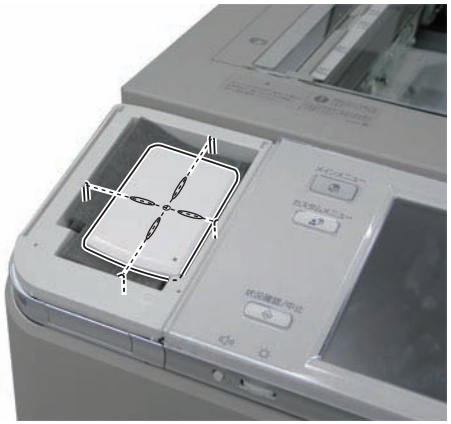
3) Put 4 cushions by piling them up.

NOTE:
Be sure to adjust the number of cushions according to how the cable of the Card Reader is stored.

F-9-656

☐

4) Place the Card Reader by aligning it with the position where the cover is installed.



F-9-657

☐

5) Replace the Device Port Sheet with the Case Sheet.

NOTE:
Be sure to replace it with the Case Sheet (with LED indication).

6) Install the Transparent Cover and the Case Sheet.

F-9-658

☐

7) Close the DADF.

☐

8) Connect the power plug of the host machine to the power outlet.

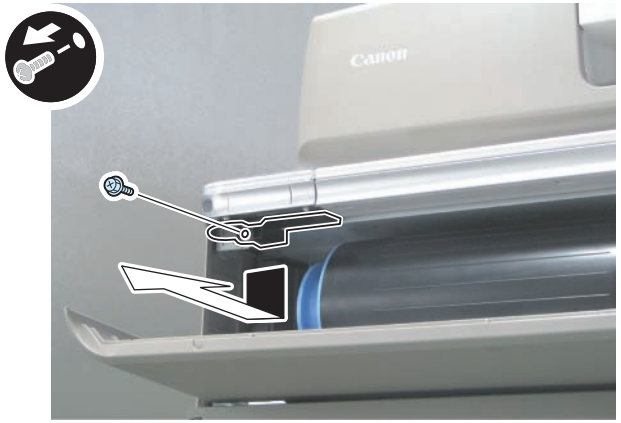
9) Turn ON the main power switch.

Installing the Multimedia Reader/Writer

NOTE:
When installing the USB Device Port simultaneously, skip steps 1 and 3.

☐

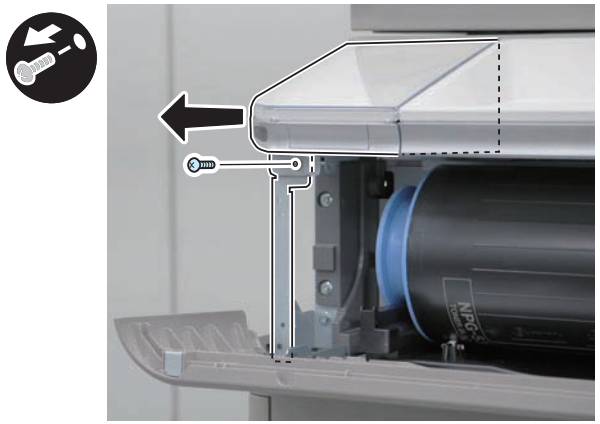
1) Open the Upper Right Cover.
2) Remove the Bottle Regulation Rail.
- 1 Screw



F-9-659

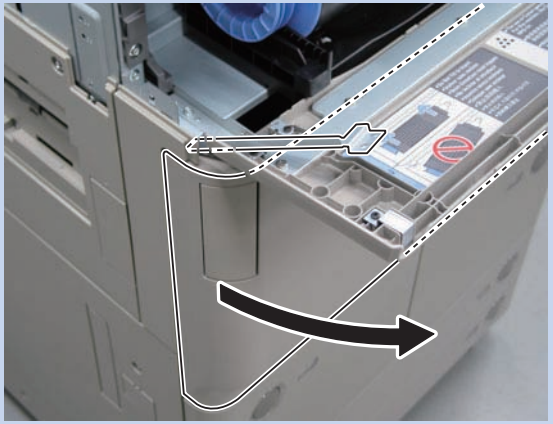
☐

3) Remove the Upper Left Cover.
- 1 Screw



F-9-660

NOTE:
When removing the screw, the Control Panel Hold Plate is also removed.
When opening the Front Cover, be sure to do so while holding the Control Panel Hold Plate.

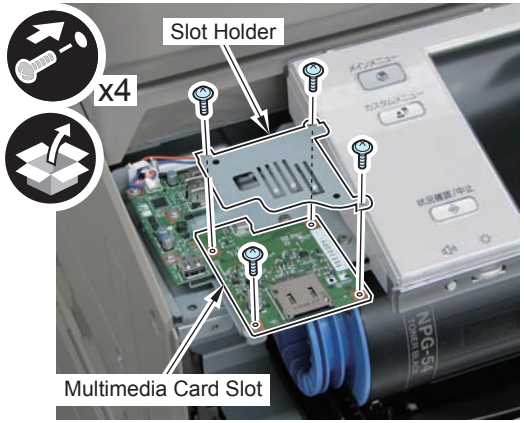


F-9-661

☐

4) Install the Multimedia Card Slot and Slot Holder together.

- 4 Screws (TP; M3x6)

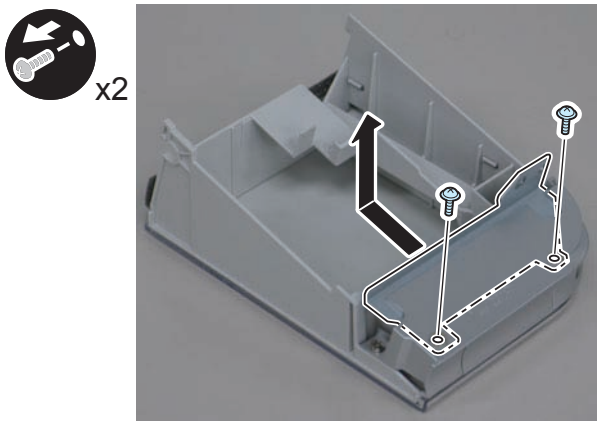


F-9-662

☐

5) Remove the Plate.

- 2 Screws

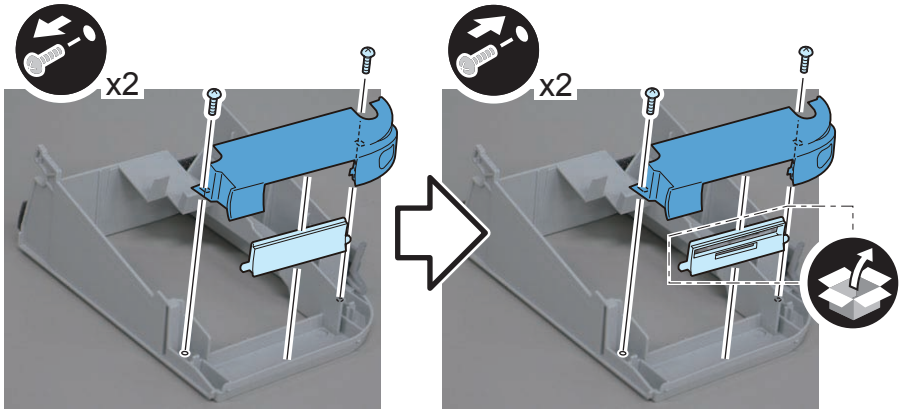


F-9-663

☐

6) Remove the Card Slot, and replace it with the Card Slot included in the package (The removed Card Slot will not be used).

- 2 Screws



F-9-664

☐

7) Install the Plat. (2 Screws)

8) Install the Upper Left Cover and Control Panel Hold Plate. (1 screw is used to tighten both parts)

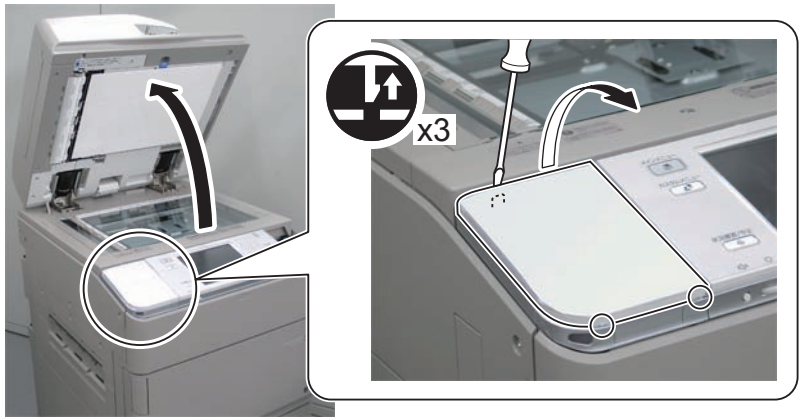
9) Install the Bottle Regulation Rail. (1 Screw)

10) Close the Toner Exchange Cover.

☐

11) Open the DADF, and remove the Transparent Cover and the Device Port Sheet of the Upper Left Cover.

- 3 Claws



F-9-665

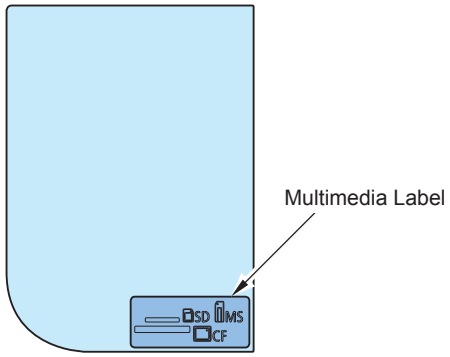
☐

12) Install the USB Cable.

F-9-666

☐

13) Affix the Multimedia Label to the Device Port Sheet as shown in the figure.



F-9-667

☐

14) Return the Transparent Cover and the Device Port Sheet to the original position.

- 3 Claws

F-9-668

☐

15) Close the DADF.

☐

16) Connect the power plug of the host machine to the power outlet.

17) Turn ON the main power switch.

Operation Check [Multimedia Reader/Writer-A2]

NOTE:
- To the Multimedia Reader/Writer, Memory Media of the SC Card, Memory Stick, and CF Card can be connected. With one of the 3 types of Memory Media, perform the oepration check 1 through 3.
- When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.

Writing Check

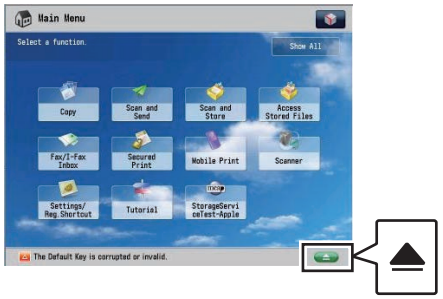
□

1) Select "1" for the following service mode (Level 2).(Default value "0")
CPIER > OPTION > DSPLY-SW > UI-MEM

2) To make the setting value effective, turn OFF/ON the main power of the Host Machine.

□

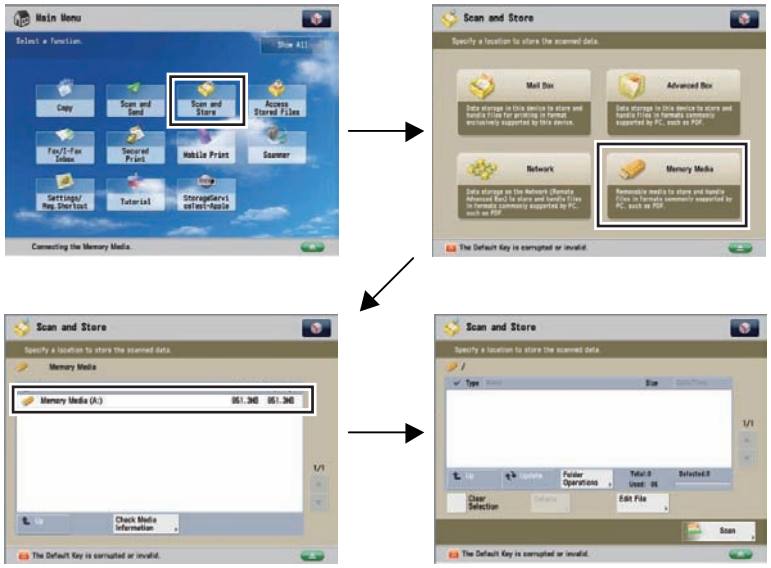
3) Mount the Memory Media to the Multimedia Card Reader/Writer. (Check that the Mount Mark is indicated in the bottom right.)



F-9-669

□

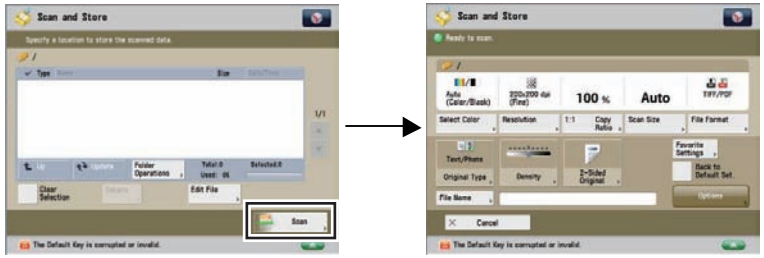
4) Make the following selection:[Scan and Store] > [Memory Media] > [Memory Media (A:)]



F-9-670

□

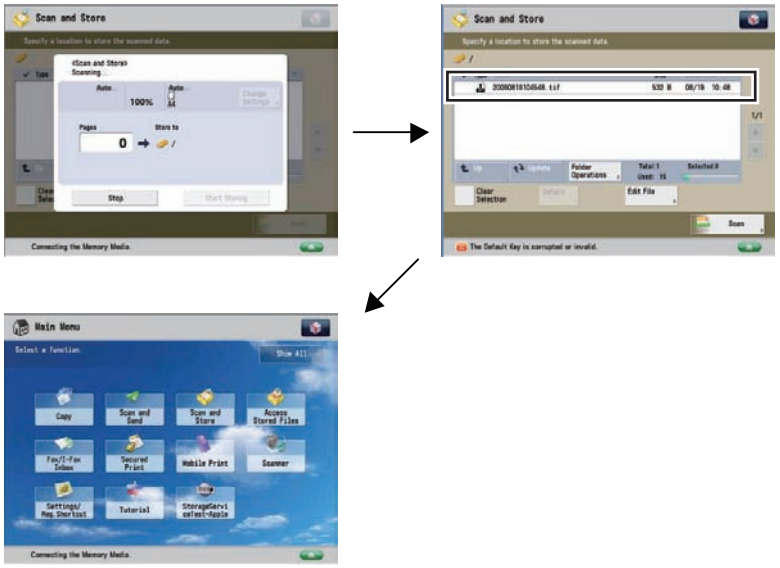
5) Set originals to DADF (or Copyboard), and press the [Scan] button. Then, press the Start button on the Control Panel.



F-9-671

□

6) After the completion of original reading, check that the data is stored in the media. After that, press the [Main Menu] button on the Control Panel.

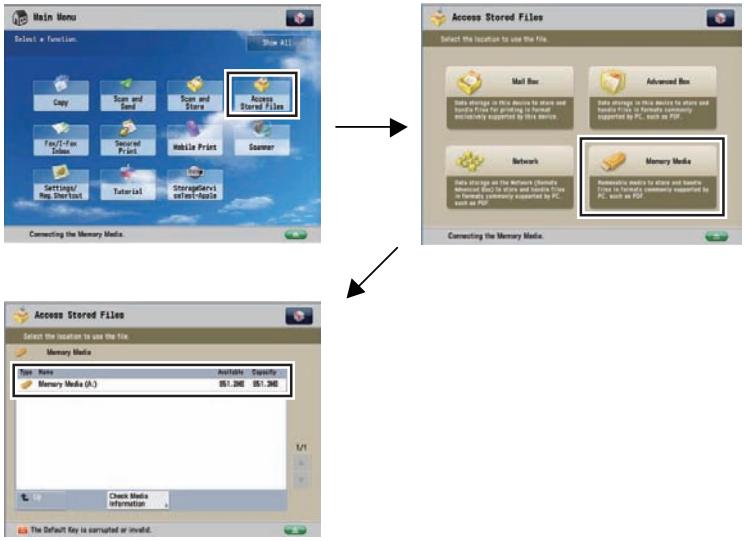


F-9-672

Reading Check

□

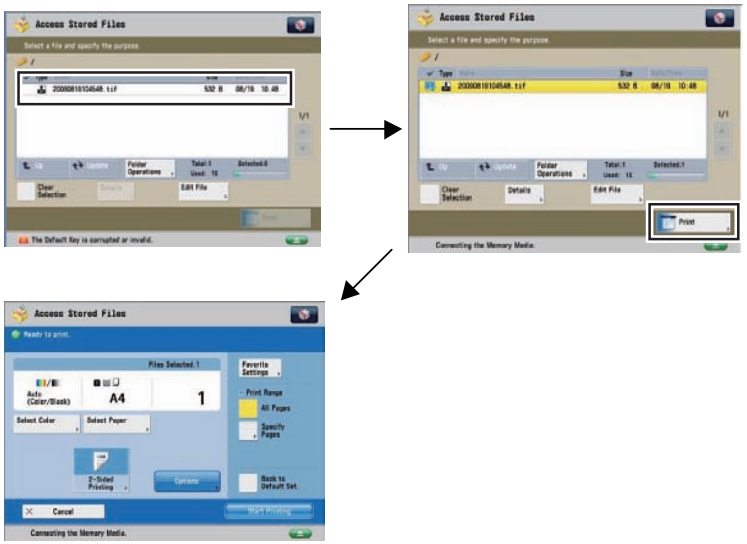
7) Make the following selection from Main Menu: [Access Stored Files] > [Memory Media] > [Memory Media(A:)]



F-9-673

□

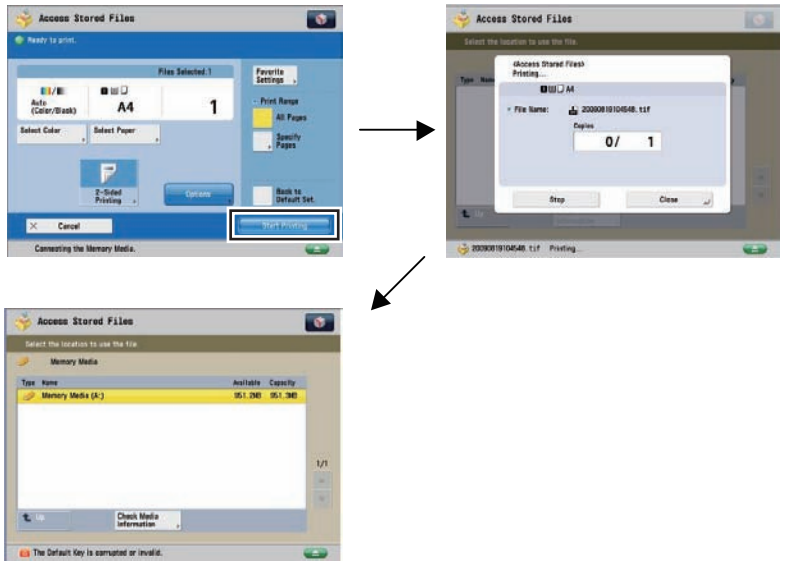
8) Select the files stored in step 4) and 5), and then press the [Print] button.



F-9-674

□

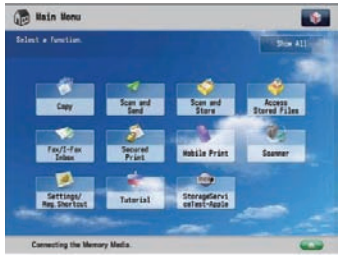
9) Press the [Start Printing] button, and print the file. Then check that the file is printed correctly.



F-9-675

□

10) Press the [Main Menu] button on the Control Panel.

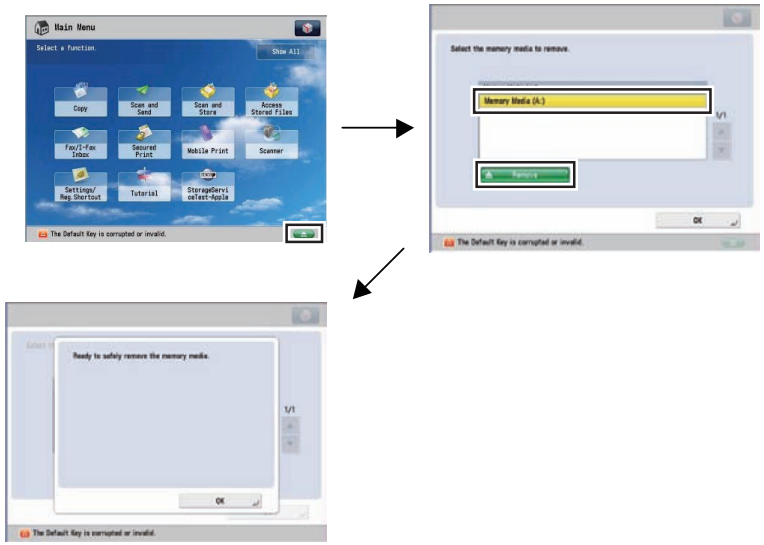


F-9-676

Memory Media Removal

□

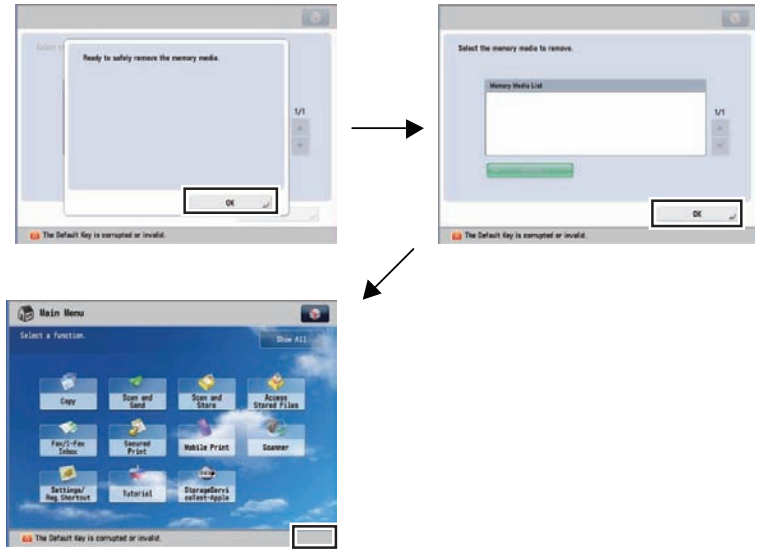
11) Press the [Mount Mark] in the bottom right.Then, select the memory media to be removed, and press the [Remove] button.



F-9-677

□

12) Press the [OK] button. Then, check that the Mount Mark is not indicated in the bottom right on the Main Menu screen.



F-9-678

Points to Note at Installation

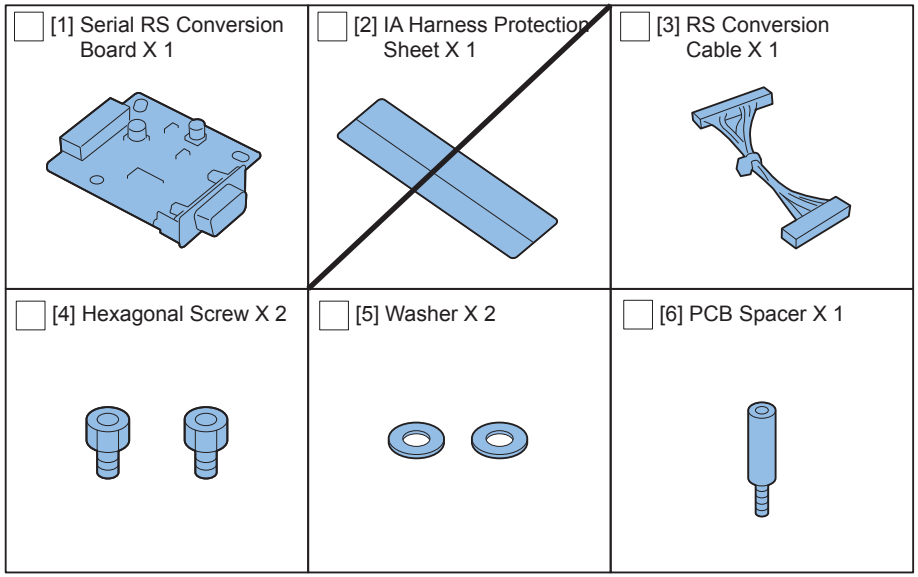
The following options cannot be used in combination with each other.

- Serial Interface Kit
- Copy Control Interface Kit
- Copy Card Reader

Installation Outline Drawing

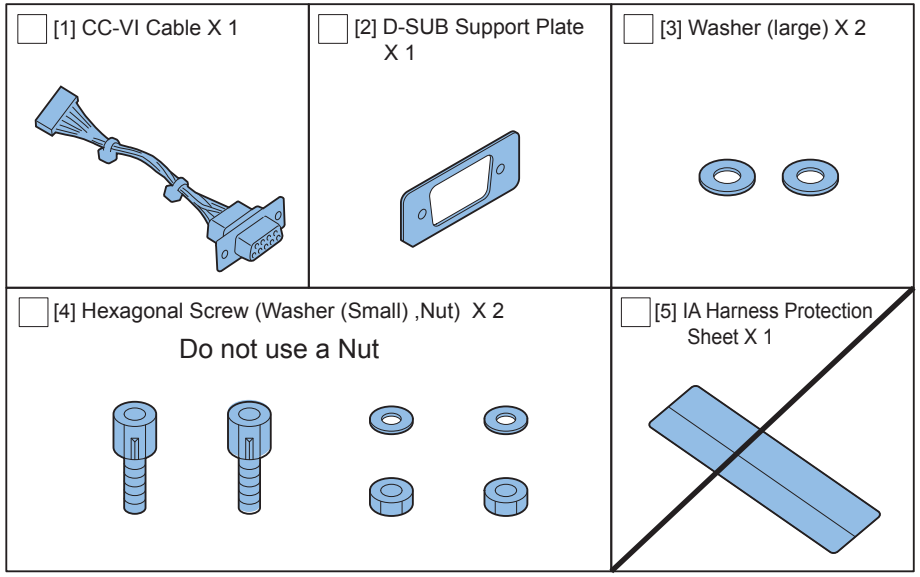
Checking the Contents

Serial Intreface KIT-K1



F-9-679

Copy Control Interface KIT-A1



F-9-680

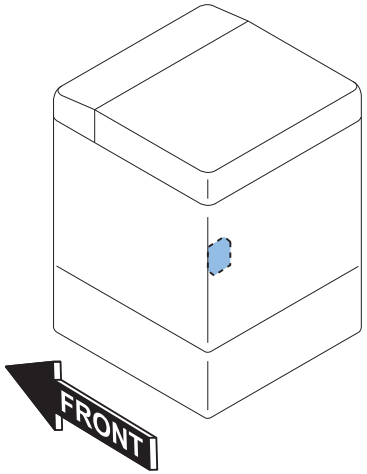
Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.

2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



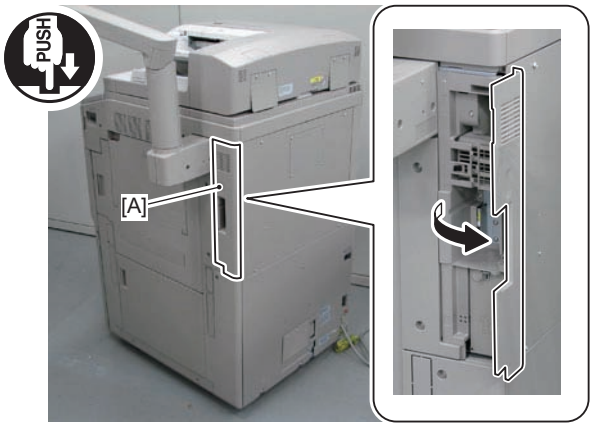
F-9-681

Installation Procedure

Removing the Main Controller PCB 1

□

1) Push [A] part, and open the Right Rear Cover 1.

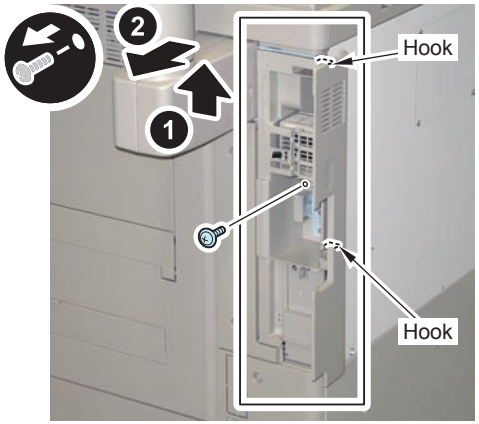


F-9-682

□

2) Remove the Side Cover.

- 1 Screw
- 2 Hocks



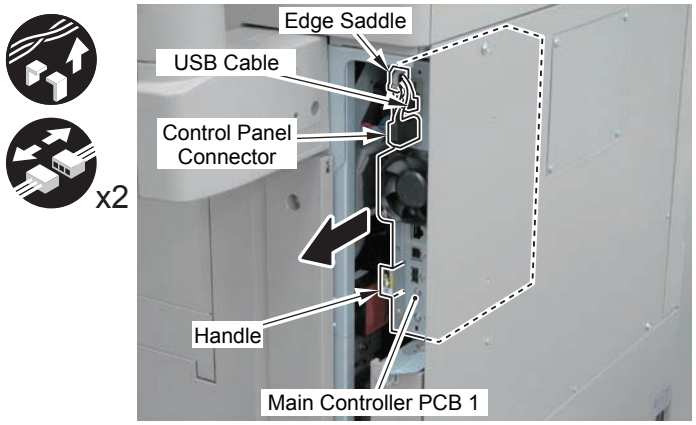
F-9-683

□

3) Disconnect the USB Cable and the Control Panel Cable.

4) Route the removed cable to the open space and remove the Main Controller PCB 1.

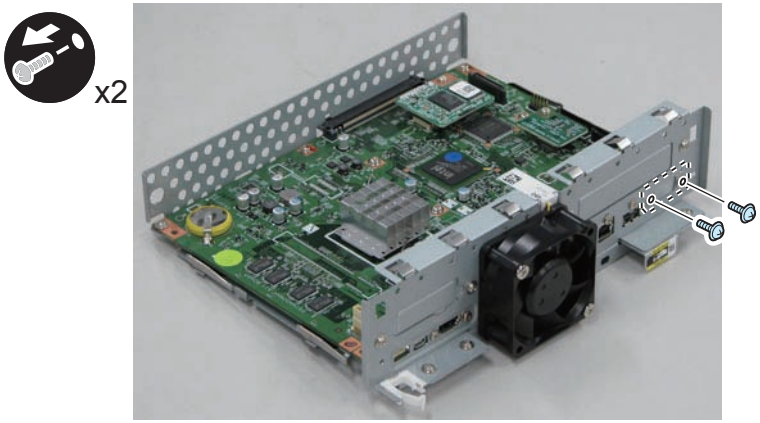
- 1 Edge Saddle



F-9-684

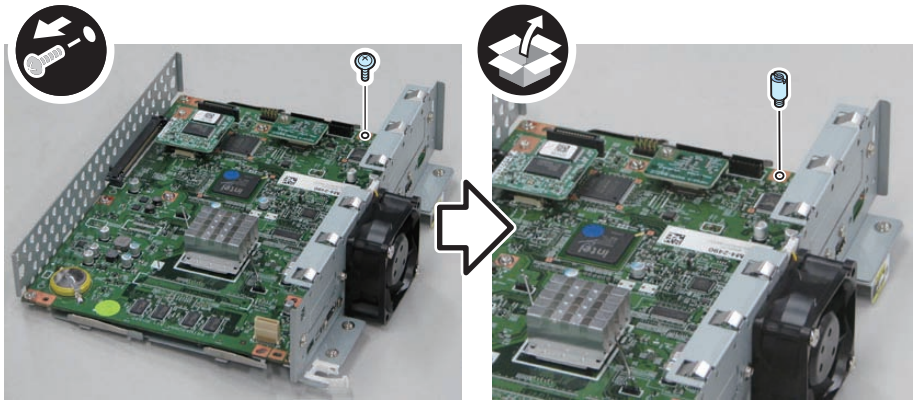
Installing the Serial Interface Kit-K1

□
1) Remove the Face Cover from the Main Controller PCB 1. (The removed Face Cover will not be used.)
- 2 Screws (The removed screw will not be used.)

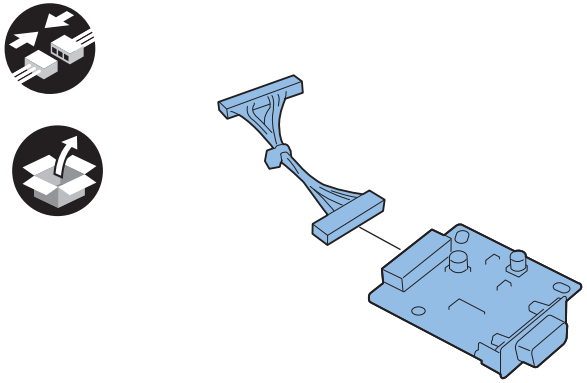


F-9-685

□
2) Remove the screw, and install the PCB Spacer. (The removed screw will be used in step 4).

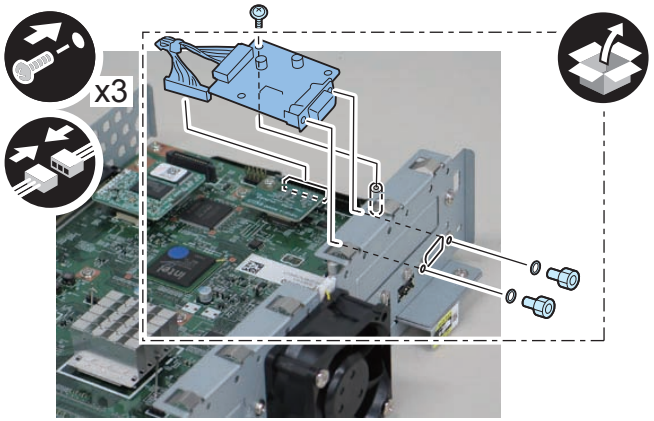


□
3) Connect the RS Conversion Cable to the Serial RS Conversion Board.



