



ECOSYS P4035dn ECOSYS P4040dn /PF-4100

SERVICE MANUAL



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CAUTION

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

It may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for proper disposal.

ATTENTION

IL Y A UN RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UN MODÈLE DE TYPE INCORRECT. METTRE AU REBUT LES BATTERIES UTILISÉES SELON LES INSTRUCTIONS DONNÉES.

Il peut être illégal de jeter les batteries dans des eaux d'égout municipales. Vérifiez avec les fonctionnaires municipaux de votre région pour les détails concernant des déchets solides et une mise au rebut appropriée.

ECOSYS P4040dn: 40ppm

ECOSYS P4035dn: 35ppm (KDTW only)

Revision history

Revision	Date	Pages	Revised contents
1	6 November 2014	1-3-7, 1-3-8	Added: Description of the counter value
2	29 January 2015	1-3-8	Correction: 5 to 100(%)
		2-1-11	Correction: Clerical error of actuator
3	30 June 2015	Cover	Added: Name of 35 ppm model
		1-1-1 to 3	Added: Specification of 110 V (for KDTW)
		1-2-1	Added: Power source for 110 V model
		1-3-13	Correction: Default setting of drum heater :Off
		1-3-21, 1-3-22	added: 02: MK-7304 (for KDE)
		2-2-2, 2-2-4 2-2-5, 2-2-7 2-2-9, 2-2-11	Correction: Part number Deleted: Version number
		2-4-1	Added: MK-7304 (for KDE)
		Address	

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Safety precautions


This booklet provides safety warnings and precautions for our service personnel to ensure the safety of their customers, their machines as well as themselves during maintenance activities. Service personnel are advised to read this booklet carefully to familiarize themselves with the warnings and precautions described here before engaging in maintenance activities.

Safety warnings and precautions


Various symbols are used to protect our service personnel and customers from physical danger and to prevent damage to their property. These symbols are described below:

 **DANGER:** High risk of serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

 **WARNING:** Serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

 **CAUTION:** Bodily injury or damage to property may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

Symbols

The triangle () symbol indicates a warning including danger and caution. The specific point of attention is shown inside the symbol.



General warning.



Warning of risk of electric shock.



Warning of high temperature.

 indicates a prohibited action. The specific prohibition is shown inside the symbol.



General prohibited action.



Disassembly prohibited.

 indicates that action is required. The specific action required is shown inside the symbol.



General action required.



Remove the power plug from the wall outlet.



Always ground the copier.

1. Installation Precautions

WARNING

- Do not use a power supply with a voltage other than that specified. Avoid multiple connections to one outlet: they may cause fire or electric shock. When using an extension cable, always check that it is adequate for the rated current.
- Connect the ground wire to a suitable grounding point. Not grounding the copier may cause fire or electric shock. Connecting the earth wire to an object not approved for the purpose may cause explosion or electric shock. Never connect the ground cable to any of the following: gas pipes, lightning rods, ground cables for telephone lines and water pipes or faucets not approved by the proper authorities.













CAUTION:

- Do not place the copier on an infirm or angled surface: the copier may tip over, causing injury.
- Do not install the copier in a humid or dusty place. This may cause fire or electric shock.
- Do not install the copier near a radiator, heater, other heat source or near flammable material. This may cause fire.
- Allow sufficient space around the copier to allow the ventilation grills to keep the machine as cool as possible. Insufficient ventilation may cause heat buildup and poor copying performance.
- Always handle the machine by the correct locations when moving it.
- Always use anti-toppling and locking devices on copiers so equipped. Failure to do this may cause the copier to move unexpectedly or topple, leading to injury.
- Avoid inhaling toner or developer excessively. Protect the eyes. If toner or developer is accidentally ingested, drink a lot of water to dilute it in the stomach and obtain medical attention immediately. If it gets into the eyes, rinse immediately with copious amounts of water and obtain medical attention.
- Advise customers that they must always follow the safety warnings and precautions in the copier's instruction handbook.


















2. Precautions for Maintenance

WARNING

- Always remove the power plug from the wall outlet before starting machine disassembly. 
- Always follow the procedures for maintenance described in the service manual and other related brochures. 
- Under no circumstances attempt to bypass or disable safety features including safety mechanisms and protective circuits. 
- Always use parts having the correct specifications. 
- Always use the thermostat or thermal fuse specified in the service manual or other related brochure when replacing them. Using a piece of wire, for example, could lead to fire or other serious accident. 
- When the service manual or other serious brochure specifies a distance or gap for installation of a part, always use the correct scale and measure carefully. 
- Always check that the copier is correctly connected to an outlet with a ground connection. 
- Check that the power cable covering is free of damage. Check that the power plug is dust-free. If it is dirty, clean it to remove the risk of fire or electric shock. 
- Never attempt to disassemble the optical unit in machines using lasers. Leaking laser light may damage eyesight. 
- Handle the charger sections with care. They are charged to high potentials and may cause electric shock if handled improperly. 



CAUTION

- Wear safe clothing. If wearing loose clothing or accessories such as ties, make sure they are safely secured so they will not be caught in rotating sections. 
- Use utmost caution when working on a powered machine. Keep away from chains and belts. 
- Handle the fixing section with care to avoid burns as it can be extremely hot. 
- Check that the fixing unit thermistor, heat and press rollers are clean. Dirt on them can cause abnormally high temperatures. 

- Do not remove the ozone filter, if any, from the copier except for routine replacement. 
- Do not pull on the AC power cord or connector wires on high-voltage components when removing them; always hold the plug itself. 
- Do not route the power cable where it may be stood on or trapped. If necessary, protect it with a cable cover or other appropriate item. 
- Treat the ends of the wire carefully when installing a new charger wire to avoid electric leaks. 
- Remove toner completely from electronic components. 
- Run wire harnesses carefully so that wires will not be trapped or damaged. 
- After maintenance, always check that all the parts, screws, connectors and wires that were removed, have been refitted correctly. Special attention should be paid to any forgotten connector, trapped wire and missing screws. 
- Check that all the caution labels that should be present on the machine according to the instruction handbook are clean and not peeling. Replace with new ones if necessary. 
- Handle greases and solvents with care by following the instructions below: 
 - Use only a small amount of solvent at a time, being careful not to spill. Wipe spills off completely.
 - Ventilate the room well while using grease or solvents.
 - Allow applied solvents to evaporate completely before refitting the covers or turning the power switch on.
 - Always wash hands afterwards.
- Never dispose of toner or toner bottles in fire. Toner may cause sparks when exposed directly to fire in a furnace, etc. 
- Should smoke be seen coming from the copier, remove the power plug from the wall outlet immediately. 

3. Miscellaneous

WARNING

- Never attempt to heat the drum or expose it to any organic solvents such as alcohol, other than the specified refiner; it may generate toxic gas. 
- Keep the machine away from flammable liquids, gases, and aerosols. A fire or an electric shock might occur. 

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Installation Guide

- 500 sheets paper feeder
- SSD (HD-6/7)
- IEEE1284 Interface
- Network interface
- Wireless LAN interface
- Card Authentication kit (B)

1-1-1 Specifications

Main unit

Item		Description	
Model		ECOSYS P4035dn	ECOSYS P4040dn
Type		Desktop	
Printing Method		Electrophotography by semiconductor, single drum system	
Paper Weight	Cassette	60 to 120 g/m ²	
	MP Tray	60 to 220 g/m ² , 230 g/m ² (Cardstock)	
Paper Types	Cassette	Plain, Preprinted, Bond, Recycled, Letterhead, Color, Prepunched, High Quality, and CUSTOM (1 to 8)	
	MP Tray	Plain, Preprinted, Labels, Bond, Recycled, Vellum, Rough, Letterhead, Color, Prepunched, Envelope, Cardstock, Thick, High Quality, and CUSTOM (1 to 8)	
Paper Sizes	Cassette	A3, A4-R, A4, A5-R, A5, A6-R, B4, B5-R, B5, B6-R, Folio, 216 × 340 mm, Ledger, Letter-R, Letter, Legal, Statement, Executive, Oficio II, B5 (ISO), 8K, 16K, and Custom	
	MP Tray	Envelope #10, Envelope #9, Envelope Monarch, Envelope #6 3/4, Envelope DL, Envelope C5, Envelope C4, A3, A4-R, A4, A5-R, A6-R, B4, B5-R, B6-R, Oficio II, 216 × 340 mm, Ledger, Letter-R, Letter, Legal, Statement, Executive, 8K, 16K, Folio, B5 (ISO), Hagaki, Ofufuku Hagaki, Youkei 4, Youkei 2, and Custom	
Printing Speeds	Simplex	A4: 35 ppm A3: 19 ppm B4: 21 ppm A4-R: 24 ppm B5-R: 30→21 ppm *1 A5-R: 35→15 ppm *1 A6-R: 30→11 ppm *1 B5: 35 ppm A5: 35 ppm	A4: 40 ppm A3: 22 ppm B4: 25 ppm A4-R: 27 ppm B5-R: 33→25 ppm *1 A5-R: 40→17 ppm *1 A6-R: 33→13 ppm *1 B5: 40 ppm A5: 40 ppm
	Duplex	A4: 28 ppm A3: 11 ppm B4: 12.5 ppm A4-R: 18.9 ppm B5-R: 23.1→17.5 ppm *1 A5-R: 28→11.9 ppm *1 B5: 28 ppm	A4: 28 ppm A3: 11 ppm B4: 12.5 ppm A4-R: 18.9 ppm B5-R: 23.1→17.5 ppm *1 A5-R: 28→11.9 ppm *1 B5: 28 ppm
First Print Time (A4, feed from Cassette)		7.5 seconds or less (Excluding time for system stabilization immediately after turning on the main power.)	
Warm-up Time (22°C, 60%RH)	Power On	16 seconds or less	18 seconds or less
	Sleep *2	16 seconds or less (Quick recovery mode) 27 seconds or less (Energy saver mode)	18 seconds or less

Item		Description
Model		ECOSYS P4035dn ECOSYS P4040dn
Paper Capacity	Cassette	500 sheets (80 g/m ²)
	MP Tray	100 sheets (A4, 80 g/m ²) / 20 sheets (A3, 80 g/m ²)
Output Tray Capacity	Top Tray	500 sheets (A4, 80 g/m ²) / 450 sheets (A3, 80 g/m ²)
	Face-up Tray	250 sheets (A4, 80 g/m ²)
Photoconductor		a-Si drum (diameter 30 mm)
Image Write System		Semiconductor laser and electrophotography
Charging system		Contact charger roller method
Developer system		Mono component dry developing method Toner replenishing: Automatic from the toner container
Transfer system		Transfer roller method
Separation system		Small diameter separation, discharger needle (DC bias)
Cleaning system		Counter blade cleaning + cleaning roller
Charge erasing system		Exposure by cleaning lamp (LED)
Fusing system		Heat and pressure fusing with the heat roller and the press roller Heat source: halogen heater Abnormally high temperature protection devices: thermostat
Duplex system		Stack-less system at Built-in type
Continuous printing		1 to 999 sheets
Resolution		Fine 1200 mode, Fast 1200 mode, 600 dpi, 300 dpi
Operation Environment	Temperature	10 to 32.5 °C (50 to 90.5 °F)
	Relative Humidity	15 to 80 %
	Altitude	2,500 m (8,202 feet) maximum
	Illumination	1,500 lux maximum
Controller		PowerPC465, ARM7/ARM9
Operating Systems		Windows XP, Windows Vista, Windows Server 2008/R2, Windows 7, Windows Server 2012/R2, Windows 8, Windows 8.1, Apple Macintosh OS 10.5 or later
Interface	Standard	USB Interface Connector: 1 USB Host: 2 Network interface: 1 (10 BASE-T/100 BASE-TX/1000 BASE-T) eKUIO slot:1
	Option	HD-6/HD-7, IB-50, IB-51, IB-32
PDL		PRESCRIBE
Emulation		PCL6, IBM Proprinter, EPSON LQ-850, Line Printer, KPDL, KPDL(Auto)
Memory		Standard:256 MB, Maximum:1280 MB
Dimensions (W × D × H)		469 × 410 × 320 mm 18 7/16 × 16 1/8 × 12 5/8"
Weight		20.0 kg or less/44.0 lbs or less (without toner container)

Item		Description	
Model		ECOSYS P4035dn	ECOSYS P4040dn
Rated input		110 V 60 Hz 12.8 A	110 V 60 Hz 12.8 A 220-240 V 50 Hz 5.4 A
Power Consumption (Standard)	Maximum	110 V 1342 W	110V 1342 W 220-240 V 1434 W
	During Printing	110 V 645 W	110V 706 W 220-240 V 642 W
	During Standby	110 V 14.3 W	110V 14.3 W 220-240 V 14.0 W
	Sleep Mode *2	110 V 1.7 W	110V 1.7 W 220-240 V 1.5 W
	Power Off	110 V 0.5 W	110 V 0.5 W 220-240 V 0.5 W
Power Consumption (With options)	Maximum	110 V 1369 W	110 V 1369 W 220-240 V 1466 W
	During Printing	110 V 677 W	110V 722 W 220-240 V 679 W
	During Standby	110 V 19.7 W	110V 19.7 W 220-240 V 19.2 W
	Sleep Mode *2	110 V 4.9 W	110V 4.9 W 220-240 V 3.6 W
	Power Off	110 V 0.5 W	110 V 0.5 W 220-240 V 0.5 W
Option		Expanded memory, Paper Feeder (500-sheet × 4), SSD (HD-6/HD-7), SD Card, Network Interface Kit (IB-50), Wireless Network Interface Kit (IB-51), Parallel, Interface Kit (IB-32), Faceup Output Tray (PT-4100), Card Authentication Kit (B)	

*1: The printing speeds are changed by the fuser temperature.

*2: The value is at Energy Saver mode (default).

Paper Feeder (PF-4100) (Option)

Item	Description
The maximum number of paper cassettes	4
Paper size	A3, A4-R, A4, A5-R, B4, B5-R, Folio, 216 × 340 mm, Ledger, Letter-R, Letter, Legal, Statement, Executive, Oficio II, B5 (ISO), 8K, 16K, and Custom
Paper type	Plain, Preprinted, Bond, Recycled, Letterhead, Color, Prepunched, High Quality, and CUSTOM (1 to 8)
Paper capacity	500 sheets (80 g/m ²)
Dimensions (W × D × H)	469 × 410 × 121 mm 18 7/16 × 16 1/8 × 4 3/4"
Weight	6.0 kg (13.23 lbs)

SSD(HD-6/HD-7) (Option)

Item	Description	
	HD-6	HD-7
Capacity	32GB	128GB
Power supply	From the machine	

Network Interface Kit (IB-50) (Option)

Item		Description
CPU		SoC 88F6180
RAM		64 MBytes
Flash ROM		16 MBytes
Connectors		10BASE-T / 100BASE-TX / 1000BASE-T
Printer interface		eKUIO?5.0V?
Operating system		Windows XP (32bit/64bit) / Vista (32bit/64bit) / 7 (32bit/64bit) / Server 2003 (32bit/64bit) / Server 2008 (32bit/64bit) NetWare 3.x. / 4.x. / 5.x. / 6.x MacOS 9.x / Mac OS X (PowerPC: Ver 10.3.x-Ver 10.5.5 / Intel: Ver 10.4.4-Ver 10.7.x) UNIX
Network protocols IPv6 Apple	IPv6	Apple Bonjour Compatible, DHCPv6, DNSv6, FTP, FTPS, HTTP, HTTPS, ICMPv6, IKEv1, IPP, IPPS, Kerberos, LDAP, LPD, POP3, RawPort, SLP, SMTP, SNMP, SNMPv1/v2c/v3, SNTP, ThinPrint
	IPv4	Apple Bonjour Compatible, BOOTP, DHCP, DNS, FTP, FTPS, HTTP, HTTPS, ICMP, IPP, IPPS, KCP, Kerberos, LDAP, LPD, NetBIOS over TCP/IP, POP3, POP3 over SSL, RawPort, SLP, SMTP, SNMP, SNMPv1/v2c/v3, SNTP, ThinPrint, WINS
	Other	AppleTalk, IPX/SPX, LLTD, NetBEUI, NetWare (NDS/Bindery)
Security protocols		EAP-TLS, EAP-TTLS, EAP-FAST, IKE, PEAP, SNMPv3, SSL/TLS (HTTPS)
Operating conditions		0 to 70°C, 20 to 80 % RH, no condensation
Storage conditions		-20 to 50°C, 20 to 90 % RH, no condensation
Storage conditions		FCC Class B (USA), CE (EU), VCCI Class B (Japan)

Wireless Network Interface Kit (IB-51) (Option)

Item			Description
CPU			SoC 88F6180
RAM			64 MBytes
ROM			16 MBytes
Wireless network interface	IEEE802.11 b	Frequency	2.4GHz
		Transmission system	DS-SS
		Transmission speed	1/2/5.5/11 (Mbps)
		Channel	1-11ch
	IEEE802.11 g	Frequency	2.4GHz
		Transmission system	OFDM
		Transmission speed	6/9/12/18/24/36/48/54 (Mbps)
		Channel	1-11ch
	IEEE802.11 n	Frequency	2.4GHz
		Transmission system	OFDM
		Transmission speed	Max 300Mbps
		Channel	1-11ch
	Authentication method		Open System / Shard Key / WPA / WPA2
	Encryption mode		None / WEP (64bit / 128bit) / TKIP / AES When running in IEEE 802.11n, only AES is supported.
Antenna			Non-directional antenna × 2
Printer interface			eKUIO (5.0V)
Operating system			Windows XP (32bit/64bit) / Vista (32bit/64bit) / 7 (32bit/64bit) / Server 2003 (32bit/64bit) / Server 2008 (32bit/64bit) NetWare 3.x. / 4.x. / 5.x. / 6.x MacOS 9.x / Mac OS X (PowerPC: Ver 10.3.x-Ver 10.5.5 / Intel: Ver 10.4.4-Ver 10.7.x) UNIX

Item		Description
Network protocols	IPv6	Apple Bonjour Compatible, DHCPv6, DNSv6, FTP, FTPS, HTTP, HTTPS (IPPS), ICMPv6, IKEv1, IPP, IPPS, Kerberos, LDAP, LPD, POP3, RawPort, SLP, SMTP, SNMP, SNMPv1/v2c/v3, SNTP, ThinPrint
	IPv4	Apple Bonjour Compatible, BOOTP, DHCP, DNS, FTP, FTPS, HTTP, HTTPS, ICMP, IPP, IPPS, KCP, Kerberos, LDAP, LPD, NetBIOS over TCP/IP, POP3, POP3 over SSL, RawPort, SLP, SMTP, SNMP, SNMPv1/v2c/v3, SNTP, ThinPrint, WINS
	Other	AppleTalk, IPX/SPX, LLTD, NetBEUI, NetWare (NDS/Bindery)
Security protocols		EAP-TLS, EAP-TTLS, EAP-FAST, IKE, PEAP, SNMPv3, SSL/TLS (HTTPS)
Operating conditions		0 to 60 °C, 20 to 80 % RH, no condensation
Storage conditions		-20 to 50 °C, 20 to 90 % RH, no condensation
EMI conformity		FCC Class B (USA), CE (EU), VCCI Class B (Japan)

Parallel Interface Kit (IB-32) (Option)

Item	Description
Installation Environment	Conforms to the machine's installation environment
Interface	Parallel Interface × 1 (IEEE-1284 compliant)
Power supply	From the machine

NOTE: These specifications are subject to change without notice.

1-1-2 Parts names

(1) Components at the Front/Right of the Printer

1. Paper Stopper
2. Top Tray
3. Paper Width Guides (MP tray)
4. MP (Multi-Purpose) Tray
5. Support Tray Section of the MP Tray
6. Cassette 1
7. Operation Panel
8. USB Memory Slot
9. Power Switch
10. Handholds
11. Paper Size Window

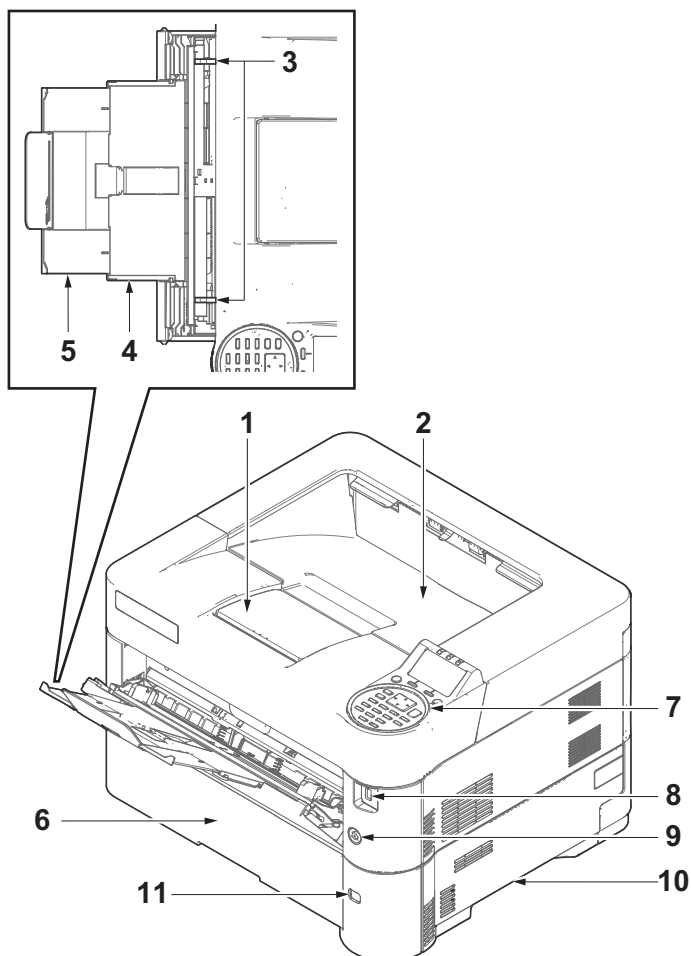


Figure 1-1-1

(2) Components at the Front/Left of the Printer

1. Left Cover
2. Waste Toner Box
3. Handholds

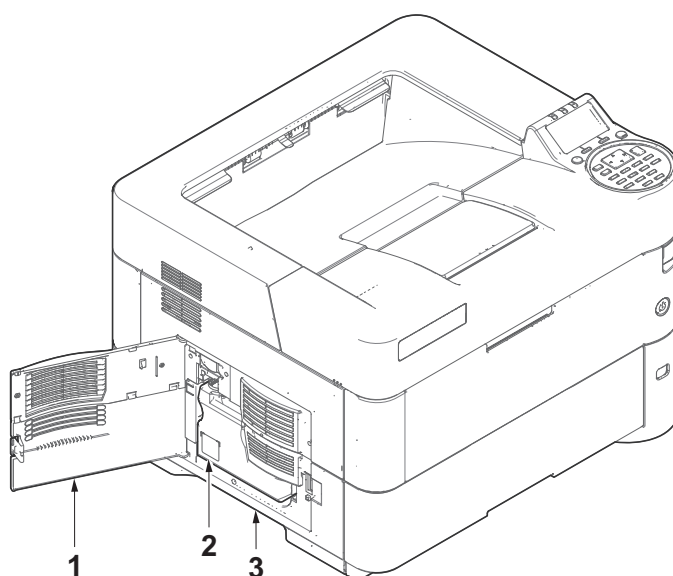
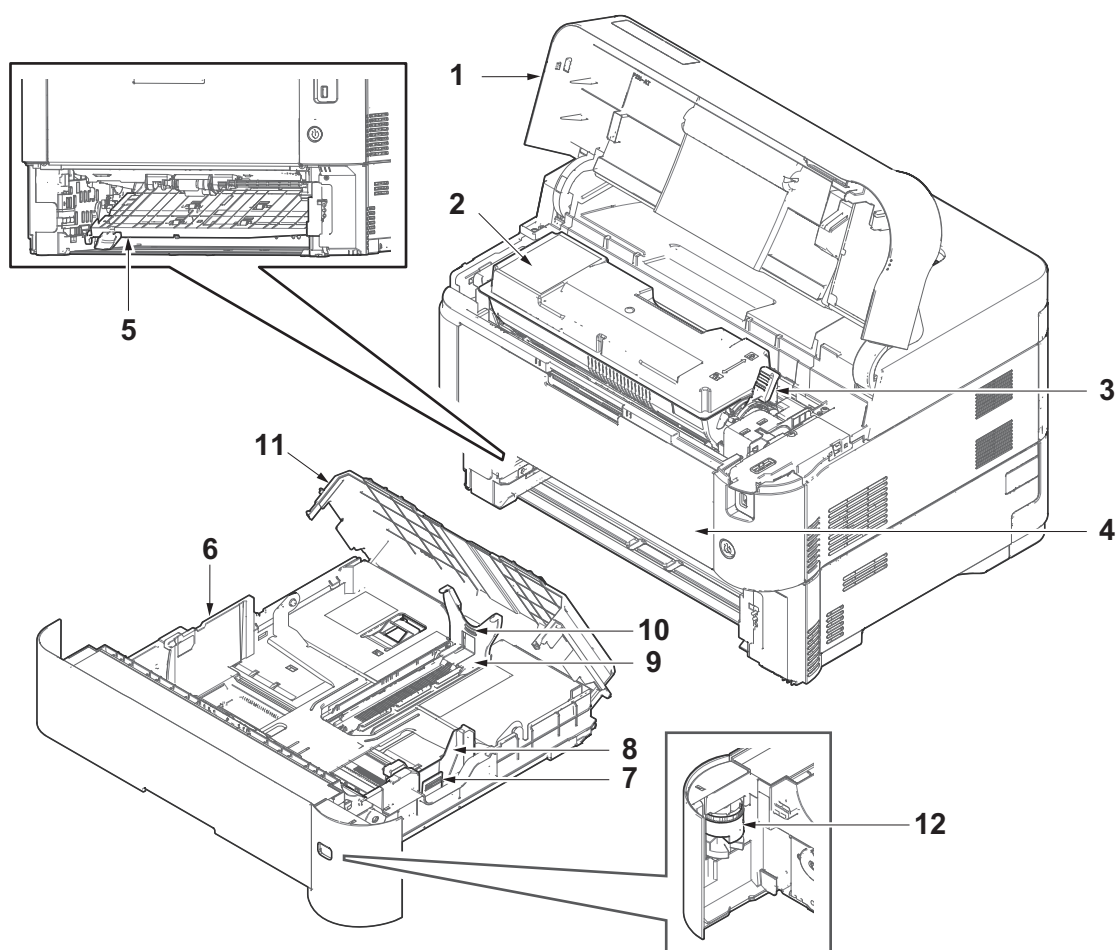


Figure 1-1-2

(3) Internal Components



1. Top Cover
2. Toner Container
3. Lock Lever
4. Front Cover
5. Duplex Front Cover
6. Paper Width Guides
7. Paper Width Adjusting Tab
8. Paper Width Guides
9. Paper Length Guide
10. Paper Length Adjusting Tab
11. Cassette Cover
12. Paper Size Dial
13. Developer Unit
14. Chager Unit
15. Registration Roller

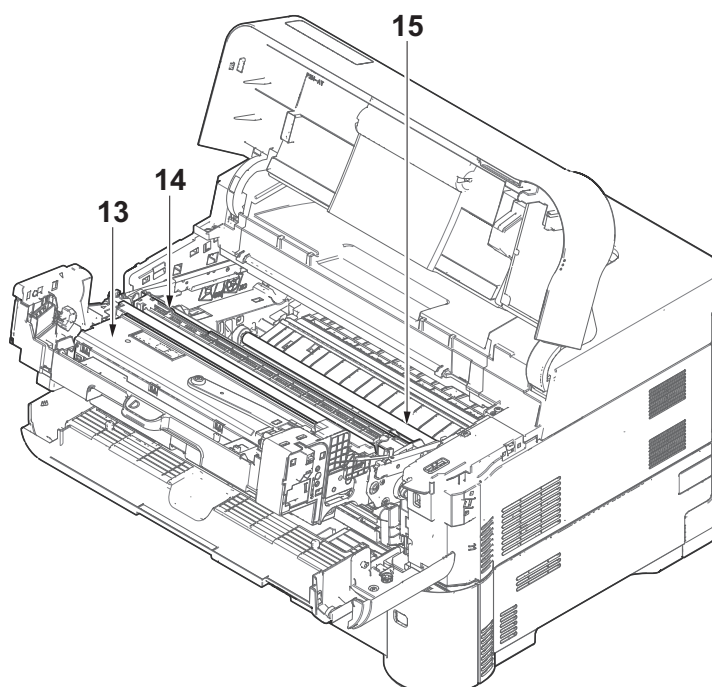


Figure 1-1-3

(4) Components at the Rear of the Printer

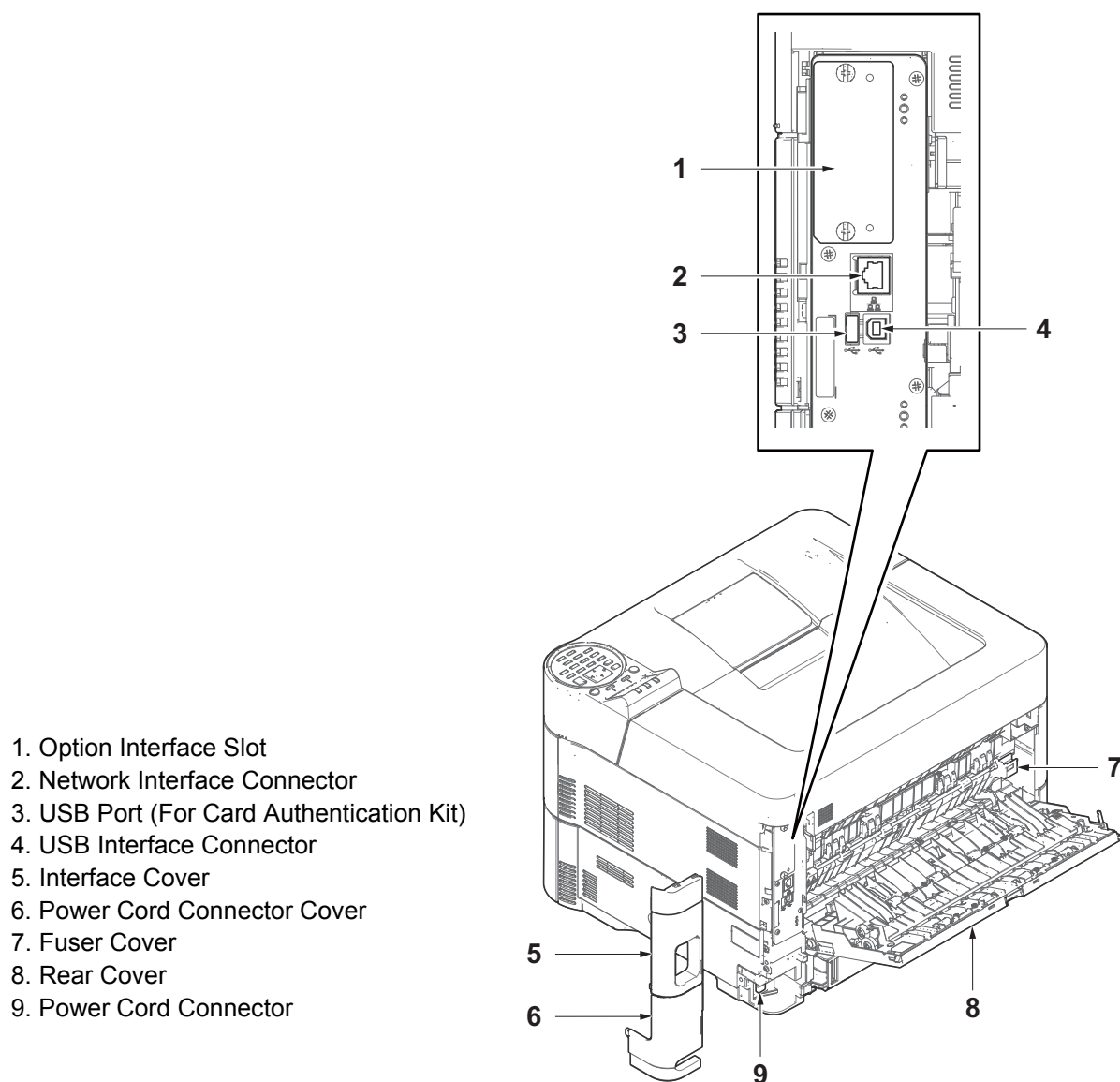
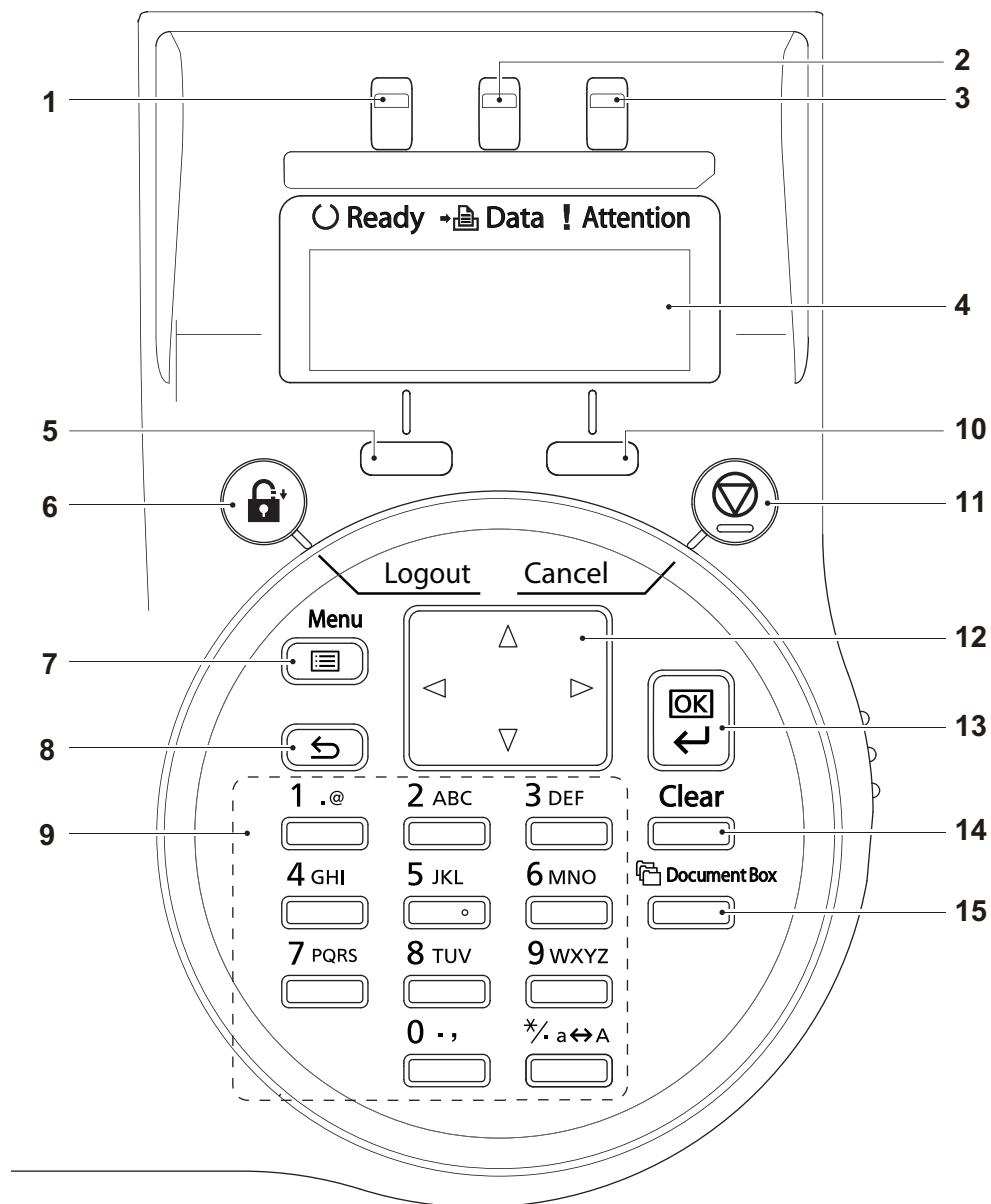


Figure 1-1-4

(5) Operation Panel**Figure 1-1-5**

- | | | |
|------------------------|----------------------|----------------------|
| 1. Ready indicator | 7. Menu key | 13. OK key |
| 2. Data indicator | 8. Back key | 14. Clear key |
| 3. Attention indicator | 9. Numeric keys | 15. Document box key |
| 4. Message display | 10. Right select key | |
| 5. Left select key | 11. Cancel key | |
| 6. Logout key | 12. Cursor keys | |

1-1-3 Machine cross section (Main unit and Option)

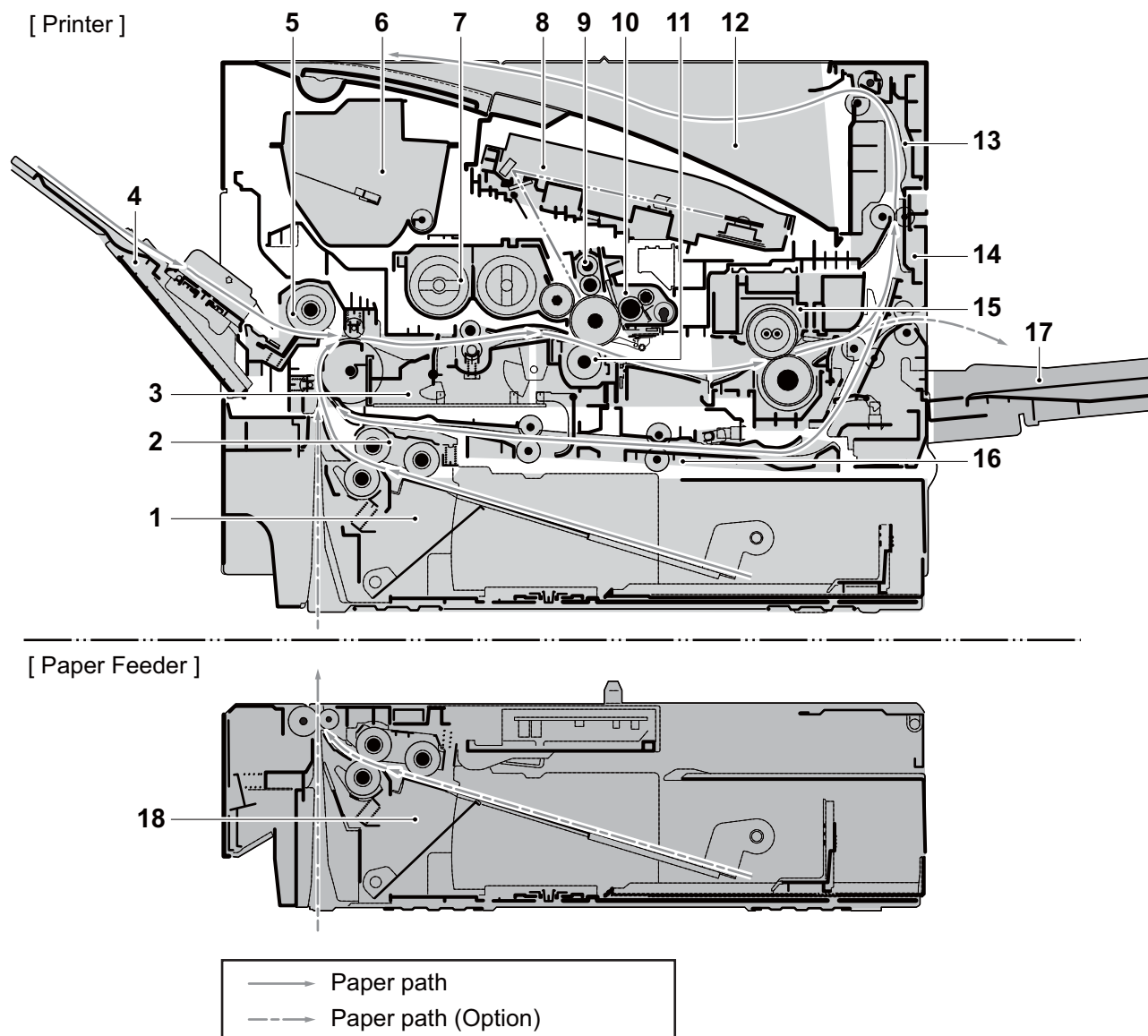
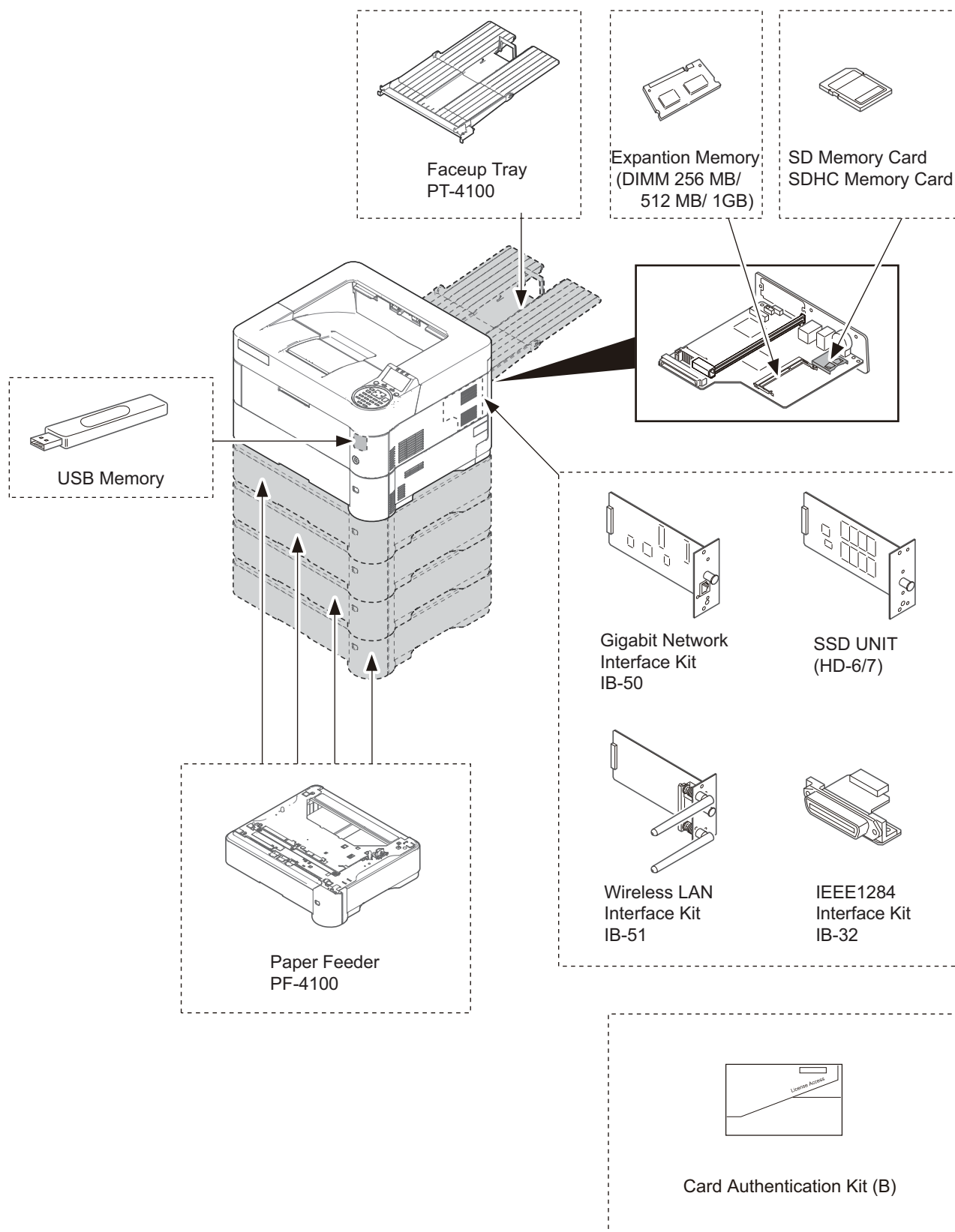


Figure 1-1-6

- | | |
|---------------------------------|---------------------------------|
| 1. Cassette | 10. Drum unit |
| 2. Cassette paper feed section | 11. Transfer/Separation section |
| 3. Paper feed conveying section | 12. Eject tray (facedown) |
| 4. MP tray | 13. Eject section |
| 5. MP tray paper feed section | 14. Eject conveying section |
| 6. Toner container | 15. Fuser unit |
| 7. Developer unit | 16. Duplex conveying section |
| 8. Laser scanner unit (LSU) | 17. Faceup tray (option) |
| 9. Charger unit | 18. Paper feeder (option) |

1-1-4 Option composition



1-2-1 Installation environment

1. Temperature: 10 to 32.5°C/50 to 90.5°F
2. Humidity: 15 to 80% RH
3. Power supply: 110 V AC, 13.0 A
220 - 240 V AC, 6.0 A
4. Power supply frequency: 50 Hz $\pm 2\%$ /60 Hz $\pm 2\%$
5. Installation location

Avoid direct sunlight or bright lighting. Ensure that the photoconductor will not be exposed to direct sunlight or other strong light when removing paper jams.

Avoid locations subject to high temperature and high humidity or low temperature and low humidity; an abrupt change in the environmental temperature; and cool or hot, direct air.

Avoid places subject to dust and vibrations.

Choose a surface capable of supporting the weight of the machine.

Place the machine on a level surface (maximum allowance inclination: 1°).

Avoid air-borne substances that may adversely affect the machine or degrade the photoconductor, such as mercury, acidic or alkaline vapors, inorganic gasses, NO_x, SO_x gases and chlorine-based organic solvents.

Select a well-ventilated location.

6. Allow sufficient access for proper operation and maintenance of the machine.

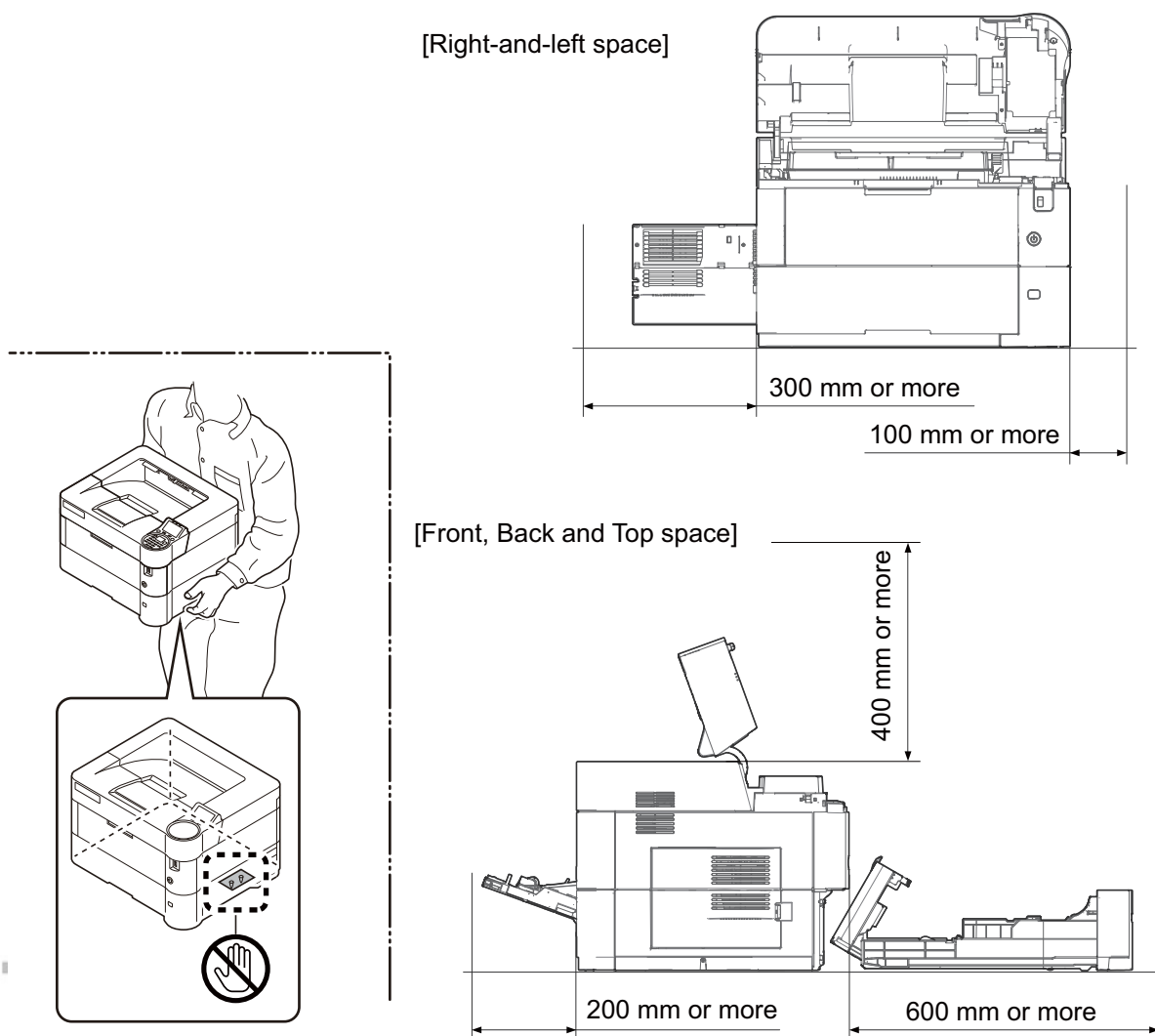


Figure 1-2-1

1-2-2 Unpacking and installation

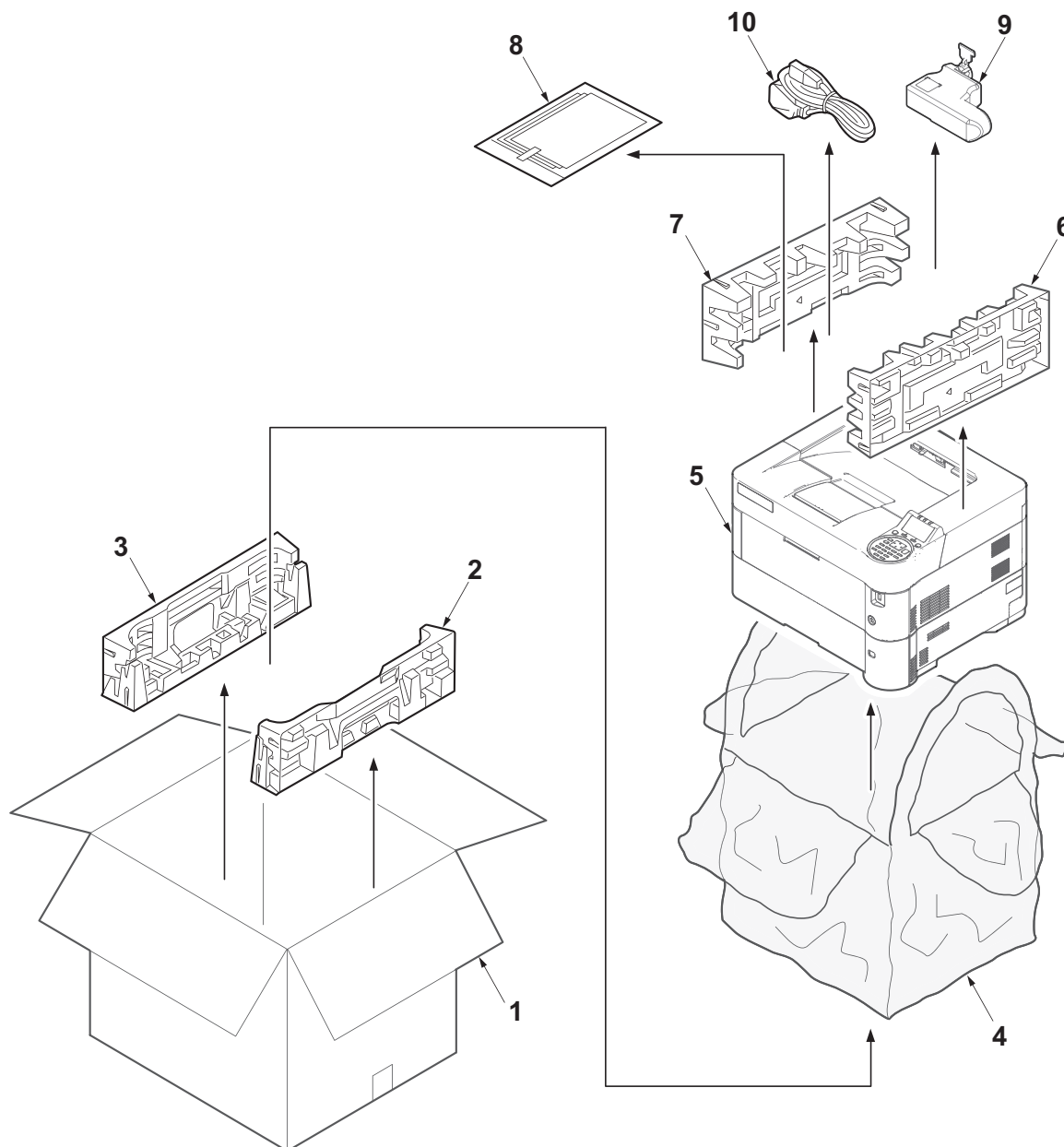
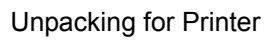


Figure 1-2-2

1. Outer case
2. Bottom pad R
3. Bottom pad L
4. Machine cover
5. Machine
6. Upper pad R
7. Upper pad L
8. Operation guide
9. Waste toner bottle
10. Power cord

TONER

Caution: Place the machine on a level surface.

Unpacking for Paper Feeder (PF-4100) (Option)

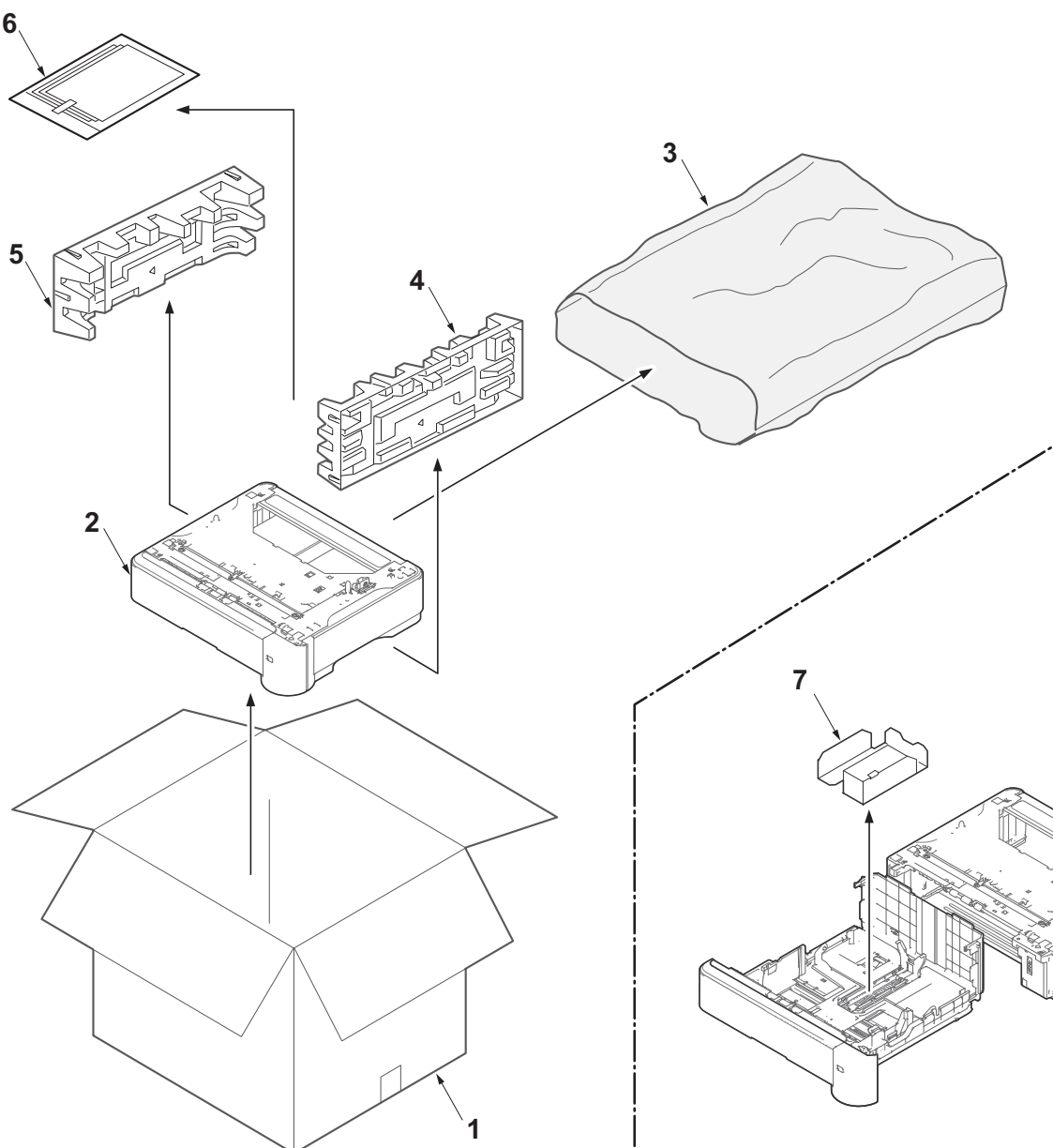


Figure 1-2-3

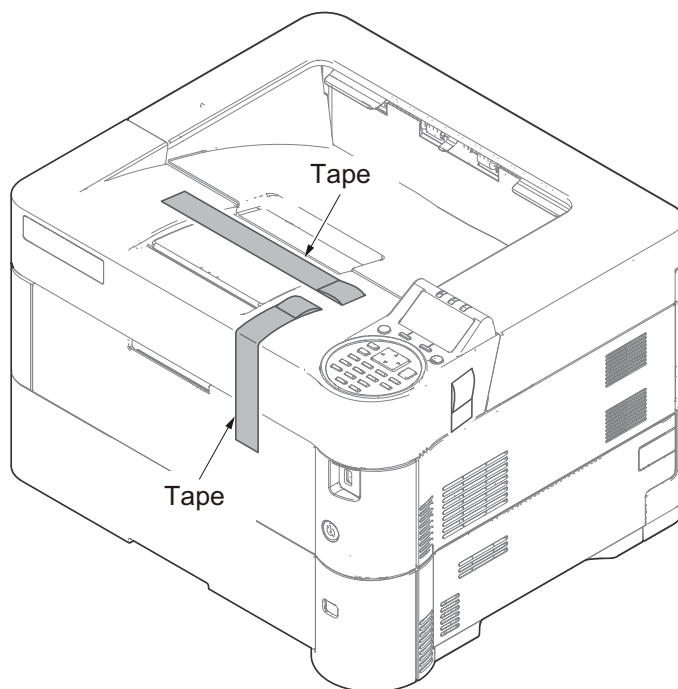
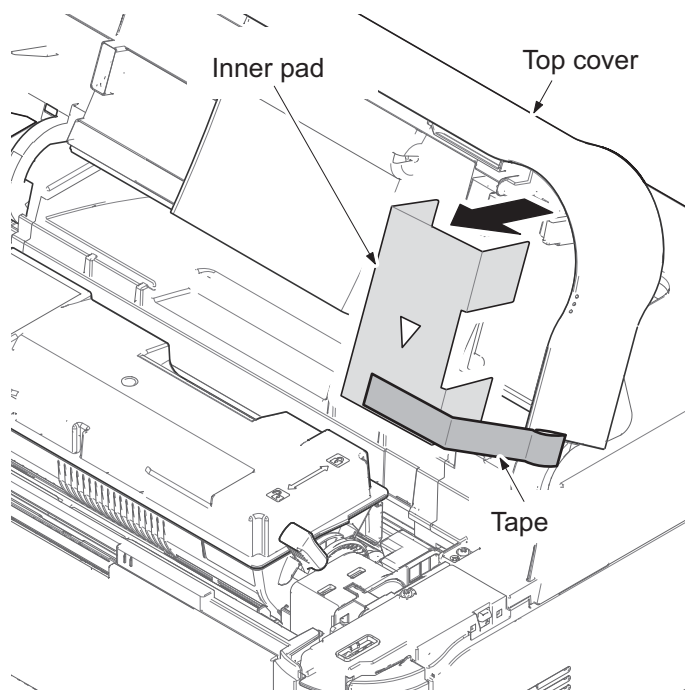
- 1. Outer case
- 2. Paper feeder
- 3. Machine cover
- 4. Right pad

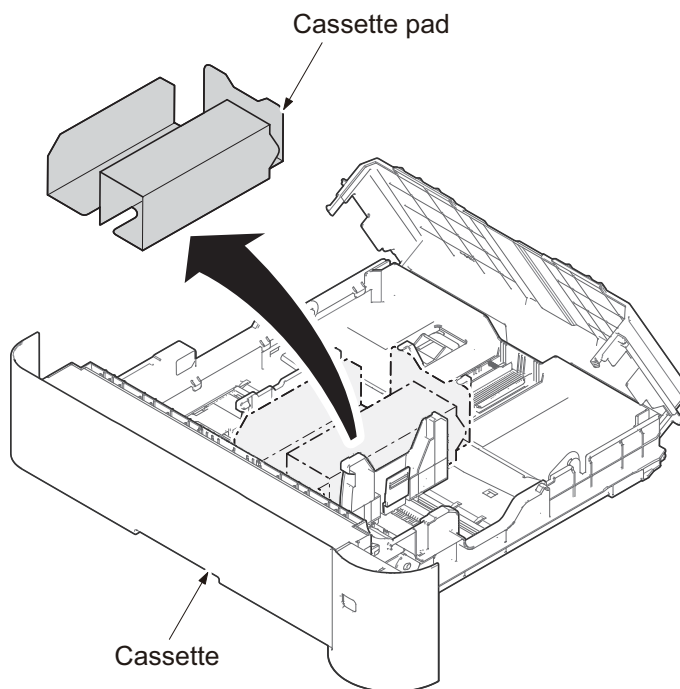
- 5. Left pad
- 6. Operation guide
- 7. Bottom plate fixing pad

Caution: Place the machine on a level surface.

Removing the tapes and pads

* : Remove the fixed tapes and the shock absorbing material etc.

**Figure 1-2-4****Figure 1-2-5**

**Figure 1-2-6**

Installing the toner container

1. Open the top cover.
2. Rotate the toner container lock lever to the lock position and then remove the toner container from the printer by returning it to the unlock position.

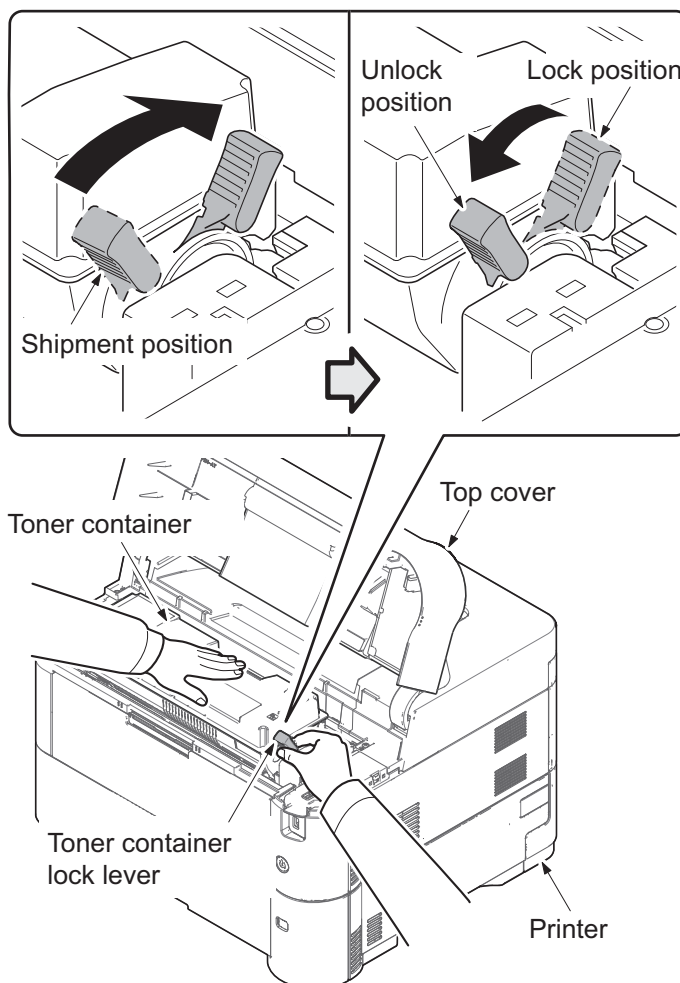


Figure 1-2-7

3. Shake the turned toner container 10 times or more as shown in the figure in order to distribute the toner evenly inside the container.
Caution: Do not press too firmly on the center of the toner container or touch the toner feed slot or the terminal parts.
4. Set the toner container to the printer and then turn the toner container lock lever to the lock position.
5. Close the top cover.

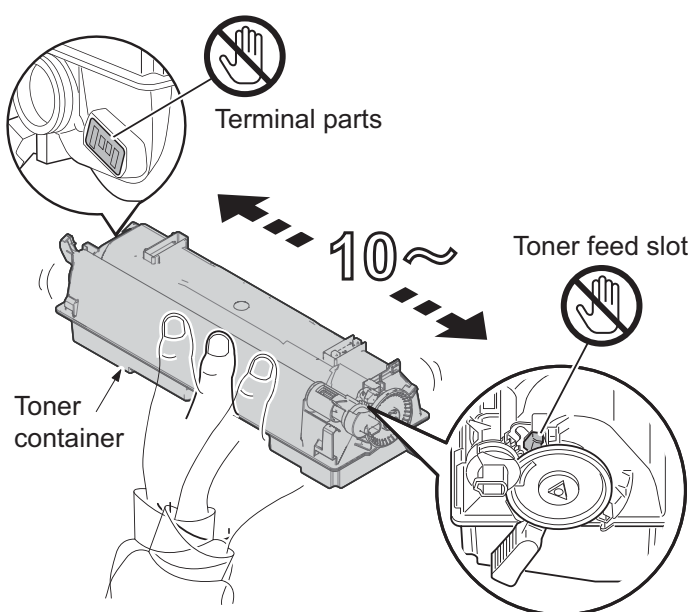


Figure 1-2-8

Installing the waste toner box

1. Open the left cover.
2. Open the cap of the waste toner box.
3. Install the waste toner box.
4. Close the left cover.

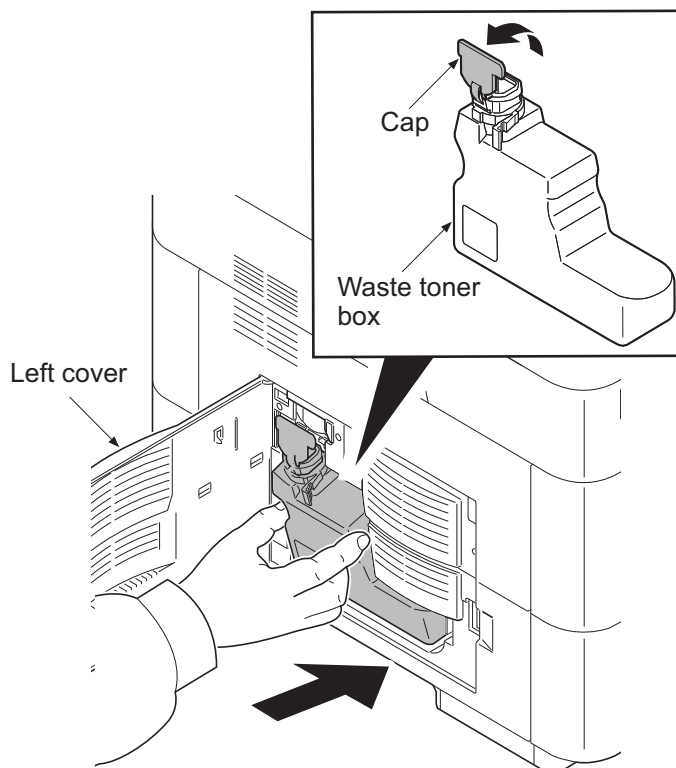


Figure 1-2-9

Installing the paper feeder (PF-4100) (Option)

1. Remove the paper feeder from the container box and place the feeder where you want to install it.
2. Lift the printer up without tilting it, then put it down onto the paper feeder(s) by fitting the four corners as shown in the figure.
(The number of the maximum stages: Four steps)

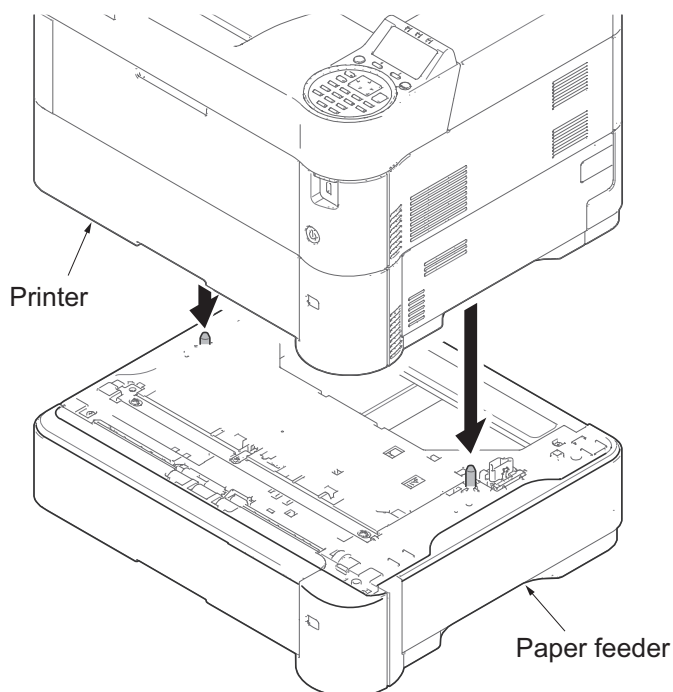


Figure 1-2-10

Loading paper

1. Pull the cassette from the printer out.
2. Turn the cassette size dial so that the size of the paper you are going to use appears in the cassette size window.
3. Open the cassette cover.

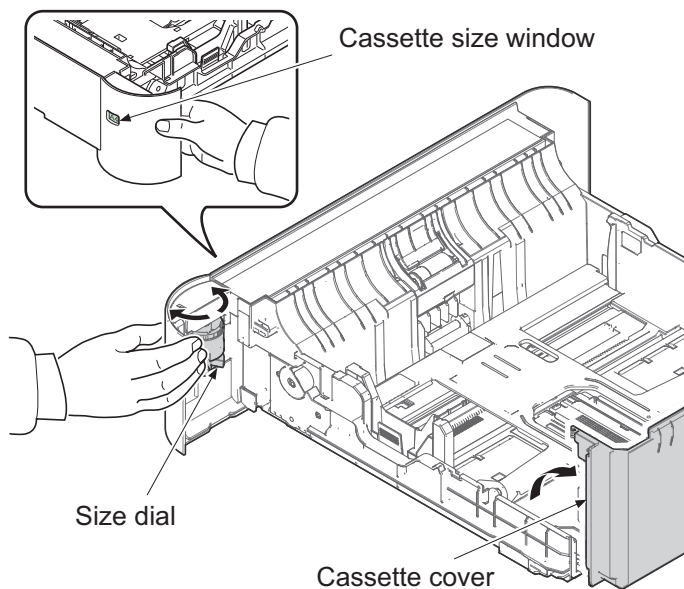


Figure 1-2-11

4. Adjust the position of the paper width guides.
Push the lock lever on the left side guide and slide to the desired paper size.

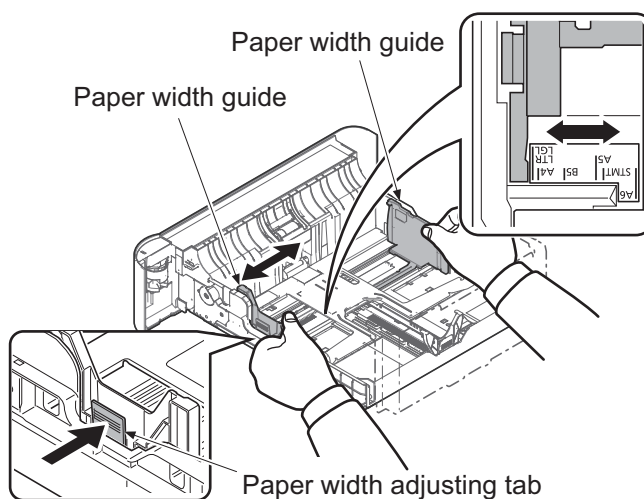
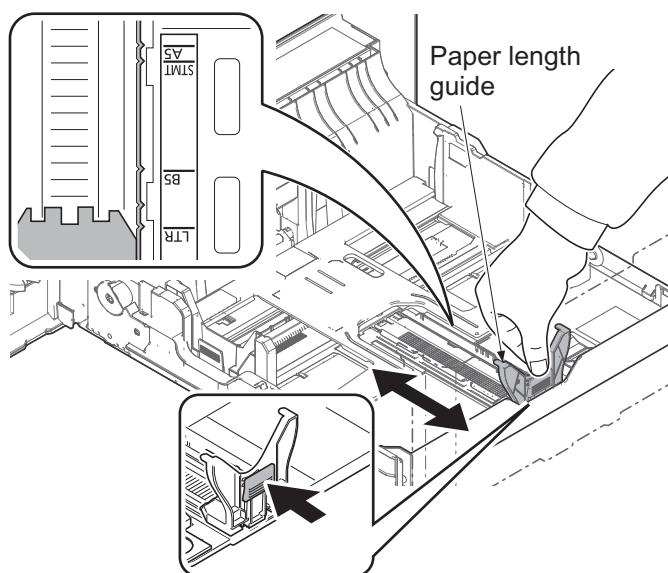


Figure 1-2-12

5. Push the lock lever and slide the paper length guide to the desired paper size.

If you are going to set a paper that is longer than A4, pull out the extension cassette by pulling the lock lever up and adjust them to the desired paper size.