F-9-686

□
4) Install the Serial RS Conversion Board.
- 1 Screw (Use the screw removed in step 2.)
- 2 Washers
- 2 Hexagon Screws
- 1 Connector



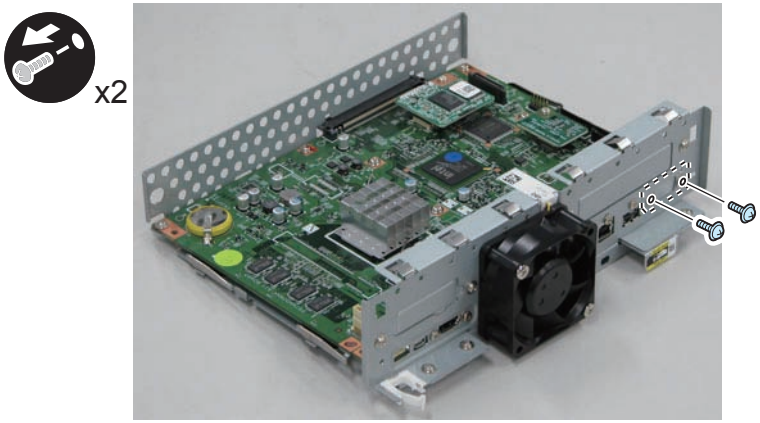
F-9-687

Installing the Copy Control Interface Kit-A1

□

1) Remove the Face Cover from the Main Controller PCB 1. (The removed Face Cover will not be used.)

- 2 Screws (The removed screws will not be used.)

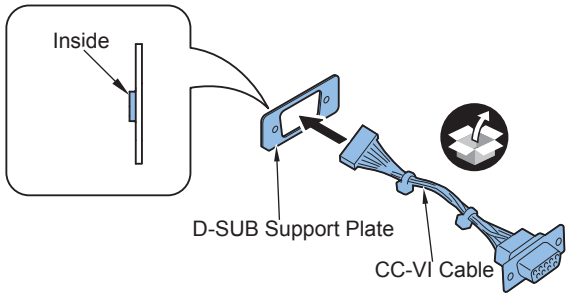


F-9-688

□

2) Put the CC-VI Cable through the D-SUB Support Plate.

CAUTION:
Install the extruded side of the D-SUB Support Plate as shown in the figure.

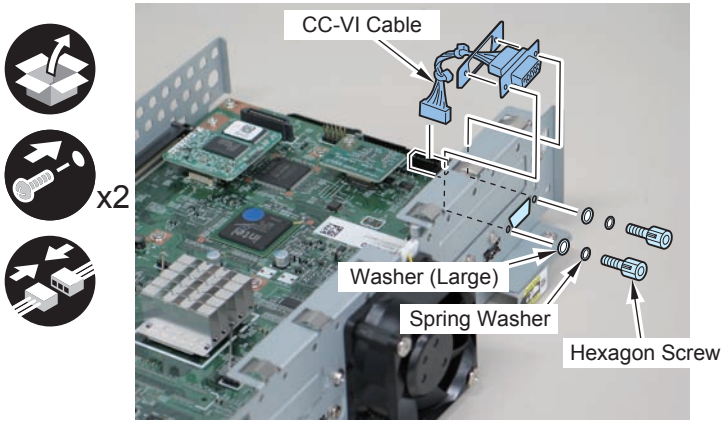


F-9-689

□

3) Connect the CC-VI Cable to the Main Controller PCB 1.

- 2 Hexagon Screws
- 2 Spring Washers
- 2 Washers (Large)
- 1 Connector



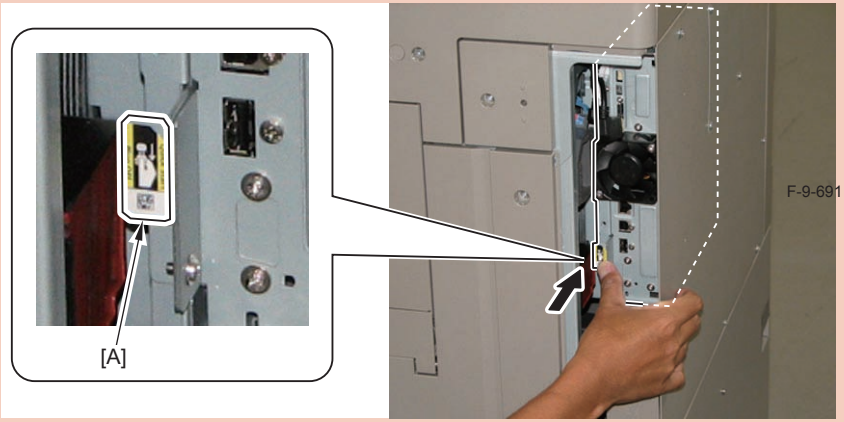
F-9-690

□

4) Install the Main Controller PCB 1.

CAUTION: Points to Note when Inserting the Main Controller PCB 1

- Install the Main Controller PCB 1 while paying attention not to trap cables.
- Be sure to push the handle [A] in horizontally. If pushing any part other than the handle, the Main Controller PCB 1 may not be inserted horizontally. In such case, note that connector connection error (or damage of connector) or deformation of plate may occur.



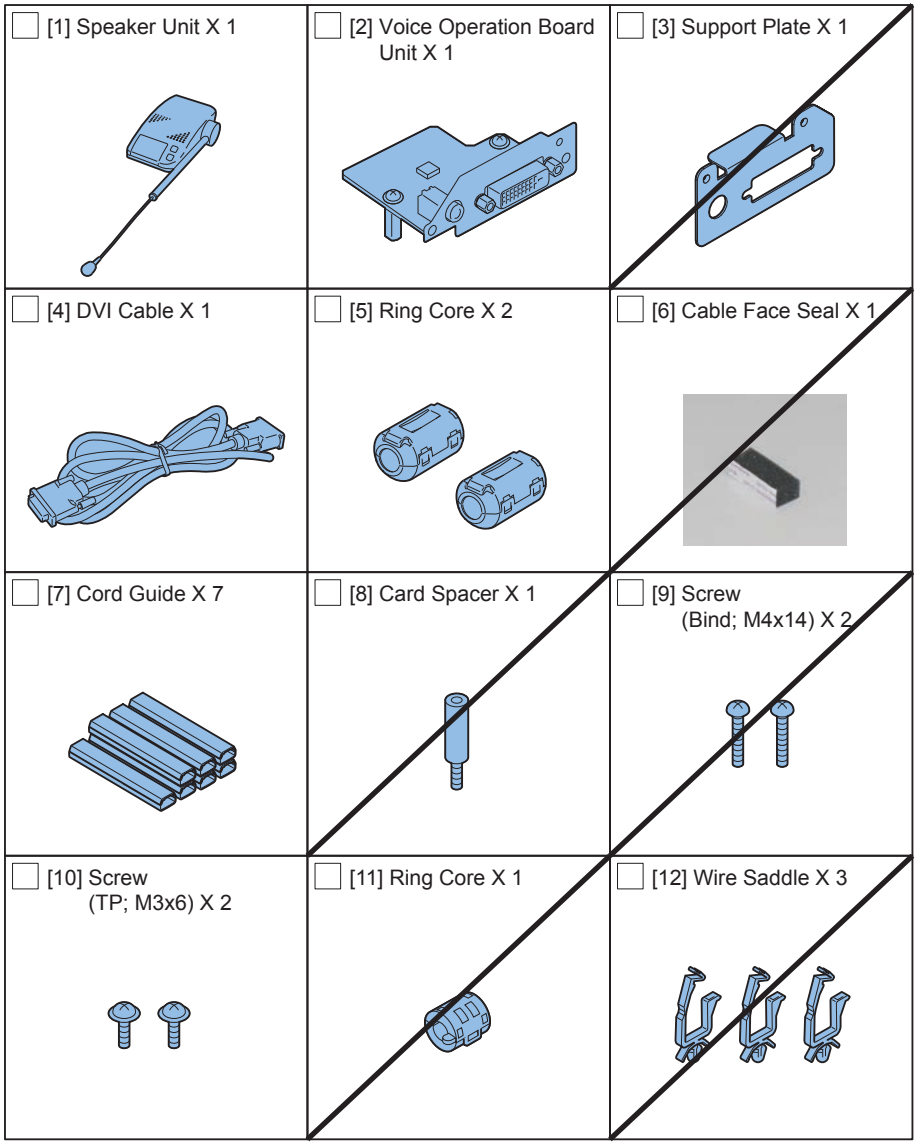
5) Insert the USB Cable and the Control Panel Cable. (1 Edge Saddle)
6) Install the Side Cover. (1 Screw)
7) Close the Right Rear Cover 1.
8) Connect the power plug to the outlet.
9) Turn ON the main power.

Voice Operation Kit-C2

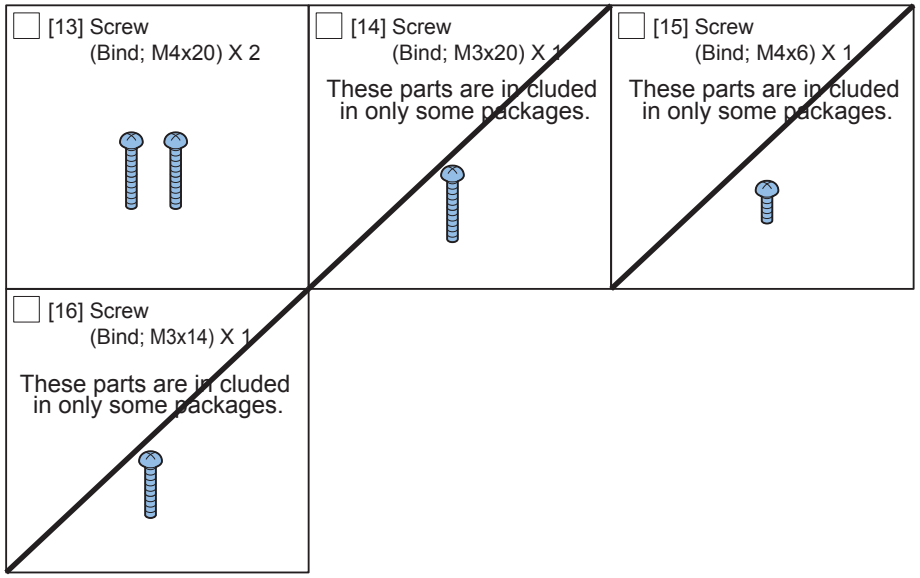
Points to Note at Installation

- To use the equipment, the Reader Unit is required.
- Although model with the Upright Control Panel is used for illustration in this procedure, the same procedure is applied to model with the Flat Control Panel.
- Refer to "Combination of options" when installing this equipment before operation.

Checking the Contents



F-9-692



F-9-693

[11]: This is used for the user installed option and should be handed over to the user.

<CD/Guides>

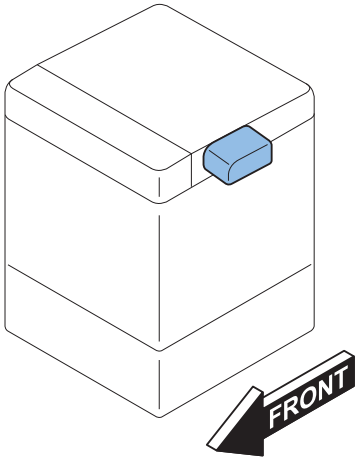
- User's Guide
- Voice Guidance Kit User's Guide
- Voice Guidance Manual CD
- FCC/IC-A DOCUMENT

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

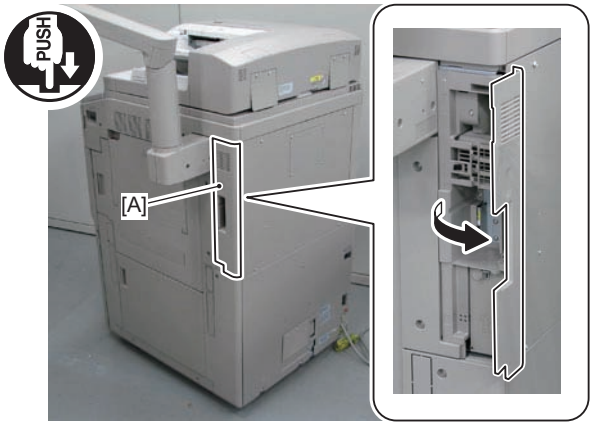


F-9-694

Installation Procedure

☐

1) Press [A] part, and open the Right Rear Cover 1.

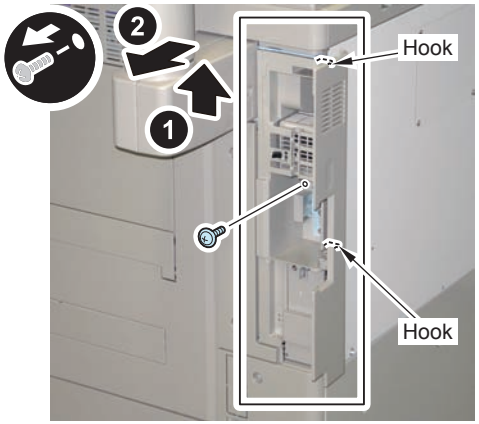


F-9-695

☐

2) Remove the Side Cover.

- 1 Screw (The removed screw will be used in step 13.)
- 2 Hooks



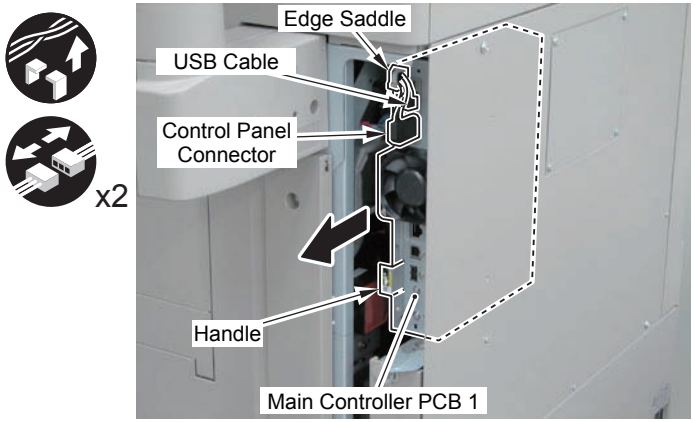
F-9-696

☐

3) Disconnect the USB Cable and the Control Panel Cable.

- 1 Edge Saddle

4) Route the removed cable to the open space and remove the Main Controller PCB 1.

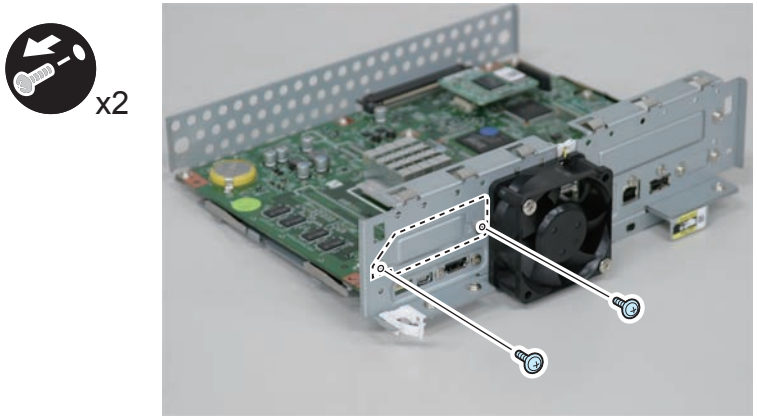


F-9-697

☐

5) Remove the Face Plate. (The removed Face Plate will not be used.)

- 2 Screws (The removed screws will be used in later steps.)



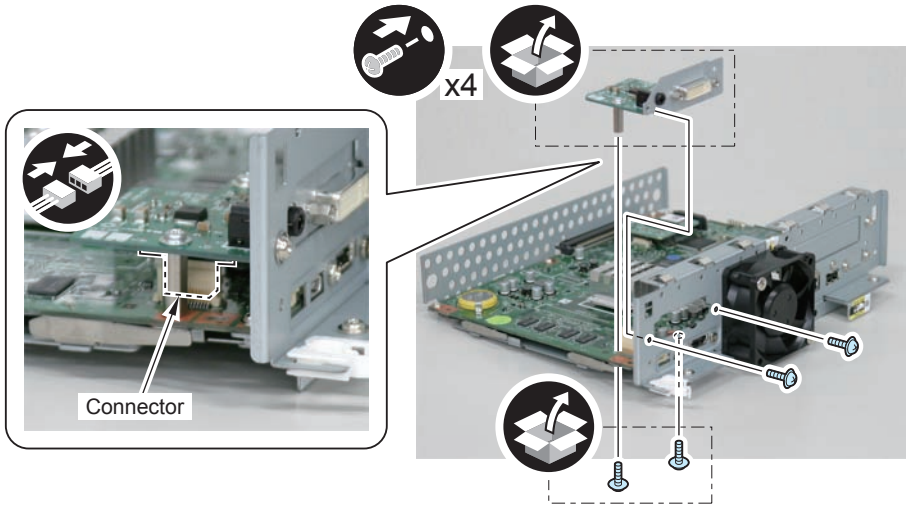
F-9-698

☐

6) Install the Voice Operation Board Unit to the Main Controller PCB 1.

- 1 Connector
- 2 screws (The removed screws from a previous step)
- 2 Screws (TP; M3x6)

NOTE:
Check that the connector is connected properly.



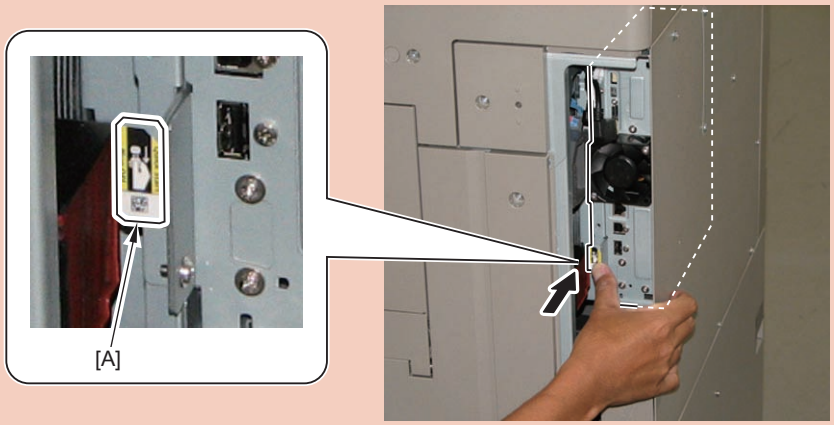
F-9-699

☐

7) Insert the Main Controller PCB 1 until it stops.

CAUTION: Points to Note when Inserting the Main Controller PCB 1

- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Be sure to push the handle [A] in horizontally. If pushing any part other than the handle, the Main Controller PCB 1 may not be inserted horizontally. In such case, note that connector connection error (or damage of connector) or deformation of plate may occur.



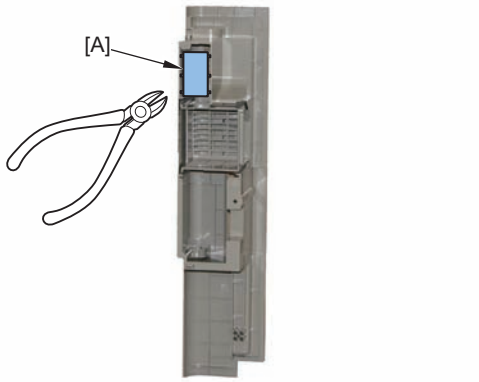
F-9-700

8) Connect the USB Cable and the Control Panel Cable.

- 1 Edge Saddle

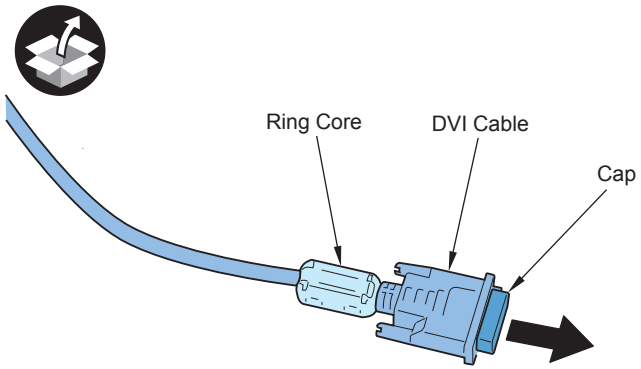
☐
9) Cut off [A] part of the Side Cover with nippers.

CAUTION:
When cutting off the part, be sure not to make burrs.



F-9-701

☐
10) Attach the 2 Ring Cores to both ends of the DVI Cable.



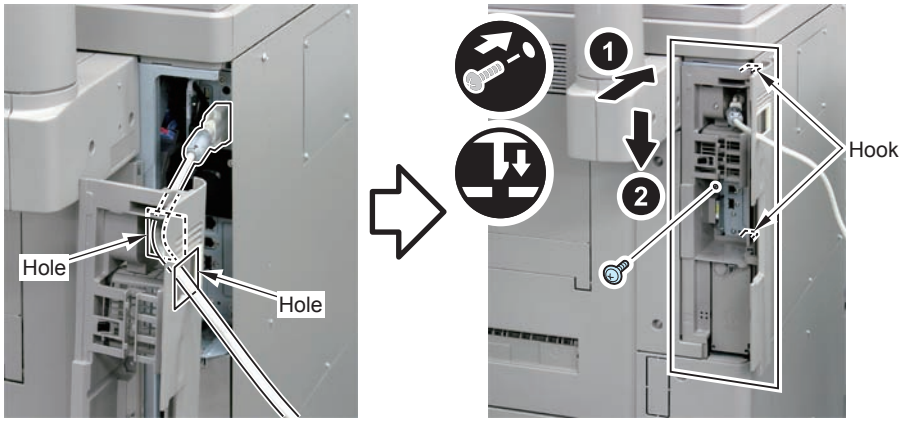
F-9-702

☐
11) Connect the DVI Cable to the Voice Operation Board Unit.

F-9-703

☐
12) Put the IDVI Cable through holes of the Side Cover and Right Rear Cover.
13) Install the Side Cover.

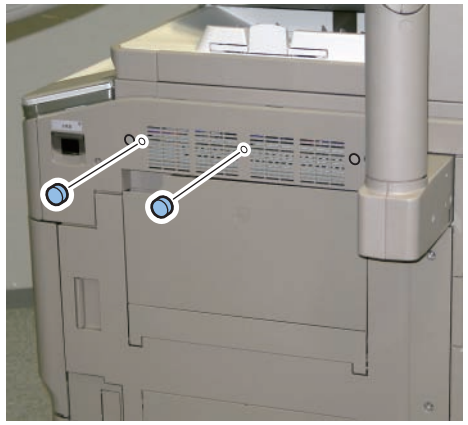
- 2 Hooks
- 1 Screw (Use the screw removed in step 2.)



F-9-704

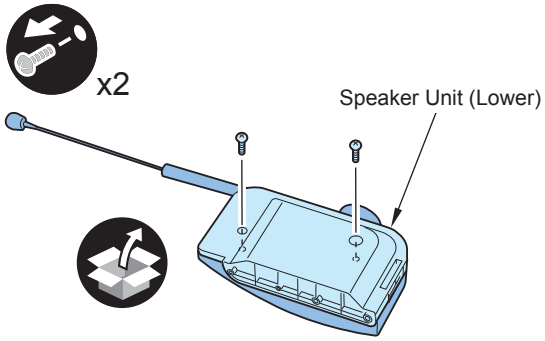
☐
14) Close the Right Rear Cover 1.

☐
15) Remove the 2 Rubber Caps from the Right Upper Cover. (The removed Rubber Caps will not be used.)



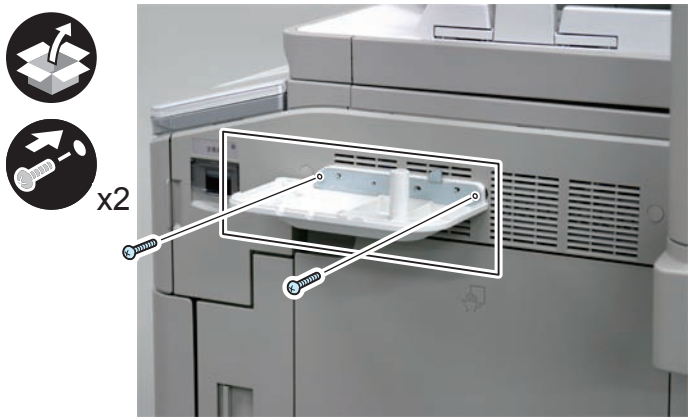
F-9-705

☐
16) Remove the Speaker Unit (Lower) from the Speaker Unit.
- 2 Screws (The removed screws will be used in step 18.)



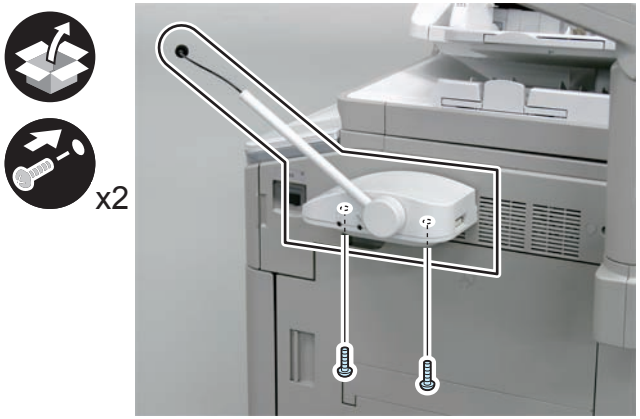
F-9-706

☐
17) Install the Speaker Unit (Lower).
- 2 Screws (Binding; M4x20)



F-9-707

☐
18) Install the Speaker Unit (Upper).
- 1 Screw (Binding; M4x6)



F-9-708

☐
19) Insert the DVI Cable to the Speaker Unit.

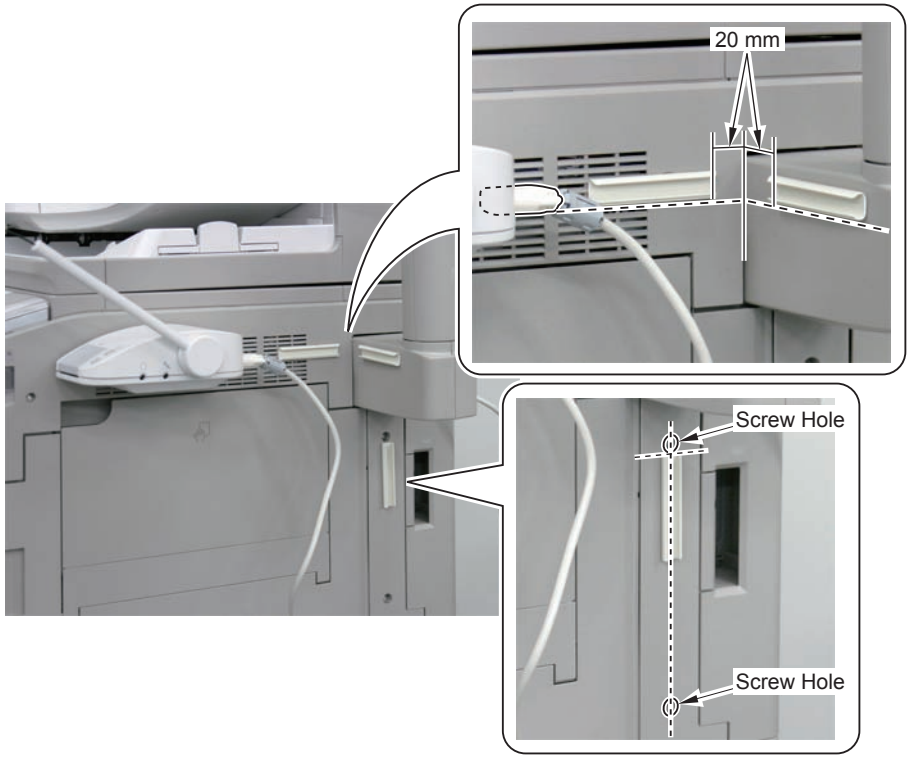
F-9-709

☐
20) Remove the cover of Cord Guide and affix it to the area indicated in the figure.

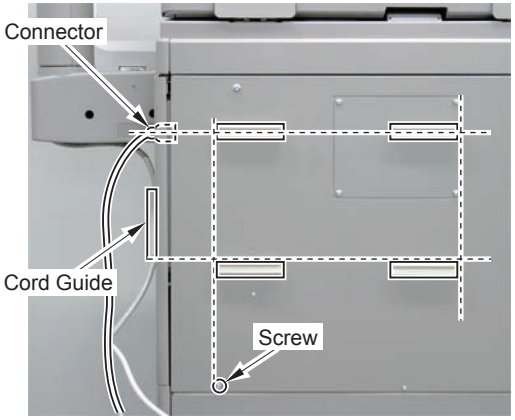
NOTE:
Affix the Cord Guide at the location indicated in the figure.

<In the Case of Upright Control Panel>

- Use 7 Cord Guides.



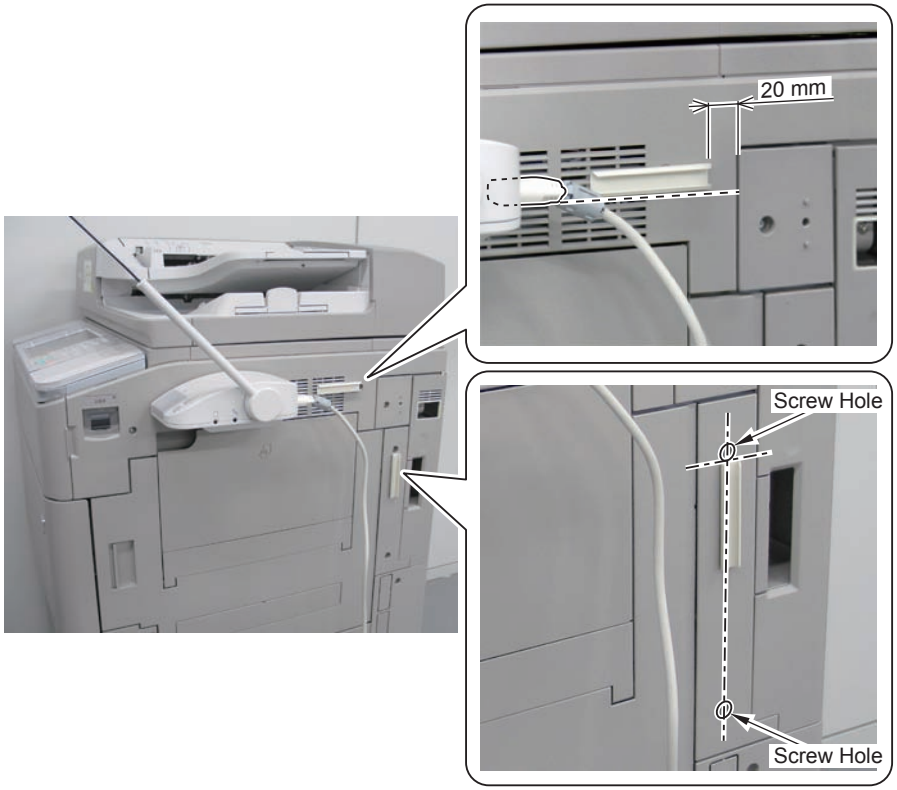
F-9-710



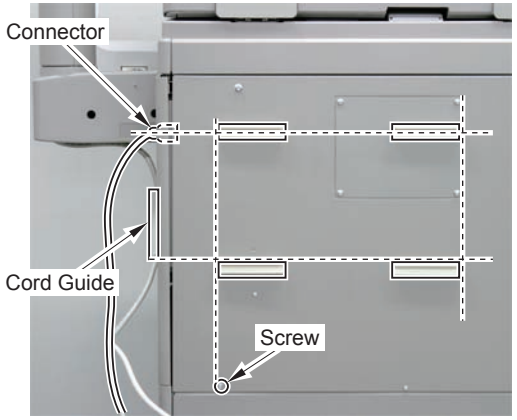
F-9-711

<In the Case of Flat Control Panel>

- Use 6 Cord Guides.



F-9-712

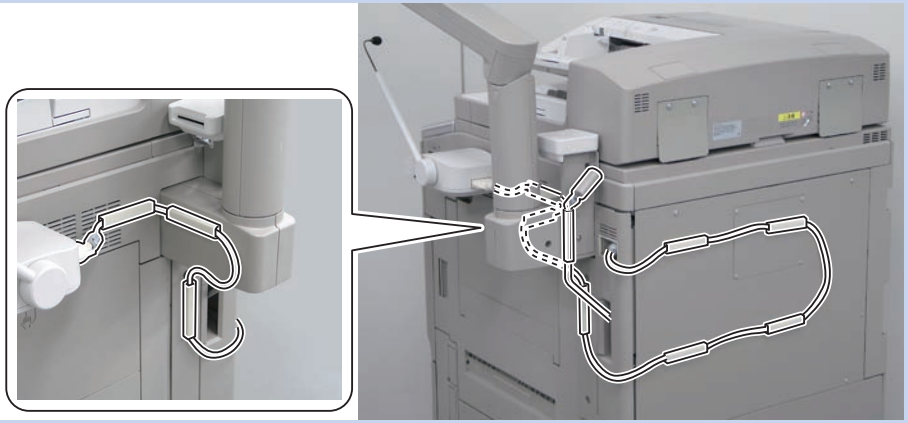


F-9-713

NOTE:
Steps for the rear are same with both the Upright Control Panel model and Flat Control Panel model.

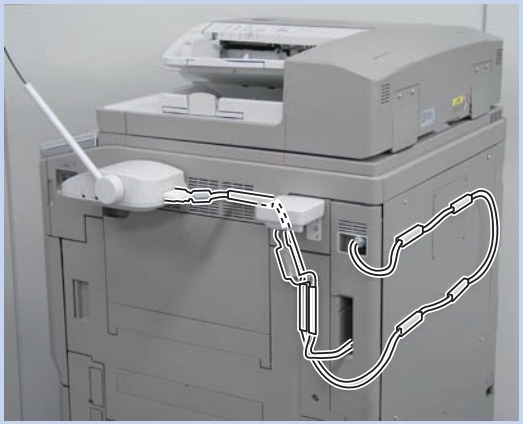
NOTE: When using together with the Copy Card Reader

<In the Case of Upright Control Panel>



F-9-714

<In the Case of Flat Control Panel>

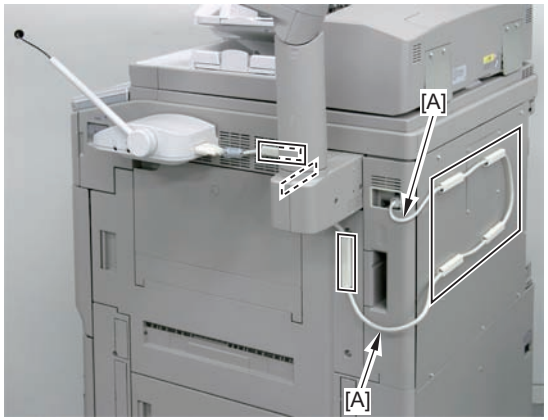


F-9-715

21) Put the Speaker Cable through the Cord Guide, and install the cover of the guide.

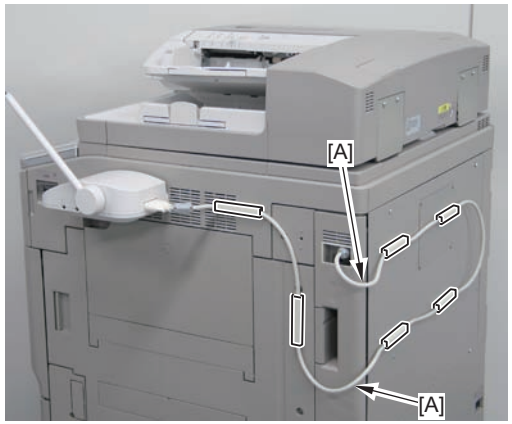
CAUTION:
Be sure to slack off [A] part for not interfering to open/close the Right Rear Cover 1.

<In the Case of Upright Control Panel>



F-9-716

<In the Case of Flat Control Panel>



F-9-717

22) Connect the power plug of the host machine to the power outlet.
23) Turn the main power switch ON.

Checking after Installation

NOTE:
When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.

1) Select [Settings/Registration] > [Preferences] > [Accessibility] > [Voice Navigation Settings] > [Use Voice Navigation], and check that the setting is ON.
2) Select [Settings/Registration] > [Preferences] > [Accessibility] > [Voice Navigation Settings] > [Voice Navigation at Startup], and check that "Select Mode at Startup" is set.
3) Select [Settings/Registration] > [Preferences] > [Accessibility] > [Voice Navigation Settings], and check that "Tune Microphone" is displayed.
4) To make the setting value effective, turn OFF/ON the main power of the Host Machine.

Operation Check

When Starting to Use

1) Press "Reset" key or the Voice Recognition button for more than 3 seconds.
2) In "Select the Voice Navigation type." on the Control Panel screen, select "Manual + Vocal Mode", "Vocal Mode" or "Manual Mode", and press OK.
3) Once the indication on the screen is framed in red, the "Voice Operation Kit" becomes enabled.

NOTE:
When "Manual Mode" is selected in "Select the Voice Navigation type.", nothing happens by pressing the Voice Recognition button.

In case the Voice Operation Kit fails to operate, check the following.

- Make the following selection; [Service Mode (Level 1)] > [COPIER] > [DISPLAY] > [VERSION], and check that [TTS-JA/TTS-EN] and [ASR-JA/ASR-EN] are installed correctly.

When Stopping to Use

1) Press "Reset" key or the Voice Recognition button for more than 3 seconds.

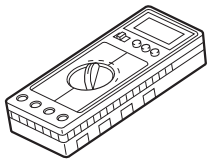
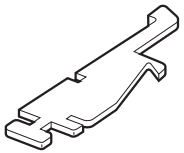
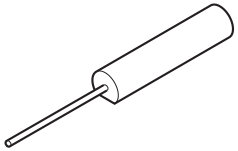
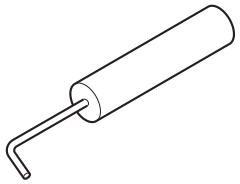
Appendix

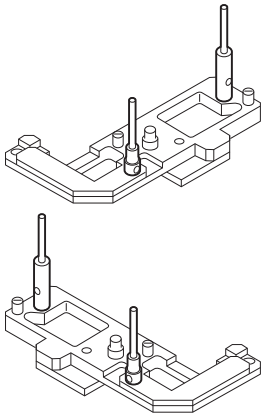
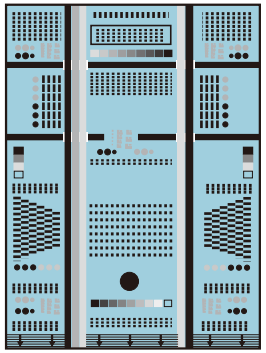
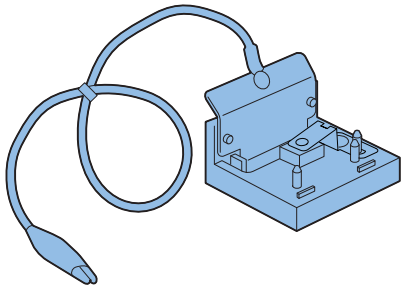
- Service Tools
- General Timing Chart
- General Circuit Diagram
- List of User Mode
- Backup Data
- Detail of HDD partition
- Soft Counter List

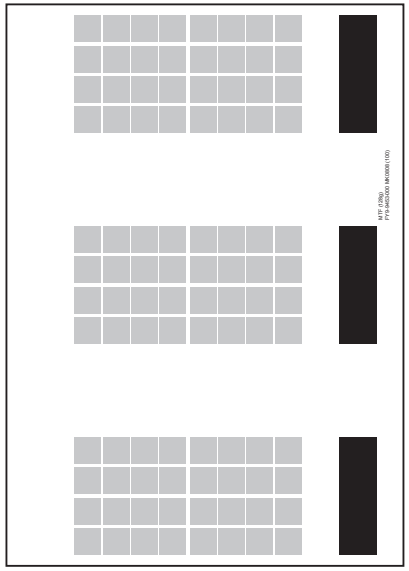
Service Tools

Special Tools

In addition to the standard tools set, the following special tools are required when servicing the machine:

Tool name	Tool No	Ctgr	Appearance	Remarks
Digital multimeter	FY9-2002	A		Used for electrical checks; for adjustment of laser power in com-bination with the laser power checker.
Cover switch	TKN-0093	A		
Tester extension pin	FY9-3038	A		
Tester extension pin(L-shaped)	FY9-3039	A		Used as a probe ex-tension when makingelectrical checks.

Tool name	Tool No	Ctgr	Appearance	Remarks
Mirror positioning tool(front, rear)	FY9-3046-000	B		Used for positioning the mirror mount 1 and the mirror mount 2.
NA-3 Test Sheet	FY9-9196	A		Use for image adjustment / check
Electrode for checking potential sensor	FY9-3059-000	B		Surface potential sensor for zero-level check

Tool name	Tool No	Ctgr	Appearance	Remarks
MTF TEST SHEET	FY9-9453	N		MTF adjustment

T-10-1

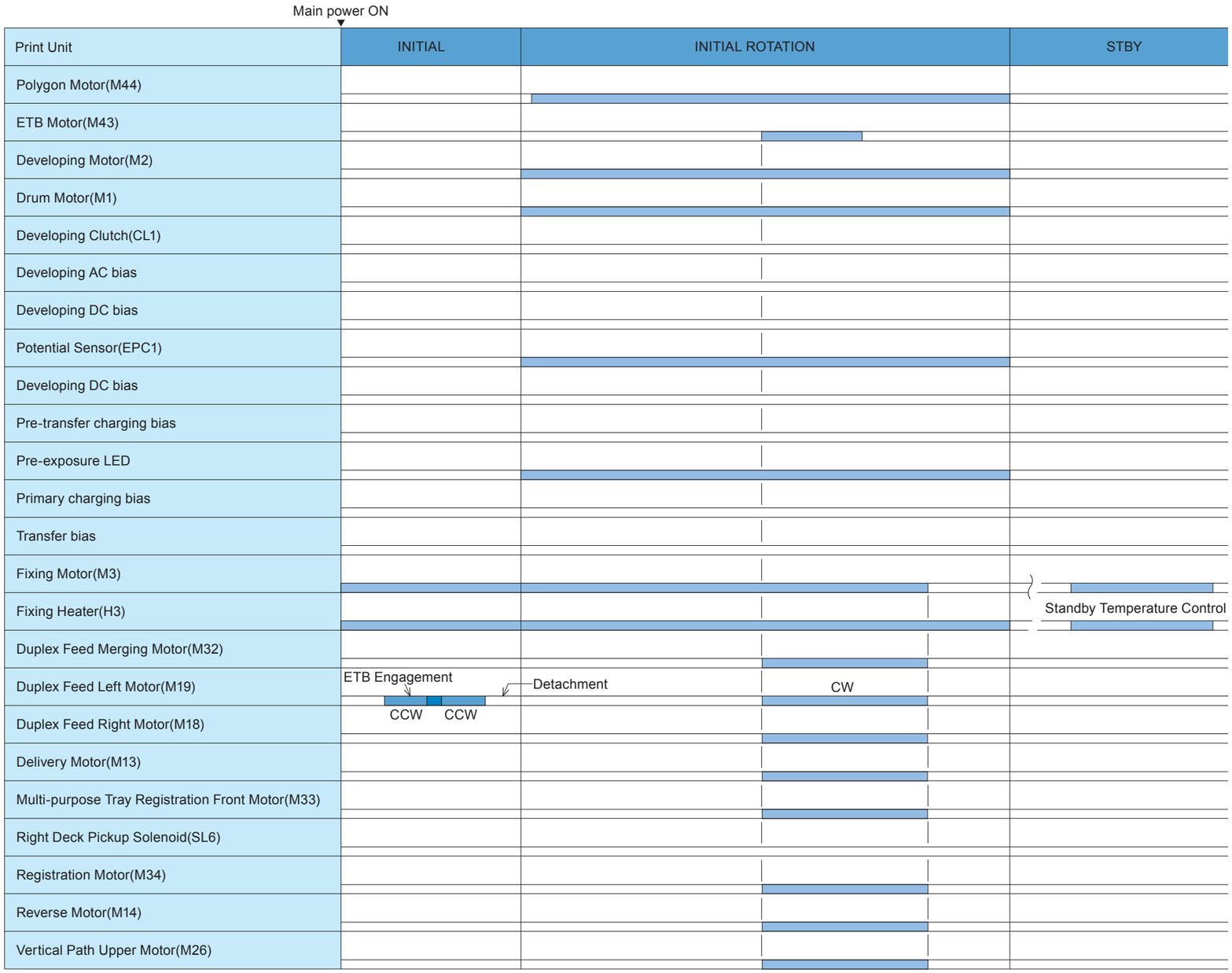
Solvents and Oils

Name	Uses	Composition	Remarks
Alcohol	Cleaning; e.g., glass, plastic, rubber; external covers.	Fluoride-family hydrocarbon Alcohol Surface activating agent Water	• Do not bring near fire. • Procure locally. Substitute: IPA (isopropyl alcohol)
Alcohol	Cleaning; e.g., metal; oil or toner stain.	Fluoride-family hydrocarbon Chlorine-family hydrocarbon Alcohol	• Do not bring near fire. • Procure locally Substitute: MEK
Lubricating oil (EM-50L)	Lubrication; e.g., gears.	Special oil Special solid lubricating agent Lithium soap	Tool No.: HY9-0007
Lubricating oil	Lubrication; e.g., scanner rail	Synthetic oil	• Synthetic oil NTN Corporation EU-1 • Tool No.: FY9-6028 (50 cc)
Super lube grease	Apply to the gear of the fixing assembly	Chemical synthesis oil	• Chemical synthesis oil • Tool No.: FY9-6005 (80g)
Tospearl (lubricant for Photo-sensitive drum cleaning blade)	Use it for preventing detachment of the drum cleaning blade.	-	Tool No.: FY9-6007
Conducting grease	Drum sliding Assembly	Ether, polytera fluoethylene	Tool No.: FY9-6008 (10g)
Drum cleaning powder	Cleaning the photosensitive drum.	Aluminum oxide Zirconium silicate	• FO #6000 Fujimi Incorporated • Tool No.:

T-10-2

General Timing Chart

Basic sequence at power ON



* CW=Positive Rotation,CCW=Negative Rotation

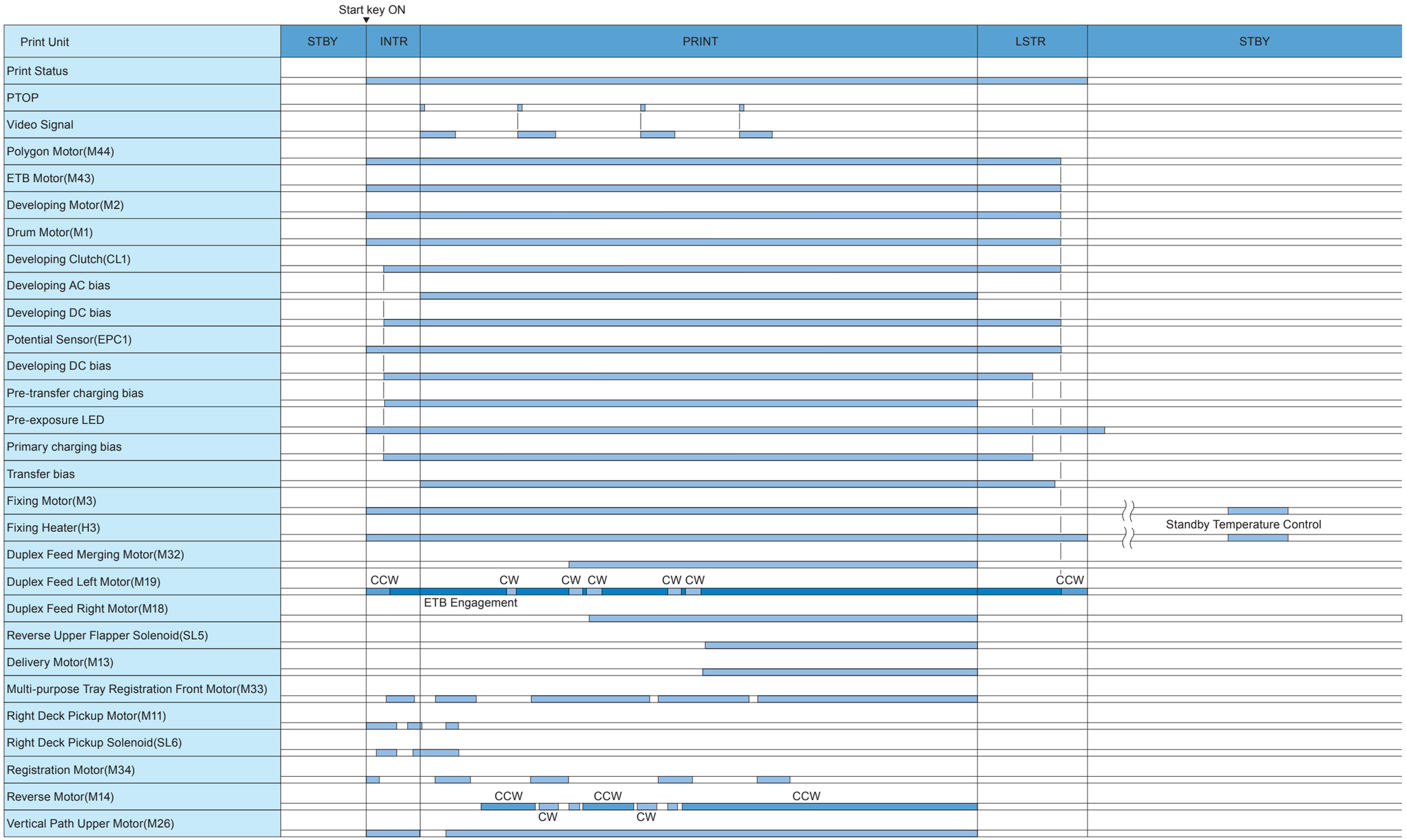
Appendix > General Timing Chart > Basic sequence at power ON

Basic sequence at printing <Condition: A4 1-sided (2 sheets), Right deck, Reverse delivery>

* CW=Positive Rotation,CCW=Negative Rotation

F-10-2

Basic sequence at printing <Condition: A4 2-sided (2 sheets), Right deck, Reverse delivery>



* CW=Positive Rotation,CCW=Negative Rotation

F-10-3

Appendix > General Timing Chart > Basic sequence at printing <Condition: A4 2-sided (2 sheets), Right deck, Reverse delivery>

General Circuit Diagram

Signal Input/Output List

Jack No.	Abbreviated Signal Name	Signal Name
J401	12V_FUSE_SW_2	12V Fuse Switch 2
	24VB_OCD_SW_2	24VB OCD Switch 2
J411	DRV1_1ST_J_CLK-	Main Driver High Speed Serial Clock Signal 1 (Differential -)
	DRV1_1ST_J_CLK+	Main Driver High Speed Serial Clock Signal 1 (Differential +)
	DRV1_1ST_J_M2S+	Main Driver High Speed Serial Transmission Signal 1 (Differential +)
	DRV1_1ST_J_M2S-	Main Driver High Speed Serial Transmission Signal 1 (Differential -)
	DRV1_2ND_J_M2S-	Main Driver High Speed Serial Transmission Signal 2 (Differential -)
	DRV1_2ND_J_M2S+	Main Driver High Speed Serial Transmission Signal 2 (Differential +)
	DRV1_1ST_J_S2M-	Main Driver High Speed Serial Communication Reception Signal 1 (Differential -)
	DRV1_1ST_J_S2M+	Main Driver High Speed Serial Communication Reception Signal 1 (Differential +)
	DRV1_2ND_J_S2M+	Main Driver High Speed Serial Communication Reception Signal 2 (Differential +)
	DRV1_2ND_J_S2M-	Main Driver High Speed Serial Communication Reception Signal 2 (Differential -)
J412	DRV1_3RD_J_S2M-	Main Driver High Speed Serial Communication Reception Signal 3 (Differential -)
	DRV1_3RD_J_S2M+	Main Driver High Speed Serial Communication Reception Signal 3 (Differential +)
	DRV1_3RD_J_CLK-	Main Driver High Speed Serial Clock Signal 3 (Differential -)
	DRV1_3RD_J_CLK+	Main Driver High Speed Serial Clock Signal 3 (Differential +)
	DRV1_3RD_J_M2S+	Main Driver High Speed Serial Transmission Signal 3 (Differential +)
	DRV1_3RD_J_M2S-	Main Driver High Speed Serial Transmission Signal 3 (Differential -)
J413	AD0	Potential Sensor Detection Signal
	AD1	Patch Sensor Detection Signal
	IH_PWM2	IH Power Supply PWM Output 2
	IH_PWM1	IH Power Supply PWM Output 1
	IH_PWM0	IH Power Supply PWM Output 0
	IH_I_LIMIT	IH Power Supply Over Currency Detection Signal
	DRV1_ANALOG_IF _CNCT_DTCX	Main Driver Connection Detection Signal
J414	+5V	5V Power Supply
	+3.3V	3.3V Power Supply

Jack No.	Abbreviated Signal Name	Signal Name
J421	DRV2_5TH_J_CLK-	Pickup Driver High Speed Serial Clock Signal 5 (Differential -)
	DRV2_5TH_J_CLK+	Pickup Driver High Speed Serial Clock Signal 5 (Differential +)
	DRV2_5TH_J_M2S+	Pickup Driver High Speed Serial Transmission Signal 5 (Differential +)
	DRV2_5TH_J_M2S-	Pickup Driver High Speed Serial Transmission Signal 5 (Differential -)
	DRV2_6TH_J_M2S-	Pickup Driver High Speed Serial Transmission Signal 6 (Differential -)
	DRV2_6TH_J_M2S+	Pickup Driver High Speed Serial Transmission Signal 6 (Differential +)
	DRV2_5TH_J_S2M-	Pickup Driver High Speed Serial Communication Reception Signal 5 (Differential -)
	DRV2_5TH_J_S2M+	Pickup Driver High Speed Serial Communication Reception Signal 5 (Differential +)
	DRV2_6TH_J_S2M+	Pickup Driver High Speed Serial Communication Reception Signal 6 (Differential +)
	DRV2_6TH_J_S2M-	Pickup Driver High Speed Serial Communication Reception Signal 6 (Differential -)
J431	DRV3_7TH_J_S2M-	Duplex Driver High Speed Serial Communication Reception Signal 7 (Differential -)
	DRV3_7TH_J_S2M+	Duplex Driver High Speed Serial Communication Reception Signal 7 (Differential +)
	DRV3_8TH_J_S2M+	Duplex Driver High Speed Serial Communication Reception Signal 8 (Differential +)
	DRV3_8TH_J_S2M-	Duplex Driver High Speed Serial Communication Reception Signal 8 (Differential -)
J432	DRV3_7TH_J_CLK-	Duplex Driver High Speed Serial Clock Signal 7 (Differential -)
	DRV3_7TH_J_CLK+	Duplex Driver High Speed Serial Clock Signal 7 (Differential +)
	DRV3_7TH_J_M2S+	Duplex Driver High Speed Serial Transmission Signal 7 (Differential +)
	DRV3_7TH_J_M2S-	Duplex Driver High Speed Serial Transmission Signal 7 (Differential -)
	DRV3_8TH_J_M2S-	Duplex Driver High Speed Serial Transmission Signal 8 (Differential -)
	DRV3_8TH_J_M2S+	Duplex Driver High Speed Serial Transmission Signal 8 (Differential +)
	DUP_DRAWER _CNCT_DTCX	Fixing Feed Drawer Connection Detection Signal
J441	PVD_K0	Printer Video Data Signal 0
	PVD_K1	Printer Video Data Signal 1
	PVD_K2	Printer Video Data Signal 2
	PVD_K3	Printer Video Data Signal 3
	PVD_K4	Printer Video Data Signal 4
	PVD_K5	Printer Video Data Signal 5
	PVD_K6	Printer Video Data Signal 6
	PVD_K7	Printer Video Data Signal 7
	PHSYNC_K	Printer Horizontal Synchronization Signal
	PVCLK_K	Printer Video Transmission Clock
	PBD_K	Printer BD Signal
	PVREQ_K	Printer Image Request Signal

Jack No.	Abbreviated Signal Name	Signal Name
J442	DDI_PPRTST	Printer Start Signal
	DDI_PPOWER	Printer Power Supply Control Signal
	DDI_PRTS	Controller Receivable Signal
	DDI_RXD	Printer Serial Command Signal (Main Controller→DC Controller)
	DDI_PCTS	Printer Receivable Signal
	DDI_TXD	Printer Serial Status Signal (DC Controller→Main Controller)
	DDI_PSCNST	Scan Start Signal
	DDI_PPRDY	Printer Power Ready Signal
	DDI_DCON_LIVE	Printer Operation Signal
	DDI_PPO1	Printer Universal Output Signal
	DDI_INT_DCON	Printer Interruption Signal
	DDI_PCPRDY	Controller Power Ready Signal
	DDI_PPI2	Printer Reset Signal
	DDI_PLIVEWAKE	Printer Live Wake Mode Signal
	DDI_DOWNLOAD	Printer Download Mode Signal
J451	RMT_TEIHANX	Duplex Driver Power Supply Remote
	DTC_24VA_ILX	24VA Interlock Detection Signal
	DTC_24VB_ILX	24VB Interlock Detection Signal
	DTC_12V_LZX	12V Interlock Detection Signal
	DCP_FAN_FULLX	Power Supply Fan Full Speed Signal
	DCP_FAN_ERR	Power Supply Fan Error Detection Signal
	RELAY_IF _CNCT_DTC	Relay Board Connection Detection Signal
J461	CHOUHI_CLK	Clock (Option Deck Communication IF)
	DECK_CLK	Option Deck Pickup Motor Clock
	CHOUHI_TXEND	Transmission is complete (Option Deck Communication IF)
	CHOUHI_TXD	Reception Request Signal (Option Deck Communication IF)
	CHOUHI_RXLOAD	Reception is complete (Option Deck Communication IF)
	CHOUHI_RXD	Reception Signal (Option Deck Communication IF)
	CHOUHI_TXOUTEN	Output Enable (Option Deck Communication IF)
J462	FIN_RMTX	Finisher Remote Signal
	IPC_RXD	Finisher Communication Reception Signal
	IPC_TXD	Finisher Communication Transmission Signal
	FIN_MODE	Finisher Mode Signal
	FIN_RESET	Finisher Reset Signal
	FIN_DOWNLOAD	Finisher Download Signal
J471	K_LDG_P	LDG Data (Differential +)
	K_LDG_N	LDG Data (Differential -)
	K_LDH_P	LDH Data (Differential +)
	K_LDH_N	LDH Data (Differential -)
	K_LDF_P	LDF Data (Differential +)
	K_LDF_N	LDF Data (Differential -)
	K_LDE_P	LDE Data (Differential +)
	K_LDE_N	LDE Data (Differential -)

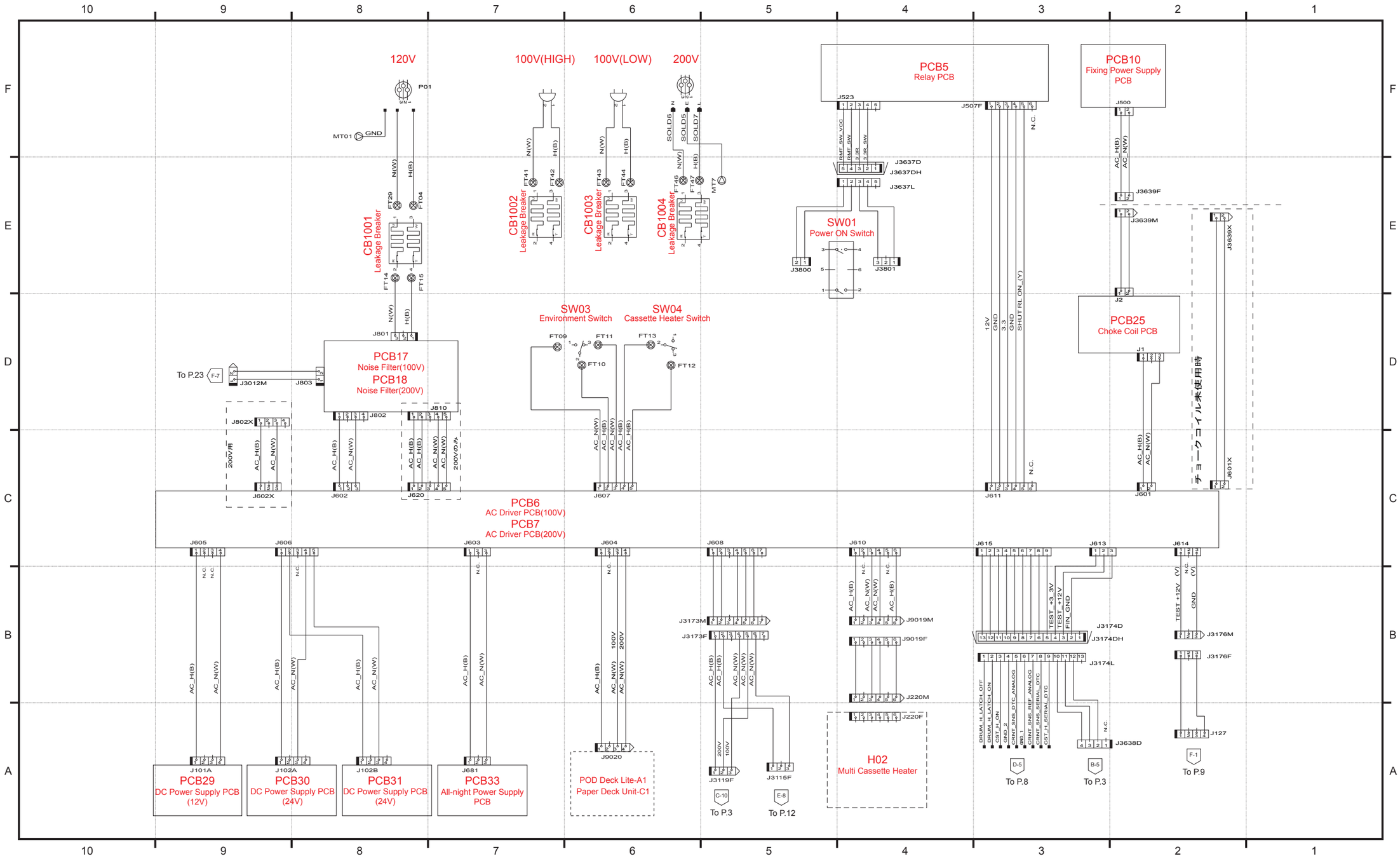
Jack No.	Abbreviated Signal Name	Signal Name
J471	K_5V_MON	5V Monitor Signal
	K_SDCLK	Shading Clock
	K_WENN	Serial Interface Right Enable Signal
	K_WCLK	Shading IO Clock
	K_SD_DATA_E	Shading Data(E)
	K_SD_DATA_F	Shading Data(F)
	K_SD_DATA_H	Shading Data(H)
	K_SD_DATA_G	Shading Data(G)
	K_AKM_SCLK	AKM Clock
	K_DIO	Data Input/Output
	K_AKM1_IC_SELN	APC Control Chip Selection 1
	K_INT_APC	Initial APC Signal
	K_APC_SEL	APC Selection Signal
	K_CTL0	Laser Operation Control Signal 0
	K_CTL1	Laser Operation Control Signal 1
	K_CTL2	Laser Operation Control Signal 2
	K_CTL3	Laser Operation Control Signal 3
	K_GAIN_FIX	Gain Fixed Signal
	K_AKM2_IC_SELN	APC Control Chip Selection 2
	K_SD_DATA_A	Shading Data (A)
	K_SD_DATA_B	Shading Data (B)
	K_SD_DATA_C	Shading Data (C)
	K_SD_DATA_D	Shading Data (D)
	K_LDD_N	LDD Data (Differential -)
	K_LDD_P	LDD Data (Differential +)
	K_LDC_N	LDC Data (Differential -)
	K_LDC_P	LDC Data (Differential +)
	K_LDA_N	LDA Data (Differential -)
	K_LDA_P	LDA Data (Differential +)
	K_LDB_N	LDB Data (Differential -)
	K_LDB_P	LDB Data (Differential +)
J472	K_E2PROM_CS	EEPROM Chip Selection
	K_AKM_2_CSN	AKM2 Chip Selection
	K_AKM_1_CSN	AKM1 Chip Selection
	K_PO_DEC	Polygon Motor Deceleration Signal
	K_PO_ACC	Polygon Motor Acceleration Signal
	K_PO_FG	Polygon Motor Rotation Signal (FG Signal)
	S/S	Start/Stop Signal
	K_SYS_OE	System Output Enable Signal
	K_BD	BD Signal

Jack No.	Abbreviated Signal Name	Signal Name
J463	-CLK	Clock Signal (-CLK)
	+CLK	Clock Signal (+CLK)
	+TX	Transmission Signal (+TX)
	-TX	Transmission Signal (-TX)
	+RX	Reception Signal (+RX)
	-RX	Reception Signal (-RX)

T-10-3

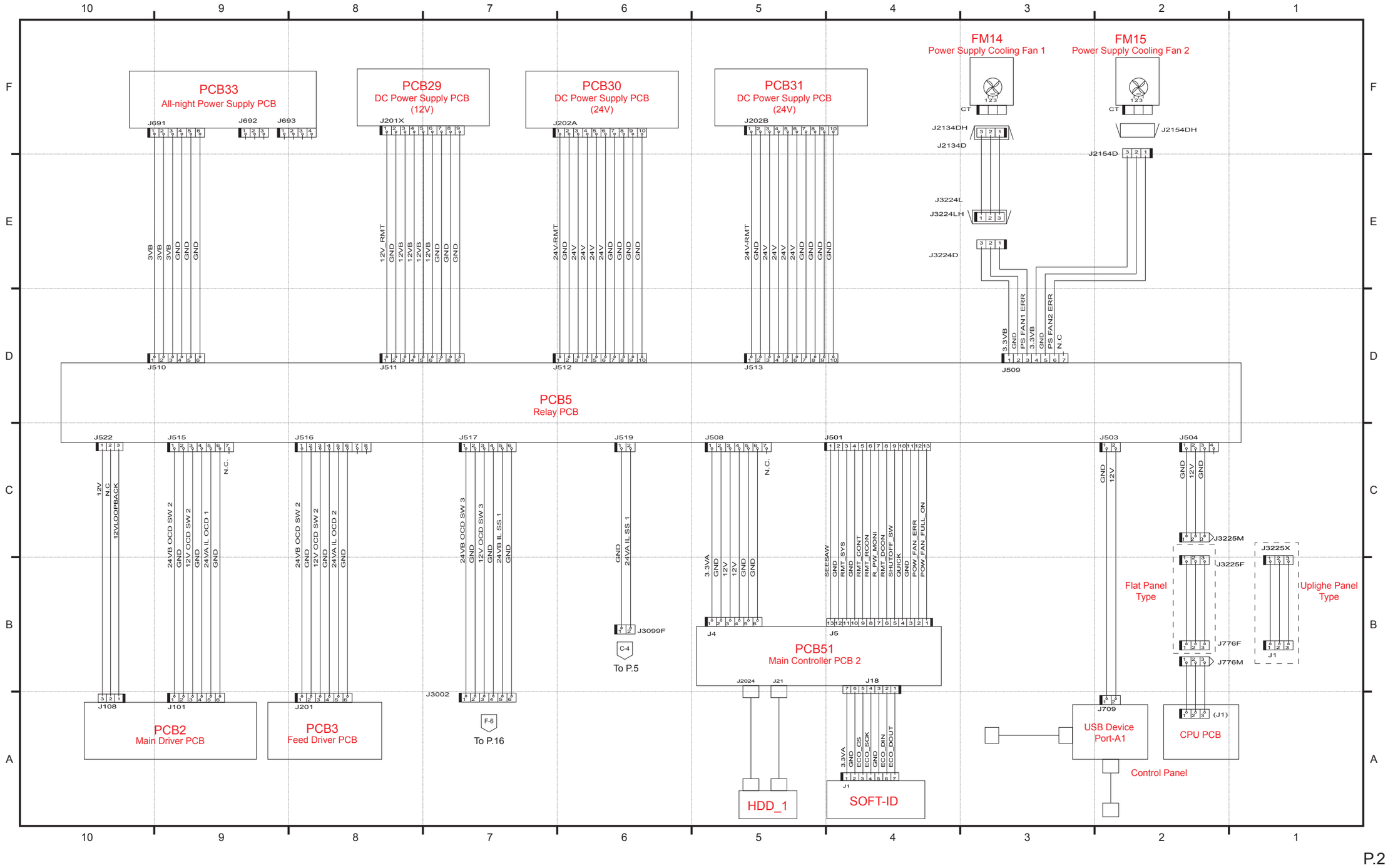
General Circuit Diagram

General Circuit Diagram (1/23)