(Longer than A4)

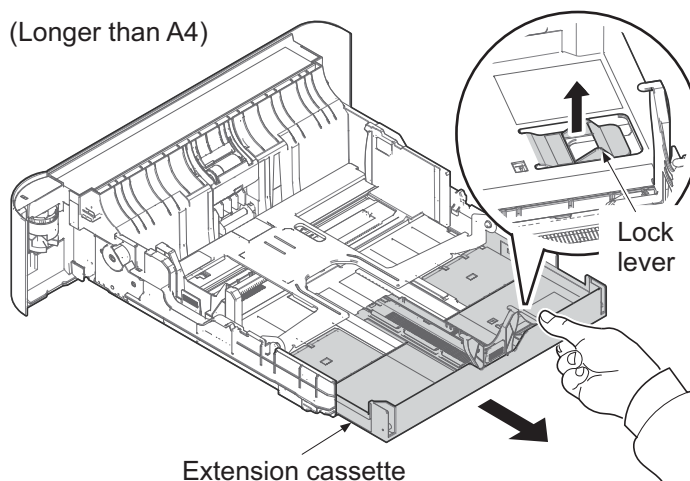


Figure 1-2-13

6. Fan the media (paper/transparencies), then tap it on a level surface to avoid media jams or skewed printing.
7. Slide the paper into the paper cassette.
8. Insert the cassette into the slot in the printer. Push it straight in as far as it will go.

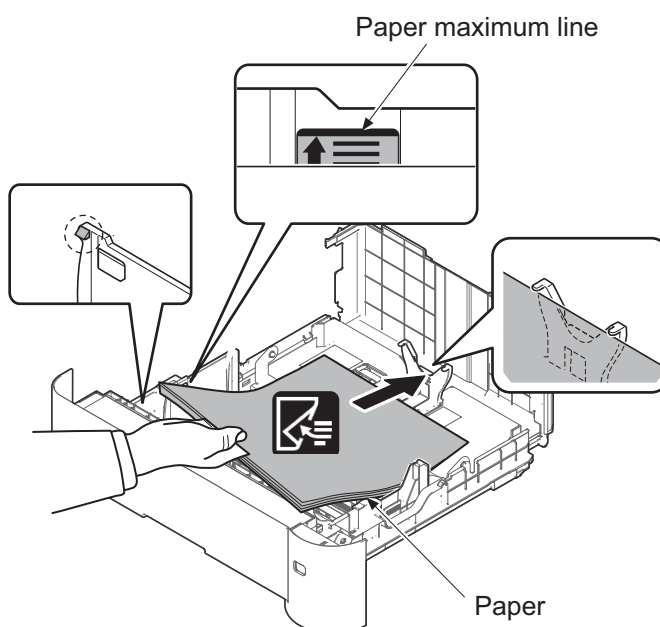


Figure 1-2-14

Replace the operation panel sheet

1. Rotate the operation panel ring in the counterclockwise direction.
2. Remove the operation panel cover.
3. Replace it to the operation panel sheet of the corresponding language.
4. Refit all the removed parts.

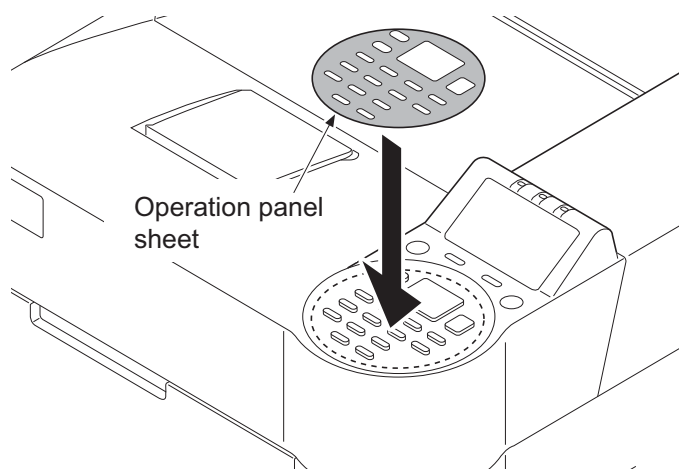
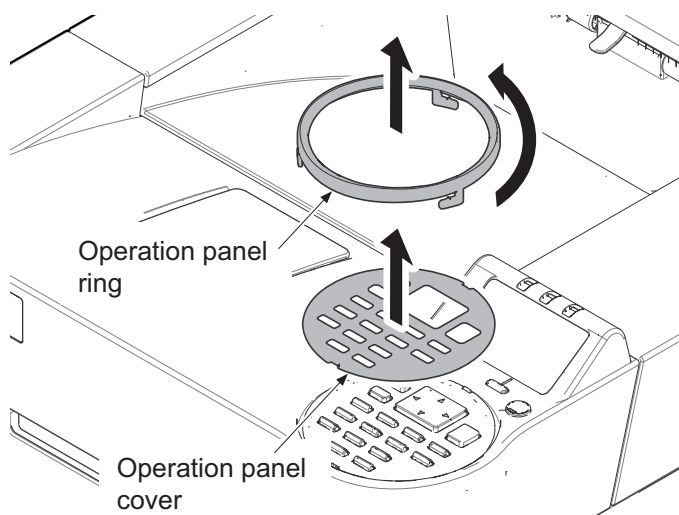


Figure 1-2-15

5. Stick the language sheet of the corresponding language.

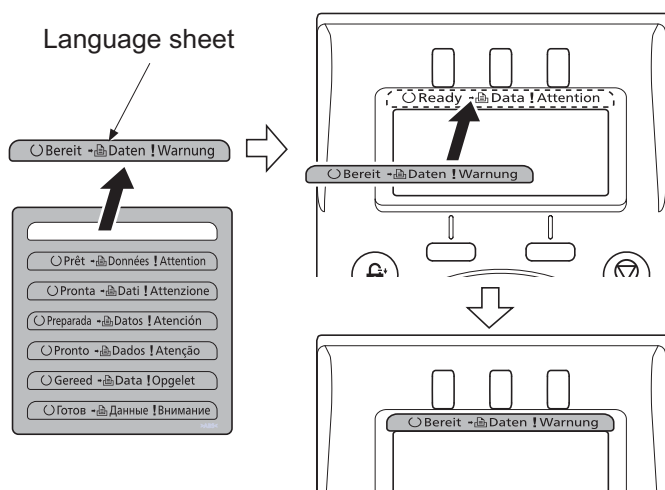


Figure 1-2-16

Connecting the cable

1. Open the rear cover.
2. Remove the inlet cover.
3. Connect the USB interface cable to the printer and PC.

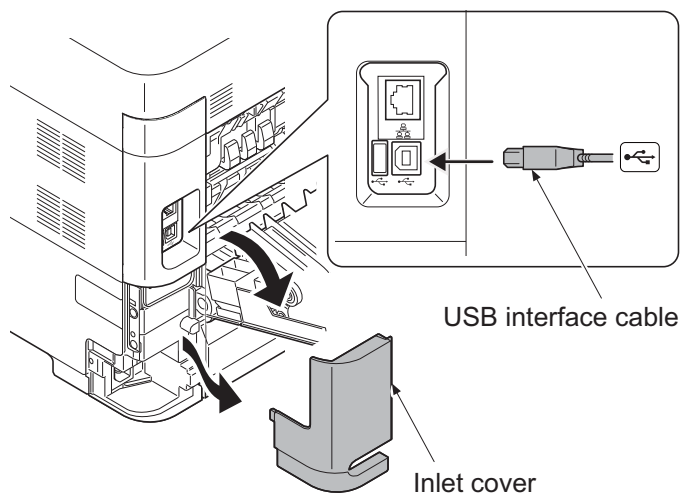


Figure 1-2-17

4. Connect the network interface cable to the printer and network.

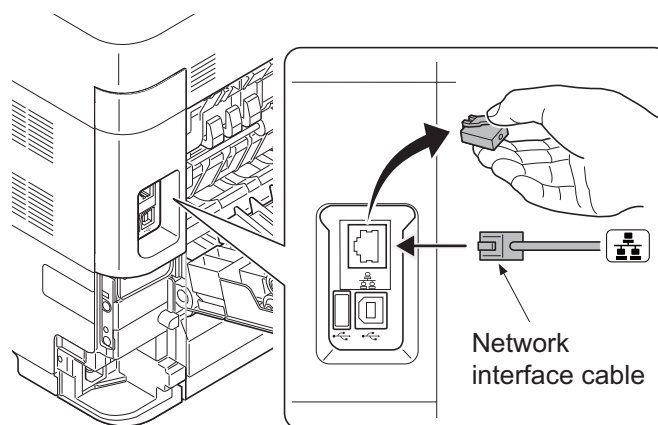


Figure 1-2-18

5. Connect the power cord to the printer and the wall outlet.
6. Refit the inlet cover.
7. Close the rear cover.

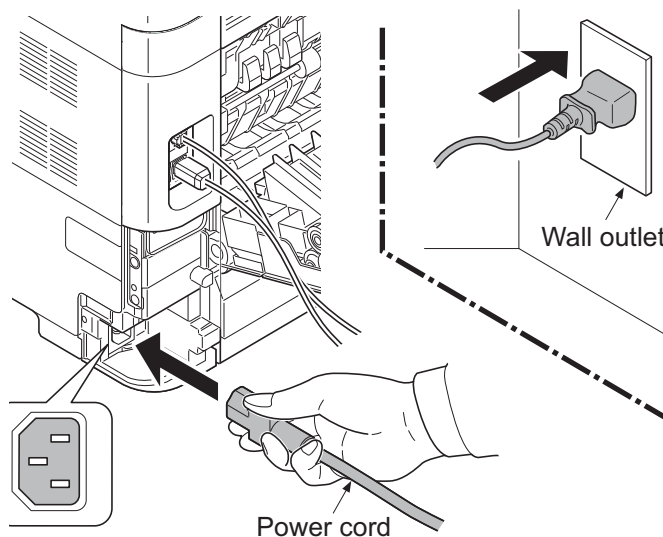


Figure 1-2-19

Power on

1. Press the power switch and then check the lighting up of ready indicator.
2. Installing the printer driver (refer to operation guide).

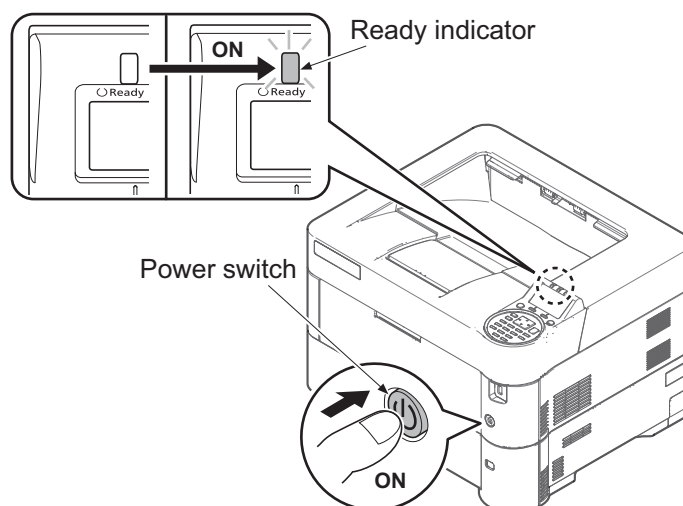


Figure 1-2-20

Setting the language

1. Press the menu key.
2. Select [Device Common] using the cursor up/down keys.
3. Press the OK key.
4. Select [Language] using the cursor up/down keys.
5. Press the OK key.
6. Select the language to set using the cursor up/down keys.
7. Press the OK key.

Printout the status page

1. Press the menu key.
2. Select [Report Print] using the cursor up/down keys.
3. Press the OK key.
4. Select [Status Page] using the cursor up/down keys.
5. Press the OK key.
6. Select the [YES] using the left select key.
7. [Accepted] is displayed and the page will be printed.
8. Press the menu key.

Completion of the machine installation

1-2-3 Install the expansion memory (option)

Procedure

1. Remove the inlet cover.
2. Remove the slot cover.
3. Unplug the power cable.

Caution: Do not insert or remove main PWB assembly while machine power is on.

Doing so may cause damage to the machine and the main PWB.

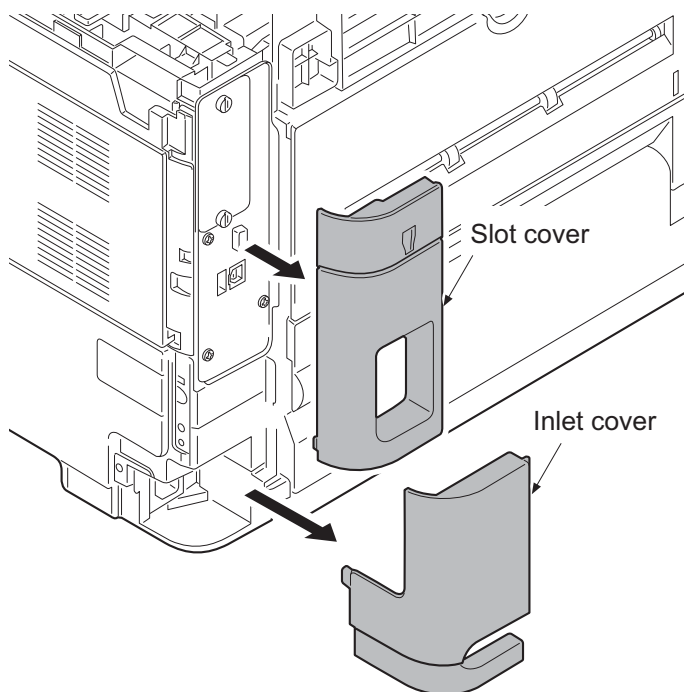


Figure 1-2-21

4. Remove five screws and then remove the main PWB assembly.
 5. Aligning the cutouts of the memory module with the matching keys of the socket, carefully plug the memory module into the memory socket until it clicks in place.
 6. Then, push down the memory module to secure.
 7. Refit the main PWB assembly and the screws.
 8. Refit the covers.
 9. Plug the printer into a power outlet.
 10. Print a status page to check the memory expansion. (See page 1-3-2)
- If memory expansion has been properly performed, information on the installed memory is printed with the total memory capacity has been increased.
Standard memory capacity 256 MB.

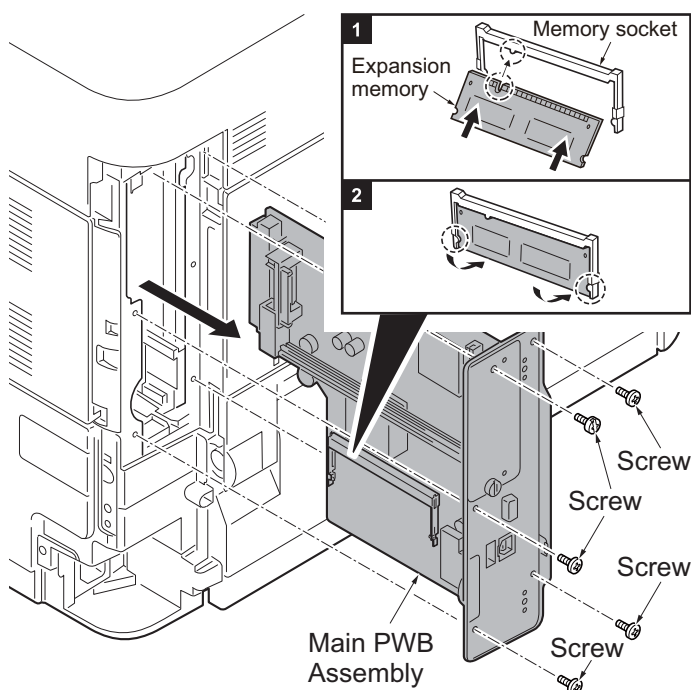


Figure 1-2-22

1-2-4 Install the memory card (SD card) (option)

Procedure

1. Remove the main PWB assembly from the machine. (See Page 1-2-13)
2. SD card is inserted in a SD card slot.
Maximum memory capacity 32 GB.
3. Remove the main PWB assembly and the covers.

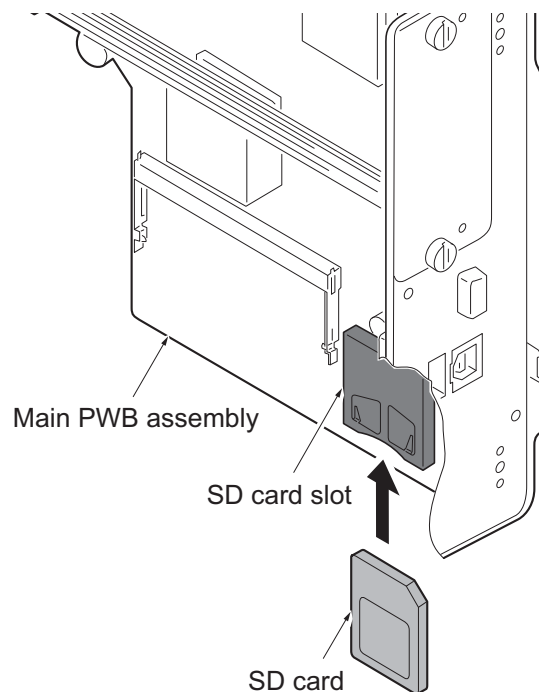
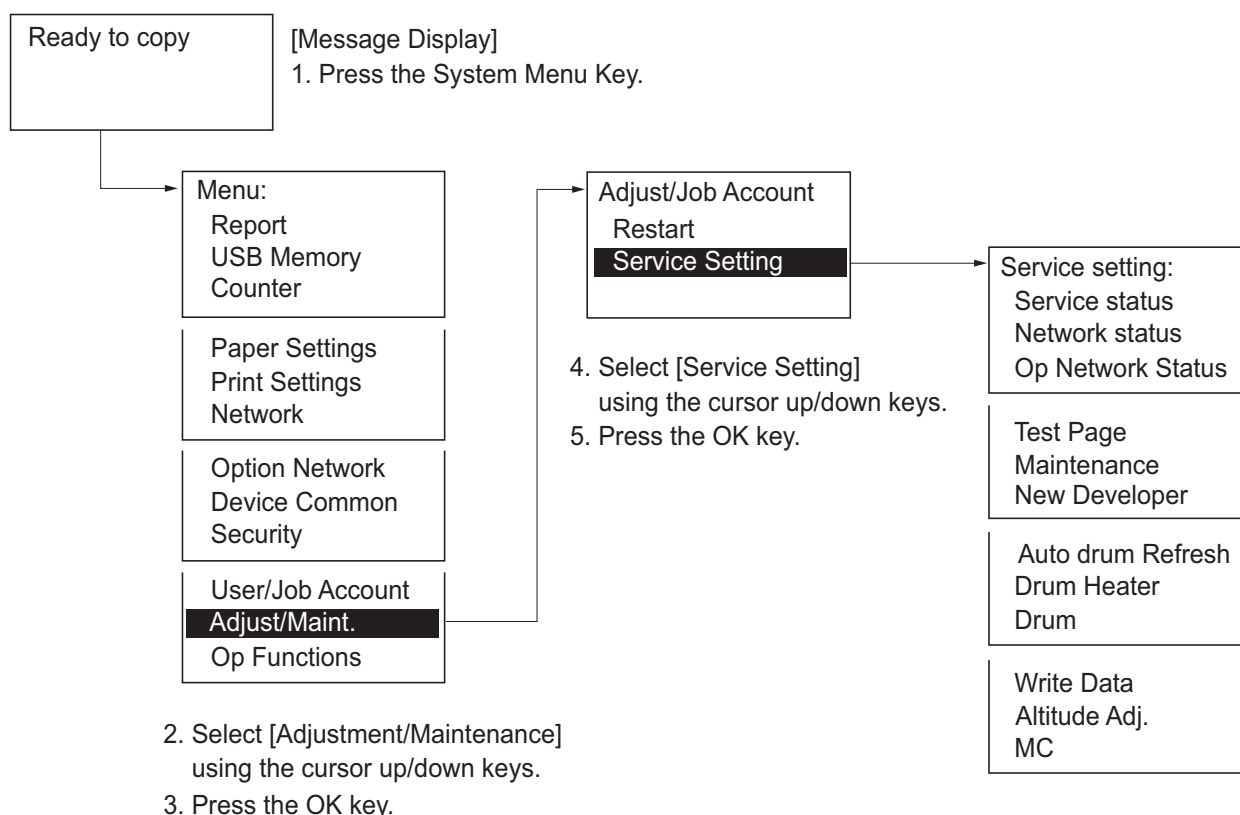


Figure 1-2-23

1-3-1 Service mode

The machine is equipped with a maintenance function which can be used to maintain and service the machine.

(1) Executing a service mode



Service Settings

Item	Description	Page
Service Status	Prints a status page for service purpose.	page 1-3-2
Network Status	Prints a status page for network.	page 1-3-9
OP Network Status	Prints a status page for optional network.	page 1-3-9
Test Page	The test page is printed with halftones.	page 1-3-10
Maintenance	Resets the counter at the time of change of maintenance kit.	page 1-3-11
New Developer	Installs the toner to the developer unit.	page 1-3-12
Auto Drum Refresh	Changes the execution condition of the of the drum surface refresh operation.	page 1-3-12
Drum heater	Sets the drum heater.	page 1-3-13
Drum	Refreshes the drum surface.	page 1-3-13
Write Data	Writes data into a USB memory.	page 1-3-14
Altitude adj.	Sets the altitude adjustment mode.	page 1-3-14
MC	Sets the main charger output.	page 1-3-14

(2) Description of service mode

Service Status

Description

Prints a status page for service purpose. The status page includes various settings and service cumulative.

Purpose

To acquire the current printing environmental parameters and cumulative information.

Method

1. Enter the Service Setting menu.
2. Select [Status Page] using the cursor up/down keys.
3. Press the OK key.
4. Select the [YES] using the left select key.
[Accepted] is displayed and two pages will be printed.

TONER
www.tonerplus.com.ua

Figure 1-3-1

TONER
www.tonerplus.com.ua

Figure 1-3-2

Detail of service status page

No.	Description	Supplement
(1)	Firmware version	-
(2)	System date	-
(3)	Engine soft version	-
(4)	Engine boot version	-
(5)	Operation panel mask version	-
(6)	Machine serial number	-
(7)	Standard memory size	-
(8)	Optional memory size	-
(9)	Total memory size	-
(10)	Local time zone	-
(11)	Report output date	Day/Month/Year hour:minute
(12)	NTP server name	-
(13)	Presence or absence of the optional paper feeder 1	Installed/Not Installed
(14)	Presence or absence of the optional paper feeder 2	Installed/Not Installed
(15)	Presence or absence of the optional paper feeder 3	Installed/Not Installed
(16)	Presence or absence of the optional paper feeder 4	Installed/Not Installed
(17)	Presence or absence of the optional memory card	Installed/Not Installed
(18)	Presence or absence of the optional SSD	Installed/Not Installed
(19)	Presence or absence of the optional Card Authentication Kit(B)	Installed/Not Installed/Trial
(20)	Presence or absence of the optional Security Kit(E)	Installed/Not Installed
(21)	Presence or absence of the optional UG-33	Installed/Not Installed
(22)	The connection state of an optional USB Keyboard	Connected/Not Connected
(23)	Displays setting of optional USB Keyboard	US English/US English with Euro/German/French
(24)	Setting of MP Tray Priority	Off (Paper handling basic motion) Auto feed (A priority setup with paper) Always (Fixed setup with paper)
(25)	Page of relation to the A4/Letter	* :Print Coverage provides a close-matching reference of toner consumption and will not match with the actual toner consumption.

No.	Description	Supplement
(26)	Average coverage for printer	Black
(27)	Coverage on the final output page	-
(28)	FRPO setting	-
(29)	RP Code	Code the engine software version and the date of update. Code the main software version and the date of update. Code the engine software version and the date of the previous update. Code the main software version and the date of the previous update.
(30)	NV RAM version	<p>_ 1F3 1225 _ 1F3 1225</p> <p>(a) (b) (c) (d) (e) (f)</p> <p>(a) Consistency of the present software version and the database _ (underscore): OK * (Asterisk): NG</p> <p>(b) Database version</p> <p>(c) The oldest time stamp of database version</p> <p>(d) Consistency of the present software version and the ME firmware version _ (underscore): OK * (Asterisk): NG</p> <p>(e) ME firmware version</p> <p>(f) The oldest time stamp of the ME database version</p> <p>Normal if (a) and (d) are underscored, and (b) and (e) are identical with (c) and (f).</p>
(31)	Mac address	-
(32)	The last sent date and time	-
(33)	Transmission address	-
(34)	Destination information	-
(35)	Area information	-
(36)	Margin settings	Top margin/Left margin
(37)	Top offset for each paper source	MP tray/Paper feeder 1/Paper feeder 2/ Paper feeder 3/Paper feeder 4/Duplex/Page rotation
(38)	Left offset for each paper source	MP tray/Paper feeder 1/Paper feeder 2/ Paper feeder 3/Paper feeder 4/Duplex/Page rotation
(39)	L value settings	Top margin integer part / Top margin decimal part/ Left margin integer part / Left margin decimal part/
(40)	Life counter (The first line)	Machine life/MP tray/Cassette/Paper feeder 1/ Paper feeder 2/Paper feeder 3/Paper feeder 4/Duplex
	Life counter (The second line)	Drum counter K/ Developer counter K/Maintenance kit counter

No.	Description	Supplement
(41)	Panel lock information	F00: OFF F01: Partial Lock 1 F02: Partial Lock 2 F03: Partial Lock 3 F04: Full Lock
(42)	USB information	U00: Not installed/U01: Full speed/U02: Hi speed
(43)	Paper handling information	0: Paper source unit select/1: Paper source unit
(44)	Auto cassette change	0: OFF/ 1: ON
(45)	Black and white printing double count mode	0: All single counts 1: A3, Single count, Less than 420 mm (length) 2: Legal, Single count, 356 mm or less (length) 3: Folio, Single count, Less than 330 mm (length) *: The count mode can be changed using a PRESCRIBE command. When the double count is set for the paper other than the sizes of A3, B4, A4, B5, A5, Folio, Ledger, Legal, Letter, and Statement, the counter value is indicated as "Other 1" in the status page. When in the same way, the single count is set, the counter value is indicated as "Other 2". In the operation panel, the counter values are indicated as "Other 1" or "Other 2".
(46)	Billing counting timing	-
(47)	Temperature (machine outside)	-
(48)	Relative humidity (machine outside)	-
(49)	XLI calibration information	-
(50)	Beam A/BD synchronous fine-tuning value	-
(51)	Beam B/BD synchronous fine-tuning value	-
(52)	Fixed assets number	-
(53)	Job end judgment time-out time	-
(54)	Job end detection mode	-
(55)	PRESCRIBE environmental reset	-
(56)	Media type attributes 1 to 28 (Not used: 18, 19, 20) * : For details on settings, refer to MDAT command in "Pre-scribe Commands Reference Manual."	Weight settings 0: Light 1: Normal 1 2: Normal 2 3: Normal 3 4: Heavy 1 5: Heavy 2 6: Heavy 3 7: Extra Heavy Fuser settings 0: High 1: Middle 2: Low 3: Vellum Duplex settings 0: Disable 1: Enable

No.	Description	Supplement																				
(57)	ID information	Product (OEM/maker) / destination code / a toner name / lot number / toner capacity / toner empty information / number of times of toner refilling																				
(58)	Toner install mode information	0:OFF t:ON																				
(59)	Drum status	-																				
(60)	Drum surface potential	-																				
(61)	Drum density	-																				
(62)	LSU light volume distribution	-																				
(63)	DRT parameter coefficient	-																				
(64)	Soft version of the optional paper feeder	Paper feeder 1/Paper feeder 2/Paper feeder 3 Paper feeder 4																				
(65)	Version of the optional message	-																				
(66)	Altitude	0: Standard 1: High altitude 1 2: High altitude 2																				
(67)	Charger roller correction	1 to 5																				
(68)	Data Sanitization details result	-																				
(69)	Toner Low setting	0:Invalid 1: Effective																				
(70)	Toner Low detection level	5 to 100(%)																				
(71)	ErP application	0: ErP Un-Applying mode 1: ErP Application mode																				
(72)	Full page printing mode	0:Normal mode (The factory default settings) 1:Full page mode																				
(73)	Wake UP mode	0: OFF (Don't wake up) 1: ON (Do wake up)																				
(74)	Wake Up Timer	Displays the wake-up time																				
(75)	BAM conformity Mode setting	0: Un-suiting Mode 1: Conformity Mode																				
(76)	Drum ID	-																				
(77)	Drum serial number	-																				
	Code conversion <table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>I</td><td>J</td></tr><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr></table>		A	B	C	D	E	F	G	H	I	J	0	1	2	3	4	5	6	7	8	9
A	B	C	D	E	F	G	H	I	J													
0	1	2	3	4	5	6	7	8	9													

Network Status**Description**

Prints a status page for network.

Execution is possible only the model with network.

Purpose

To acquire the detailed network setting information.

Method

1. Enter the Service Setting menu.
2. Select [Network Status] using the cursor up/down keys.
3. Press the OK key.
4. Select the [YES] using the left select key.
[Accepted] is displayed and Network status page will be printed.

OP Network Status * When Optional NIC is installed**Description**

Prints a status page for optional network.

Execution is possible only the model with optional network.

Purpose

To acquire the detailed network setting information.

Method

1. Enter the Service Setting menu.
2. Select [OP Network Status] using the cursor up/down keys.
3. Press the OK key.
4. Select the [YES] using the left select key.
[Accepted] is displayed and Network status page will be printed.

Test Page**Description**

The test page is printed with halftones.

Purpose

To check the activation of the developer and drum units.

Method

1. Enter the Service Setting menu.
 2. Select [Test Page] using the cursor up/down keys.
 3. Press the OK key.
 4. Select the [YES] using the left select key.
- [Accepted] is displayed and Test page will be printed.

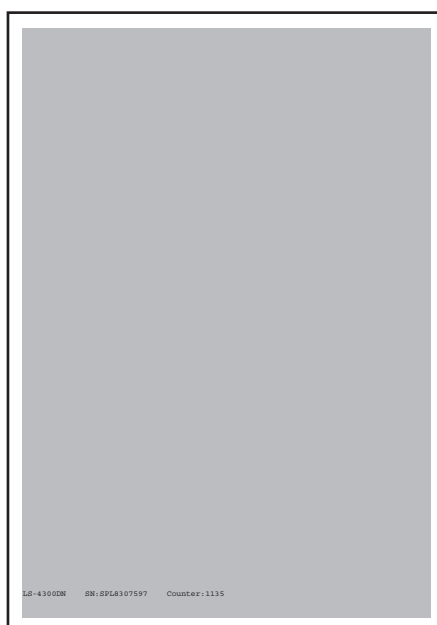


Figure 1-3-3

Maintenance**Description**

The "Install MK" message means that maintenance kit should be replaced at fixed pages of printing. The interval counter must be manually reset using this service item.

Maintenance kit MK-7300 : 500,000 images

Maintenance kit includes the following units:

- Drum unit
- Developer unit
- Transfer roller assembly
- Fuser unit
- Paper feed roller assembly
- Retard roller assembly

Purpose

To reset the life counter for maintenance kit.

Method

- Drum unit (see page 1-5-17)
- Developer unit (see page 1-5-14)
- Transfer roller assembly (see page 1-5-21)
- Fuser unit (see page 1-5-27)
- Paper feed roller assembly (see page 1-5-9)
- Retard roller assembly (see page 1-5-10)

Method

1. Enter the Service Setting menu.
2. Select [Maintenance] using the cursor up/down keys.
3. Press the OK key.
4. Select the [YES] using the left select key.
[Completed] is displayed.
The counter for each component is reset immediately.

Note:

Occurrences of resetting the maintenance kits are recorded on the service status page or event log in number of pages at which the maintenance kit was replaced (see page 1-3-2, page 1-3-15). This may be used to determine the possibility that the counter was erroneously or unintentionally reset.

New Developer**Description**

The new developing unit is shipped from the factory with no toner contained. The developing unit can be automatically replete with toner when a toner container is installed onto it and the printer is turned on. However, because the toner reservoir in the developing unit has a large capacity, it requires a lengthy period of time until a substantial amount of toner has been fed to get the printer ready. (A new developing unit needs approximately 200 g for triggering the sensor inside.)

Purpose

To execute when the developing unit has been replaced.

Method

1. Enter the Service Setting menu.
2. Select [New Developer] using the cursor up/down keys.
3. Press the OK key.
4. Select the [YES] using the left select key.

[Accepted] is displayed.

After turning the power supply switch OFF / ON, the toner installation mode is executed.

* : Toner supply is stopped when the power supply SW is turned off during the execution in toner installation mode.

Auto Drum Refresh**Description**

The drum surface refreshing operation is normally performed when the power is turned on to the printer or during warm-up when the printer is recovering from the Sleep mode, but even then only at those times that the temperature/humidity sensor detects the drum surface to be in a state of dew condensation. By using this mode, it is possible to force the drum surface refreshing operation to be performed automatically at a predetermined period of time, regardless of the status detected by the temperature/humidity sensor.

Purpose

To prevent bleeding of the output image when the printer's operating environment is one of high humidity.

Method

1. Enter the Service Setting menu.
2. Select [Auto Drum Refresh] using the cursor up/down keys.
3. Press the OK key.
4. Select the desire mode (Off/Short/Standard/Long) using the cursor up/down keys.
5. Press the OK key. The new value is set.

Drum heater**Description**

"On/Off" of a drum heater is set up.
If it sets to "ON", drum refresh time will become short.

Purpose

In order to improve the picture blot by high humidity.

Method

1. Enter the Service Setting menu.
2. Select [Drum heater] using the cursor up/down keys.
3. Press the OK key.
4. Select [Off] or [On] using the cursor up/down keys.

* : Default setting: Off

Drum**Description**

Rotates the drum approximately 3 minutes with toner lightly on the overall drum using the high-voltage output control. The cleaning blade in the drum unit scrapes toner off the drum surface to clean it.

Purpose

To clean the drum surface when image failure occurs due to the drum. This mode is effective when dew condensation on the drum occurs.

Method

1. Enter the Service Setting menu.
2. Select [Drum] using the cursor up/down keys.
3. Press the OK key.
4. Select the [YES] using the left select key.
Drum surface refreshing will start.

Write Data**Description**

To write data into a USB memory.

Execution is possible only when a USB memory is detected.

Method

Install the USB memory before attempting to write data.

1. Enter the Service Setting menu.
2. Select [Write Data] using the cursor up/down keys.
3. Press the OK key.
4. Select the [YES] using the left select key.
5. [Data waiting] is displayed and the printer waits for data to be written.
6. When the data is sent, [Processing] appears and the data is written to USB memory. When data writing ends, the display returns to [Ready].

Altitude adj.**Description**

Sets the altitude adjustment mode.

Purpose

Used when print quality deteriorates in an installation at the altitude of 1,500 meters or higher.

Method

1. Enter the Service Setting menu.
2. Select [Altitude Adj.] using the cursor up/down keys.
3. Press the OK key.
4. Select [Normal], [High 1] or [High 2] using the cursor up/down keys.
5. Press the OK key. The setting is set.

MC**Description**

Sets the main charger output.

Execution is possible only when the altitude adjustment mode is set to [Normal].

Purpose

Execute when the image density declines, dirt of a background or an offset has occurred.

Method

1. Enter the Service Setting menu.
2. Select [MC] using the cursor up/down keys.
3. Press the OK key.
4. Select [1] to [5] using the cursor up/down keys.
5. Press the OK key. The setting is set.

(3) Printing an event log

Event Log

Description

Prints a history list of occurrences of paper jam, self-diagnostics, toner replacements, etc.

Purpose

To allow machine malfunction analysis based on the frequency of paper misfeeds, self diagnostic errors and replacements.

Method

1. Connect the USB or network cable between machine and PC (network).
2. Remove the inlet cover and connect the power cord.

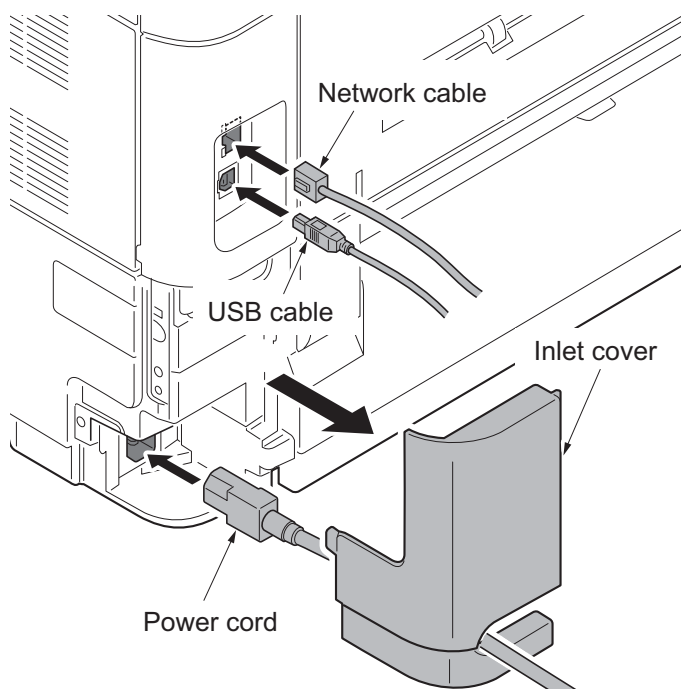


Figure 1-3-4

3. Refit the inlet cover.
4. Turn the main power switch on. Make sure the machine is ready.
5. Send the following PRESCRIBE command sequence from the PC to the machine.

```
!R!KCFG"ELOG";EXIT;
```

A sheet of event log will be printed.

Remarks: Details of configurations (See above 5.)**Notes on Connecting to USB**

- (1) Save the PRESCRIBE commands above as a text file in the PC.
- (2) Select the Sharing tab of the printer properties and share the printer.
- (3) Select a USB port in the Port tab. (Specify the printer name for sharing.)
- (4) From the DOS Prompt, execute the following command line:
copy file-name\\computer-name\shared-printe
File-name should be the name of the file that was saved in step 1.

Notes on connecting via network (using FTP protocol)

- (1) Save the PRESCRIBE commands above as a text file in the PC.
- (2) From the DOS Prompt, execute the following command line:
ftp printer-IP-address
Do not specify user name and password.
- (3) From the DOS Prompt, execute the following command:
put file-name
File-name should be the name of the file that was saved in step 1.

Event log

Event Log

Printer

(1) Firmware version 2P7_2000.000.000 2014.04.19

(2) 2014/04/19 15:15

(3) [XXXXXXXX] (4) [XXXXXXXX] (5) [XXXXXXXX]

(7) Paper Jam Log

#	Count.	Event Descriptions	Date and Time
16	1876543	0501.01.08.01.01	2014/03/02 11:11
15	166554	4020.01.08.01.01	2014/03/02 10:57
14	4988	0501.01.08.01.01	2014/03/02 10:44
13	4988	4020.01.08.01.01	2014/03/02 10:00
12	4988	0501.01.08.01.01	2014/03/02 09:27
11	4988	4020.01.08.01.01	2014/03/01 14:30
10	1103	0501.01.08.01.01	2014/03/01 08:58
9	1103	4020.01.08.01.01	2014/02/29 17:00
8	1103	0501.01.08.01.01	2014/02/29 15:38
7	1103	4020.01.08.01.01	2014/02/29 11:18
6	1027	0501.01.08.01.01	2014/02/29 09:59
5	1027	4020.01.08.01.01	2014/02/28 09:00
4	1027	0501.01.08.01.01	2014/02/28 08:45
3	1027	4020.01.08.01.01	2014/02/28 08:20
2	406	0501.01.08.01.01	2014/02/28 08:12
1	36	4020.01.08.01.01	2014/02/28 07:05

0501.01.08.01.01

(a)
(b)
(c)
(d)
(e)

(11) Counter Log

(f)	(g)	(h)
J0100: 0	C0030: 1	
J0105: 0	C0070: 1	
J0106: 0	C0100: 1	
J0110: 0	C0120: 1	
J0111: 0	C0130: 1	
J0512: 0	C2100: 1	
J0513: 0	C2200: 1	
J0518: 0	C2300: 1	
J0519: 0	C2330: 1	
J1020: 1	T00: 10	
J4201: 0		.
J4202: 1		.
J4203: 0		.
J4208: 1		.
J4209: 1		.
.		.
.		.
.		.
.		.
.		.
.		.
.		.

(8) Service Call Log

#	Count.	Service Code	Date and Time
5	5295	01.6000	2014/03/02 11:11
4	2099	01.2100	2014/03/02 10:57
3	1054	01.4000	2014/03/02 10:44
2	809	01.6000	2014/03/02 10:00
1	30	01.2100	2014/03/02 09:27

(9) Maintenance Log

#	Count.	Item	Date and Time
3	3454	01.01	2014/03/02 11:11
2	417	01.01	2014/03/02 10:57
1	34	01.01	2014/03/02 10:44

(10) Unknown toner Log

#	Count.	Item	Date and Time
3	3454	01.00	2014/03/02 11:11
2	406	01.00	2014/03/02 10:57
1	32	01.00	2014/03/02 10:44

(6) [XXXXXXXXXXXXXXXXXXXXX]

Figure 1-3-5

Detail of event log

No.	Items	Description
(1)	System version	
(2)	System date	
(3)	Engine soft version	
(4)	Engine boot version	
(5)	Operation panel mask version	
(6)	Machine serial number	

No.	Items	Description		
(7)	Paper Jam Log	#	Count.	Event
		Remembers 1 to 16 of occurrence. If the occurrence of the previous paper jam is less than 16, all of the paper jams are logged. When the occurrence exceeds 16, the oldest occurrence is removed.	The total page count at the time of the paper jam.	Log code (hexadecimal, 5 categories) (a) Cause of a paper jam (b) Paper source (c) Paper size (d) Paper type (e) Paper eject
		(a) Cause of paper jam (Hexadecimal)		
		Refer to page 1-4-1 for paper jam location 0000: Initial jam 0100: Secondary paper feed request time out 0101: Waiting for process package to be ready 0104: Waiting for conveying package to be ready 0105: Driving prevention 0106: Paper feeding request for duplex printing time out 0107: Waiting for fuser package to be ready 0110: Rear cover open 0111: Top cover open 0120: Receiving a duplex paper feeding request while paper is empty 0121: Exceeding number of duplex pages circulated 0501: No paper feed jam (cassette 1) 0502: No paper feed jam (cassette 2) 0503: No paper feed jam (cassette 3) 0504: No paper feed jam (cassette 4) 0505: No paper feed jam (cassette 5) 0508: No paper feed jam (duplex section) 0509: No paper feed jam (MP tray) 0511: Multiple sheets jam (cassette 1) 0512: Multiple sheets jam (cassette 2) 0513: Multiple sheets jam (cassette 3) 0514: Multiple sheets jam (cassette 4) 0515: Multiple sheets jam (cassette 5) 0518: Multiple sheets jam (duplex section) 0519: Multiple sheets jam (MP tray) 1403: PF feed sensor 1 non arrival jam (cassette 3) 1404: PF feed sensor 1 non arrival jam (cassette 4) 1405: PF feed sensor 1 non arrival jam (cassette 5) 1413: PF feed sensor 1 stay jam (cassette 3) 1414: PF feed sensor 1 stay jam (cassette 4) 1415: PF feed sensor 1 stay jam (cassette 5) 1604: PF feed sensor 2 non arrival jam (cassette 4) 1605: PF feed sensor 2 non arrival jam (cassette 5) 1614: PF feed sensor 2 stay jam (cassette 4) 1615: PF feed sensor 2 stay jam (cassette 5) 1805: PF feed sensor 3 non arrival jam (cassette 5) 1815: PF feed sensor 3 stay jam (cassette 5)		

No.	Items	Description
(7) cont .	Paper Jam Log	4002: Registration sensor non arrival jam (cassette 2) 4003: Registration sensor non arrival jam (cassette 3) 4004: Registration sensor non arrival jam (cassette 4) 4005: Registration sensor non arrival jam (cassette 5) 4012: Registration sensor stay jam (cassette 2) 4013: Registration sensor stay jam (cassette 3) 4014: Registration sensor stay jam (cassette 4) 4015: Registration sensor stay jam (cassette 5) 4201: Eject full sensor non arrival jam (cassette 1) 4202: Eject full sensor non arrival jam (cassette 2) 4203: Eject full sensor non arrival jam (cassette 3) 4204: Eject full sensor non arrival jam (cassette 4) 4205: Eject full sensor non arrival jam (cassette 5) 4208: Eject full sensor non arrival jam (duplex section) 4209: Eject full sensor non arrival jam (MP tray) 4211: Eject full sensor stay jam (cassette 1) 4212: Eject full sensor stay jam (cassette 2) 4213: Eject full sensor stay jam (cassette 3) 4214: Eject full sensor stay jam (cassette 4) 4215: Eject full sensor stay jam (cassette 5) 4218: Eject full sensor stay jam (duplex section) 4219: Eject full sensor stay jam (MP tray) 4301: Duplex sensor 1 non arrival jam (cassette 1) 4302: Duplex sensor 1 non arrival jam (cassette 2) 4303: Duplex sensor 1 non arrival jam (cassette 3) 4304: Duplex sensor 1 non arrival jam (cassette 4) 4305: Duplex sensor 1 non arrival jam (cassette 5) 4309: Duplex sensor 1 non arrival jam (MP tray or bulk feeder) 4401: Duplex sensor 2 non arrival jam (cassette 1) 4402: Duplex sensor 2 non arrival jam (cassette 2) 4403: Duplex sensor 2 non arrival jam (cassette 3) 4404: Duplex sensor 2 non arrival jam (cassette 4) 4405: Duplex sensor 2 non arrival jam (cassette 5) 4409: Duplex sensor 2 non arrival jam (MP tray or bulk feeder) 4418: Duplex sensor 2 stay jam (duplex section)

No.	Items	Description		
(7) cont	Paper Jam Log	(b) Detail of paper source (Hexadecimal)		
		00: MP tray 01: Cassette 1 02: Cassette 2 (paper feeder 1) 03: Cassette 3 (paper feeder 2) 04: Cassette 4 (paper feeder 3) 05: Cassette 5 (paper feeder 4) 06 to 09: Reserved		
		(c) Detail of paper size (Hexadecimal)		
		00: (Not specified) 01: Monarch 02: Business 03: International DL 04: International C5 05: Executive 06: Letter-R 08: Letter-E 07: Legal 08: A4R 88: A4E 09: B5R 89: B5E 0A: A3	0B: B4 0C: Ledger 0D: A5R 0E: A6 0F: B6 10: Commercial #9 11: Commercial #6 12: ISO B5 13: Custom size 1E: C4 1F: Postcard 20: Reply-paid postcard 21: Oficio II	22: Special 1 23: Special 2 24: A3 wide 25: Ledger wide 26: Full bleed paper (12 x 8) 27: 8K 28: 16K-R A8: 16K-E 32: Statement-R B2: Statement-E 33: Folio 34: Western type 2 35: Western type 4
		(d) Detail of paper type (Hexadecimal)		
		01: Plain 02: Transparency 03: Preprinted 04: Labels 05: Bond 06: Recycled 07: Vellum 08: Rough 09: Letterhead	0A: Color 0B: Prepunched 0C: Envelope 0D: Cardstock 0E: Coated 0F: 2nd side 10: Thick 11: High quality	15: Custom 1 16: Custom 2 17: Custom 3 18: Custom 4 19: Custom 5 1A: Custom 6 1B: Custom 7 1C: Custom 8
		(e) Detail of paper eject location (Hexadecimal)		
		01: Face down (FD)		
(8)	Service Call Log	#	Count.	Service Code
		Remembers 1 to 8 of occurrence of self diagnostics error. If the occurrence of the previous diagnostics error is less than 8, all of the diagnostics errors are logged.	The total page count at the time of the self diagnostics error.	Self diagnostic error code (See page 1-4-7) Example: 01.6000 01: Self diagnostic error 6000: Self diagnostic error code number

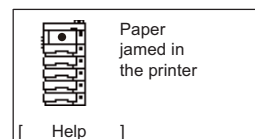
No.	Items	Description		
(9)	Maintenance Log	#	Count.	item
		Remembers 1 to 8 of occurrence of replacement. If the occurrence of the previous replacement of toner container is less than 8, all of the occurrences of replacement are logged.	<p>The total page count at the time of the replacement of the toner container.</p> <p>* :The toner replacement log is triggered by toner empty. This record may contain such a reference as the toner container is inserted twice or a used toner container is inserted.</p>	<p>Code of maintenance replacing item (1 byte, 2 categories)</p> <p>First byte (Replacing item) 01: Toner container Second byte (Type of replacing item) 00: Black</p> <p>First byte (Replacing item) 02: Maintenance kit Second byte (Type of replacing item) 01: MK-7300 02: MK-7304</p>
(10)	Unknown Toner Log	#	Count.	item
		Remembers 1 to 5 of occurrence of unknown toner detection. If the occurrence of the previous unknown toner detection is less than 5, all of the unknown toner detection are logged.	The total page count at the time of the toner empty error with using an unknown toner container.	<p>Unknown toner log code (1 byte, 2 categories)</p> <p>First byte 01: Toner container (Fixed) Second byte 00: Black</p>

No.	Items	Description		
(11)	Counter Log Comprised of three log counters including paper jams, self diagnostics errors, and replacement of the toner container.	(f) Paper jam	(g) Self diagnostic error	(h) Maintenance item replacing
		<p>Indicates the log counter of paper jams depending on location.</p> <p>Refer to Paper Jam Log.</p> <p>All instances including those are not occurred are displayed.</p>	<p>Indicates the log counter of self diagnostics errors depending on cause. (See page 1-4-7)</p> <p>Example: C6000: 4</p> <p>Self diagnostics error 6000 has happened four times.</p>	<p>Indicates the log counter depending on the maintenance item for maintenance.</p> <p>T: Toner container 00: Black</p> <p>M: Maintenance kit 01: MK-7300 02: MK-7304</p> <p>Example: T00: 1 The toner container has been replaced once.</p> <p>* :The toner replacement log is triggered by toner empty. This record may contain such a reference as the toner container is inserted twice or a used toner container is inserted.</p>

1-4-1 Paper misfeed detection

(1) Paper misfeed indication

When a paper misfeed occurs, the machine immediately stops printing and displays the paper misfeed message on the operation panel. To remove paper misfeed in the machine, pull out the cassette, open the front cover or the rear cover.



(2) Paper misfeed detection condition

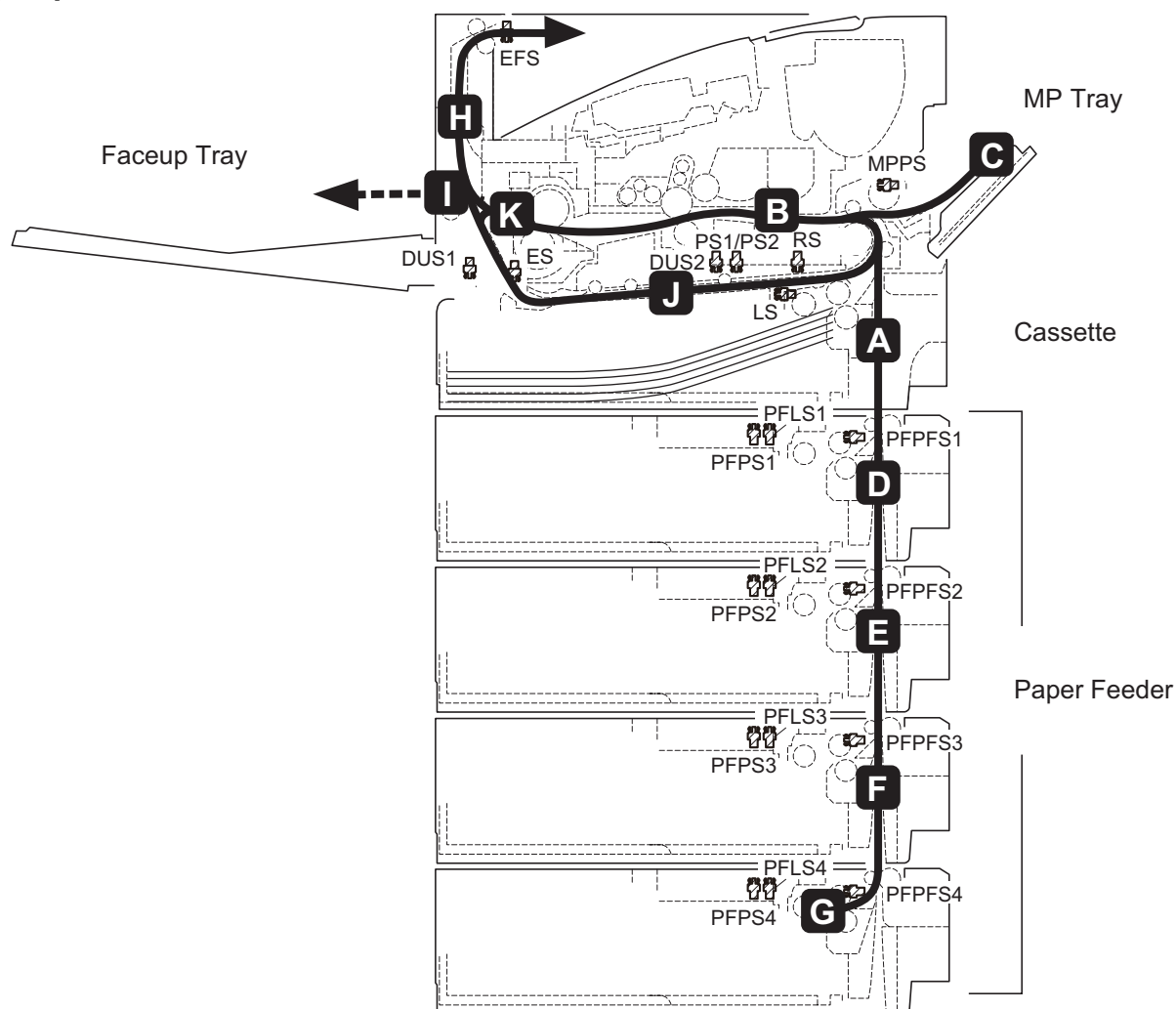


Figure 1-4-1

- (A) Misfeed in cassette1
- (B) Misfeed in paper feed section
- (C) Misfeed in MP tray
- (D) Misfeed in cassette2 (Option)
- (E) Misfeed in cassette3 (Option)
- (F) Misfeed in cassette4 (Option)
- (G) Misfeed in cassette5 (Option)

- (H) Misfeed in exit conveying section
- (I) Misfeed in rear cover section
- (J) Misfeed in duplex conveying section
- (K) Misfeed in fuser section

(3) Conveyance drive composition

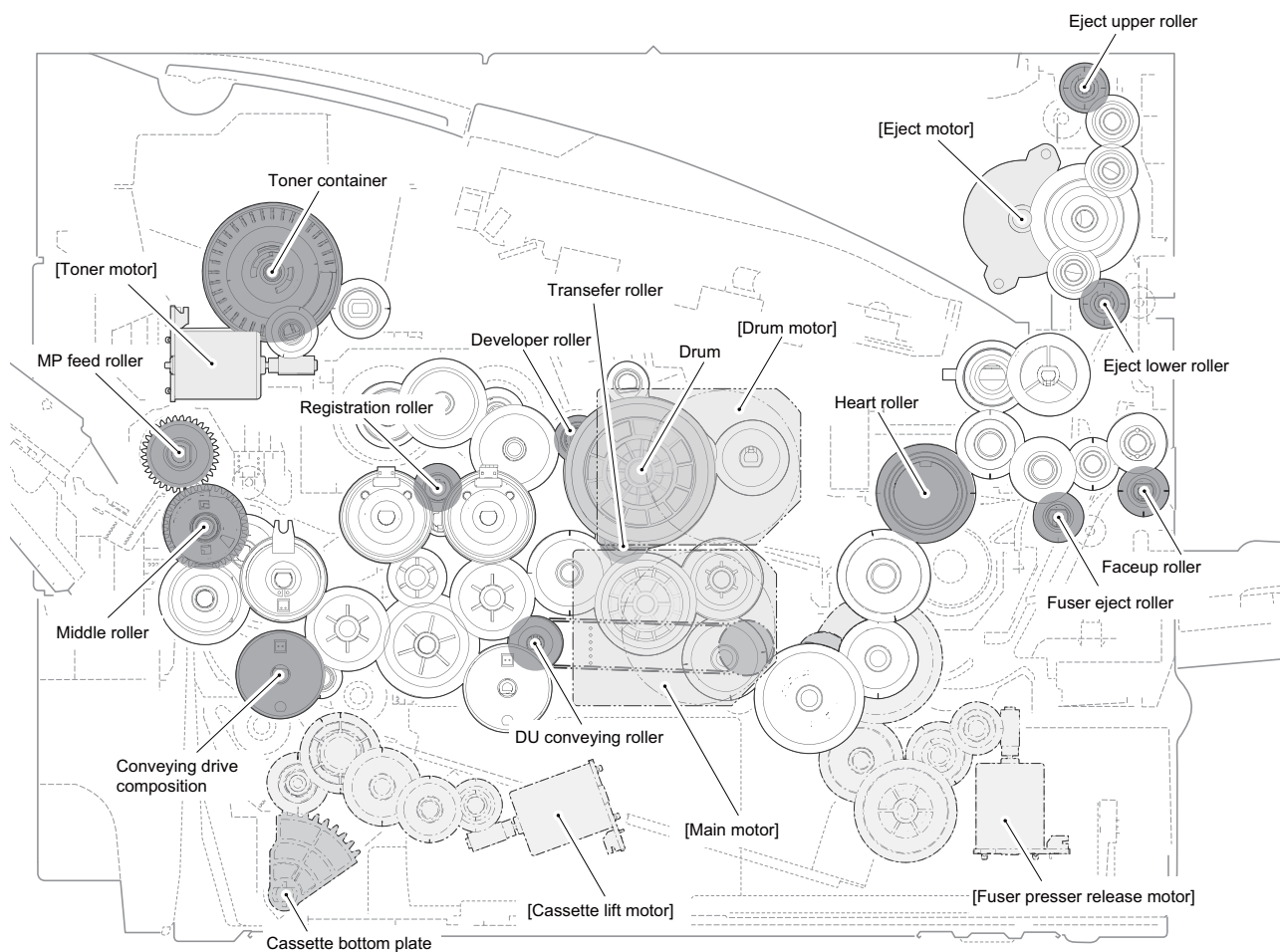


Figure 1-4-2

(4) List of Jam Code

Code	Contents	Conditions	Jam location*
0000	Initial jam	The power is turned on when a sensor in the conveying system is on.	-
0100	Secondary paper feed request time out	Secondary paper feed request given by the controller is unreachable.	-
0101	Waiting for process package to be ready	Process package won't be ready.	-
0104	Waiting for conveying package to be ready	Conveying package won't be ready.	-
0105	Driving prevention	A drive does not stop.	-
0106	Paper feeding request for duplex printing time out	Paper feeding request for duplex printing given by the controller is unreachable.	-
0107	Waiting for fuser package to be ready	Fuser package won't be ready.	-
0110	Rear cover open	The rear cover is opened during printing.	-
0111	Top cover open	The top cover is opened during printing.	-
0120	Receiving a duplex paper feeding request while paper is empty	Paper feed request was received from the duplex section despite the absence of paper in the duplex section.	-
0121	Exceeding number of duplex pages circulated	The controller issued the duplex section a request for more pages than the duplex print cycle contains.	-
0501	No paper feed jam	The registration sensor (RS) does not turn on during paper feed from cassette 1.	A
0502		PF feed sensor 1 (PFPFS1) does not turn on during paper feed from cassette 2.	D
0503		PF feed sensor 2 (PFPFS2) does not turn on during paper feed from cassette 3.	E
0504		PF feed sensor 3 (PFPFS3) does not turn on during paper feed from cassette 4.	F
0505		PF feed sensor 4 (PFPFS4) does not turn on during paper feed from cassette 5.	G
0508		The registration sensor (RS) does not turn on during paper feed from duplex section.	B
0509		The registration sensor (RS) does not turn on during paper feed from MP tray.	C

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

Code	Contents	Conditions	Jam location*
0511	Multiple sheets jam	The registration sensor (RS) does not turn off during paper feed from cassette 1.	B
0512		PF feed sensor 1 (PFPFS1) does not turn off during paper feed from cassette 2.	B
0513		PF feed sensor 2 (PFPFS2) does not turn off during paper feed from cassette 3.	B
0514		PF feed sensor 3 (PFPFS3) does not turn off during paper feed from cassette 4.	B
0515		PF feed sensor 4 (PFPFS4) does not turn off during paper feed from cassette 5.	B
0518		The registration sensor (RS) does not turn off during paper feed from duplex section.	B
0519		The registration sensor (RS) does not turn off during paper feed from MP tray.	B
1403	PF feed sensor 1 non arrival jam	PF feed sensor 1 (PFPFS1) does not turn on during paper feed from cassette 3.	D
1404		PF feed sensor 1 (PFPFS1) does not turn on during paper feed from cassette 4.	D
1405		PF feed sensor 1 (PFPFS1) does not turn on during paper feed from cassette 5.	D
1413	PF feed sensor 1 stay jam	PF feed sensor 1 (PFPFS1) does not turn off during paper feed from cassette 3.	D
1414		PF feed sensor 1 (PFPFS1) does not turn off during paper feed from cassette 4.	D
1415		PF feed sensor 1 (PFPFS1) does not turn off during paper feed from cassette 5.	D
1604	PF feed sensor 2 non arrival jam	PF feed sensor 2 (PFPFS2) does not turn on during paper feed from cassette 4.	E
1605		PF feed sensor 2 (PFPFS2) does not turn on during paper feed from cassette 5.	E
1614	PF feed sensor 2 stay jam	PF feed sensor 2 (PFPFS2) does not turn off during paper feed from cassette 4.	E
1615		PF feed sensor 2 (PFPFS2) does not turn off during paper feed from cassette 5.	E
1805	PF feed sensor 3 non arrival jam	PF feed sensor 3 (PFPFS3) does not turn on during paper feed from cassette 5.	F
1815	PF feed sensor 3 stay jam	PF feed sensor 3 (PFPFS3) does not turn off during paper feed from cassette 5.	F

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

Code	Contents	Conditions	Jam location*
4002	Registration sensor 2 non arrival jam	The registration sensor (RS) does not turn on during paper feed from cassette 2.	B
4003		The registration sensor (RS) does not turn on during paper feed from cassette 3.	B
4004		The registration sensor (RS) does not turn on during paper feed from cassette 4.	B
4005		The registration sensor (RS) does not turn on during paper feed from cassette 5.	B
4012	Registration sensor 2 stay jam	The registration sensor (RS) does not turn off during paper feed from cassette 2.	B
4013		The registration sensor (RS) does not turn off during paper feed from cassette 3.	B
4014		The registration sensor (RS) does not turn off during paper feed from cassette 4.	B
4015		The registration sensor (RS) does not turn off during paper feed from cassette 5.	B
4201	Eject sensor non arrival jam	The eject sensor (ES) does not turn on during paper feed from cassette 1.	K
4202		The eject sensor (ES) does not turn on during paper feed from cassette 2.	K
4203		The eject sensor (ES) does not turn on during paper feed from cassette 3.	K
4204		The eject sensor (ES) does not turn on during paper feed from cassette 4.	K
4205		The eject sensor (ES) does not turn on during paper feed from cassette 5.	K
4208		The eject sensor (ES) does not turn on during paper feed from duplex section.	K
4209		The eject sensor (ES) does not turn on during paper feed from MP tray.	K

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

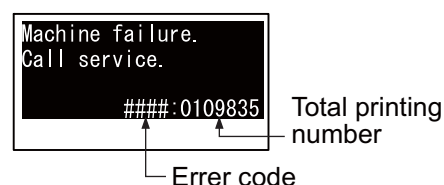
Code	Contents	Conditions	Jam location*
4211	Eject sensor stay jam	The eject sensor (ES) does not turn off during paper feed from cassette 1.	H or K
4212		The eject sensor (ES) does not turn off during paper feed from cassette 2.	H or K
4213		The eject sensor (ES) does not turn off during paper feed from cassette 3.	H or K
4214		The eject sensor (ES) does not turn off during paper feed from cassette 4.	H or K
4215		The eject sensor (ES) does not turn off during paper feed from cassette 5.	H or K
4218		The eject sensor (ES) does not turn off during paper feed from duplex section.	H or K
4219		The eject sensor (ES) does not turn off during paper feed from MP tray.	H or K
4301	Duplex sensor 1 non arrival jam	The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 1.	I
4302		The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 2.	I
4303		The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 3.	I
4304		The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 4.	I
4305		The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 5.	I
4309		The duplex sensor 1 (DUS1) does not turn on during paper feed from MP tray or bulk feeder.	I
4401	Duplex sensor 2 non arrival jam	The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 1.	J
4402		The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 2.	J
4403		The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 3.	J
4404		The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 4.	J
4405		The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 5.	J
4409		The duplex sensor 2 (DUS2) does not turn on during paper feed from MP tray or bulk feeder.	J
4418	Duplex sensor 2 stay jam	The duplex sensor 2 (DUS2) does not turn off during paper feed from duplex section.	J

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

1-4-2 Self-diagnostic function

(1) Self-diagnostic function

This machine is equipped with self-diagnostic function. When a problem is detected, the machine stops printing and display an error message on the operation panel. An error message consists of a message prompting a contact to service personnel and a four-digit error code indicating the type of the error.



(2) Self diagnostic codes

If the part causing the problem was not supplied, use the unit including the part for replacement.

Code	Contents	Causes	Check procedures/ corrective measures
0100	Backup memory device error	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-38).
		Defective main PWB.	
0120	MAC address data error For data in which the MAC address is invalid.	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-38).
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-38).
0130	Backup memory read/write error (main PWB)	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-38).
		Defective main PWB.	
0140	Backup memory data error (main PWB)	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-38).
		Defective main PWB.	
0150	Backup memory read/write error (engine PWB) Detecting engine PWB EEPROM communication error.	Improper installation engine PWB EEPROM.	Check the installation of the EEPROM and remedy if necessary.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
		Device damage of EEPROM.	Contact the Service Administrative Division.
0160	Backup memory data error (engine PWB)	Defective EEPROM.	Replace the engine PWB and check for correct operation (see page 1-5-40).
		Defective engine PWB.	

Code	Contents	Causes	Check procedures/ corrective measures
0170	Billing counting error A checksum error is detected in the main and engine backup memories for the billing counters.	Data damage of EEPROM.	Contact the Service Administrative Division.
		Defective PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1-5-38, 1-5-40).
0190	Backup memory device error (engine PWB)	Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
0800	Image processing error JAM010x and JAM21 are detected twice.	Defective main PWB.	Replace the main PWB and check for correct operations page 1-5-38).
0840	Faults of RTC The time is judged to go back based on the comparison of the RTC time and the current time or five years or more have passed.	The battery is disconnected from the main PWB.	Check visually and remedy if necessary
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-38).
1010	Lift motor error After cassette 1 is inserted, lift sensor does not turn on within 10 s. This error is detected five times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Lift motor and engine PWB (YC13)
		Defective drive transmission system of the lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective lift motor.	Replace the lift motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).

Code	Contents	Causes	Check procedures/ corrective measures
1020	PF lift motor 1 error (paper feeder) After cassette 2 is inserted, PF lift sensor 1 does not turn on. This error is detected five times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 1 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 1.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
1030	PF lift motor 2 error (paper feeder) After cassette 3 is inserted, PF lift sensor 2 does not turn on. This error is detected five times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 2 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 2.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).

Code	Contents	Causes	Check procedures/ corrective measures
1040	PF lift motor 3 error (paper feeder) After cassette 4 is inserted, PF lift sensor 3 does not turn on. This error is detected five times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 3 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 3.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
1050	PF lift motor 4 error (paper feeder) After cassette 5 is inserted, PF lift sensor 4 does not turn on. This error is detected five times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 4 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 4.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
1800	Paper feeder 1 communication error A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC22)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).

Code	Contents	Causes	Check procedures/ corrective measures
1810	Paper feeder 2 communication error A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and PF main PWB (YC4)
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
1820	Paper feeder 3 communication error A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and PF main PWB (YC4)
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
1830	Paper feeder 4 communication error A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and PF main PWB (YC4)
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
1900	Paper feeder 1 EEPROM error When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
		Device damage of EEPROM.	
1910	Paper feeder 2 EEPROM error When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
		Device damage of EEPROM.	

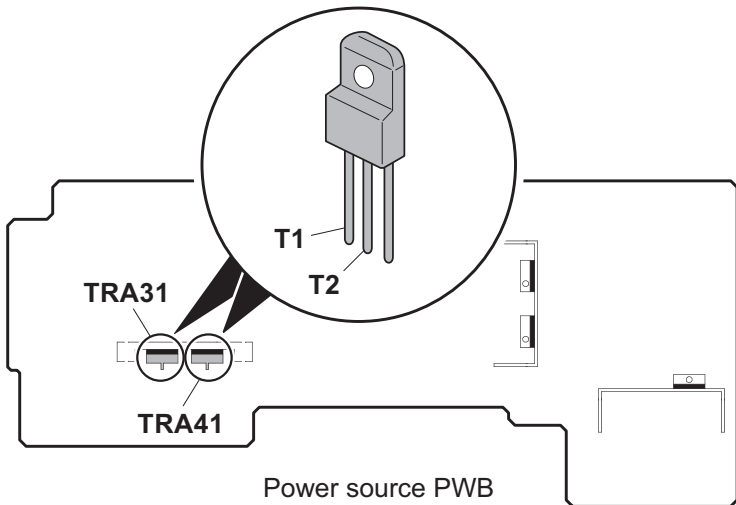
Code	Contents	Causes	Check procedures/ corrective measures
1920	Paper feeder 3 EEPROM error When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
		Device damage of EEPROM.	
1930	Paper feeder 4 EEPROM error When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
		Device damage of EEPROM.	
2000	Main motor drive error The main motor is not stabilized within 4 s after driving starts.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Main motor and engine PWB (YC4)
		Defective drive transmission system of the main motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective main motor.	Replace the main motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
2010	Main motor steady-state error Stable OFF is detected for 4 s continuously after main motor stabilized.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Main motor and engine PWB (YC4)
		Defective drive transmission system of the main motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective main motor.	Replace the main motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).

Code	Contents	Causes	Check procedures/ corrective measures
2200	Drum motor drive error The drum motor is not stabilized within 4 s after driving starts.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum motor and engine PWB (YC4)
		Defective drive transmission system of the drum motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective drum motor.	Replace the drum motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
2210	Drum motor steady-state error Stable OFF is detected for 4 s continuously after drum motor stabilized.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum motor and engine PWB (YC4)
		Defective drive transmission system of the drum motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective drum motor.	Replace the drum motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
2330	Fuser pressure release motor error (Over-current) The over-current detection signal of the motor is detected continuously twenty times.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser pressure release motor and relay-L PWB(YC11) Relay-L PWB and engine PWB(YC2)
		Defective drive transmission system of the fuser pressure release motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective fuser pressure release motor.	Replace the fuser pressure release motor.
		Defective PWB.	Replace the relay-L PWB or engine PWB. (See Page 1-5-45, 1-5-40)

Code	Contents	Causes	Check procedures/ corrective measures
2340	Fuser pressure release motor error (Timeout) The position detection sensor is not detected continuously for 30 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser pressure release motor and relay-L PWB(YC11) Relay-L PWB and engine PWB(YC2)
		Defective drive transmission system of the fuser pressure release motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective fuser pressure release motor.	Replace the fuser pressure release motor.
		Defective PWB.	Replace the relay-L PWB or engine PWB. (See Page 1-5-45,1-5-40)
2600	PF drive motor 1 error (paper feeder 1) When the PF drive motor is driven, error signal is detected continuously for 5 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor 1 and PF main PWB (YC6)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor 1.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
2610	PF drive motor 2 error (paper feeder 2) When the PF drive motor is driven, error signal is detected continuously for 5 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor 2 and PF main PWB (YC6)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor 2.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).

Code	Contents	Causes	Check procedures/ corrective measures
2620	PF drive motor 3 error (paper feeder 3) When the PF drive motor is driven, error signal is detected continuously for 5 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor 3 and PF main PWB (YC6)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor 3.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
2630	PF drive motor 4 error (paper feeder 4) When the PF drive motor is driven, error signal is detected continuously for 5 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor 4 and PF main PWB (YC6)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor 4.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-5-88).
4000	Polygon motor synchronization error The polygon motor is not stabilized within 20 s after driving starts.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Polygon motor and engine PWB (YC15)
		Defective polygon motor.	Replace the laser scanner unit (see page 1-5-23).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
4200	BD steady-state error When the value of Register BDSET is 1 after setting Register BDSET as one and passing by BD1 cycle.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PD PWB and engine PWB (YC16)
		Defective PD PWB.	Replace the laser scanner unit (see page 1-5-23).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).

Code	Contents	Causes	Check procedures/ corrective measures
5100	Chager current error When the current value measured at the time of potential adjustment is less than 20 μ A.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Chager unit and high voltage PWB High voltage PWB (YC101) and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB and check for correct operation (see page 1-5-54).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
6000	Broken fuser heater wire The detection temperature of fuser thermistor 2 is 100 °C/ 212°F or less after the fuser heater lamp has been turned on continuously for 30 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser heater and power source PWB (YC2) Fuser thermistor and Fuser thermistor connect PWB Fuser thermistor connect PWB and engine PWB (YC21)
		Deformed connector pin.	See page 1-4-17.
		Defective triac.	See page 1-4-17.
		Fuser thermostat triggered.	Reinsert the fuser unit (see page 1-5-27).
		Broken fuser heater wire.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
6020	Abnormally high fuser thermistor 2 temperature The detection temperature of fuser thermistor 2 is higher than 235°C/455°F. In a heater-off state, the detection temperature of fuser thermistor 2 is higher than 195°C/383°F after the detection temperature of fuser thermistor 2 was 155°C/311°F or less.	Deformed connector pin.	See page 1-4-17.
		Defective triac.	See page 1-4-17.
		Shorted fuser thermistor.	Replace the fuser unit (see page 1-5-27).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).