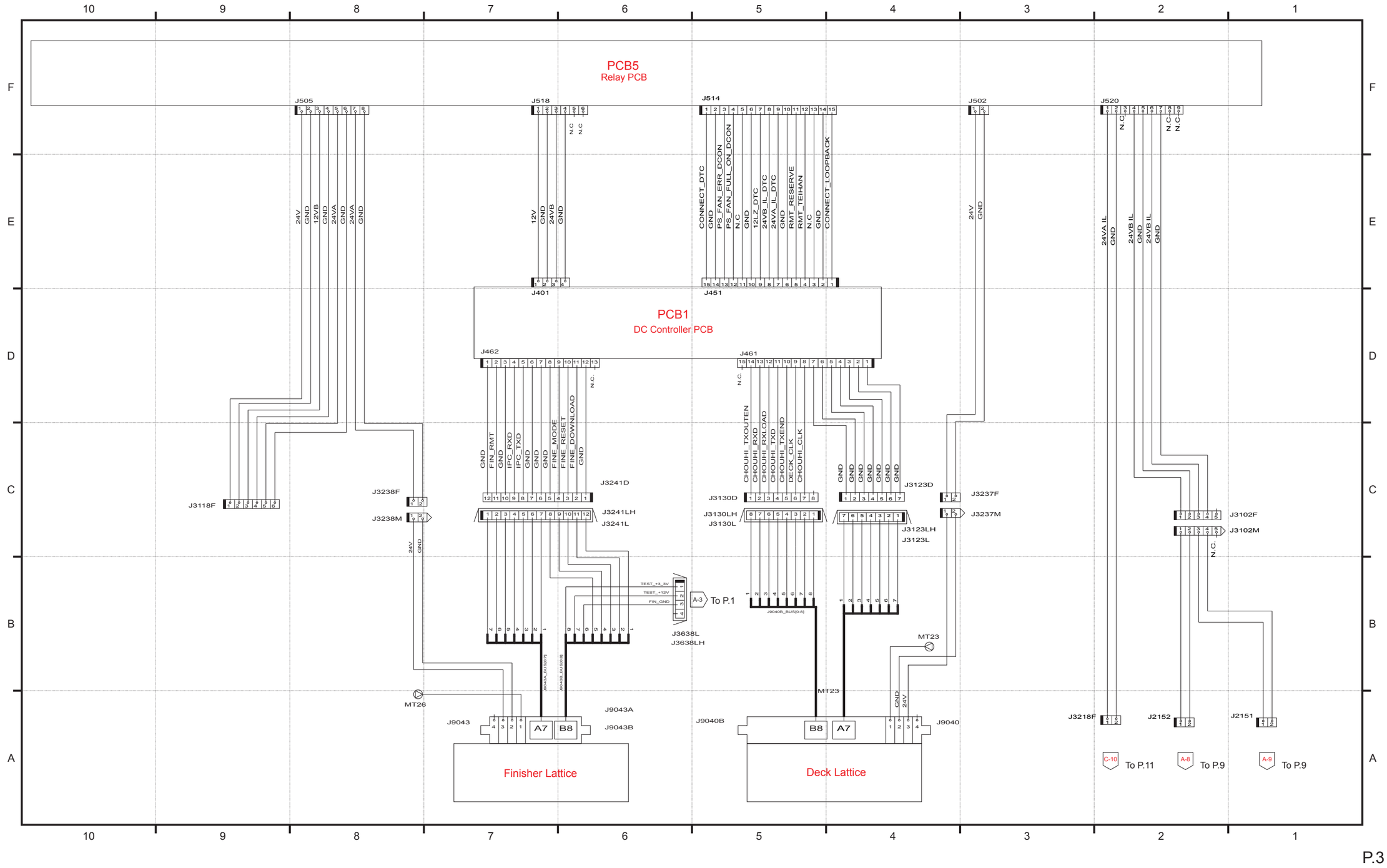
F-10-4

General Circuit Diagram (2/23)



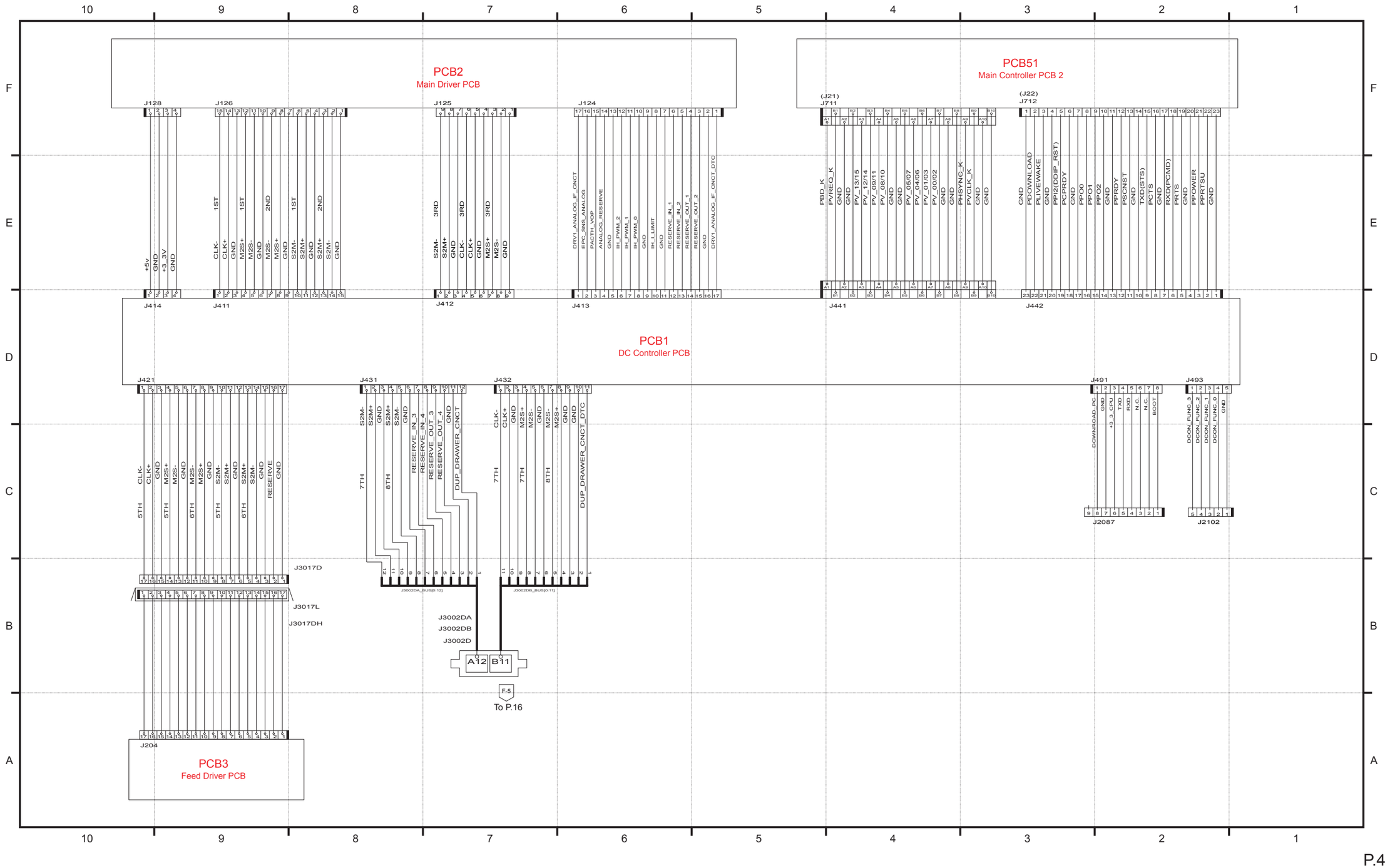
F-10-5

General Circuit Diagram (3/23)



F-10-6

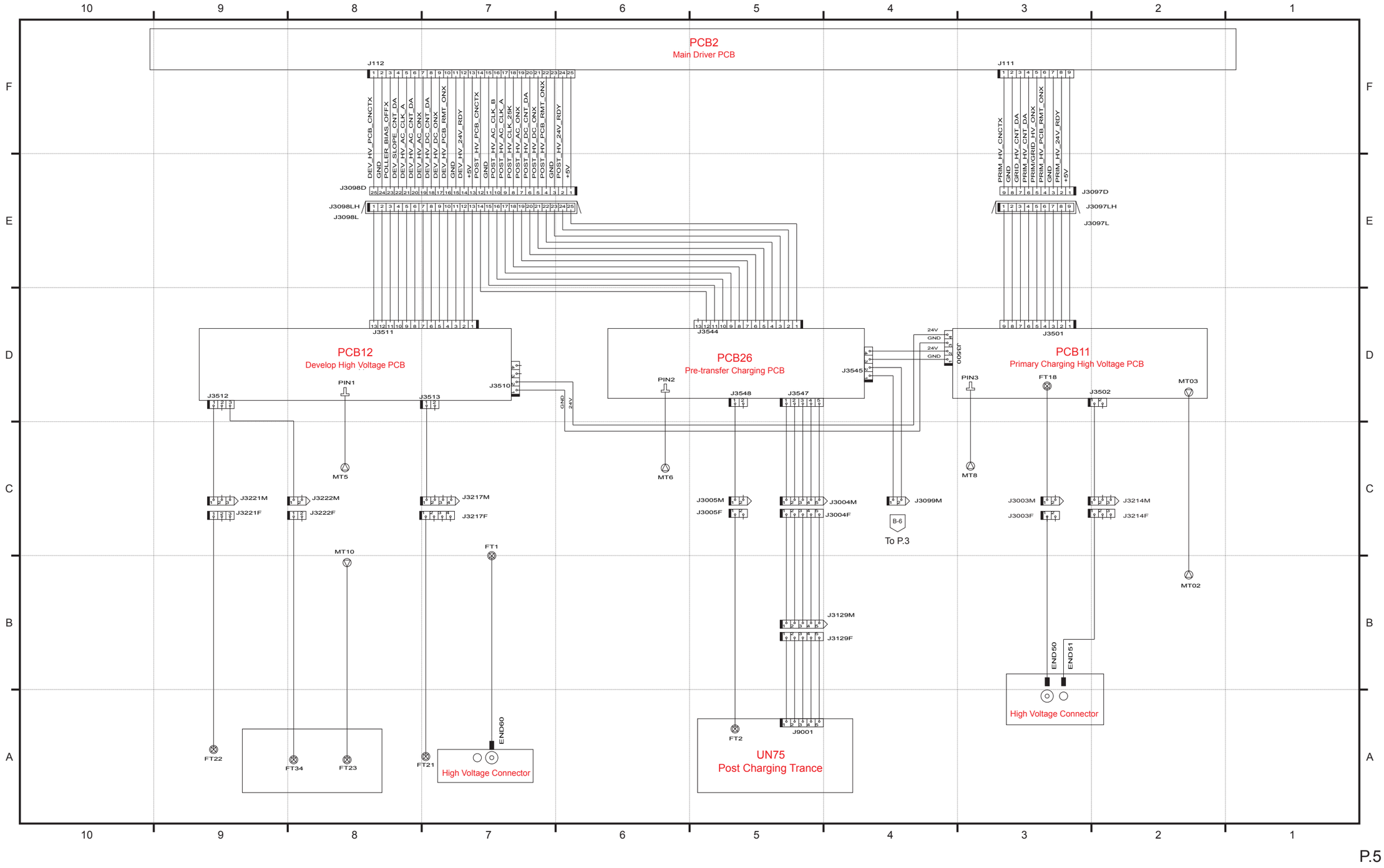
General Circuit Diagram (4/23)



F-10-7

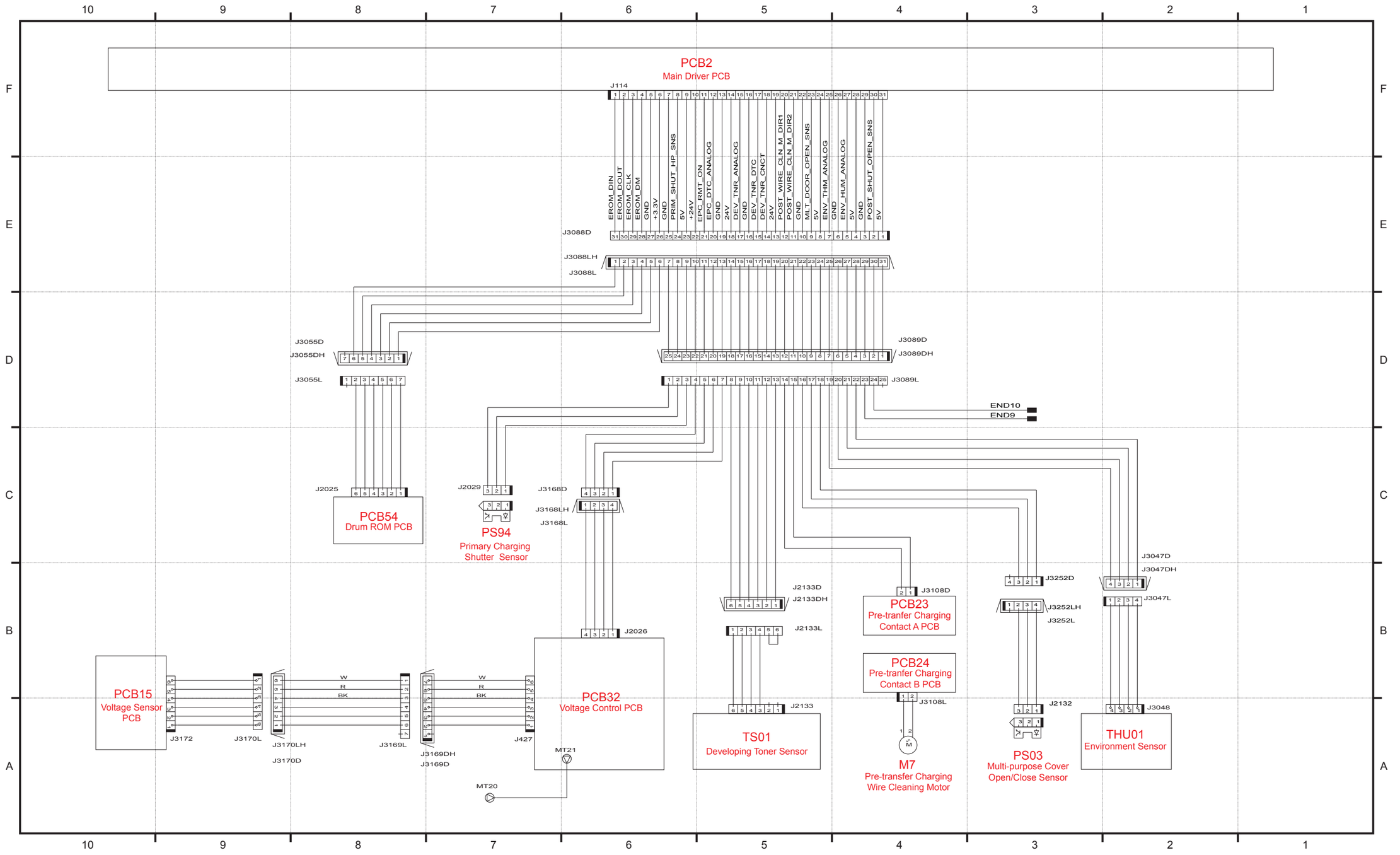
Appendix > General Circuit Diagram > General Circuit Diagram (4/23)

General Circuit Diagram (5/23)



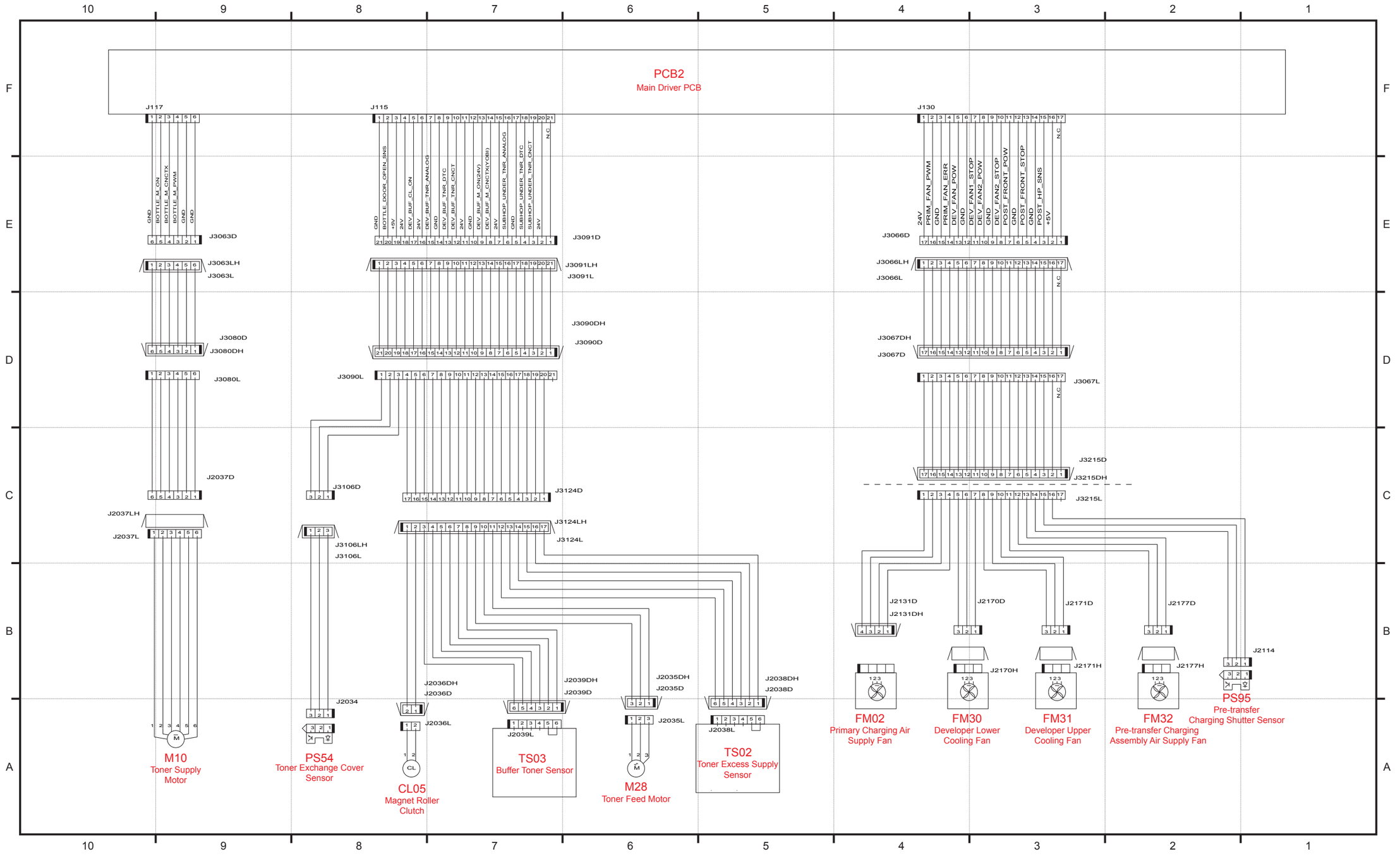
F-10-8

General Circuit Diagram (6/23)



F-10-9

General Circuit Diagram (7/23)



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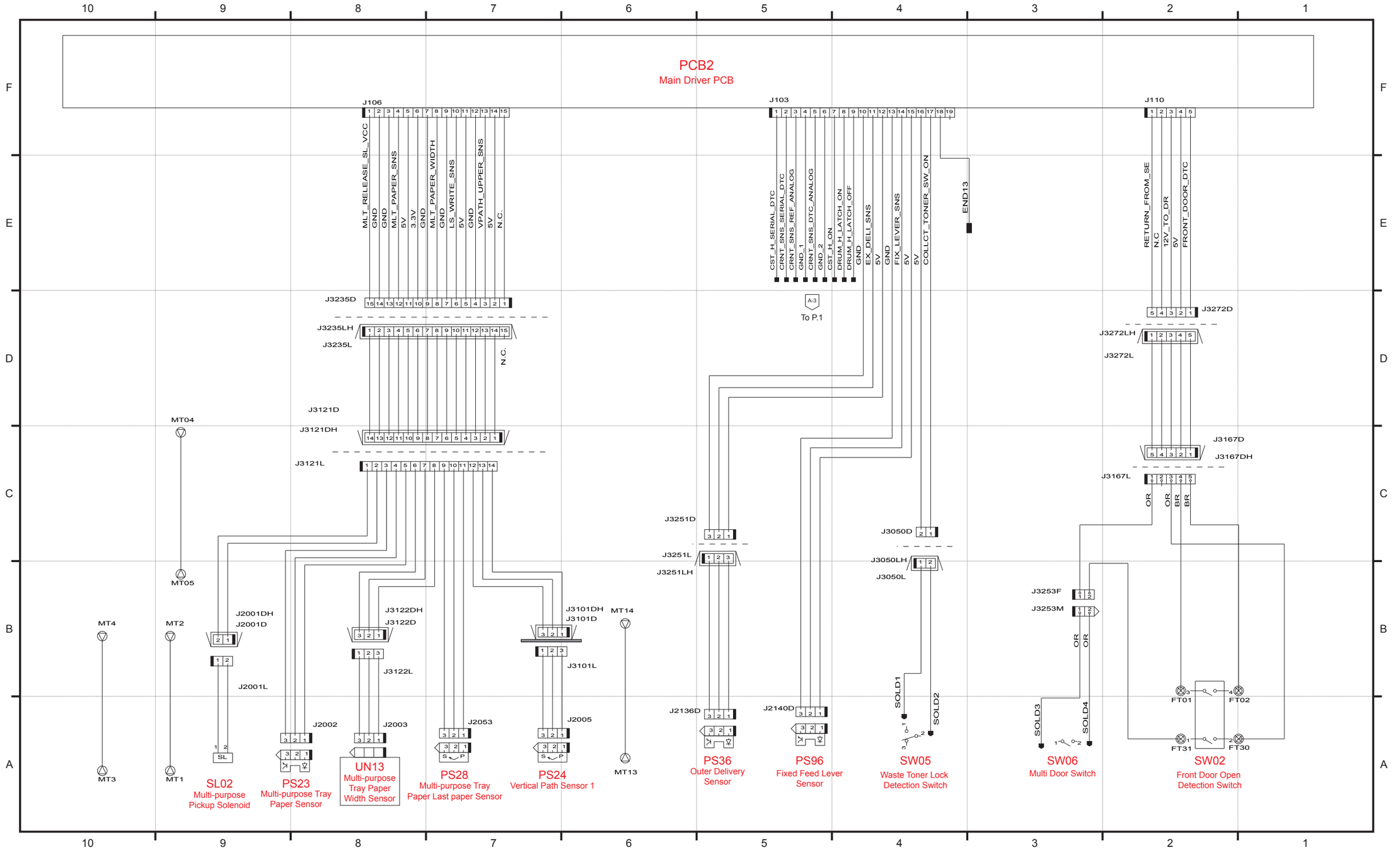
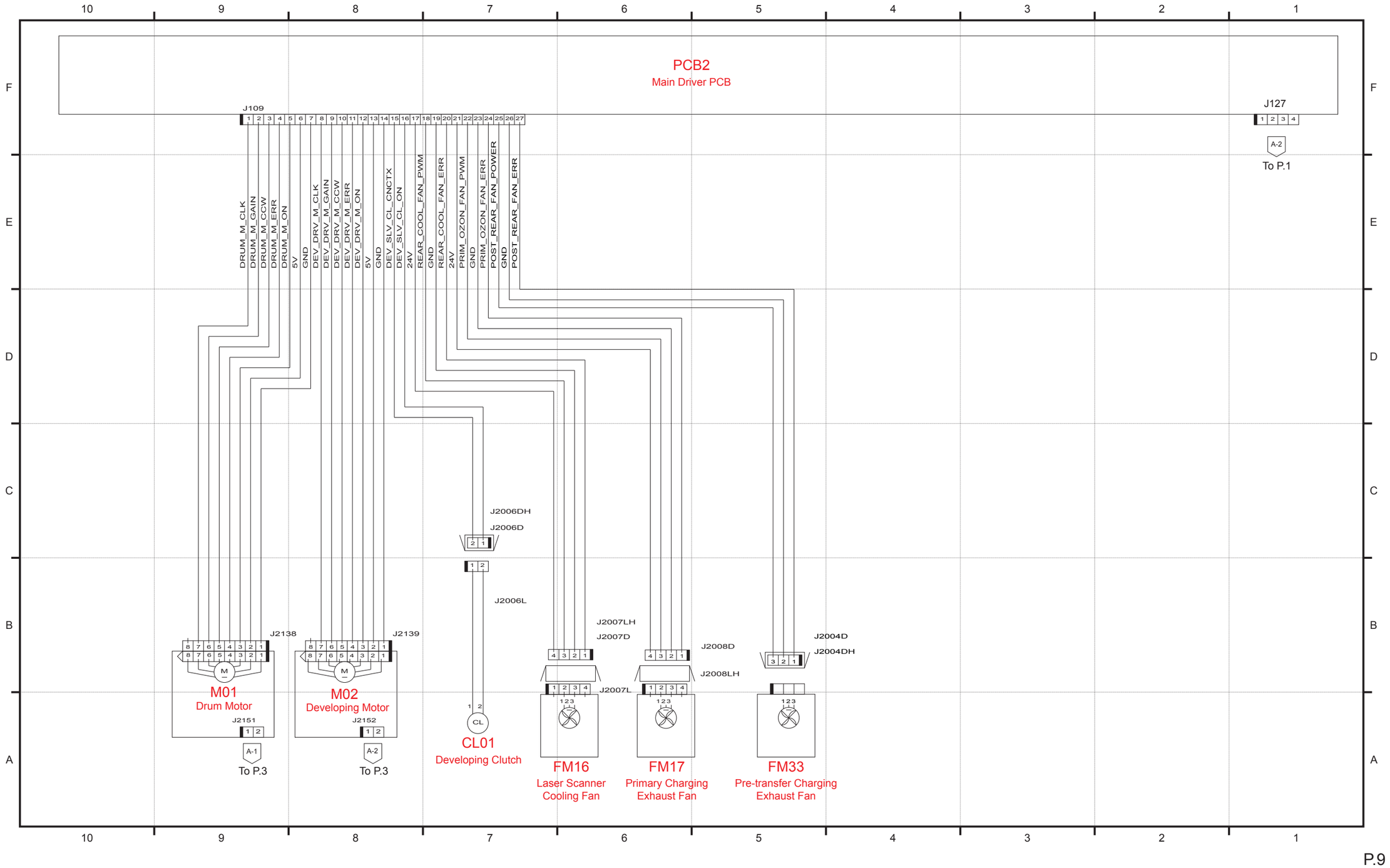
F-10-10

General Circuit Diagram (8/23)



F-10-11

General Circuit Diagram (9/23)



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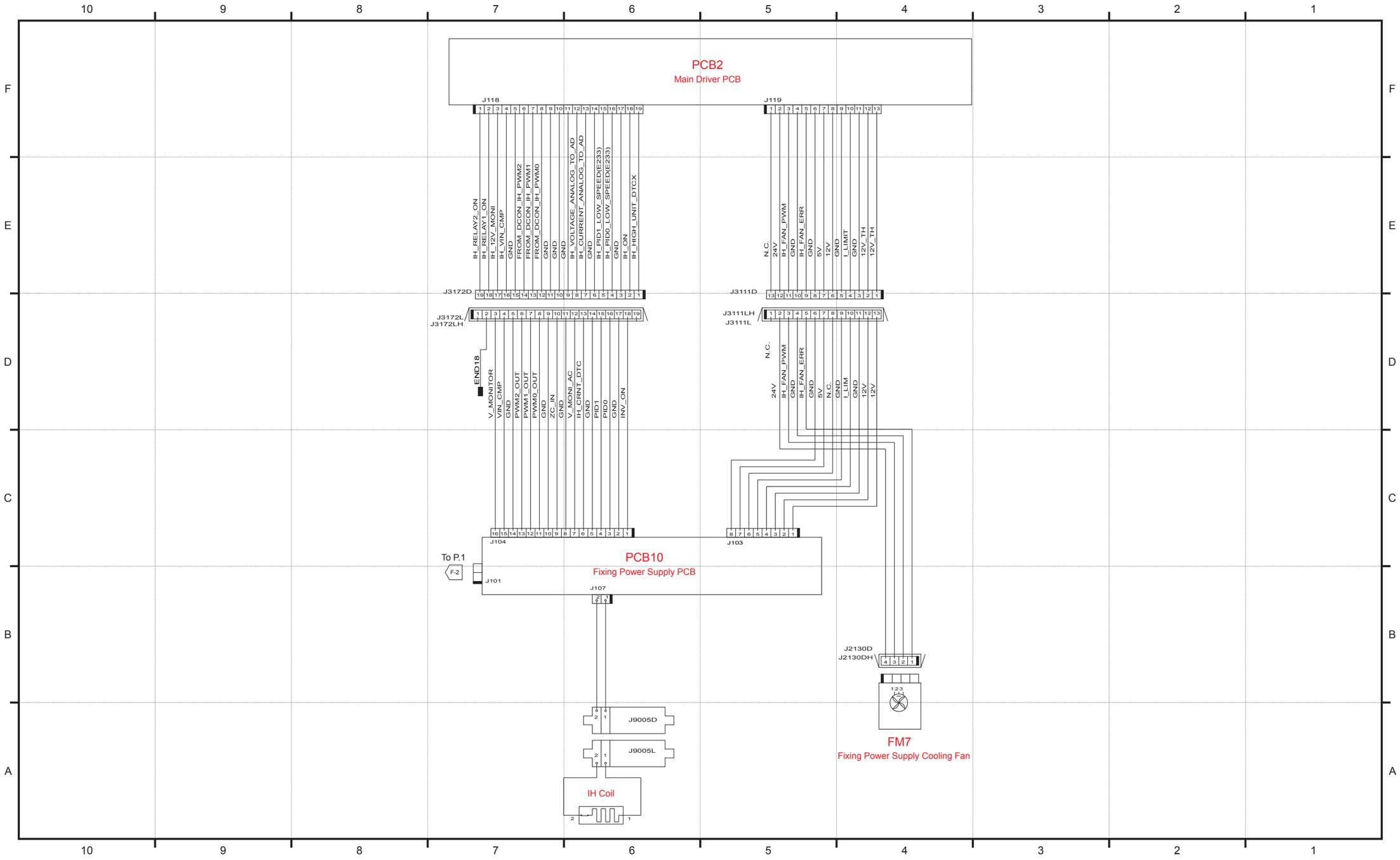
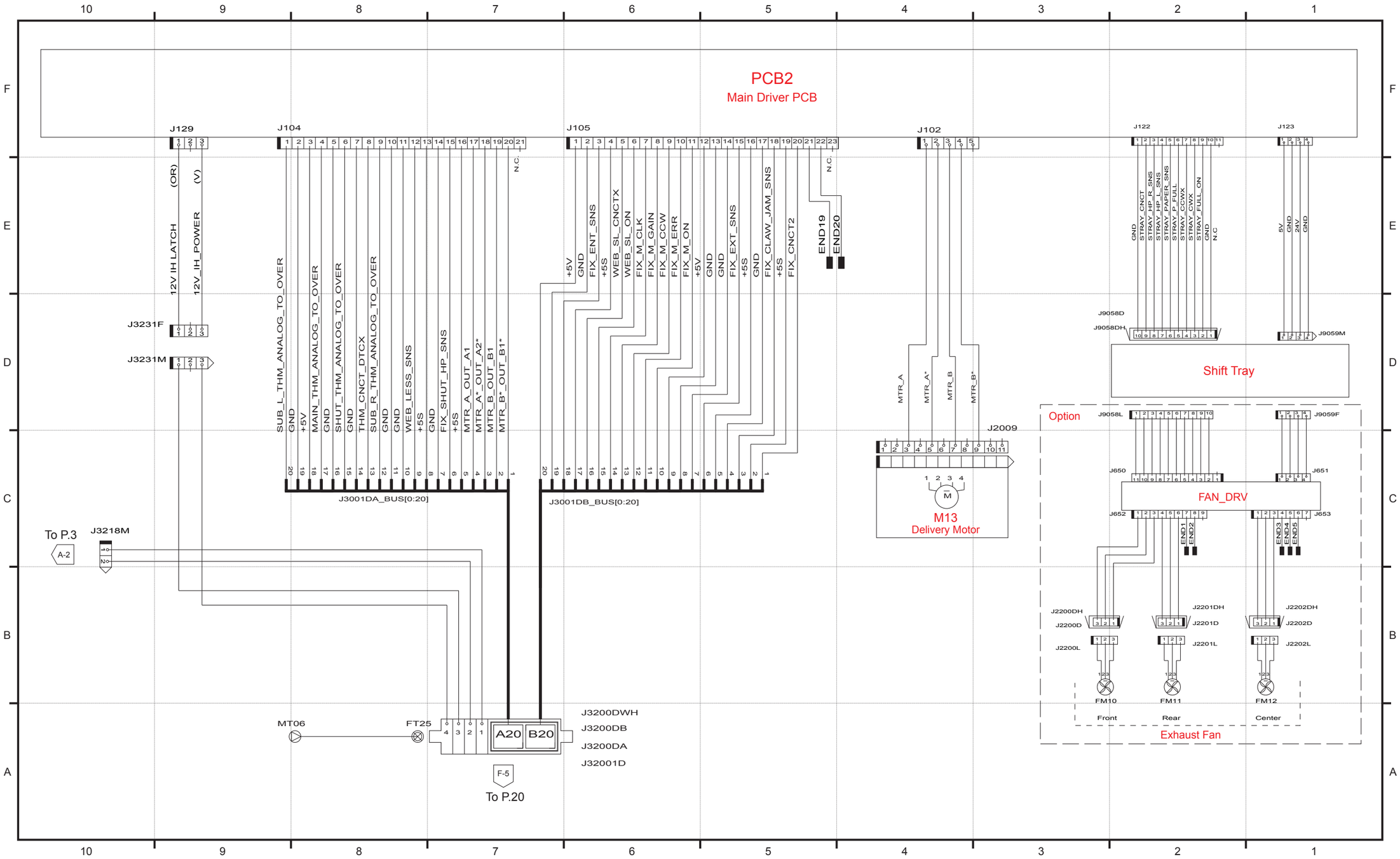
F-10-12