Code	Contents	Causes	Check procedures/ corrective measures
6030	Broken fuser thermistor 2 wire A/D value of the fuser thermistor 2 exceeds 1019 bit continuously for 4 s during warming up.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser thermistor and fuser thermistor connect PWB Fuser thermistor connect PWB and engine PWB (YC21)
		Deformed connector pin.	See page 1-4-17.
		Defective triac.	See page 1-4-17.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-27).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
6000/ 6020/ 6030/ 6120/ 6130/ Com- bined	Broken fuser heater wire Abnormally high fuser thermistor 2 temperature Broken fuser thermistor 2 wire Abnormally high fuser thermistor 1 temperature Broken fuser thermistor 1 wire	Deformed connector pin.	If the I/F connector pins of the fuser unit and the main unit are deformed owing to foreign matters, replace the connectors or the units including the connectors.
		Defective triac.	Remove the power cord and check that the resistance between terminals T1 and T2 of the triac TRA31 and triac TRA41 are of several Mega-Ohms and not shorted (see figure 1-4-3). If failed, replace the power source PWB (see page 1-5-48).
<div></div> <p style="text-align: center;">Power source PWB</p>			
<p style="text-align: center;">Figure 1-4-3</p>			

TONER

Code	Contents	Causes	Check procedures/ corrective measures
6120	Abnormally high fuser thermistor 1 temperature The detection temperature of fuser thermistor 1 is higher than 245°C/473°F. In a heater-off state, the detection temperature of fuser thermistor 1 is higher than 195°C/383°F after the detection temperature of fuser thermistor 1 was 155°C/311°F or less.	Deformed connector pin.	See page 1-4-17.
		Defective triac.	See page 1-4-17.
		Shorted fuser thermistor.	Replace the fuser unit (see page 1-5-27).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
6130	Broken fuser thermistor 1 wire A/D value of the fuser thermistor 1 exceeds 1019 bit continuously for 4 s during warming up.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser thermistor and fuser thermistor connect PWB Fuser thermistor connect PWB and engine PWB (YC21)
		Deformed connector pin.	See page 1-4-17.
		Defective triac.	See page 1-4-17.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-27).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
6400	Zero-cross signal error While fuser heater control is performed, the zero-cross signal is not input within 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Power source PWB (YC3) and engine PWB (YC1)
		Defective power source PWB or engine PWB.	Replace the power source PWB or the engine PWB and check for correct operation (see page 1-5-48, 1-5-40).

Code	Contents	Causes	Check procedures/ corrective measures
7000	Toner motor error During driving the toner motor, an over-current detection signal is detected at intervals of 10 ms as for 300 accumulation.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Toner motor and drum PWB (YC4) Drum PWB and relay-L PWB (YC3) Relay-L PWB and engine PWB (YC2)
		Defective toner motor.	Replace the toner motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
7100	Toner sensor error Sensor output value of 930 or more continuously for 5 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Toner sensor and drum PWB (YC3) Drum PWB and relay-L PWB (YC3) Relay-L PWB and engine PWB (YC2)
		Defective toner sensor.	Replace the developer unit. (See Page 1-5-14)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
7400	Developer unit non-installing error Sensor output value of 31 or less continuously for 5 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit and drum PWB (YC3) Drum PWB and relay-L PWB (YC3) Relay-L PWB and engine PWB (YC2)
		Defective toner sensor.	Replace the developer unit. (See Page 1-5-14)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
7410	Drum unit type mismatch error The drum PWB EEPROM does not communicate normally.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit and drum connect PWB (YC1) Drum connect PWB and relay-L PWB (YC3) Relay-L PWB and engine PWB (YC2)
		Defective toner sensor.	Replace the drum unit. (See Page 1-5-14)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).

Code	Contents	Causes	Check procedures/ corrective measures
7800	Broken external thermistor wire The average of thermistor output value of 930 or more.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Operation PWB and engine PWB (YC17)
		Defective temperature sensor.	Replace the operation PWB.
7810	Short-circuited external thermistor wire The average of thermistor output value of 93 or less.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Operation PWB and engine PWB (YC17)
		Defective temperature sensor.	Replace the operation PWB.
7900	Drum unit EEPROM error No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated five times successively. Mismatch of reading data from two locations occurs eight times successively. Mismatch between writing data and reading data occurs eight times successively.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit and drum connect PWB (YC1) Drum connect PWB and relay-L PWB (YC3) Relay-L PWB and engine PWB (YC15)
		Defective drum unit.	Replace the drum unit (see 1-5-17).
F000	Main PWB - operation PWB communication error	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Operation PWB and engine PWB (YC17)
		Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-38).
		Defective operation PWB.	Replace the operation PWB and check for correct operation.
F010	Main PWB checksum error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-38).

Code	Contents	Causes	Check procedures/ corrective measures
F020	Main PWB RAM checksum error	Defective main memory (RAM) in main PWB	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-38).
		Defective expended memory (DIMM)	Replace the expansion memory (DIMM). (See Page 1-2-13) Also in the case of the capacity besides specification, it displays.
F040	Main PWB - print engine communication error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-38).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
F050	Print engine ROM checksum error	Defective engine PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace engine PWB (see page 1-5-40).

1-4-3 Image formation problems

If the part causing the problem was not supplied, use the unit including the part for replacement.

- (1) No image appears (entirely white).



See page 1-4-23

- (2) No image appears (entirely black).



See page 1-4-23

- (3) Image is too light.



See page 1-4-24

- (4) The background is colored.



See page 1-4-25

- (5) White streaks are printed vertically.



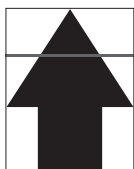
See page 1-4-25

- (6) Black streaks are printed vertically.



See page 1-4-26

- (7) Streaks are printed horizontally.



See page 1-4-26

- (8) Spots are printed.



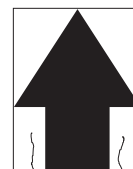
See page 1-4-26

- (9) Image is blurred.



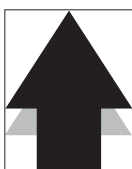
See page 1-4-27

- (10) Paper is wrinkled.



See page 1-4-27

- (11) Offset occurs.



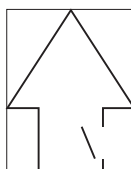
See page 1-4-27

- (12) Part of image is missing.



See page 1-4-27

- (13) Fusing is loose.



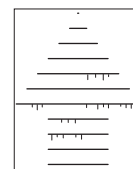
See page 1-4-28

- (14) Image is out of focus.



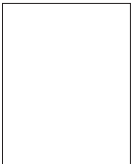
See page 1-4-28

- (15) Carrier leaking occurs.




See page 1-4-28

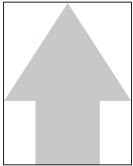
(1) No image appears (entirely white).

Print example	Causes		Check procedures/corrective measures
	Defective developer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-54).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-40).
	No LSU laser is output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Laser scanner unit and engine PWB (YC16)
		The shutter of a laser scanner unit does not open.	The operating state of a link part with an top cover is checked.
		Defective laser scanner unit.	Replace the laser scanner unit (see page 1-5-23).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-40).
		Defective main PWB.	Replace the main PWB (see page 1-5-38).

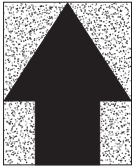
(2) No image appears (entirely black).

Print example	Causes		Check procedures/corrective measures
	No main charging.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Chager roller unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective poor connection of the charger roller	Connection is checked by the electrical connection inspection of the charger roller.
		Defective charger roller unit.	Replace the charger roller unit (see page 1-5-20).
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-54).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-40).

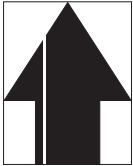
(3) Image is too light.

Print example	Causes		Check procedures/corrective measures
	Dew condensation of the drum surface.		Perform the drum surface refreshing in a system menu.
	The paper is moist.		The storage state of a paper is checked.
	Defective transfer charger output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Transfer roller unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-54).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-40).
	Defective developer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-54).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-40).
	Insufficient toner.		If the display shows the message requesting toner replenishment, replace the container.

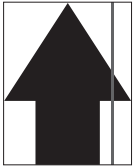
(4) The background is colored.

Print example	Causes		Check procedures/corrective measures
	Defective main charger output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Chager roller unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-54).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-40).
	Defective developer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective developer unit.	Replace the developer unit (see page 1-5-14).
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-54).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-40).
	Deteriorated toner.		Perform the drum surface refreshing operation.

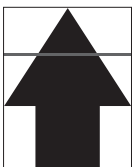
(5) White streaks are printed vertically.

Print example	Causes	Check procedures/corrective measures
	Foreign matter in the developer unit.	Check if the magnetic brush is formed uniformly. Replace the developer unit if any foreign matter (see page 1-5-14).
	Adhesion of soiling to transfer roller.	Clean the transfer roller. Replace the transfer roller if it is extremely dirty (see page 1-5-21).
	Dust adhesion to the charger roller unit.	Clean the chager roller unit.
	Dirty dust shield glass of laser scanner unit.	Clean the dust shield glass of laser scanner unit.


(6) Black streaks are printed vertically.

Print example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum surface refreshing operation. Flawed drum. Replace the drum unit (see page 1-5-17).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-17).
	Defective transfer roller.	Replace the transfer roller unit (see page 1-5-21).
	Defective chager roller.	Replace the chager roller unit (see page 1-5-20).
	Defective developer roller.	Replace the developer unit (see page 1-5-14).

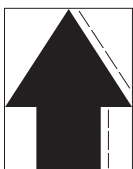
(7) Streaks are printed horizontally.

Print example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum surface refreshing operation. Flawed drum. Replace the drum unit (see page 1-5-17).
	Dirty developer section.	Clean any part contaminated with toner in the developer section.
	Poor contact of grounding terminal of drum unit.	Check the installation of the drum unit. If it operates incorrectly, replace it (see page 1-5-17).
	The beam detection error of a laser scanner unit	Replace the laser scanner unit (see page 1-5-23).

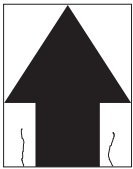
(8) Spots are printed.

Print example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum surface refreshing operation. Flawed drum. Replace the drum unit (see page 1-5-17).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-17).
	Flawed developer roller.	Replace the developer unit (see page 1-5-14).
	Dirty heat roller and press roller.	Clean the heat roller and press roller.

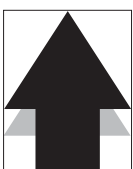
(9) Image is blurred.

Print example	Causes	Check procedures/corrective measures
	Deformed press roller.	Replace the fuser unit (see page 1-5-27).
	Paper conveying section drive problem.	Check the gears and belts and, if necessary, grease them.


(10) Paper is wrinkled.

Print example	Causes	Check procedures/corrective measures
	Paper curled.	Check the paper storage conditions.
	Paper damp.	
	Defective pressure springs.	Replace the fuser unit (see page 1-5-27).

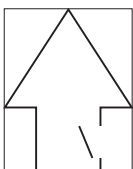
(11) Offset occurs.

Print example	Causes	Check procedures/corrective measures
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-17).
	Defective fuser unit.	Replace the fuser unit (see page 1-5-27).
	Wrong types of paper.	Check if the paper meets specifications. Replace paper.


(12) Part of image is missing.

Print example	Causes	Check procedures/corrective measures
	Paper damp.	Check the paper storage conditions.
	Paper creased.	Replace the paper.
	Drum condensation.	Perform the drum surface refreshing operation.
	Dirty or flawed drum.	Perform the drum surface refreshing operation. Flawed drum. Replace the drum unit (see page 1-5-17).
	Dirty transfer roller.	Clean the transfer roller. Replace the transfer roller if it is extremely dirty (see page 1-5-21).

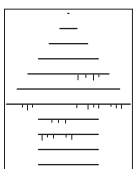
(13) Fusing is loose.

Print example	Causes	Check procedures/corrective measures
	Wrong types of paper.	Check if the paper meets specifications, replace paper. Setup of media Practical use of half speed printing
	Paper creased.	Replace the paper.
	Flawed heat roller or press roller.	Replace the fuser unit (see page 1-5-27).
	Defective pressure springs.	
	Defective fuser heater.	

(14) Image is out of focus.

Print example	Causes	Check procedures/corrective measures
	Drum condensation.	Perform the drum refresh operation.

(15) Carrier leaking occurs.

Print example	Causes	Check procedures/corrective measures
	Paper creased.	Replace the paper.
		<p>Each of following paper kinds are changed and printed. A paper setup of a printer is changed.</p> <pre> graph TD Menu[Menu] --> PaperSettings[Paper Settings] PaperSettings -- "Press the [OK] key." --> MediaTypeSet[Media Type Set.] MediaTypeSet -- "Press the [OK] key." --> CUSTOM8[CUSTOM 8] CUSTOM8 -- "Press the [OK] key." --> PaperWeight[Paer Weight] PaperWeight -- "Press the [OK] key." --> Normal3[Normal 3] Normal3 -- "Press the [EXIT] key." --> Exit[] </pre> <p>A setup of a driver is changed. By basic setup, the kind of paper is made "CUSTOM 8".</p>

1-4-4 Electric problems

If the part causing the problem was not supplied, use the unit including the part for replacement.
Troubleshooting to each failure must be in the order of the numbered symptoms.

Problem	Causes	Check procedures/corrective measures
(1) The machine does not operate when the power switch is turned on.	1. No electricity at the power outlet.	Measure the input voltage.
	2. The power cord is not plugged in properly.	Check the contact between the power plug and the outlet.
	3. Broken power cord.	Check for continuity. If none, replace the cord.
	4. Defective power switch.	Check for continuity across the contacts. If none, replace the power switch.
	5. Defective interlock switch.	Check for continuity across the contacts of interlock switch. If none, replace the power source PWB (see page 1-5-48).
	6. Defective power source PWB.	Replace the power source PWB or engine PWB (see page 1-5-48, 1-5-40).
(2) Eject motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Eject motor and relay-L PWB (YC12) Relay-L PWB and engine PWB (YC2/YC3)
	2. Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the eject motor.
	4. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-40, 1-5-45).
(3) Power source fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Power source fan motor and engine PWB (YC10)
	2. Defective motor.	Replace the power source fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(4) LSU fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. LSU fan motor and relay-L PWB (YC4) Relay-L PWB and engine PWB (YC2/YC3)
	2. Defective motor.	Replace the LSU fan motor.
	3. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-40, 1-5-45).

Problem	Causes	Check procedures/corrective measures
(5) Developer fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer fan motor and fengine PWB (YC27)
	2. Defective motor.	Replace the developer fan motor.
	3. Defective PWB.	Replace the engine PWB or fuser thermistor connect PWB and check for correct operation (see page 1-5-40).
(6) Center fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Center fan motor and fuser thermistor connect PWB (YC5) Fuser thermistor connect PWB and engine PWB (YC21)
	2. Defective motor.	Replace the center fan motor.
	3. Defective PWB.	Replace the engine PWB or fuser thermistor connect PWB and check for correct operation (see page 1-5-40).
(7) Rear fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Rear fan motor and fuser thermistor connect PWB (YC4) Fuser thermistor connect PWB and engine PWB (YC21)
	2. Defective motor.	Replace the rear fan motor.
	3. Defective PWB.	Replace the engine PWB or fuser thermistor connect PWB and check for correct operation (see page 1-5-40).
(8) Paper feed clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Paper feed clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the paper feed clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(9) Registration clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Registration clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the registration clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(10) Duplex clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Duplex clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the duplex clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(11) Developer clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the developer clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).

Problem	Causes	Check procedures/corrective measures
(12) Conveying clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Conveying clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the Conveying clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(13) MP solenoid does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP solenoid and engine PWB (YC8)
	2. Defective solenoid.	Replace the MP solenoid.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(14) Feedshift solenoid does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Feedshift solenoid and relay-L PWB (YC13) Relay-L PWB and engine PWB (YC2/YC3)
	2. Defective solenoid.	Replace the Feedshift solenoid.
	3. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-40, 1-5-45).
(15) The message requesting paper to be loaded is shown when paper is present on the cassette.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC19)
	2. Deformed actuator of the paper sensor.	Check visually and replace if necessary.
	3. Defective paper sensor.	Replace the engine PWB or the high voltage PWB and check for correct operation (see page 1-5-40, 1-5-54).
	4. Defective PWB.	
(16) The message requesting paper to be loaded is shown when paper is present on the MP tray.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP paper sensor and relay-L PWB (YC8) Relay-L PWB and engine PWB (YC2)
	2. Deformed actuator of the MP paper sensor.	Check visually and replace if necessary.
	3. Defective MP paper sensor.	Replace the MP paper sensor.
	4. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-40, 1-5-45).

Problem	Causes	Check procedures/corrective measures
(17) The size of paper on the cassette is not displayed correctly.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Cassette size switch and engine PWB (YC7)
	2. Defective cassette size switch.	Replace the cassette size switch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(18) A paper jam in the paper feed, paper conveying or eject section is indicated when the main power switch is turned on.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Regist sensor 2 and Drum PWB (YC6) DU sensor 1 and Relay-L PWB (YC9) PF feed sensor and PF main PWB Eject full sensor and engine PWB (YC12) Eject sensor and Engine PWB (YC26)
	2. A piece of paper torn from paper is caught around registration sensor, duplex sensor, PF feed sensor, eject full sensor or eject sensor.	Check visually and remove it, if any.
	3. Defective sensor.	Replace the registration sensor, duplex sensor, PF feed sensor, eject full sensor or eject sensor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(19) A message indicating cover open is displayed when the top cover is closed.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Interlock switch and engine PWB (YC6)
	2. Defective interlock switch.	Check and replace if necessary.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-40).
(20) A message indicating cover open is displayed when the rear cover is closed.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Rear cover switch and relay-L PWB (YC10) Relay-L PWB and engine PWB (YC2/3)
	2. Defective rear cover switch.	Check and replace if necessary.
	3. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-40, 1-5-45).

1-4-5 Mechanical problems

If the part causing the problem was not supplied, use the unit including the part for replacement.

Problem	Causes/check procedures	Corrective measures
(1) No primary paper feed.	Check if the surfaces of the following rollers are dirty with paper powder. Pickup roller Paper feed roller MP paper feed pulley	Clean with isopropyl alcohol.
	Check if the following rollers is deformed. Pickup roller Paper feed roller MP paper feed pulley	Check visually and replace any deformed (see page 1-5-9, 1-5-12).
	Defective paper feed clutch installation.	Check visually and remedy if necessary.
(2) No secondary paper feed.	Check if the surfaces of the following rollers are dirty with paper powder. Upper registration roller Lower registration roller	Clean with isopropyl alcohol.
	Defective registration clutch installation.	Check visually and remedy if necessary.
(3) Skewed paper feed.	Paper width guide in a cassette installed incorrectly.	Check the paper width guide visually and remedy or replace if necessary.
(4) Multiple sheets of paper are fed.	Check if the paper is excessively curled.	Change the paper.
	Paper is loaded incorrectly.	Load the paper correctly.
	Check if the retard roller is worn.	Replace the retard roller if it is worn (see page 1-5-10).
(5) Paper jams.	Check if the paper is excessively curled.	Change the paper.
	Check if the contact between the upper and lower registration rollers is correct.	Check visually and remedy if necessary.
	Check if the heat roller or press roller is extremely dirty or deformed.	Check visually and replace the fuser unit (see page 1-5-27).
(6) Toner drops on the paper conveying path.	Check if the drum unit or developer unit is extremely dirty.	Clean the drum unit or developer unit.
(7) Abnormal noise is heard.	Check if the rollers, pulleys and gears operate smoothly.	Grease the bushes and gears.
	Check if the following clutches are installed correctly. Paper feed clutch Registration clutch Duplex clutch	Check visually and remedy if necessary.

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1-5-1 Precautions for assembly and disassembly

(1) Precautions

Before starting disassembly, push the power switch and check the disappeared display of an operation panel certainly. Unplug the power cable from the wall outlet.

When handling PWBs (printed wiring boards), do not touch parts with bare hands.

The PWBs are susceptible to static charge.

Do not touch any PWB containing ICs with bare hands or any object prone to static charge.

When removing the hook of the connector, be sure to release the hook.

Take care not to get the cables caught.

To reassemble the parts, use the original screws. If the types and the sizes of screws are not known, refer to the PARTS LIST.

(2) Drum unit

Note the following when handling or storing the drum unit.

When removing the drum unit, never expose the drum surface to strong direct light.

Keep the drum unit at an ambient temperature between -20°C/-4°F and 40°C/104°F and at a relative humidity not higher than 85% RH. Avoid abrupt changes in temperature and humidity.

Avoid exposure to any substance which is harmful to or may affect the quality of the drum unit.

Do not touch the drum surface with any object. Should it be touched by hands or stained with oil, clean it.

(3) Toner

Store the toner containers in a cool, dark place.

Avoid exposing the toner containers to direct light and high humidity.

(4) How to tell a genuine Kyocera toner container

As a means of brand protection, the Kyocera toner container utilizes an optical security technology to enable visual validation. A validation viewer is required to accomplish this.

Hold the validation viewer over the left side part of the brand protection seal on the toner container. Through each window of the validation viewer, the left side part of the seal should be seen as follows:

A black-colored band when seen through the left side window (●)

A shiny or gold-colored band when seen through the right side window (☼)

The above will reveal that the toner container is a genuine Kyocera branded toner container, otherwise, it is a counterfeit.

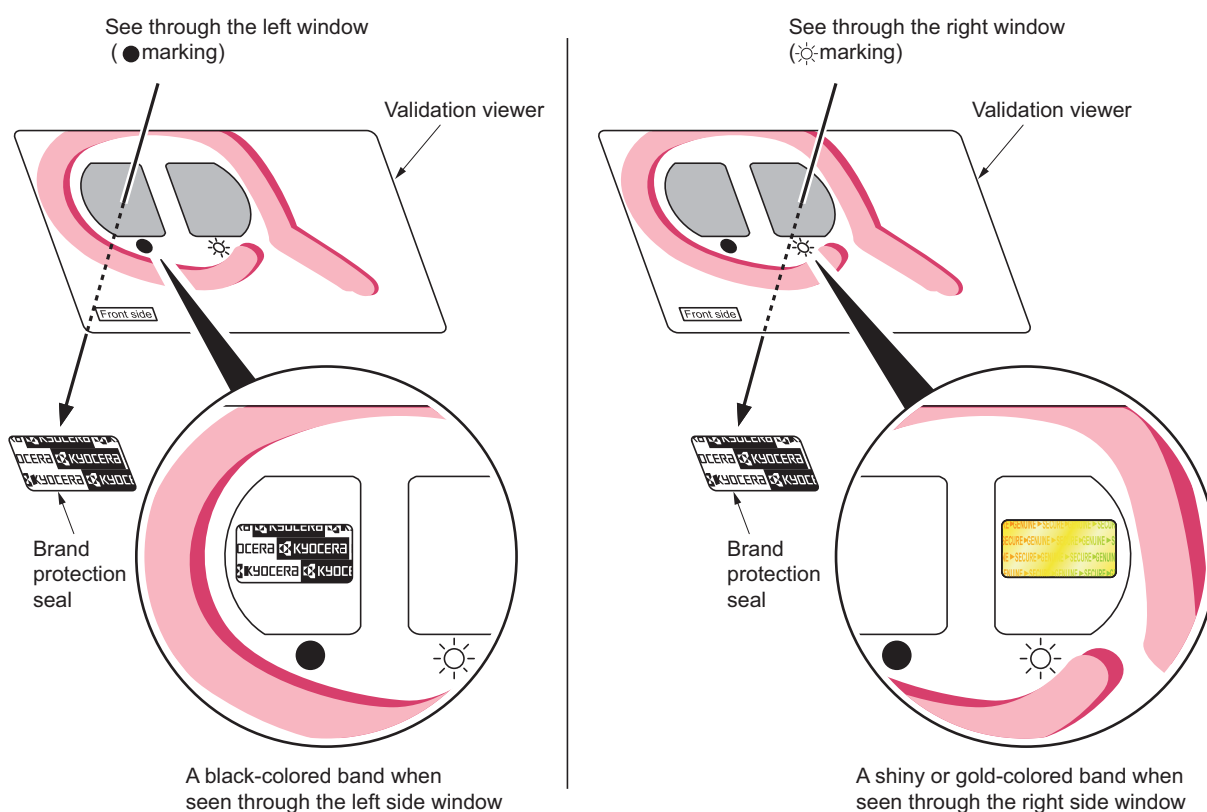


Figure 1-5-1

The brand protection seal has an incision as shown below to prohibit reuse.

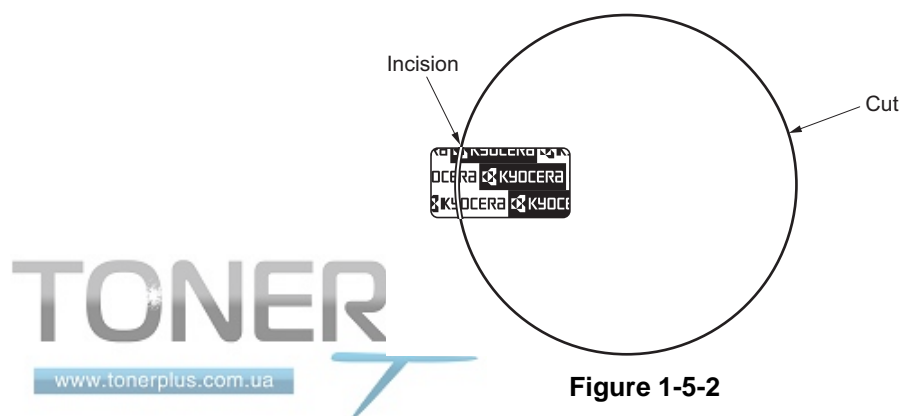


Figure 1-5-2

1-5-2 Outer covers

(1) Detaching and refitting the top cover

Procedure

1. Open the top cover.
2. Remove two screws.

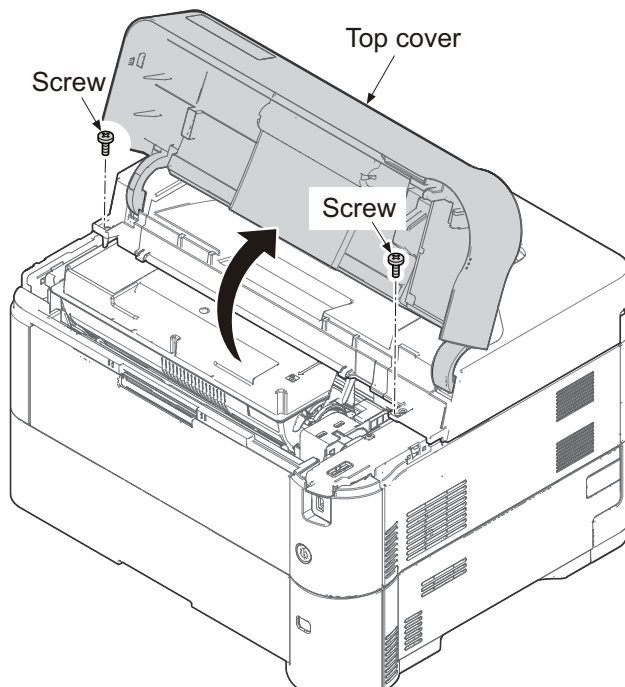


Figure 1-5-3

3. Open the rear cover by pulling the knob.

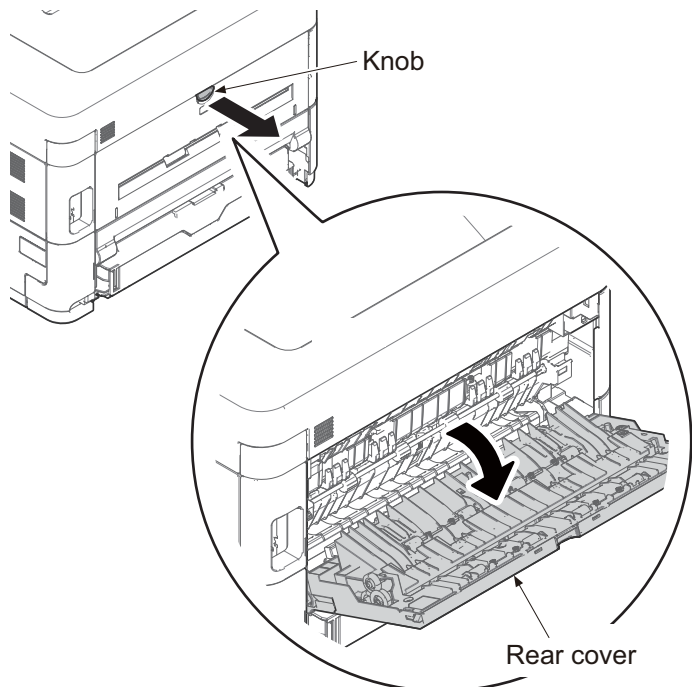


Figure 1-5-4

4. Open the front cover.
5. Grip the knob and then Pull the imaging unit forward.

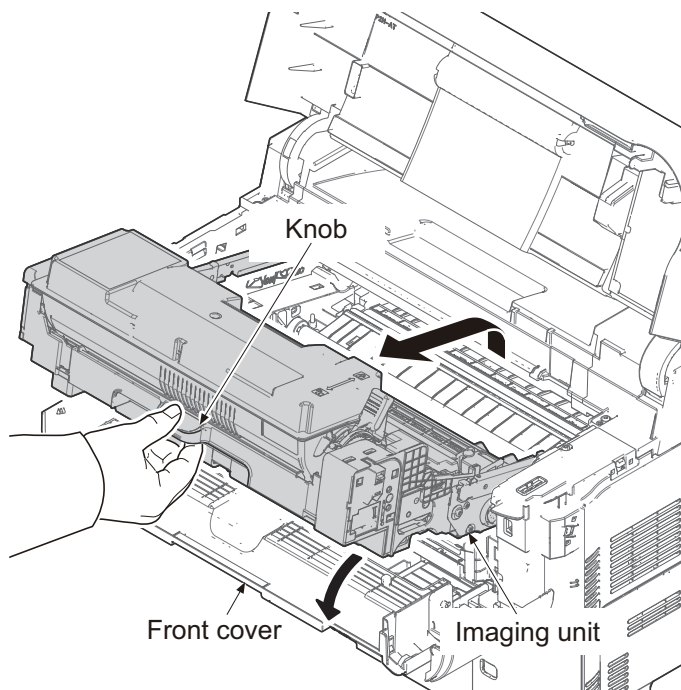


Figure 1-5-5

6. Release two hooks and then lift the top cover upward.
7. Pull out FFC from the connector and then remove the top cover assembly.

*: At the time of detaching and refitting the top cover assembly, pull the imaging unit out, for the container will not catch two projection parts.

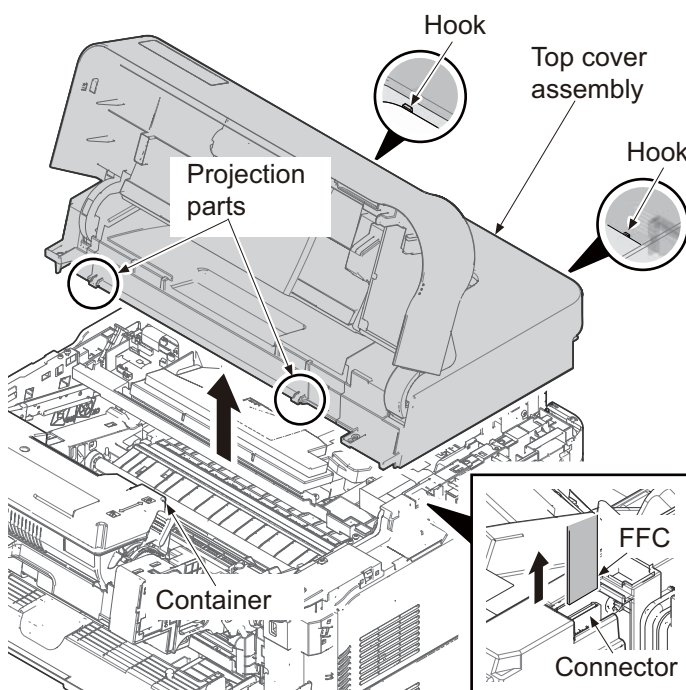


Figure 1-5-6

(2) Detaching and refitting the power cord connector cover and the interface cover

Procedure

1. Remove the power cord cover by sliding it.
2. Release the hook of the interface cover and then remove during twisting it.

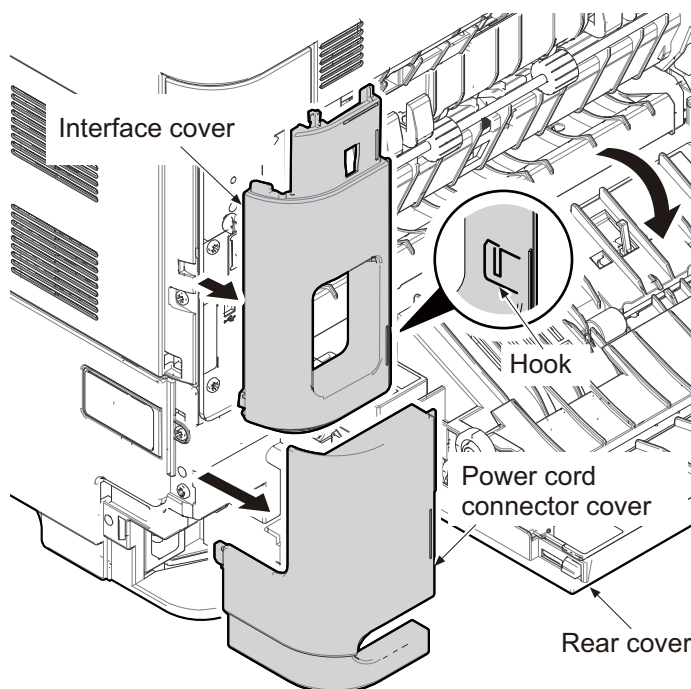


Figure 1-5-7

(3) Detaching and refitting the right upper cover

Procedure

1. Remove two screws.
2. Release the hook A by twisting right upper cover.
3. Release two hooks B by sliding the right upper cover upward and then remove it.

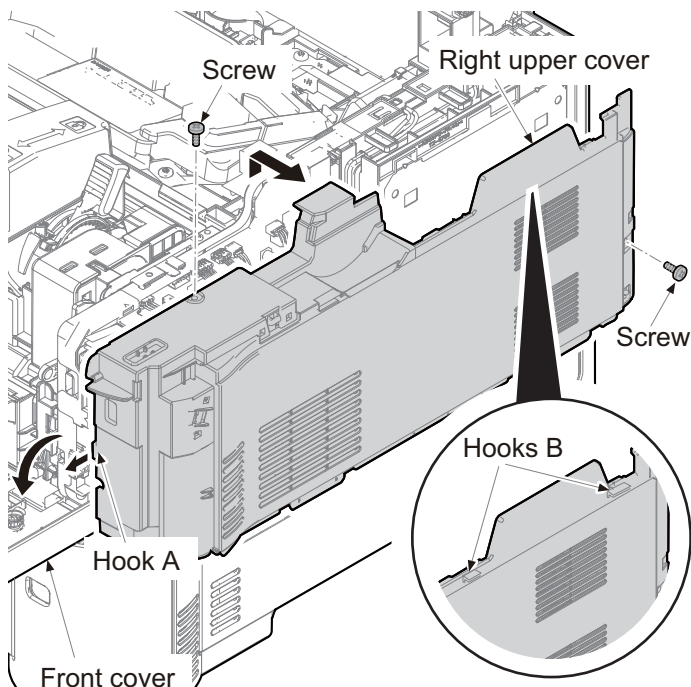


Figure 1-5-8

(4) Detaching and refitting the right lower cover

Procedure

1. Pull out the cassette.
2. Remove three screws.
3. Release two hooks by sliding the right lower cover upward and then remove it.

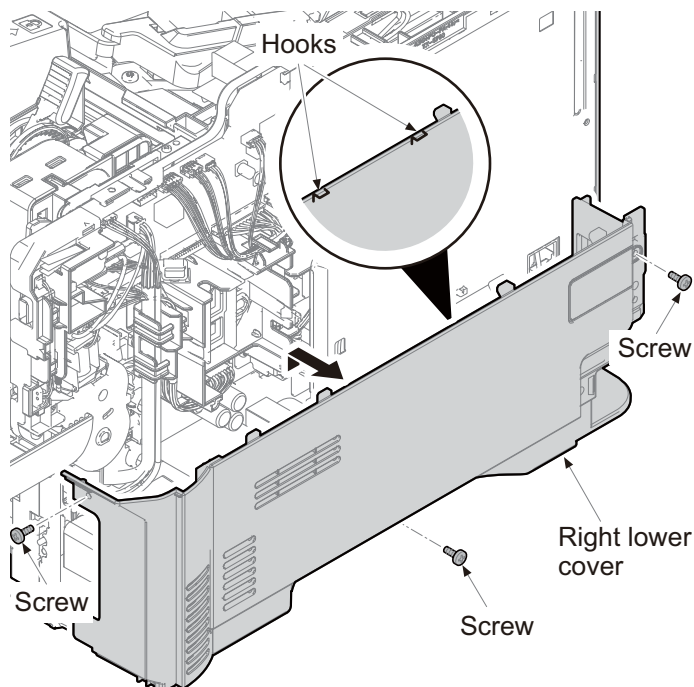


Figure 1-5-9

(5) Detaching and refitting the rear left cover

Procedure

1. Release two hooks of the rear left cover while pulling forward.
2. Remove the rear left cover by twisting it forward.

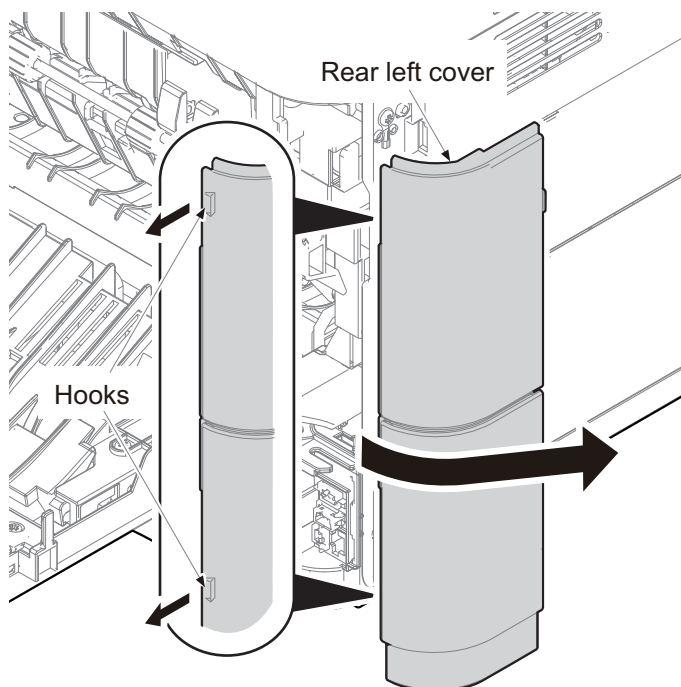


Figure 1-5-10

(6) Detaching and refitting the left upper cover

Procedure

1. Release the hook A by sliding the left upper cover upward.
2. Release the hook B and hook C while twisting the edge of the left upper cover and then remove it and the waste toner box cover together.

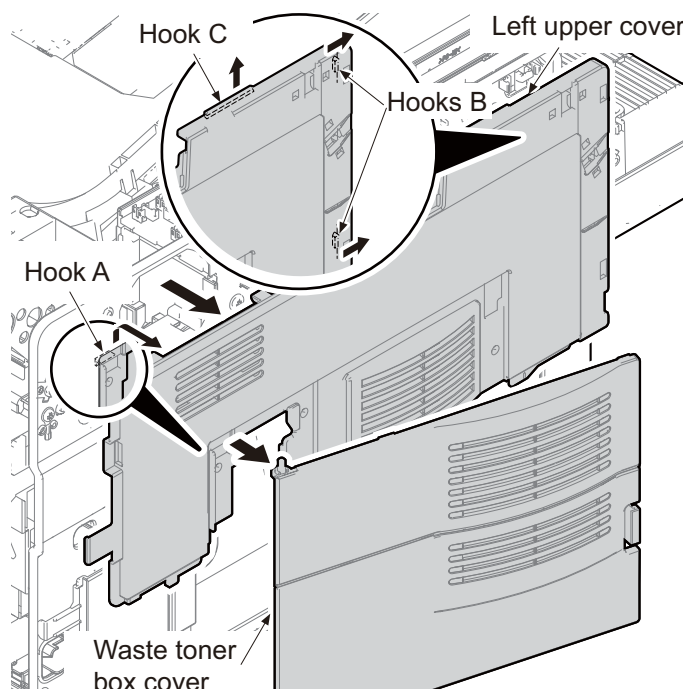


Figure 1-5-11

(7) Detaching and refitting the left lower cover

Procedure

1. Remove the screw.
2. Release the hook A while twisting the edge of the left lower cover.
3. Release two hooks B by sliding the left lower cover upward and then remove it.

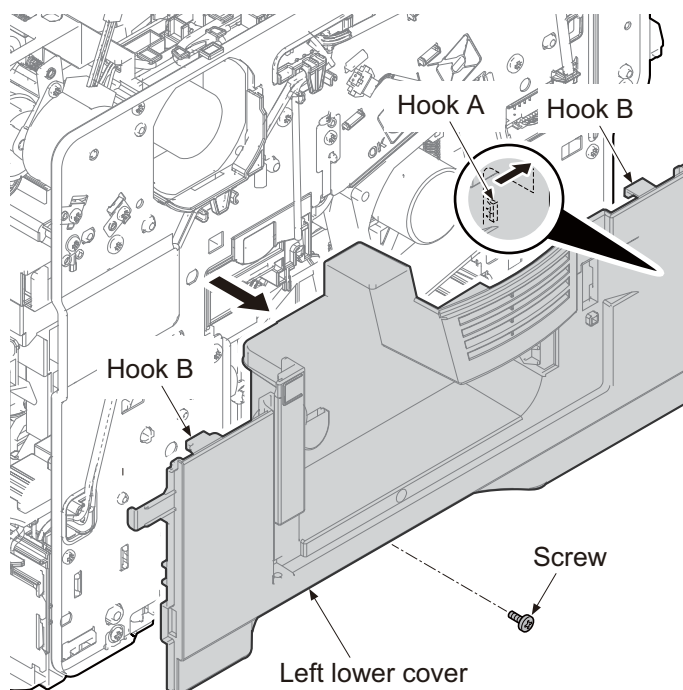


Figure 1-5-12

(8) Detaching and refitting the rear cover

Procedure

1. Open the rear cover.
2. Remove the screw and then the grounding wire.
3. Open the connector cover and then remove three connectors.

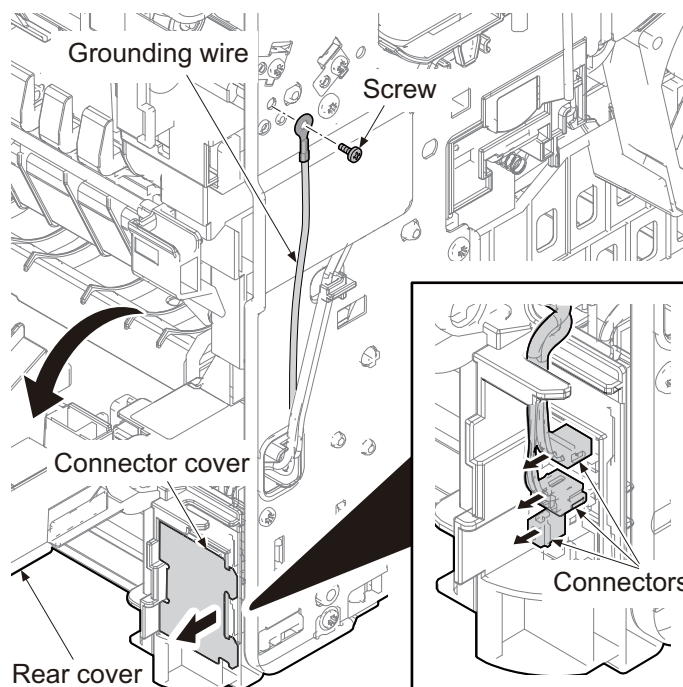


Figure 1-5-13

4. Remove the fulcrum axis by sliding the rear cover assembly while avoiding rear cover and then remove the rear cover assembly.

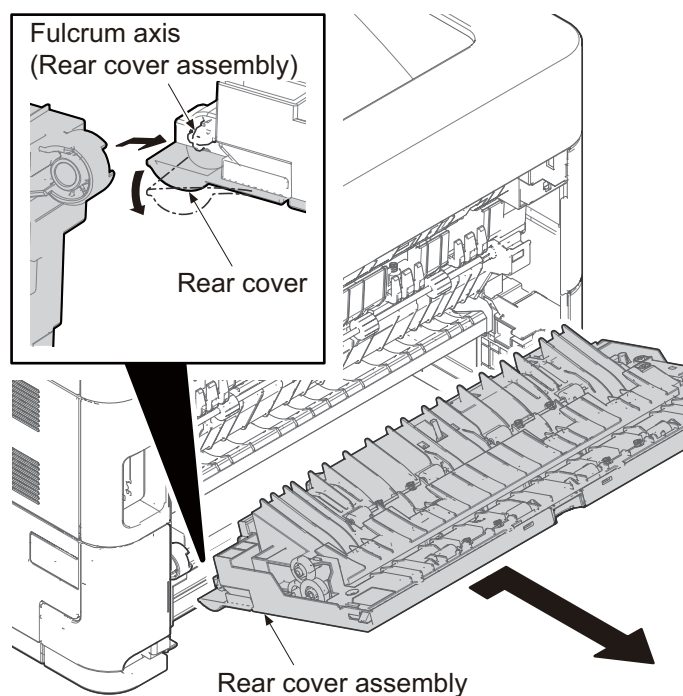


Figure 1-5-14

1-5-3 Paper feed section

(1) Detaching and refitting the paper feed roller

Procedure

1. Pull out the cassette.

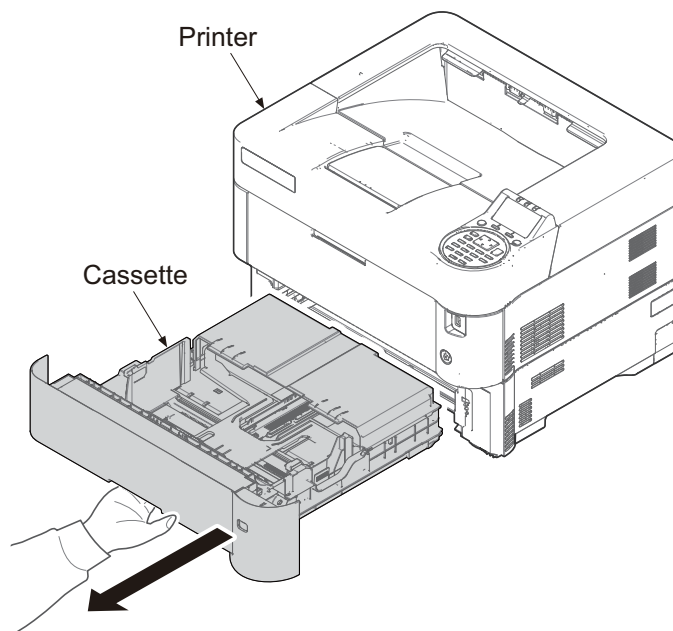


Figure 1-5-15

2. Release the lock by pulling the lever.
3. Remove the paper feed roller assembly by pulling and raising and then sliding forward.
4. Check or replace the paper feed roller and refit all the removed parts.

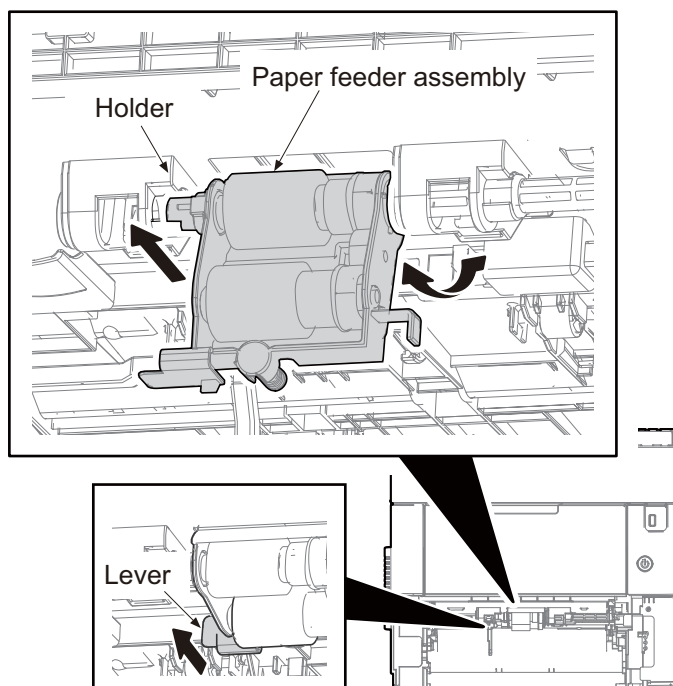


Figure 1-5-16

(2) Detaching and refitting the retard roller

Procedure

1. Release two hooks in backside of cassette and then remove the retard roller assembly.

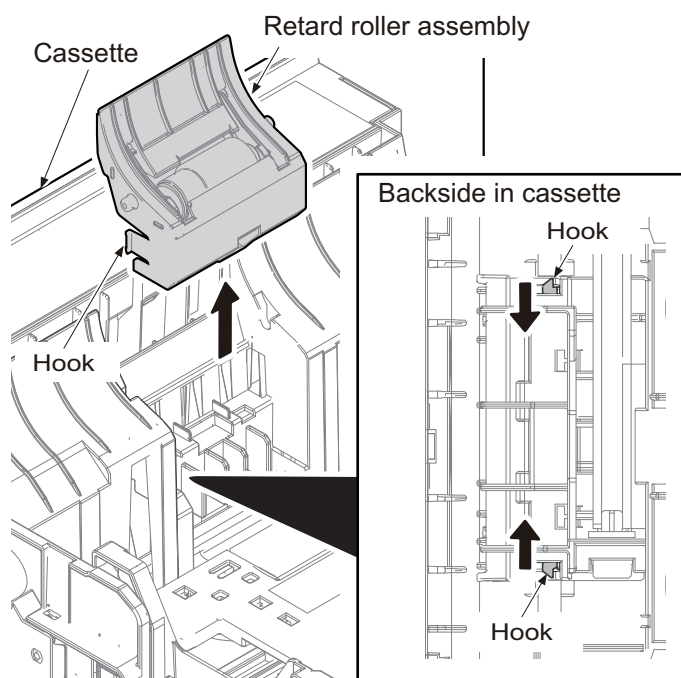


Figure 1-5-17

2. Remove the spring.
3. Remove the retard roller holder by rotating.
4. Check or replace the retard roller and refit all the removed parts.

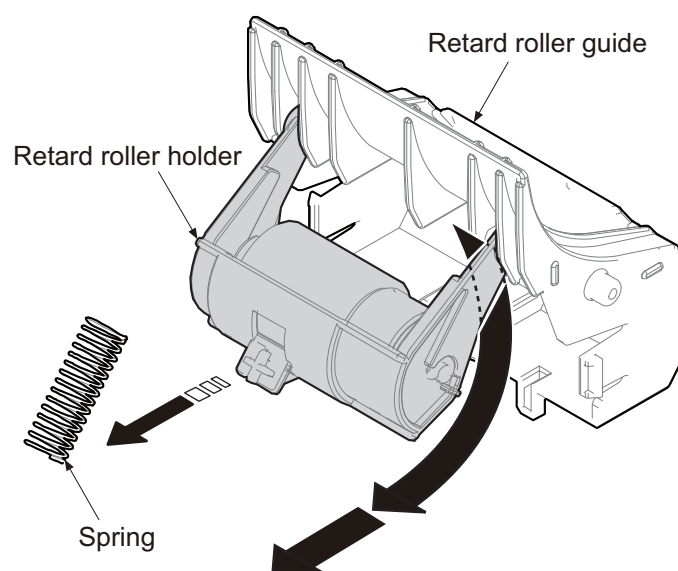


Figure 1-5-18

(3) Detaching and refitting the MP paper feed pulley

Procedure

1. Open the top cover.
2. Open the front cover.
3. Pull out the cassette.

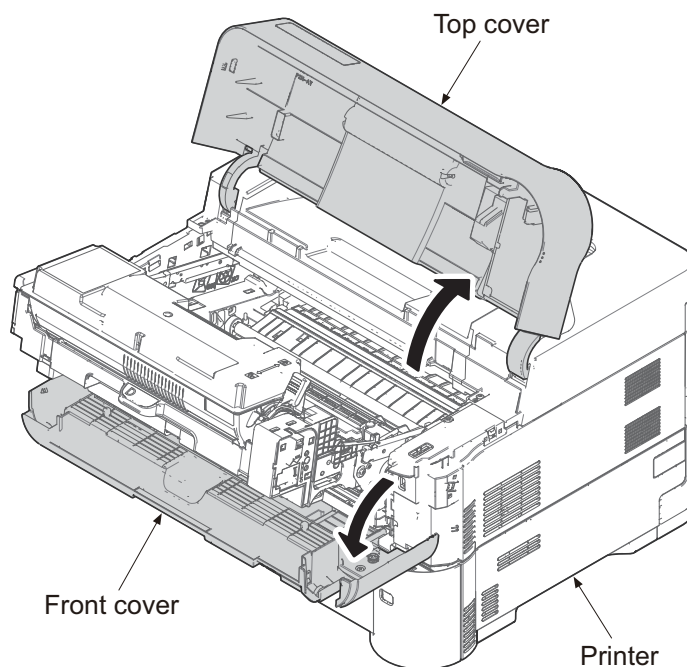


Figure 1-5-19

4. Remove the MP tray from the printer while bending it.

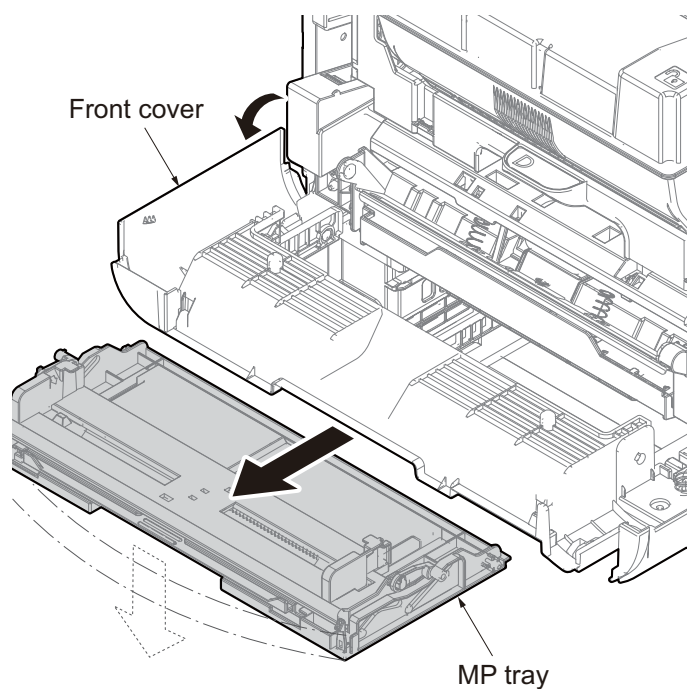


Figure 1-5-20

5. Remove the fulcrum of leftside by extending a cover.
6. Remove the fulcrum of rightside during twisting a cover.
7. Remove the front cover forward.

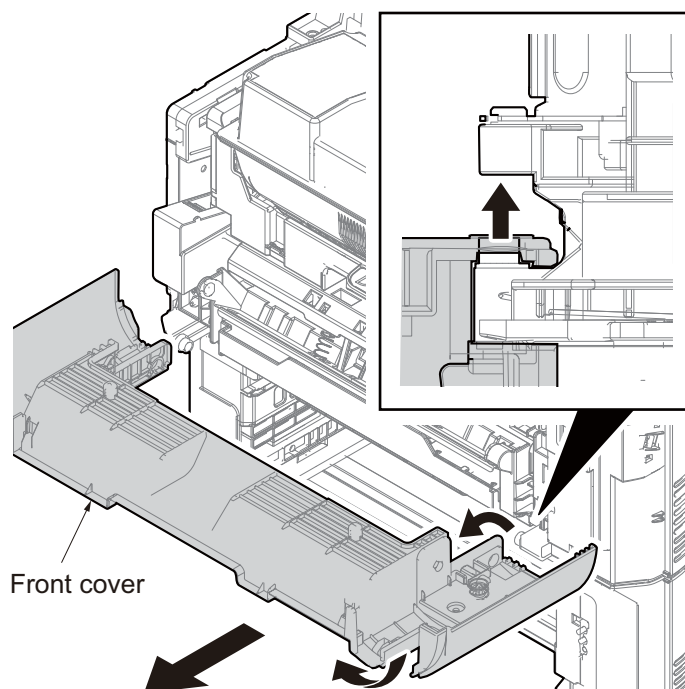
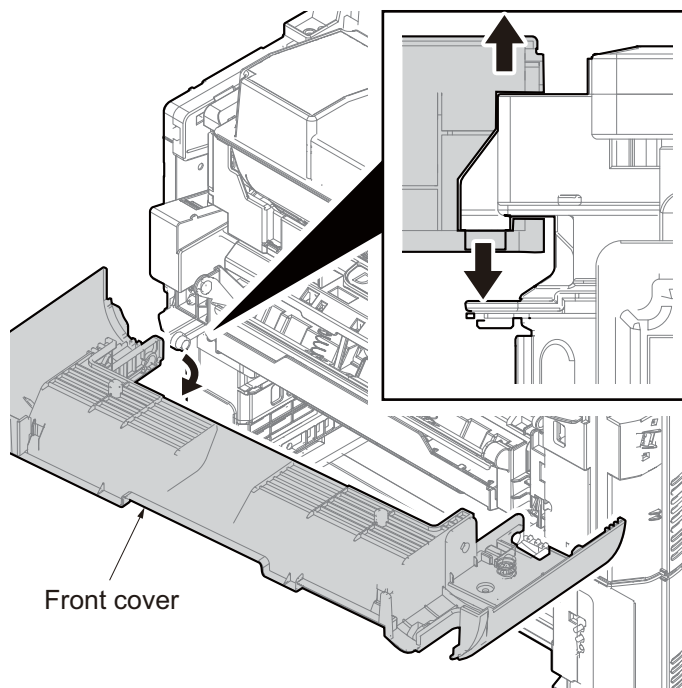


Figure 1-5-21

8. Remove the four screws on the MP paper feed unit.
9. Remove the MP paper feed unit from the printer.

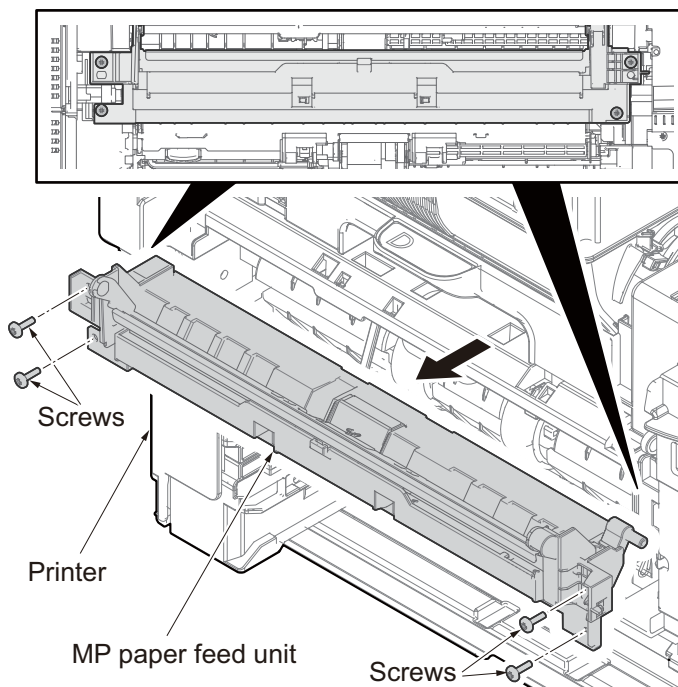


Figure 1-5-22

10. Release the lock lever and then slide the MP paper feed pulley axis.
11. Remove MP paper feed pulley.
12. Check or replace the MP paper feed pulley and refit all the removed parts.

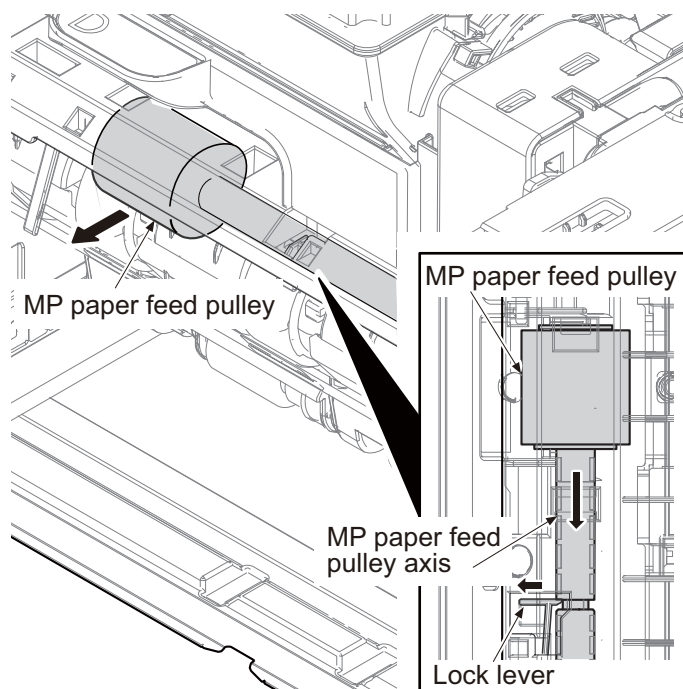


Figure 1-5-23

1-5-4 Developer section

(1) Detaching and refitting the developer unit

Procedure

1. Open the top cover.

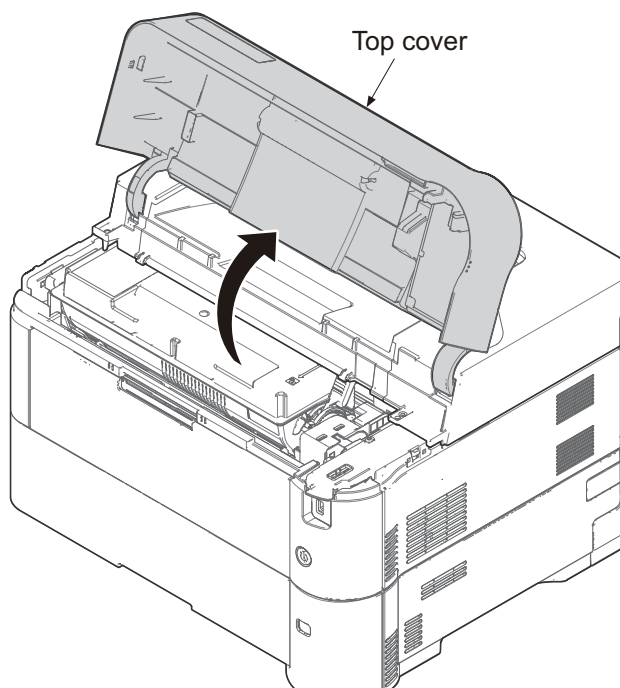


Figure 1-5-24

2. Open the front cover.
3. Grip the knob and then Pull the imaging unit forward.

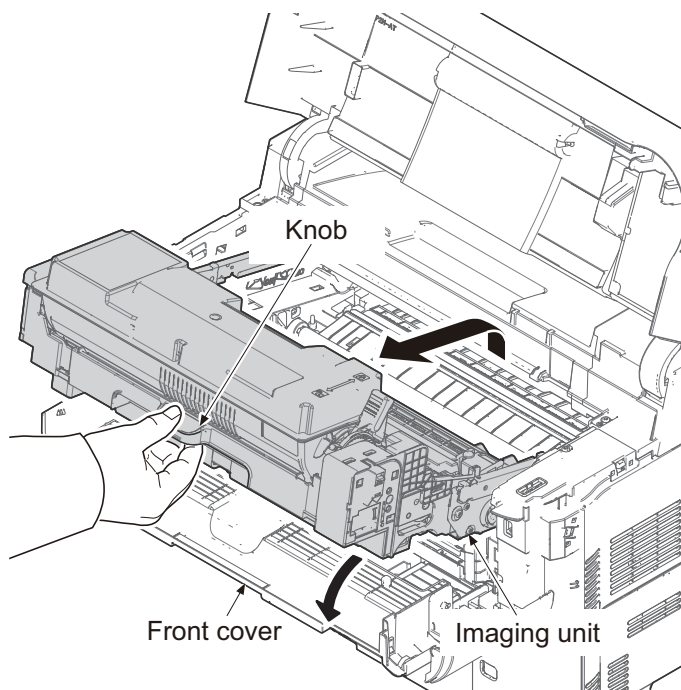


Figure 1-5-25

4. Release the lock lever by rotating and then remove the toner container.

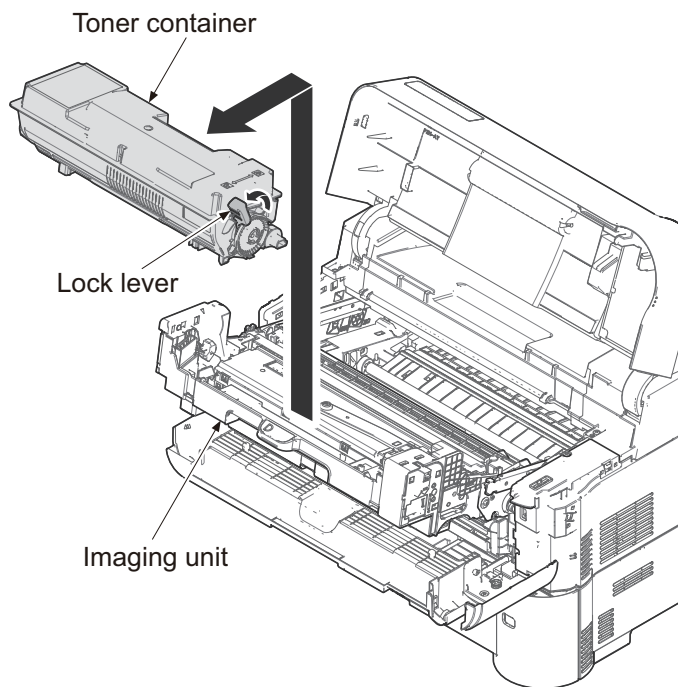


Figure 1-5-26

5. Release the hook and then remove the container guide by sliding backwards.

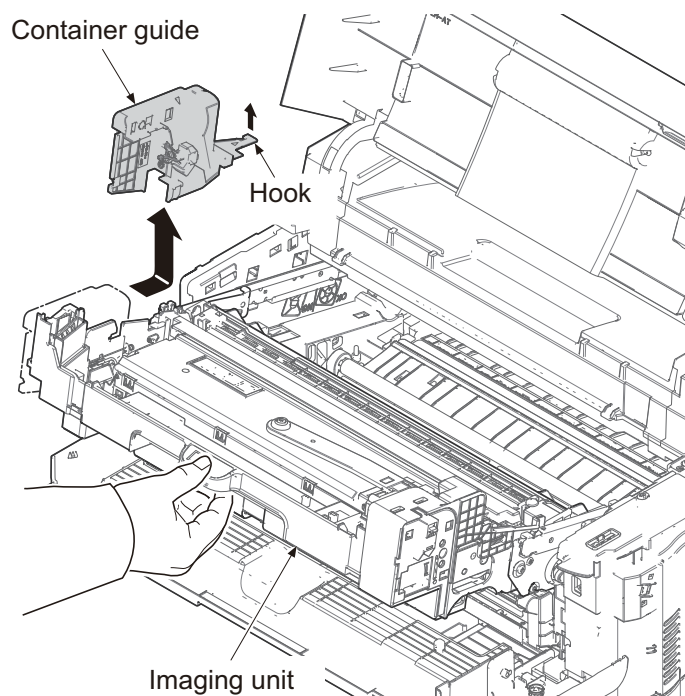
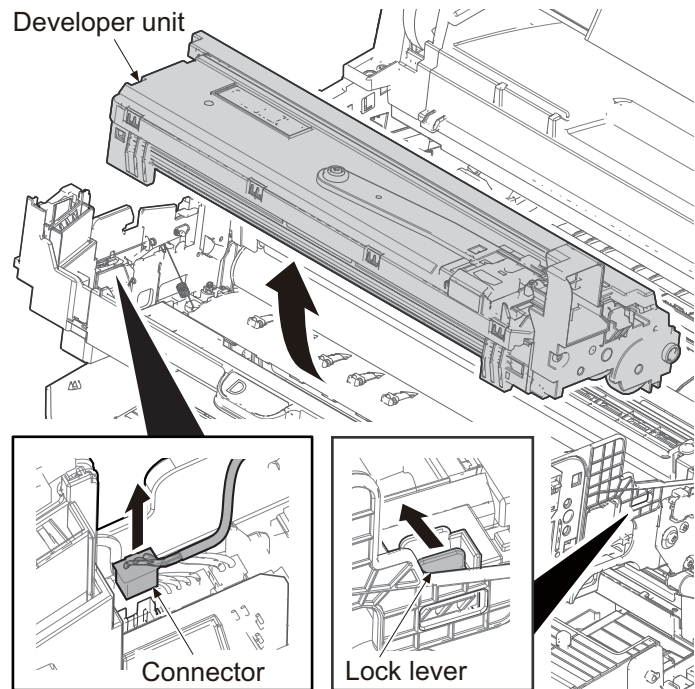


Figure 1-5-27

6. Remove the connector.
7. Release the lock lever and then remove the developer unit upward.
8. Check or replace the developer unit and refit all the removed parts.

**Figure 1-5-28**

1-5-5 Drum section

(1) Detaching and refitting the drum unit

Procedure

1. Open the top cover.

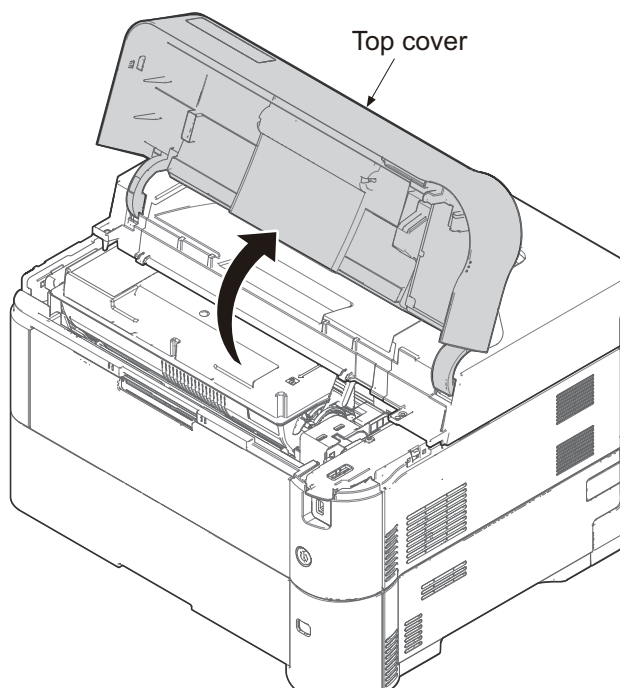


Figure 1-5-29

2. Open the front cover.
3. Grip the knob and then Pull the imaging unit forward.

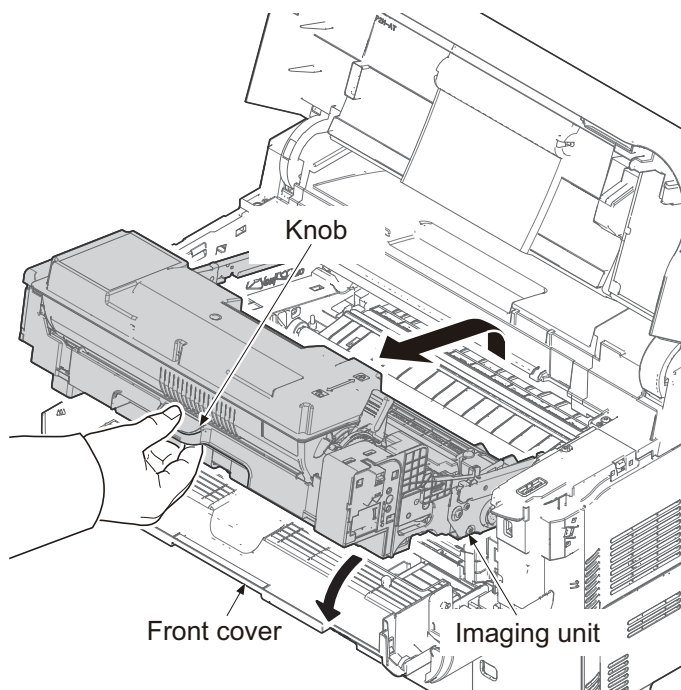


Figure 1-5-30

4. Release the lock lever by rotating and then remove the toner container.

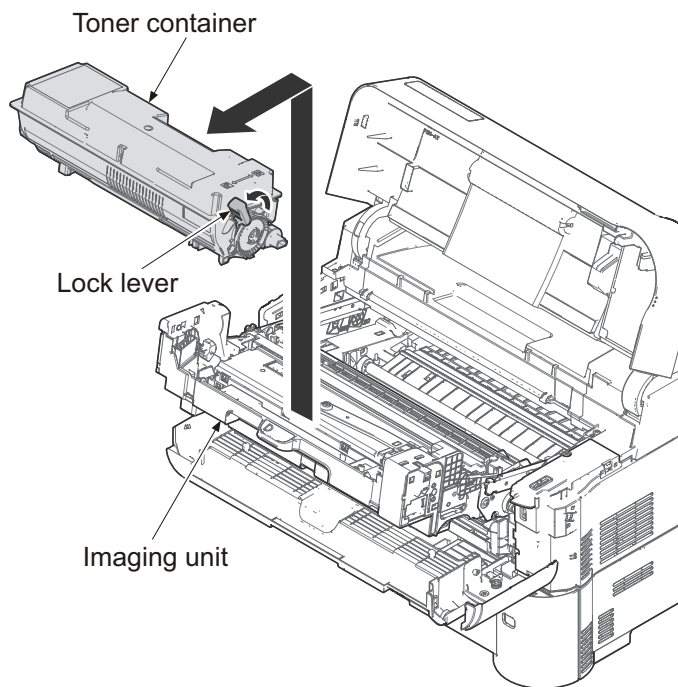


Figure 1-5-31

5. Release the hook and then remove the container guide by sliding backwards.

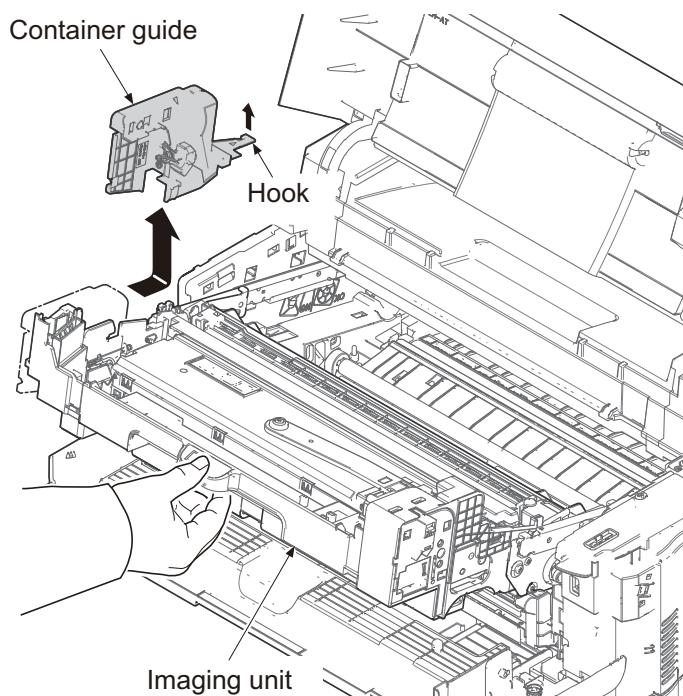


Figure 1-5-32

6. Remove the connector.
7. Release the lock lever and then remove the developer unit upward.

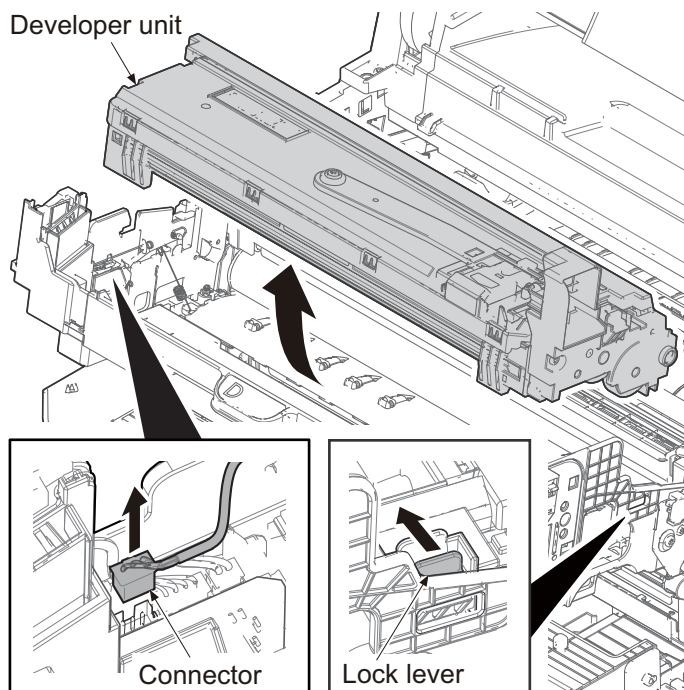


Figure 1-5-33

8. Remove the lock lever L.
9. Remove the lock lever R by sliding backward.
10. Remove the drum unit by sliding forward.
11. Check or replace the drum unit and refit all the removed parts.