General Circuit Diagram (10/23)



F-10-13

General Circuit Diagram (11/23)



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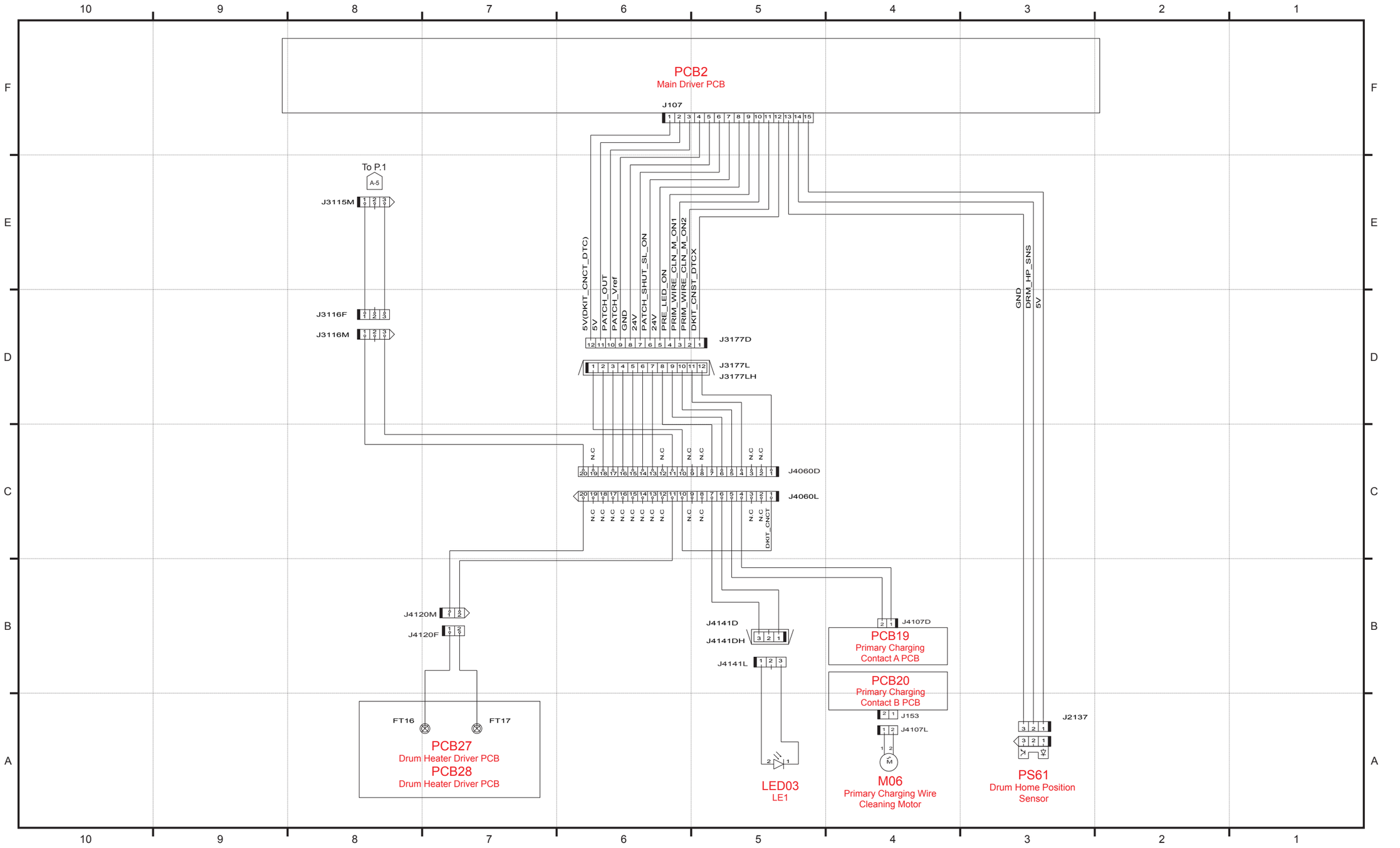
F-10-14

General Circuit Diagram (12/23)



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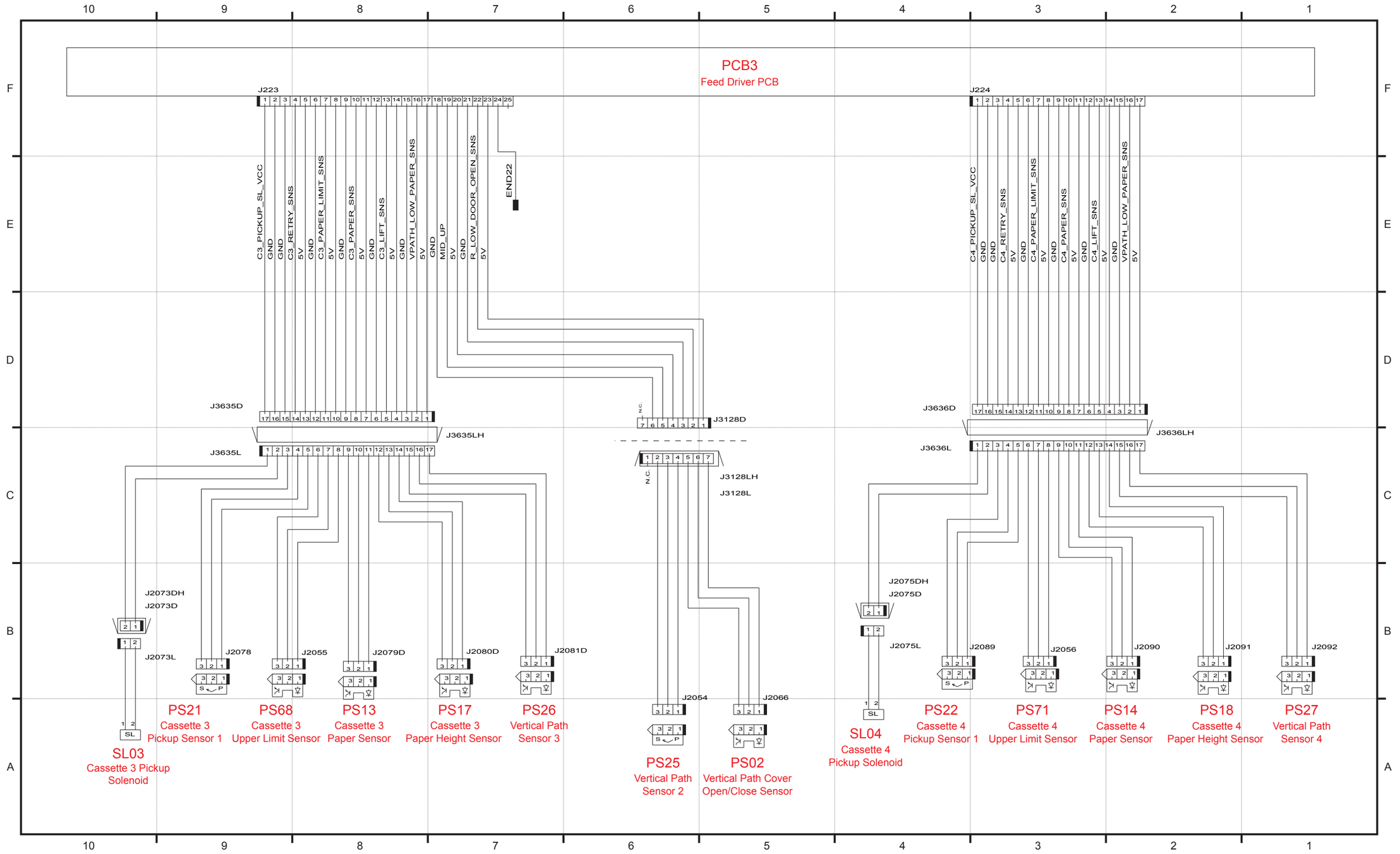
F-10-15

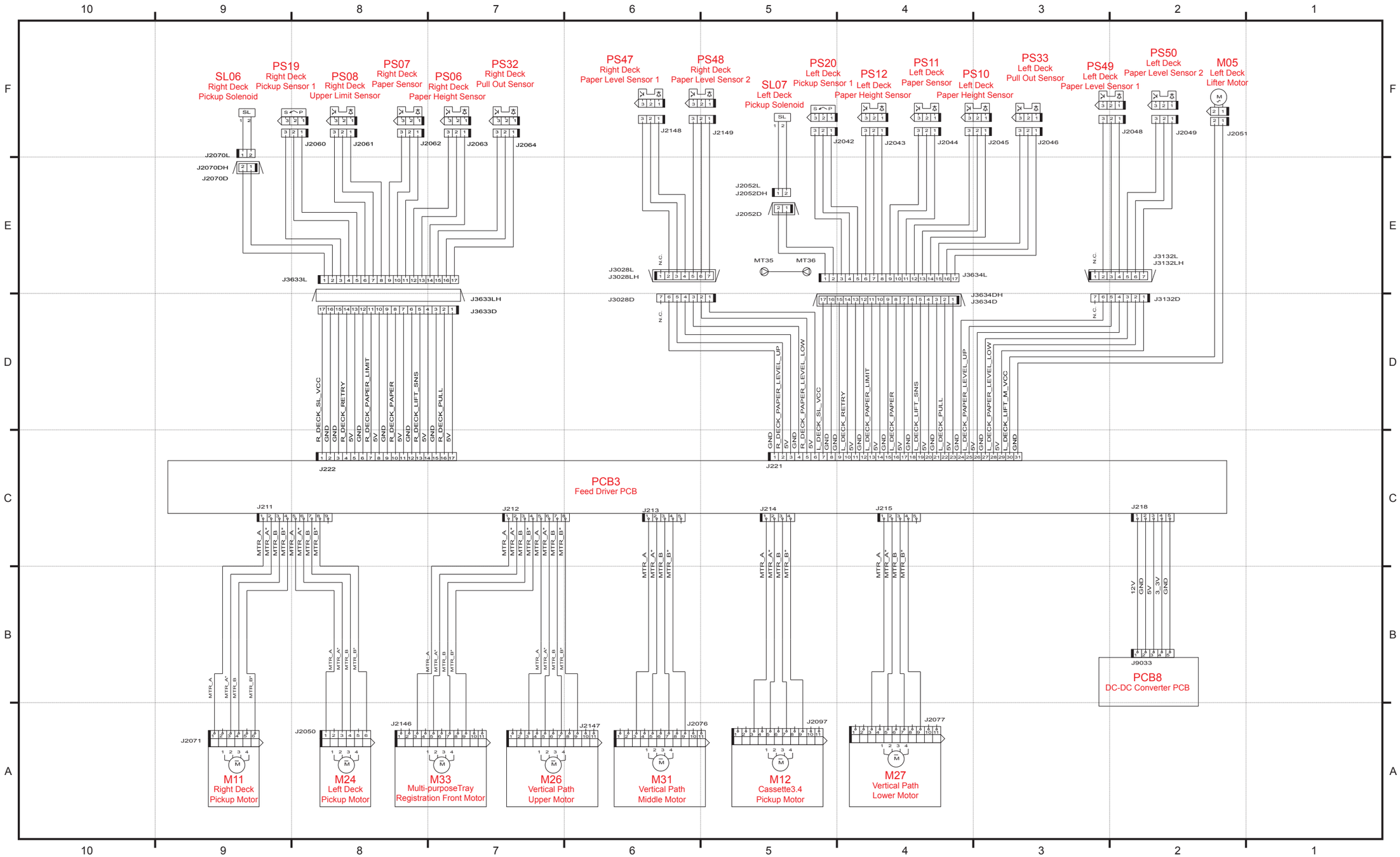
General Circuit Diagram (13/23)



P.13

F-10-16

General Circuit Diagram (14/23)



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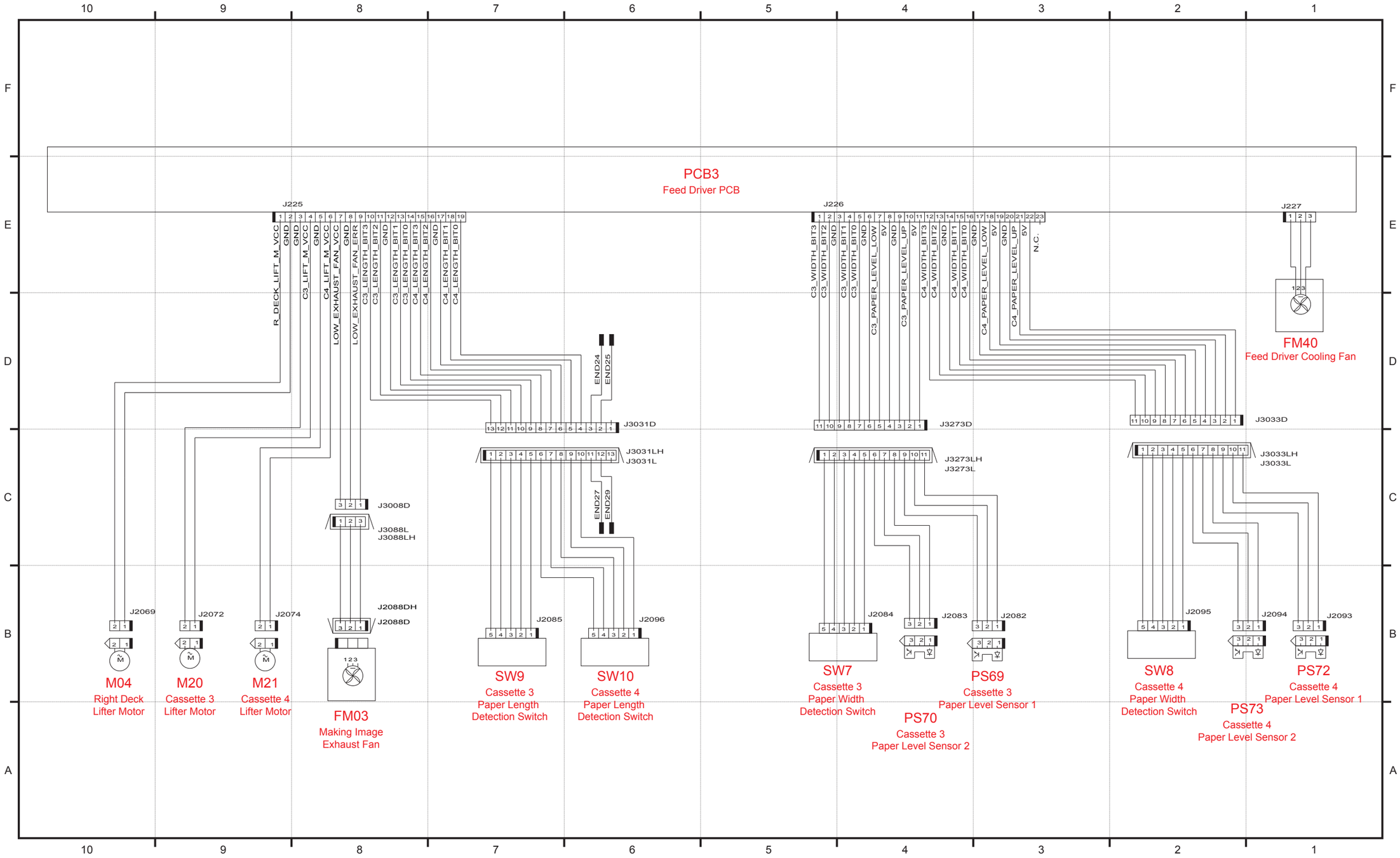
F-10-17

General Circuit Diagram (15/23)



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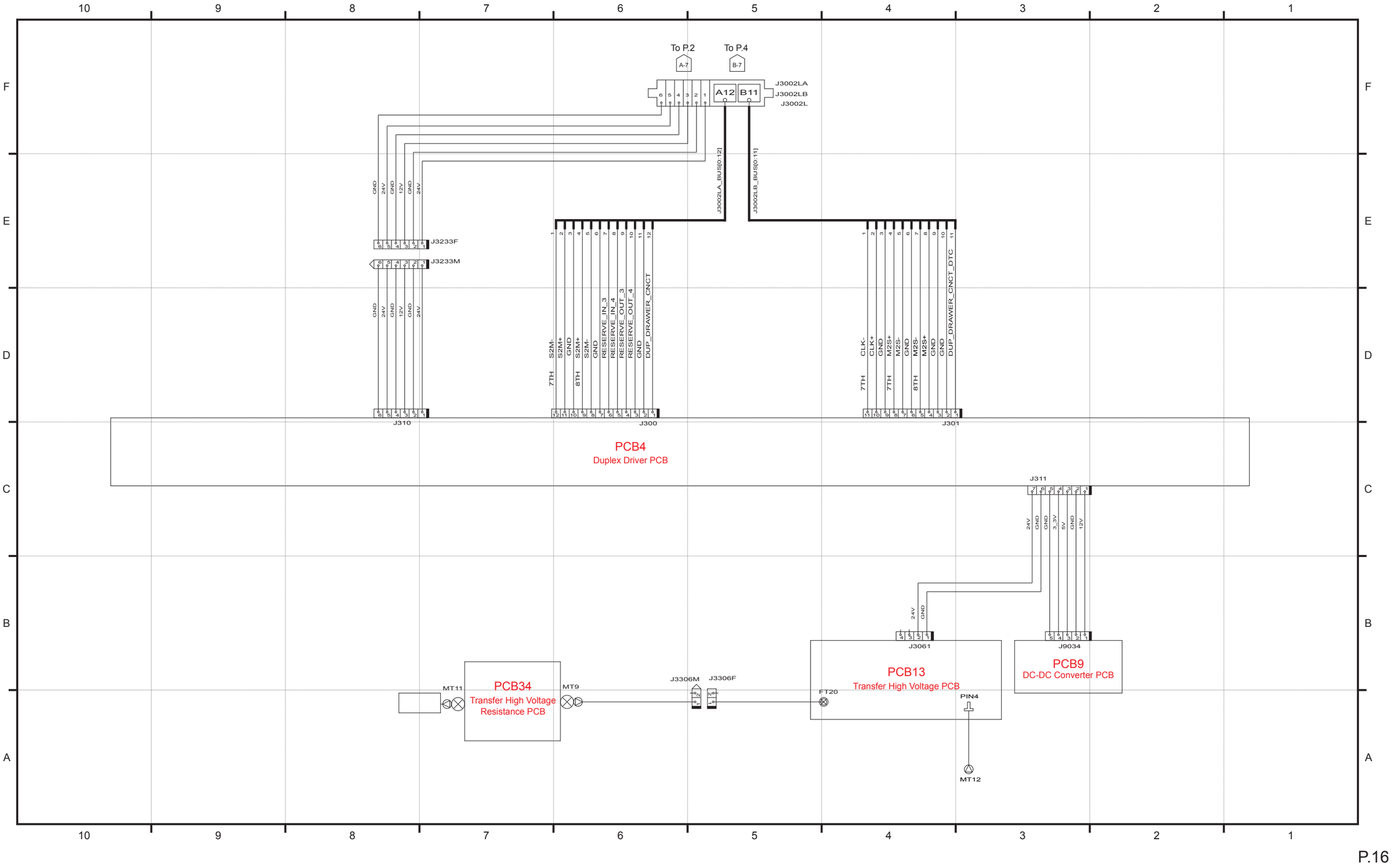
F-10-18

General Circuit Diagram (16/23)



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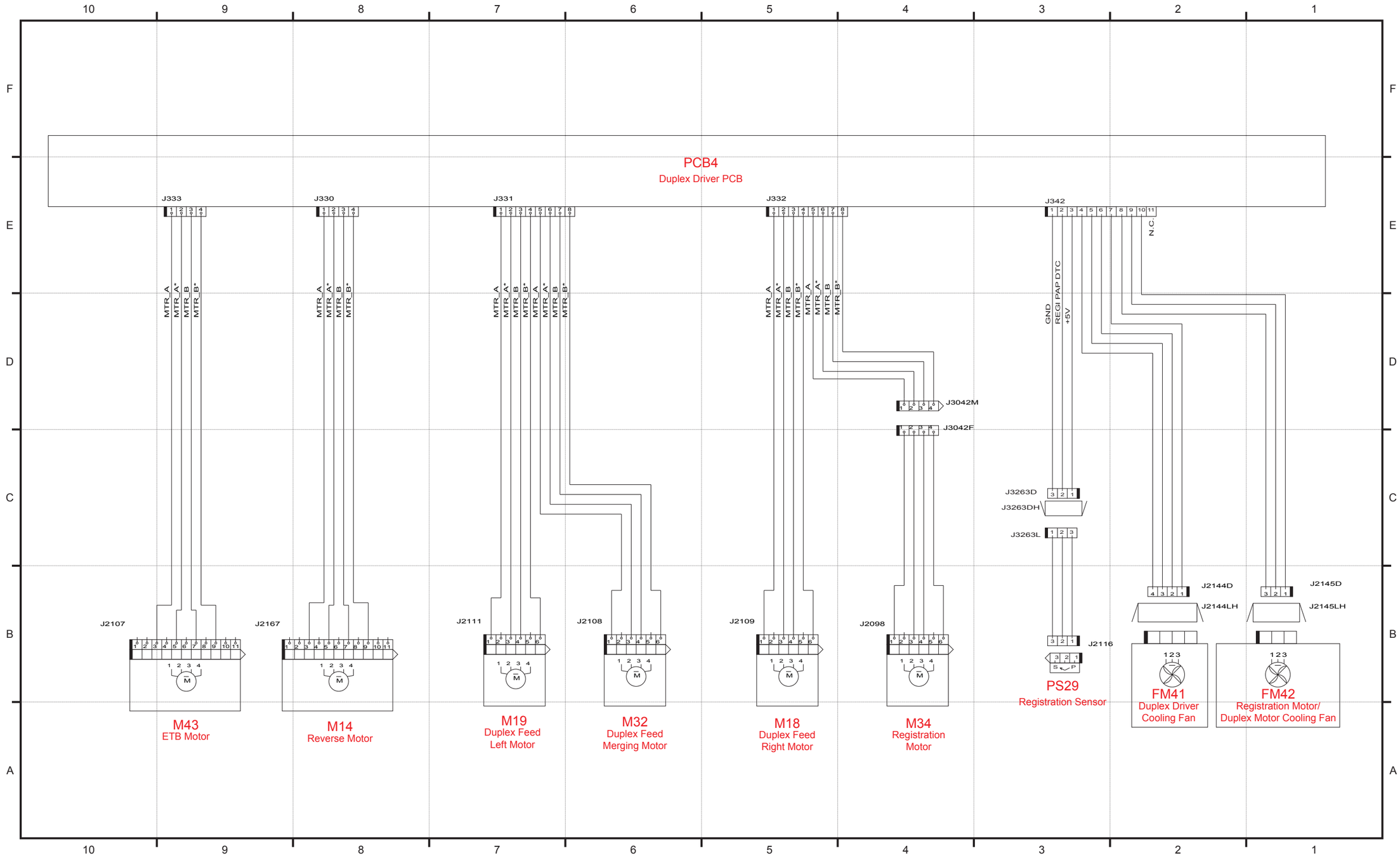
F-10-19

Appendix > General Circuit Diagram > General Circuit Diagram (16/23)

General Circuit Diagram (17/23)



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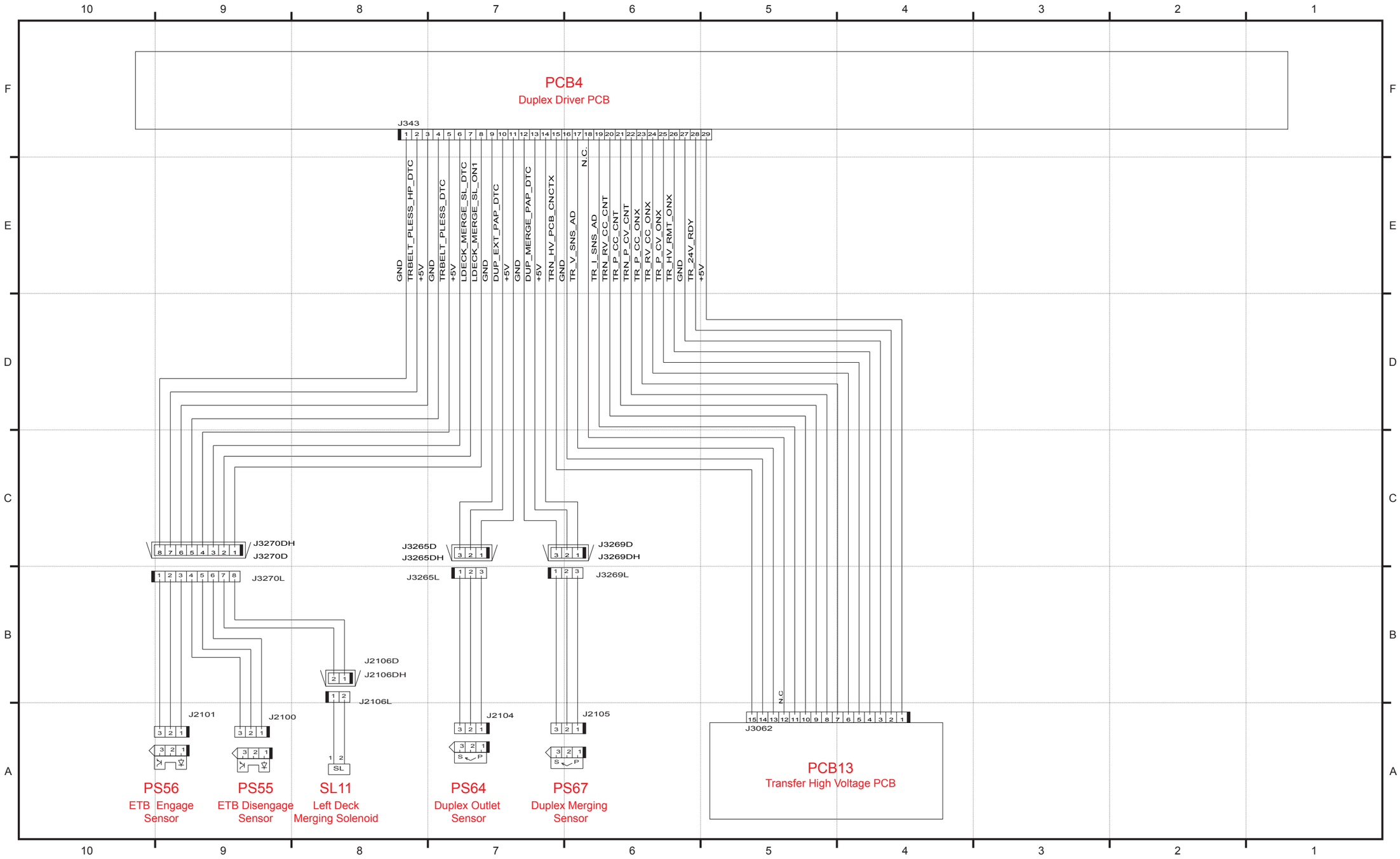
Appendix > General Circuit Diagram > General Circuit Diagram (17/23)

General Circuit Diagram (18/23)



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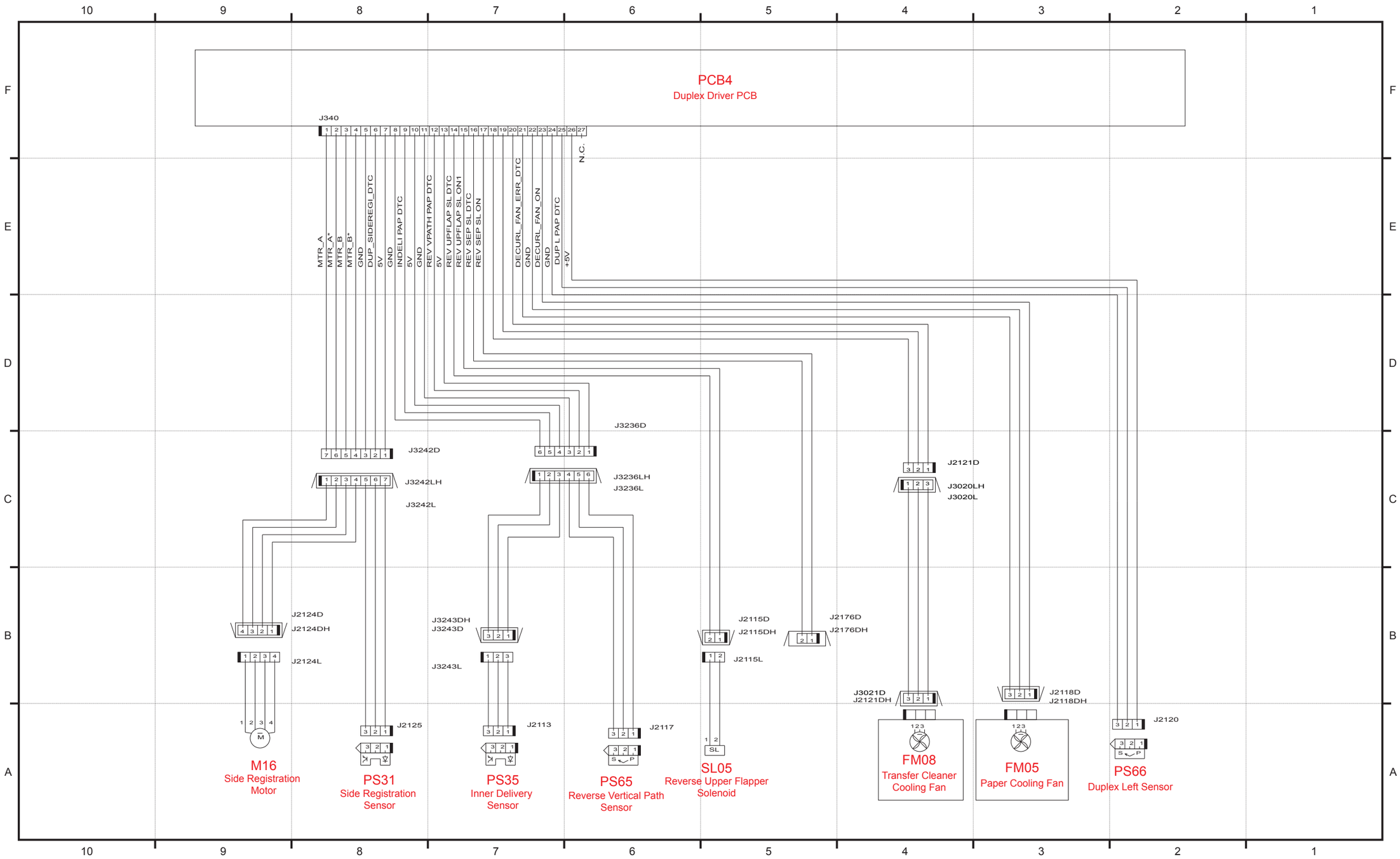
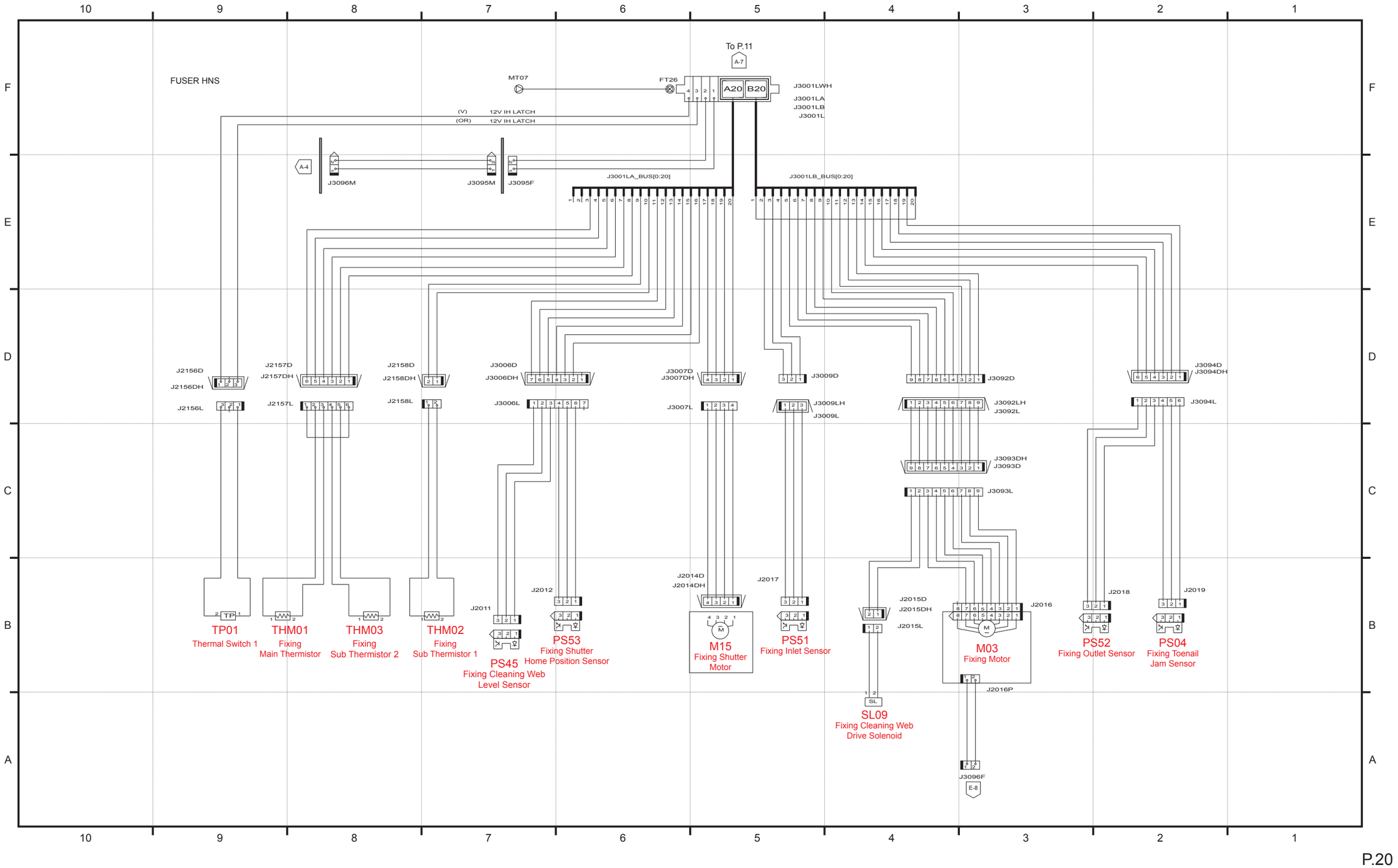
F-10-21

General Circuit Diagram (19/23)



F-10-22

General Circuit Diagram (20/23)



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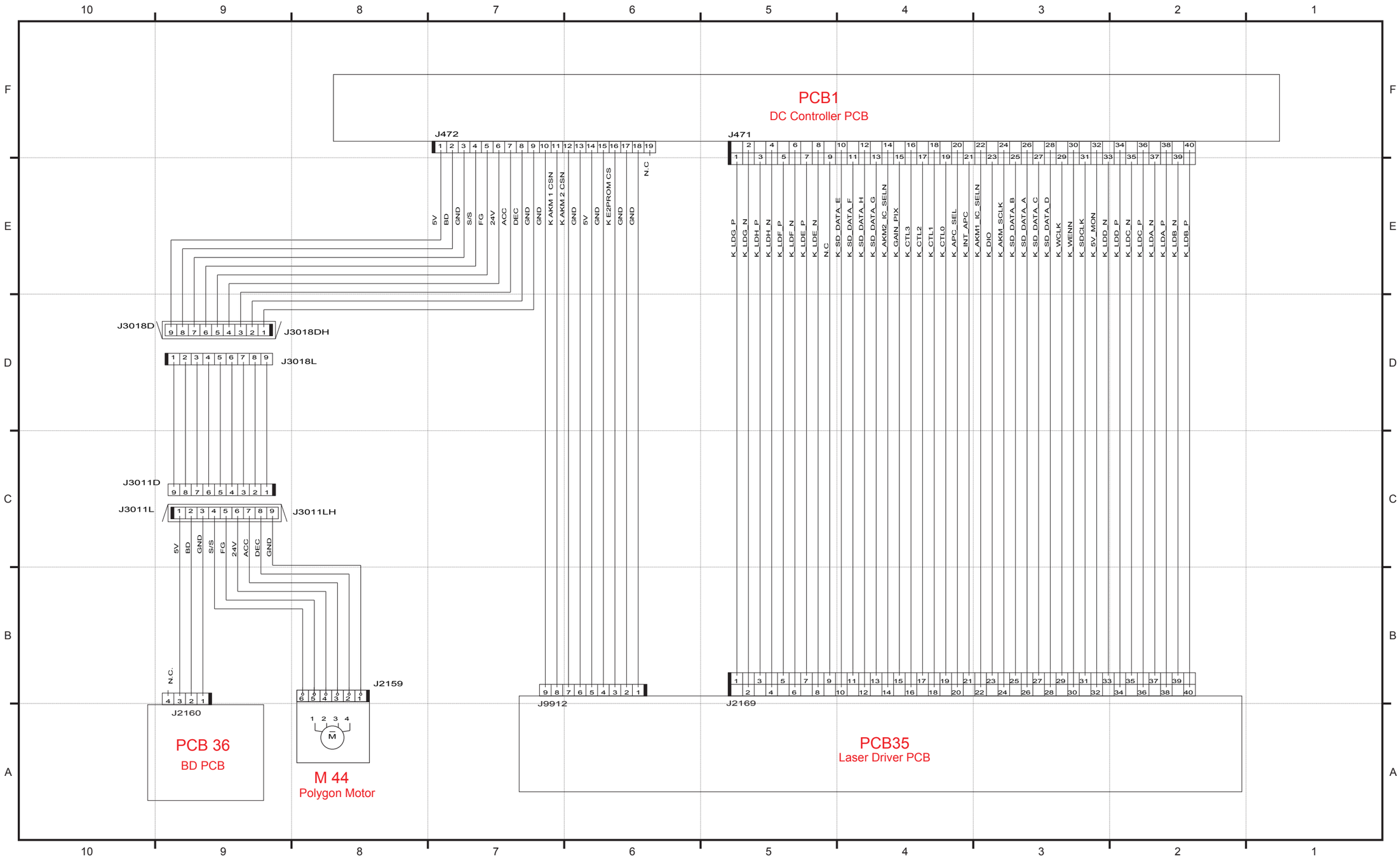
F-10-23

Appendix > General Circuit Diagram > General Circuit Diagram (20/23)

General Circuit Diagram (21/23)



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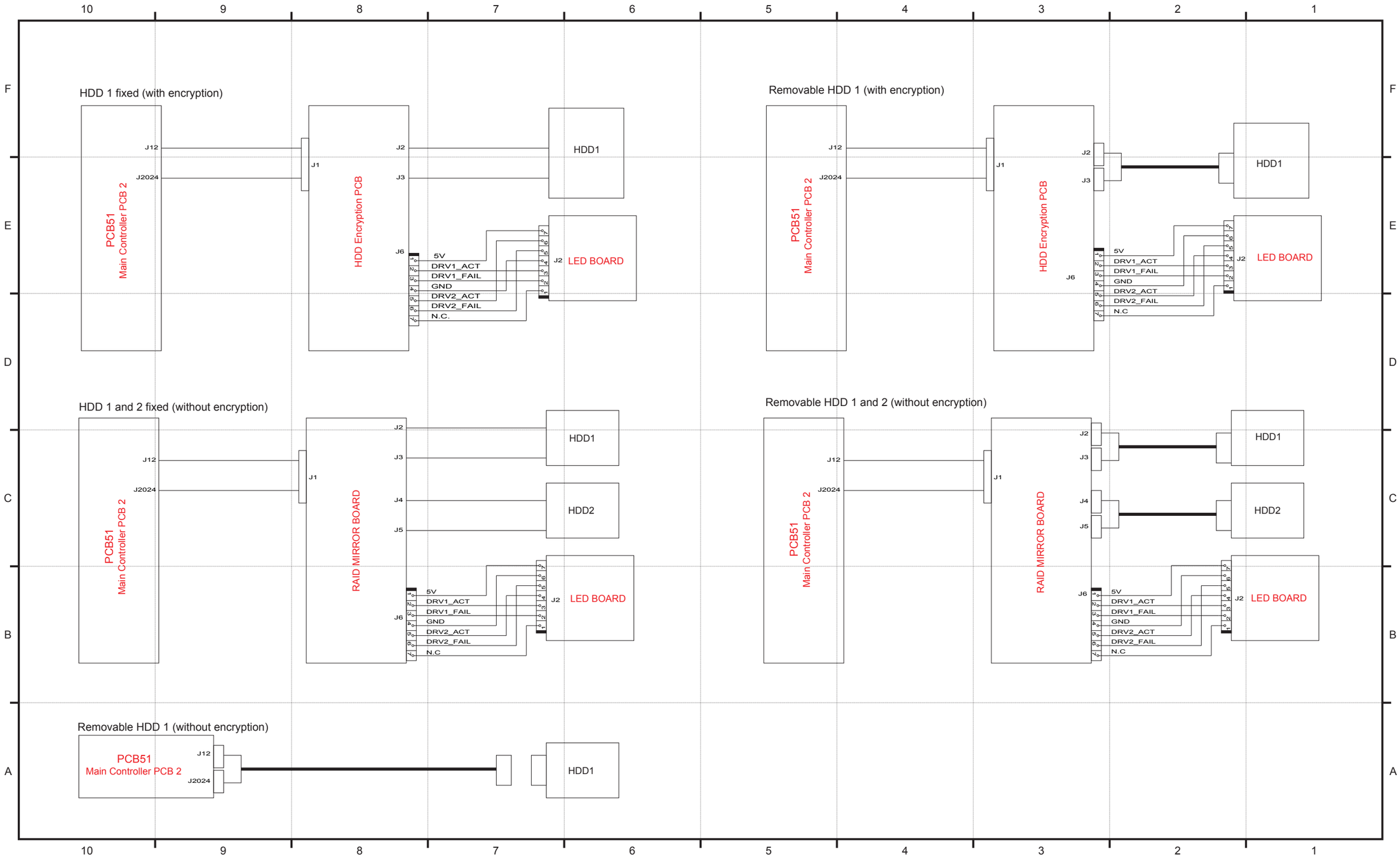
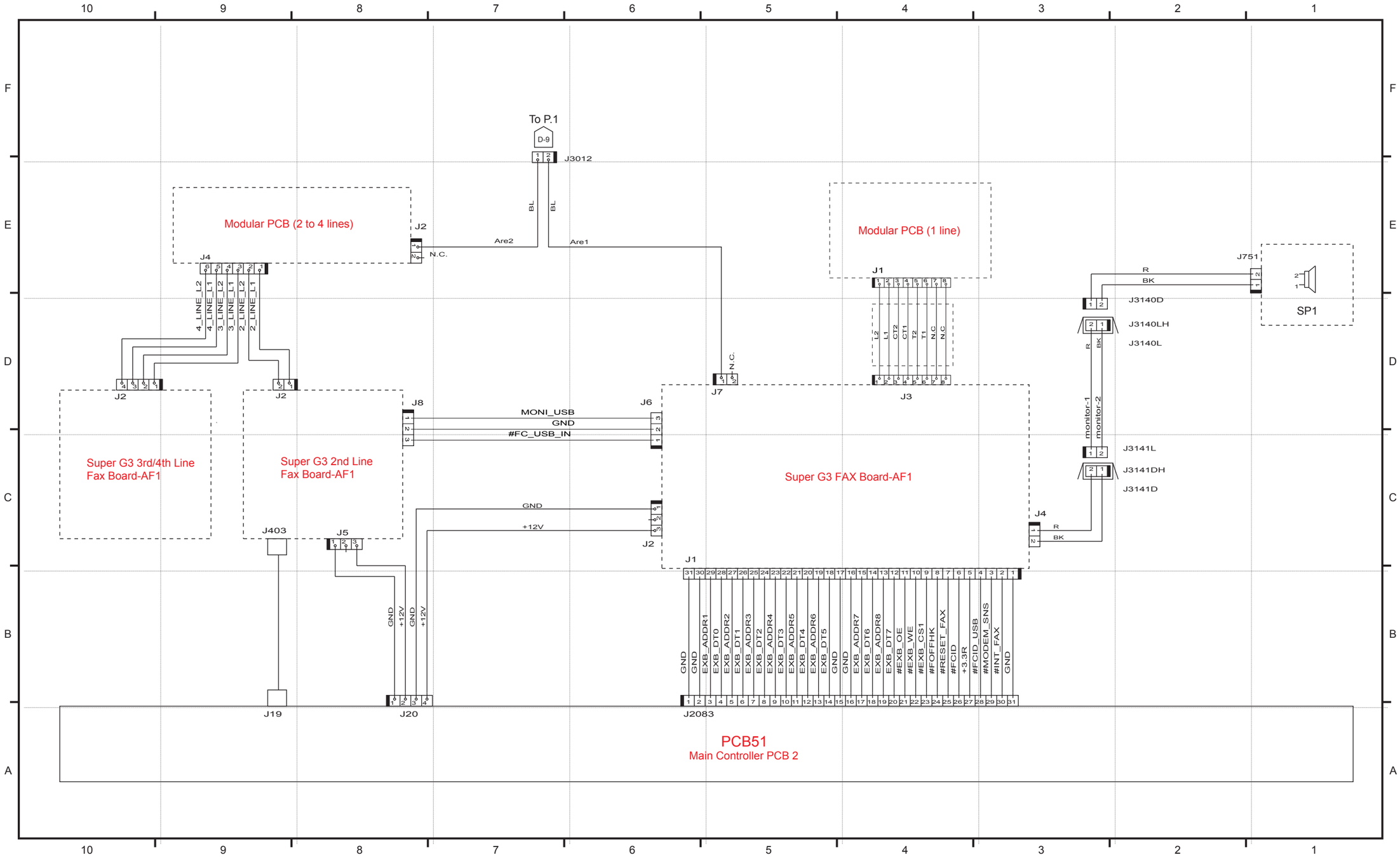
General Circuit Diagram (22/23)



F-10-25

General Circuit Diagram (23/23)

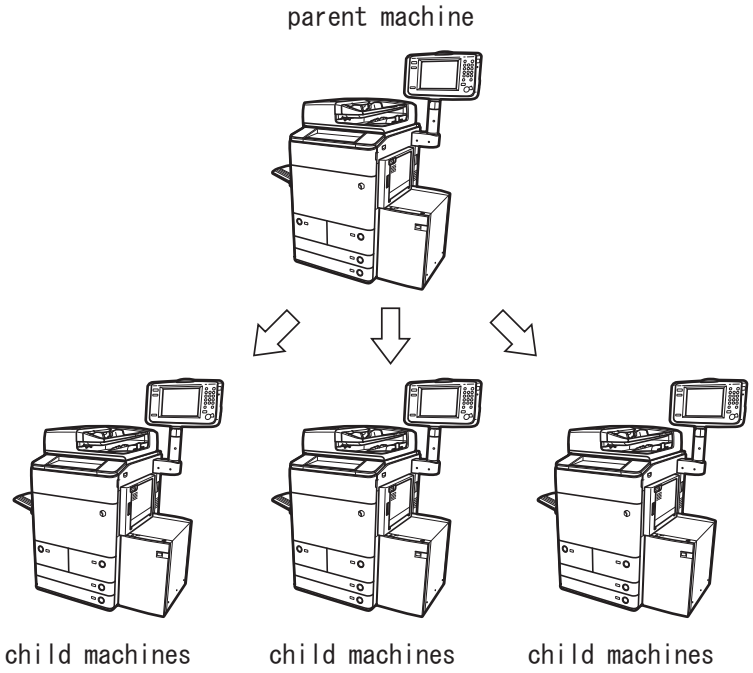


F-10-26

List of User Mode

Device Information Delivery Settings

Registering device information in your machine enables you to set the machine to deliver the same device information to other machines that are connected to the same network. This enables you to easily manage multiple machines at the same time.
Your machine is capable of both sending and receiving device information, which can be delivered manually and automatically.



F-10-27

Environment Settings

Paper Settings

* Default Settings

Item	Setting Description	Device Information DeliveryAvailable
Paper Settings	Thin, Plain*, Heavy 1, Heavy 2, Heavy 3, Color, Recycled, Tracing, Transparency, Labels, Bond, Tab, Pre-punched, Letterhead	No
A5R/STMTR Original Selection	A5R, STMTR*	No
B5/EXEC Original Selection	B5, EXEC*	No
Paper Type Management Settings	Details/Edit • Name, Category, Basis Weight, Type, Finish, Creep (Displacement) Correction Adjustment, Color	Yes
	Duplicate, Delete	No
Register Multi-Purpose Tray Defaults	On, Off*	No
Register Custom Size	Register/Edit, Delete, Register Name	Yes

T-10-4

Display Settings

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*2 If the Duplex Color Image Reader Unit is not attached, the default setting is [On].

Item	Setting Description	Device Information DeliveryAvailable
Default Screen at Startup	Main Menu*, Quick Menu, Copy*1, Scan and Send, Fax*1, Scan and Store, Access Stored Files, Fax/ I-Fax Inbox, Secured Print, Web Browser, Workflow Composer, Remote Scanner, Print Server, Scan Lock Analyzer, Tutorial	No
	Open Status Monitor/Cancel: On, Off*2	No
Default Screen (Status Monitor/Cancel)	Default Status Type: Copy/Print*, Send, Receive, Store, Consumables	No
	Status/Log: Job Status*, Log	No
	Details: Print Jobs, Send Jobs, Receive Jobs, Copy*1, Fax*1, Forward, Local Print, Printer, Cascade Copy, RX Print, Print Report	No
Copy Screen Display Settings*1	Regular Copy*, Express Copy	No
Display Fax Function*1	On*, Off	No
	On Enable Fax in Scan and Send Function: On*, Off	No
Store Location Display Settings	Mail Box: On*, Off	No
	Advanced Box/Network: On*, Off	No
	Memory Media: On, Off*	No
Language/Keyboard Switch On/Off	On, Off*	No
Language/Keyboard Switch	Language, Keyboard Layout	No
Display Remaining Paper Message	On*, Off	No
No. of Copies/Job Duration Status	On*, Off	No
Display Original Scanning Cleaning Area*1	On*, Off	No
Select Paper Screen Priority	Simple*, Detailed	No
mm/Inch Entry Switch	mm, inch*	Yes
ID/User Name Display On/Off	On*, Off	No

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Timer/Energy Settings

* Default Settings

Item	Setting Description	Device Information Delivery Available
Adjust Time	00: 00 to 23: 59, in one minute increments (00: 00*)	No
Date/Time Settings	Date and Time Setting (12 digit number)	No
	Time Zone: GMT -12: 00 to GMT +12: 00 (GMT -05:00*)	No
	Daylight Saving Time: On, Off*	No
Time Format	24 Hour, 12 Hour*	No
Auto Reset Time	0 (Off), 10 to 50 seconds in 10 seconds increments, 1 to 9 minutes in one minute increments (2minutes*)	Yes
Function After Auto Reset	Initial Function*, Selected Function	Yes
Auto Sleep Time	10 secs, 1, 2, 10, 15*, 20, 30, 40, 50 min., 1 hour, 90 min., 2, 3, 4 hours (1 mins*)	Yes
Sleep Mode Energy Use	Low*, High	Yes
Weekly Timer Settings	Sunday to Saturday, 00: 00 to 23: 59, in one minute increments	Yes
Energy Saver/Sleep Mode Exit Time Settings	00: 00 to 23: 59, in one minute increments	Yes
Change Energy Saver Mode	-10*,-25,-50%, None	Yes
Silent Mode Time	0 (Off) to 9 minutes, in one minute increments (1 mins*)	Yes

T-10-6

Network

If you are configuring the settings for the first time in "Interface Settings," "TCP/IPv4 Settings," "TCP/IPv6 Settings," or "Settings Common to TCP/IPv4 and TCP/IPv6," use the control panel of the machine. After configuring the TCP/IP settings, you can change them using the Remote UI.

In the NetWare or AppleTalk network, the TCP/IP protocol must be used to specify the settings with software other than the control panel of the machine. The setting items are shown below.

- Some items can be set using the Remote UI. Use the control panel of the device to set items which cannot be set using the Remote UI.

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*2 Indicates items that appear only when the PS Printer Kit is activated.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
User Data List	Plint List	Yes	No
Confirm Network Connection Set. Changes	On, Off*	No	Yes
TCP/IP Settings			
IPv4 Settings			
Use IPv4	On*, Off	Yes	No
IP Address Settings	IP Address: 0.0.0.0*	Yes	No
	Subnet Mask: 0.0.0.0*	Yes	No
	Gateway Address: 0.0.0.0*	Yes	No
	DHCP: On, Off*	Yes	Yes
	RARP: On, Off*	Yes	Yes
	BOOTP: On, Off*	Yes	Yes
PING Command	IP Adress: 0.0.0.0*	No	No
IPv6 Settings			No
Use IPv6	On, Off*	Yes	No
Stateless Address Settings	Use Stateless Address: On*, Off	Yes	No
Manual Address Settings	Use Manual Address: On, Off*	Yes	No
	Manual Address: IPv6 Address (39characters maximum)	Yes	No
	Prefix Length: 0 to 128 (64*)	Yes	No
	Default Router Address (39 characters maximum)	Yes	No
Use DHCPv6	On, Off*	Yes	Yes
PING Command	IPv6 Address: (39characters maximum)	Yes	No
Host Name	48 characters maximum	Yes	No
DNS Settings			
DNS Server Address Settings			
IPv4	Primary DNS Server: IP Address:0.0.0.0*	Yes	No
	Secondary DNS Server: IP Address:0.0.0.0*	Yes	No
IPv6	Primary DNS Server: IPv6 Address	Yes	No
	Secondary DNS Server: IPv6 Address	Yes	No
DNS Host/Domain Name Settings		Yes	No
IPv4	Host Name: 47 characters maximum (Canon + represents the last six digits of a MAC address)	Yes	No
	Domain Name: 47 characters maximum	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
IPv6	Use Same Host Name/Domain Name as IPv4:On, Off*	Yes	No
	Host Name: 47 characters maximum (Canon + represents the last six digits of a MAC address)	Yes	No
	Domain Name: 47 characters maximum	Yes	No
DNS Dynamic Update Settings			
IPv4	DNS Dynamic Update: On, Off*	Yes	No
IPv6	DNS Dynamic Update: On, Off*	Yes	No
	Register Stateless Address: On, Off*	Yes	No
	Register Manual Address: On, Off*	Yes	No
	Register Stateless Address: On, Off*	Yes	No
WINS Settings			
WINS Resolution	On, Off*	Yes	No
WINS Server Address	IP Address: 0.0.0.0*	Yes	No
Node Type	Auto Set, display only	No	No
Scope ID	63 characters maximum	Yes	No
LPD Print Settings			
LPD Print Settings	On*, Off	Yes	Yes
LPD Banner Page[*1]	On, Off*	Yes	Yes
RAW Print Settings			
RAW Print Settings	On*, Off	Yes	Yes
Bidirectional Communication	On, Off*	Yes	Yes
SNTP Settings			
Use SNTP	On, Off*	Yes	No
Polling Interval	Interval for performing time synchronization (1 to 48 hours) (24hours*)	Yes	No
NTP Server Address	IP address or host name	Yes	No
Check NTP Server	-	Yes	No
FTP Print Settings			
Use FTP printing	On, Off*	Yes	Yes
User	User name for FTP server login (24 characters maximum)	Yes	No
Password	Password for FTP server login (24 characters maximum)	Yes	No
WSD Print Settings			
Use WSD	On, Off*	Yes	Yes
Use WSD Browsing	On, Off*	Yes	Yes
Use Multicast Discovery	On, Off*	Yes	Yes
Use FTP PASV Mode			
Use FTP PASV Mode	On, Off*	Yes	Yes
IPP Print Settings			
IPP Print Settings	On, Off*	Yes	Yes
Use SSL	On, Off*	Yes	No
Use Authentication	On, Off*	Yes	No
User	User name for IPP authentication (24 characters maximum)	Yes	No
Password	Password for IPP authentication (24 characters maximum)	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Multicast Discovery Settings			
Response	On* Off	Yes	Yes
Scope name	Scope name to be used for a multicast discovery (32 characters maximum) (default*)	Yes	No
Use HTTP	On* Off	Yes	Yes
Use Web DAV Server	On, Off*	Yes	Yes
SSL Settings	Settings that use SSL	Yes	No
Key and Certificate			
Set as the Default Key	-	Yes	No
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert Thumbprint/Certificate	Yes	No
Display Use Location	Displays what the key pair is being used for	Yes	No
Proxy Settings			
Use proxy	On, Off*	Yes	No
Server Address	IP address or FQDN (128 characters maximum)	Yes	No
Port Number	1 to 65535 (80*)	Yes	No
Use Proxy within the Same Domain	On, Off*	Yes	No
Set Authentication			
Use Proxy Auth.	On, Off*	Yes	No
User	24 characters maximum	Yes	No
Password	24 characters maximum	Yes	No
Confirm Dept. ID PIN	On, Off*	Yes	No
IPSec Settings			
Use IPSec	On, Off*	Yes	No
Receive Non-policy Packets	Allow*/Reject	Yes	No
Edit		Yes	No
Delete		Yes	No
Policy On, Off		Yes	No
Register			
Policy Name	24 characters maximum	Yes	No
Register: Selector Settings	Local Address: All IP Addresses*/IPv4 Address/IPv6 Address/IPv4 Manual Settings/IPv6 Manual Settings	Yes	No
	Remort Address: All IP Addresses*, All IPv4Address, All IPv6Address, IPv4Manual Settings, IPv6 Manual Settings	Yes	No
	Port: Specify by Port Number*/Specify by Service Name	Yes	No
IKE Settings	IKE mode : Main*/Aggressive	Yes	No
	Authentication Method : Pre-Shared Key Method*/Digital sig. Method	Yes	No
	Auth./Encryption Algorithm : Auto*/Manual Settings	Yes	No
IPSec Network Settings	Validity : Time (1 to 65535minuites)(480minuites*)	Yes	No
	Validity : Size (1 to 65535 MB)(65535 MB*)	Yes	No
	PFS : On, Off*	Yes	No
	Auth./Encryption Algorithm : Auto*/Manual Settings	Yes	No
	Connect. Mode : Transport, display only	-	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Netware Settings		Yes	No
Use NetWare	On, Off*	Yes	Yes
Frame Type	Auto Detect*/Ethernet II/Ethernet 802.2/Ethernet 802.3/Ethernet SNAP	Yes	No
IPX External Network Number	Auto Set, display only	-	No
Node Number	Auto Set, display only	-	No
Print Service	Bindery PServer, R Printer, NDS Pserver*, NPrinter	Yes	No
Packet Signature	Auto Set, display only	-	No
Bindery Pserver Settings			
Print Server Name	47 characters maximum	Yes	No
File Server Name	47 characters maximum	Yes	No
Print Server Password	20 characters maximum	Yes	No
Printer Number	0 to 15 (0*)	Yes	No
Polling Interval	1 to 15seconds (5sedonds*)	Yes	No
Printer Form	0 to 255 (0*)	Yes	No
Buffer Size	1 to 20 KB (20KB*)	Yes	No
Service Mode	Service only currently mounted form/Change forms as needed/Minimize form changes across print queues/ Minimize form changes within print queues*	Yes	No
Rprinter Settings			
Print ServerName	47 characters maximum	Yes	No
File ServerName	47 characters maximum	Yes	No
Printer Number	0 to 15 (0*)	Yes	No
NDS PServer Settings			
Printer Number	64 characters maximum	Yes	No
Tree Name	32 characters maximum	Yes	No
Context	256 characters maximum	Yes	No
Print Server Password	20 characters maximum	Yes	No
Printer Number	0 to 254 (0*)	Yes	No
Polling Interval	1 to 255 seconds (5seconds*)	Yes	No
Printer Form	0 to 255 (0*)	Yes	No
Buffer Size	3 to 20KB (20KB*)	Yes	No
Service Mode	Service only currently mounted form/Change forms as needed/Minimize form changes across print queues/ Minimize form changes within print queues*	Yes	No
NPrinter Settings			
Print ServerName	64 characters maximum	Yes	No
Tree Name	32 characters maximum	Yes	No
Context	256 characters maximum	Yes	No
Printer Number	0 to 254 (0*)	Yes	No
Apple Talk Settings			
Use Apple Talk	On, Off*	Yes	Yes
Phase	Phase 2 (fixing)	-	No
Service Name	32 characters maximum (Model name*)	Yes	No
Zone	32 characters maximum	Yes	No
Print Mode[*2]	Both*, Spool, Direct	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
SMB Server Settings			
Use SMB Server	On, Off*	Yes	No
ServerName	15 characters maximum (Canon+represents the last six digits of a MAC address)	Yes	No
Workgroup	15 characters maximum (WORKGROUP*)	Yes	No
Comment	48 characters maximum	Yes	No
LM Announce	On, Off*	Yes	No
SMB Printer Settings			
Use SMB Print	On, Off*	Yes	No
Printer Name	13 characters maximum (PRINTER*)	Yes	No
SMB Auth. Settings			
Use SMB Authentication	On, Off*	Yes	No
Authentication Type	NTLMv1*, NTLMv2*	Yes	No
SNMP Settings		Yes	No
Get Printer Mgmt Info from Host	On, Off*	Yes	Yes
Use SNMPv1	On*, Off	Yes	Yes
Community Name1Settings			
Community Name1	On*, Off	Yes	No
MIB Access Permission	Read/Write/Read Only*	Yes	No
Community Name	Community Name (32 characters maximum) (public*)	Yes	No
Community Name2 Settings		Yes	No
Community Name2	On, Off*	Yes	No
MIB Access Permission	Read/Write/Read Only*	Yes	No
Community Name	Community Name (32 characters maximum) (public2*)	Yes	No
Use SNMPv3	On, Off*	Yes	No
User Settings			
User On, Off	-	Yes	No
Register	User/MIB Access Permission/Security Settings/Authent.Algorithm/Authent.Password/Encryption Algorithm/ Encryption Password	Yes	No
Details/Edit	User/MIB Access Permission/Security Settings/Authent.Algorithm/Authent.Password/Encryption Algorithm/ Encryption Password	Yes	No
Delete	-	Yes	No
Context Settings			
Register	Context Name (32 characters maximum)	Yes	No
Edit	Context Name (32 characters maximum)	Yes	No
Delete	-	Yes	No
Dedicated Port Settings			
Dedicated Port Settings	On*, Off	Yes	Yes
Use Spool Function			
Use Spool Function	On, Off*	Yes	Yes
Startup Settings			
Startup Settings	30 to 300 seconds (30*)	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Ethernet Driver Settings			
Auto Detect	On*, Off	Yes	No
Communication Mode	Half Duplex*/Full Duplex	Yes	No
Ethernet Type	10 Base-T*, 100 Base-TX, 1000 Base-T	Yes	No
MAC Address	Display only	-	No
IEEE802.1X Settings			
Use IEEE802.1X	On, Off*	Yes	No
Login Name	24 characters maximum	Yes	No
User	Name of the user to be authenticated with IEEE802.1X authentication	Yes	No
Password	Password of the user to be authenticated with IEEE802.1X authentication	Yes	No
TLS Settings			
Use TLS	On, Off*	Yes	No
Key and Certificate			
Set as the Default Key	-	Yes	No
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/Public Key/Cert.Thumbprint/Certificate	Yes	No
Display Use Location	Displays what the key pair is being used for.	Yes	No
TTLS Settings			
Use TTL	On, Off*	Yes	No
TTLS Settings	MSCHAPv2*, PAP	Yes	No
PEAP Settings			
Use PEAP	On, Off*	Yes	No
Same User Name as Login Name	On*, Off	Yes	No
Firewall Settings			
IP Address Block Log	Time, Category, IP Address, Result	Yes	No
IPv4 Address Filter			
TX Filter		Yes	No
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv4 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv4 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
IPv6 Address Filter		Yes	No
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv6 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv6 Address	Up to 16 IPv4 addresses can be stored.	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
MAC Address Filter			
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
MAC Address	Up to 100 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
MAC Address	Up to 100 IPv4 addresses can be stored.	Yes	No

T-10-7

External Interface

* Default Settings

Item	Setting Description	Device Information Delivery Available
USB Settings		
Use USB Device	On*, Off	Yes
Use MEAP Driver for USB Device	On, Off*	Yes
Use MEAP Driver for USB External Drive	On, Off*	Yes

T-10-8

Accessibility

* Default Settings

Item	Setting Description	Device Information Delivery Available
Key Repetition Settings	Standard*, Slightly Slow, Slow	No
Reversed Display (Color)	On, Off*	No

T-10-9

Adjustment/Maintenance

Adjust Image Quality[*1]

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Auto Adjust Gradation	Automatic after the machine prints and scans four sets of test pages	No
Correct Density	Copy/Scan and Store (Mail Box), Black Send/Scan and Store (other than Mail Box), Color Send/Scan and Store (Other Than Mail Box)Light, Dark: 1 to 9 levels (5levels*)	No
Fine Adjust Zoom	X, Y: -1.0% to +1.0%, in 0.1% increments (X: 0.0%* Y: 0.0%*)	No

T-10-10

Adjust Action[*1]

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Saddle Stitcher Staple Repositioning	Press [Start]	No
Adjust Saddle Stitch Fold Position	-2.00 mm to +2.00 mm, in 0.25 mm increments (0.00 mm*)	No
Adjust Fold Position		
Adjust Z-Fold Position	-2.0 mm to +1.5 mm, 0.5 mm increments (0.0 mm*)	No
Adjust C-Fold Position	A: 0.0 mm to +6.0 mm, 0.5 mm increments (0.0 mm*) B: 0.0 mm to +3.0 mm, 0.5 mm increments (0.0 mm*)	No

T-10-11

Maintenance

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Clean Feeder[*1]	Press [Start]	No
Clean Wire	Press [Start]	No
Clean Drum	Press [Start]	No
Original Scanning Area Cleaning Method[*1]	Display the cleaning method	No

T-10-12

Function Settings

Common

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*2 Indicates information that is delivered only if the number of output trays in the host machine and client machines is the same.

*3 Indicates items that cannot be used with the default setting. Also, the Adobe LiveCycle Rights Management ES is necessary. Contact your local authorized Canon dealer.