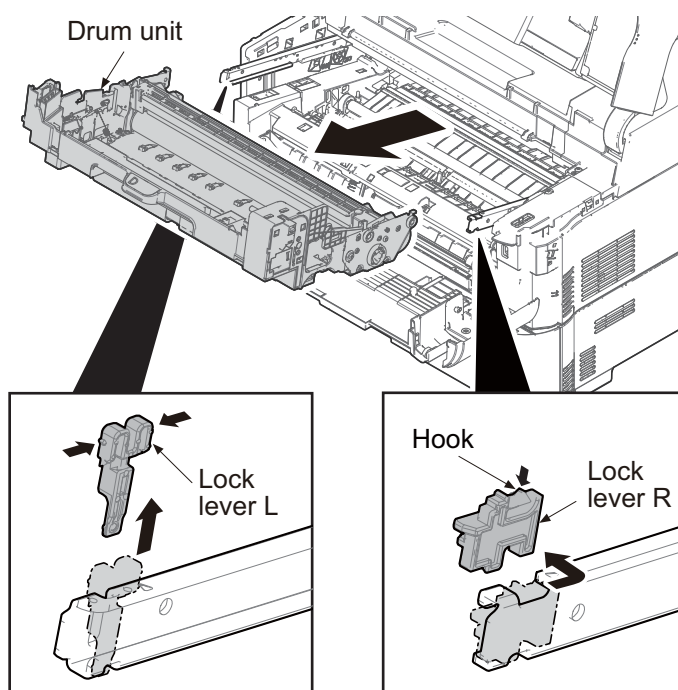


Figure 1-5-34

*: When you place the drum unit removed from the printer, be careful of handling not to change the guides and the pulleys.

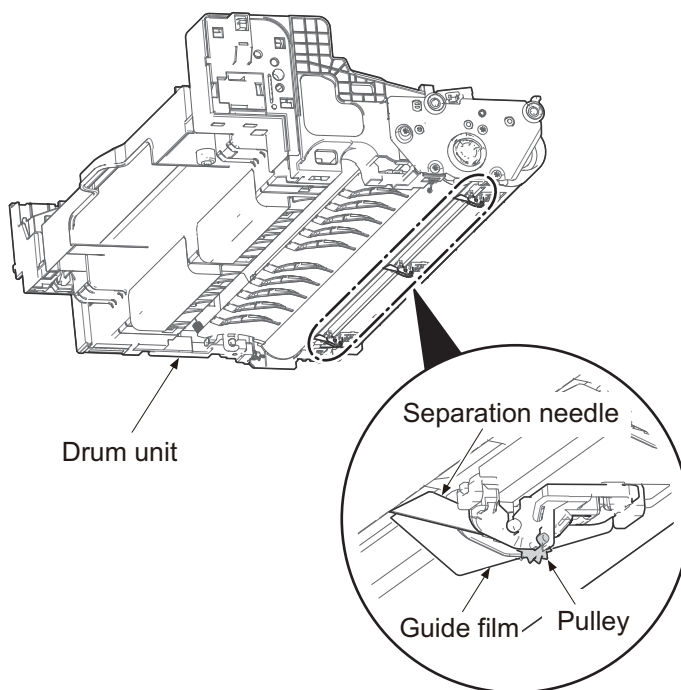


Figure 1-5-35

(2) Detaching and refitting the charger roller unit

Procedure

1. Release the lock lever and then remove the charger roller unit.
2. Check or replace the charger roller unit and refit all the removed parts.

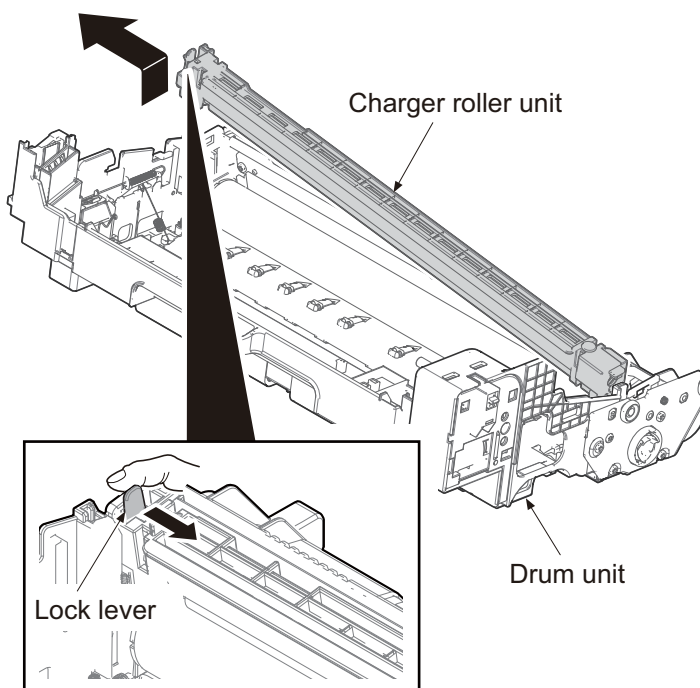


Figure 1-5-36

1-5-6 Transfer/separation section

(1) Detaching and refitting the transfer roller assembly

Procedure

1. Release five hooks by sliding to left the paper chute guide.
2. Remove the paper chute guide upward.

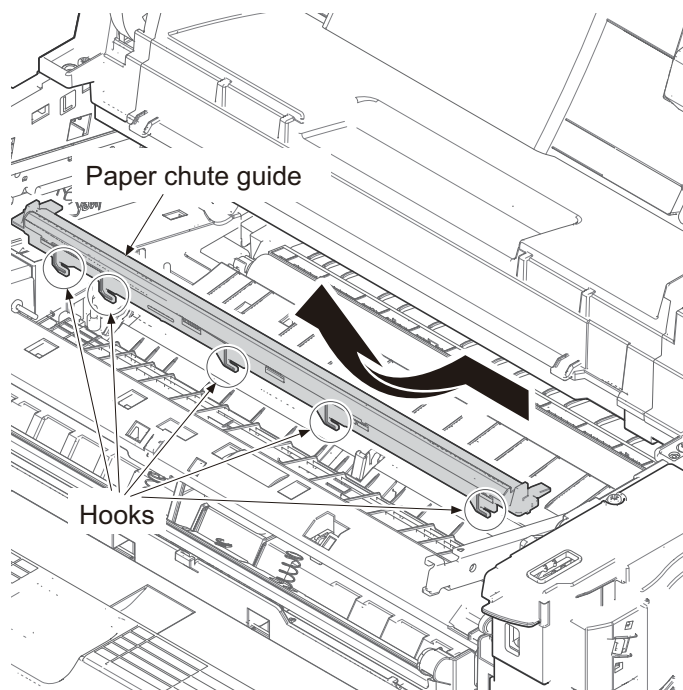


Figure 1-5-37

3. Remove the axes of transfer roller from each bushings.
4. Remove the transfer roller assembly upward.
5. Check or replace the transfer roller assembly and refit all the removed parts.

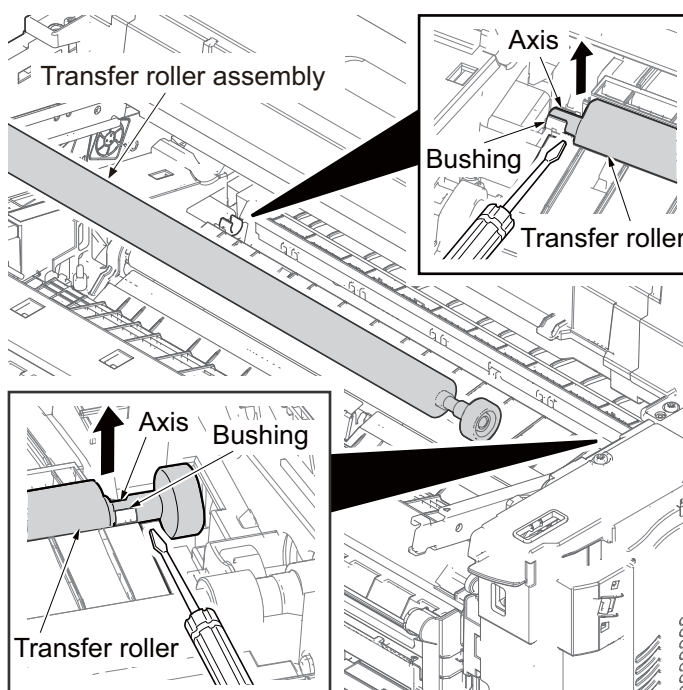


Figure 1-5-38

(2) Detaching and refitting the separation needle unit

Procedure

1. Remove the transfer roller.
2. Release six hooks of separation needle unit by rotating and then remove the separation needle unit upward.
3. Check or replace the separation needle unit and refit all the removed parts.

*: Check certainly being fixed at the time of attachment.

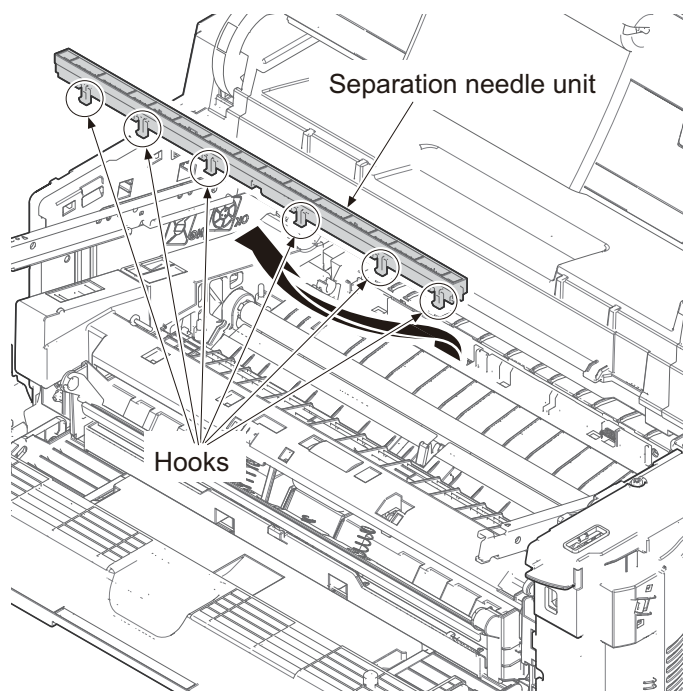


Figure 1-5-39

1-5-7 Optical section

(1) Detaching and refitting the laser scanner unit

Procedure

1. Open the top cover.
2. Remove two screws.

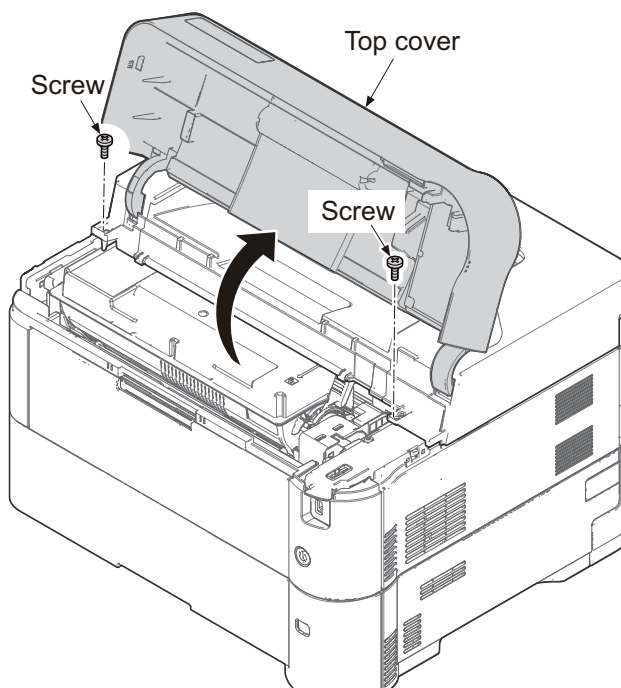


Figure 1-5-40

3. Open the rear cover by pulling the knob.

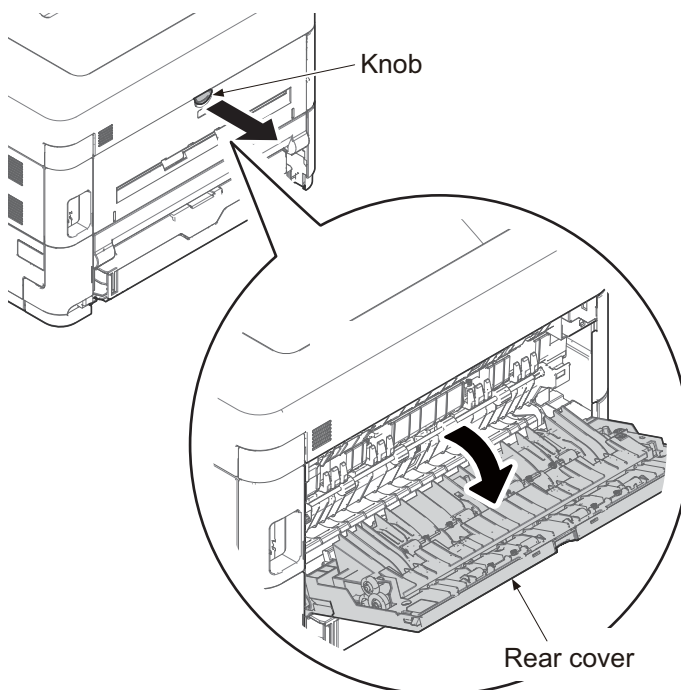


Figure 1-5-41

4. Open the front cover.
5. Grip the knob and then Pull the imaging unit forward.

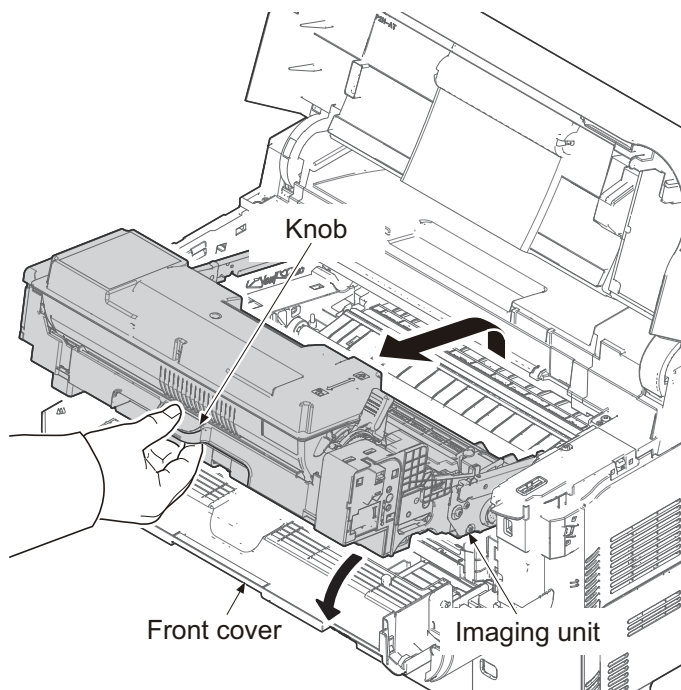


Figure 1-5-42

6. Release two hooks and then lift the top cover upward.
7. Pull out FFC from the connector and then remove the top cover assembly.

*: At the time of detaching and refitting the top cover assembly, pull the imaging unit out, for the container will not catch two projection parts.

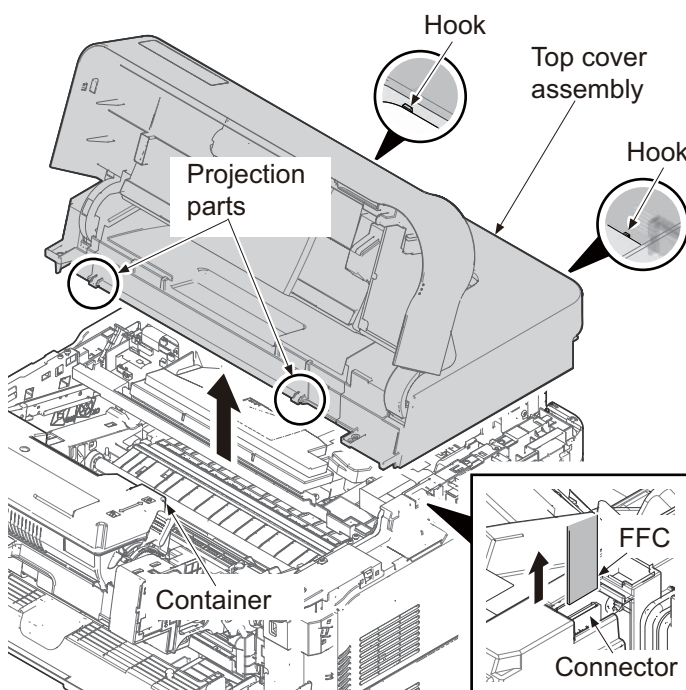


Figure 1-5-43

8. Remove the power cord cover by sliding it.
9. Release the hook of the interface cover and then remove during twisting it.

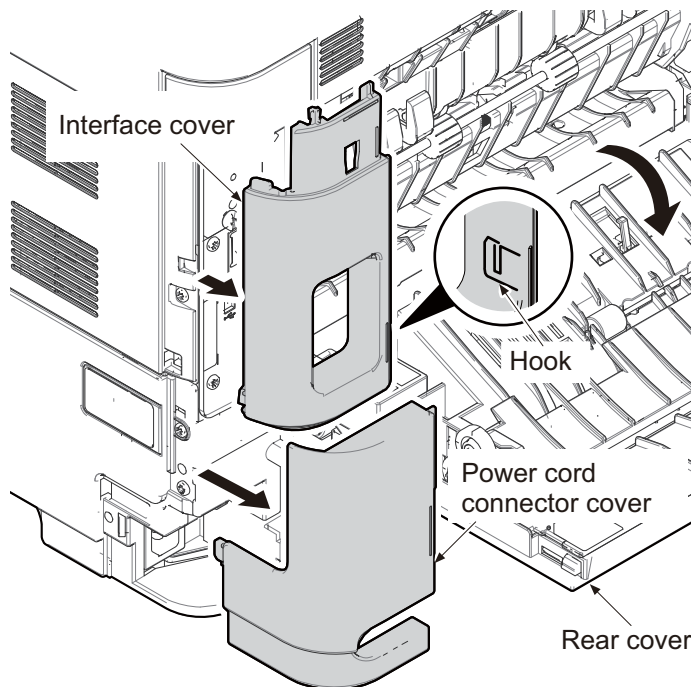


Figure 1-5-44

10. Remove two screws.
11. Release the hook A by twisting right upper cover.
12. Release two hooks B by sliding the right upper cover upward and then remove it.

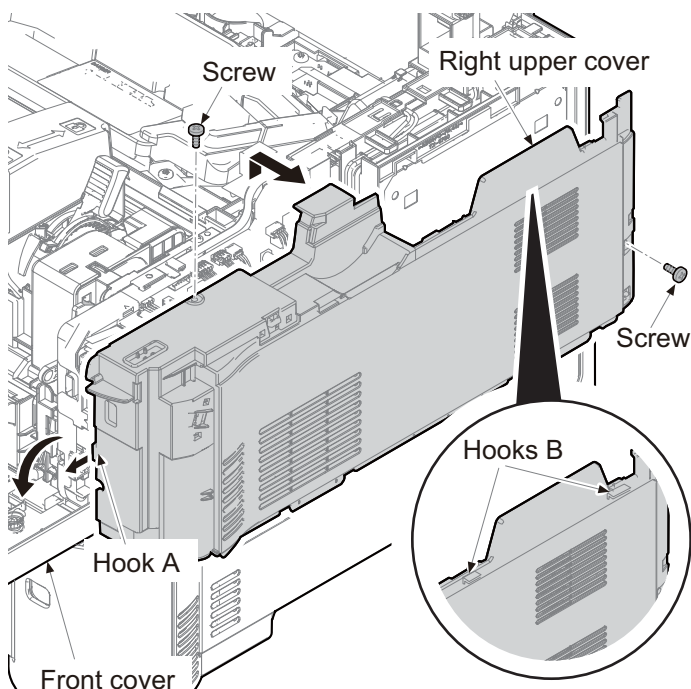


Figure 1-5-45

13. Pull the connector and FFC from engine PWB out.
14. Release the wires from the wire guide.
15. Remove four screws and then remove the laser scanner unit upward.
16. Check or replace the laser scanner unit and refit all the removed parts.

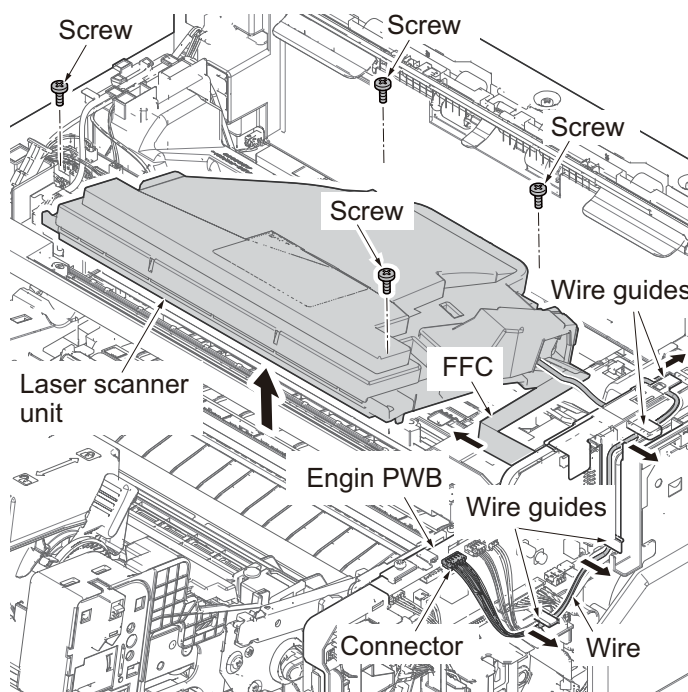


Figure 1-5-46

The cautions at the time of refitting the unit

1. Attach the screw in order of 1 to 4.
2. When the positioning holder was removed, unite the boss part to the marking position of a positioning holder.

*: Also change a marking position, when a boss part position is changed at skew adjustment.

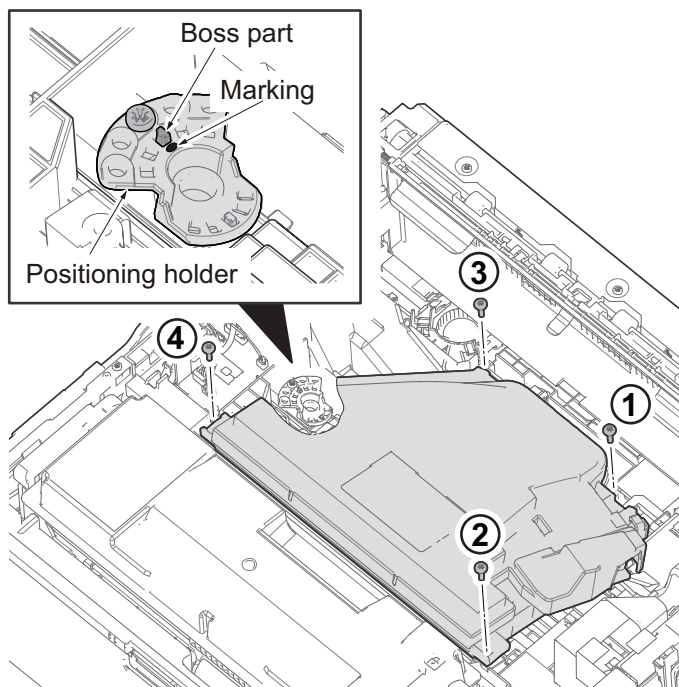


Figure 1-5-47

1-5-8 Fuser section

(1) Detaching and refitting the fuser unit

Procedure

1. Pull out the cassette.

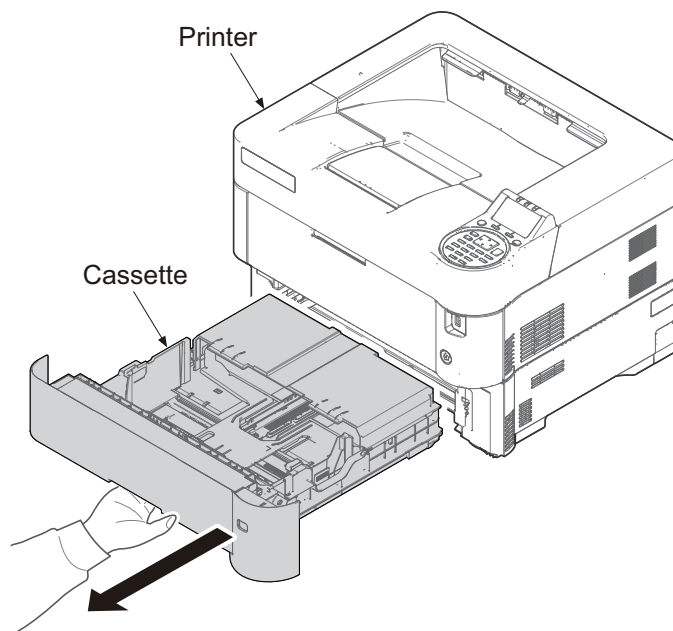


Figure 1-5-48

2. Remove the fulcrum axis by sliding the rear cover assembly while avoiding rear cover and then remove the rear cover assembly.

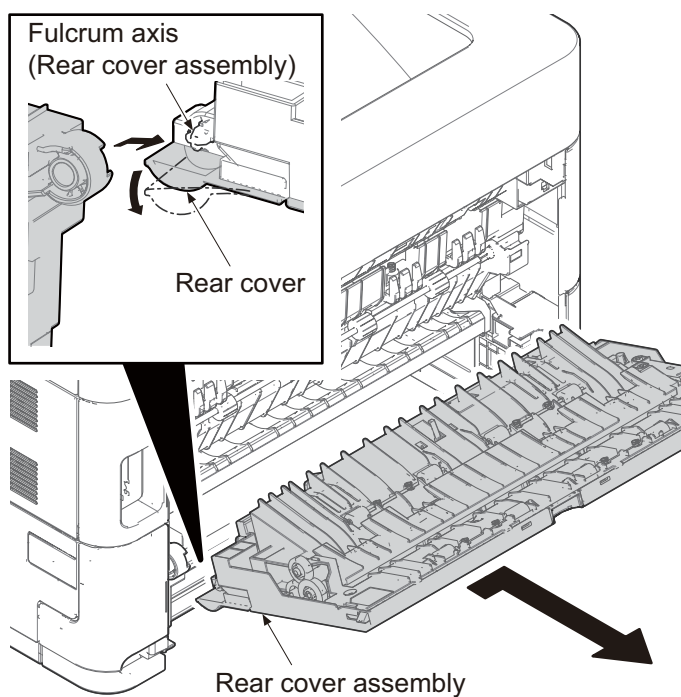


Figure 1-5-49

3. Remove the screw and then remove the connector cover A.
4. Pull two connectors out.

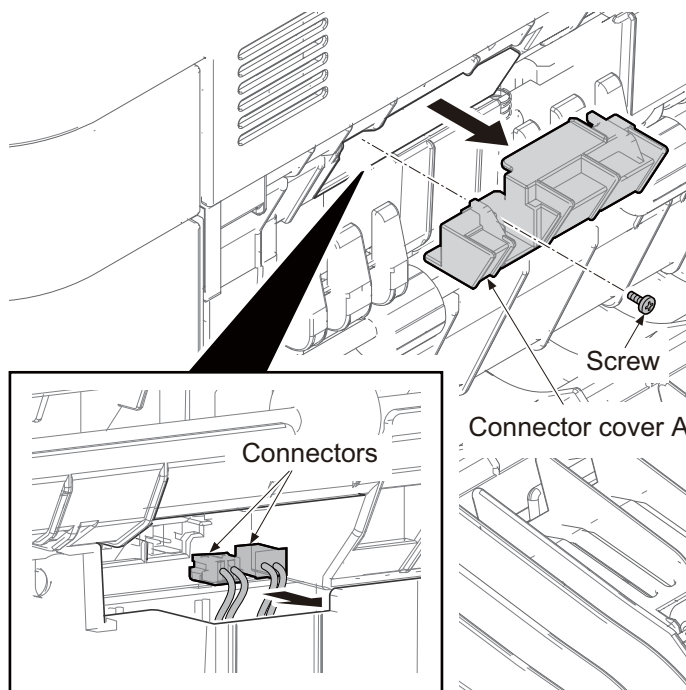


Figure 1-5-50

5. Release the hook by rotating and remove the connector cover B.
6. Remove the screw of connector cover C.
7. Remove the connector cover C by releasing the hook.
8. Remove two connectors.

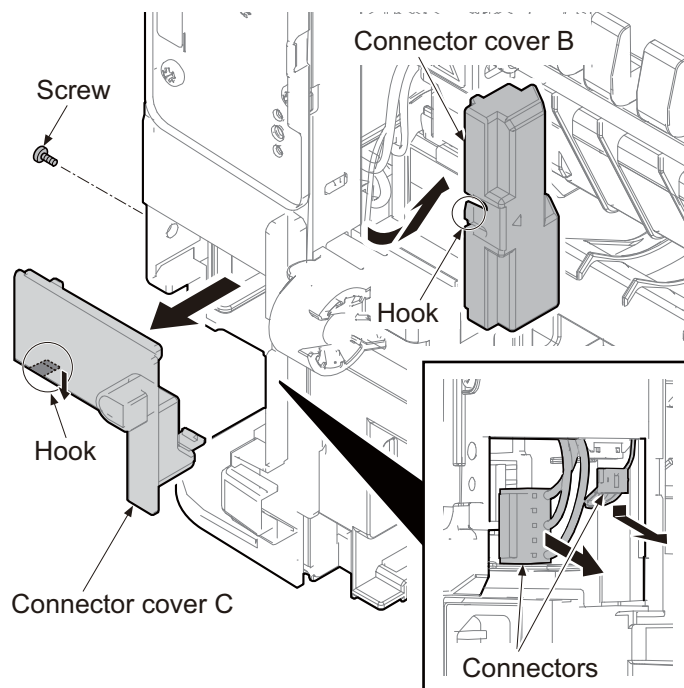


Figure 1-5-51

9. Remove two screws and then remove the fuser unit forward.
10. Check or replace the fuser unit and refit all the removed parts.

*: When refitting the fuser unit, perform the following procedures.

- (1) Turn on the power switch while opening the rear cover after removing the fuser unit.
- (2) Turn off the power switch after 5-second or more progress.
(release state of fixing pressure)
- (3) Refit the fuser unit.

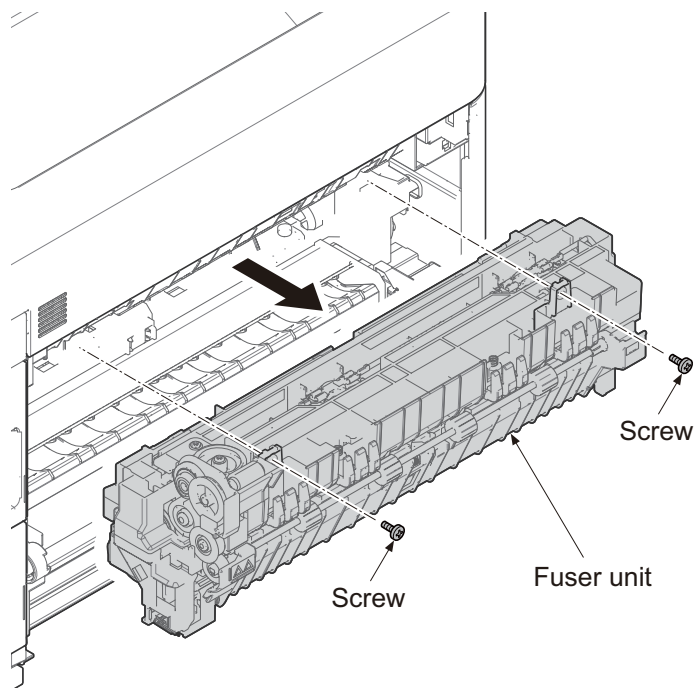


Figure 1-5-52

1-5-9 Ejection section

(1) Detaching and refitting the paper feed roller

Procedure

1. Open the top cover.
2. Remove two screws.

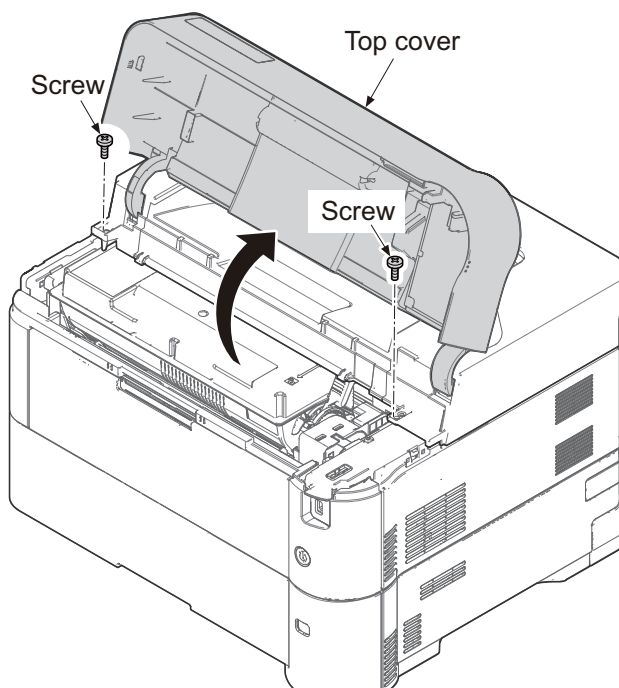


Figure 1-5-53

3. Open the rear cover by pulling the knob.

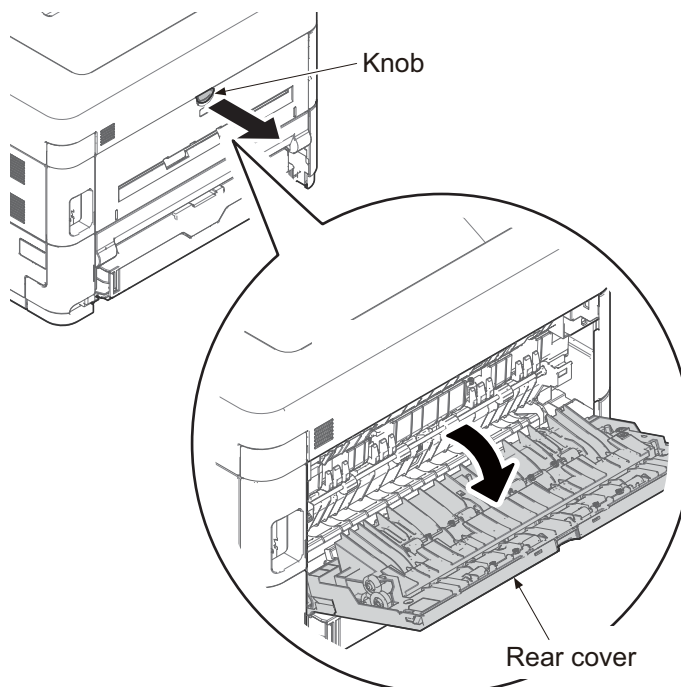


Figure 1-5-54

4. Open the front cover.
5. Grip the knob and then Pull the imaging unit forward.

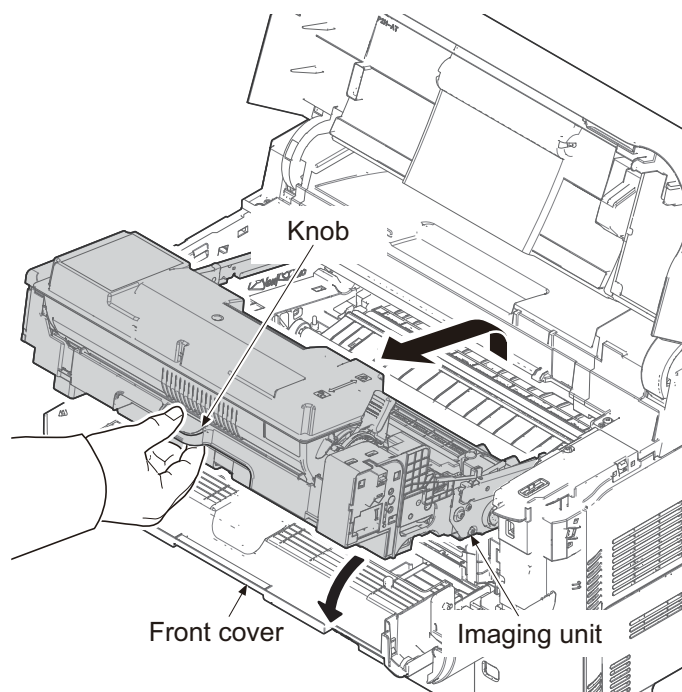


Figure 1-5-55

6. Release two hooks and then lift the top cover upward.
7. Pull out FFC from the connector and then remove the top cover assembly.

*: At the time of detaching and refitting the top cover assembly, pull the imaging unit out, for the container will not catch two projection parts.

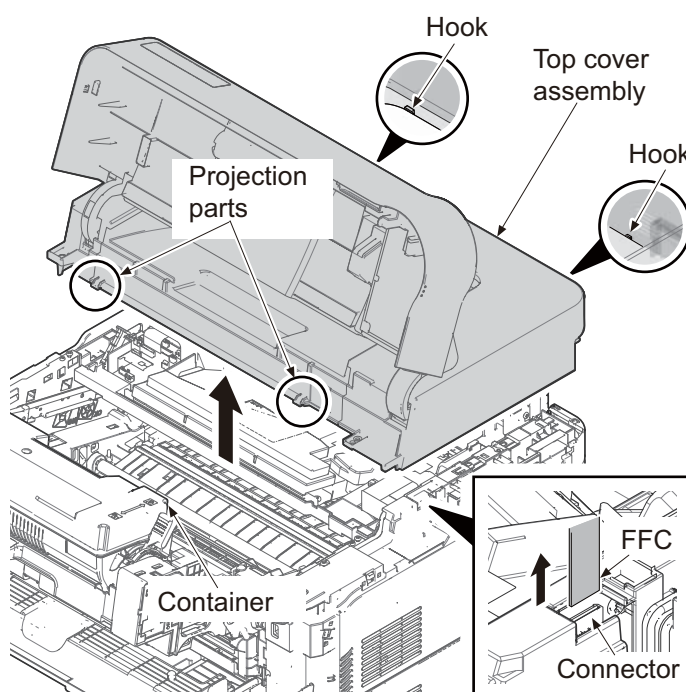
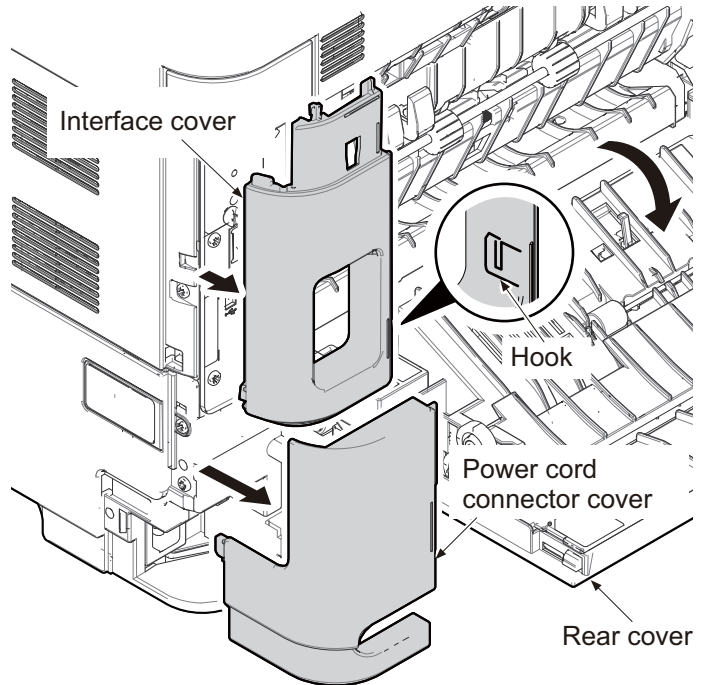
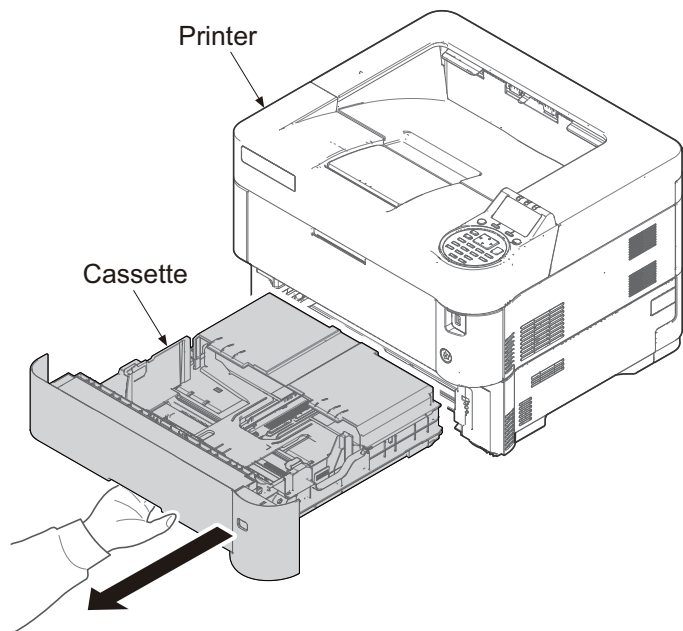


Figure 1-5-56

8. Remove the power cord cover by sliding it.
9. Release the hook of the interface cover and then remove during twisting it.

**Figure 1-5-57**

10. Pull out the cassette.

**Figure 1-5-58**

11. Remove two screws.
12. Release the hook A by twisting right upper cover.
13. Release two hooks B by sliding the right upper cover upward and then remove it.

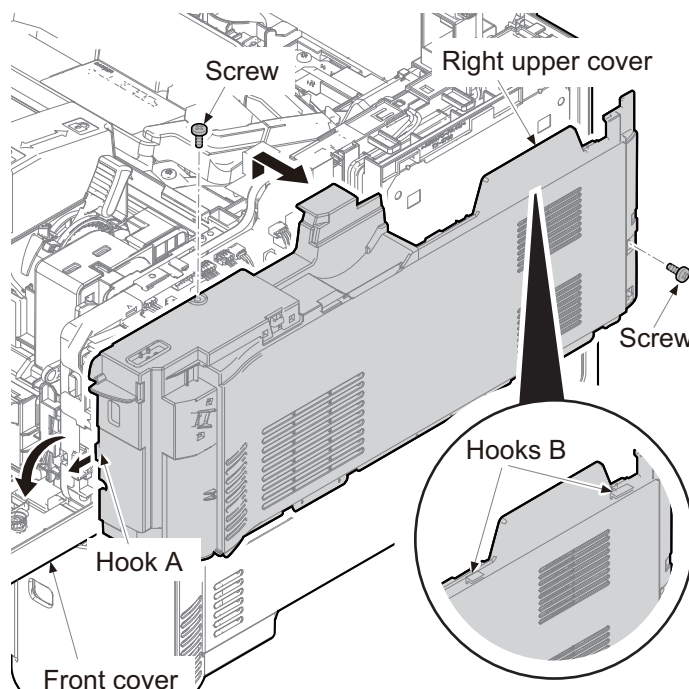


Figure 1-5-59

14. Remove three screws.
15. Release two hooks by sliding the right lower cover upward and then remove it.

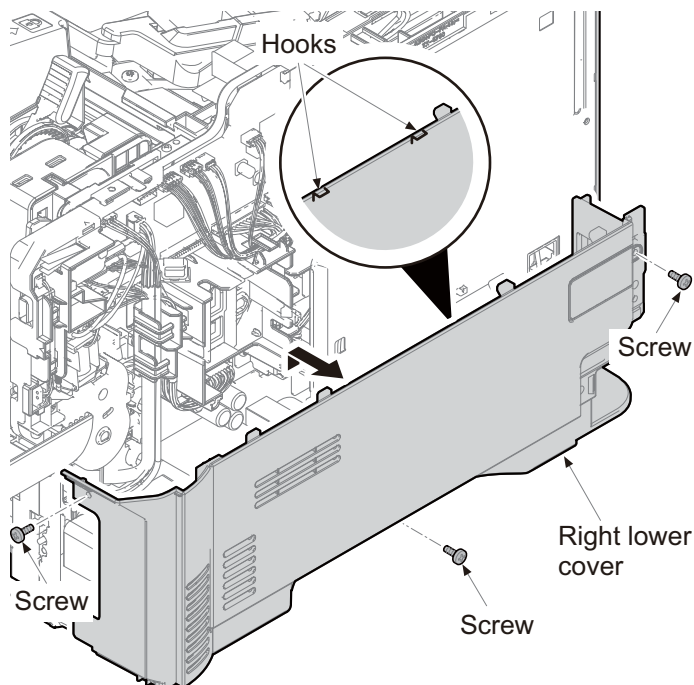


Figure 1-5-60

16. Open the rear cover by pulling the knob.

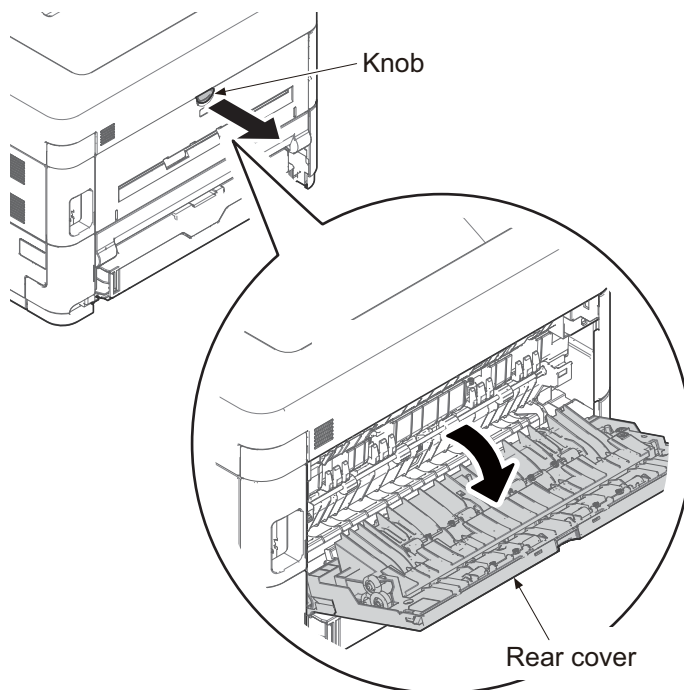


Figure 1-5-61

17. Release two hooks of the rear left cover while pulling forward.
18. Remove the rear left cover by twisting it forward.

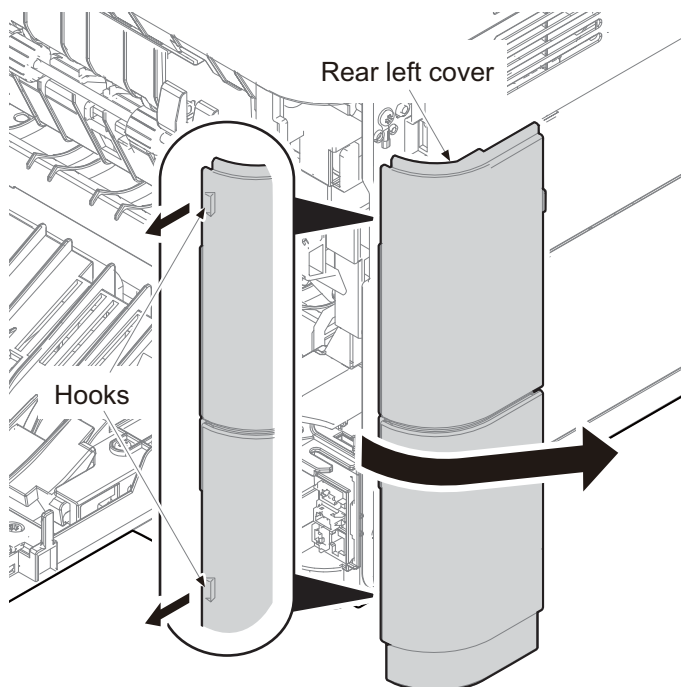


Figure 1-5-62

19. Release the hook A by sliding the left upper cover upward.
20. Release the hook B and hook C while twisting the edge of the left upper cover and then remove it and the waste toner box cover together.

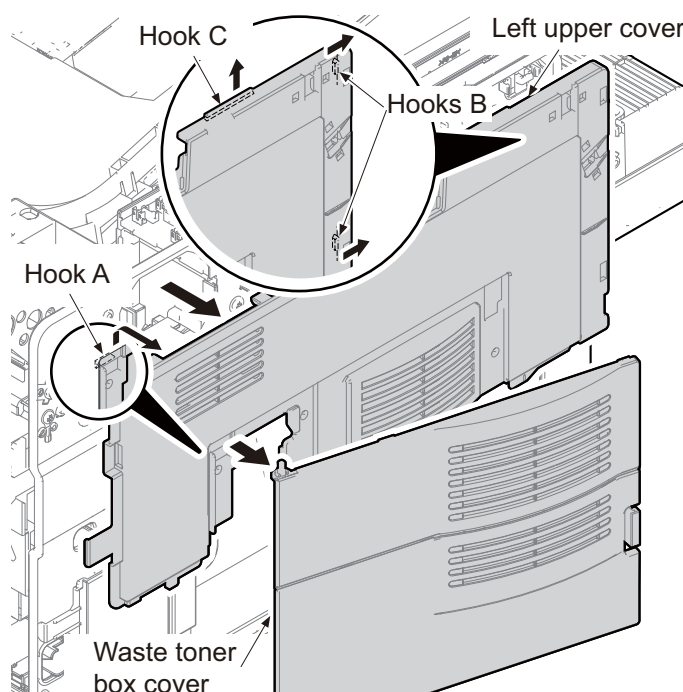


Figure 1-5-63

21. Unplug the power cable.

*: Do not insert or remove main PWB assembly while machine power is on. Doing so may cause damage to the machine and the main PWB.

22. Remove five screws and then pull the main PWB assembly out forward.

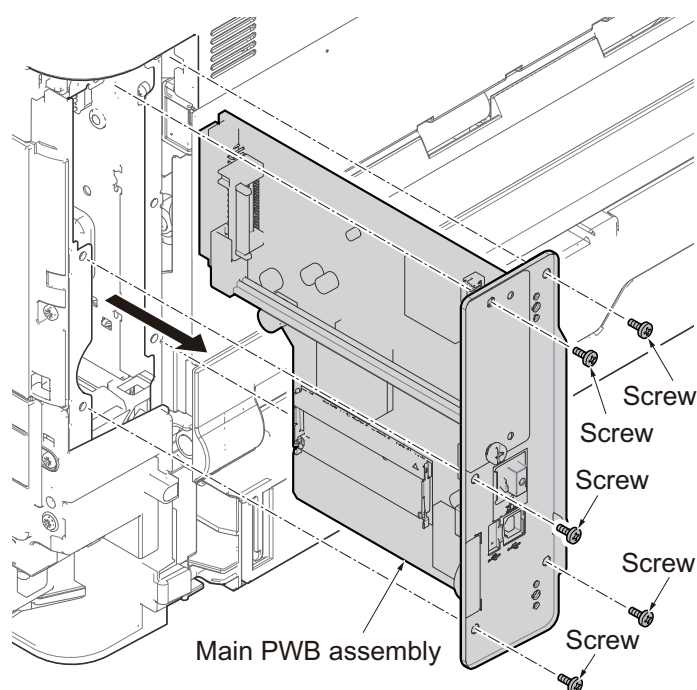


Figure 1-5-64

23. Release the wires and FFC from hooks.
24. Release the fixing hook and then remove the wire guide.

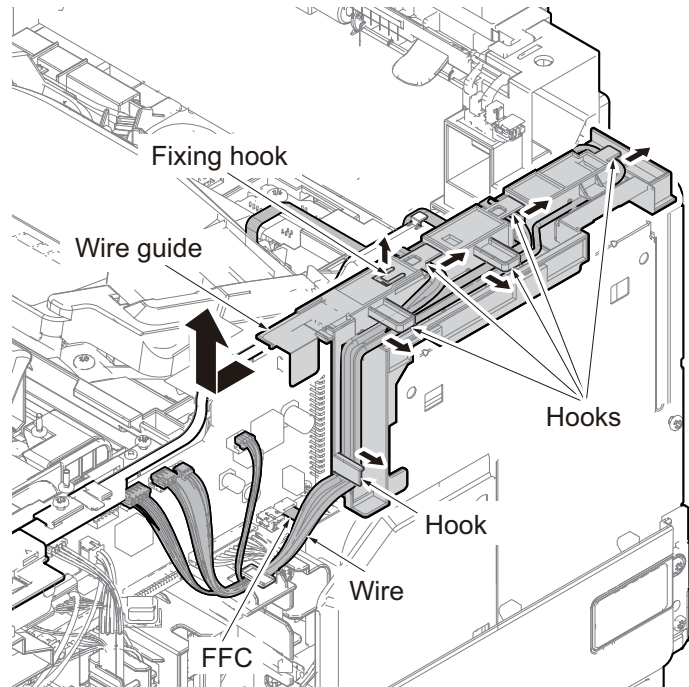


Figure 1-5-65

25. Remove three screws and then remove the controller box cover.

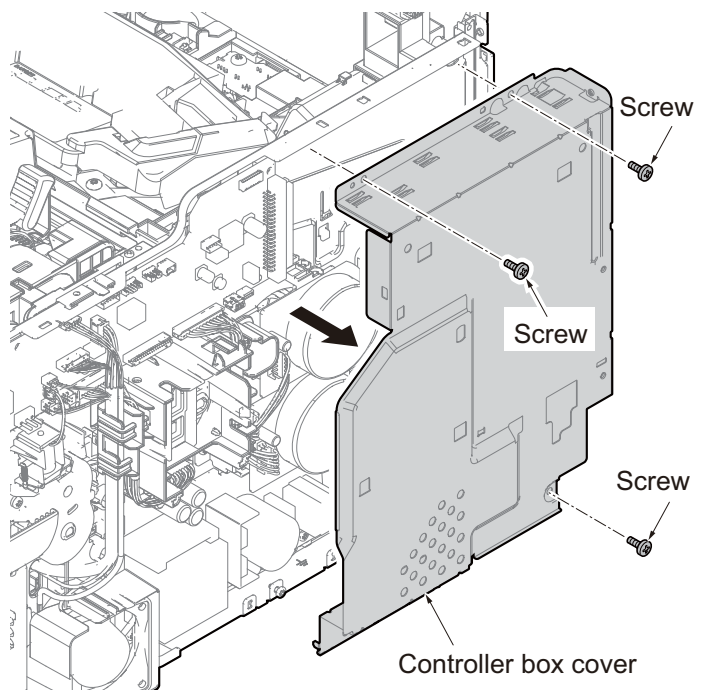
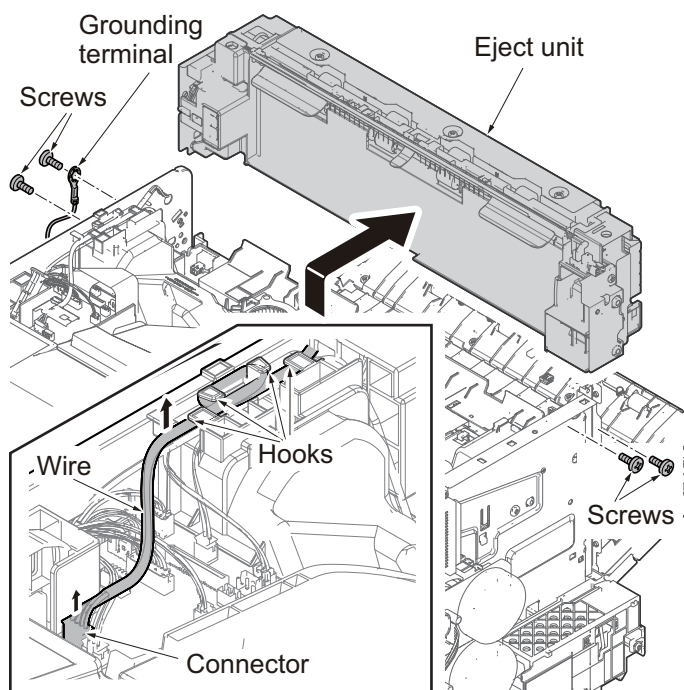


Figure 1-5-66

26. Release the connector and then release the wire from the hooks.
27. Remove the four screws and then remove the eject unit.
28. Check or replace the eject unit and refit all the removed parts.

**Figure 1-5-67**

1-5-10 PWBs

(1) Detaching and refitting the main PWB

Procedure

1. Open the rear cover by pulling the knob.

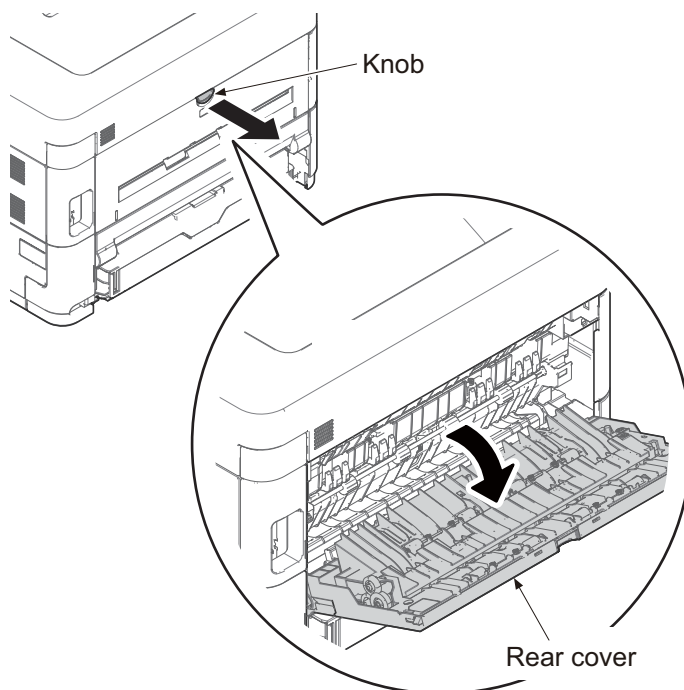


Figure 1-5-68

2. Remove the power cord cover by sliding it.
3. Release the hook of the interface cover and then remove during twisting it.

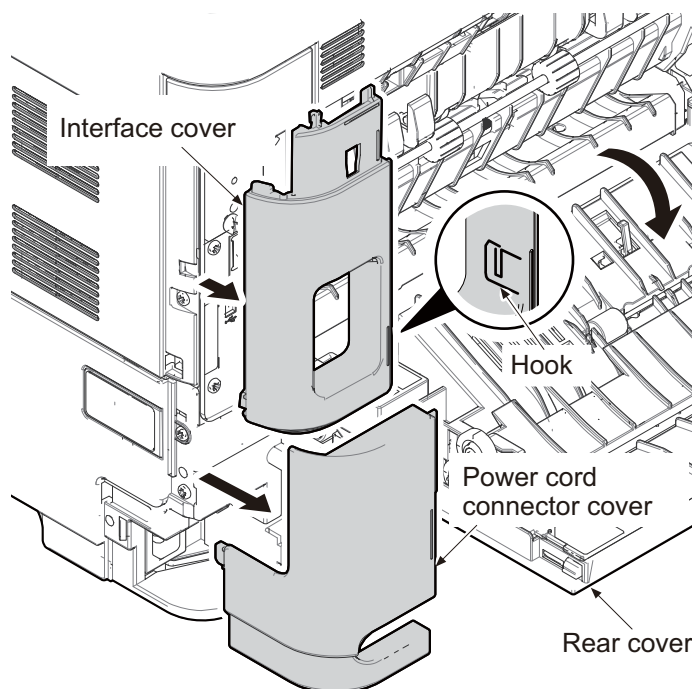


Figure 1-5-69

4. Unplug the power cable.

*: Do not insert or remove main PWB assembly while machine power is on. Doing so may cause damage to the machine and the main PWB.

5. Remove five screws and then pull the main PWB assembly out forward.

6. Check or replace the main PWB and refit all the removed parts.

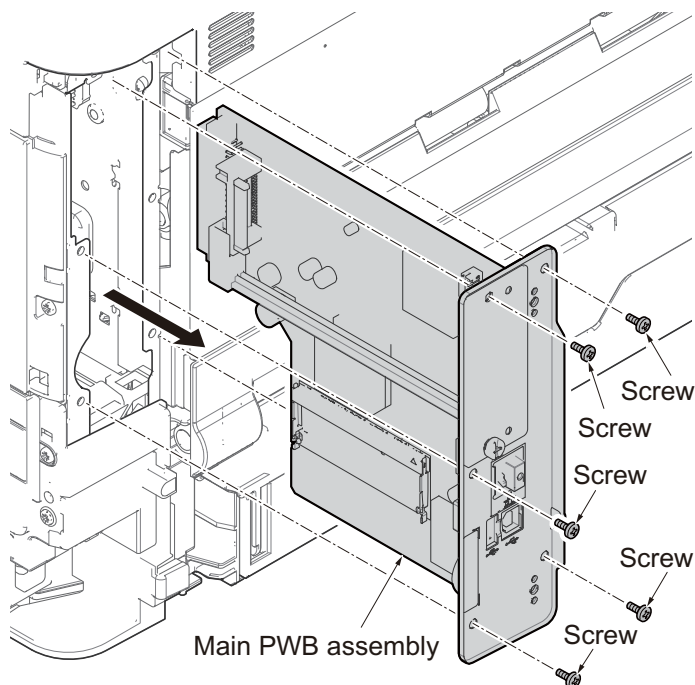


Figure 1-5-70

(2) Detaching and refitting the engine PWB

Procedure

1. Open the top cover.
2. Remove two screws.

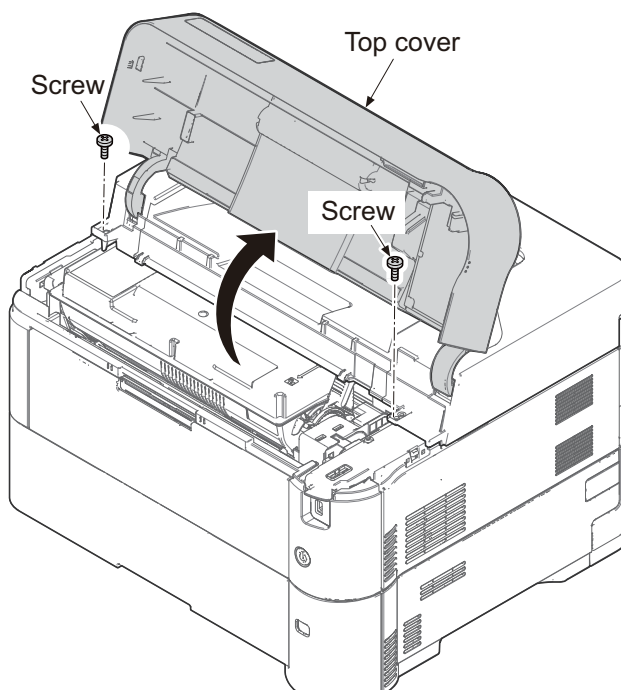


Figure 1-5-71

3. Open the rear cover by pulling the knob.

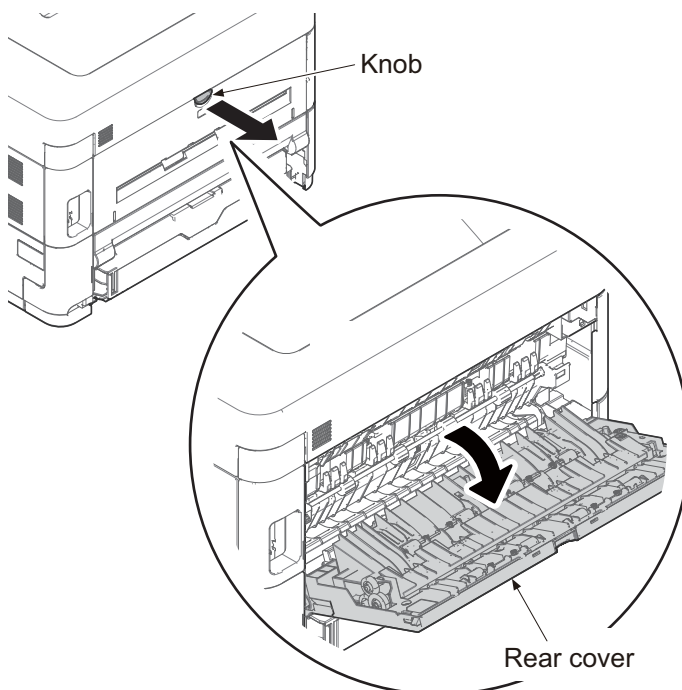


Figure 1-5-72

4. Open the front cover.
5. Grip the knob and then Pull the imaging unit forward.

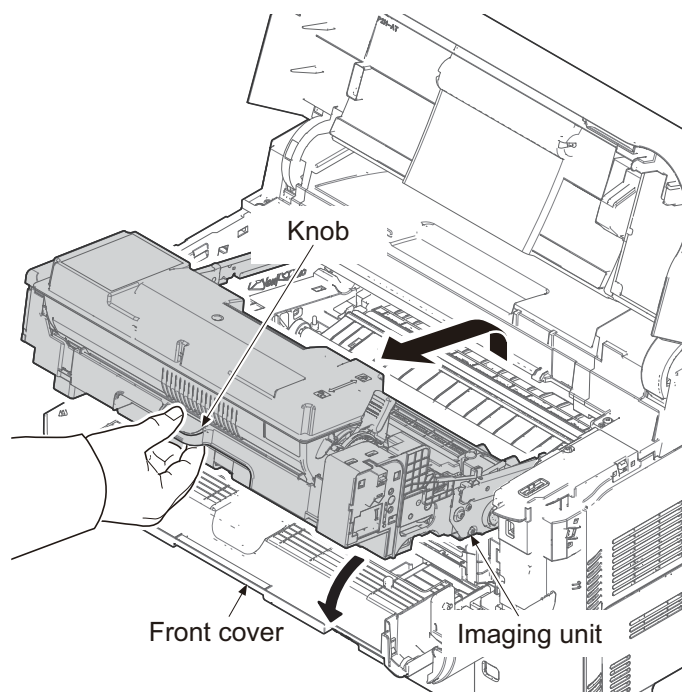


Figure 1-5-73

6. Release two hooks and then lift the top cover upward.
7. Pull out FFC from the connector and then remove the top cover assembly.

*: At the time of detaching and refitting the top cover assembly, pull the imaging unit out, for the container will not catch two projection parts.

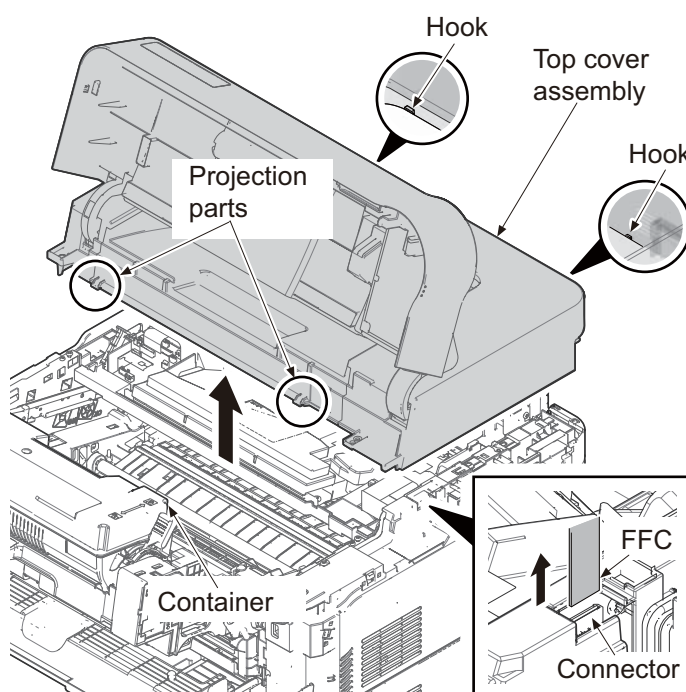


Figure 1-5-74

8. Remove the power cord cover by sliding it.
9. Release the hook of the interface cover and then remove during twisting it.

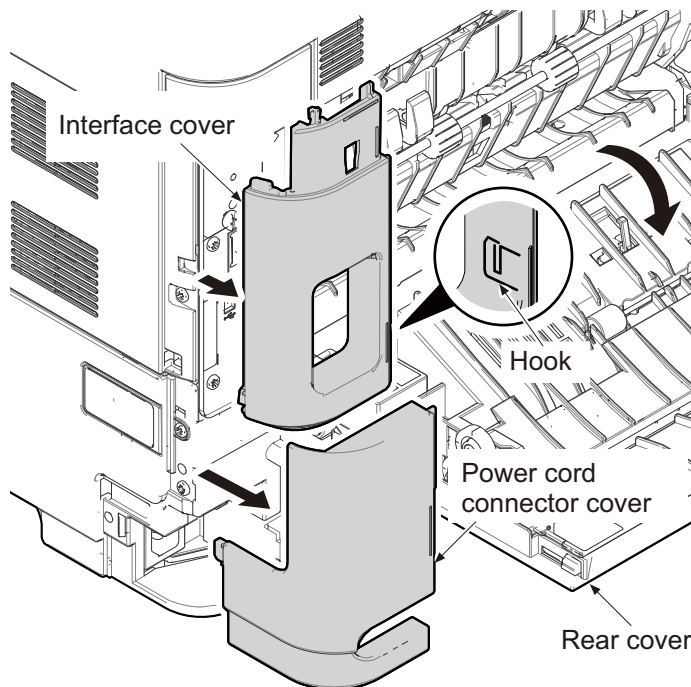


Figure 1-5-75

10. Remove two screws.
11. Release the hook A by twisting right upper cover.
12. Release two hooks B by sliding the right upper cover upward and then remove it.

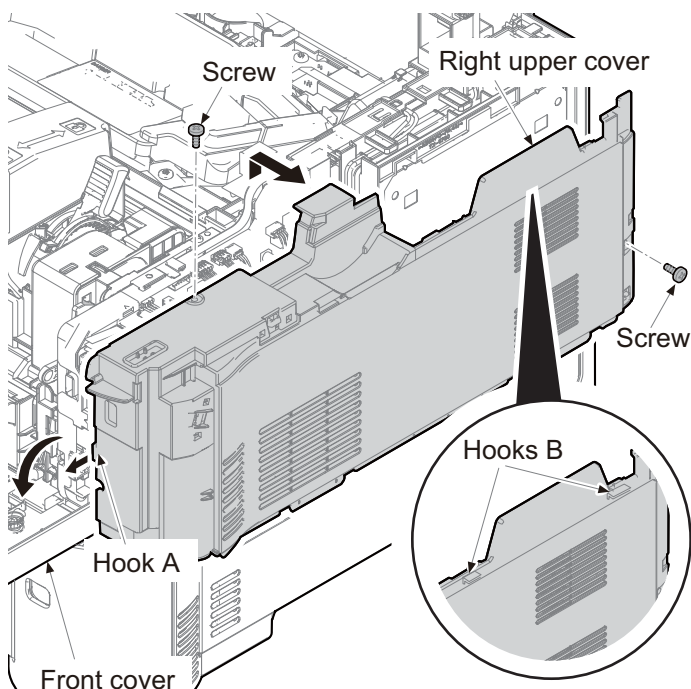


Figure 1-5-76

13. Unplug the power cable.

*: Do not insert or remove main PWB assembly while machine power is on. Doing so may cause damage to the machine and the main PWB.

14. Remove five screws and then pull the main PWB assembly out forward.

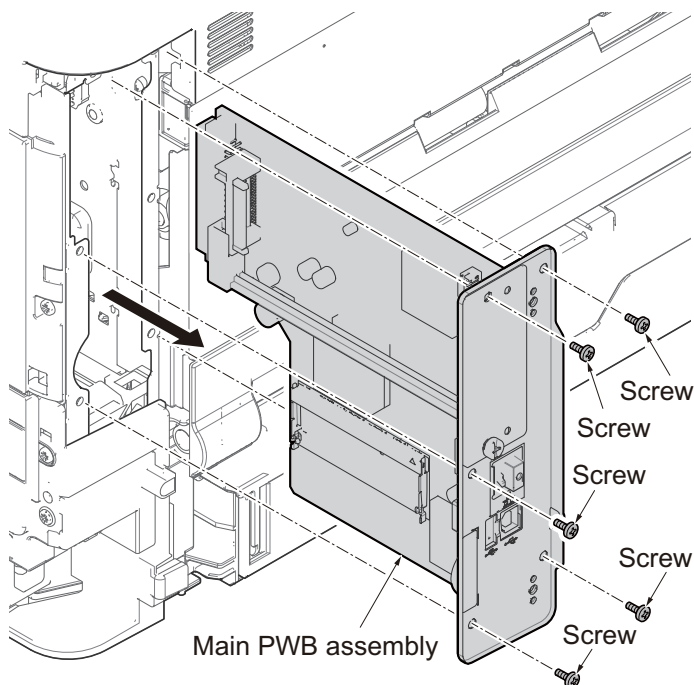


Figure 1-5-77

15. Release the wires and FFC from hooks.

16. Release the fixing hook and then remove the wire guide.

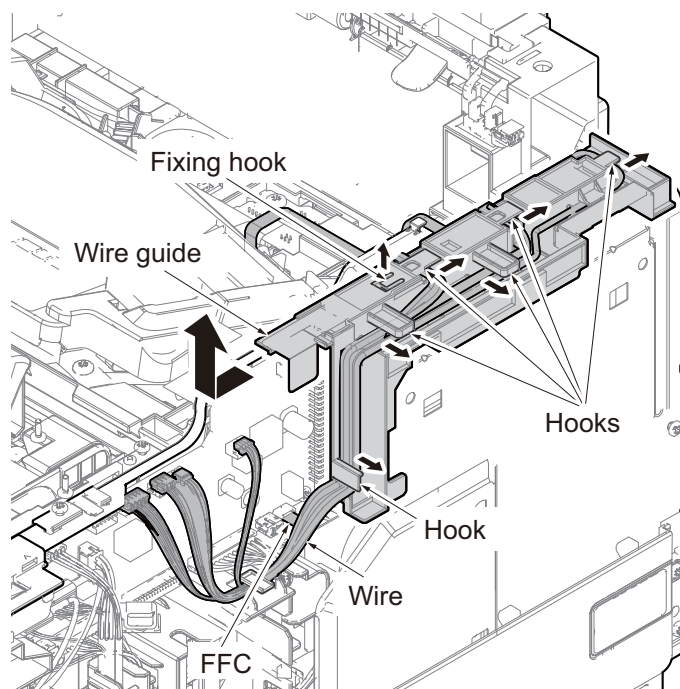


Figure 1-5-78

17. Remove two connectors.
18. Remove the screw and two hooks and then remove the wire guide.

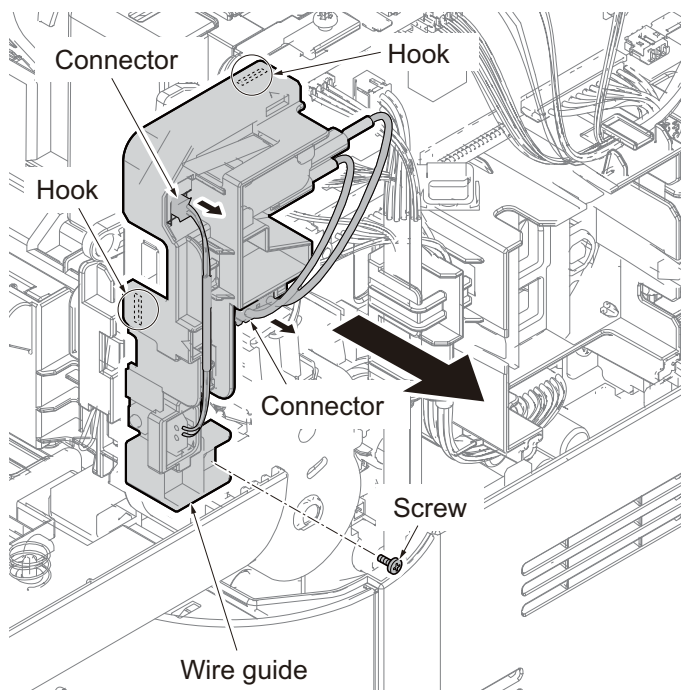


Figure 1-5-79

19. Remove all connectors from the engine PWB.
20. Remove four screws and then remove the engine PWB.
21. Check or replace the engine PWB and refit all the removed parts.

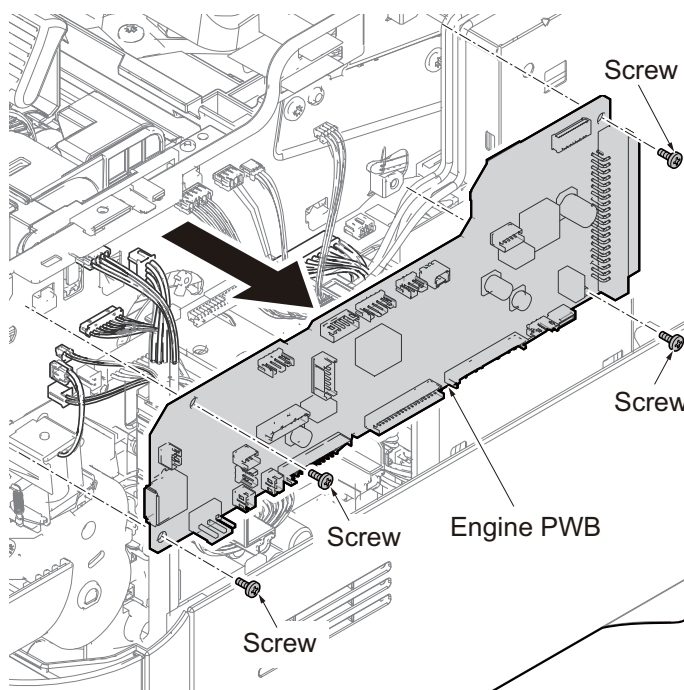


Figure 1-5-80

(3) Detaching and refitting the relay-L PWB

Procedure

1. Open the top cover.
2. Remove two screws.

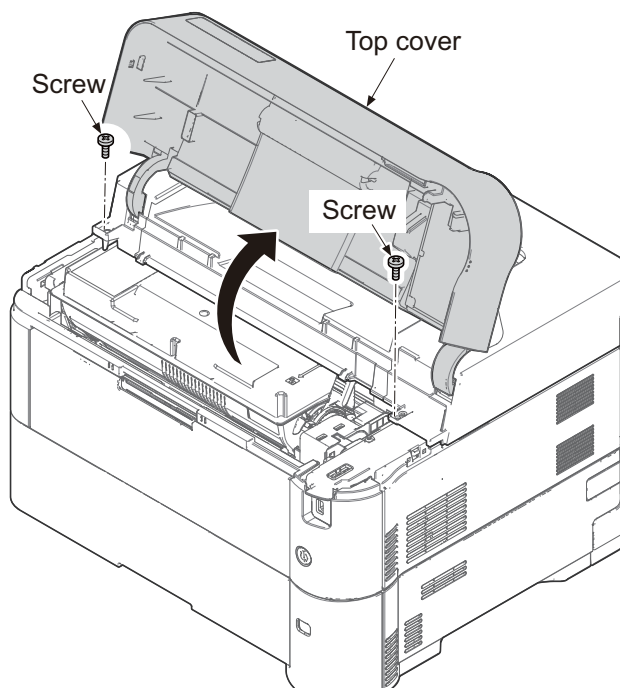


Figure 1-5-81

3. Open the rear cover by pulling the knob.

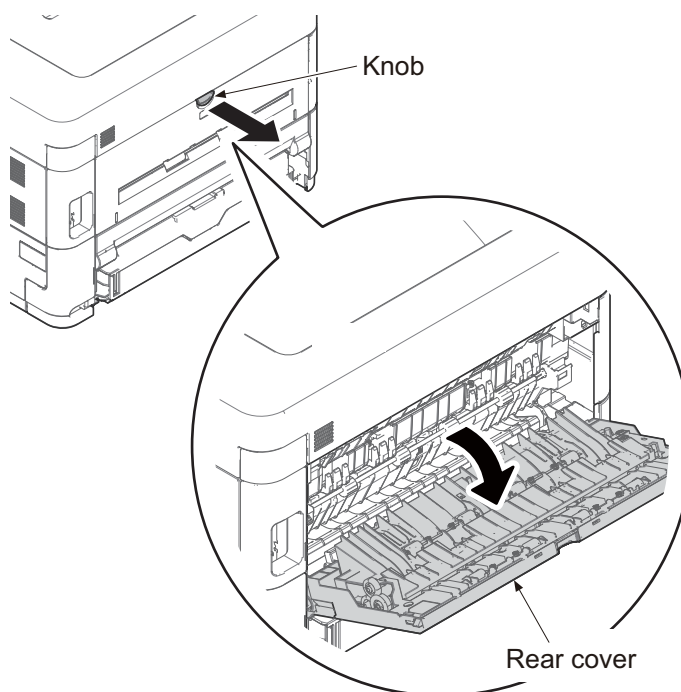


Figure 1-5-82

4. Open the front cover.
5. Grip the knob and then Pull the imaging unit forward.

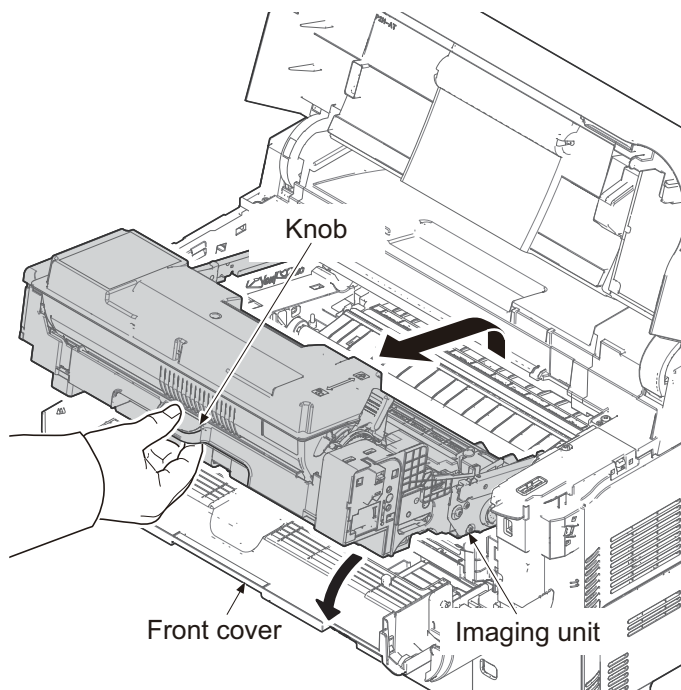


Figure 1-5-83

6. Release two hooks and then lift the top cover upward.
7. Pull out FFC from the connector and then remove the top cover assembly.

*: At the time of detaching and refitting the top cover assembly, pull the imaging unit out, for the container will not catch two projection parts.

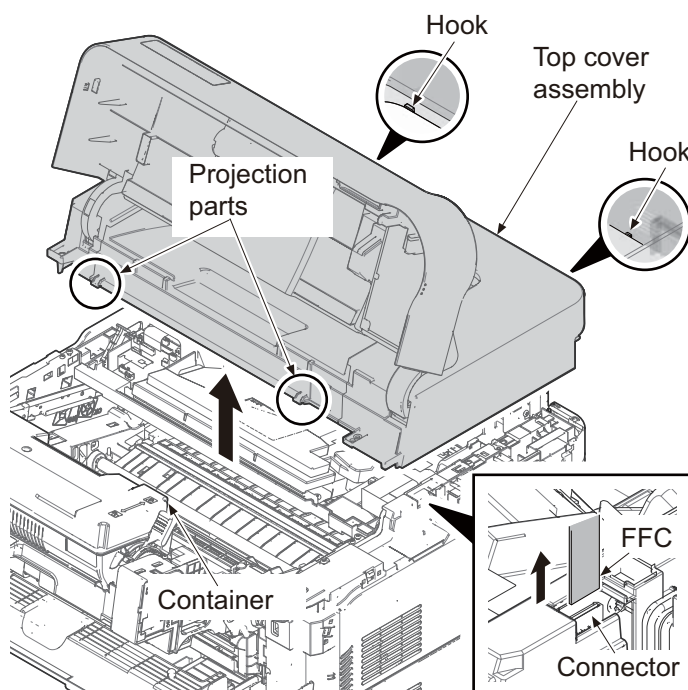


Figure 1-5-84

8. Remove all connectors from relay-L PWB and then release the wires from hooks.
9. Remove the LSU fan motor assembly upward.

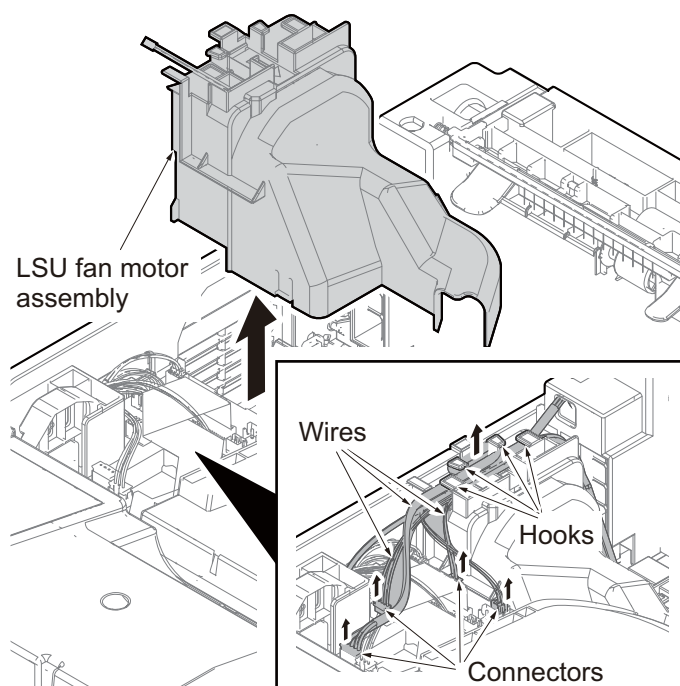


Figure 1-5-85

10. Remove the connectors and FFC.
11. Remove the screw and remove the relay-L PWB.
12. Remove the sheet from the relay-L PWB.
13. Check or replace the relay-L PWB and refit all the removed parts.

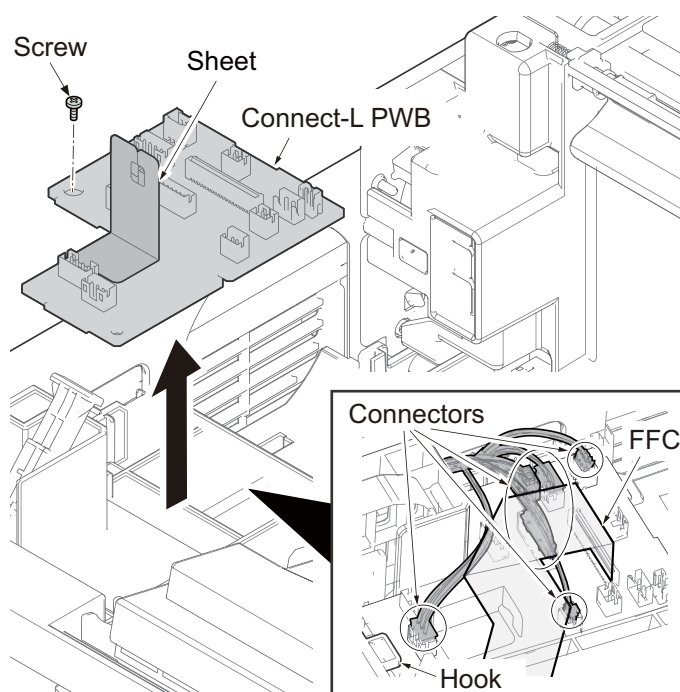


Figure 1-5-86

(4) Detaching and refitting the power source PWB

Procedure

1. Open the top cover.
2. Remove two screws.

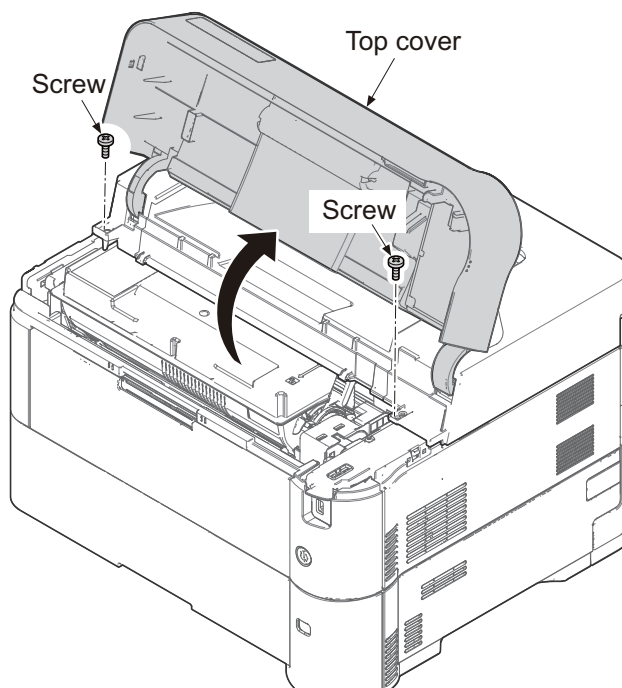


Figure 1-5-87

3. Open the rear cover by pulling the knob.

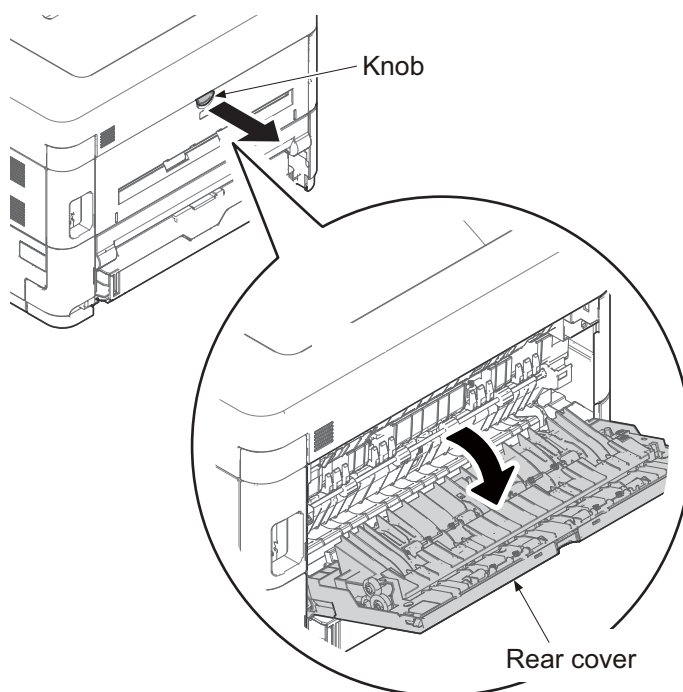


Figure 1-5-88

4. Open the front cover.
5. Grip the knob and then Pull the imaging unit forward.

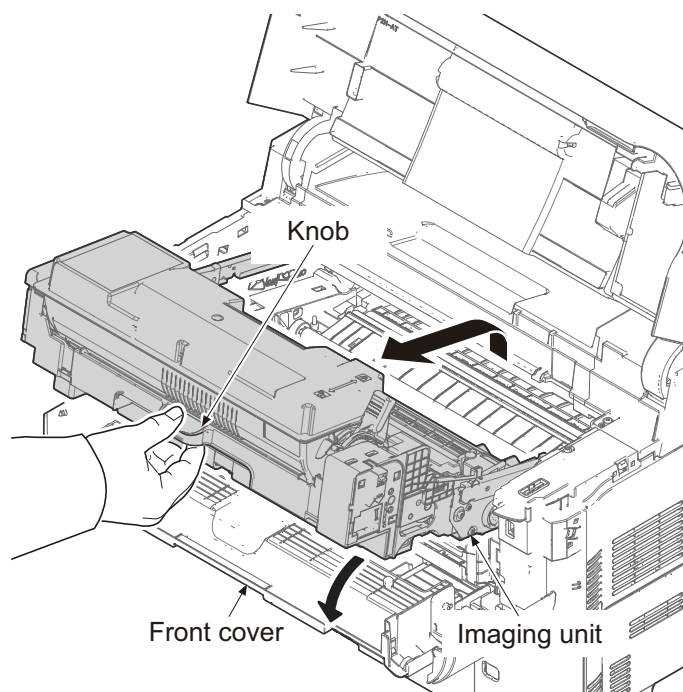


Figure 1-5-89

6. Release two hooks and then lift the top cover upward.
7. Pull out FFC from the connector and then remove the top cover assembly.

*: At the time of detaching and refitting the top cover assembly, pull the imaging unit out, for the container will not catch two projection parts.

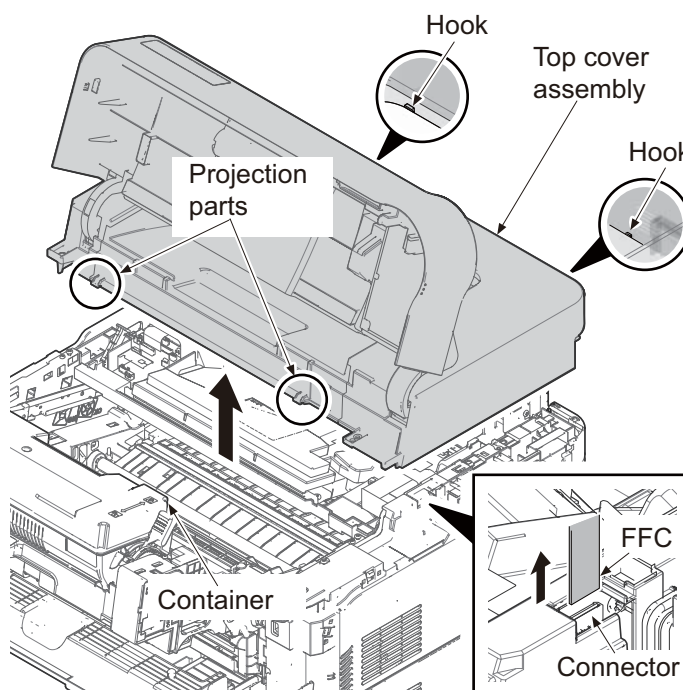


Figure 1-5-90

8. Remove the power cord cover by sliding it.
9. Release the hook of the interface cover and then remove during twisting it.

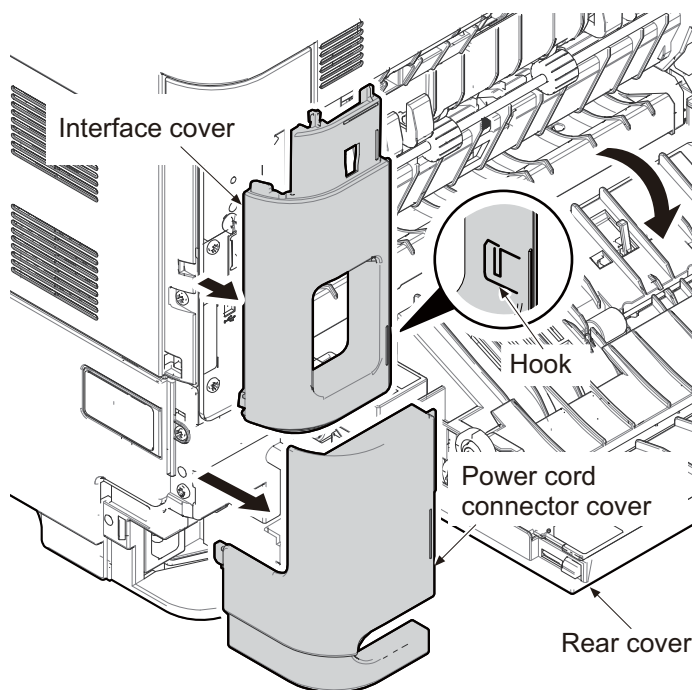


Figure 1-5-91

10. Pull out the cassette.

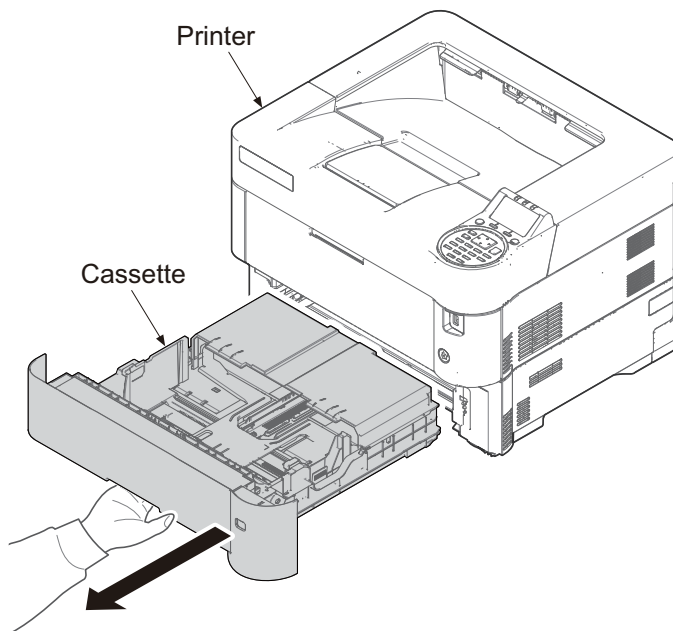


Figure 1-5-92

11. Remove two screws.
12. Release the hook A by twisting right upper cover.
13. Release two hooks B by sliding the right upper cover upward and then remove it.

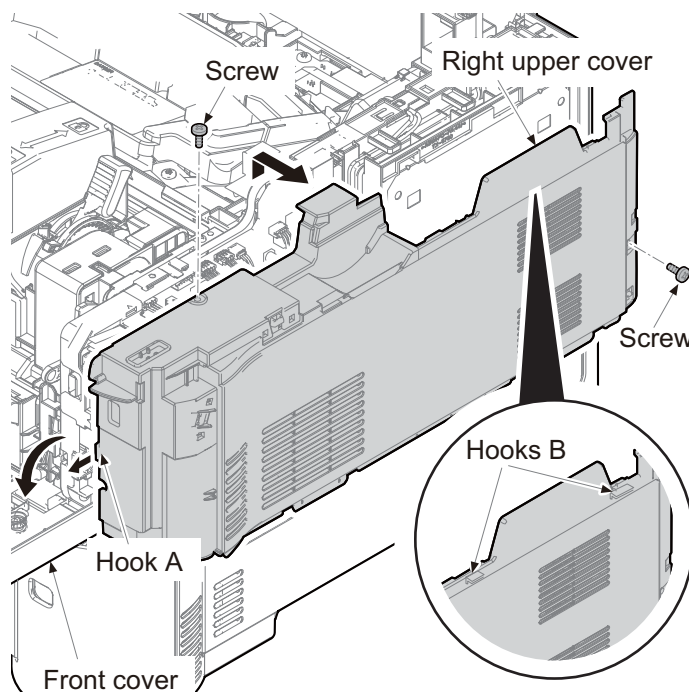


Figure 1-5-93

14. Remove three screws.
15. Release two hooks by sliding the right lower cover upward and then remove it.

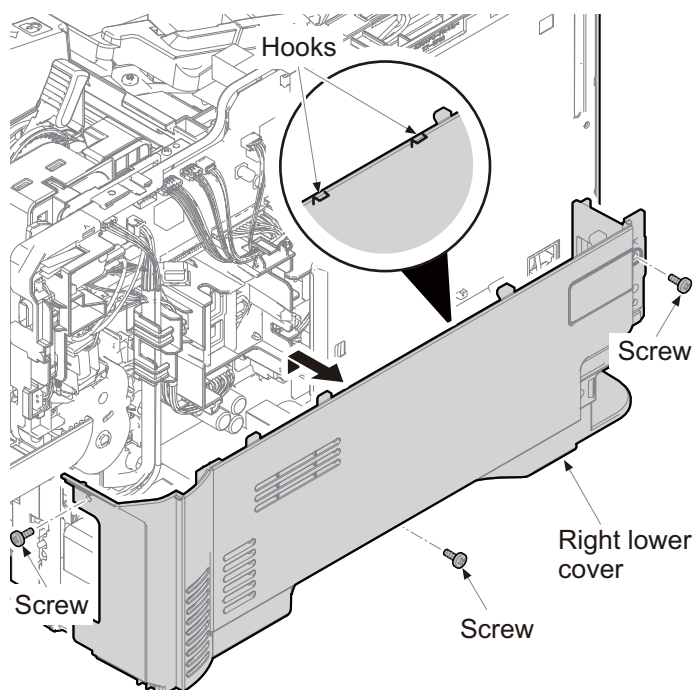


Figure 1-5-94

16. Unplug the power cable.

*: Do not insert or remove main PWB assembly while machine power is on. Doing so may cause damage to the machine and the main PWB.

17. Remove five screws and then pull the main PWB assembly out forward.

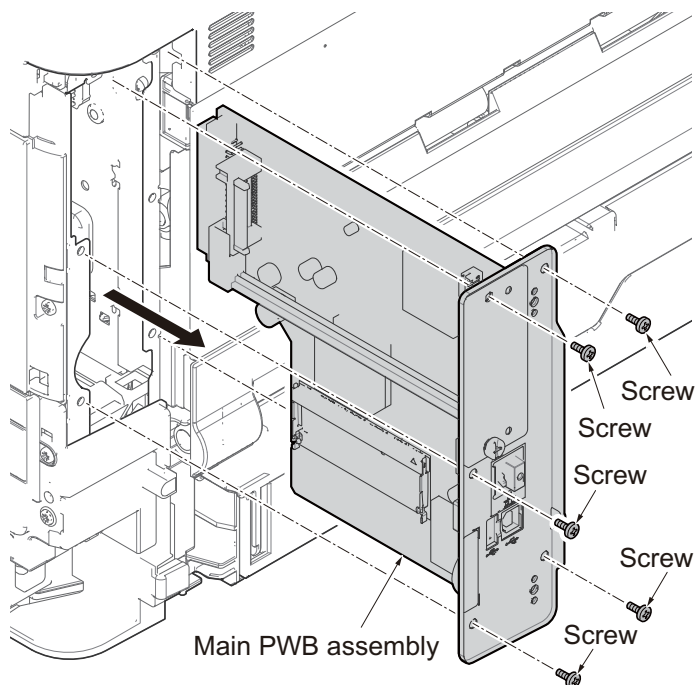


Figure 1-5-95

18. Release the wires and FFC from hooks.

19. Release the fixing hook and then remove the wire guide.

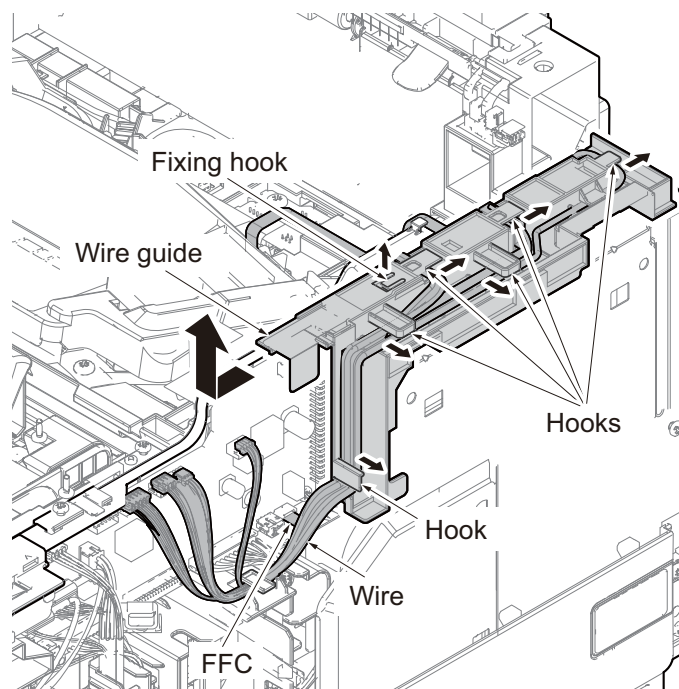


Figure 1-5-96

20. Remove three screws and then remove the controller box cover.

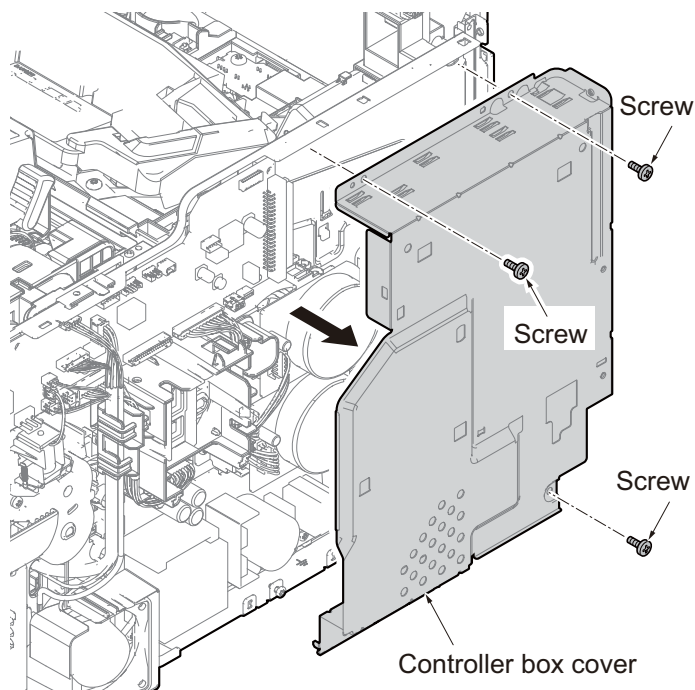


Figure 1-5-97

21. Remove the grounding wire by removing the screw.
 22. Remove three screws and then remove the eject unit.
 23. Check or replace the power source PWB assembly and refit all the removed parts.

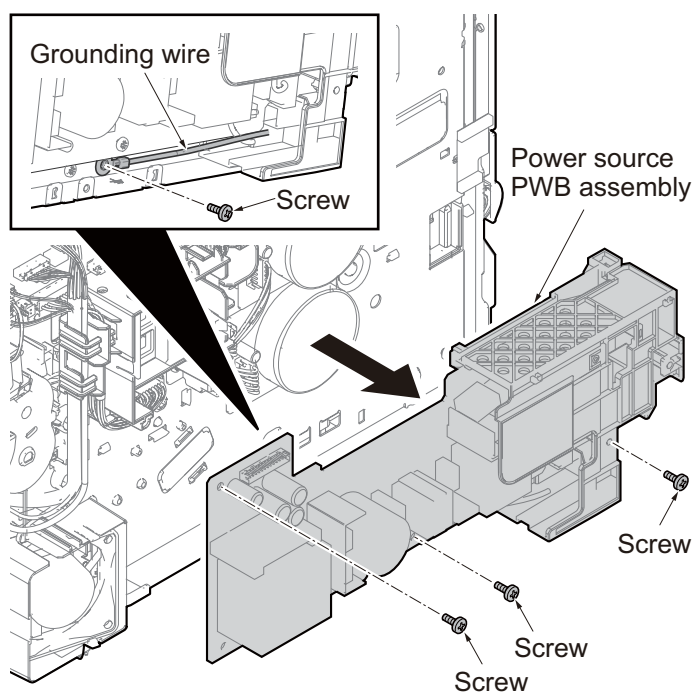


Figure 1-5-98

(5) Detaching and refitting the high voltage PWB

Procedure

1. Pull out the cassette.

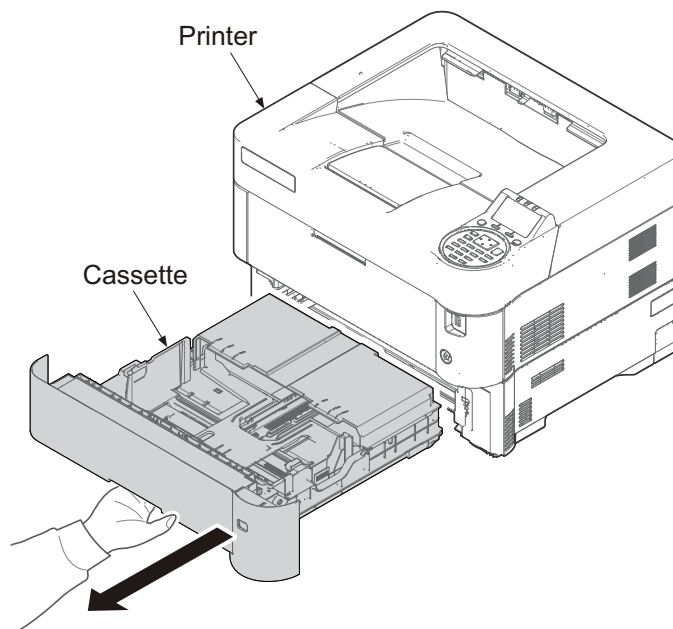


Figure 1-5-99

2. Remove the power cord cover by sliding it.
3. Release the hook of the interface cover and then remove during twisting it.

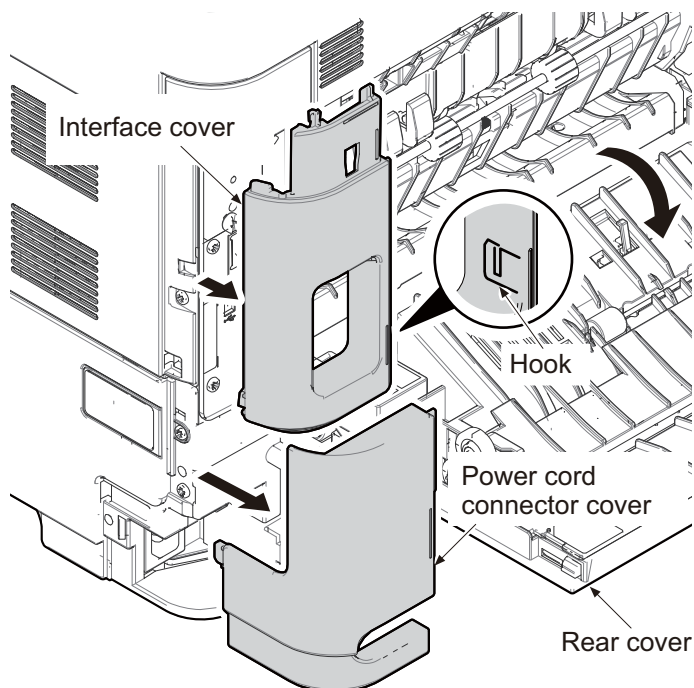


Figure 1-5-100

4. Remove two screws.
5. Release the hook A by twisting right upper cover.
6. Release two hooks B by sliding the right upper cover upward and then remove it.

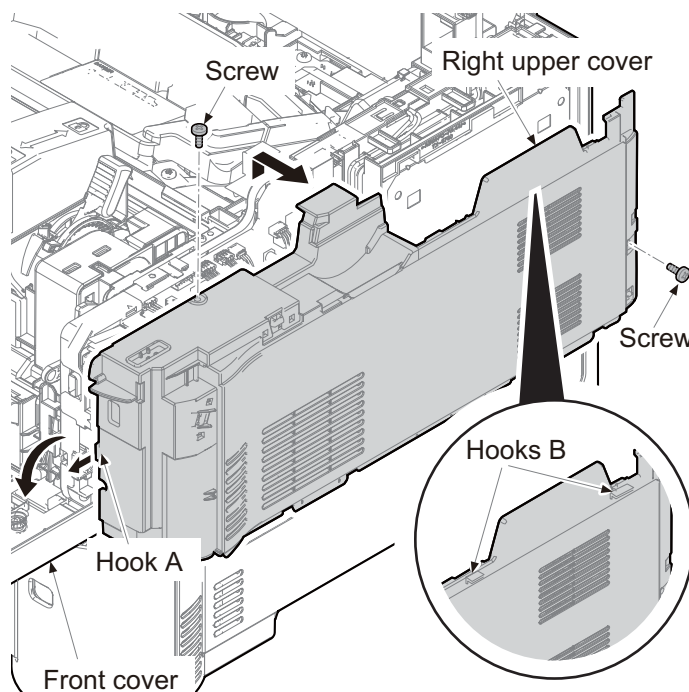


Figure 1-5-101

7. Remove three screws.
8. Release two hooks by sliding the right lower cover upward and then remove it.

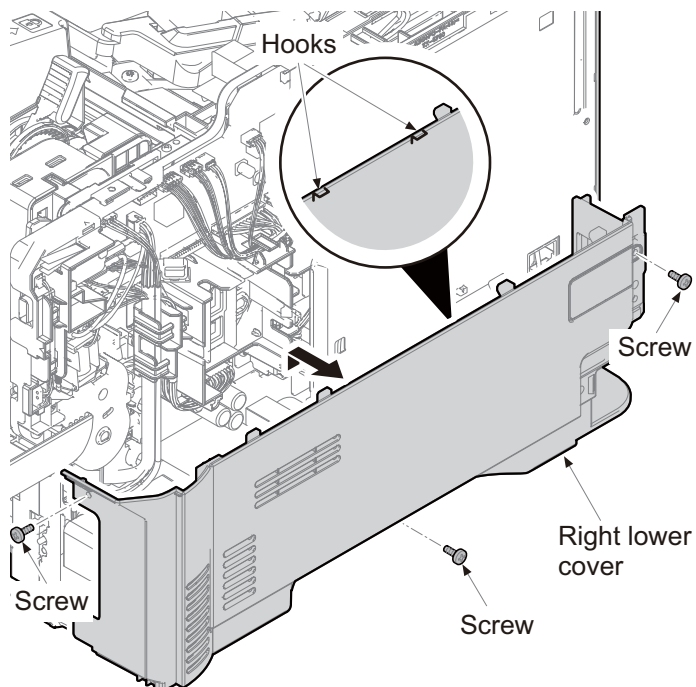


Figure 1-5-102

9. Open the rear cover.
10. Release two hooks of the rear left cover while pulling forward.
11. Remove the rear left cover by twisting it forward.

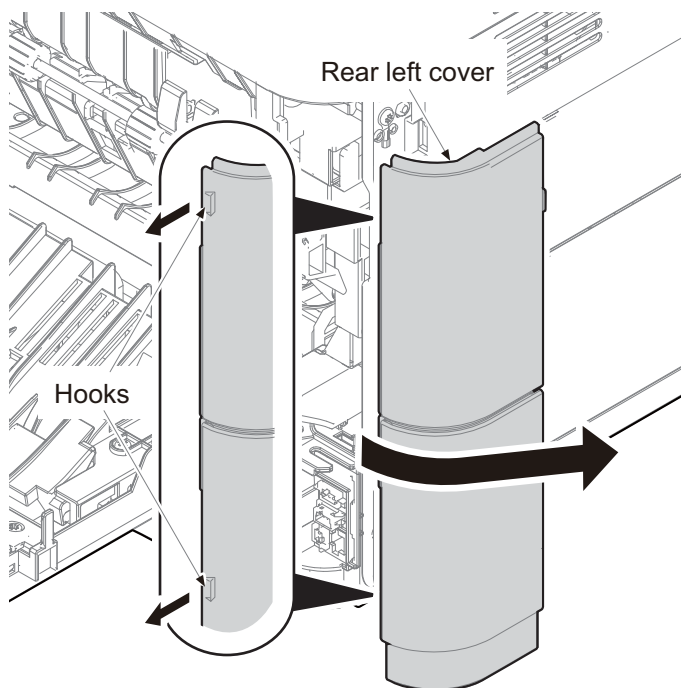


Figure 1-5-103

12. Release the hook A by sliding the left upper cover upward.
13. Release the hook B and hook C while twisting the edge of the left upper cover and then remove it and the waste toner box cover together.

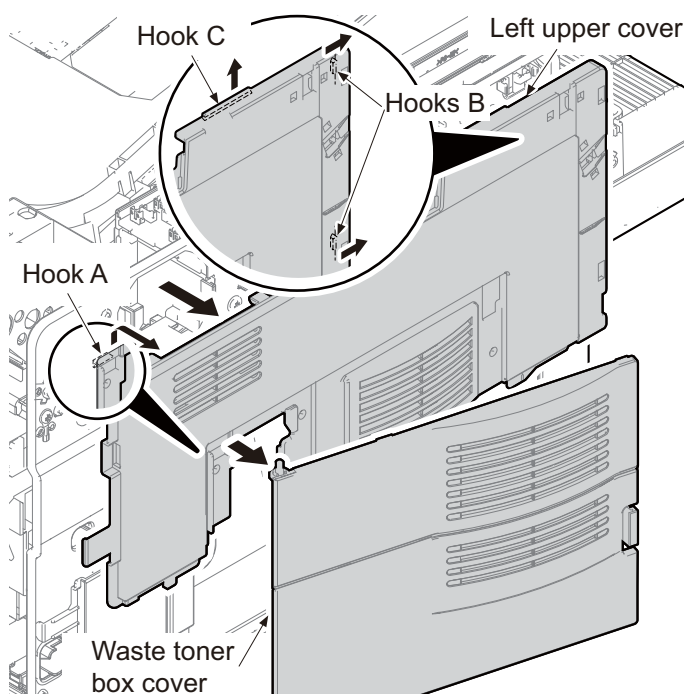


Figure 1-5-104

14. Unplug the power cable.

*: Do not insert or remove main PWB assembly while machine power is on. Doing so may cause damage to the machine and the main PWB.

15. Remove five screws and then pull the main PWB assembly out forward.

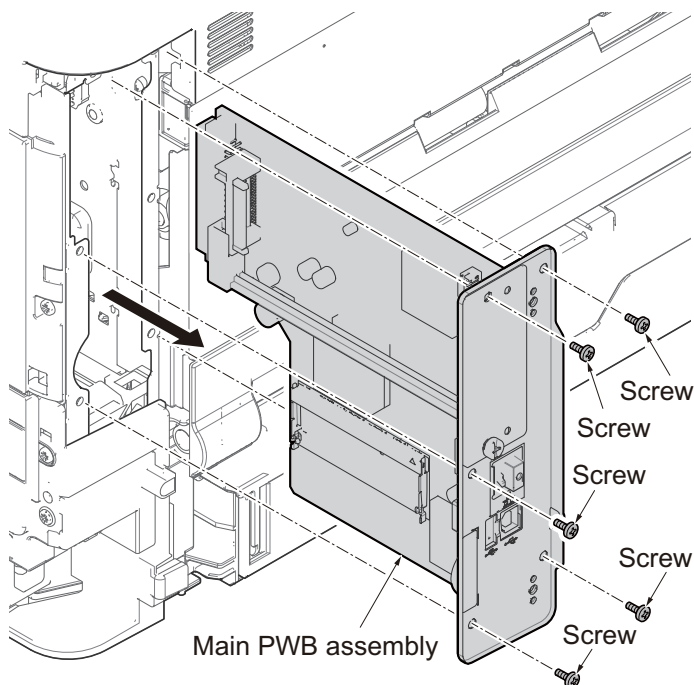


Figure 1-5-105

16. Release the wires and FFC from hooks.

17. Release the fixing hook and then remove the wire guide.

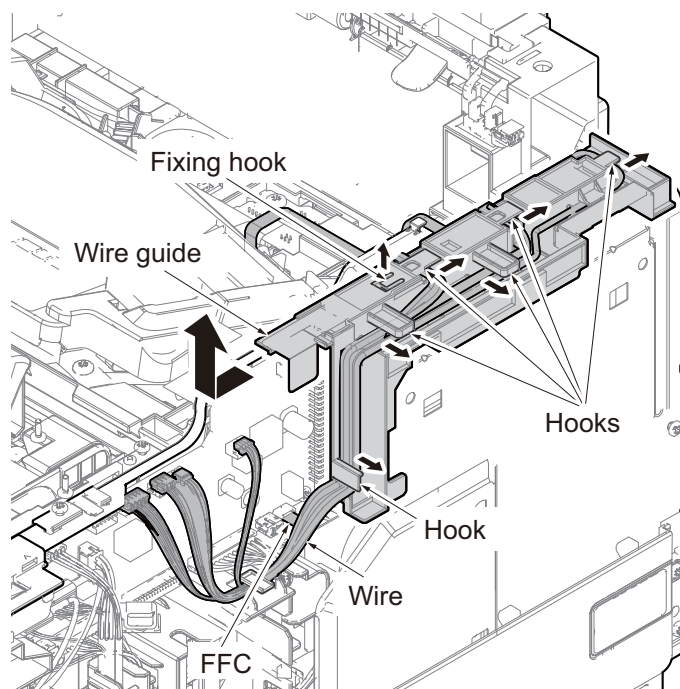


Figure 1-5-106

18. Remove three screws and then remove the controller box cover.

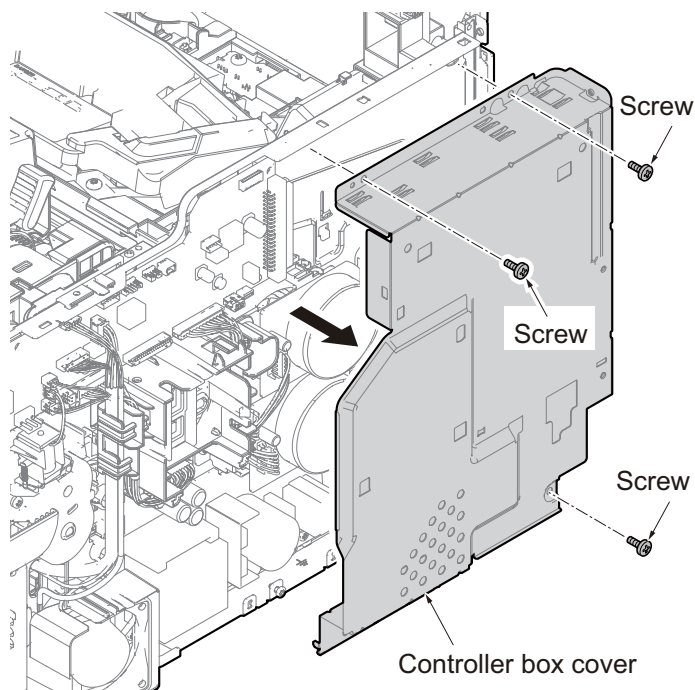


Figure 1-5-107

19. Remove the grounding wire by removing the screw.
20. Remove three screws and then remove the power source PWB assembly.

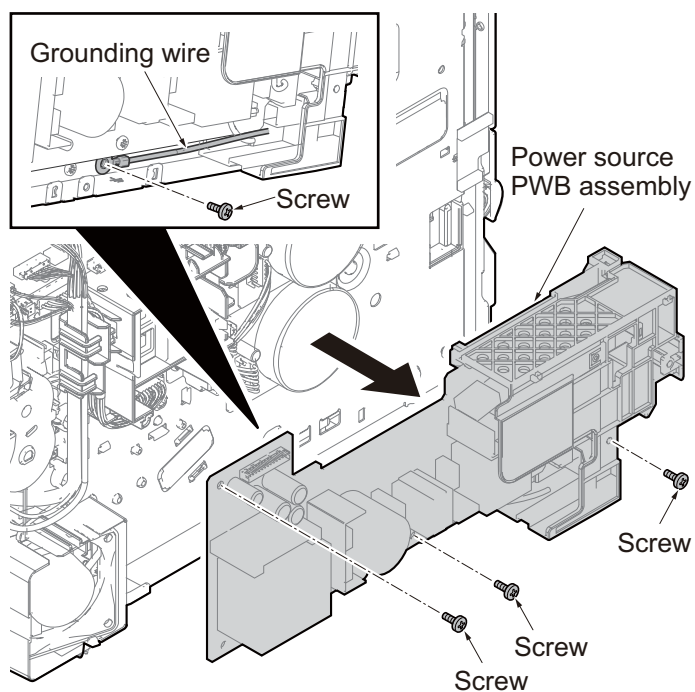


Figure 1-5-108

21. Remove the connector of the power source fan motor wires.
22. Release three hooks using flat-blade screwdriver and then remove the power source fan motor assembly.

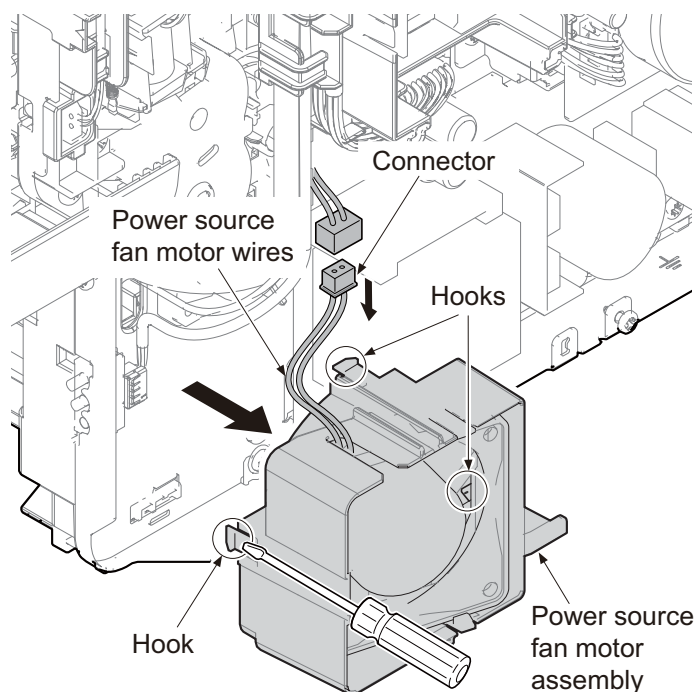


Figure 1-5-109

23. Stand the printer front side up.
24. Remove four screws each and then remove the bottom plate 1 and the bottom plate 2.

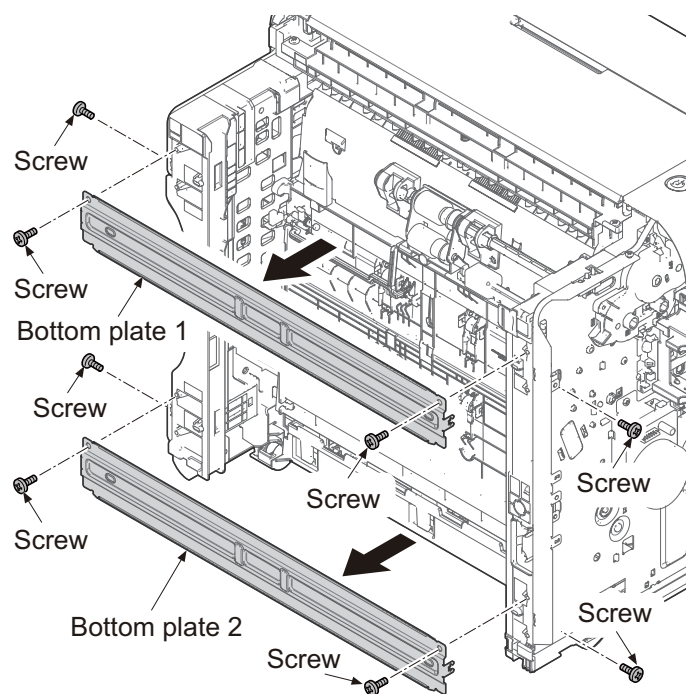


Figure 1-5-110

25. Release two hooks and then remove the wire cover.
Remove the connector of lift sensor.

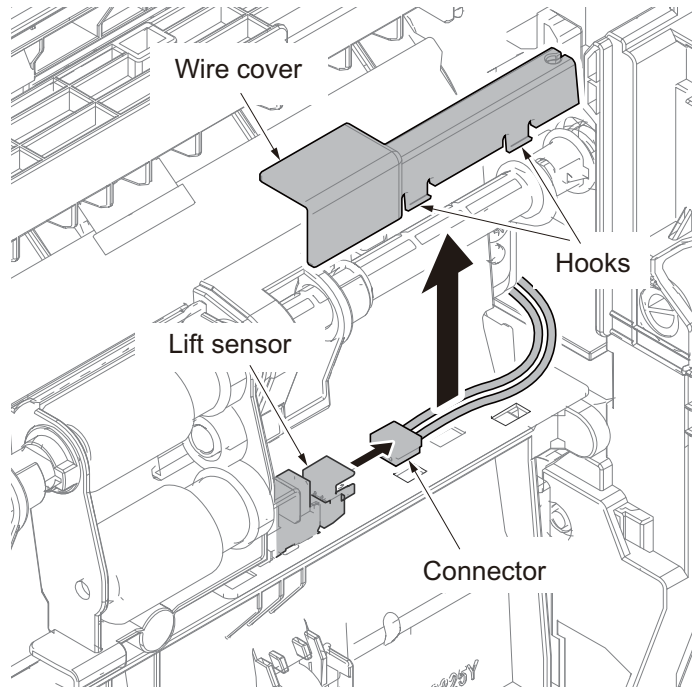


Figure 1-5-111

26. Remove seven screws.
27. Extract the feed roller axis by pushing the joint part.
28. Remove the DU assembly to the front.

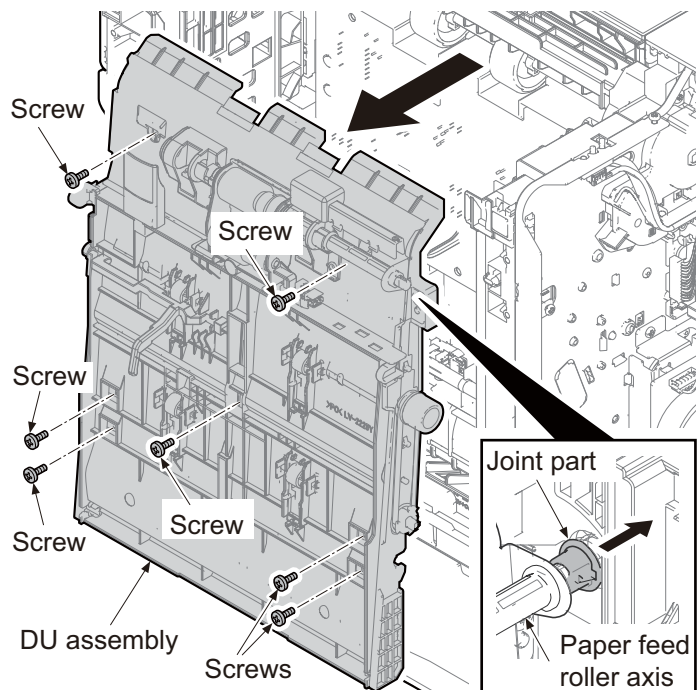
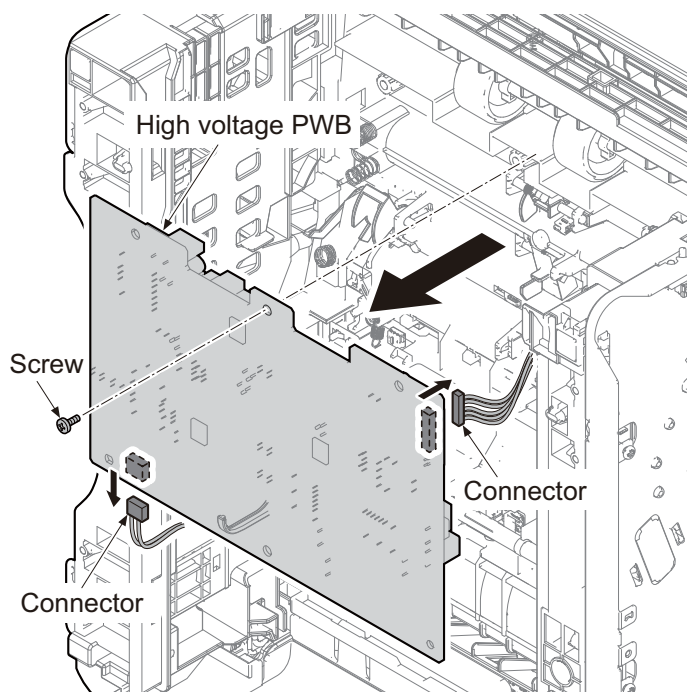


Figure 1-5-112

29. Remove the screw.
30. Remove two connectors and then remove the high voltage PWB.
31. Check or replace the high voltage PWB and refit all the removed parts.

**Figure 1-5-113**

(6) Detaching and refitting the operation PWB

Procedure

1. Open the top cover.

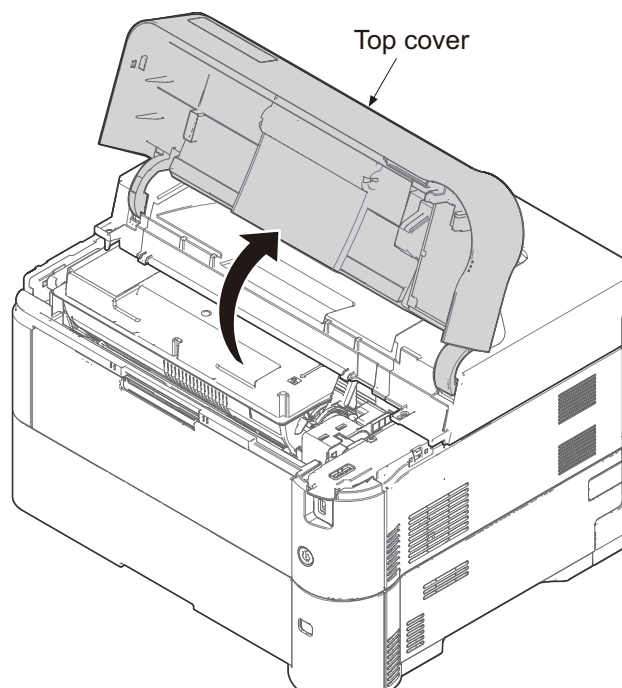


Figure 1-5-114

2. Remove the JAM processing procedure sheet..
3. Remove three screws.

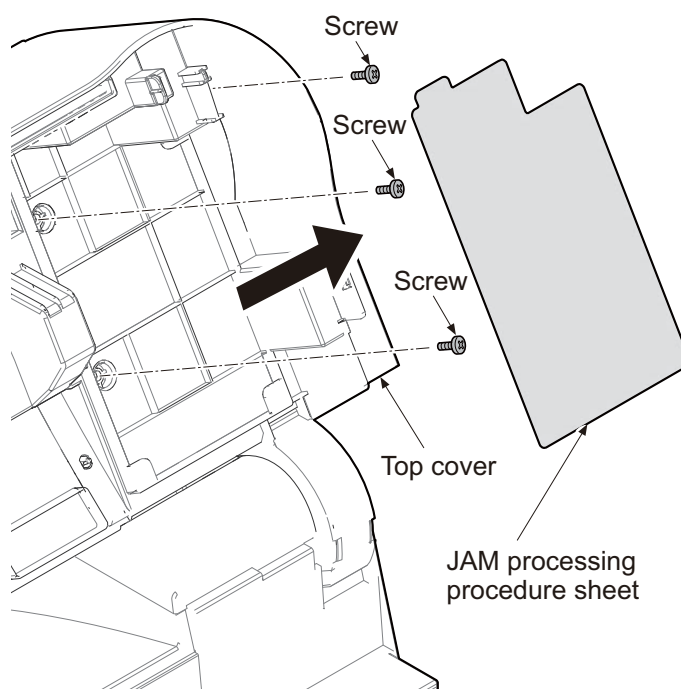
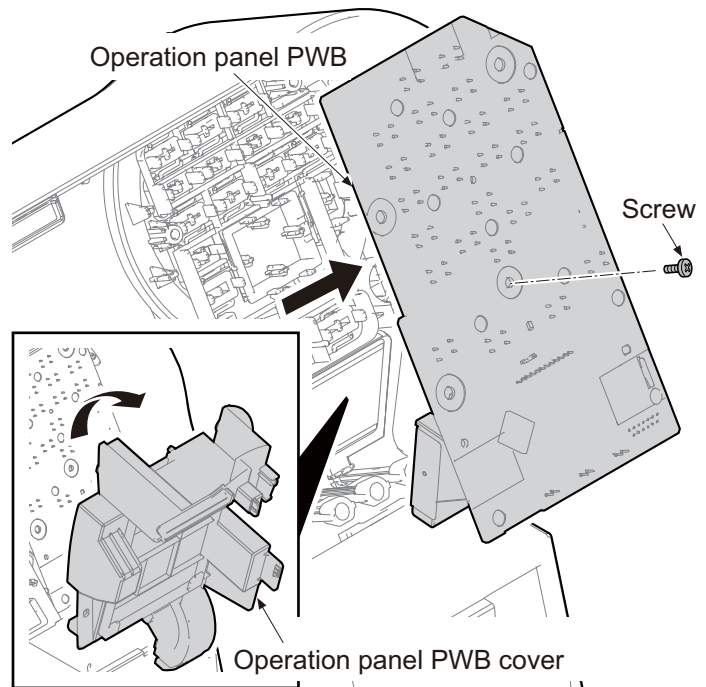


Figure 1-5-115

4. Rotate the operation panel PWB cover.
5. Remove the screw and then remove the operation panel PWB.
6. Check or replace the operation panel PWB and refit all the removed parts.

**Figure 1-5-116**

1-5-11 Others

(1) Detaching and refitting the main driving motor unit

Procedure

1. Open the rear cover by pulling the knob.

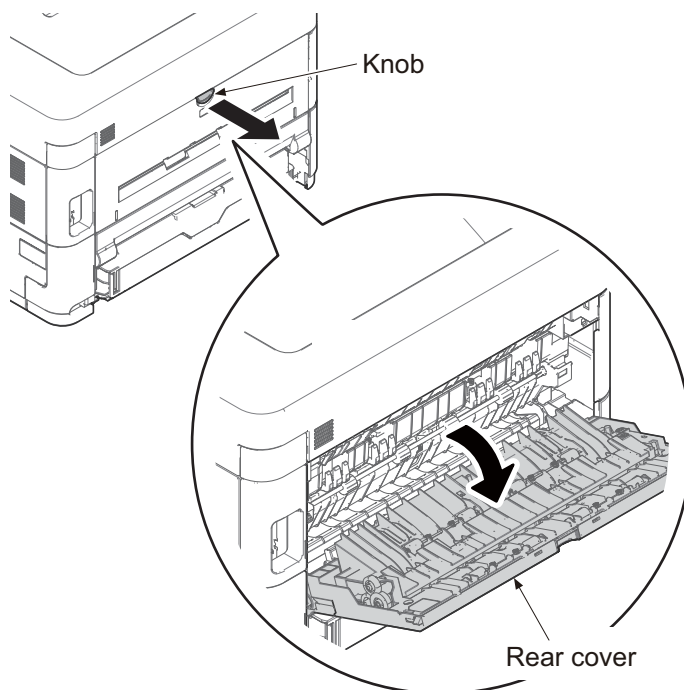


Figure 1-5-117

2. Remove the power cord cover by sliding it.
3. Release the hook of the interface cover and then remove during twisting it.

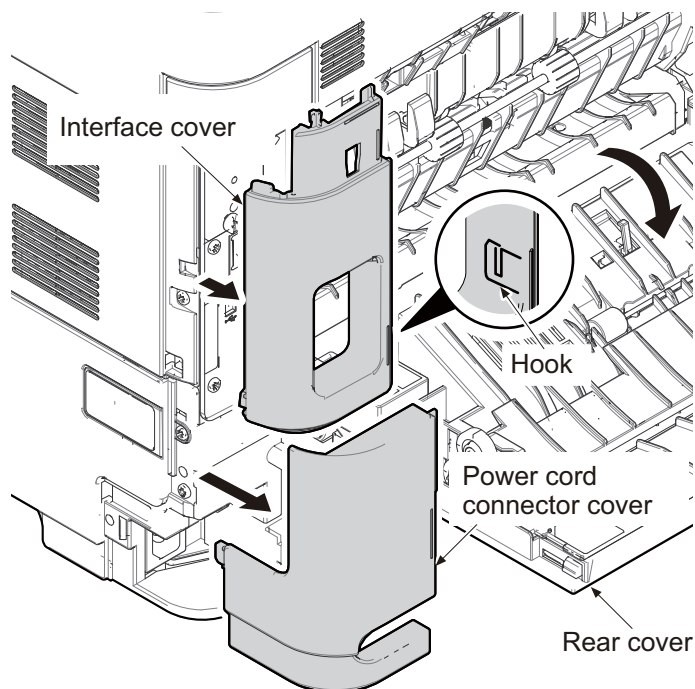


Figure 1-5-118

4. Pull out the cassette.

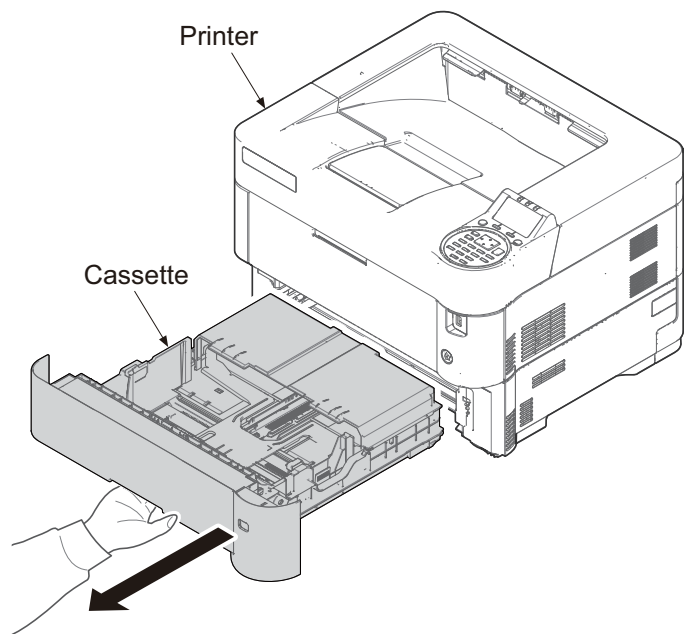


Figure 1-5-119

5. Remove two screws.
6. Release the hook A by twisting right upper cover.
7. Release two hooks B by sliding the right upper cover upward and then remove it.

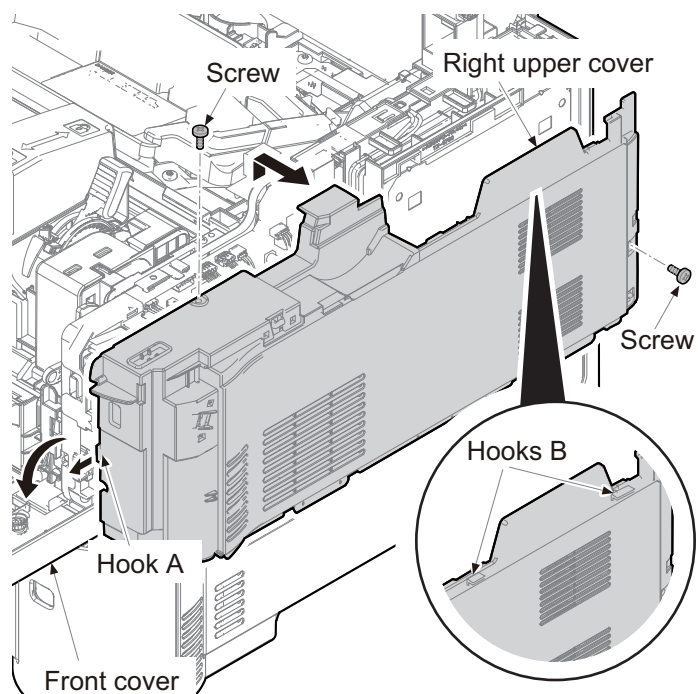


Figure 1-5-120

8. Remove three screws.
9. Release two hooks by sliding the right lower cover upward and then remove it.

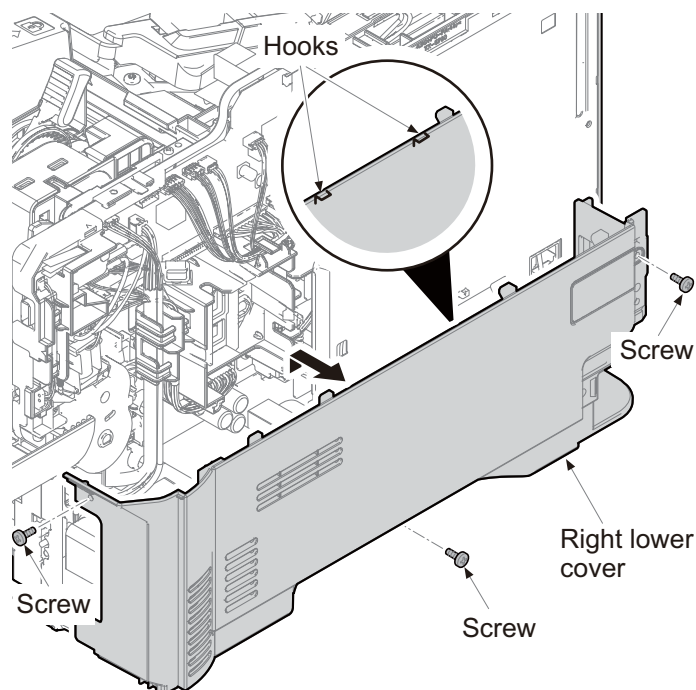


Figure 1-5-121

10. Unplug the power cable.

*: Do not insert or remove main PWB assembly while machine power is on. Doing so may cause damage to the machine and the main PWB.