Item	Setting Description	Device information DeliveryAvailable
Paper Feed Settings		
Paper Drawer Auto Selection On/Off	Copy, Printer, Access Stored Files, Receive/Fax*1, Other	No
Multi-Purpose Tray	On, Off*	No
Other	On*, Off	No
Copy	Consider Paper Type : On*, Off	No
Suspended Job Timeout On	On, Off*	Yes
	0 to 999 min. (5min*)	
Paper Output Settings		
Output Tray Settings		
If the Staple Finisher/Booklet Finisher Is Attached		
Tray A	Copy, Access Stored Files*, Printer, Receive, Fax, Other	No*2
Tray B	Copy*, Access Stored Files*, Printer, Receive, Fax, Other	No*2
Tray C	Copy*, Access Stored Files*, Printer*, Receive, Fax, Other	No*2
Tray Home Position	Off, Tray B*, Tray C	No*2
Offset Jobs*1	On*, Off	Yes
Job Separator Between Jobs	On, Off*	Yes
Job Separator Between Copies	On, Off*	No
Different Paper Sizes for the Output Tray	On*, Off	No
Unfinished Tab Paper Forced Output	On, Off*	Yes
Print Settings		
Print Priority		
Copy	1*,2,3	Yes
Printer	1,2*,3	Yes
Access Stored File, Receive/Fax*1, Other	1,2,3*	Yes
Local Print Default Settings		
Select Paper	All Paper Sources, Auto*	No
No. of Prints	1 to 9,999 sets (1set*)	No
Finishing*1		
If No Finisher is Attached and the Copy Tray is Attached	Do Not Collate, Collate (Page Order)*, Rotate Collate, Group (Same Pages), Rotate Group, Face Up/Face Down	No
If the Stapele Finisher is Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Face Up/Face Down	No

Item	Setting Description	Device information DeliveryAvailable
If the Booklet Finisher is Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Face Up/Face Down	No
If the Staple Finisher and External 2/3 Hole Puncher Are Attached.	Do Not Collate, Collate (Page Order), Offset, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Hole Punch, Face Up/Face Down	No
If the Staple Finisher/Booklet Finisher and Document Insertion/Folding Unit Are Attached:	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Fold, Face Up/Face Down	No
If the Staple Finisher/Booklet Finisher, External 2/3 Hole Puncher and Document Insertion/Folding Unit-G1 Are Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Hole Punch, Fold, Face Up/Face Down	No
2-Sided Printing	On, Off*	No
Delete File After Printing	On, Off*	No
Merge and Print	On, Off*	No
Output Report Default Settings		
2-Sided Printing	On, Off*	Yes
Register Form	Register (Solid/Transparent)*1, Delete, Check Print, Details	No
Register Characters for Page No./Watermark	Register, Edit, Delete	Yes
Copy Set Numbering Option Settings	On, Off*	Yes
Number Option ON		
ID/User Name	On, Off*	Yes
Date	On, Off*	Yes
Text	On, Off*	Yes
Secure Watermark/Document Scan Lock*1		
Forced Secure Watermark/Doc. Scan Lock		
Copy	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
Mail Box	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
Printer	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
Printer Driver Watermark/Doc. Scan Lock	Do Not Set*, Driver Secure Watermark, Driver Doc. Scan Lock	Yes
Adjust Background/Character Contrast	Print Settings, Sample Print, Initialize	No
Relative Contrast	-7 to +7 (2*)	No
Standard Value Set. (imageRUNNER ADVANCE 6075)	1 to 64 (20*)	No
Standard Value Set. (imageRUNNER ADVANCE 6065/6055)	1 to 64 (16*)	No
Latent Area Density (imageRUNNER ADVANCE 6075)	1 to 36 (9*)	No
Latent Area Density (imageRUNNER ADVANCE 6065/6055)	1 to 36 (8*)	No
Adjust TL Code	Dot Size, Dot Density, Relative Contrast (Sample Print), Standard Value Settings, Initialize	No
Dot Size	4*	No

Item	Setting Description	Device information DeliveryAvailable
Dot Density	Standard*, Rough	No
Relative Contrast (imageRUNNER ADVANCE 6075)	-7 to +7 (2*)	No
Relative Contrast (imageRUNNER ADVANCE 6065/6055)	-7 to +7 (0*)	No
Standard Value Settings	1 to 64 (16*)	No
Scan Settings[*1]		
Timing to Raise Feeder Tray	When Start is pressed*, When Panel Is Touched	Yes
Feeder Jam Recovery Method	From 1st Page*, From Stopped Original	Yes
Scanner Noise Settings	Speed Priority*, Quiet	Yes
Streak Prevention	On*, Off	Yes
LTRR/STMT Original Selection	Select Manually, Use LTRR Format*, Use STMT Format	Yes
Remote Scan Data Compression Ratio	High Ratio, Normal*, Low Ratio	Yes
Remote Scan Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes
Auto Online	On, Off*	Yes
Auto Offline	On, Off*	Yes
Generate File		
High Compression Image Quality Level		
Image Level in Text/Photo Mode or Photo Mode	Data Size Priority, Normal*, Image Quality Priority	Yes
Image Level in Text Mode	Data Size Priority, Normal*, Image Quality Priority	Yes
OCR (Text Searchable) Settings		
Smart Scan	On*, Off	Yes
No. of OCR File Name Characters	1 to 24*	Yes
Trace & Smooth Settings		
Outline Graphics	On*, Off	Yes
Graphics Recognition Level	Normal, Moderate*, High	Yes
Background Image Level	Data Size Priority, Normal*, Image Quality Priority	Yes
Format PDF to PDF/A	On, Off*	Yes
Optimize PDF for Web	On, Off*	Yes
Rights Management Server Settings	Server URL: 128 characters maximum	No
	User: 128 characters maximum	No
	Password: 24 characters maximum	No
	Use Password for Each User: On, Off*	No
Document Scan Lock Settings		
Use Document Scan Lock/Embedded. Info.	On*, Off	Yes
Multiple Embedded Information Action	Continue Job, Cancel Job*	Yes
Use Document Scan Lock	On*, Off	Yes
Restrict Options	On*, Off	Yes

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Copy*1

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Register/Edit Favorite Settings	Register/Edit, Delete (M1 to M9), Check Content	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	Finishing*, Unassigned	No
Shortcut 2	2-Sided*, Unassigned	No
Shortcut 3	Density* Unassigned	No
Shortcut 4	Original Type*, Unassigned	No
Shortcut 5	Unassigned*	No
Register Options Shortcuts		
Shortcut 1	No Settings*	No
Shortcut 2	No Settings*	No
Shortcut 3	No Settings*	No
Shortcut 4	No Settings*	No
Shortcut 5	No Settings*	No
Shortcut 6	No Settings*	No
Auto Collate	On*, Off	Yes
Image Orientation Priority	On, Off*	Yes
Auto Orientation	On*, Off	Yes
Photo Printout Mode	On, Off*	Yes
Register Remote Device for Cascade Copy	Register (Seven devices maximum), Details, Delete	No
Cascade Copy Communication Timeout	5 to 30* seconds	Yes

T-10-14

Printer

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Output Report		
PCL		
Configuration Page	Print	No
Font List	Print	No
PS		
Configuration Page	Start	No
Font List	Print	No
Printer Settings	Setting the Machine (PS/PCL/UFR II Printer)	Yes
Restrict Printer Jobs	On, Off*	Yes
PDL Selection (Plug-n-play)	UFR II, PCL5e, PCL6, PS3, FAX	No

T-10-15

Send

* Default Setting

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*4 Indicates item that appears only if the Super G3 2nd Line Fax Board is installed in addition to installing the Super G3 FAX Board.

*5 Indicates item that appears only if the Super G3 3rd/4th Line Fax Board is installed in addition to installing the Super G3 FAX Board.

*6 Indicates item that appears according to the telephone line number specified in [No. of Sending Lines].

*4 Indicates item that appears only if the Super G3 2nd Line Fax Board is installed in addition to installing the Super G3 FAX Board.

*5 Indicates item that appears only if the Super G3 3rd/4th Line Fax Board is installed in addition to installing the Super G3 FAX Board.

*6 Indicates item that appears according to the telephone line number specified in [No. of Sending Lines].

Item	Setting Description	Device Information Delivery Available
Output Report		
TX/RX User Data List	Print List	No
Fax User Data List*1	Print List	No
Common Settings		
Register Favorite Settings Edit Favorite Settings	Register/Edit, Delete (M1 to M18), Check Content	Yes
Show Comment	On, Off*	Yes
Display Confirmation for Favorite Settings	On*, Off	No
Default Screen	Standard*, Address Book, One-Touch, Favorite Settings	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	2-Sided Original*, Unassigned	No
Shortcut 2	Different Size Originals*, Unassigned	No
TX Report	For Error Only*, On, Off	Yes
Report with TX Image	On*, Off	Yes
Communication Management Report		
Auto Print (100 Transmissions)	On*, Off	Yes
Specify Print Time	On, Off*	Yes
Timer Setting	00 : 00 to 23 : 59 (00 : 00*)	Yes
Send/Receive Separate	On, Off*	Yes
TX Terminal ID	Print*, Do Not Print	Yes
	TX Terminal ID: Print • Printing Position: Outside • Display Destination Unit Name: On, Off • Telephone # Mark*1: FAX, TEL	Yes
Delete Failed TX Jobs	On*, Off	Yes
Retry Times	0 to 5 times (3 times*)	Yes
Data Compression Ratio	High Ratio, Normal*, Low Ratio	Yes
YCbCr TX Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes
Use Divided Chunk Send for WebDAV TX	On*, Off	Yes
Limit New Destinations		
Fax	On, Off*	Yes
E-mail	On, Off*	Yes

Item	Setting Description	Device Information Delivery Available
I-Fax	On, Off*	Yes
File	On, Off*	Yes
Always Add Device Signature to Send[*1]	On*, Off	Yes
Restrict File Formats	On, Off*	Yes
E-mail/Ifax Settings		
Register Unit Name	24 characters maximum	No
Communication Settings		
SMTP RX	On, Off*	Yes
POP	On* Off	Yes
SMTP Server	Server name or IP Address (48 characters maximum)	No
E-mail Address	64 characters maximum	No
POP Server	Server name or IP Address (48 characters maximum)	No
POP Address	64 characters maximum	No
POP Password	32 characters maximum	No
POP Interval	0* to 99 (If the interval is set to '0', the incoming e-mail is not checked automatically.)	No
POP AUTH Method	Standard*/APOP/POP AUTH	Yes
POP Authentication before Sending	On, Off*	No
SMTP Authentication (SMTP AUTH)	On, Off*	No
User	User name for SMTP authentication (64 characters maximum)	No
Password	Password for SMTP authentication (32 characters maximum)	No
Allow SSL (POP)	On, Off*	No
Allow SSL (SMTP Send)	On, Off*	No
Display Auth. Screen When Send	On, Off*	No
Allow SSL (SMTP Receive)	Always SSL,On, Off*	No
Maximum Data Size for Sending	0=(Off)/1 to 99 MB (3MB*)	Yes
Default Subject	40 characters maximum (Attached Image*)	Yes
Use SMTP Authentication for Each User	On*, Off	No
Specify Authentication User Dest. to Reply	On, Off*	No
Set Authorized User Destination to Sender	On*, Off	No
Allow Sending to Unregistered Destinations	On, Off*	Yes
Full Mode TX Timeout	1 to 99 hours (24hours*)	Yes
Print MDN/DSN upon Receipt	On, Off*	Yes
Use Send via Server	On, Off*	Yes
Allow MDN Not via Server	On*, Off	Yes
Restrict TX Destination Domain		
Restrict Sending to Domains	On, Off*	Yes
Permitted Domains	Register, Details/Edit, Delete	No
Fax Settings[*1]		
Default Screen	Standard*, Address Book	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	Density*, Unassigned	No
Shortcut 2	Original Type*, Unassigned	No

Item	Setting Description	Device Information Delivery Available
Shortcut 3	2-Sided Original*, Unassigned	No
Shortcut 4	Different Size Originals*, Unassigned	No
Register Sender Name (TTI)	01 to 99: Register/Edit, Delete	No
ECM TX	On*, Off	Yes
Set Pause Time	1 to 15 seconds (2 seconds*)	Yes
Auto Redial	On*, Off	Yes
Redial Times	1 to 10 times (2 times*)	Yes
Redial Interval	2 to 99 minutes (2 minutes*)	Yes
Redial When TX Error	Error and 1st page*, All pages, Off	Yes
Check Dial Tone Before Sending	On*, Off	Yes
Fax TX Report	For Error Only*, On, Off	Yes
Report with TX Image	On*, Off	Yes
Fax Activity Report		
Auto Print (40 Transmissions)	On*, Off	Yes
Specify Print Time	On, Off*	Yes
Timer Setting	00: 00 to 23: 59 (00: 00*)	Yes
Send/Receive Separate	On, Off*	Yes
Set Line		
Register Unit Telephone Number	20 digits maximum	No
Register Unit Name	24 characters maximum	No
Select Line Type	Pulse, Tone*	No
Line	If the Super G3 FAX Board and Super G3 2nd Line Fax Board are installed: • Line 2	No
	If the Super G3 FAX Board, Super G3 2nd Line Fax Board, and Super G3 3rd/4th Line Fax Board are installed: • Line 2, Line 3, Line 4	No
Select TX Line	If the Super G3 FAX Board is installed: • Line 1: Priority TX*, Prohibit TX	No
	If the Super G3 FAX Board and Super G3 2nd Line Fax Board are installed: • Line 1: Priority TX*, Prohibit TX • Line 2: Priority TX, Prohibit TX	No
	If the Super G3 FAX Board, Super G3 2nd Line Fax Board, and Super G3 3rd/4th Line Fax Board are installed: • Line 1: Priority TX*, Prohibit TX • Line 2: Priority TX, Prohibit TX • Line 3: Priority TX, Prohibit TX • Line 4: Priority TX, Prohibit TX	No
TX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes
PIN Code Access	On, Off*	Yes
Confirm Entered Fax Number	On, Off*	Yes
Allow Fax Driver TX	On*, Off	Yes
Remote Fax TX Settings		

Item			Setting Description	Device Information Delivery Available
		Remote Fax Server Address	Host name or the IP address (48 characters maximum)	No
		TX Timeout	1 to 99 hours (24 hours*)	Yes
		No. of Sending Lines	1 to 4 lines (1*)	No
		Select Priority Line	Auto*, Line 1, Line 2[*6], Line 3[*6], Line 4[*6]	No
	Remote Fax Settings			
		Use Remote Fax	On*, Off	Yes

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Receive/Forward

* Default Setting

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*7 Indicates item that is not delivered as device information.

Receive Type, Details/Edit, Delete, Print List, E-Mail Priority

Item	Setting Description	Device Information Delivery Available
Output Report		
TX/RX User Data List	Print List	No
Fax User Data List*1	Print List	No
Common Settings		
Print on Both Side	On, Off*	Yes
Select Drawer		
Switch A	On*, Off	Yes
Switch B	On*, Off	Yes
Switch C	On*, Off	Yes
Switch D	On*, Off	Yes
Reduce Fax RX Size	On*, Off	Yes
	On • Reduction Mode: Auto • Reduction %: 90% • Reduction Direction: Vertical Only	Yes
2 On 1 Log	On, Off*	Yes
Received Page Footer	Print, Do Not Print*	Yes
Handle Files with Forwarding Errors	Always Print*, Store/Print, Off	Yes
Forwarding Settings	Type, Validate/Invalidate, Register (Registered Forwarding Settings), Forward w/o Conditions, E-Mail Priority, Details/Edit, Delete, Print List	Yes*7
Set Fax/I-Fax Inbox		
Set/Register Confidential Fax Inboxes		
Inbox No.	00 to 49	Yes
Register Box Name:	24 characters maximum	Yes
PIN	Seven digits maximum	Yes
URL Send Settings	-	Yes
Initialize	-	No
Memory RX Inbox PIN	Seven digit number	No
Use Fax Memory Lock*1	On, Off*	Yes
Use I-Fax Memory Lock	On, Off*	Yes
Memory Lock Start Time	Everyday, Select Days, Off*	Yes
Memory Lock End Time	Everyday, Select Days, Off*	Yes
Divided Data RX Timeout	0 to 99 hours (24hours*)	Yes
Always Send Notice for RX Errors	*On, Off	Yes
Fax Settings*1		
ECM RX	On*, Off	Yes

Item	Setting Description	Device Information Delivery Available
Fax RX Report	For Error Only, On, Off*	Yes
Confidential Fax Inbox RX Report	On*, Off	Yes
RX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes
RX Password	20 digits maximum	No

T-10-17

Store/Access Files

* Default Setting

Item	Setting Description	Device Information Delivery Available
Common Settings		
Scan and Store Settings		
Register/Edit Favorite Settings	Register, Rename, Delete (Up to 9 Set Keys), Check Content	No
Photo Printout Mode	On, Off*	Yes
Change Default Settings	Register, Initialize	No
Access Stored Files Settings		
Register/Edit Favorite Settings	Register, Rename, Delete (Up to 9 Set Keys), Check Content	No
Change Default Settings	Register, Initialize	No
Mail Box Settings		
Set/Register Mail Boxes		
Mail Box No.	00 to 99	No
Register Box Name	24 characters maximum	Yes
PIN	Seven digits	Yes
Time Until File Auto Delete	0 (Off), 1, 2, 3, 6, 12 hours, 1, 2, 3*, 7, 30 days	No
URL Send Settings	-	Yes
Print upon Storing from Printer Driver	On, Off*	Yes
Initialize	-	No
Settings for All Mail Boxes		
Time Until File Auto Delete	0 (Off), 1, 2, 3, 6, 12 hours, 1, 2, 3*, 7, 30 days	No
Print When Storing from Printer Driver	On, Off*	No
Advanced Box Settings		
Open to Public	By SMB, By WebDAV, Off*	Yes
WebDAV Server Settings		
Authentication Type	Basic, Off*	Yes
Use SSL	On*, Off	Yes
Allow to Create Personal Space	On*, Off	Yes
Delete All Personal Spaces	Delete	No
Initialize Shared Space	Initialize	No
Prohibit Writing from External	On*, Off	Yes
Authentication Management	On, Off*	Yes
File Formats Allowed for Storing	Printable Formats Only*, Common Office Formats, All	Yes
Network Settings		
Network Place Settings	Register, Details, Delete	No
Protocol for External Reference		

Item			Setting Description	Device Information Delivery Available
		SMB	On*, Off	No
		WebDAV	On*, Off	No

T-10-18

Encrypted Secure Print

* Default Setting

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Only Allow Encrypted Print Jobs*1	On, Off*	Yes

T-10-19

Set Destination

Set Destination

* Default Setting

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item		Setting Description	Device Information Delivery Available
Address List		Address List 1 to 10, One-touch	No
		Print List: Print	No
Register Destinations		Register New Dest., Details/Edit, Delete, Search by Name	Yes
Rename Address List		Rename	Yes
Register One-Touch		Register/Edit, Delete	Yes
Change Default Display of Address Book		Local*, LDAP Server, Remote	No
Address Book PIN		Seven digit number	Yes
Manage Address Book Access Numbers		On, Off*	Yes
Register LDAP Server		Register, Details/Edit, Delete, Register/Edit LDAP Search, Print List	No
Auto Search When Using LDAP Server		On* Off	Yes
Acquire Remote Address Book			
	Acquire Address Book	On*, Off	Yes
	Remote Address Book Server Address	IP Address or Host Name (128 characters maximum)	No
	Communication Timeout	15 to 120 seconds (30 seconds*)	Yes
	Fax TX Line Auto Select Adjustment	On*, Off	Yes
Make Remote Address Book Open			
	Make Address Book Open	On, Off*	Yes

T-10-20

Management Settings

User Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item		Setting Description	Device Information Delivery Available
System Manager Information Settings			
	System Manager ID	Seven digit number maximum (7654321*)	Yes
	System PIN	Seven digit number maximum (7654321*)	Yes
	System Manager	32 characters maximum	Yes
	E-Mail Address	64 characters maximum	Yes
	Contact Information	32 characters maximum	Yes
	Comment	32 characters maximum	Yes
Department ID Management			
	Department ID Management	On, Off*	Yes
	Register PIN	Register, Edit, Delete, Limit Functions	Yes
	Page Totals	Clear, Print List, Clear All Totals, Large2 Count Management	No
	Allow Printer Jobs with Unknown IDs	On*, Off	Yes
	Allow Remote Scan Jobs With Unknown IDs	On*, Off	Yes

T-10-21

Device Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item			Setting Description	Device Information Delivery Available
Device Information Settings				
	Device Name		32 characters maximum	No
	Location		32 characters maximum	No
Device Information Delivery Settings				
	Register Destinations		Auto Search/Register, Register, Details, Delete, Print List	No
			Auto Search/Register • List • Search Depth (Router): 1 to 8 • Display Host Name: On, Off • Start Auto Search	No
	Set Auto Settings		Everyday, Specify Days, Off*	No
		Settings/Registration Value	On, Off* Network Settings: Include, Exclude*	No
		Dept. ID	On, Off*	No
		Address Book	On, Off*	No
		Web Access Favorites	On, Off*	No
		Printer Settings	On, Off*	No
		Paper Information	On, Off*	No

Item			Setting Description	Device Information Delivery Available
	Manual Delivery			
		Settings/Registration Value	On, Off* Network Settings: Include, Exclude*	No
		Dept. ID	On, Off*	No
		Address Book	On, Off*	No
		Web Access Favorites	On, Off*	No
		Printer Settings	On, Off*	No
		Paper Information	On, Off*	No
	Restrictions Receiving Device Information		On*, Off	No
	Restore Data		Settings/Registration Value, Dept. ID, Address Book, Web Access Favorites, Printer Settings, Paper Information	No
	Restrict Restriction for Each Function			
		Settings/Registration Value	On*, Off	No
		Dept. ID	On*, Off	No
		Address Book	On*, Off	No
		Web Access Favorites	On, Off*	No
		Printer Settings	On*, Off	No
		Paper Information	On*, Off	No
	Set Paper Information		All, Basic Only*	No
	Communication Log		Details, Print List, Report Settings	No
			Report Settings • Auto Print (100 transmissions): On*, Off	No
			• Specify Print Time: On, Off*	No
			-00: 00* to 23:59	No
			• Separate Report Type: On, Off*	No
Limited Functions Mode[*1]			On, Off*	No
Confirm Device Signature Certificate			Certificate Details: Certificate	No
Confirm User Signature Certificate			Certificate Details: Certificate	No
Certificate Settings				
	Certificate Settings: Generate Key: Generate Network Communication Key			
		Key Name	24 characters maximum	No
		Key Algorithm	RSA, Display only	No
		Key Length (bit)	512*, 1024	No
		Start Date of Validity	Month, Date, Year (2000/01/01~2048/12/31)	No
		End Date of Validity	Month, Date, Year (2000/01/01~2048/12/31)	No
		Country/Region	Country/Region name and code (2 characters maximum) (US*)	No
		State	24 characters maximum	No
		City	24 characters maximum	No
		Organization	24 characters maximum	No
		Organization Unit	24 characters maximum	No
		Common Name	IP address or FQDN (24 characters maximum)	No
	Certificate Settings:Generate Key			
		Generate/Update Device Signature Key[*1]	-	No

Item	Setting Description	Device Information Delivery Available
Certificate Settings: Key and Certificate List: Key and Certificate List for this Machine Editing Key Pairs and Server Certificates Confirming a Key Pair and Device Certificate		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert. Thumbprint/Certificate	No
Delete	-	No
Display Use Location	Displays what the key pair is being used for	No
Certificate Settings: Key and Certificate List: Key and Certificate List for Users*		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert. Thumbprint(SHA1)/Certificate	No
Delete	-	No
Certificate Settings: CA Certificate List		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert. Thumbprint/Certificate	No
Delete	-	No
Certificate Settings: Register Key and Certificate		
Register	Key Name (24 characters maximum) Password (24 characters maximum)	No
Delete	-	No
Certificate Settings: Register CA Certificate		
Register	-	No
Delete	-	No
Display Status Before Authentication	On*, Off	No
Display Log	On*, Off	No
	Off • Obtain Job Log From Management Software: Permit, Do Not Allow*	No

T-10-22

License/Other

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Register License	24 characters maximum	No
MEAP Settings		
Print System Information	Print	No
SSL Settings	On • Use SSL:On, Off*	No
Remote UI	On*, Off	Yes
	On • Use SSL:On, Off*	No
Use Reference Print	On, Off*	Yes
Delete Message Board Contents	Clear	No

T-10-23

Data Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item		Setting Description	Device Information Delivery Available
HDD Data Complete Deletion*			
	Timing of Deletion	During Job*, After Job	No
	Overwrite Method for Deletion Mode	0 (Null) Data 1 Time*, Random Data 1 Time, Random Data 3 Times, DOD Standard	No
Initialize All Data/Settings		Initialize	No
TPM Settings		Use TPM: On, Off*	No
		Backup TPM Key, Restore TPM Key	No

T-10-24

Backup Data

Data	Location	Replace						Delete												Backup by User			Backup by Service			
								User function						Service function												
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	DC Cont-roller PCB	Reader Cont-roller PCB	Replace the TPM PCB	Initialize All Data/ Settings	Settings/Registration > Function Settings: Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	Advanced Box Settings > Delete Personal/ Shared Space > Delete All	Function> CLEAR > MN-CONT	Function> CLEAR > MMI	Function> CLEAR > DC-CON	Function > CLEAR >R-CON	Function> CLEAR > ADRS-BK	Function> CLEAR > JV-CASHE	Yes/ No	Method	Location to be stored	Yes/No: Back-up	Yes/No: Re-store	Method	Location to be stored
Address List	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	Clear	-	Yes	Remote UI (block of Export/Import)	PC	No	Yes (*1)	USB memory	-
Forwarding Settings	HDD/ SRAM (MCON2)	Clear	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes	Remote UI (block of Export/Import)	PC	No	Yes (*1)	USB memory	-
Settings / Registration																										
Preferences	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	Clear (*2)	-	-	-	Yes (*3)	Remote UI (block of Export/Import)	PC	Yes	Yes (*1)	SST, Download Menu(HDD/USB)	PC
Adjustment/ Maintenance	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes	Remote UI (block of Export/Import)	PC	Yes	Yes (*1)	SST, Download Menu(HDD/USB)	PC
Function Settings	SRAM (MCON2/ DCON)	-	-	Clear	Clear	-	-	Clear	Clear	Clear	Clear	-	-	Clear	Clear	Clear (*4)	Clear (*5)	-	-	Yes (*6)	Remote UI (block of Export/Import)	PC	Yes	Yes (*1)	SST, Download Menu(HDD/USB)	PC
Set Destination	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes	Remote UI (block of Export/Import)	PC	Yes	Yes (*1)	SST, Download Menu(HDD/USB)	PC
Management Settings	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes (*7)	Remote UI (block of Export/Import)	PC	Yes	Yes (*1)	SST, Download Menu(HDD/USB)	PC
Printer Settings	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	Clear	-	Clear	Clear	-	-	-	-	Yes	Remote UI (Export/Import)	PC	Yes	Yes (*1)	SST, Download Menu(HDD/USB)	PC
Set Paper Information	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	Yes	Remote UI (block of Export/Import)	PC	No	No	-	-
Setting items for each menu in Main Menu (Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox)																										
Favorite Settings	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes (*8)	Remote UI (block of Export/Import)	PC	Yes	Yes (*9)	SST (Meapback)	PC
Default Settings	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes	Yes (*10) (*11)	SST (Meapback)	PC
Shortcut settings for “Options”	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes	Yes (*10)	SST (Meapback)	PC
Previous Settings	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes	Yes (*10)	SST (Meapback)	PC
Setting items for Quick Menu																										
Button Size information	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (block of Export/Import)	PC	Yes	Yes (*1) (*12)	SST (Meapback)	PC
Wallpaper Setting	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (block of Export/Import)	PC	Yes	Yes (*1) (*12)	SST (Meapback)	PC
Button information in Quick Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (block of Export/Import)	PC	Yes	Yes (*1) (*12)	SST (Meapback)	PC
Restrict Quick Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (block of Export/Import)	PC	Yes	Yes (*1) (*12)	SST (Meapback)	PC
Setting items for Main Menu																										
Button settings in Main Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	Clear	-	-	-	-	Yes	Remote UI (block of Export/Import)	-	Yes	Yes (*1)	USB memory	-

Data	Location	Replace						Delete												Backup by User			Backup by Service			
								User function						Service function												
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	DC Cont-roller PCB	Reader Cont-roller PCB	Replace the TPM PCB	Initialize All Data/ Settings	Settings/Registration > Function Settings				Advanced Box Settings > Delete Personal/ Shared Space > Delete All	Function> CLEAR > MN-CONT	Function> CLEAR > MMI	Function> CLEAR > DC-CON	Function > CLEAR >R-CON	Function> CLEAR > ADRS-BK	Function> CLEAR > JV-CASHE	Yes/ No	Method	Location to be stored	Yes/No		Method	Location to be stored
									Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize											Back-up	Re-store		
Button settings on the top of the screen	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	Clear	-	-	-	-	Yes	Remote UI (block of Export/Import)	-	Yes	Yes (*1)	USB memory	-
Wallpaper Setting for Main Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	Clear	-	-	-	-	Yes	Remote UI (block of Export/Import)	-	Yes	Yes (*1)	USB memory	-
Other settings for Main Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	Clear	-	-	-	-	Yes	Remote UI (block of Export/Import)	-	Yes	Yes (*1)	USB memory	-
Box settings																										
User Box specification settings (Register Box Name, Password, Time until Document Auto Erase, Print uponstoring from the printer driver)	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	-	Yes (*13)	Remote UI (Bacup/ Restore)	PC/USB-HDD	No	Yes (*1)	USB memory	-
Image data of User Box, Confidential Fax Box, and System Box Image Data	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	- (*29)	-	-	-	-	-	Yes (*13)	Remote UI (Bacup/ Restore)	PC/USB-HDD	No	Yes (*1)	USB memory	-
Data File of Advanced Box	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	Clear	-	-	-	-	-	-	Yes (*14)	Remote UI (Bacup/ Restore)	PC/USB-HDD (*15)	No	Yes	USB memory	-
Advanced box settings																										
Advanced box account	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes (*16)	Remote UI (block of Export/Import)	PC	Yes	Yes (*1) (*17)	SST (Meapback), USB memory	PC
Network place setting information	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	Yes	Remote UI (block of Export/Import)	PC	No	Yes (*1)	USB memory	-
Box settings																										
Image forms stored in the Form Composition mode	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	Yes (*13)	Remote UI (Bacup/ Restore)	PC	No	No	-	-
Web browser settings																										
Web Access setting information	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	Yes (*18)	Remote UI (block of Export/Import)	PC	Yes	Yes (*1)	SST, Download Menu(HDD/USB)	PC
MEAP settings																										
MEAP application	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes	Yes	SST (Meapback)	PC
License files for MEAP applications	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	SMS	PC	Yes	Yes	SST (Meapback)	PC
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	SSO-H	PC	Yes	Yes	SST (Meapback)	PC
Data saved using MEAP applications	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes (*19)	-	-	Yes	Yes	SST (Meapback)	PC
SMS (Service Management Service) password of MEAP	HDD	Clear	-	-	-	-	-	Clear (*20)	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes	Yes	SST (Meapback)	PC
Universal data settings																										

Data	Location	Replace						Delete												Backup by User			Backup by Service			
								User function						Service function												
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	DC Cont-roller PCB	Reader Cont-roller PCB	Replace the TPM PCB	Initialize All Data/ Settings	Settings/Registration > Function Settings: Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	Advanced Box Settings > Delete Personal/ Shared Space > Delete All	Function> CLEAR > MN-CONT	Function> CLEAR > MMI	Function> CLEAR > DC-CON	Function > CLEAR >R-CON	Function> CLEAR > ADRS-BK	Function> CLEAR > JV-CASHE	Yes/ No	Method	Location to be stored	Yes/No: Back-up	Yes/No: Re-store	Method	Location to be stored
Unsent documents (documents waiting to be sent with the Delayed Send mode)	SRAM (MCON2) HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	No	-	-	No	No	-	-
Job logs	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	No	-	-
Key Pair and Server Certificate in Certificate Settings in TCP/IP Settings in Network Set-tings in System Settings (from the Additional Functions screen)	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	No	-	-
Auto Adjust Gradation setting values	HDD (SRAM (MCON2))	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	-	No	-	-	Yes	Yes	SST, Download Menu(HDD/USB)	PC
PS font	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	No	-	-
Key information to be used for encryption when TPM is OFF	SRAM (MCON2)	Clear (*21)	-	Clear (*22)	-	-	-	Clear	-	-	-	-	-	Clear (*22)	-	-	Clear (*22)	-	-	No (*23)	-	-	No	No	-	-
Key and settings information to be used for encryption when TPM is ON	SRAM (MCON2) HDD TPM Board	Clear (*24)	-	Clear (*25)	-	-	Clear	Clear (*26)	-	-	-	-	-	Clear (*25)	-	-	Clear (*25)	-	-	Yes (*27)	Settings/ Registration Management Settings > Data Managemnet > TPM Settings	USB memory	No	No	-	-
Service Mode																										
Service mode setting values (MN-CON)	SRAM (MCON2)	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes	Remote UI (block of Export/ Import) COPIER> OPTION> USER> SMD-EXPT> ON Only (*28)	PC	Yes	Yes	SST, Download Menu(HDD/USB)	HDD/ USB
Service mode setting values (DC-CON)	SRAM (DC-CON)	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	-	-	-	Yes		PC	Yes	Yes	COPIER> FUNCTION> SYSTEM> DSRAMBUP	HDD
Service mode setting values (R-CON)	EEPROM (R-CON)	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	-	-	Yes		PC	Yes	Yes	COPIER> FUNCTION> SYSTEM> RSRAMBUP	HDD
Audit Log	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes	Yes	SST (Meapback)	PC

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*1	If there are the backup data which exported in USB memory, Restore is possible in Download Menu (USB).
*2	The following items are Deleted. Preferences > Paper Settings > Register Envelope Drawer Preferences > Paper Settings > B5/EXEC Paper Selection Preferences > Paper Settings > A5R/STMTR Paper Selection
*3	An exclusion item: Preferences > Timer/Energy Settings > [Adjust Time]/[Date/Time Settings]
*4	The following items are Deleted. Function Settings > Common > Paper Feed Settings > Paper Drawer Auto Selection On/Off Function Settings > Common > Paper Feed Settings > Feed Method Switch

*5	The following items are Deleted. Function Settings > Common > Scan Settings > Scanner Noise Settings Function Settings > Common > Scan Settings > Timing to Raise Feeder Tray Function Settings > Common > Scan Settings > Streak Prevention
*6	The following data are impossible of backup Function Settings > Common > Print Settings > Register Form Function Settings > Receive/Forward > Common Settings > Set Fax/I-Fax Inbox
*7	The following data are impossible of backup Management Settings > User Management > Department ID Management > Page Totals
*8	Backup is available only "Favorite Settings" in "Scan to Send"
*9	:If start-up in download mode in safe mode is available in the event of an HDD failure, it is assumed that MEAP applications can be backed up using SST in some cases. In that case, the data can be recovered with the information of the MEAP applications maintained by checking that the machine starts normally after installation of the system after replacement of the HDD, starting the machine in download mode in safe mode, and restoring the backup data.
*10	:If start-up in download mode in safe mode is available in the event of an HDD failure, it is assumed that MEAP applications can be backed up using SST in some cases. In that case, the data can be recovered with the information of the MEAP applications maintained by checking that the machine starts normally after installation of the system after replacement of the HDD, starting the machine in download mode in safe mode, and restoring the backup data.
*11	If there are the backup data which exported in USB memory except a history, Restore is possible in Download Menu (USB).
*12	:If start-up in download mode in safe mode is available in the event of an HDD failure, it is assumed that MEAP applications can be backed up using SST in some cases. In that case, the data can be recovered with the information of the MEAP applications maintained by checking that the machine starts normally after installation of the system after replacement of the HDD, starting the machine in download mode in safe mode, and restoring the backup data.
*13	Login System Administrator and do backup.
*14	IIt is possible only when logging in as an administrator user. When ON is selected for the authentication management of Advanced Box, Advanced Box account needs to be exported in advance and imported at restoration.
*15	When the optional high-capacity HDD is installed, backup can be done only to USB-HDD.
*16	When ON is selected for the authentication management of Advanced Box, Advanced Box account needs to be exported in advance and imported at restoration.
*17	:If start-up in download mode in safe mode is available in the event of an HDD failure, it is assumed that MEAP applications can be backed up using SST in some cases. In that case, the data can be recovered with the information of the MEAP applications maintained by checking that the machine starts normally after installation of the system after replacement of the HDD, starting the machine in download mode in safe mode, and restoring the backup data.
*18	Only "favorites of web browser" can be backed improves when You perform individual export of RUI.
*19	Only when MEAP applications have a backup function
*20	Since the password is TPM-encrypted and saved, password backed up after all data/settings have been initialized cannot be restored. When all data/settings have been initialized, initialize the password using a switch license for password initialization. [Reference] Since TPM encryption key is updated when all data/settings are initialized, the password which was backed up cannot be read.
*21	If the backup key information in the HDD is missing, it is automatically recovered from the key in the SRAM (MCON2).
*22	If the key information in the SRAM (MCON2) is missing, it is automatically recovered from the backup key in the HDD.
*21,22	When You change Main PCB 2 and HDD at the same time, the automatic restoration of the key information is not performed.
*23	No means is available to back up externally.
*24	An error code is displayed when the TPM setting is “ON”. After all data/settings are initialized after restart, select "ON" for the TPM setting to enable the TPM setting.
*25	If the TPM key information in the SRAM of the HDD or the Main Controller PCB 2 becomes missing, the key information in the SRAM is automatically recovered from the backup of the common key in the HDD. Then the internal state of TPM setting changes to "ON". Note that the TPM setting needs to be manually changed to "ON" since "OFF" is displayed for UI.
*26	TPM settings becomes "OFF" when all data/settings are initialized.
*27	Backup only against TPM PCB failure is possible. In addition, restoration cannot be done to other machines whose TPM setting is set to "ON".
*28	Backup is possible in SramImg, DSRAMBUP, RSRAMBUP. When You set it in COPIER>OPTION>USER>SMD-EXPT>ON, a backup/restore is possible in Service Mode Settings from the Remote UI. There is a backup button on the TOP page of the service mode. HDD and USB memory can back up Service Mode Settings by backup button. The contents of Settings/Registration become the object of the collective backup. The exclusion item refers to "a list of DCM backup exclusion items".
*29	Because clearing MN-CONT changes the memory reception setting to "OFF", the image data saved in the Memory RX Inbox is automatically printed after restart. After a print, it is deleted from a system box.