11. Remove five screws and then pull the main PWB assembly out forward.

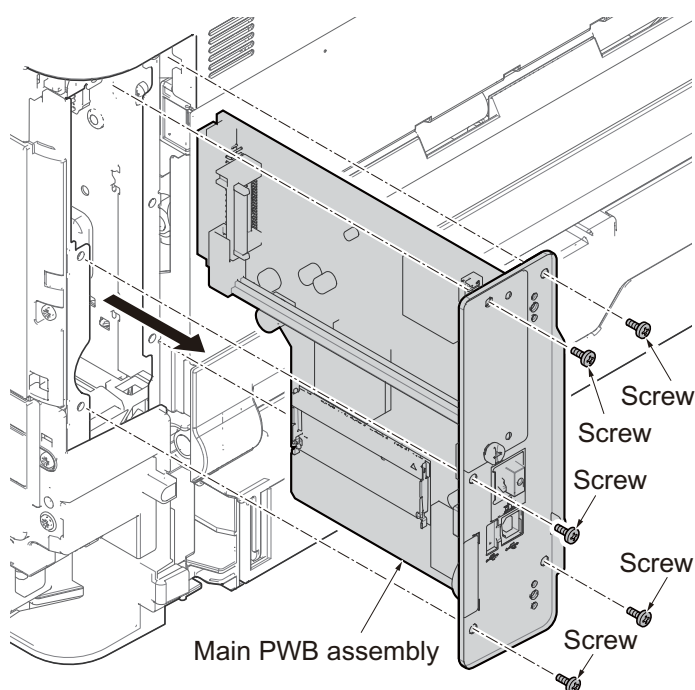


Figure 1-5-122

12. Release the wires and FFC from hooks.
13. Release the fixing hook and then remove the wire guide.

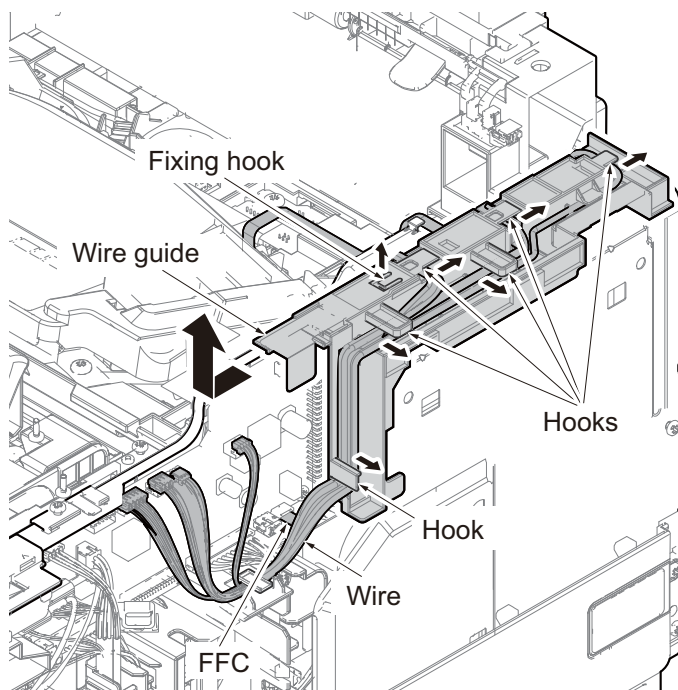


Figure 1-5-123

14. Remove three screws and then remove the controller box cover.

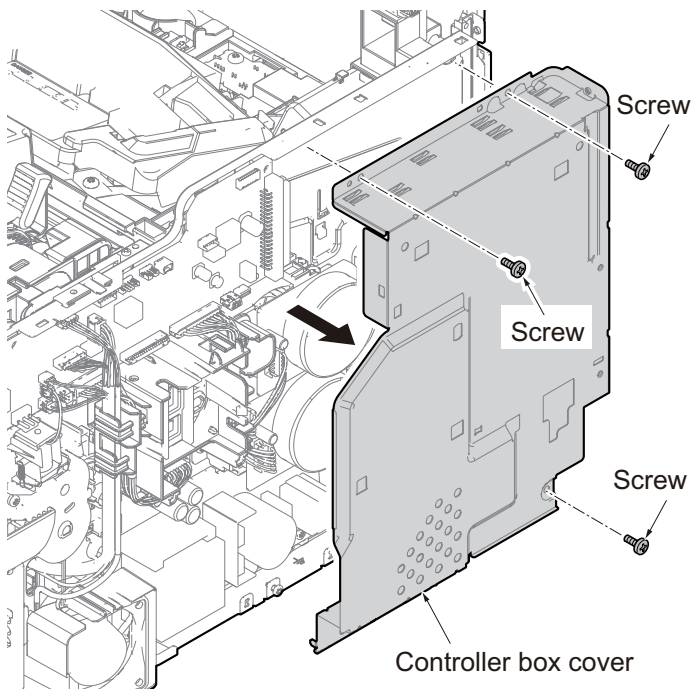


Figure 1-5-124

15. Remove the connectors from the motors and then release the wires from wire holders.
16. Remove four screws and then remove the main driving motor unit.
17. Check or replace the main driving motor unit and refit all the removed parts.

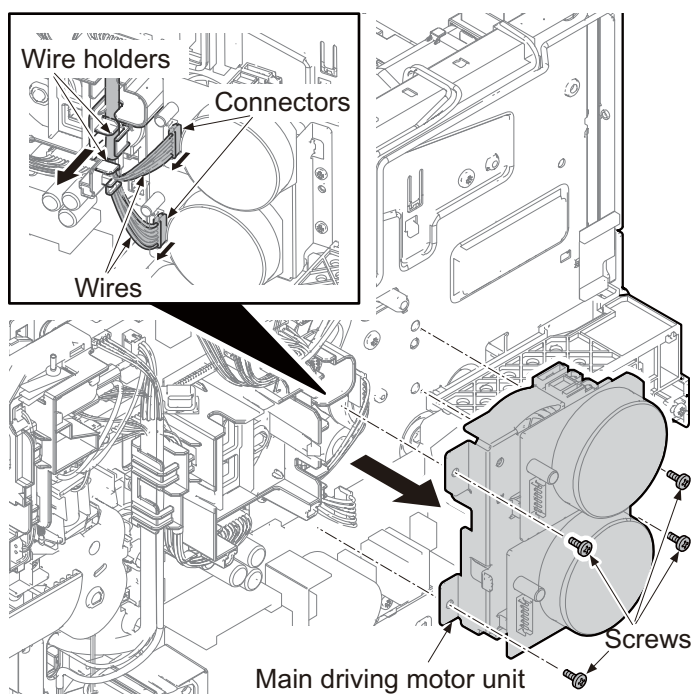


Figure 1-5-125

(2) Detaching and refitting the paper feed driving motor unit

Procedure

1. Open the rear cover.
2. Remove the power cord cover by sliding it.
3. Release the hook of the interface cover and then remove during twisting it.

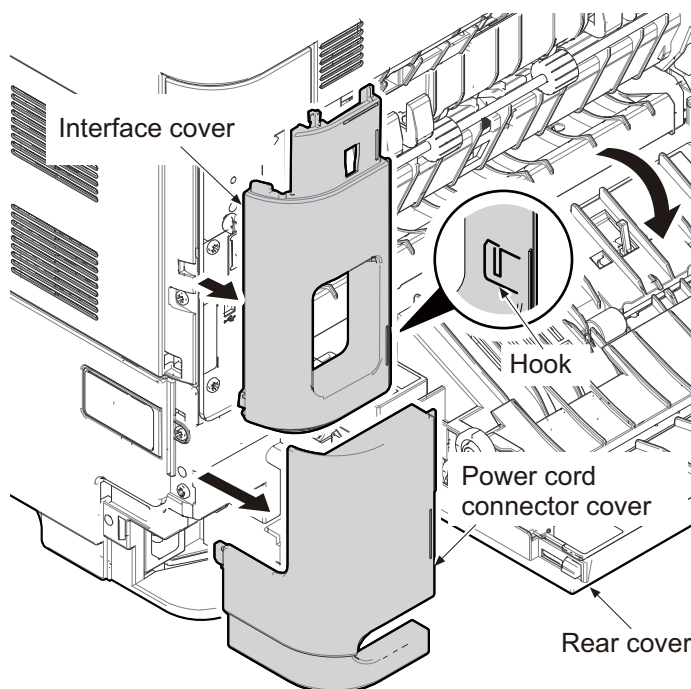
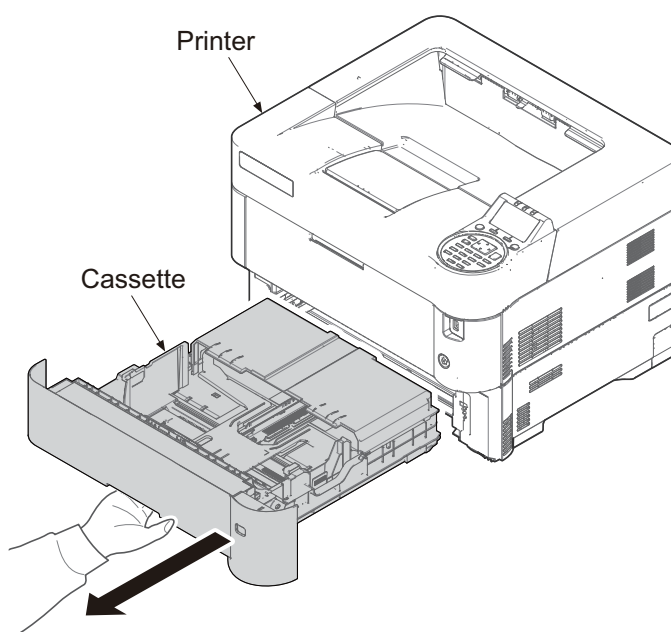


Figure 1-5-126

4. Pull out the cassette.



? 1?5?127

5. Remove two screws.
6. Release the hook A by twisting right upper cover.
7. Release two hooks B by sliding the right upper cover upward and then remove it.

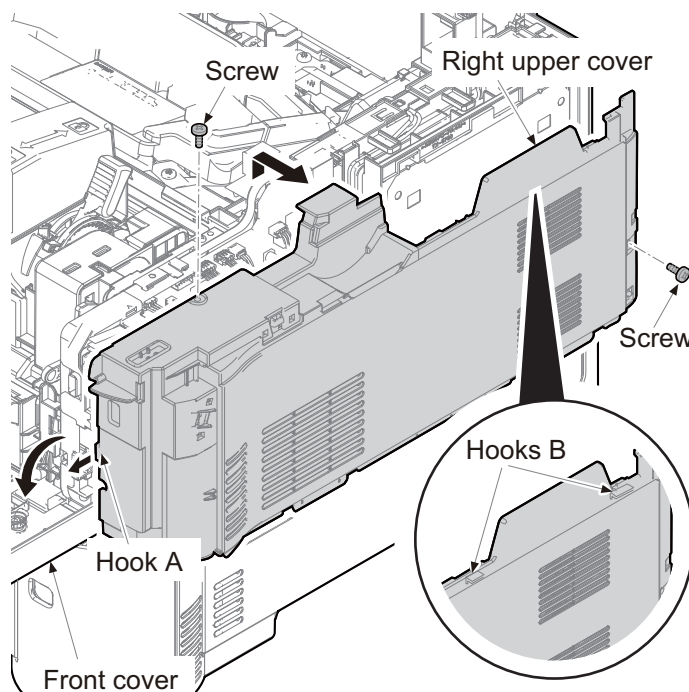


Figure 1-5-128

8. Remove three screws.
9. Release two hooks by sliding the right lower cover upward and then remove it.

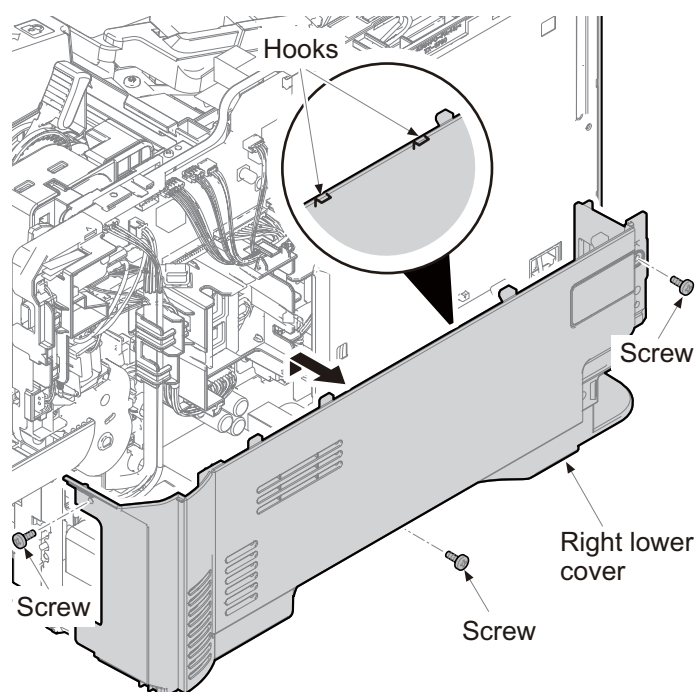


Figure 1-5-129

10. Remove the connectors of clutches and solenoid.
11. Remove two screws and then remove the paper feed driving motor unit.
12. Check or replace the paper feed driving motor unit and refit all the removed parts.

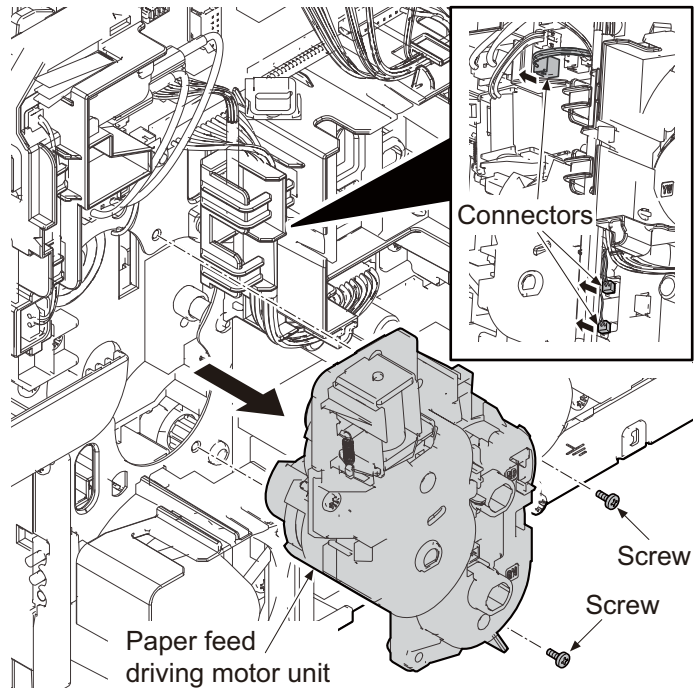


Figure 1-5-130

(3) Detaching and refitting the center fan motor

Procedure

1. Open the top cover.
2. Remove two screws.

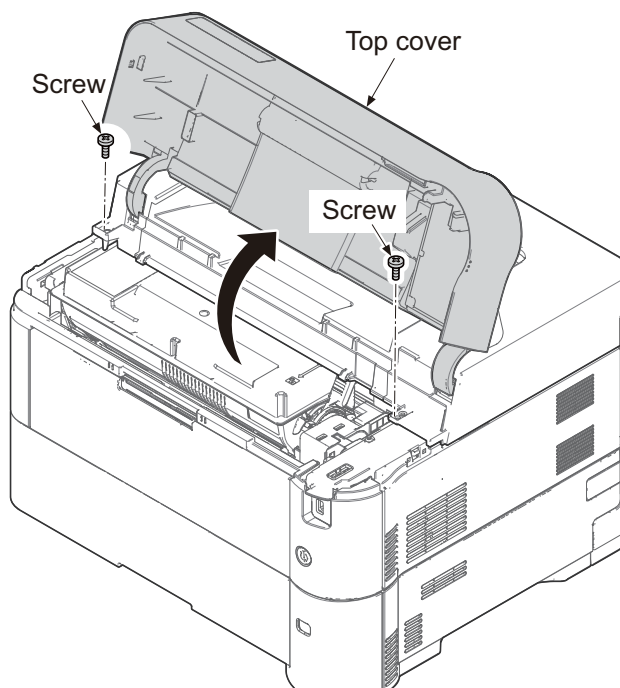


Figure 1-5-131

3. Open the rear cover by pulling the knob.

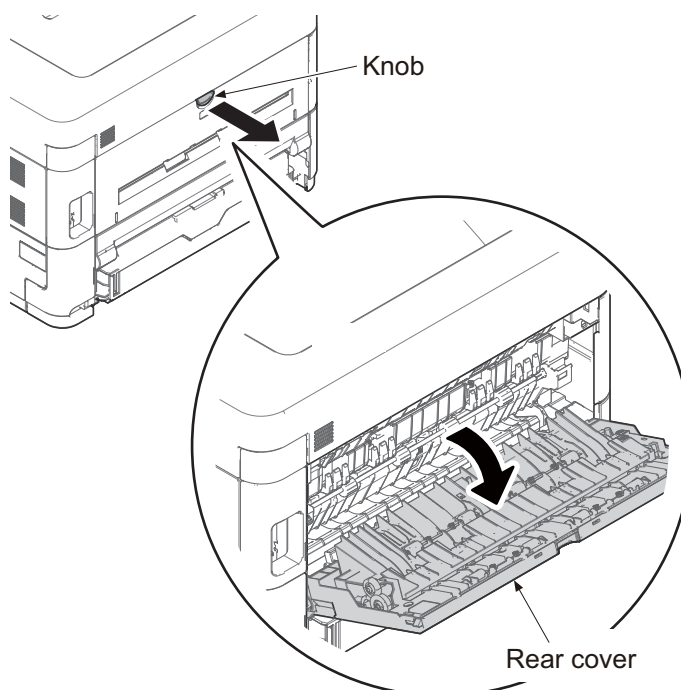


Figure 1-5-132

4. Open the front cover.
5. Grip the knob and then Pull the imaging unit forward.

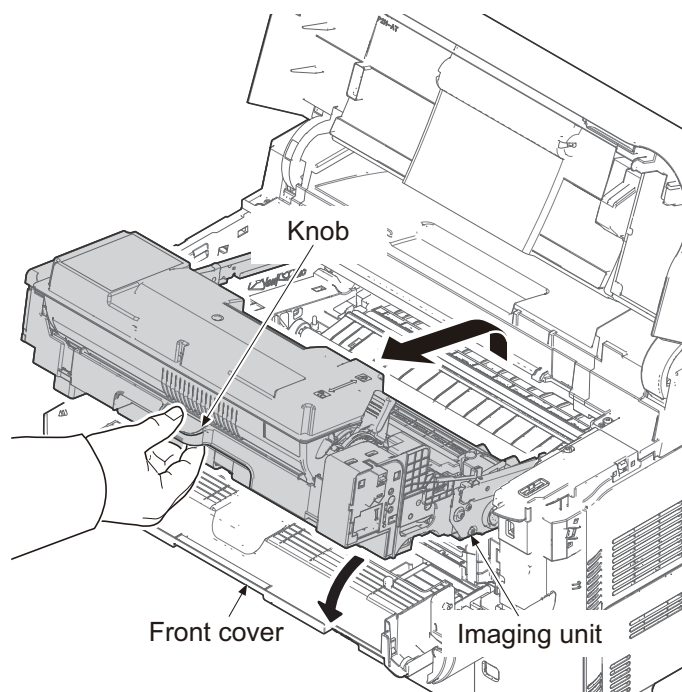


Figure 1-5-133

6. Release two hooks and then lift the top cover upward.
7. Pull out FFC from the connector and then remove the top cover assembly.

*: At the time of detaching and refitting the top cover assembly, pull the imaging unit out, for the container will not catch two projection parts.

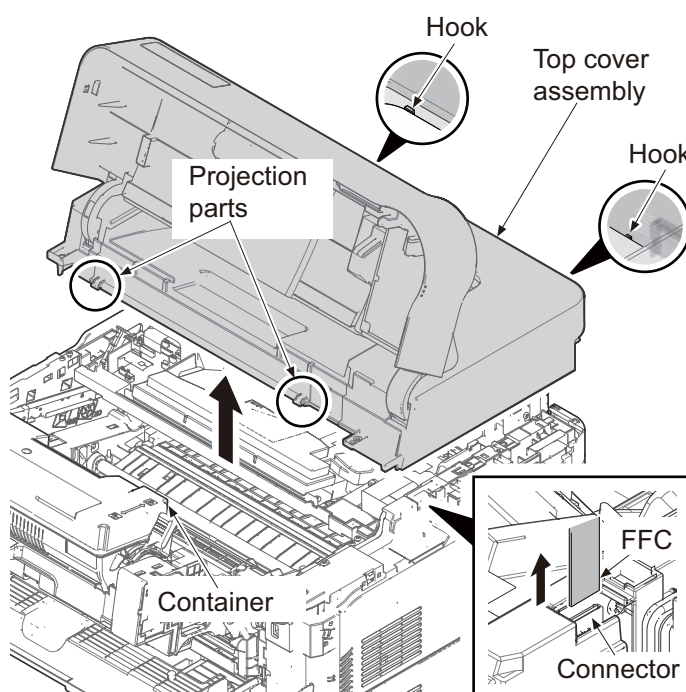
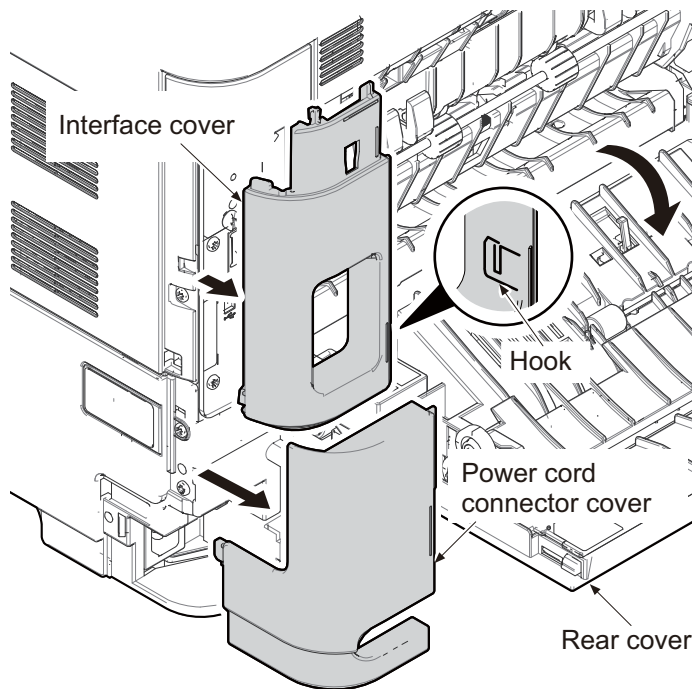
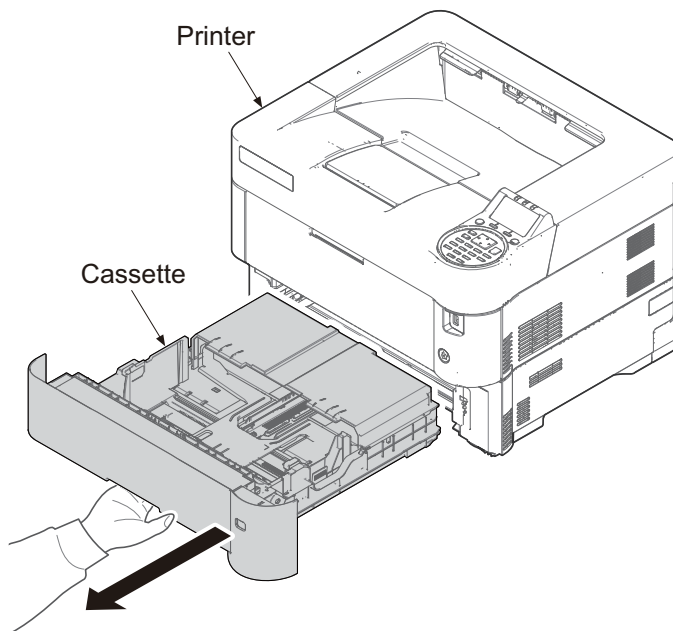


Figure 1-5-134

8. Remove the power cord cover by sliding it.
9. Release the hook of the interface cover and then remove during twisting it.

**Figure 1-5-135**

10. Pull out the cassette.

**Figure 1-5-136**

11. Remove two screws.
12. Release the hook A by twisting right upper cover.
13. Release two hooks B by sliding the right upper cover upward and then remove it.

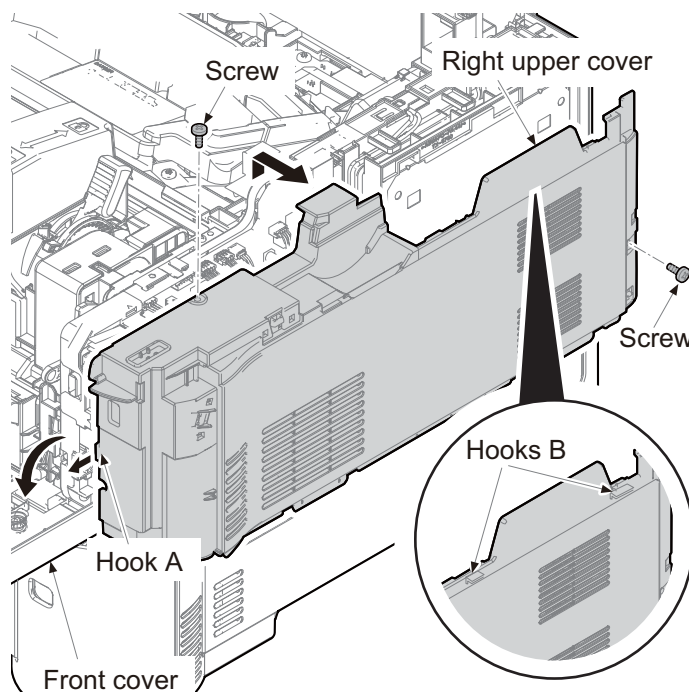


Figure 1-5-137

14. Remove three screws.
15. Release two hooks by sliding the right lower cover upward and then remove it.

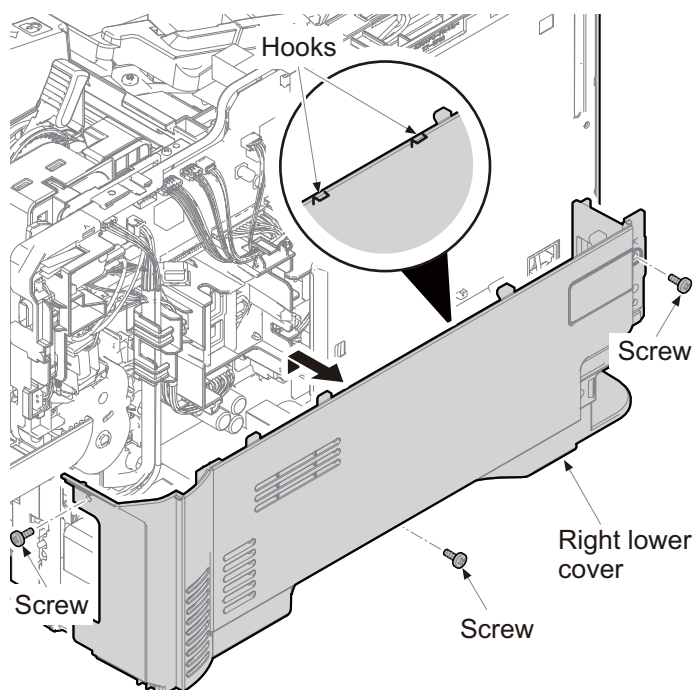


Figure 1-5-138

16. Release two hooks of the rear left cover while pulling forward.
17. Remove the rear left cover by twisting it forward.

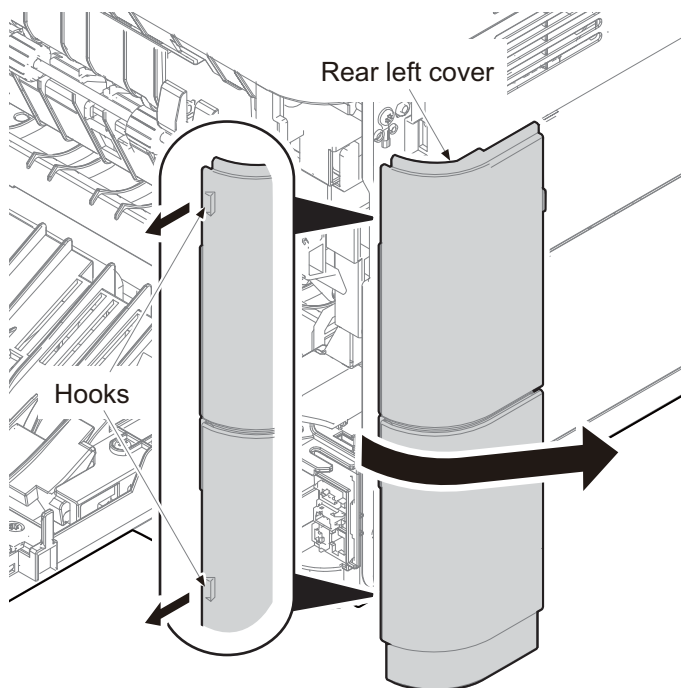


Figure 1-5-139

18. Release the hook A by sliding the left upper cover upward.
19. Release the hook B and hook C while twisting the edge of the left upper cover and then remove it and the waste toner box cover together.

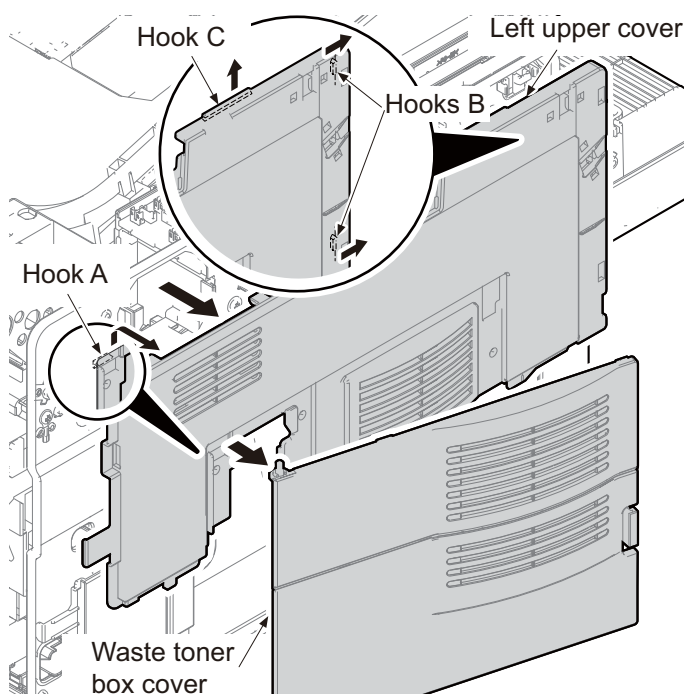


Figure 1-5-140

20. Unplug the power cable.

*: Do not insert or remove main PWB assembly while machine power is on. Doing so may cause damage to the machine and the main PWB.

21. Remove five screws and then pull the main PWB assembly out forward.

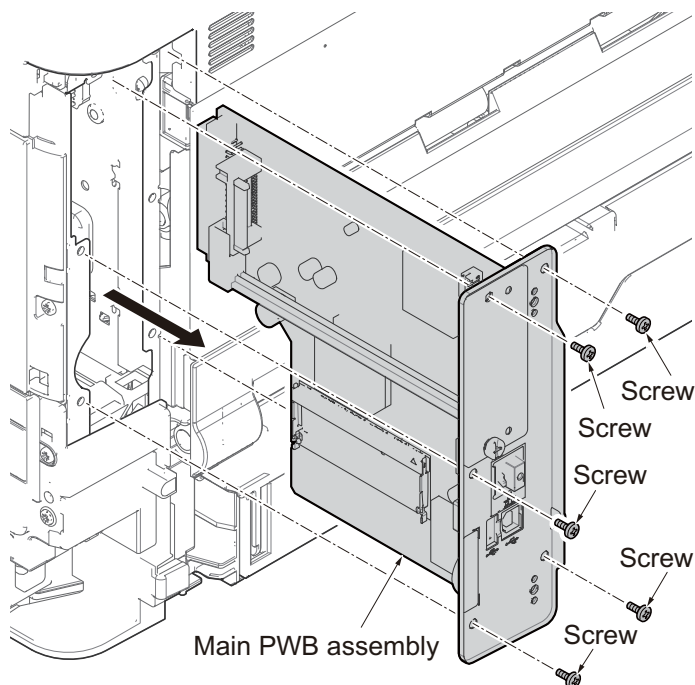


Figure 1-5-141

22. Release the wires and FFC from hooks.

23. Release the fixing hook and then remove the wire guide.

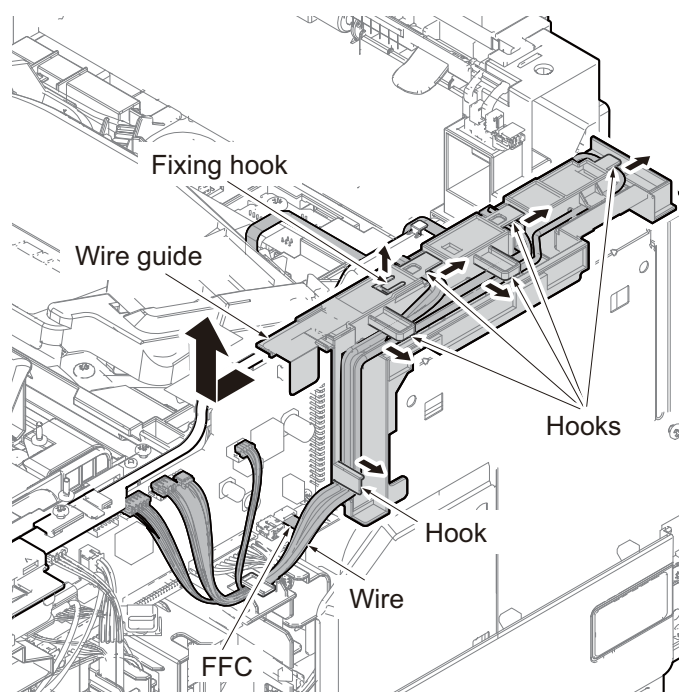


Figure 1-5-142

24. Remove three screws and then remove the controller box cover.

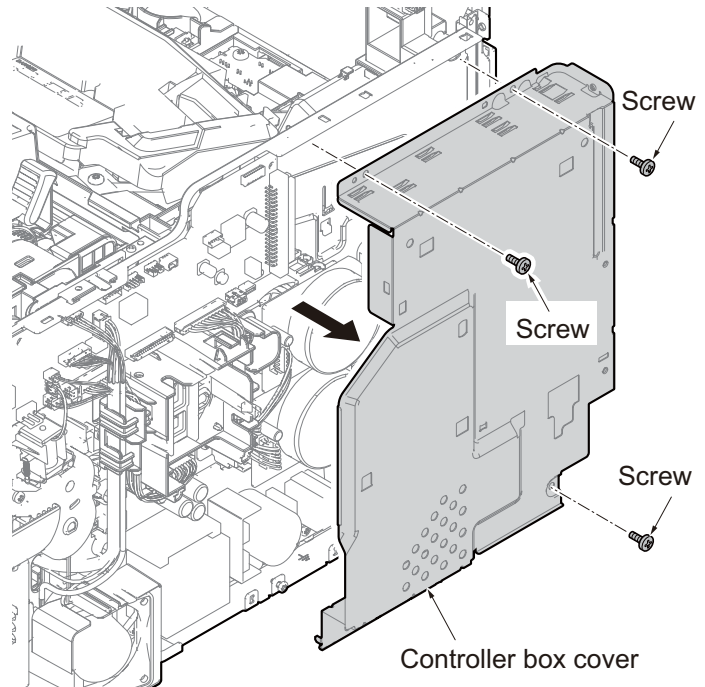


Figure 1-5-143

25. Release the connector and then release the wire from the hooks.
26. Remove three screws and then remove the eject unit.

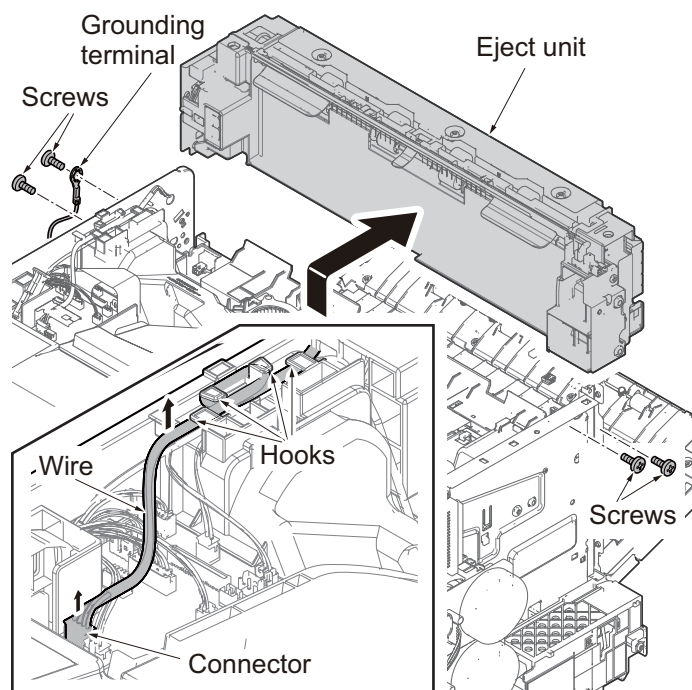


Figure 1-5-144

27. Remove the connector and then remove the wires from the hooks.
28. Remove the center fan motor assembly upward.
29. Check or replace the center fan motor and refit all the removed parts.

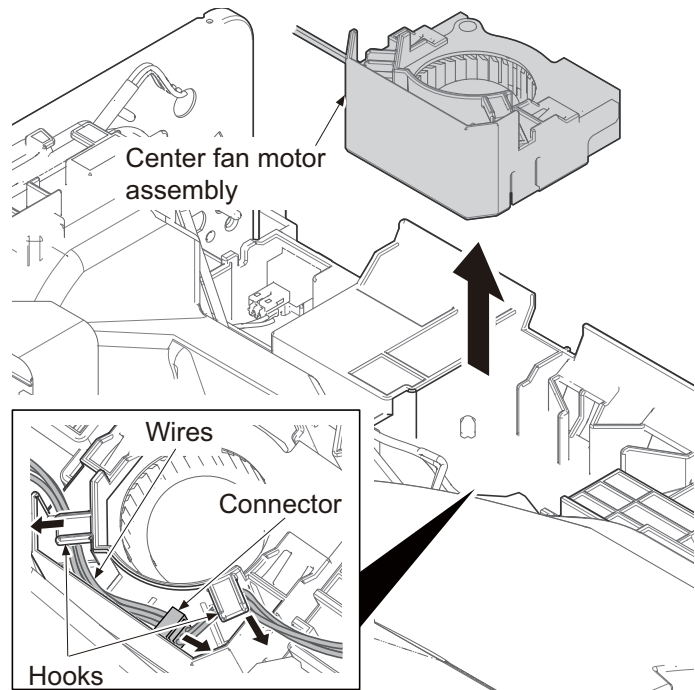


Figure 1-5-145

(4) Detaching and refitting the power source fan motor

Procedure

1. Open the rear cover by pulling the knob.

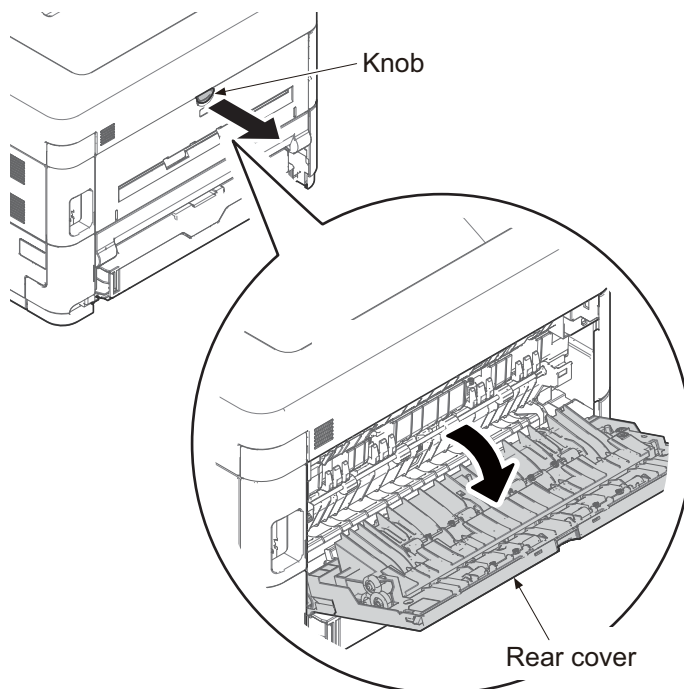


Figure 1-5-146

2. Remove the power cord cover by sliding it.
3. Release the hook of the interface cover and then remove during twisting it.

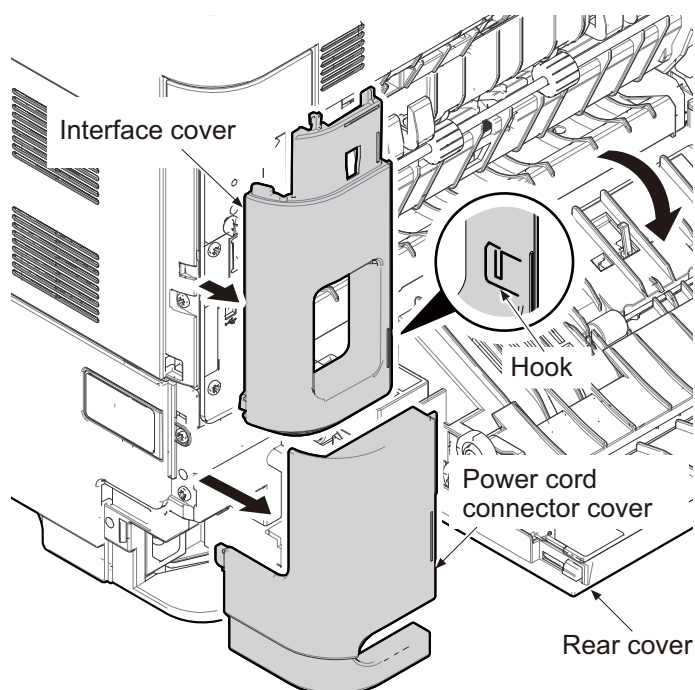


Figure 1-5-147

4. Pull out the cassette.

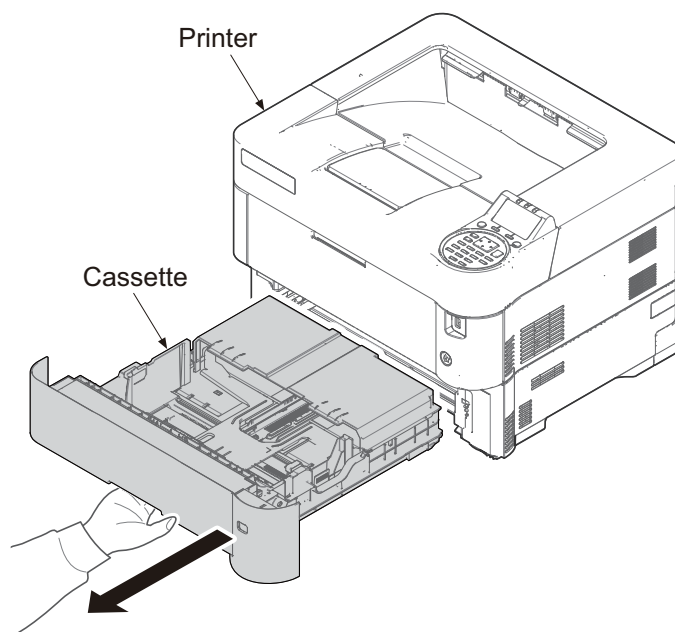


Figure 1-5-148

5. Remove two screws.
6. Release the hook A by twisting right upper cover.
7. Release two hooks B by sliding the right upper cover upward and then remove it.

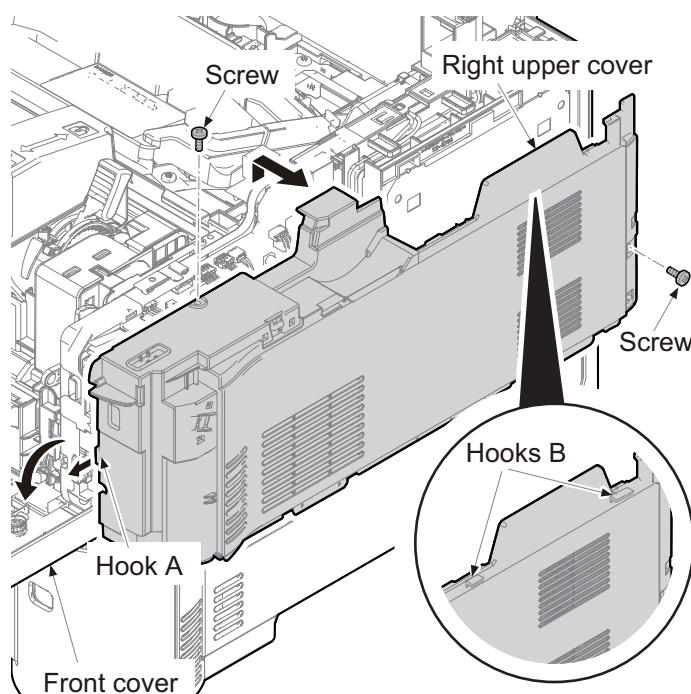


Figure 1-5-149

8. Remove three screws.
9. Release two hooks by sliding the right lower cover upward and then remove it.

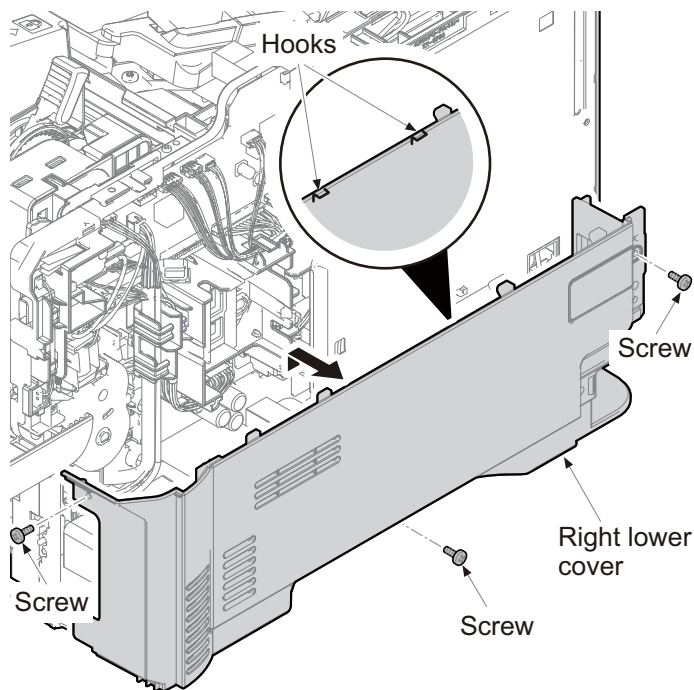


Figure 1-5-150

10. Remove the connector of the power source fan motor wires.
11. Release three hooks using flat-blade screwdriver and then remove the power source fan motor assembly.
12. Check or replace the power source fan motor and refit all the removed parts.

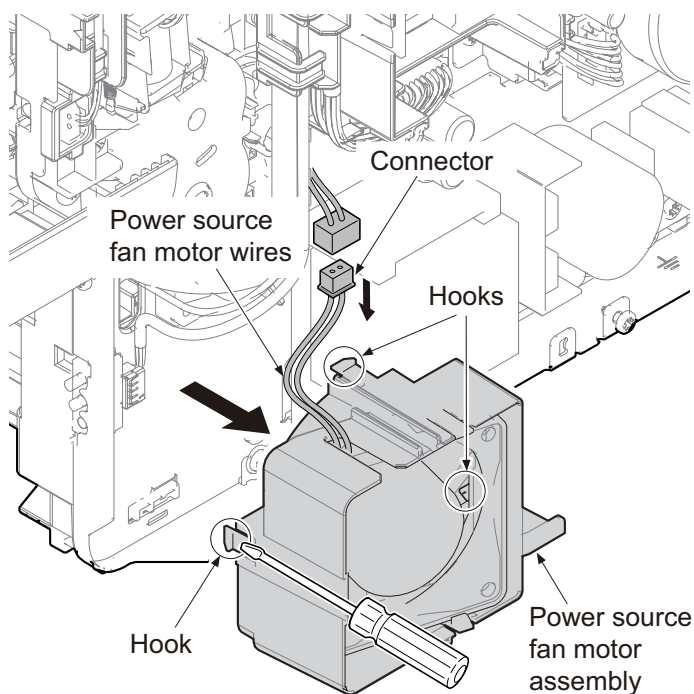


Figure 1-5-151

(5) Detaching and refitting the rear fan motor

Procedure

1. Pull out the cassette.

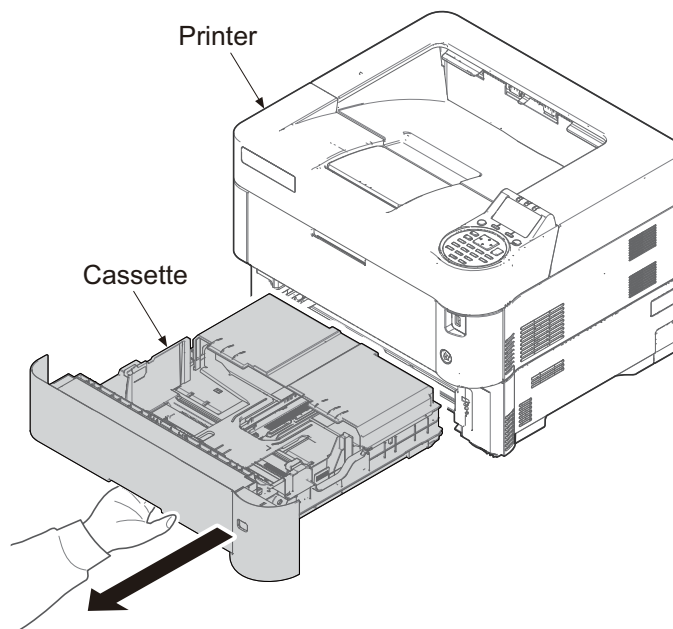


Figure 1-5-152

2. Remove the fulcrum axis by sliding the rear cover assembly while avoiding rear cover and then remove the rear cover assembly.

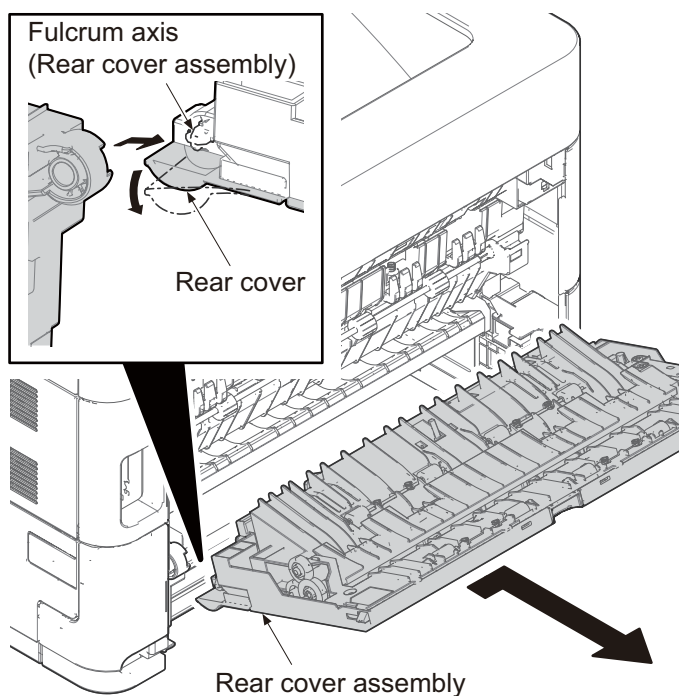


Figure 1-5-153

3. Release three hooks and then remove the rear lower cover while pulling three projection parts out.

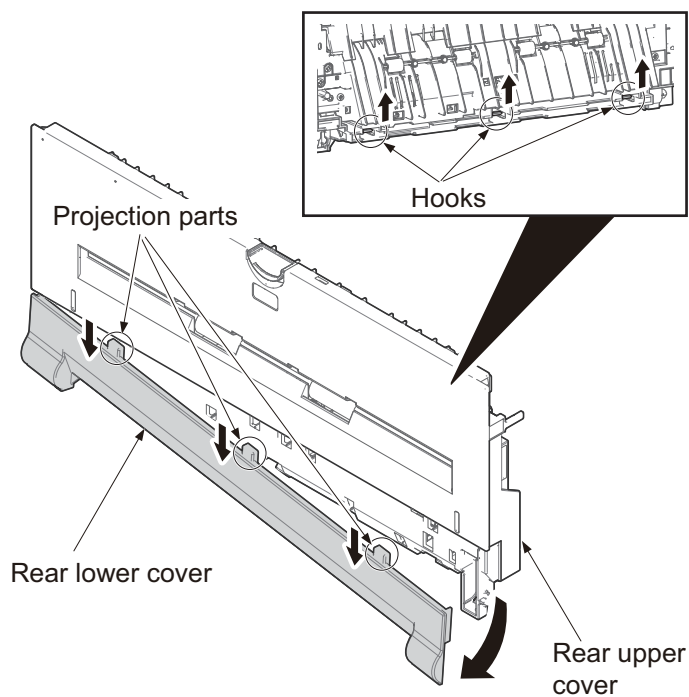


Figure 1-5-154

4. Remove the seven screws and the rear upper cover.
5. remove the connector of the fan motor wires.
6. Remove the rear fan motor/
7. Check or replace the rear fan motor and refit all the removed parts.

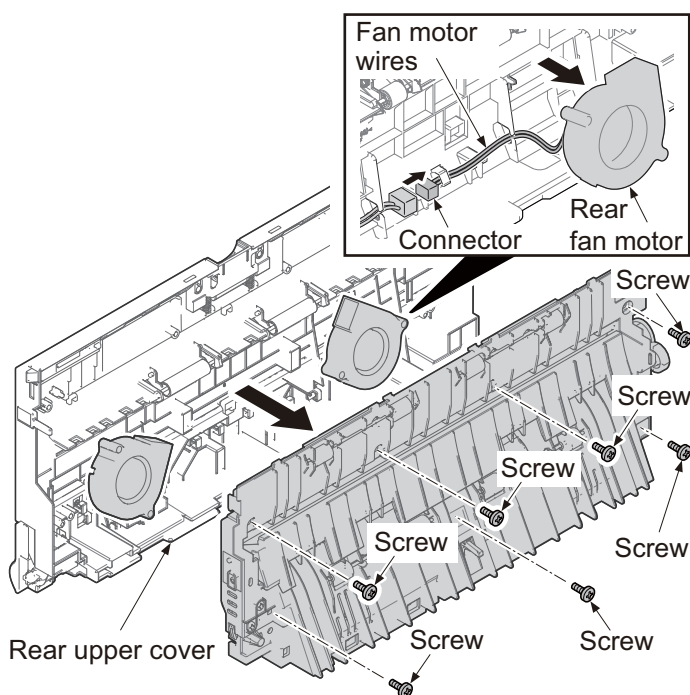


Figure 1-5-155

(6) Direction of installing the principal fan motors

When detaching or refitting the fan motor, be careful of the airflow direction (intake or exhaust).

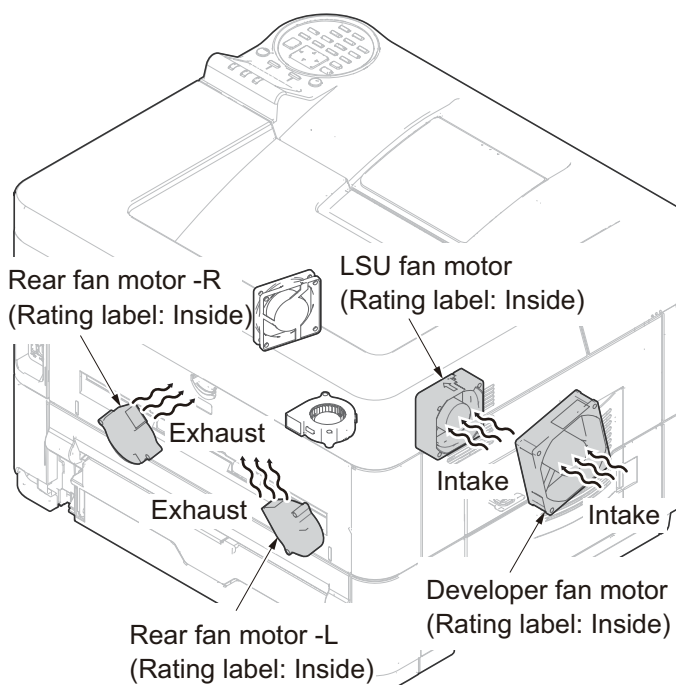
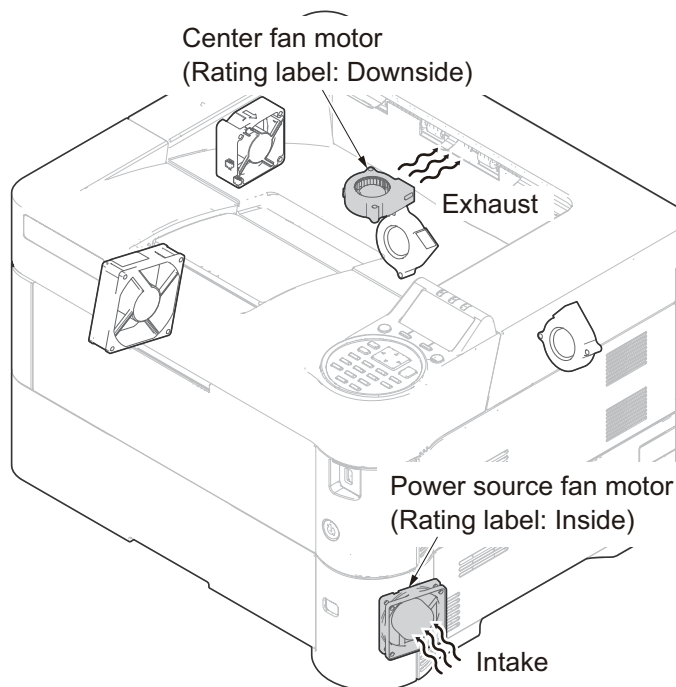


Figure 1-5-156

1-5-12 PF-4100

(1) Detaching and refitting the paper feed roller and the pickup roller

Procedure

1. Remove the cassette from the paper feeder.
2. Slide the roller holder while pressing the lock lever.
3. Remove the paper feed roller assembly.
4. Check or replace the paper feed roller or the pickup roller and refit all the removed parts.

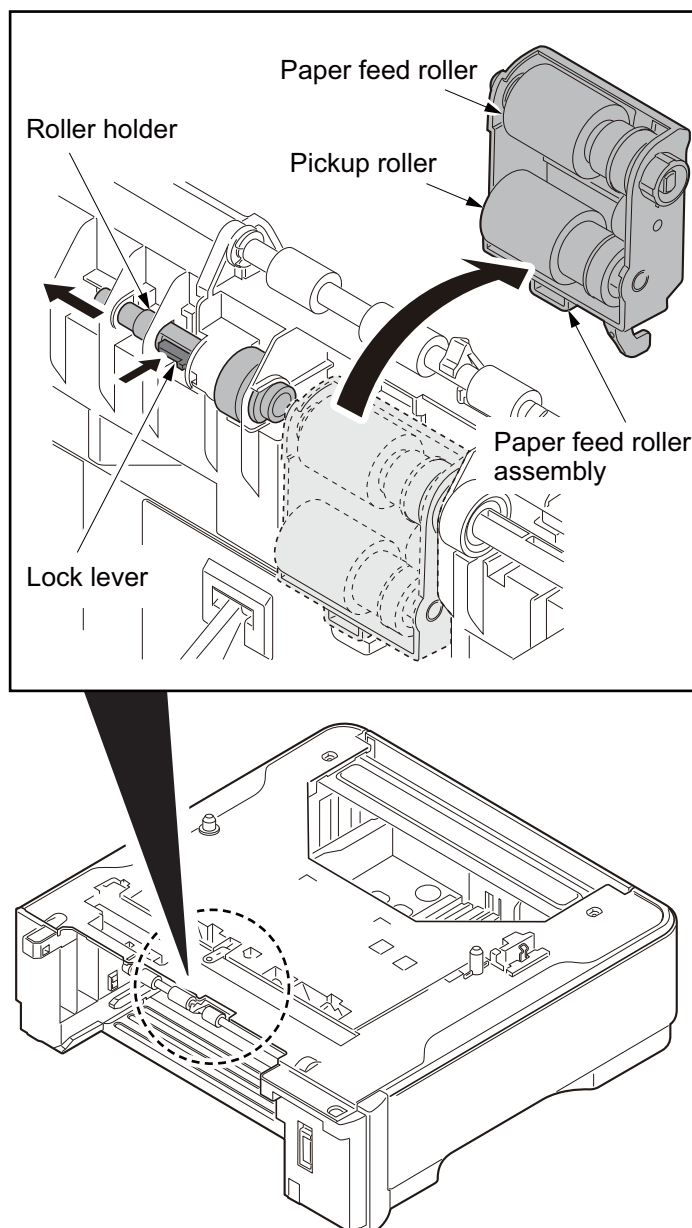


Figure 1-5-157

(2) Detaching and refitting the retard roller

Procedure

1. Remove the cassette from the paper feeder.
2. Release two hooks in backside of cassette and then remove the retard roller assembly.

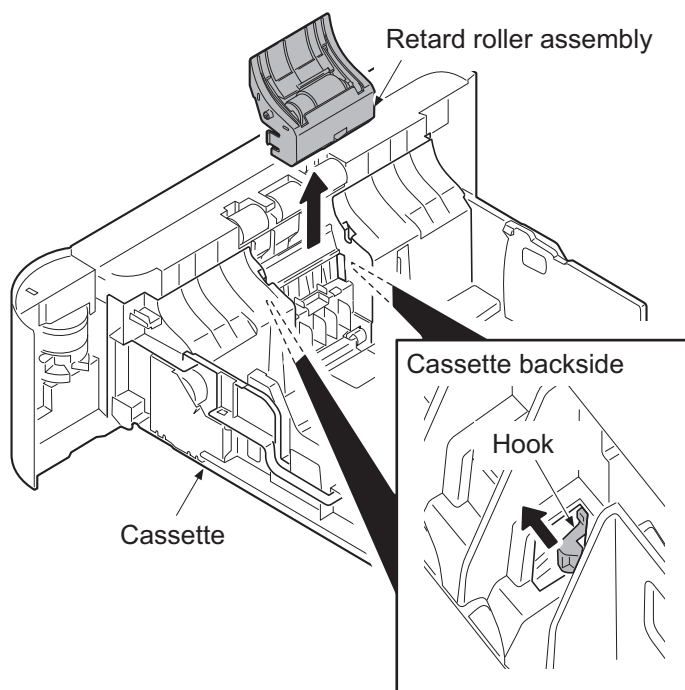


Figure 1-5-158

3. Remove the spring.
4. Remove the retard holder by rotating.
5. Check or replace the retard roller and refit all the removed parts.

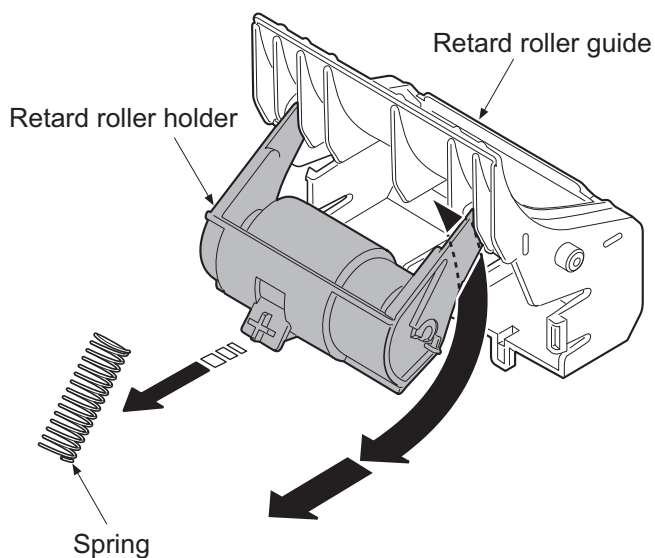


Figure 1-5-159

(3) Detaching and refitting the drive unit and PF main PWB

Procedure

1. Pull the cassette out.
2. Turn over the PF unit.

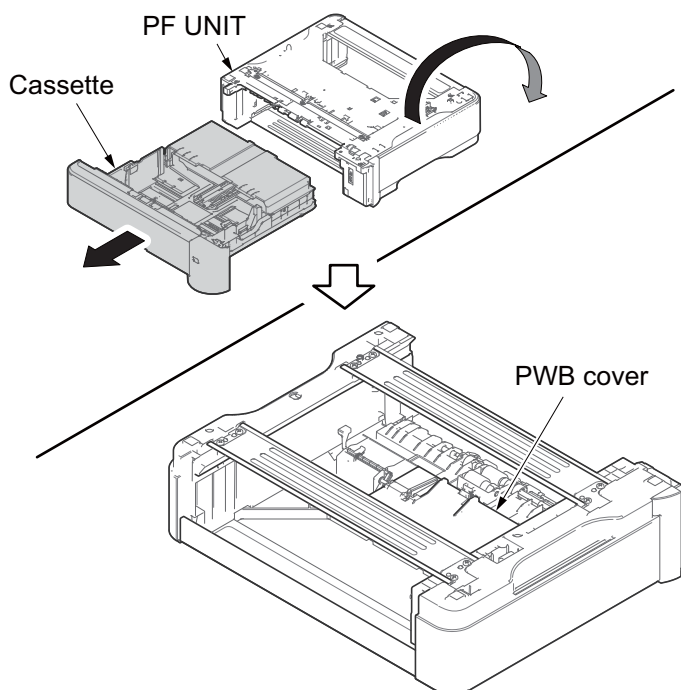


Figure 1-5-160

3. Release two hooks using the flat screw driver.
4. Remove the PWB cover by pulling the knob up.

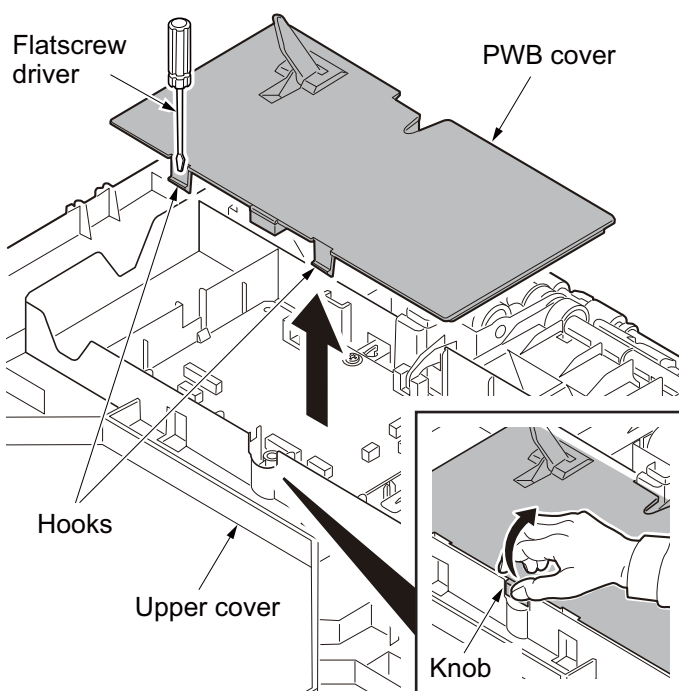


Figure 1-5-161

5. Remove the connector (YC4) from the PF main PWB.
6. Release the wires from hook.
7. Turn over the PF unit again.

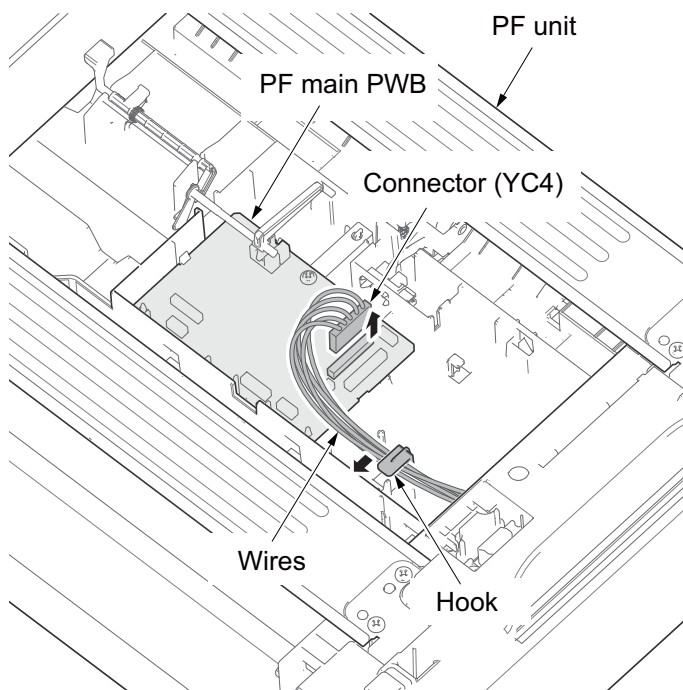


Figure 1-5-162

8. Remove the right front cover.
9. Remove the five screws.
10. Pull the upper cover rear ends.
11. Remove the upper cover while pulling out the paper size switch.

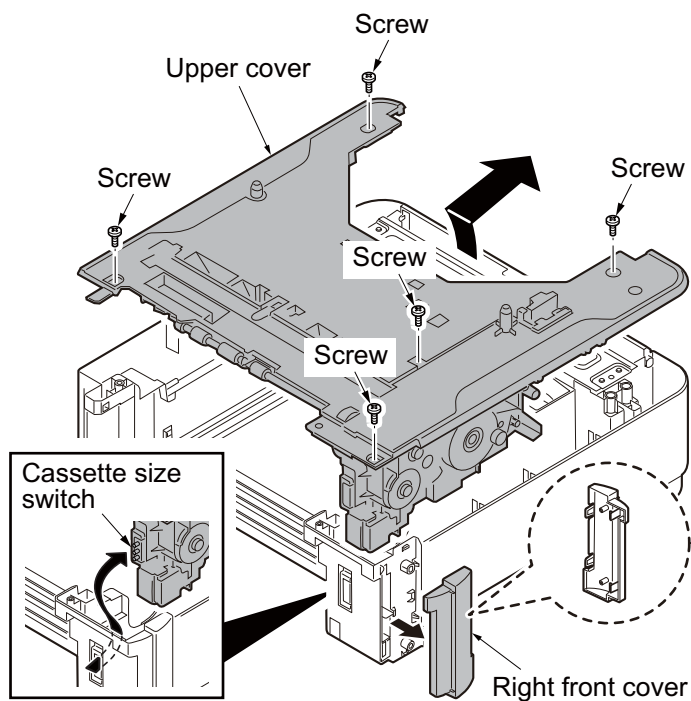


Figure 1-5-163

12. Remove the three connectors and then release the wires from the wire holders.
13. Remove the three screws and then remove the driving unit.

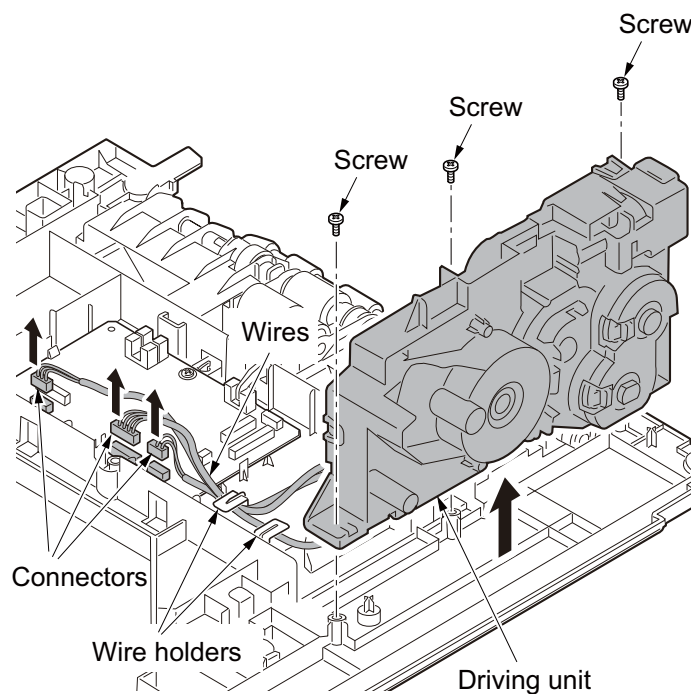


Figure 1-5-164

14. Pull the paper feed roller assembly up.
15. Remove all connectors from the PF main PWB.
16. Remove the screw and then remove the PF main PWB.
17. Check or replace the drive unit or PF main PWB and refit all the removed parts.

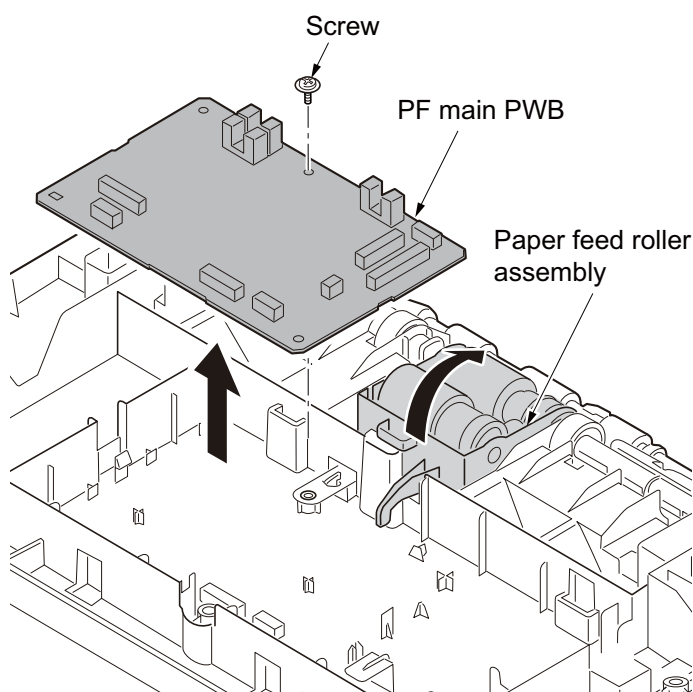


Figure 1-5-165

1-6-1 Upgrading the firmware

Follow the procedure to upgrade the firmware below.

- * Main PWB (CTRL)
- * Engine PWB (ENG)
- * PF main PWB (PF)
- * Language data (OPT)

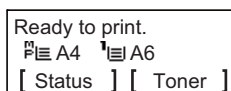
Preparation

Extract the file that has the download firmware and put them in the USB Memory.

NOTE: To improve Firmware Upgrade speed, a separate SKIP file can be added to the USB Memory Stick with the Firmware Upgrade package. The Skip file will allow ONLY the Firmware that has been Upgraded to a New Version to load, skipping duplicate Firmware Levels.

Procedure

1. Turn ON the power switch and confirm if the screen shows "Ready to print" then, turn OFF the power switch.



2. Insert USB memory that has the firm-ware in the USB host interface slot.
3. Turn ON the power switch.
4. About 50 seconds later, "FW-Update" will be displayed (this shows to start the download).
5. Display the software that now upgrad-ing.

CTRL → OPT → PF1 → PF2 → PF3 →
PF4 → ENG

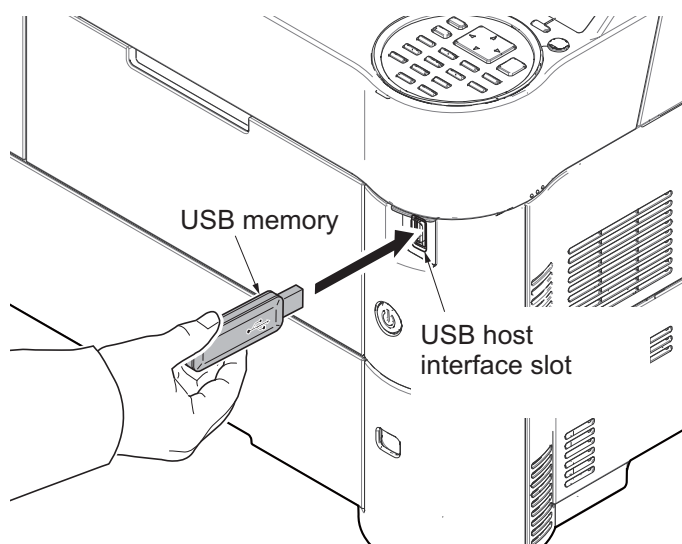


Figure 1-6-1

SAMPLE: =====

```
FW-Update [CTRL]
■■■■■□□□□
=====
```

The first line: Display that shows update object

The second line: The progress bar that shows update advance degree

Caution:

Never turn off the power switch or remove the USB flash device during upgrading.

6. Display the completion of the upgrade.

(The 1st page)

```
=====
FW-Update
Completed
=====
```

(2 page or subsequent ones)

```
=====
[CTRL]      2/8
2P7_3F00.001.014
=====
```

7. ROM version is confirmed by the content of the display.
8. Unplug the power cable and remove the USB memory.
9. Connect the power cord and confirm if the screen shows "Ready to print" then, turn OFF the main power switch.

Emergency-UPDATE

If the device is accidentally switched off and upgrading was incomplete, upgrade becomes impossible. In that case, retry upgrading after recovering the software by following the procedure below.

Preparation

The USB memory must be formatted in FAT or FAT32 in advance.

Extract the main firmware to download from the file.

Rename the file which was extracted from the archive. [DL_CTRL.2P7] to [KM_EMRG.2P7]

Copy the all extracted files to the root of the USB memory.

Procedure

1. Unplug the power cable.
2. Insert the USB memory which contains the firmware into the USB host interface slot.
3. Plug the printer into a power outlet and then turn the power switch on.
4. Rewriting of the PWB software will start for restoration.
The data and attention LEDs will be blinking.
5. Only the Data LED will be blinking when rewriting is successful.
* : Only the Attention LED will be blinking when rewriting is failed.
6. Unplug the power cable and then remove the USB memory from the USB host interface slot.

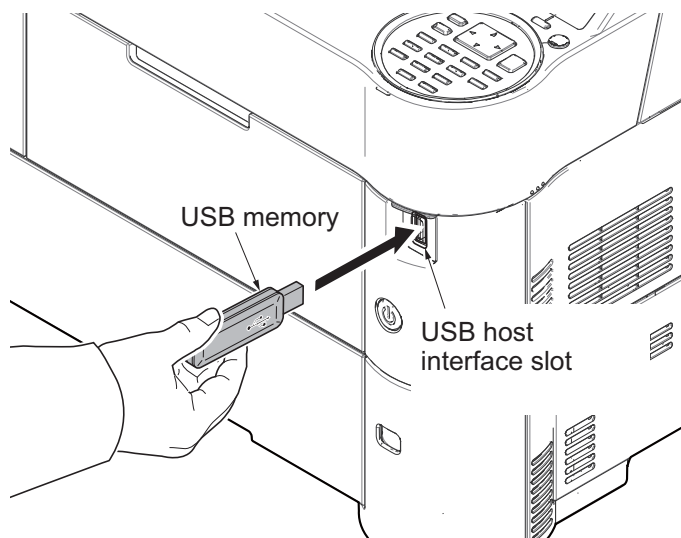


Figure 1-6-2

7. Extract the firmware to download from the archive and copy to the root of the formatted USB memory.
NOTE: Deletes the "ES_SKIP.on" file When it is contained directly under the USB memory.
8. Insert the USB memory in which the firmware was copied into the USB host interface slot.
9. Plug the printer into a power outlet.
10. Perform steps 3 to 9 on the previous page.

1-6-2 Remarks on PWB replacement

(1) Engine PWB

NOTE: When replacing the PWB, remove the EEPROM (U21) from the PWB and then reattach it to the new PWB.

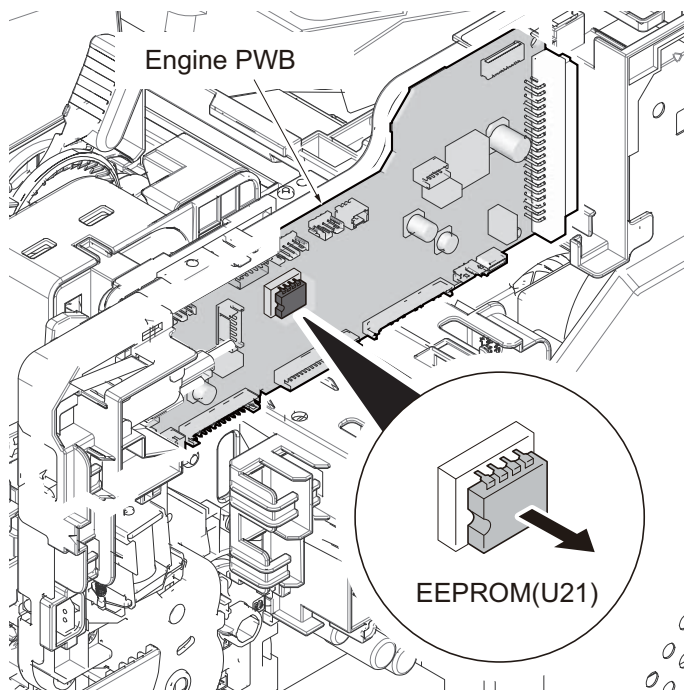


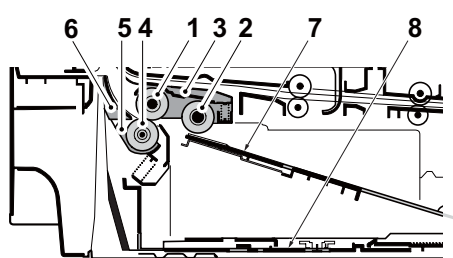
Figure 1-6-3

2-1-1 Paper feed/conveying section

Paper feed/conveying section consists of the paper feed unit that feeds paper from the cassette and the MP tray paper feed unit that feeds paper from the MP tray, and the paper conveying section that conveys the fed paper to the transfer/separation section.

(1) Cassette paper feed section

The cassette can contain 500 sheets. The sheet from the cassette is pulled out by rotation of the pickup roller and sent to the paper conveying section by rotation of the paper feed roller. Also the retard roller prevents multiple feeding of paper.



1. Paper feed roller
2. Pickup roller
3. Feed holder
4. Retard roller
5. Retard holder
6. Retard guide
7. Bottom plate
8. Cassette base

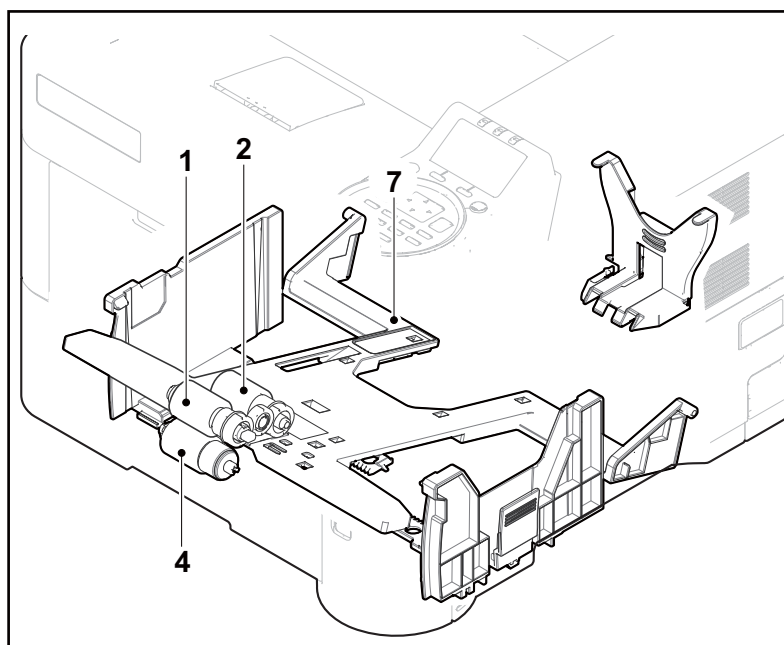


Figure 2-1-1

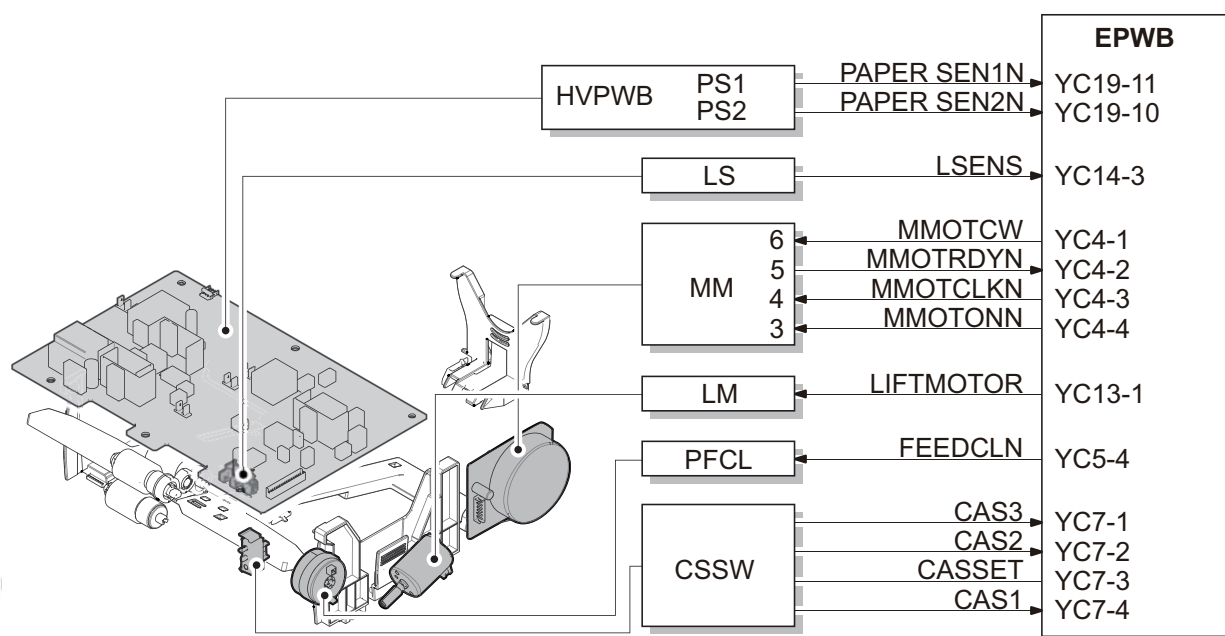
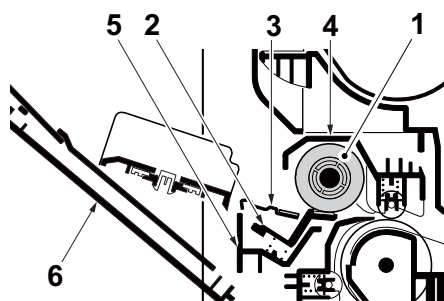


Figure 2-1-2

(2) MP tray paper feed section

The MP tray can contain 100 sheets. Feeding from the MP tray is performed by the rotation of the MP paper feed roller. Also, function of the MP separation pad prevents paper from multiple feeding.



1. MP paper feed roller
2. MP separation pad
3. MP bottom plate
4. MP frame
5. MP base
6. MP (Multi purpose)tray

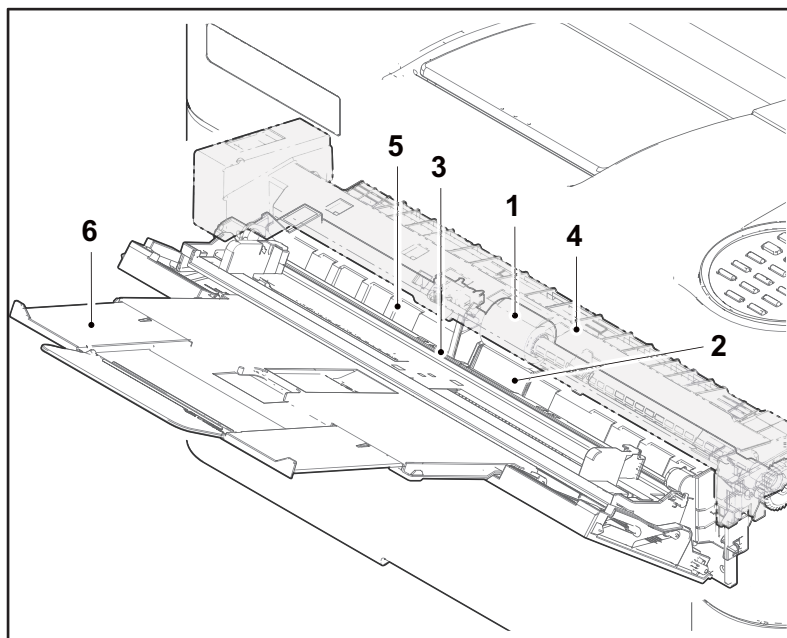


Figure 2-1-3

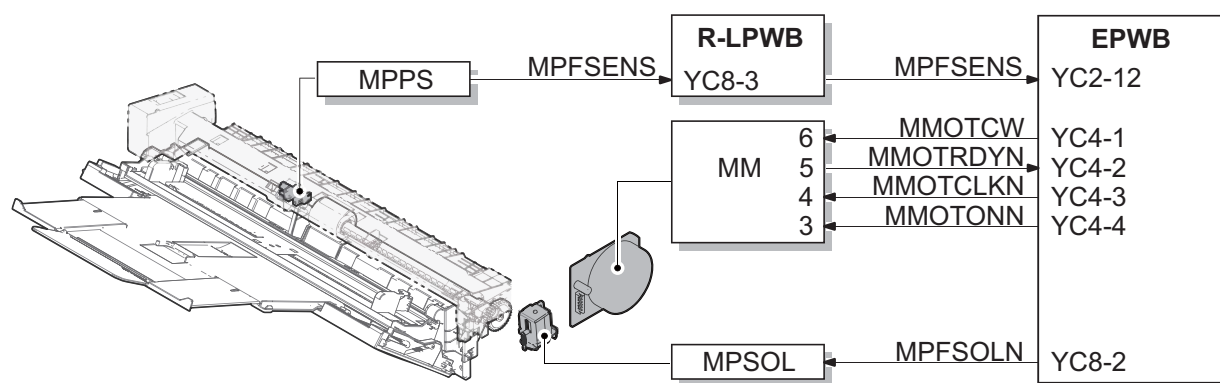
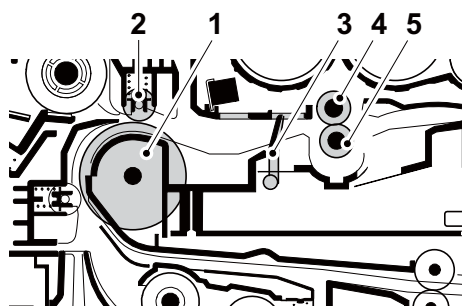


Figure 2-1-4

(3) Conveying section

The conveying section conveys paper to the transfer/separation section as paper feeding from the cassette or MP tray, or as paper refeeding for duplex printing. Paper by feeding is conveyed by the paper feed roller to the position where the registration sensor (RS) is turned on, and then sent to the transfer/separation section by the upper registration roller and lower registration roller.



1. Middle feed roller
2. Feed DU pulley
3. Actuator
(Registration sensor (RS))
4. Upper registration roller
5. Lower registration roller

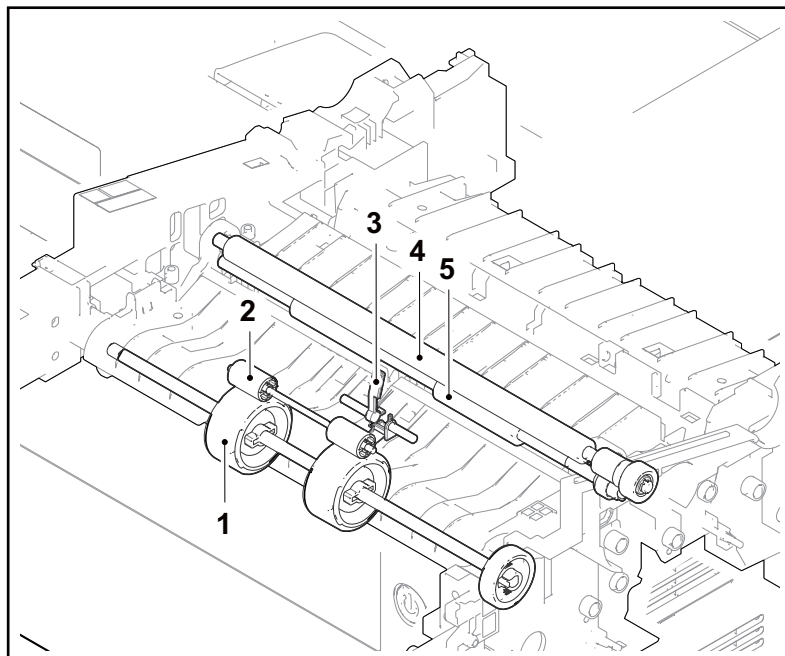


Figure 2-1-5

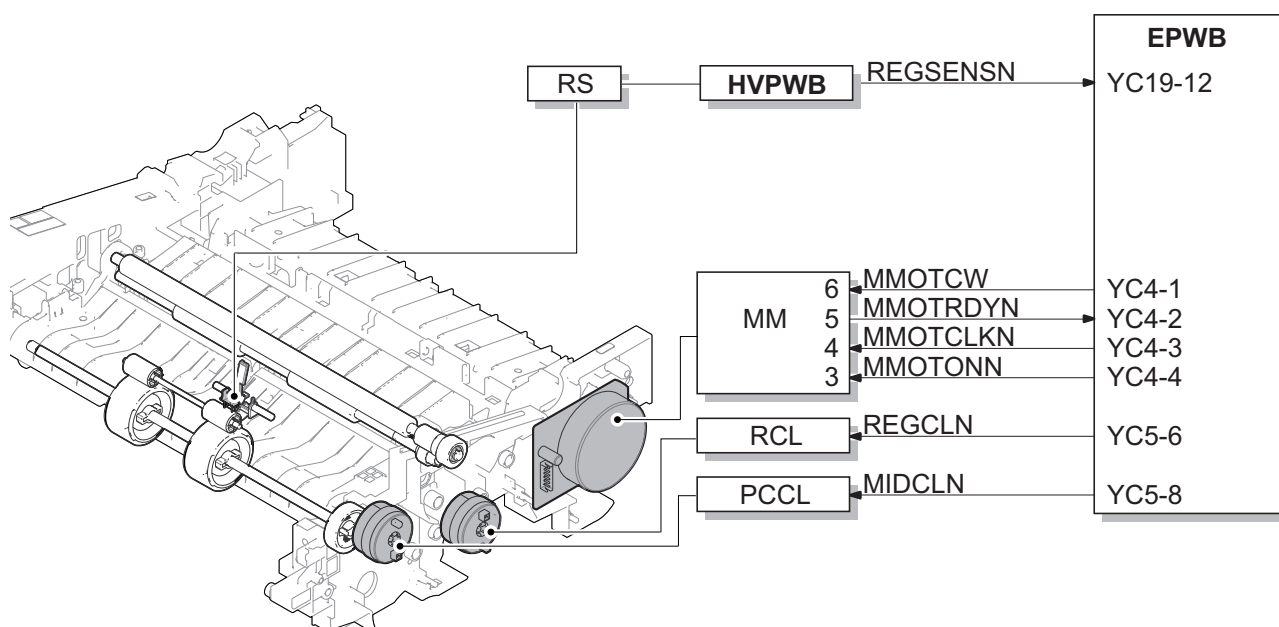


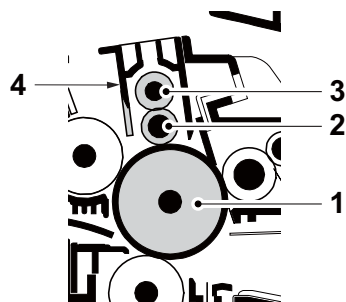
Figure 2-1-6

2-1-2 Drum section

The drum section consists of the drum, the charger roller unit, and the cleaning unit, and the drum surface is uniformly charged in preparation for formation of residual image by laser beam.

(1) Charger roller unit

The drum surface is uniformly charged by contacting the roller which gave the electric charge and was charged on the drum surface, and rotating it.



1. Drum
2. Charger roller
3. Charger cleaning roller
4. Charger case

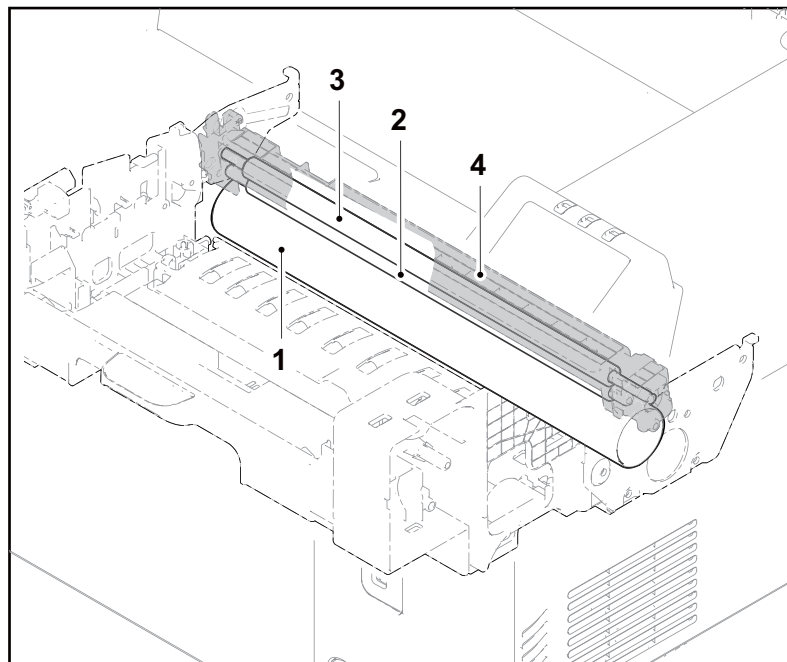


Figure 2-1-7

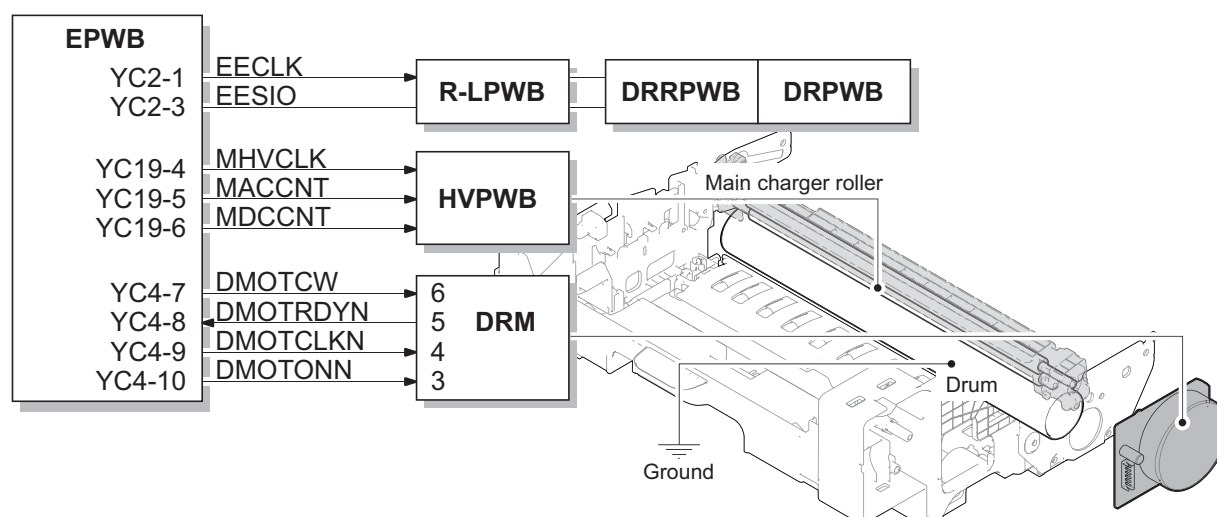
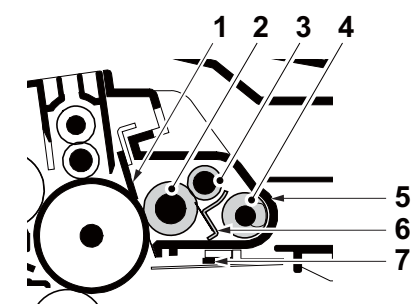


Figure 2-1-8

(2) Cleaning unit

After transfer is complete, toner remaining on the drum surface is chipped off with the cleaning blade and is collected to the waste toner box with the drum screw. The cleaning lamp (CL) consists of LEDs and removes residual charge on the drum before main charging.



1. Cleaning blade
2. Cleaning roller
3. Control roller
4. Sweep roller
5. Drum frame
6. Scraper
7. Cleaning lamp (CL)

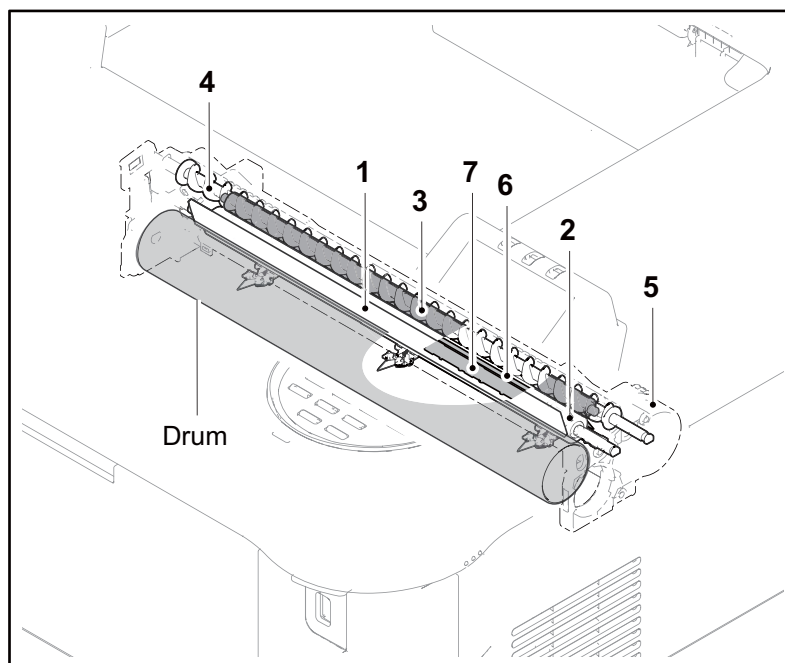


Figure 2-1-9 Cleaning unit

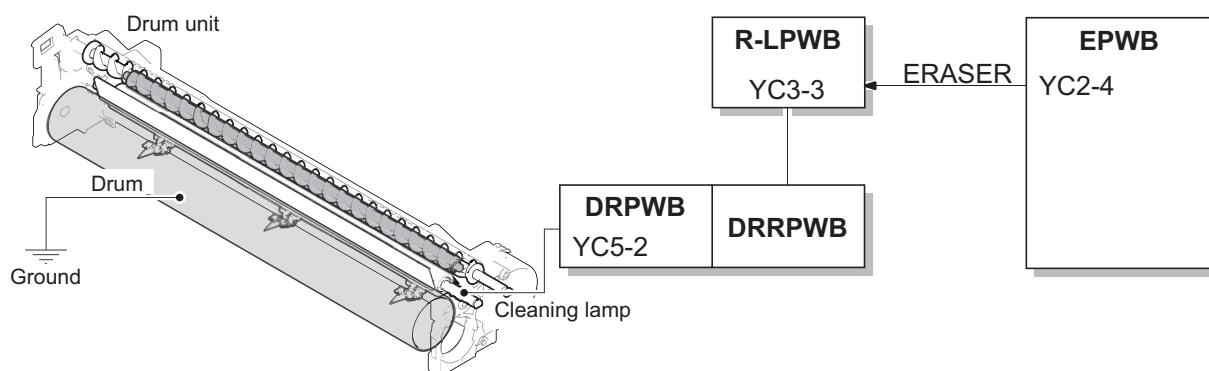
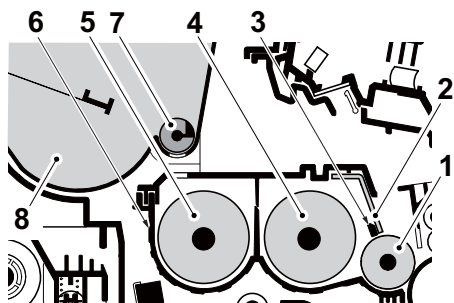


Figure 2-1-10 Cleaning unit block diagram

2-1-3 Developer section

The developer unit consists of the developer roller that forms the magnetic brush, the developer blade and the developer screws that agitate the toner. Also, the toner sensor (TS) checks whether or not toner remains in the developer unit.



1. Developer roller
2. Developer blade
3. Magnet blade
4. Developer screw A
5. Developer screw B
6. Developer case
7. Toner supply roller
8. Toner container

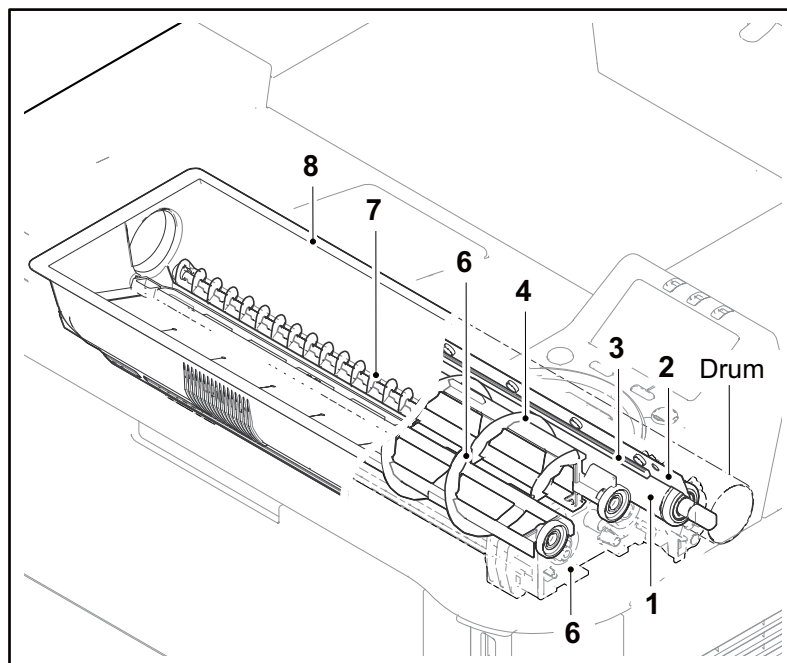


Figure 2-1-11

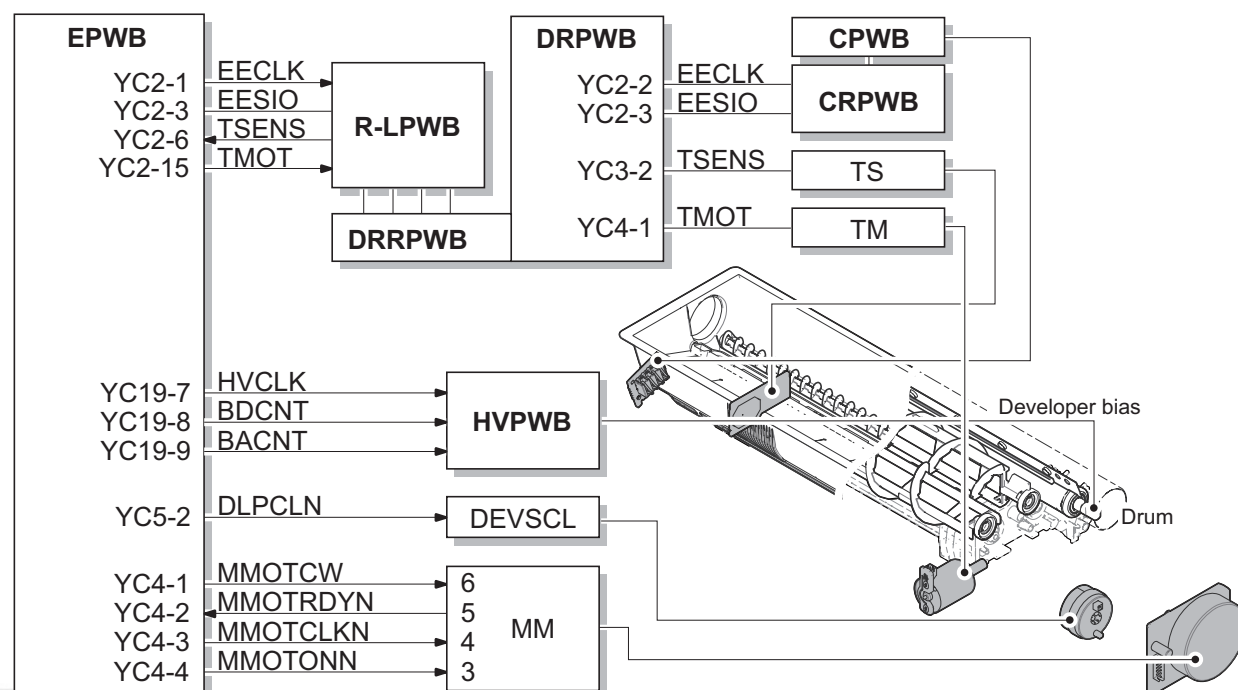
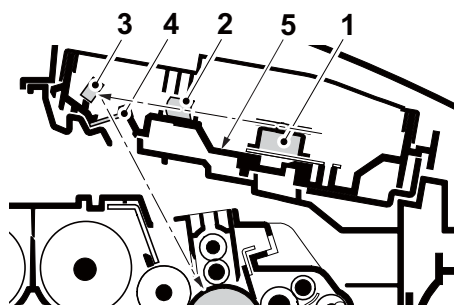


Figure 2-1-12

2-1-4 Optical section

(1) Laser scanner section

The charged surface of the drum is then scanned by the laser beam from the laser scanner unit. The laser beam is dispersed as the polygon motor (PM) revolves to reflect the laser beam over the drum. Various lenses and mirror are housed in the LSU (Laser Scanner Unit), adjust the diameter of the laser beam, and focalize it at the drum surface.



1. Polygon motor (PM)
2. fθ main lens
3. Direction change mirror
4. LSU dust shield glass
5. LSU base

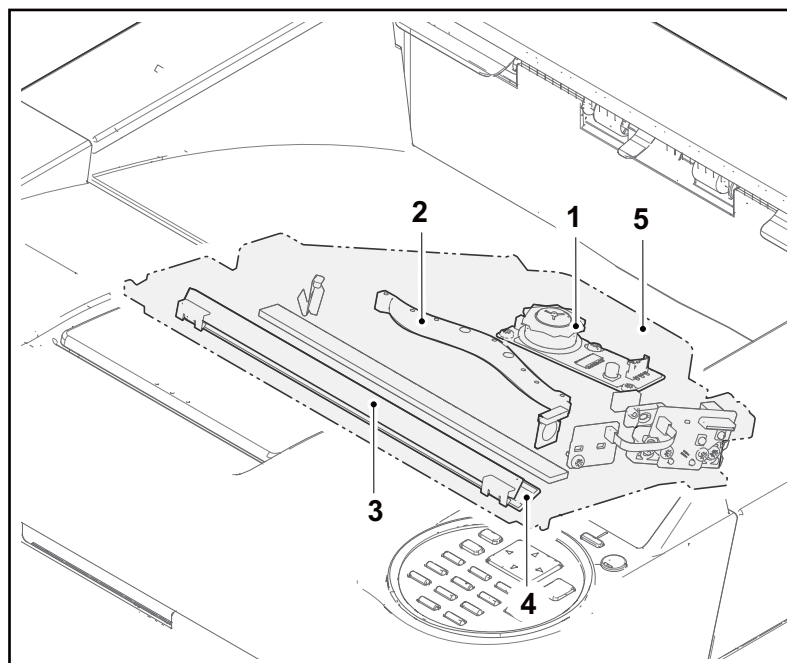


Figure 2-1-13

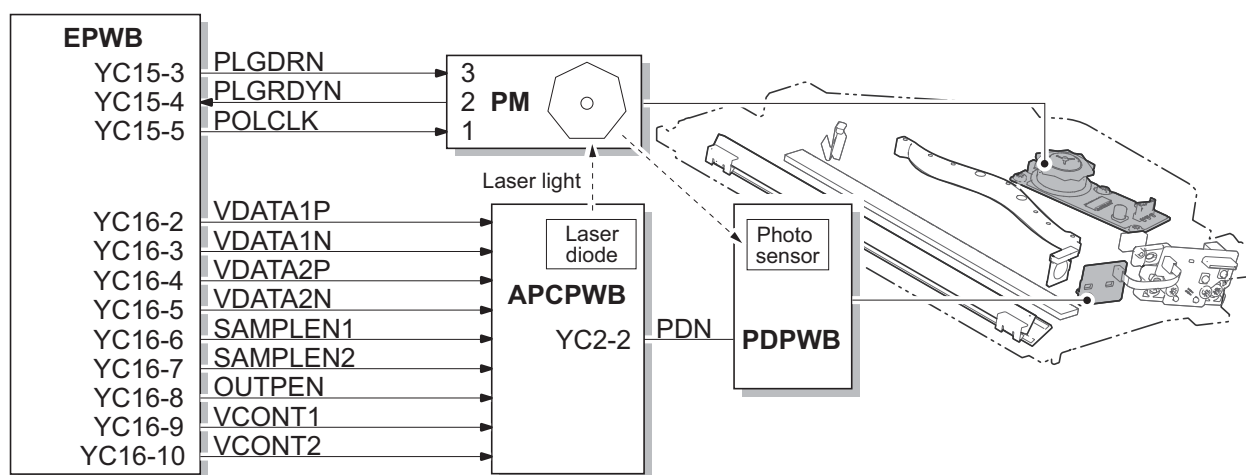
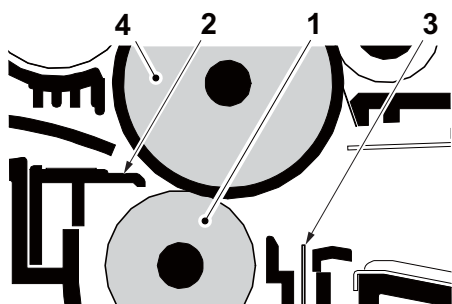


Figure 2-1-14

2-1-5 Transfer/Separation section

The transfer and separation section consists mainly of the transfer roller and separation electrode. A high voltage generated by the high voltage PWB (HVPWB) is applied to the transfer roller for transfer charging.

Paper after transfer is separated from the drum by applying separation charging that is output from the high voltage PWB (HVPWB) to the separation electrode.



1. Transfer roller
2. Paper chute guide
3. Separation needle
4. Drum

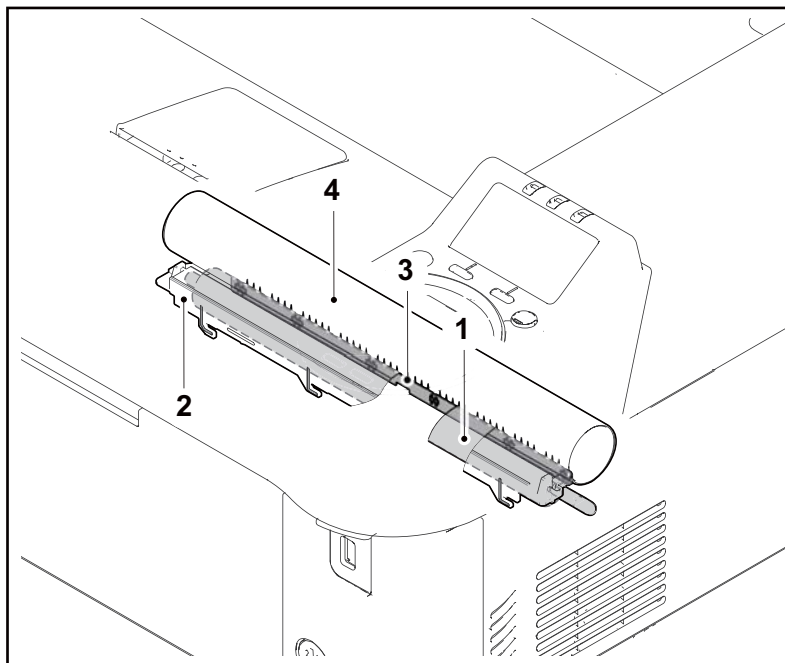


Figure 2-1-15

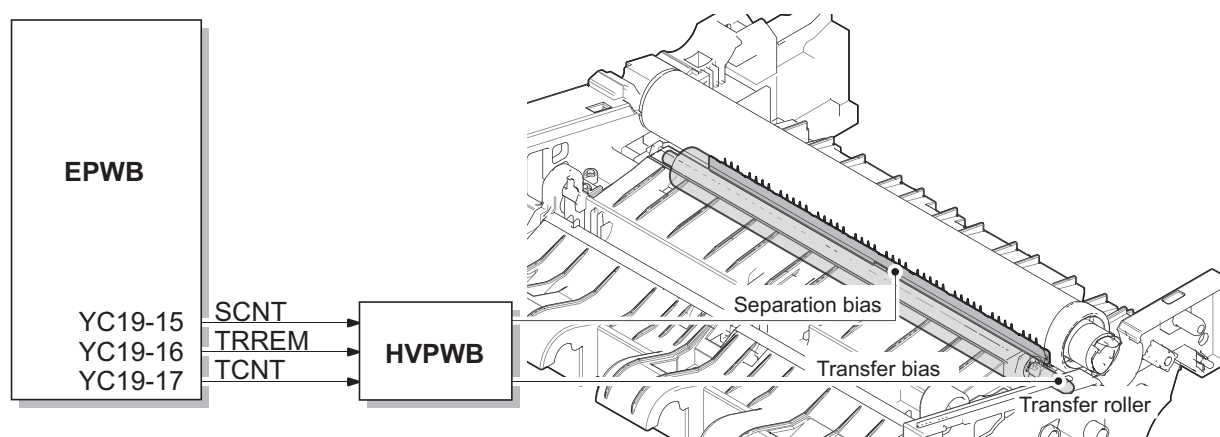
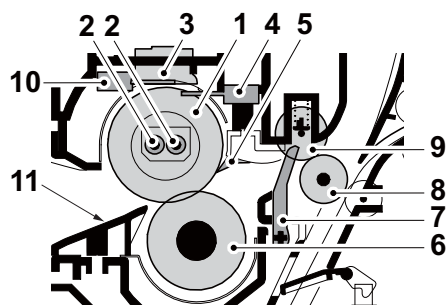


Figure 2-1-16

2-1-6 Fuser section

The paper sent from the transfer/separation section is interleaved between the heat roller and the press roller. The heat roller is heated by the fuser heater (FUH), and the toner is fused by heat and pressure and fixed onto the paper because the press roller is pressed by the fuser press spring. The surface temperature of heat roller is detected by the fuser thermistor (FUTH1,2) and controlled by the engine PWB (EPWB). If the fuser section shows extremely high temperature, the power line will be shut off and the fuser heater (FUH) is forced to turn off.



1. Heat roller
2. Fuser heater (FUH)
3. Fuser thermostat (FUTS)
4. Fuser thermistor (FUTH1)
5. Separators
6. Press roller
7. Actuator (Eject sensor (ES))
8. Fuser eject roller
9. Fuser eject pulley
10. Fuser thermistor (FUTH2)
11. Pre fuser guide

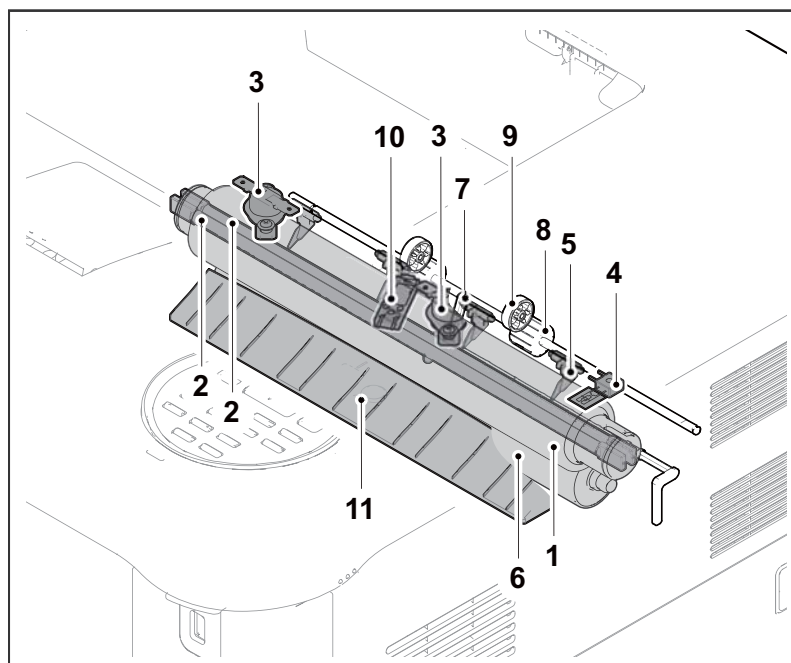


Figure 2-1-17

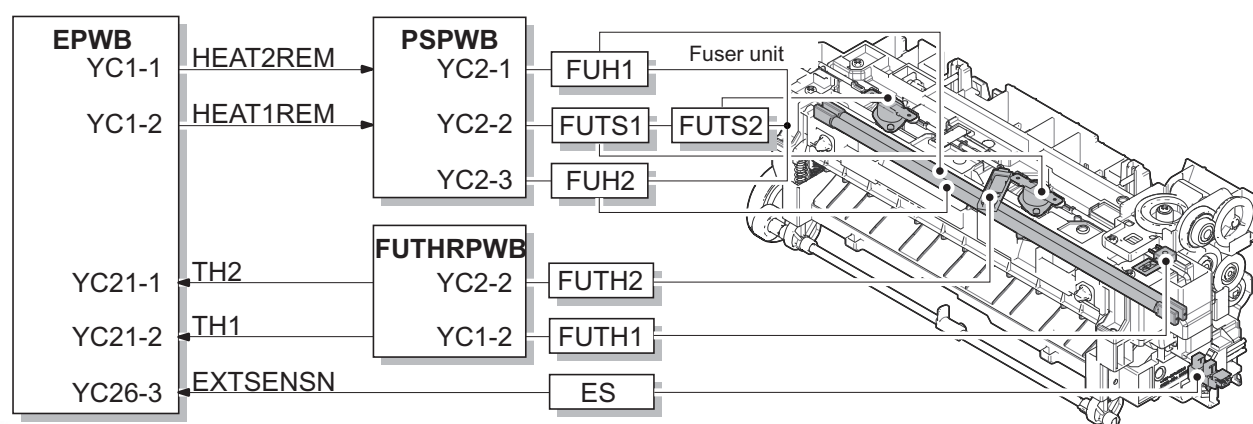


Figure 2-1-18

2-1-7 Eject/Feedshift section

The paper eject/feedshift section consists of the conveying path which sends the paper that has passed the fuser section to the facedown tray, the faceup tray or the duplex conveying section.

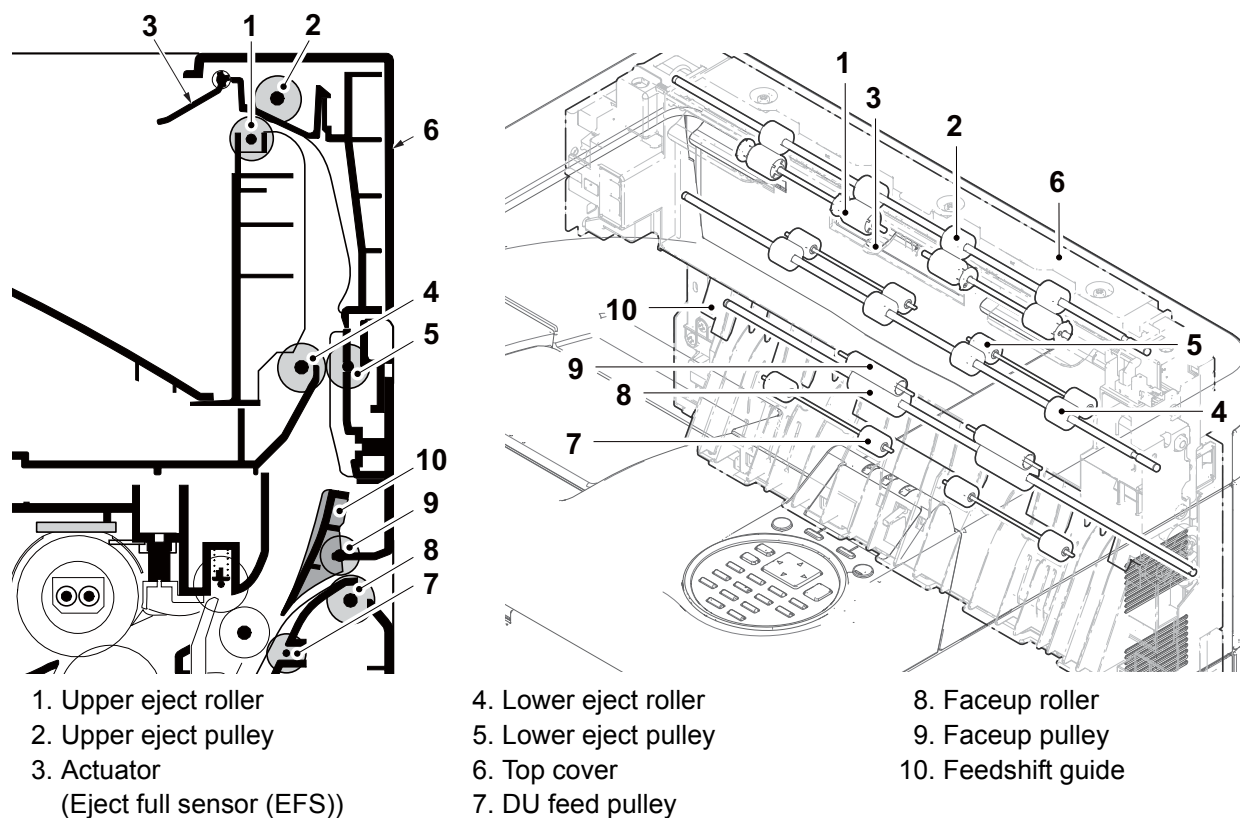


Figure 2-1-19

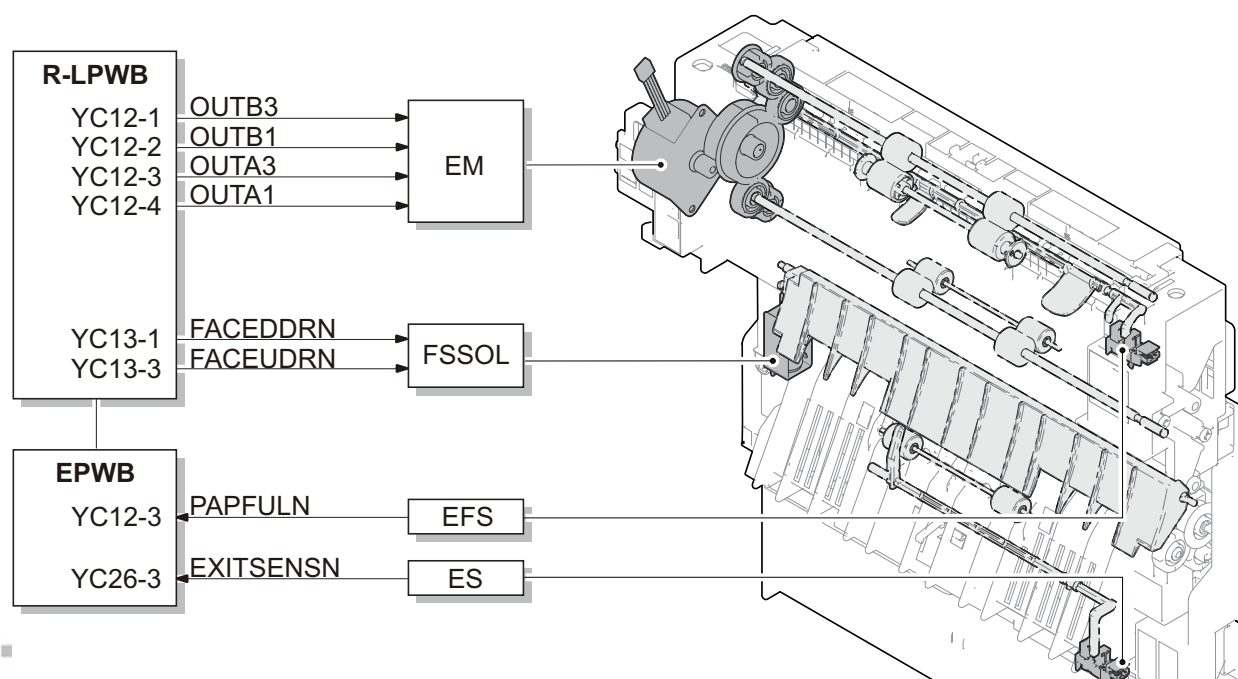
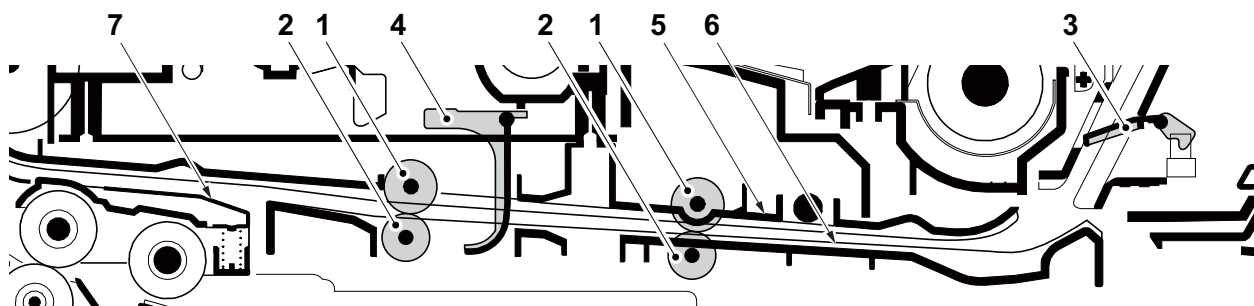


Figure 2-1-20

2-1-8 Duplex conveying section

The duplex conveying section consists of conveying path which sends the paper sent from the eject/feedshift section to the paper feed/conveying section when duplex printing.



1. DU conveying roller
2. DU conveying pulley
3. Actuator
(Duplex sensor 1 (DUS1))
4. Actuator
(Duplex sensor 2 (DUS2))
5. DU base
6. DU lower guide
7. Upper feed guide

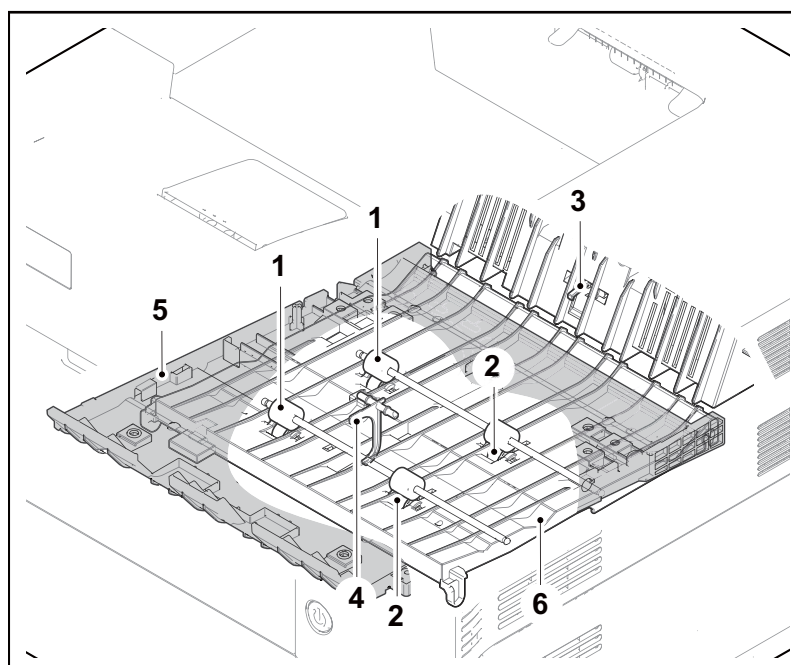


Figure 2-1-21

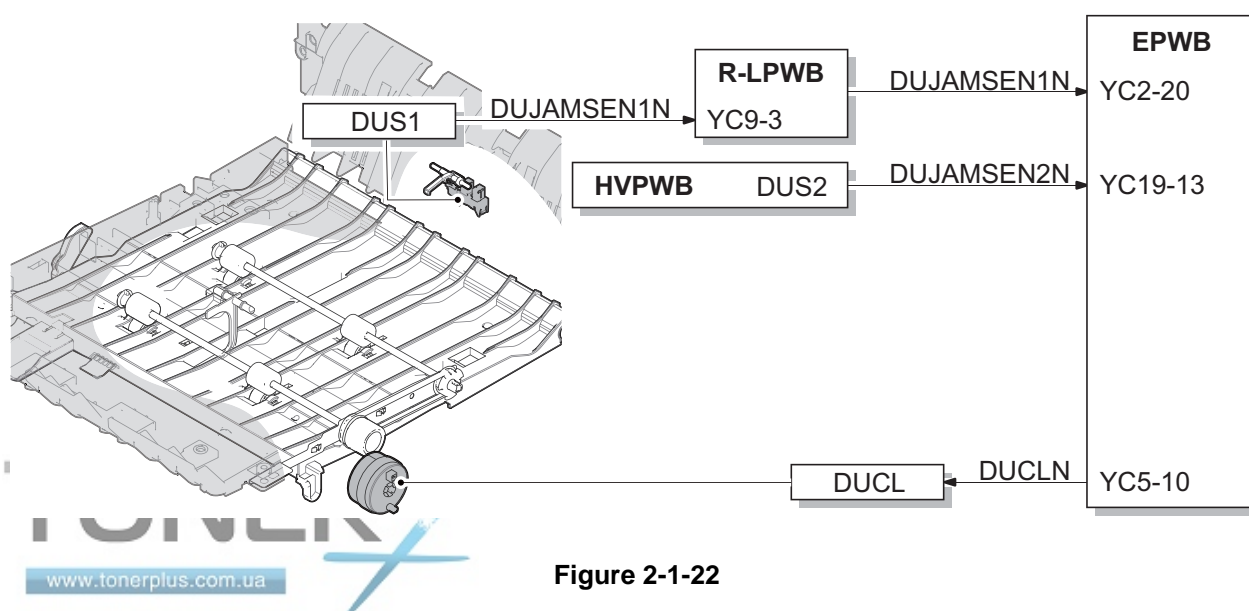
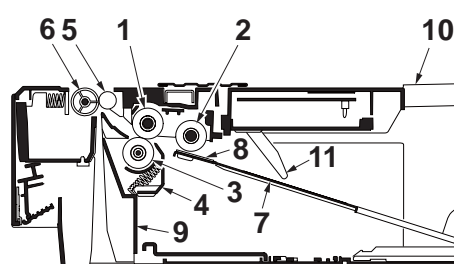


Figure 2-1-22

2-1-9 PF-4100

(1) Paper feed section

The paper feeder conveys paper from the cassette to the printer. Cassette can hold up to 500 sheets of paper. Paper is fed from the paper feeder by the rotation of the pickup roller and paper feed roller. The retard roller prevents multiple sheets from being fed at one time, via the torque limiter.



1. Paper feed roller
2. Pickup roller
3. Retard roller
4. Retard roller guide
5. Paper conveying roller
6. Paper conveying pulley
7. Bottom plate
8. Bottom pad
9. Cassette base
10. Cassette top cover
11. Paper gauge sensor (actuator)

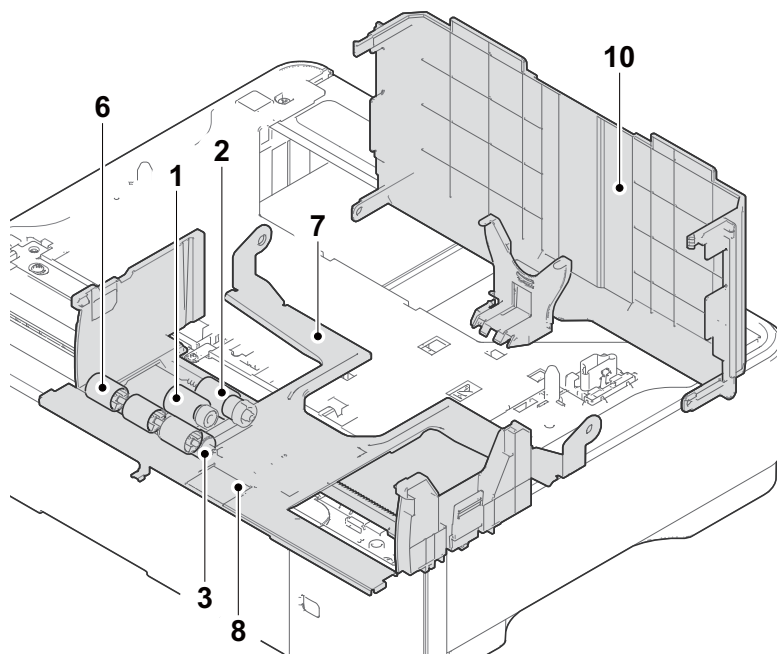
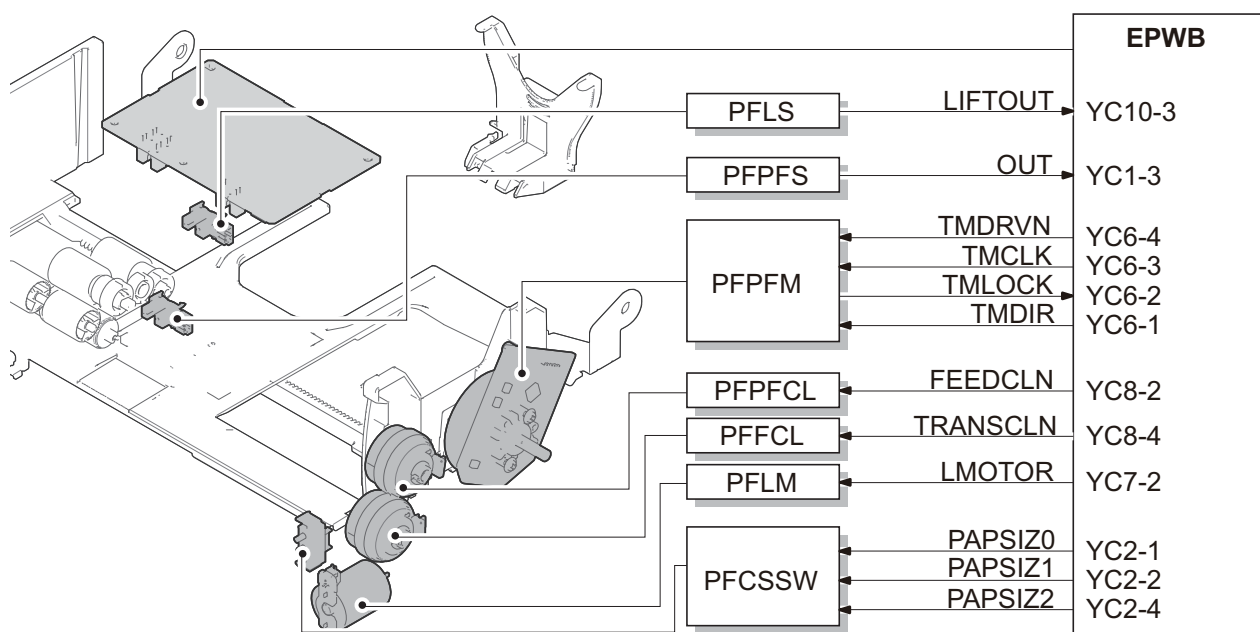
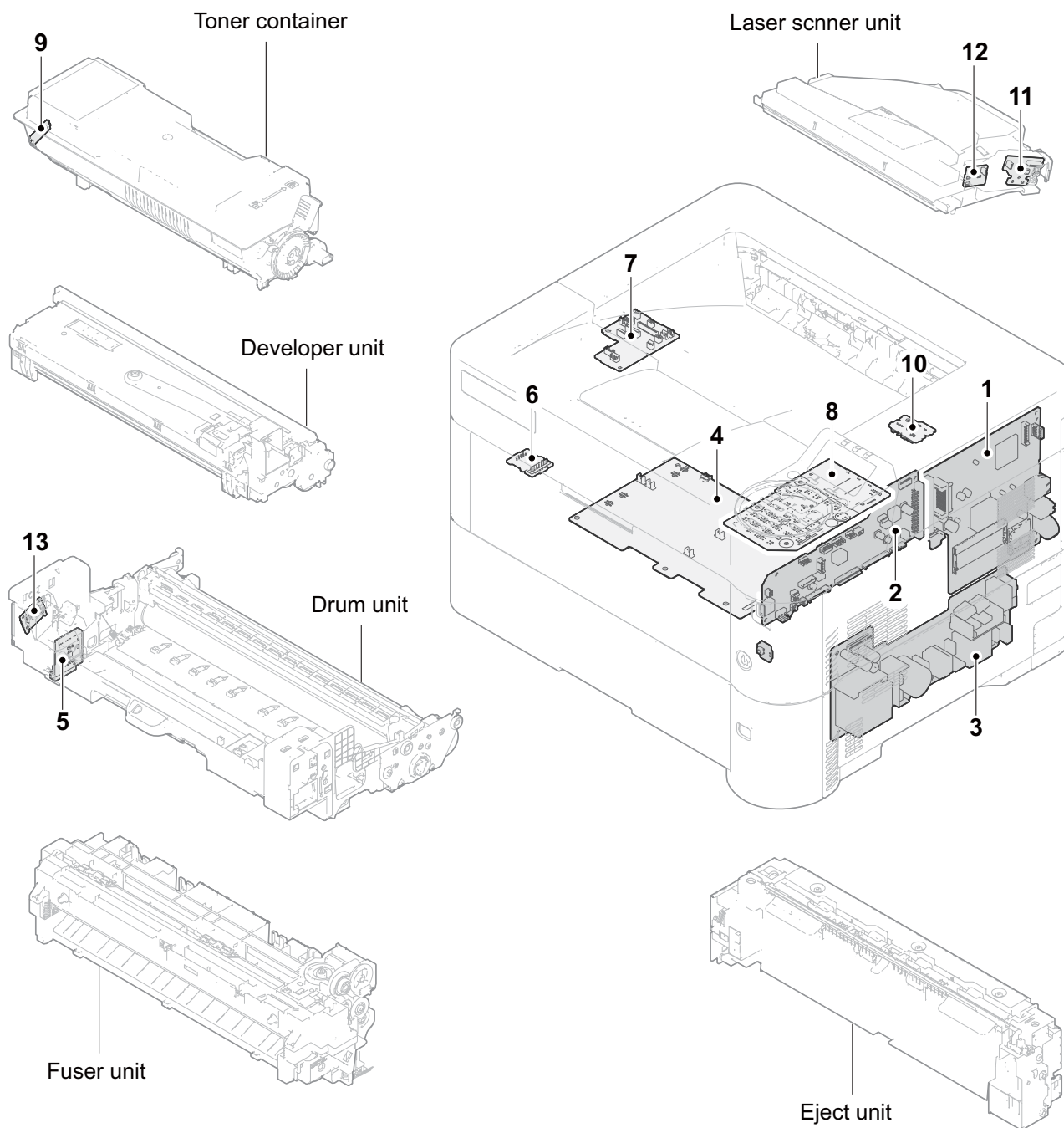


Figure 2-1-23



2-2-1 Electrical parts layout

(1) PWBs



Unit-inside



Machine-inside



Machine-rightside

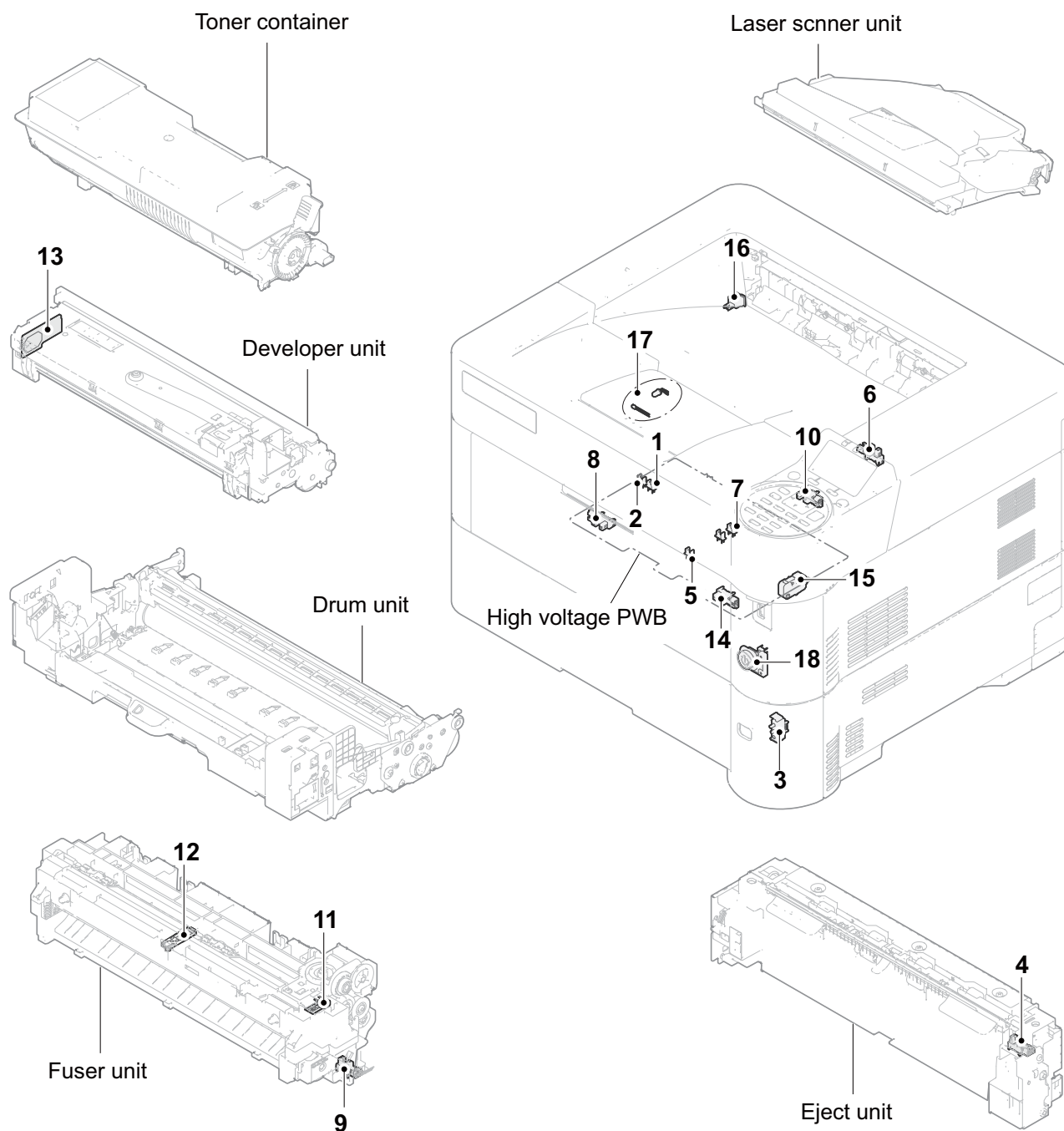
Figure 2-2-1 PWBs

1. Main PWB (MPWB) Controls the software such as the print data processing and provides the interface with computers.
2. Engine PWB (EPWB)..... Controls printer hardware such as high voltage/bias output control, paper conveying system control, and fuser temperature control, etc.
3. Power source PWB (PSPWB) After full-wave rectification of AC power source input, switching for converting to 24 V DC for output. Controls the fuser heater.
4. High voltage PWB (HVPWB) Generates main charging, developing bias, transfer bias.
5. Drum PWB (DRPWB) Relays wirings from electrical components on the drum unit. Drum individual information in EEPROM storage.
6. Drum relay PWB (DRRPWB)..... Consists of wiring relay circuit between engine PWB and the drum unit.
7. Relay-L PWB (R-LPWB) Consists of wiring relay circuit between engine PWB and drum connect PWB.
8. Operation PWB (OPPWB) Consists the LCD, LED indicators and key switches.
9. ID PWB (IDPWB) Reads the container information.
10. Fuser thermistor relay PWB (FUTHRPWB) Consists of wiring relay circuit between engine PWB ,fuser thermistors and cooling fans.
11. APC PWB (APCPWB) Generates and controls the laser beam.
12. PD PWB (PDPWB) Controls horizontal synchronizing timing of laser beam.
13. Container PWB (CPWB) Reads the container information.