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Appendix > Backup Data

DCM backup exclusion items			
Preferences	Paper Settings	Paper Type Management Settings	Custom Type > Details/Edit > Change
		Register Envelope Drawer	
		Register Multi-Purpose Tray Defaults	
	Display Settings	Erasing the Remaining Toner Error Message	
	Timer/Energy Settings	Current Time Adjustment	
	Network	Output Report	
		TCP/IP Settings	IP Address Settings (IPv4)
			IP Address Settings (IPv6)
			IPP Print Settings
			SSL Settings
			Confirm Dept. ID PIN
		IPSec settings	
		IEEE802.1X Settings	
		Firewall Settings	IP Address Block Log
	Accessibility	Voice Navigation Settings	Tune Microphone
Adjustment/ Maintenance	Adjust Image Quality	Auto Adjust Gradation	
		Conect Shading	
		Auto Correct Color Mismatch	
	Adjust Action	Saddle Stitcher Staple Repositioning	
		Change Fold/Stitch Position	
	Maintenance		
Function Settings	Common	Paper Feed Settings	Paper Drawer Auto Selection On/Off
		Print Settings	Local Print Default Settings
			Form for Superimpose Image
			Secure Watermark Settings > Adust Background/ Character Contrast
	Printer		
	Send	Output Report	TX/RX User Data List
			Fax User Data List
		E-Mail/I-Fax Settings	Communication Settings
	Receive/Forward	Output Report	
		Common Settings	Forwarding Settings
	Store/Access Files	Mail Box Settings	Settings for All Mail Boxes
		Advanced Box Settings	Delete All Personal Spaces
		Network Settings	
Set Destination	Address Lists		
	Register Destinations		
	Register LDAP Server		
	Auto Serarch when using LDAP Server		
Management Settings	User Management	Department ID Management	Page Totals
			Print List
	Device Management	Device Information Delivery Settings	Manual Delivery
			Resor Data
			Communication Log
			Register Destination > Auto Serch/Registor
		Restrict Receiving Device Information	
		Limit Function when Security key is off	
		Certificate Settings	
	License/Other	Register License	
		MEAP Settings	Print System Information
			Remote UI On/Off
			Delete Massage Board Contents
	Data Management	Back Up	
		Restore	
		Back Up/Restore Log	
		Initialize All Data/Settings	
		TPM Settings	

T-10-27

Soft Counter List

Soft counter specifications

000 to 099: Remote copy
100 to 199: Total
200 to 299: Copy
300 to 399: Print
400 to 499: Copy and print
500 to 599: Scan
600 to 699: Box
700 to 799: Reception print
800 to 899: Report print
900 to 999: Transmission

- Explanation of symbols shown in the table -

- yes: Valid counter for this machine
- 4C: Full color
- Mono: Mono color (Y, M, C / R, G, B / retro monochrome)
- Bk: Single black color
- L: Large size (larger than B4 size)
- S: Small size (smaller than B4 size)
- Numbers 1, 2 indicated under "Counter Details": Number of counts for large size paper
- It can be changed by the service mode (COPIER > OPTION > USER > B4_L_CNT) so that the paper larger than B4 size can be counted as large size paper.
- Copy: Local copy + remote copy
- Copy A: Local copy + remote copy + box print
- Print: PDL print + report print + box print
- Print A: PDL print + report print
- Scan: Black and white scan + color scan

Soft Counter List

000 to 099

Valid or invalid	Number	Counter Details
no	002	Remote copy (full color 1)
no	003	Remote copy (full color 2)
no	004	Remote copy (mono color 1)
no	005	Remote copy (mono color 2)
yes	006	Remote copy (black and white 1)
yes	007	Remote copy (black and white 2)
no	008	Remote copy (full color / large)
no	009	Remote copy (full color / small)
no	010	Remote copy (mono color / large)
no	011	Remote copy (mono color / small)
yes	012	Remote copy (black and white / large)
yes	013	Remote copy (black and white / small)
no	014	Remote copy (full color + mono color / large)
no	015	Remote copy (full color + mono color / small)
no	016	Remote copy (full color + mono color 2)
no	017	Remote copy (full color + mono color 1)
no	018	Remote copy (full color / large / double sided)
no	019	Remote copy (full color / small / double sided)
no	020	Remote copy (mono color / large / double sided)
no	021	Remote copy (mono color / small / double sided)
yes	022	Remote copy (black and white / large / double sided)
yes	023	Remote copy (black and white / small / double sided)
no	071	Toner bottle black
no	072	Toner bottle yellow
no	073	Toner bottle magenta
no	074	Toner bottle cyan
no	075	Toner bottle clear
no	081	Toner bottle + Halfway replacement black
no	082	Toner bottle + Halfway replacement yellow
no	083	Toner bottle + Halfway replacement magenta
no	084	Toner bottle + Halfway replacement cyan
no	091	1/10 Toner bottle black

Valid or invalid	Number	Counter Details
no	092	1/10 Toner bottle yellow
no	093	1/10 Toner bottle magenta
no	094	1/10 Toner bottle cyan
no	095	1/10 Toner bottle clear

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100 to 199

Valid or invalid	Number	Counter Details
yes	101	Total 1
yes	102	Total 2
yes	103	Total (large)
yes	104	Total (small)
no	105	Total (full color 1)
no	106	Total (full color 2)
yes	108	Total (black and white 1)
yes	109	Total (black and white 2)
no	110	Total (mono color / large)
no	111	Total (mono color / small)
yes	112	Total (black and white / large)
yes	113	Total (black and white / small)
yes	114	Total 1 (double sided)
yes	115	Total 2 (double sided)
yes	116	large (double sided)
yes	117	small (double sided)
no	118	Total (mono color 1)
no	119	Total (mono color 2)
no	120	Total (full color / large)
no	121	Total (full color / small)
no	122	Total (full color + mono color / large)
no	123	Total (full color + mono color / small)
no	124	Total (full color + mono color 2)
no	125	Total (full color + mono color 1)
yes	126	Total A1
yes	127	Total A2
yes	128	Total A (large)
yes	129	Total A (small)

Valid or invalid	Number	Counter Details
no	130	Total A (full color 1)
no	131	Total A (full color 2)
yes	132	Total A (black and white 1)
yes	133	Total A (black and white 2)
no	134	Total A (mono color / large)
no	135	Total A (mono color / small)
yes	136	Total A (black and white / large)
yes	137	Total A (black and white / small)
yes	138	Total A 1 (double sided)
yes	139	Total A 2 (double sided)
yes	140	large A (double sided)
yes	141	small A (double sided)
no	142	Total A (mono color 1)
no	143	Total A (mono color 2)
no	144	Total A (full color / large)
no	145	Total A (full color / small)
no	146	Total A (full color + mono color / large)
no	147	Total A (full color + mono color / small)
no	148	Total A (full color + mono color 2)
no	149	Total A (full color + mono color 1)
yes	150	Total B1
yes	151	Total B2
yes	152	Total B (large)
yes	153	Total B (small)
no	154	Total B (full color 1)
no	155	Total B (full color 2)
yes	156	Total B (black and white 1)
yes	157	Total B (black and white 2)
no	158	Total B (mono color / large)
no	159	Total B (mono color / small)
yes	160	Total B (black and white / large)
yes	161	Total B (black and white / small)
yes	162	Total B1 (double sided)
yes	163	Total B2 (double sided)
yes	164	large B (double sided)

Valid or invalid	Number	Counter Details
yes	165	small B (double sided)
no	166	Total B (mono color 1)
no	167	Total B (mono color 2)
no	168	Total B (full color / large)
no	169	Total B (full color / small)
no	170	Total B (full color + mono color / large)
no	171	Total B (full color + mono color / small)
no	172	Total B (full color + mono color 2)
no	173	Total B (full color + mono color 1)
no	191	Toner replacement / yellow
no	192	Toner replacement / magenta
no	193	Toner replacement / cyan
no	194	Toner replacement / black
no	195	Toner replacement / clear
no	196	Toner replacement / expansion

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200 to 299

Valid or invalid	Number	Counter Details
yes	201	Copy (Total 1)
yes	202	Copy (Total 2)
yes	203	Copy (large)
yes	204	Copy (small)
yes	205	Copy A (Total 1)
yes	206	Copy A (Total 2)
yes	207	Copy A (large)
yes	208	Copy A (small)
yes	209	Local copy (Total 1)
yes	210	Local copy (Total 2)
yes	211	Local copy (large)
yes	212	Local copy (small)
yes	213	Remote copy (Total 1)
yes	214	Remote copy (Total 2)
yes	215	Remote copy (large)
yes	216	Remote copy (small)
no	217	Copy (full color 1)

Valid or invalid	Number	Counter Details
no	218	Copy (full color 2)
no	219	Copy (mono color 1)
no	220	Copy (mono color 2)
yes	221	Copy (black and white 1)
yes	222	Copy (black and white 2)
no	223	Copy (full color / large)
no	224	Copy (full color / small)
no	225	Copy (mono color / large)
no	226	Copy (mono color / small)
yes	227	Copy (black and white / large)
yes	228	Copy (black and white / small)
no	229	Copy (full color + mono color / large)
no	230	Copy (full color + mono color / small)
no	231	Copy (full color + mono color / 2)
no	232	Copy (full color + mono color / 1)
no	233	Copy (full color / large / double sided)
no	234	Copy (full color / small / double sided)
no	235	Copy (mono color / large / double sided)
no	236	Copy (mono color / small / double sided)
yes	237	Copy (black and white / large / double sided)
yes	238	Copy (black and white / small / double sided)
no	245	Copy A (full color 1)
no	246	Copy A (full color 2)
no	247	Copy A (mono color 1)
no	248	Copy A (mono color 2)
yes	249	Copy A (black and white 1)
yes	250	Copy A (black and white 2)
no	251	Copy A (full color / large)
no	252	Copy A (full color / small)
no	253	Copy A (mono color / large)
no	254	Copy A (mono color / small)
yes	255	Copy A (black and white / large)
yes	256	Copy A (black and white / small)
no	257	Copy A (full color +mono color / large)
no	258	Copy A (full color +mono color / small)

Valid or invalid	Number	Counter Details
no	259	Copy A (full color +mono color 2)
no	260	Copy A (full color +mono color 1)
no	261	Copy A (full color / large / double sided)
no	262	Copy A (full color / small / double sided)
no	263	Copy A (mono color / large / double sided)
no	264	Copy A (mono color / small / double sided)
yes	265	Copy A (black and white / large / double sided)
yes	266	Copy A (black and white / small / double sided)
no	273	Local copy (full color 1)
no	274	Local copy (full color 2)
no	275	Local copy (mono color 1)
no	276	Local copy (mono color 2)
yes	277	Local copy (black and white 1)
yes	278	Local copy (black and white 2)
no	279	Local copy (full color / large)
no	280	Local copy (full color / small)
no	281	Local copy (mono color / large)
no	282	Local copy (mono color / small)
yes	283	Local copy (black and white / large)
yes	284	Local copy (black and white / small)
no	285	Local copy (full color + mono color / large)
no	286	Local copy (full color + mono color / small)
no	287	Local copy (full color + mono color 2)
no	288	Local copy (full color + mono color 1)
no	289	Local copy (full color / large / double sided)
no	290	Local copy (full color / small / double sided)
no	291	Local copy (mono color / large / double sided)
no	292	Local copy (mono color / small / double sided)
yes	293	Local copy (black and white / large / double sided)
yes	294	Local copy (black and white / small / double sided)

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300 to 399

Valid or invalid	Number	Counter Details
yes	301	Print (Total 1)
yes	302	Print (Total 2)
yes	303	Print (large)
yes	304	Print (small)
yes	305	Print A (Total 1)
yes	306	Print A (Total 2)
yes	307	Print A (large)
yes	308	Print A (small)
no	309	Print (full color 1)
no	310	Print (full color 2)
no	311	Print (mono color 1)
no	312	Print (mono color 2)
yes	313	Print (black and white 1)
yes	314	Print (black and white 2)
no	315	Print (full color / large)
no	316	Print (full color / small)
no	317	Print (mono color / large)
no	318	Print (mono color / small)
yes	319	Print (black and white / large)
yes	320	Print (black and white / small)
no	321	Print (full color +mono color / large)
no	322	Print (full color +mono color / small)
no	323	Print (full color +mono color / 2)
no	324	Print (full color +mono color / 1)
no	325	Print (full color / large / double sided)
no	326	Print (full color / small / double sided)
no	327	Print (mono color / large / double sided)
no	328	Print (mono color / small / double sided)
yes	329	Print (black and white / large / double sided)
yes	330	Print (black and white / small / double sided)
yes	331	PDLPrint (Total 1)
yes	332	PDLPrint (Total 2)
yes	333	PDLPrint (large)
yes	334	PDLPrint (small)

Valid or invalid	Number	Counter Details
no	335	PDLPrint (full color 1)
no	336	PDLPrint (full color 2)
yes	339	PDLPrint (black and white 1)
yes	340	PDLPrint (black and white 2)
no	341	PDLPrint (full color / large)
no	342	PDLPrint (full color / small)
yes	345	PDLPrint (black and white / large)
yes	346	PDLPrint (black and white / small)
no	351	PDLPrint (full color / large / double sided)
no	352	PDLPrint (full color / small / double sided)
yes	355	PDLPrint (black and white / large / double sided)
yes	356	PDLPrint (black and white / small / double sided)

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400 to 499

Valid or invalid	Number	Counter Details
no	401	Copy + print (full color / large)
no	402	Copy + print (full color / small)
yes	403	Copy + print (black and white / large)
yes	404	Copy + print (black and white / small)
yes	405	Copy + print (black and white 2)
yes	406	Copy + print (black and white 1)
no	407	Copy + print (full color + mono color / large)
no	408	Copy + print (full color + mono color / small)
no	409	Copy + print (full color + mono color / 2)
no	410	Copy + print (full color + mono color / 1)
yes	411	Copy + print (large)
yes	412	Copy + print (small)
yes	413	Copy + print (2)
yes	414	Copy + print (1)
no	415	Copy + print (mono color / large)
no	416	Copy + print (mono color / small)
no	417	Copy + print (full color / large / double sided)
no	418	Copy + print (full color / small / double sided)
no	419	Copy + print (mono color / large / double sided)
no	420	Copy + print (mono color / small / double sided)

Valid or invalid	Number	Counter Details
yes	421	Copy + print (black and white / large / double sided)
yes	422	Copy + print (black and white / small / double sided)
no	431	Clear mixed + mono-clear (total 1)
no	432	Clear mixed + mono-clear (total 2)
no	433	Clear mixed + mono-clear (full-page 1)
no	434	Clear mixed + mono-clear (full-page 2)
no	435	Clear mixed + mono-clear (partial 1)
no	436	Clear mixed + mono-clear (partial 2)
no	437	Clear mixed + mono-clear (full-page / large)
no	438	Clear mixed + mono-clear (full-page / small)
no	439	Clear mixed + mono-clear (partial / large)
no	440	Clear mixed + mono-clear (partial / small)
no	441	Clear mixed (total 1)
no	442	Clear mixed (total 2)
no	443	Clear mixed (full-page 1)
no	444	Clear mixed (full-page 2)
no	445	Clear mixed (partial 1)
no	446	Clear mixed (partial 2)
no	447	Clear mixed (full-page / large)
no	448	Clear mixed (full-page / small)
no	449	Clear mixed (partial / large)
no	450	Clear mixed (partial / small)
no	451	Mono-clear (total 1)
no	452	Mono-clear (total 2)
no	453	Mono-clear (full-page 1)
no	454	Mono-clear (full-page 2)
no	455	Mono-clear (partial 1)
no	456	Mono-clear (partial 2)
no	457	Mono-clear (full-page / large)
no	458	Mono-clear (full-page / small)
no	459	Mono-clear (partial / large)
no	460	Mono-clear (partial / small)

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500 to 599

Valid or invalid	Number	Counter Details
yes	501	Scan (Total 1)
yes	502	Scan (Total 2)
yes	503	Scan (large)
yes	504	Scan (small)
yes	505	Black and white Scan (Total 1)
yes	506	Black and white Scan (Total 2)
yes	507	Black and white Scan (large)
yes	508	Black and white Scan (small)
yes	509	Color scan (Total 1)
yes	510	Color scan (Total 2)
yes	511	Color scan (large)
yes	512	Color scan (small)

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600 to 699

Valid or invalid	Number	Counter Details
yes	601	Box print (Total 1)
yes	602	Box print (Total 2)
yes	603	Box print (large)
yes	604	Box print (small)
no	605	Box print (full color 1)
no	606	Box print (full color 2)
no	607	Box print (mono color 1)
no	608	Box print (mono color 2)
yes	609	Box print (black and white 1)
yes	610	Box print (black and white 2)
no	611	Box print (full color / large)
no	612	Box print (full color / small)
no	613	Box print (mono color / large)
no	614	Box print (mono color / small)
yes	615	Box print (black and white / large)
yes	616	Box print (black and white / small)
no	617	Box print (full color + mono color / large)
no	618	Box print (full color + mono color / small)
no	619	Box print (full color + mono color 2)
no	620	Box print (full color + mono color 1)
no	621	Box print (full color / large / double sided)
no	622	Box print (full color / small / double sided)
no	623	Box print (mono color / large / double sided)
no	624	Box print (mono color / small / double sided)
yes	625	Box print (black and white / large / double sided)
yes	626	Box print (black and white / small / double sided)
yes	631	Memory media print (Total 1)
yes	632	Memory media print (Total 2)
yes	633	Memory media print (large)
yes	634	Memory media print (small)
yes	639	Memory media print (black and white 1)
yes	640	Memory media print (black and white 2)
yes	645	Memory media print (black and white / large)
yes	646	Memory media print (black and white / small)
yes	655	Memory media print (black and white / large / double sided)
yes	656	Memory media print (black and white / small / double sided)

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700 to 799

Valid or invalid	Number	Counter Details
yes	701	Reception print (Total 1)
yes	702	Reception print (Total 2)
yes	703	Reception print (large)
yes	704	Reception print (small)
no	705	Reception print (full color 1)
no	706	Reception print (full color 2)
no	707	Reception print (Gray scale 1)
no	708	Reception print (Gray scale 2)
yes	709	Reception print (black and white 1)
yes	710	Reception print (black and white 2)
no	711	Reception print (full color / large)
no	712	Reception print (full color / small)
no	713	Reception print (Gray scale / large)
no	714	Reception print (Gray scale / small)

Valid or invalid	Number	Counter Details
yes	715	Reception print (black and white / large)
yes	716	Reception print (black and white / small)
no	717	Reception print (full color + Gray scale / large)
no	718	Reception print (full color + Gray scale / small)
no	719	Reception print (full color + Gray scale 2)
no	720	Reception print (full color + Gray scale 1)
no	721	Reception print (full color / large / double sided)
no	722	Reception print (full color / small / double sided)
no	723	Reception print (Gray scale / large / double sided)
no	724	Reception print (Gray scale / small / double sided)
yes	725	Reception print (black and white / large / double sided)
yes	726	Reception print (black and white / small / double sided)
yes	727	Advance box print (Total 1)
yes	728	Advance box print (Total 2)
yes	729	Advance box print (large)
yes	730	Advance box print (small)
no	731	Advance box print (full color 1)
no	732	Advance box print (full color 2)
yes	733	Advance box print (black and white 1)
yes	734	Advance box print (black and white 2)
no	735	Advance box print (full color / large)
no	736	Advance box print (full color / small)
yes	737	Advance box print (black and white / large)
yes	738	Advance box print (black and white / small)
no	739	Advance box print (full color / large / double sided)
no	740	Advance box print (full color / small / double sided)
yes	741	Advance box print (black and white / large / double sided)
yes	742	Advance box print (black and white / small / double sided)
yes	743	Network print (Total 1)
yes	744	Network print (Total 2)
yes	745	Network print (large)
yes	746	Network print (small)
no	747	Network print (full color 1)
no	748	Network print (full color 2)
yes	749	Network print (black and white 1)

Valid or invalid	Number	Counter Details
yes	750	Network print (black and white 2)
no	751	Network print (full color / large)
no	752	Network print (full color / small)
yes	753	Network print (black and white / large)
yes	754	Network print (black and white / small)
no	755	Network print (full color / large / double sided)
no	756	Network print (full color / small / double sided)
yes	757	Network print (black and white / large / double sided)
yes	758	Network print (black and white / small / double sided)
yes	759	Mobile print (Total 1)
yes	760	Mobile print (Total 2)
yes	761	Mobile print (large)
yes	762	Mobile print (small)
no	763	Mobile print (full color 1)
no	764	Mobile print (full color 2)
yes	765	Mobile print (black and white 1)
yes	766	Mobile print (black and white 2)
no	767	Mobile print (full color / large)
no	768	Mobile print (full color / small)
yes	769	Mobile print (black and white / large)
yes	770	Mobile print (black and white / small)
no	771	Mobile print (full color / large / double sided)
no	772	Mobile print (full color / small / double sided)
yes	773	Mobile print (black and white / large / double sided)
yes	774	Mobile print (black and white / small / double sided)

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800 to 899

Valid or invalid	Number	Counter Details
yes	801	Report print (Total 1)
yes	802	Report print (Total 2)
yes	803	Report print (large)
yes	804	Report print (small)
no	805	Report print (full color 1)
no	806	Report print (full color 2)
no	807	Report print (Gray scale 1)

Valid or invalid	Number	Counter Details
no	808	Report print (Gray scale 2)
yes	809	Report print (black and white 1)
yes	810	Report print (black and white 2)
no	811	Report print (full color / large)
no	812	Report print (full color / small)
no	813	Report print (Gray scale / large)
no	814	Report print (Gray scale / small)
yes	815	Report print (black and white / large)
yes	816	Report print (black and white / small)
no	817	Report print (full color + Gray scale / large)
no	818	Report print (full color + Gray scale / small)
no	819	Report print (full color + Gray scale 2)
no	820	Report print (full color + Gray scale 1)
no	821	Report print (full color / large / double sided)
no	822	Report print (full color / small / double sided)
no	823	Report print (Gray scale / large / double sided)
no	824	Report print (Gray scale / small / double sided)
yes	825	Report print (black and white / large / double sided)
yes	826	Report print (black and white / small / double sided)

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900 to 999

Valid or invalid	Number	Counter Details
no	901	Copy scan total 1 (color)
no	902	Copy scan total 1 (black and white)
no	903	Copy scan total 2 (color)
no	904	Copy scan total 2 (black and white)
no	905	Copy scan total 3 (color)
no	906	Copy scan total 3 (black and white)
no	907	Copy scan total 4 (color)
no	908	Copy scan total 4 (black and white)
no	909	Local copy scan (color)
no	910	Local copy scan (black and white)
no	911	Remote copy scan (color)
no	912	Remote copy scan (black and white)
no	913	Transmission scan total 1 (color)

Valid or invalid	Number	Counter Details
no	914	Transmission scan total 1 (black and white)
yes	915	Transmission scan total 2 (color)
yes	916	Transmission scan total 2 (black and white)
yes	917	Transmission scan total 3 (color)
yes	918	Transmission scan total 3 (black and white)
no	919	Transmission scan total 4 (color)
no	920	Transmission scan total 4 (black and white)
yes	921	Transmission scan total 5 (color)
yes	922	Transmission scan total 5 (black and white)
yes	929	Transmission scan total 6 (color)
yes	930	Transmission scan total 6 (black and white)
no	931	Transmission scan total 7 (color)
no	932	Transmission scan total 7 (black and white)
no	933	Transmission scan total 8 (color)
no	934	Transmission scan total 8 (black and white)
no	935	Universal transmission scan total (color)
no	936	Universal transmission scan total (black and white)
yes	937	Box scan (color)
yes	938	Box scan (black and white)
yes	939	Remote scan (color)
yes	940	Remote scan (black and white)
no	941	Transmission scan / Fax (color)
no	942	Transmission scan / Fax (black and white)
no	943	Transmission scan / I Fax (color)
no	944	Transmission scan / I Fax (black and white)
yes	945	Transmission scan / E-mail (color)
yes	946	Transmission scan / E-mail (black and white)
no	947	Transmission scan / FTP (color)
no	948	Transmission scan / FTP (black and white)
no	949	Transmission scan / SMB (color)
no	950	Transmission scan / SMB (black and white)
no	951	Transmission scan / IPX (color)
no	952	Transmission scan / IPX (black and white)
no	953	Transmission scan / Database (color)
no	954	Transmission scan / Database (black and white)

Valid or invalid	Number	Counter Details
no	955	Transmission scan / Local print (color)
no	956	Transmission scan / Local print (black and white)
no	957	Transmission scan / Box (color)
no	958	Transmission scan / Box (black and white)
yes	959	Media scan (color)
yes	960	Media scan (black and white)
yes	961	Application scan (Total 1)
yes	962	Application black and white scan (Total 1)
yes	963	Application color scan (Total 1)
yes	964	Super Box Local scan (color)
yes	965	Super Box Local scan (black and white)

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Removal

Removal

Overview

- User data kept by the machine contains address books and inbox documents that users can recognize.
- By using the copy, print, or send function, there is also information left on the HDD of MFPs that is generally not recognizable but can be recovered as documents. (Refer to the illustration on the next page.)
- For security, the user mode is provided to delete data on SRAM and perform overwrite deletion to render user data on HDD unrecoverable.

User data delete

- To delete user data, execute Settings/Registration > System Management > Initialize All Data/Settings in user mode. Performing Initialize All Data/Settings returns user mode setting values to their factory defaults.
- Usually, one overwrite is enough. Note that increasing the number of overwrite increases the time required for the deletion operation.

Note:
- When you perform Initialize All Data/Settings, license and data of MEAP application are initialized to the state same as when the HDD is replaced. If MEAP application may be used by other users after the machine is removed, disable the MEAP application and uninstall it in advance.
- Performing Initialize All Data/Settings does not delete the license of the system option.

Deletion of Service Mode Settings

The user mode setting values may have been changed at the user's request. In that case, the service mode setting values should be changed back to the default values before removing the machine.

Work Procedure

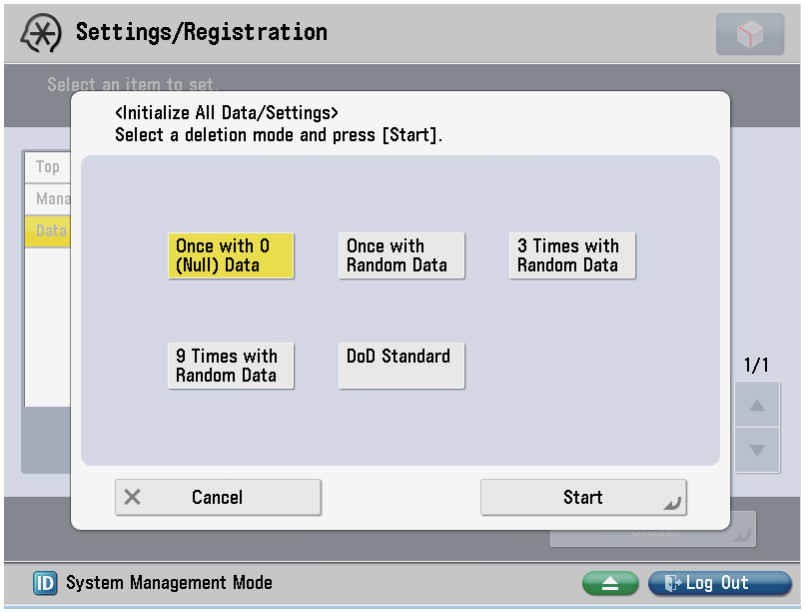
If the user uses MEAP applications, ask the user to uninstall the MEAP applications if necessary.

User data delete procedure

Settings/Registration > System Management > Initialize

Select a deletion mode

If the user has not given any instruction on which item in the deletion mode should be used, select the default "Once with 0 (Null) Data".



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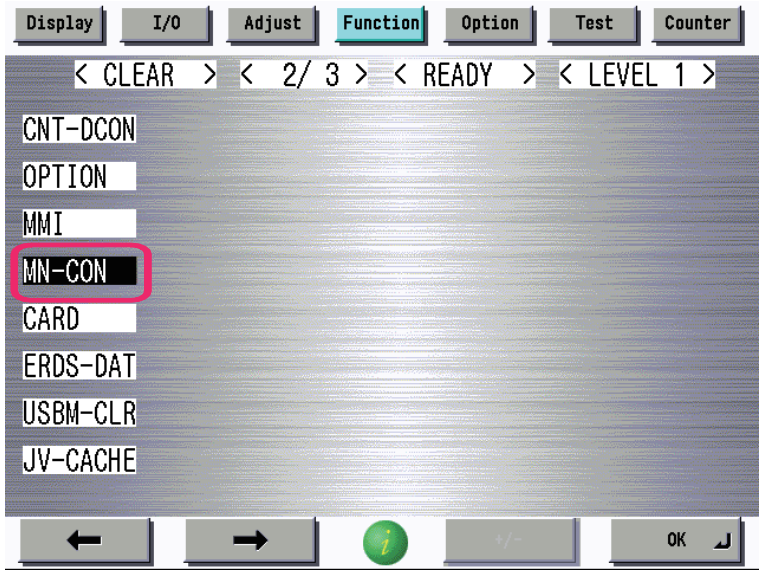
Note:
- When all the data are initialized, the user data on the HDD and the user data on the SRAM of the Main Controller PCB 2 are deleted. For the items to be deleted, refer to the backup list.
- Performing "Initialize All Data" turns auto gradation adjustment values and TPM settings to OFF. Therefore, to enable normal operation the next time, the operation performed at installation is necessary.
- Performing Initialize All Data/Settings does not delete the license of the system option.

Deletion of Service Mode Setting Values

Service Mode Lev1 > Function> CLEAR > MN-CONT



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Note:
When MN-CON clear is executed, the address book on the HDD is not deleted. As for the user data, initialize all the data.