List of correspondences of PWB names

No.	Name used in service manual	Name used in parts list	Part.No.
1	Main PWB (MPWB)	PARTS PWB ASSY MAIN E SP	302P79411_
2	Engine PWB (EPWB)	PARTS PWB ASSY ENGINE SP	302P79412_
3	Power source PWB (PSPWB)	PARTS SWITCHING REGULATOR 120V SP PARTS SWITCHING REGULATOR 230V SP	302LV9408_* ¹ 302LV9407_
4	High voltage PWB (HVPWB)	PARTS HIGH VOLTAGE UNIT SP	302P79405_
5	Drum PWB (DRPWB)	- (DK-7300)	- (302P79306_)
6	Drum connect PWB (DRRPWB)	PARTS PWB ASSY DRUM CONNECT SP	302LV9420_
7	Relay-L PWB (R-LPWB)	PARTS PWB ASSY CONNCT-L SP	302P79408_
8	Operation PWB (OPPWB)	PARTS PWB ASSY PANEL SP	302P79413_
9	ID PWB (ID PWB)	-	-
10	Fuser thermistor relay PWB (FUTHRPWB)	PARTS PWB ASSY TH CONNECT SP	302LV9422_
11	APC PWB (APCPWB)	-	-
12	PD PWB (PDPWB)	(LK-7300)	(302P79303_)
13	Container PWB (CPWB)	- (DK-7300)	- (302P79306_)

*1: For KDTW plus.com.ua

(2) Switches and sensors

Unit-inside



Machine-inside



Machine-rightside

1. Paper sensor 1 (PS1) Detects the presence of paper in the cassette.
2. Paper sensor 2 (PS2) Detects the presence of paper in the cassette.
3. Cassette size switch (CSSW) Detects the paper size dial setting of the paper setting dial.
4. Eject full sensor (EFS) Detects the paper full in the upper tray (Facedown).
5. Registration sensor (RS)..... Controls the secondary paper feed start timing.
6. Duplex sensor 1 (DUS1) Detects a paper jam in the duplex section.
7. Duplex sensor 2 (DUS2) Detects a paper jam in the duplex section.
8. MP paper sensor (MPPS) Detects the presence of paper on the MP tray.
9. Eject sensor (ES) Detects a paper misfeed in the fuser or eject section.
10. Fuser pressure release sensor (FURS) Detects the change state of pressure in fuser unit.
11. Fuser thermistor 1 (FUTH1) Detects the heat roller temperature at the edge position.
12. Fuser thermistor 2 (FUTH2) Detects the heat roller temperature at the center position.
13. Toner sensor (TS) Detects the amount of toner in the developer.
14. Lift sensor (LS) Detects the top limit of the bottom plate.
15. Interlock switch (ILSW) Shuts off 24 V DC power line when the top cover is opened.
16. Rear cover switch (RECSW) Detects the opening and closing of the rear cover.
17. Waste toner sensor (WTS) Detects when the waste toner box is full.
18. Power source switch (PSSW) Change ON/OFF the power supply of a main PWB, an operation PWB, etc.

List of correspondences of switch and sensor names

No.	Name used in service manual	Name used in parts list	Part.No.
1	Paper sensor 1 (PS1)	-	-
2	Paper sensor 2 (PS2)	(PARTS HIGH VOLTAGE UNIT SP)	(302P79405_)
3	Cassette size switch (CSSW)	SW.PUSH	7SP03072001+H01
4	Eject full sensor (EFS)	PARTS SENSOR OPT. SP	302P79401_
5	Registration sensor (RS)	-	-
		(PARTS HIGH VOLTAGE UNIT SP)	(302P79405_)
6	Duplex sensor 1 (DUS1)	PARTS SENSOR OPT. SP	302P79401_
7	Duplex sensor 2 (DUS2)	-	-
		(PARTS HIGH VOLTAGE UNIT SP)	(302P79405_)
8	MP paper sensor (MPPS)	PARTS SENSOR OPT. SP	302P79401_
9	Eject sensor (ES)	-	-
		(FK-7300)	(302P79302_)
		(FK-7300 TW)	(302P79313_)* ¹
10	Fuser pressure release sensor (FURS)	PARTS SENSOR OPT. SP	302P79401_
11	Fuser thermistor 1 (FUTH1)	-	-
12	Fuser thermistor 2 (FUTH2)	(FK-7300)	(302P79302_)
		(FK-7300 TW)	(302P79313_)* ¹
13	Toner sensor (TS)	-	-
		(DV-7300)	(302P79308_)

No.	Name used in service manual	Name used in parts list	Part.No.
14	Lift sensor (LS)	PARTS SENSOR OPT. SP	302P79401_
15	Interlock switch (ILSW)	INTER LOCK SWITCH	2FB2716_
16	Rear cover switch (RECSW)	SW.PUSH	7SP01000006+H01
17	Waste toner sensor (WTS)	PARTS TONER FULL DETECT ASSY SP	302LV9412_
18	Power source switch (PSSW)	PARTS PWB ASSY SWITCH SP	302LV9421_

*1: For KDTW

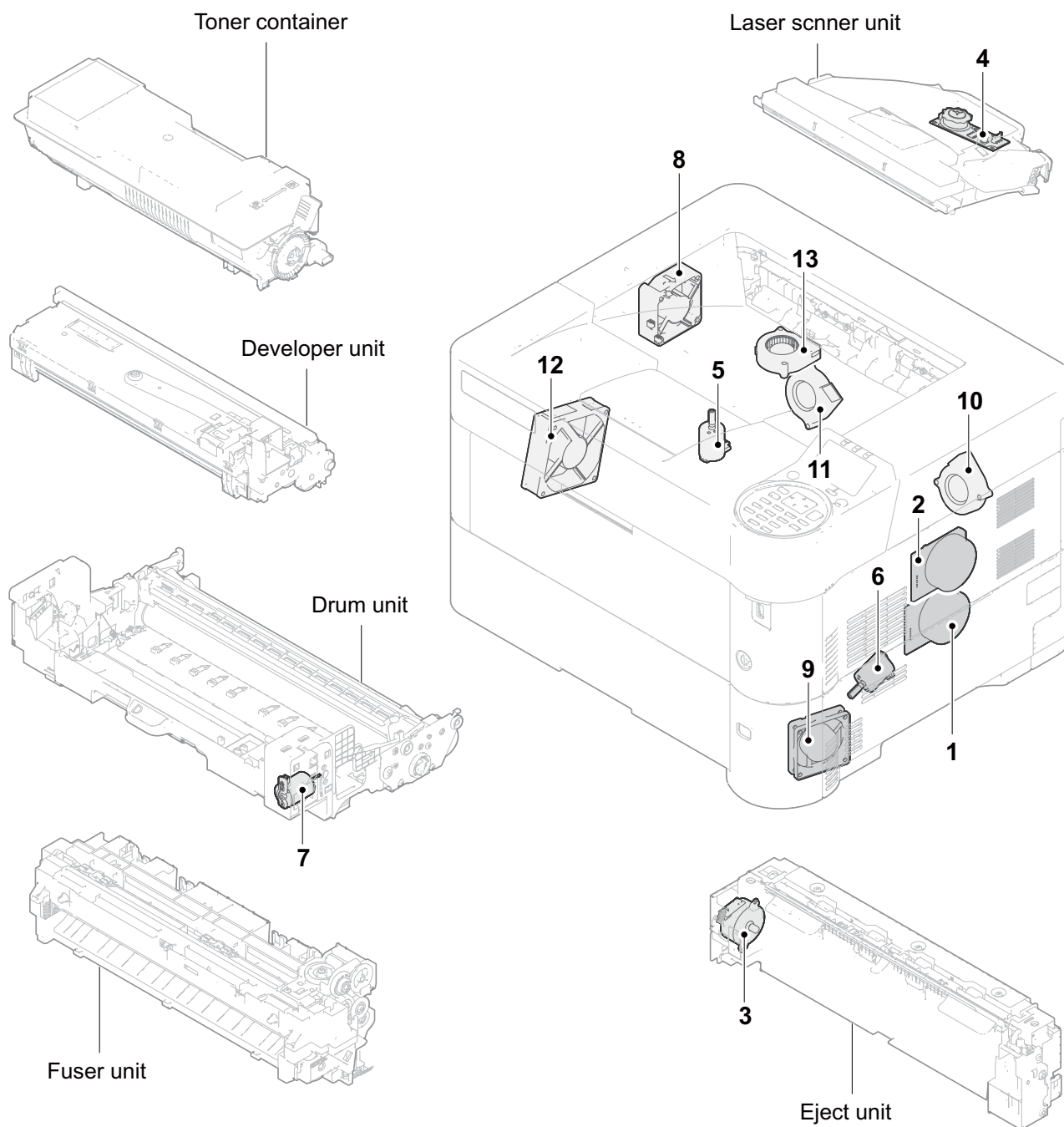
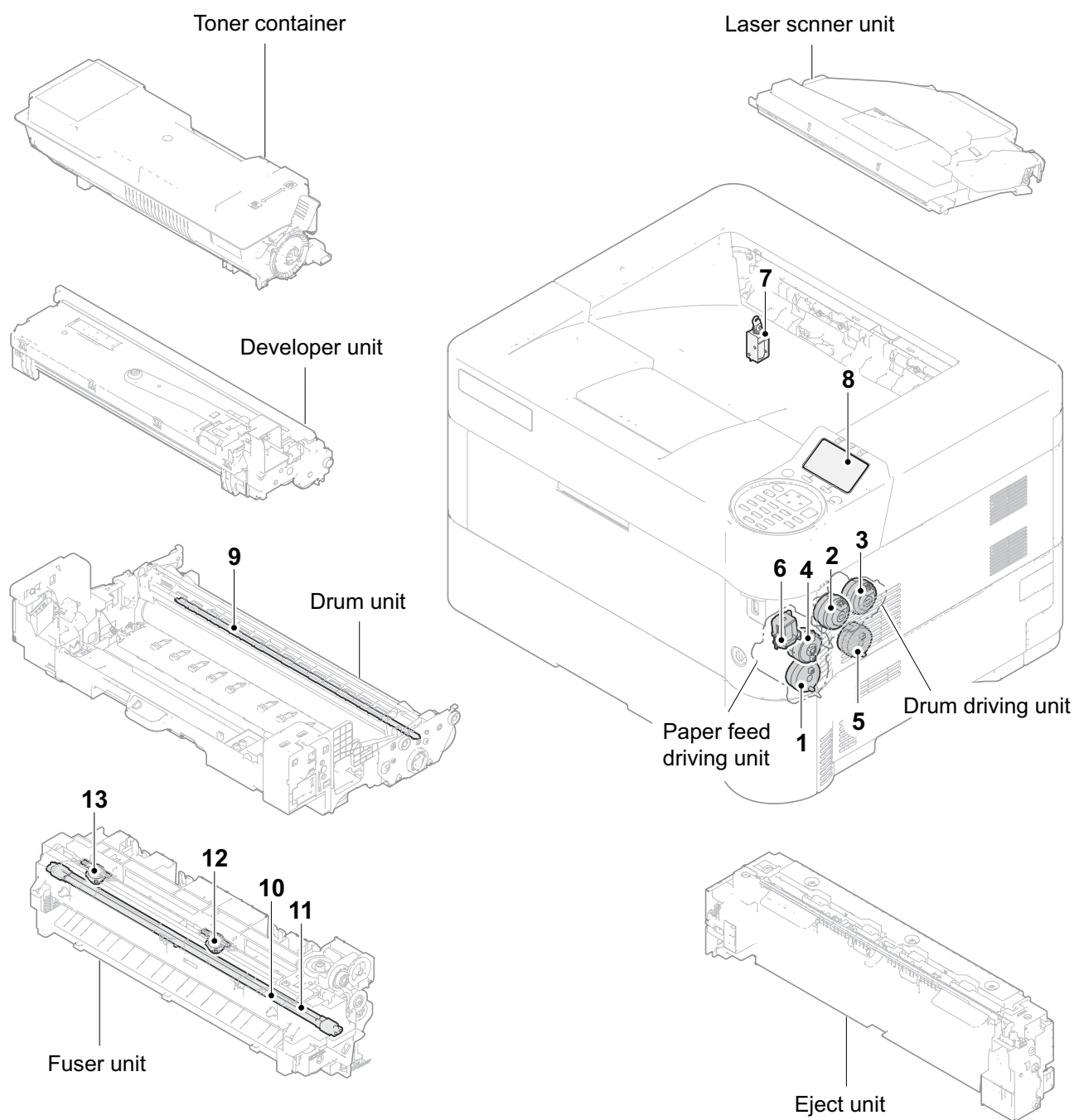
(3) Motors

Figure 2-2-3 Motors

1. Main motor (MM)..... Drives the paper feed section and conveying section.
2. Drum motor (DRM) Drives the drum unit and transfer roller.
3. Eject motor (EM)..... Drives the eject section.
4. Polygon motor (PM)..... Drives the polygon mirror.
5. Fuser pressure release motor
(FUPRM)..... Drives the change mechanism of fixing pressure in fuser unit.
6. Lift motor (LM)..... Operates the bottom plate in the cassette.
7. Toner motor (TM) Replenishes toner to the developer unit.
8. LSU fan motor (LSUFM) Cools the LSU unit.
9. Power source fan motor (PSFM) Cools the power source PWB.
10. Rear fan motor right (REFM-R)..... Cools the conveying section of duplex
11. Rear fan motor left (REFM-L) Cools the conveying section of duplex
12. Developer fan motor (DEVFM) Cools the developer unit.
13. Center fan motor (CENFM)..... Diffuses steam of the fuser section.

List of correspondences of motor names

No.	Name used in service manual	Name used in parts list	Part.No.
1	Main motor (MM)	PARTS MOTOR-BL W30 SP	302K39420_
2	Drum motor (DRM)		
3	Eject motor (EM)	PARTS MOTOR EJECT SP	302P79406_
4	Polygon motor (PM)	- (LK-7300)	- (302P79303_)
5	Fuser pressure release motor (FUPRM)	PARTS DC MOTOR ASSY SP	302LV9423_
6	Lift motor (LM)		
7	Toner motor (TM)	- (DK-7300)	- (302P79306_)
8	LSU fan motor (LSUFM)	FAN LSU 60-25	302GR4408_
9	Power source fan motor (PSFM)	PARTS,FAN COOLING CONVEYING SP	302FZ9442_
10	Rear fan motor right (REFM-R)	PARTS,FAN IMAGE SP	302FZ9466_
11	Rear fan motor left (REFM-L)		
12	Developer fan motor (DEVFM)	PARTS FAN MOTOR ASSY SP	302LV9443_
13	Center fan motor (CENFM)	PARTS FAN MOTOR SP	302LV9435_

(4) Clutches and others

Unit-inside



Machine-inside

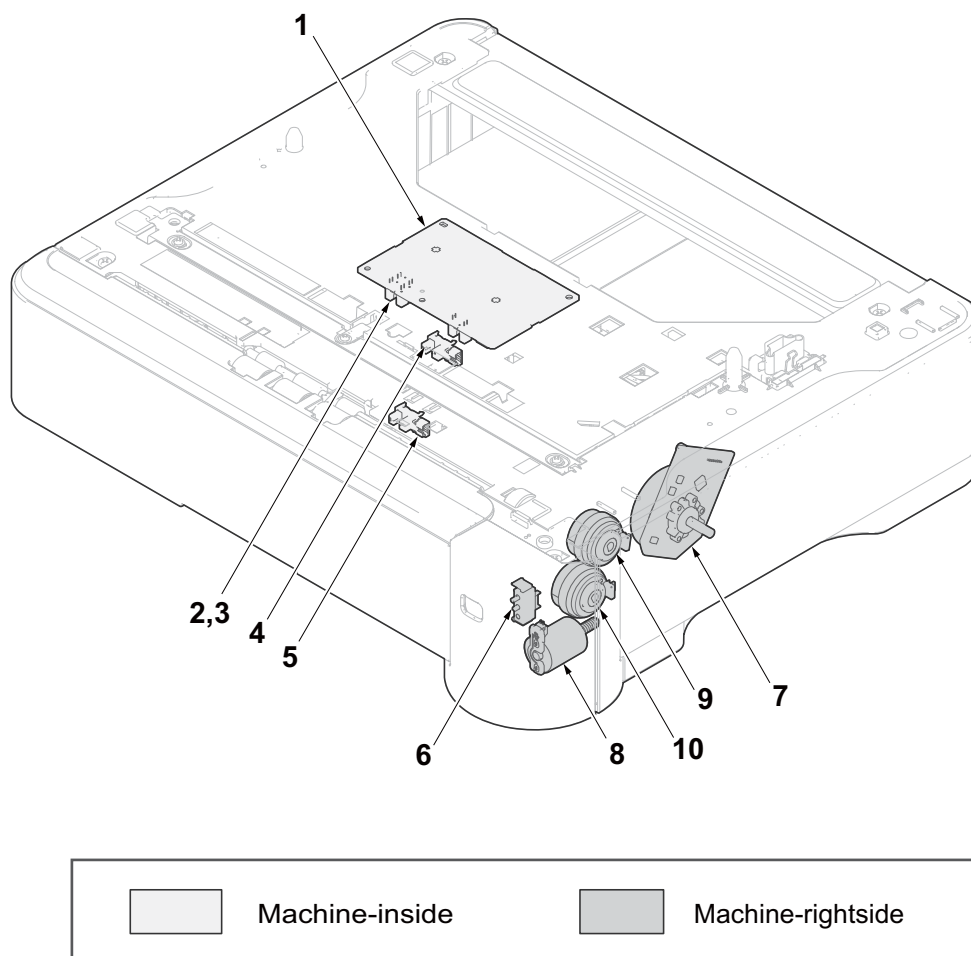


Machine-rightside

1. Paper feed clutch (PFCL) Primary paper feed from cassette.
2. Registration clutch (RCL) Controls the secondary paper feed.
3. Developer clutch (DEVSCCL) Controls the drive of the developer.
4. Paper conveying clutch (PCCL) Controls the paper conveying.
5. Duplex clutch (DUCL) Controls the drive of the duplex feed roller.
6. MP solenoid (MPSOL) Controls the MP bottom plate.
7. Feedshift solenoid (FSSOL) Operates the feedshift guide.
8. LCD (LCD) LCD display. Displays an operating state.
9. Cleaning lamp (CL) Eliminates the residual electrostatic charge on the drum.
10. Fuser heater 1 (FUH1) Heats the heat roller.
11. Fuser heater 2 (FUH2) Heats the heat roller.
12. Fuser thermostat 1 (FUTS1) Prevents overheating of the heat roller.
13. Fuser thermostat 2 (FUTS2) Prevents overheating of the heat roller.

List of correspondences of other names

No.	Name used in service manual	Name used in parts list	Part.No.
1	Paper feed clutch (PFCL)	PARTS CLUTCH 20-2W Z35R (RARTS DRIVE FEED ASSY SP)	302LV9416_ (302P79415_)
2	Registration clutch (RCL)	CLUTCH 50 Z35R	302KV4404_
3	Developer clutch (DEVSCCL)		
4	Paper conveying clutch (PCCL)	PARTS CLUTCH 20-2W Z35R	-
5	Duplex clutch (DUCL)		
6	MP solenoid (MPSOL)	RARTS DRIVE FEED ASSY SP	302P79415_
7	Feedshift solenoid (FSSOL)	-	-
8	LCD (LCD)	PARTS PWB ASSY PANEL SP	302P79413_
9	Cleaning lamp (CL)	- (DK-7300)	- (302P79306_)
10	Fuser heater 1 (FUH1)	- (FK-7300)	- (302P79302_)
11	Fuser heater 2 (FUH2)		
12	Fuser thermostat 1 (FUTS1)		
13	Fuser thermostat 2 (FUTS2)		

(5) PF-4100**Figure 2-2-5**

- | | |
|--|---|
| 1. PF main PWB (PFMPWB) | Controls electrical components in the paper feeder and communications with the printer. |
| 2. PF paper sensor 1 (PFPS1)..... | Detects the paper remaining amount level. |
| 3. PF paper sensor 2 (PFPS2)..... | Detects the paper remaining amount level. |
| 4. PF lift sensor (PFLS)..... | Detects the top limit of the bottom plate. |
| 5. PF paper feed sensor (PFDFS) | Detects paper jam in the paper feeder. |
| 6. PF cassette size switch (PFCSSW)..... | Detects the paper size dial setting of the paper setting dial. |
| 7. PF paper feed motor (PFPFM) | Drives the paper feed mechanism in the paper feeder. |
| 8. PF lift motor (PFLM)..... | Operates the bottom plate in the cassette. |
| 9. PF paper feed clutch (PFDFCL)..... | Controls the paper feed from the cassette. |
| 10. PF feed clutch (PFFCL) | Controls the paper conveying. |

List of correspondences of PF-4100

No.	Name used in service manual	Name used in parts list	Part.No.
1	PF main PWB (PFMPWB)	PARTS PWB ASSY PF MAIN SP	303PN9401_
2	PF paper sensor 1 (PFPS1)	- (PARTS PWB ASSY PF MAIN SP)	- (303PN9401_)
3	PF paper sensor 2 (PFPS2)		
4	PF lift sensor (PFLS)	-	-
5	PF paper feed sensor (PFDFS)	-	-
6	PF cassette size switch (PFCSSW)	-	-
7	PF paper feed motor (PFDFM)	PARTS MOTOR-BL W20 SP	303PN9402_
8	PF lift motor (PFLM)	DC MOTOR ASSY	303NY0102_
9	PF paper feed clutch (PFDFCL)	-	-
10	PF peed clutch (PFFCL)	-	-

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2-3-1 Main PWB (MPWB)

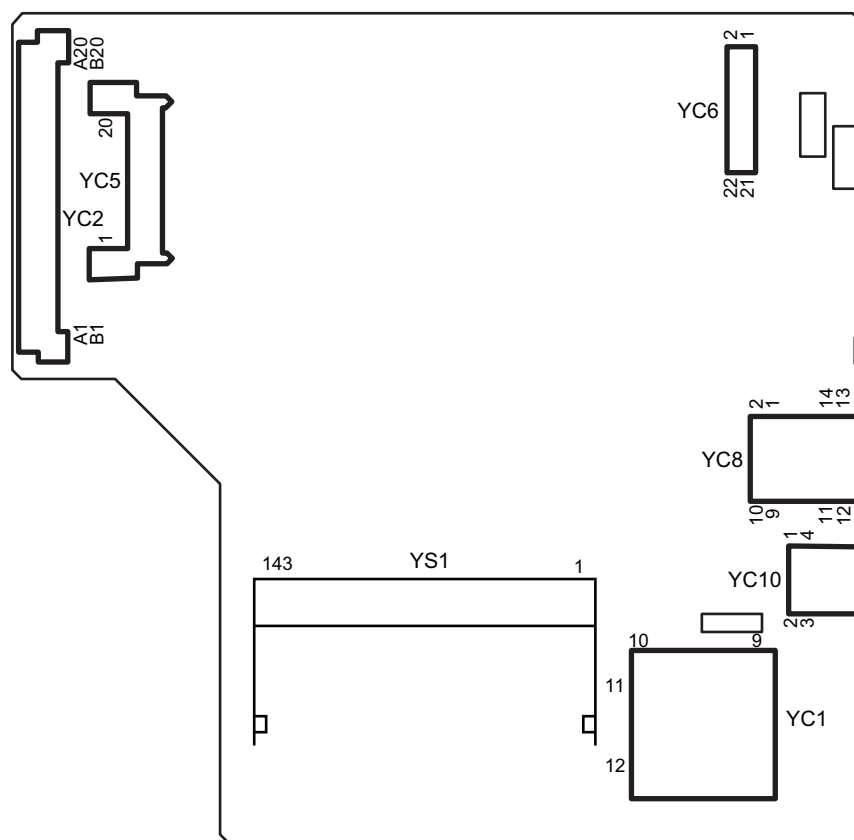


Figure 2-3-1

Connector	Pin	Signal	I/O	Voltage	Description
YC1 Connected to the SD card I/F	1	CD/DAT3	I/O	0/3.3 V DC	control signal
	2	CMD	I/O	0/3.3 V DC	control signal
	3	Vss	-	-	Ground
	4	Vdd	-	0/3.3 V DC	control signal
	5	CLK	-	0/3.3 V DC	control signal
	6	Vss	-	-	Ground
	7	DAT0	I/O	0/3.3 V DC(pulse)	Data bus signal
	8	DAT1	I/O	0/3.3 V DC(pulse)	Data bus signal
	9	DAT2	I/O	0/3.3 V DC(pulse)	Data bus signal
	10	CD	I	0/3.3 V DC	control signal
	11	COMMON	-	0/3.3 V DC	control signal
	12	WP	I	0/3.3 V DC	control signal
YC2 Connected to the engine PWB	A1	E2C_INT	I	0/3.3 V DC	Transmission clock signal
	B1	C2E_INT	O	0/3.3 V DC	controller interrupt signal
	A2	GND	-	-	Ground
	B2	C2E_OFFRDY	O	0/3.3 V DC	OFF mode sift signal
	A3	GND	-	-	Ground
	B3	VSYNC	I	0/3.3 V DC(pulse)	Sub scanning synchronizing signal
	A4	E2C_SBSY	I	0/3.3 V DC	System busy signal
	B4	E2C_SDIR	I	0/3.3 V DC	Serial communication direction signal
	A5	C2E_SDAT	O	0/3.3 V DC(pulse)	Serial communication data input
	B5	C2E_SCKN	O	0/3.3 V DC(pulse)	Serial communication clock signal
	A6	E2C_IRN	I	0/3.3 V DC	Engine interrupt signal
	B6	E2C_SDAT	I	0/3.3 V DC(pulse)	Serial communication data output
	A7	GND	-	-	Ground
	B7	PLGCLK	O	0/3.3 V DC	PM control signal
	A8	VDATA2N	O	0/3.3 V DC	Video data signal
	B8	VDATA1N	O	0/3.3 V DC	Video data signal
	A9	VDATA2P	O	0/3.3 V DC	Video data signal
	B9	VDATA1P	O	0/3.3 V DC	Video data signal
	A10	GND	-	-	Ground
	B10	PDN	I	0/3.3 V DC(pulse)	Main scanning synchronizing signal
	A11	SAMPLE1	O	0/3.3 V DC	Sample/Hold signal
	B11	SAMPLE2	O	0/3.3 V DC	Sample/Hold signal
	A12	C2P_SDAT	O	0/3.3 V DC	Panel transmitted data signal
	B12	P2C_SDAT	I	0/3.3 V DC	Panel received data signal

Connector	Pin	Signal	I/O	Voltage	Description
YC2	A13	C2P_LCDCON	O	0/3.3 V DC	Panel LCD control signal
Connected to the engine PWB	B13	P2C_PKEY	I	0/3.3 V DC	Panel start signal
	A14	C2P_BUZCON	O	0/3.3 V DC	Panel buzzer control signal
	B14	FUPRST	O	0/3.3 V DC	Panel reset signal
	A15	GND	-	-	Ground
	B15	GND	-	-	Ground
	A16	VBUS	O	5V DC	5 V DC power output to USB
	B16	UDATAP	I/O	-	USB data signal
	A17	GND	-	-	Ground
	B17	UDATAN	I/O	-	USB data signal
	A18	GND	-	-	Ground
	B18	GND	-	-	Ground
	A19	+5V2	I	5 V DC	5 V DC power input from EPWB
	B19	+5V2	I	5 V DC	5 V DC power input from EPWB
	A20	+5V2	I	5 V DC	5 V DC power input from EPWB
	B20	+5V2	I	5 V DC	5 V DC power input from EPWB
YC5	1	VDD5	O	5 V DC	5 V DC power output to eKUIO
Connected to the eKUIO IF	2	GND	-	-	Ground
	3	RESETN	O	0/3.3 V DC	Reset signal
	4	VDD5_CUT	O	0/3.3 V DC	Sleep signal
	5	GND	-	-	Ground
	6	WAKEUP	I	0/3.3 V DC	Wake-up signal
	7	AUDIO	I	0/3.3 V DC	Audio signal
	8	NC	-	-	Not used
	9	NC	-	-	Not used
	10	NC	-	-	Not used
	11	GND	-	-	Ground
	12	NC	-	-	Not used
	13	NC	-	-	Not used
	14	GND	-	-	Ground
	15	NC	-	-	Not used
	16	NC	-	-	Not used
	17	GND	-	-	Ground
	18	USB_DP	I/O	-	USB data signal
	19	USB_DN	I/O	-	USB data signal
	20	VBUS	O	5 V DC	5 V DC power output to eKUIO

Connector	Pin	Signal	I/O	Voltage	Description
YC6 Connected to the centro option I/F	1	+3.3V	O	3.3 V DC	5 V DC power output to OP
	2	+5.0V	O	5 V DC	5 V DC power output to OP
	3	P1284DIR	O	0/3.3 V DC	Direction input signal
	4	NACK	O	0/3.3 V DC	Acknowledge input signal
	5	BUSY	O	0/3.3 V DC	Busy input
	6	PERROR	O	0/3.3 V DC	Error signal
	7	SELECT	O	0/3.3 V DC	Select signal
	8	NFAULT	O	0/3.3 V DC	Error signal
	9	PDATA1	I/O	-	Data signal
	10	PDATA2	I/O	-	Data signal
	11	PDATA3	I/O	-	Data signal
	12	PDATA4	I/O	-	Data signal
	13	PDATA5	I/O	-	Data signal
	14	PDATA6	I/O	-	Data signal
	15	PDATA7	I/O	-	Data signal
	16	PDATA8	I/O	-	Data signal
	17	NSELECTIN	I	0/3.3 V DC	Select signal
	18	NSTROBE	I	0/3.3 V DC	Output signal
	19	NAUTOFD	I	0/3.3 V DC	AUTO-FEED signal
	20	NINIT	I	0/3.3 V DC	Reset signal
	21	PDETECT	I	0/3.3 V DC	OP detection signal
	22	GND	-	-	Ground
YC8 Connected to the network I/ F	1	TD1+	I/O	0/3.3 V DC(pulse)	Transmitted data
	2	TD1-	I/O	0/3.3 V DC(pulse)	Send data
	3	TD2+	I/O	0/3.3 V DC(pulse)	Send data
	4	TD2-	I/O	0/3.3 V DC(pulse)	Send data
	5	CT1	O	3.3 V DC	3.3 V DC power output
	6	CT2	O	3.3 V DC	3.3 V DC power output
	7	TD3+	I/O	0/3.3 V DC(pulse)	Send data
	8	TD3-	I/O	0/3.3 V DC(pulse)	Send data
	9	TD4+	I/O	0/3.3 V DC(pulse)	Send data
	10	TD4-	I/O	0/3.3 V DC(pulse)	Send data
	11	GRLED_A	I	0/3.3 V DC	LED flashing caution signal
	12	GRLED_K	I	0/3.3 V DC	LED flashing caution signal
	13	YWLED_A	I	0/3.3 V DC	LED flashing caution signal
	14	YWLED_K	I	0/3.3 V DC	LED flashing caution signal

Connector	Pin	Signal	I/O	Voltage	Description
YC10 Connected to the USB host I/F USB device I/F	A1	VBUS_A	O	5 V DC	5 V DC power output to USB device
	A2	D-_A	I/O	-	USB data signal
	A3	D+_A	I/O	-	USB data signal
	A4	GND_A	-	-	Ground
	B1	VBUS_B	O	5 V DC	5 V DC power output to USB host
	B2	D-_B	I/O	-	USB data signal
	B3	D+_B	I/O	-	USB data signal
	B4	GND_B	-	-	Ground

2-3-2 Engine PWB (EPWB)

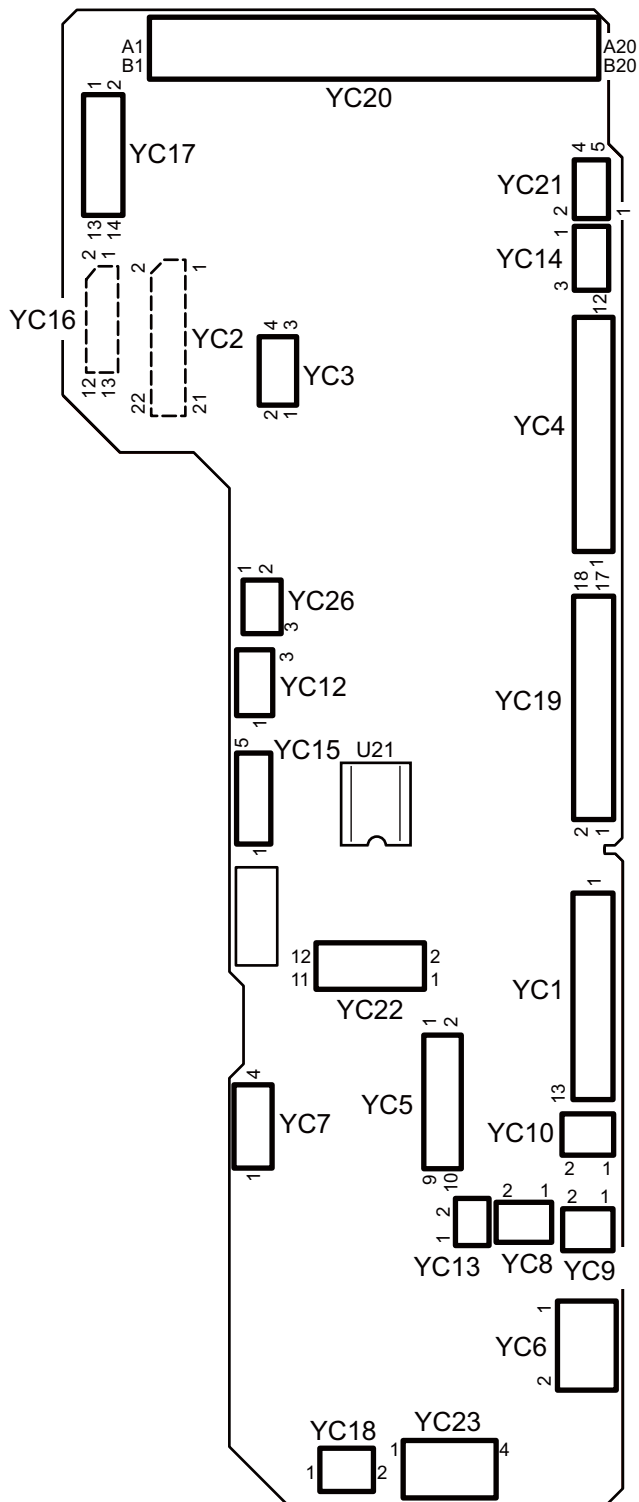


Figure 2-3-2

Connector	Pin	Signal	I/O	Voltage	Description
YC1 Connected to the power source PWB	1	HEAT2REM	O	0/3.3 V DC	TH2 remote signal
	2	HEAT1REM	O	0/3.3 V DC	TH1 remote signal
	3	ZCROSSN	I	0/3.3 V DC	Zero crossing detection signal
	4	RELAY	O	0/3.3 V DC	Relay driving signal
	5	PSLEEPN	O	0/3.3 V DC	Sleep signal
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	GND	-	-	Ground
	9	GND	-	-	Ground
	10	+24V1	I	24 V DC	24 V DC power input from PSPWB
	11	+24V1	I	24 V DC	24 V DC power input from PSPWB
	12	+24V1	I	24 V DC	24 V DC power input from PSPWB
	13	+24V1	I	24 V DC	24 V DC power input from PSPWB
YC2 Connected to the relay-L PWB	1	EECLK	O	0/3.3 V DC	Clock signal
	2	GND	-	-	Ground
	3	EESIO	I/O	0/3.3 V DC(pulse)	Communication data
	4	ERASER	O	0/3.3 V DC	CL: On/Off
	5	+3.3V6	O	3.3 V DC	3.3 V DC power output to R-LPWB
	6	TSSENS	I	Analog	TS output signal
	7	SBMDIR	O	0/3.3 V DC	SBM: On/Off
	8	WTSSENS	I	Analog	WTS output signal
	9	SBMENBLN	O	0/3.3 V DC	SBM enable signal
	10	WTLED	O	0/3.3 V DC	LED: On/Off
	11	SBMSTEP	O	0/3.3 V DC(pulse)	SBM clock signal
	12	MEFSSENS	I	0/3.3 V DC	MPS: On/Off
	13	SBMMODE	O	0/3.3 V DC	SBM mode signal
	14	+3.3V2	O	3.3 V DC	3.3 V DC power output
	15	TMOT	O	0/3.3 V DC	TM: On/Off
	16	LFANN	O	0/3.3 V DC	CENFM: On/Off
	17	FUDR	O	0/3.3 V DC	FSSOL: On/Off
	18	ENVMOT	O	0/3.3 V DC	FUPRM: On/Off
	19	FDDR	O	0/3.3 V DC	FSSOL: On/Off
	20	DUJAMSEN1 N	I	0/3.3 V DC	DUS: On/Off
	21	REGSEN2	I	0/3.3 V DC	RS: On/Off
	22	REARSWN	I	0/3.3 V DC	RCS: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC3 Connected to the relay-L PWB	1	+24V4	O	24 V DC	24 V DC power output
	2	GND	-	-	Ground
	3	GND	-	-	Ground
	4	+24V6	O	24 V DC	24 V DC power output
YC4 Connected to the drum motor and main motor	1	MMOTCW	O	0/5 V DC	MM drive shift signal
	2	MMOTRDYN	I	0/3.3 V DC	MM ready signal
	3	MMOTCLKN	O	0/5 V DC(pulse)	MM clock signal
	4	MMOTONN	O	0/5 V DC	MM: On/Off
	5	GND	-	-	Ground
	6	+24V3	O	24 V DC	24 V DC power output
	7	DMOTCW	O	0/5 V DC	DRM rotation direction
	8	DMOTRDYN	I	0/3.3 V DC	DRM ready signal
	9	DMOTCLKN	O	0/5 V DC(pulse)	DRM clock signal
	10	DMOTONN	O	0/5 V DC	DRM: On/Off
	11	GND	-	-	Ground
	12	+24V3	O	24 V DC	24 V DC power output
YC5 Connected to the duplex cltch, mid cltch, registration clutch, paper feed cltch and developer clutch	1	+24V3	O	24 V DC	24 V DC power output to DEVCL
	2	DLPCLN	O	0/3.3 V DC	DEVCL: On/Off
	3	+24V3	O	24 V DC	24 V DC power output to PFCL
	4	FEEDCLN	O	0/24 V DC	PFCL: On/Off
	5	+24V3	O	24 V DC	24 V DC power output to RCL
	6	REGCLN	O	0/24 V DC	RCL: On/Off
	7	+24V3	O	24 V DC	24 V DC power output to PCCL
	8	MIDCLN	O	0/24 V DC	PCCL: On/Off
	9	+24V3	O	24 V DC	24 V DC power output to DUCL
	10	DUCLN	O	0/24 V DC	DUCL: On/Off
YC6 Connected to the interlock switch	1	+24V1	O	24 V DC	24 V DC power output
	2	+24V2	O	24 V DC	24 V DC power output
YC7 Connected to the cassette size switch	1	CAS3	I	0/24 V DC	CSSW: On/Off
	2	CAS2	I	0/3.3 V DC	CSSW: On/Off
	3	CASSET	-	-	CSSW common signal
	4	CAS1	I	0/3.3 V DC	CSSW: On/Off


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Connector	Pin	Signal	I/O	Voltage	Description
YC8 Connected to the MP solenoid	1	+24V3	O	24 V DC	24 V DC power output to MPSOL
	2	MEFSOLN	O	0/24 V DC	MPSOL: On/Off
YC9 Connected to the drum heater	1	DHEATER	O	0/24 V DC	DH: On/Off
	2	+24V1	O	24 V DC	24 V DC power output to DH
YC10 Connected to the power source fan motor	1	+24V1	O	24 V DC	24 V DC power output to PSFM
	2	FANRN	O	0/24 V DC	PSFM: On/Off
YC12 Connected to the eject full sensor	1	+3.3V10	O	3.3 V DC	3.3 V DC power output to EFS
	2	GND	-	-	Ground
	3	PAPFULN	I	0/3.3 V DC	EFS: On/Off
YC13 Connected to the lift motor	1	LIFTMOTOR	O	0/5 V DC	LM: On/Off
	2	GND	-	-	Ground
YC14 Connected to the lift sensor	1	+3.3V9	O	3.3 V DC	3.3 V DC power output to LS
	2	GND	-	-	Ground
	3	LSSENS	I	0/3.3 V DC	LS: On/Off
YC15 Connected to the polygon motor	1	+24V6	O	24 V DC	24 V DC power output to PM
	2	GND	-	-	Ground
	3	PLGDRN	O	0/5 V DC	PM: On/Off
	4	PLGRDYN	I	0/3.3 V DC	PM ready signal
	5	POLCLK	O	0/3.3 V DC(pulse)	PM clock signal
YC16 Connected to the APC PWB	1	+5V5	O	5 V DC	5 V DC power output to APCPWB
	2	VDATA1P	O	LVDS	Video data 1 signal (+)
	3	VDATA1N	O	LVDS	Video data 1 signal (-)
	4	VDATA2P	O	LVDS	Video data 2 signal (+)
	5	VDATA2N	O	LVDS	Video data 2 signal (-)
	6	SAMPLEN1	O	0/3.3 V DC	Sample / hold signal 1
	7	SAMPLEN2	O	0/3.3 V DC	Sample / hold signal 2
	8	OUTPEN	O	0/3.3 V DC	Laser enable
	9	VCONT1	O	Analog	LD-1 Light volume adjustment
	10	VCONT2	O	Analog	LD-2 Light volume adjustment
	11	GND	-	-	Ground
	12	PDN	I	0/3.3 V DC (pulse)	Main scanning synchronizing signal

Connector	Pin	Signal	I/O	Voltage	Description
YC16	13	+3.3V6	O	3.3 V DC	3.3 V DC power output to APCPWB
YC17	1	+3.3V6	O	3.3 V DC	3.3 V DC power output to OPPWB
Connected to the operation PWB	2	FPRSTN	O	0/3.3 V DC	OPPWB reset signal
	3	P2C_OK_KEY	I	0/3.3 V DC	OK KEY:On/Off
	4	C2P_BUZCON	O	0/3.3 V DC	Buzzer control signal
	5	AIRTEMP	I	Analog	Temperature sensor input signal
	6	C2P_LCDCON	O	0/5 V DC	LCD: On/Off
	7	+5V5	O	5 V DC	5 V DC power output to LCD
	8	P2C_SDAT	I	0/3.3 V DC	Data signal
	9	AIRWET	I	Analog	Humid sensor input signal
	10	C2P_SDAT	O	0/3.3 V DC	The data signal between panel main
	11	WETCLK	O	0/3.3 V DC (pulse)	Humid sensor clock signal
	12	LED	O	0/3.3 V DC	READY LED control signal
	13	FG	-	-	Ground
	14	GND	-	-	Ground
YC18	1	GND	-	-	Ground
Connected to the power switch	2	POWERSW	I	0/3.3 V DC	PSSW: On/Off
YC19	1	ENVSENSN	I	0/3.3 V DC	ENVS: On/Off
Connected to the high voltage PWB	2	GND	-	-	Ground
	3	MISENS	I	Analog	MC output signal
	4	MHVCLK	O	0/3.3 V DC (pulse)	MC clock signal
	5	MACCNT	O	Analog	MC AC control signal
	6	MDCCNT	O	Analog	MC DC control signal
	7	HVCLK	O	0/3.3 V DC (pulse)	DEV clock signal
	8	BDCNT	O	Analog	DEV DC control signal
	9	BACNT	O	Analog	DEV AC control signal
	10	PAPERSEN2N	I	0/3.3 V DC	EFS2: On/Off
	11	PAPERSEN1N	I	0/3.3 V DC	EFS1: On/Off
	12	REGSENSN	I	0/3.3 V DC	RS: On/Off
	13	DUJAMSEN2N	I	0/3.3 V DC	DUS: On/Off
	14	+3.3V6	O	3.3 V DC	3.3 V DC power output to HVPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC19 Connected to the high volt- age PWB	15	SCNT	O	0/3.3 V DC	Separation output control signal
	16	TRREM	O	0/3.3 V DC	TC remote signal
	17	TCNT	O	Analog	TC control signal
	18	+24V3	O	24 V DC	24 V DC power output to HVPWB
YC20 Connected to the main PWB	A1	+5V2	O	5 V DC	5 V DC power output to MPWB
	A2	+5V2	O	5 V DC	5 V DC power output to MPWB
	A3	GND	-	-	Ground
	A4	GND	-	-	Ground
	A5	VBUS	I	3.3 V DC	3.3 V DC power output to USB host
	A6	GND	-	-	Ground
	A7	C2P_BUZCO N	I	0/3.3 V DC	Buzzer control signal
	A8	C2P_LCDCO N	I	0/3.3 V DC	LCD: On/Off
	A9	C2P_SDAT	I	0/3.3 V DC	The data signal between panel main
	A10	SAMPLE1	I	0/3.3 V DC	Sample / hold signal 1
	A11	GND	-	-	Ground
	A12	VDATA2P	I	LVDS	Video data 2 signal (+)
	A13	VDATA2N	I	LVDS	Video data 2 signal (-)
	A14	GND	-	-	Ground
	A15	E2C_IRN	O	0/3.3 V DC	Engine interrupt signal
	A16	C2E_SDAT	I	0/3.3 V DC	Serial communication data input
	A17	E2C_SBSY	O	0/3.3 V DC	System busy signal
	A18	GND	-	-	Ground
	A19	GND	-	-	Ground
	A20	E2C_INT	O	0/3.3 V DC	Interrupt signal
	B1	+5V2	O	5 V DC	5 V DC power output to MPWB
	B2	+5V2	O	5 V DC	5 V DC power output to MPWB
	B3	GND	-	-	Ground
	B4	UDATAN	I/O	LVDS	USB host data signal (-)
	B5	UDATAP	I/O	LVDS	USB host data signal (+)
	B6	GND	-	-	Ground
	B7	FPRSTN	I	0/3.3 V DC	OPPWB reset signal
	B8	P2C_PKEY	O	0/3.3 V DC	OK KEY:On/Off
	B9	P2C_SDAT	O	0/3.3 V DC	The data signal between panel main
	B10	SAMPLE2	I	0/3.3 V DC	Sample / hold signal 2
	B11	PDN	O	0/3.3 V DC (pulse)	Main scanning synchronizing signal

Connector	Pin	Signal	I/O	Voltage	Description
YC20 Connected to the main PWB	B12	VDATA1P	I	LVDS	Video data 1 signal (+)
	B13	VDATA1N	I	LVDS	Video data 1 signal (-)
	B14	PLGCLK	I	0/3.3 V DC (pulse)	PM clock signal
	B15	E2C_SDAT	O	0/3.3 V DC (pulse)	Serial communication data output
	B16	C2E_SCKN	I	0/3.3 V DC (pulse)	Serial communication clock
	B17	E2C_SDIR	O	0/3.3 V DC	Communication direction change signal
	B18	VSYNCR	O	0/3.3 V DC (pulse)	Sub scanning synchronizing signal
	B19	C2E_OFFRDY	I	0/3.3 V DC	Off-mode notice signal
	B20	C2E_INT	I	0/3.3 V DC	Interrupt signal
YC21 Connected to the fuser thermistor connect PWB	1	TH2	I	Analog	FUTH2 output signal
	2	TH1	I	Analog	FUTH1 output signal
	3	GND	-	-	Ground
	4	REARFANN	O	24 V DC	REFM: On/Off
	5	+24V4	O	24 V DC	24 V DC power output to FTHPWB
YC22 Connected to the paper feeder	1	+24V5	O	24 V DC	24 V DC power output to PF
	2	OPSDO	O	0/3.3 V DC (pulse)	PF communication serial data signal
	3	OPSDI	I	0/3.3 V DC (pulse)	PF communication serial data signal
	4	OPCLK	O	0/3.3 V DC (pulse)	PF communication serial clock signal
	5	OPRDYN	I	0/3.3 V DC	Option communication ready signal
	6	+3.3V7	O	3.3 V DC	3.3 V DC power output to PF
	7	GND	-	-	Ground
	8	OPSEL2	O	0/3.3 V DC	PF select signal
	9	OPSEL1	O	0/3.3 V DC	PF select signal
	10	OPSEL0	O	0/3.3 V DC	PF select signal
	11	OPPAUSEN	O	0/3.3 V DC	Paper stop signal
	12	GND	-	-	Ground
YC23 Connected to the USB host	1	VBUS	O	5 V DC	5 V DC power output to USB host
	2	UDATAN	I/O	LVDS	USB data signal (-)
	3	UDATAP	I/O	LVDS	USB data signal (+)
	4	GND	-	-	Ground
	5	GND	-	-	Ground
YC26 Connected to the eject sensor	1	+3.3V13	O	3.3 V DC	3.3 V DC power output to ES
	2	GND	-	-	Ground
	3	EXITSNSN	I	0/3.3 V DC	ES: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC27	1	DLPFAN	O	DC24V	24 V DC power output to DEVFM
Connected to the developer fan motor	2	GND	-	-	Ground

2-3-3 Power source PWB (PSPWB)

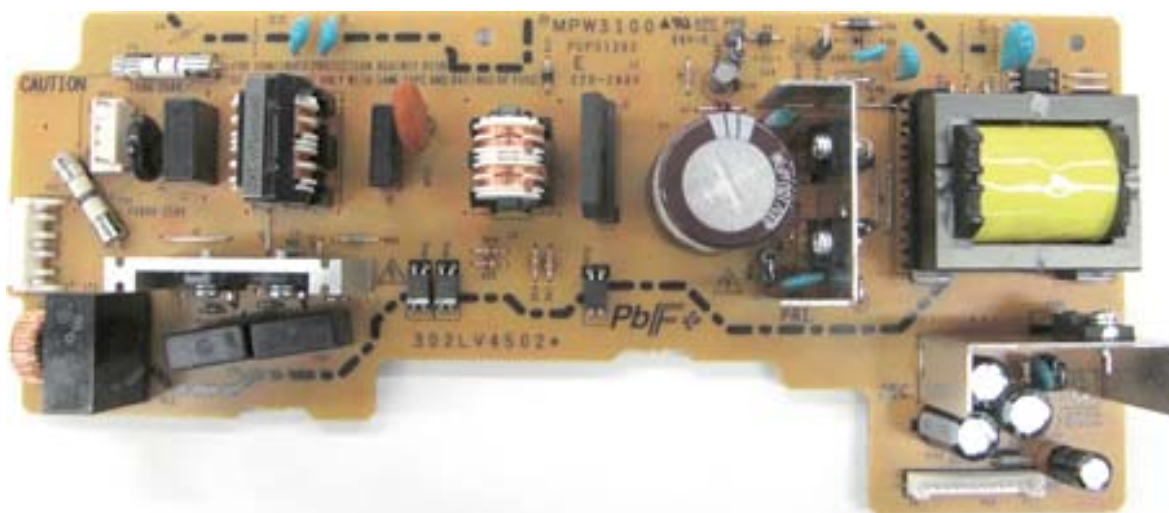
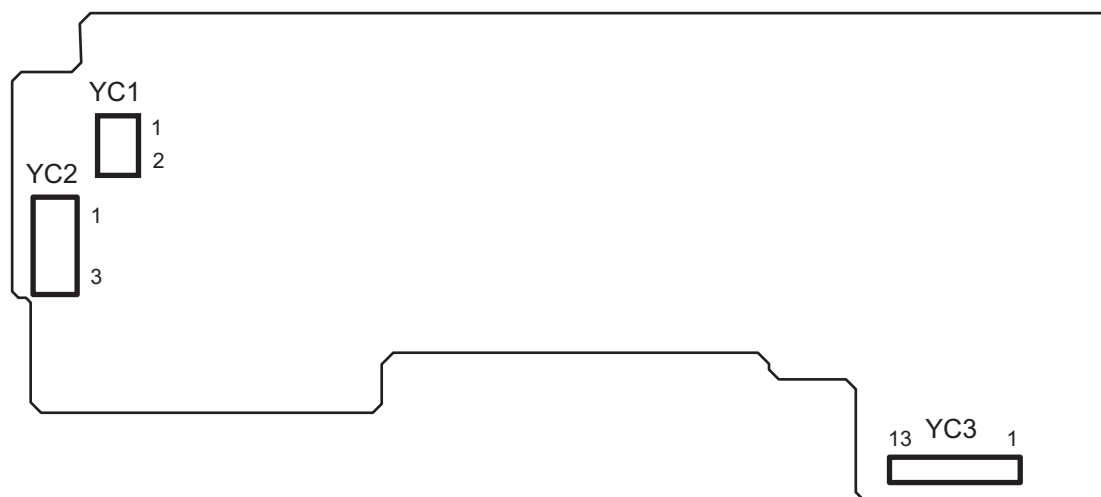


Figure 2-3-3

Connector	Pin	Signal	I/O	Voltage	Description
YC1 Connected to the inlet	1	LIVE	I	100 V AC	AC power input
	2	NEUTRAL	I	100 V AC	AC power input
YC2 Connected to the fuser unit	1	NEUTRAL1	I	100 V AC	Fuser heater
	2	LIVE	O	100 V AC	AC power input
	3	NEUTRAL2	I	100 V AC	Fuser heater
YC3 Connected to the engine PWB	1	+24V1	O	24 V DC	24 V DC power output to EPWB
	2	+24V1	O	24 V DC	24 V DC power output to EPWB
	3	+24V1	O	24 V DC	24 V DC power output to EPWB
	4	+24V1	O	24 V DC	24 V DC power output to EPWB
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	GND	-	-	Ground
	9	PSLEEPN	I	0/5 V DC	Sleep mode signal
	10	RELAY	I	0/5 V DC	Relay control
	11	ZCROSSN	O	0/5 V DC(pulse)	Zero crossing signal
	12	HEAT1REM	I	0/24 V DC	Fuser heater control
	13	HEAT2REM	I	0/24 V DC	Fuser heater control

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2-3-4 Relay-L PWB (R-LPWB)

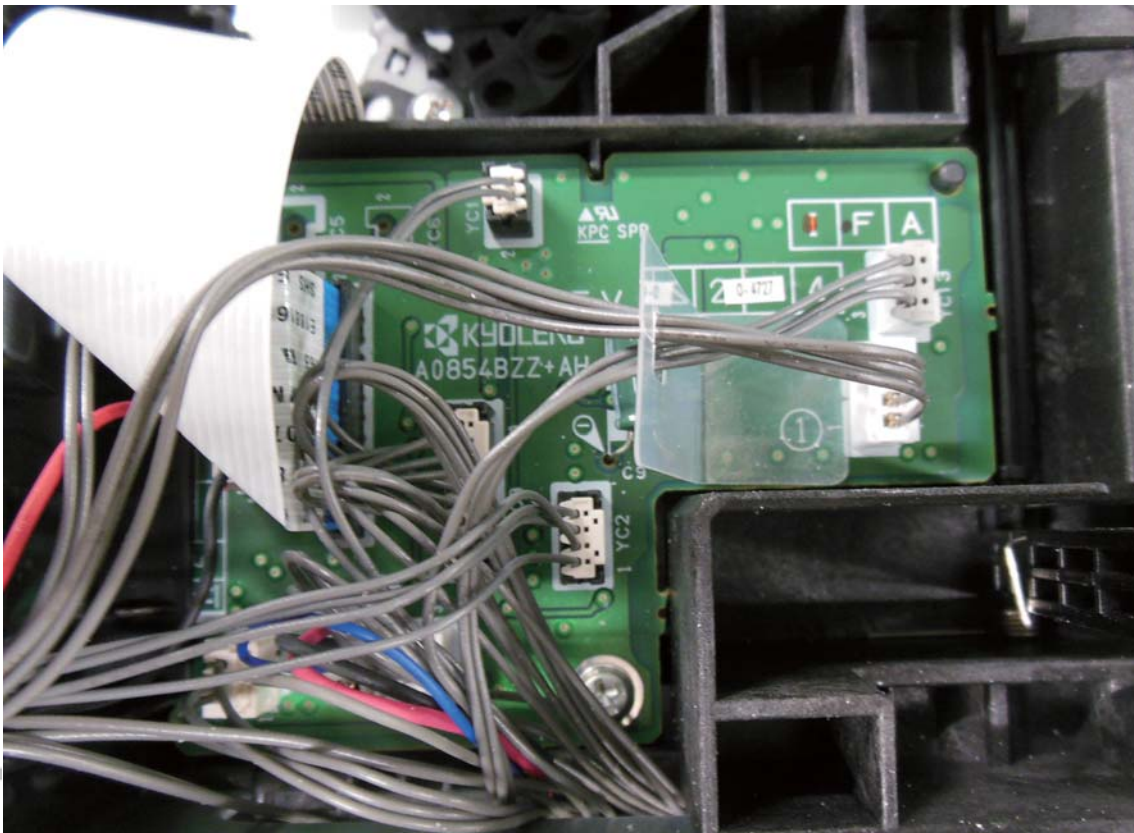
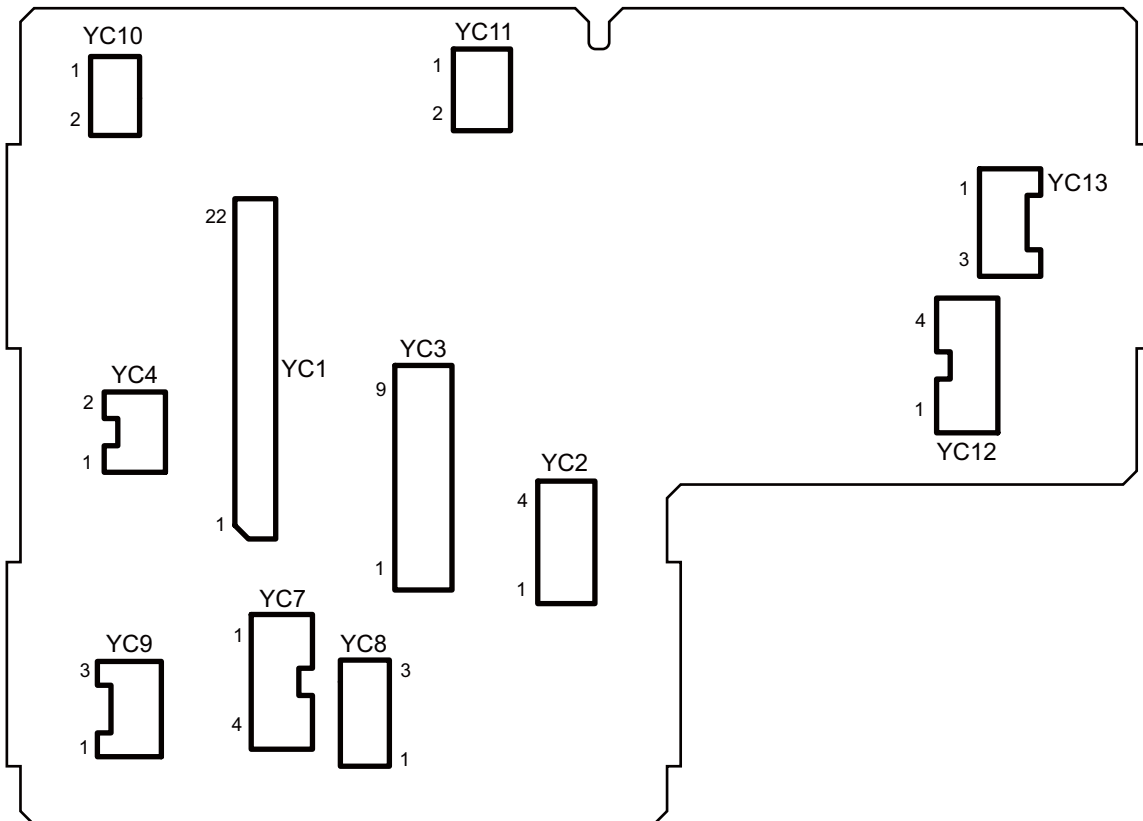


Figure 2-3-4

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	EECLK	I	0/3.3 V DC(pulse)	Clock signal
Connected to the engine PWB	2	GND	-	-	Ground
	3	EESIO	I/O	0/3.3 V DC	Data signal
	4	ERASER	I	0/24 V DC	CL control signal
	5	+3.3V6	I	3.3 V DC	3.3 V DC power input from EPWB
	6	TSSENS	O	Analog	TS output signal
	7	SBMDIR	I	0/3.3 V DC	SBM: On/Off
	8	WTSSENS	O	Analog	WTS output signal
	9	SBMENBLN	I	0/3.3 V DC	SBM output control signal
	10	WTLED	I	0/3.3 V DC	Waste toner LED control
	11	SBMSTEP	I	0/3.3 V DC	SBM step signal
	12	MPFSSENS	O	0/3.3 V DC	MPS: On/Off
	13	SBMMODE	I	0/3.3 V DC	SBM mode control signal
	14	+3.3V2	I	3.3 V DC	3.3 V DC power input from EPWB
	15	TMOT	I	0/24 V DC	TM: On/Off
	16	LFANN	I	0/24 V DC	LFM: On/Off
	17	FUDR	I	0/24 V DC	FSSOL: On/Off
	18	ENVMOT	I	0/24 V DC	ENVM: On/Off
	19	FDDR	I	0/24 V DC	FSSOL: On/Off
	20	DUJAMSEN1 N	O	0/3.3 V DC	DUS1: On/Off
	21	REGSEN2	O	0/3.3 V DC	RS2: On/ Off
	22	REARSWN	O	0/3.3 V DC	RECSW: On/Off
YC2	1	+24V6	I	24 V DC	24 V DC power input from EPWB
Connected to the engine PWB	2	GND	-	-	Ground
	3	GND	-	-	Ground
	4	LFANVCC	I	0/24 V DC	LEM drive signal
YC3	1	TSSENS	I	Analog	TS output signal
Connected to the drum connect PWB	2	+24V6	O	24 V DC	24 V DC power output to DRRPWB
	3	ERASERN	O	0/24 V DC	CL: On/Off
	4	EECLK	O	0/3.3 V DC(pulse)	Clock signal
	5	EESIO	I/O	0/3.3 V DC	Data signal
	6	TMOT	O	0/5 V DC	TM control signal
	7	+3.3V6	O	3.3 V DC	3.3 V DC power output to DRRPWB
	8	GND	-	-	Ground
	9	REGSEN2	I	0/3.3 V DC	RS2: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC4 Connected to the LSU fan motor	1	LFANN	-	0/24 V DC	LFM: On/Off
	2	LFANVCC	O	0/24 V DC	LEM drive signal
YC7 Connected to the waste toner sensor	1	+3.3V12	O	3.3 V DC	3.3 V DC power output to WTS(LED)
	2	WTLEDN	I	0/3.3 V DC	WTS(LED): On/Off
	3	WTSENS	I	Analog	WTS output signal
	4	+3.3V6	O	3.3 V DC	3.3 V DC power output to WTS
YC8 Connected to the MP paper sensor	1	+3.3V8	O	-	3.3 V DC power output to MPS
	2	GND	-	-	Ground
	3	MEFSSENS	I	0/3.3 V DC	MPS: On/Off
YC9 Connected to the duplex sensor 1	1	+3.3V11	O	3.3 V DC	3.3 V DC power output to DUS
	2	GND	-	-	Ground
	3	DUJAMSEN1 N	I	0/3.3 V DC	DUS: On/Off
YC10 Connected to the rear cover switch	1	REARSWN	I	0/3.3 V DC	RECSW: On/Off
	2	GND	-	-	Ground
YC11 Connected to the fuser pressure release motor	1	ENVMOT	O	0/24 V DC	FUPRM: On/Off
	2	GND	-	-	Ground
YC12 Connected to the shiftback motor	1	OUTB3	O	0/24 V DC	SBM B3 drive control signal
	2	OUTB1	O	0/24 V DC	SBM B1 drive control signal
	3	OUTA3	O	0/24 V DC	SBM A3 drive control signal
	4	OUTA1	O	0/24 V DC	SBM A1 drive control signal
YC13 Connected to the feed shift solenoid	1	FACEDDRN	O	0/24 V DC	FSSOL: On/Off
	2	+24V6	O	24 V DC	24 V DC power output to FSSOL
	3	FACEUDRN	O	0/24 V DC	FSSOL: On/Off

2-3-5 High voltage PWB (HVPWB)

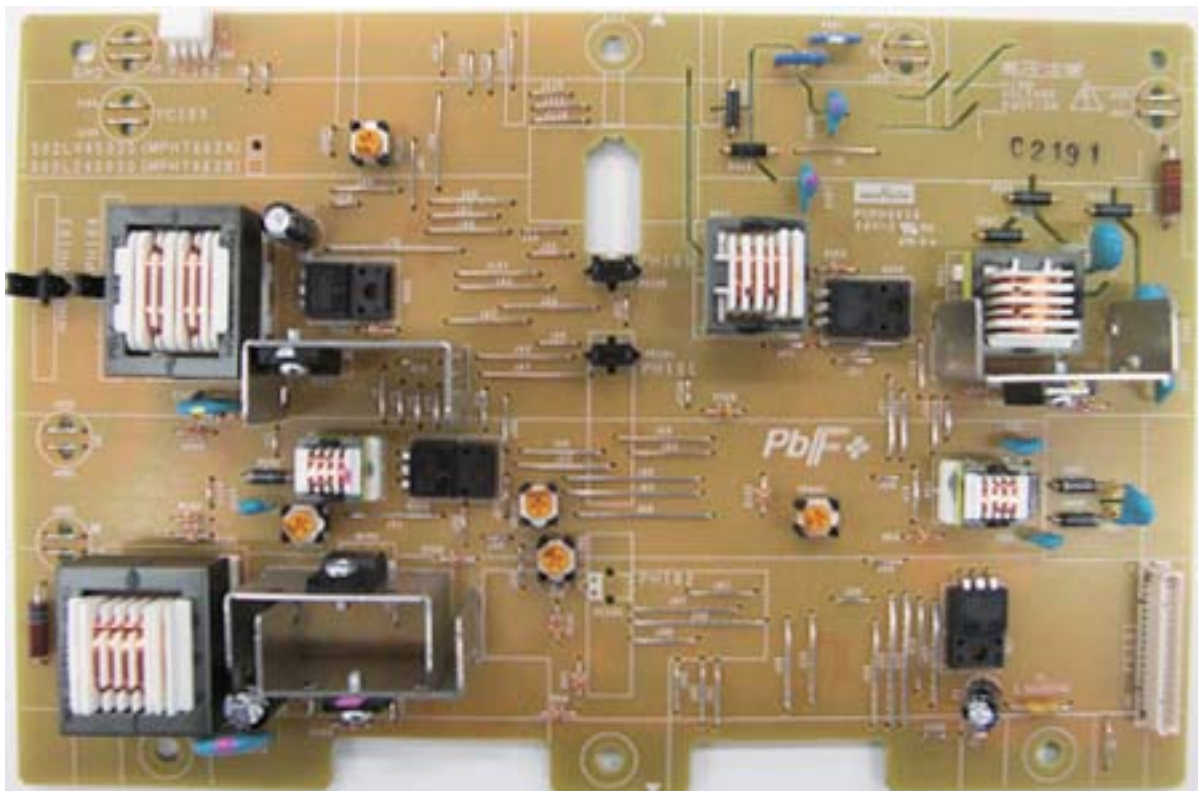
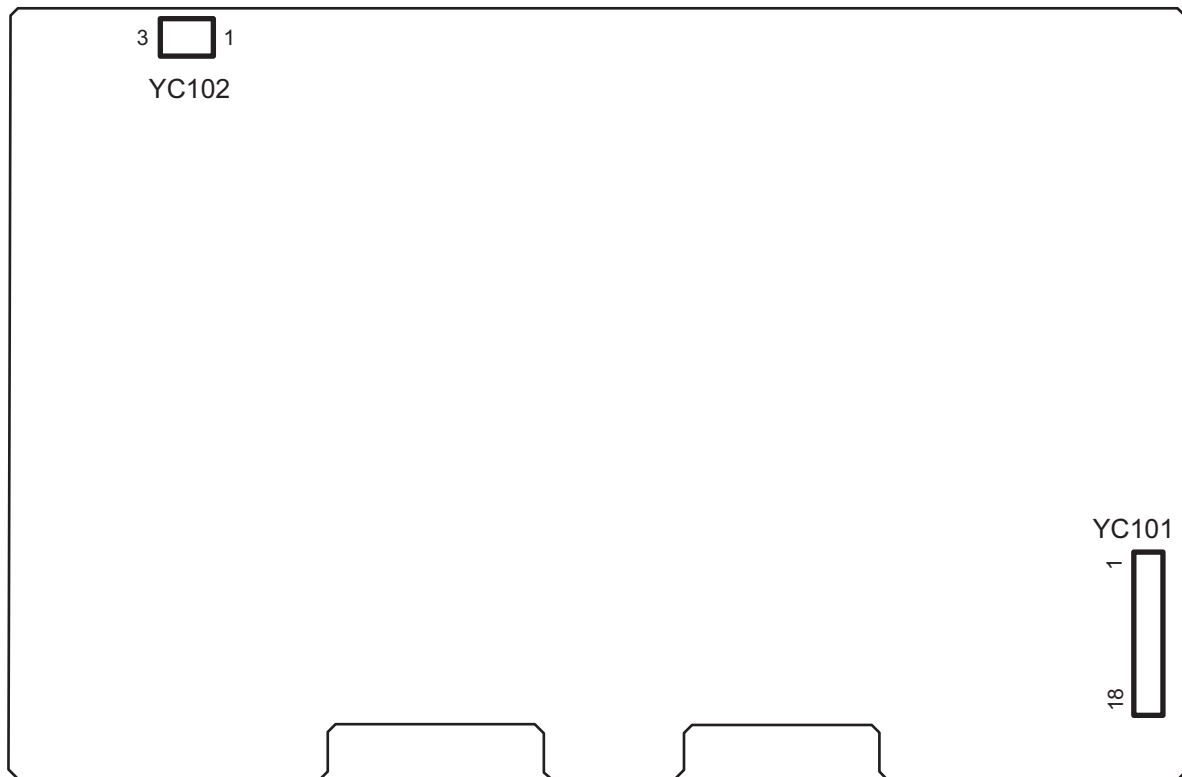


Figure 2-3-5

Connector	Pin	Signal	I/O	Voltage	Description
YC101 Connected to the engine PWB	1	+24V3	O	24 V DC	24 V DC power output to EPWB
	2	TCNT	O	Analog	Transfer control
	3	TRREM	O	0/3.3 V DC	Transfer remote signal
	4	SCNT	O	Analog	Separation control
	5	+3.3V6	O	3.3 V DC	3.3 V DC power output
	6	DUJAMSEN2 N	I	0/3.3 V DC	DUS2:On/Off
	7	REGSENSN	I	0/3.3 V DC	RS:On/Off
	8	PAPERSEN1 N	I	0/3.3 V DC	PS1:On/Off
	9	PAPERSEN2 N	I	0/3.3 V DC	PS2:On/Off
	10	BACNT	I	Analog	Developer AC control
	11	BDCNT	I	Analog	Developer DC control
	12	HVCLK	O	0/3.3 V DC	Developer clock signal
	13	MDCCNT	I	Analog	Charger DC control
	14	MACCNT	I	Analog	Charger AC control
	15	MHVCLK	O	0/3.3 V DC	Charger clock signal
	16	MISENS	O	Analog	Charger current detection
	17	GND	-	-	Ground
	18	ENVSENSN	I	0/3.3 V DC	ES:On/Off
YC102 Connected to the fuser pressure release sen- sor	1	+3.3V14	O	3.3 V DC	3.3 V DC power output to FUPRS
	2	GND	-	-	Ground
	3	ENVSENSN	I	0/3.3 V DC	FUPRS:On/Off


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2-3-6 PF main PWB

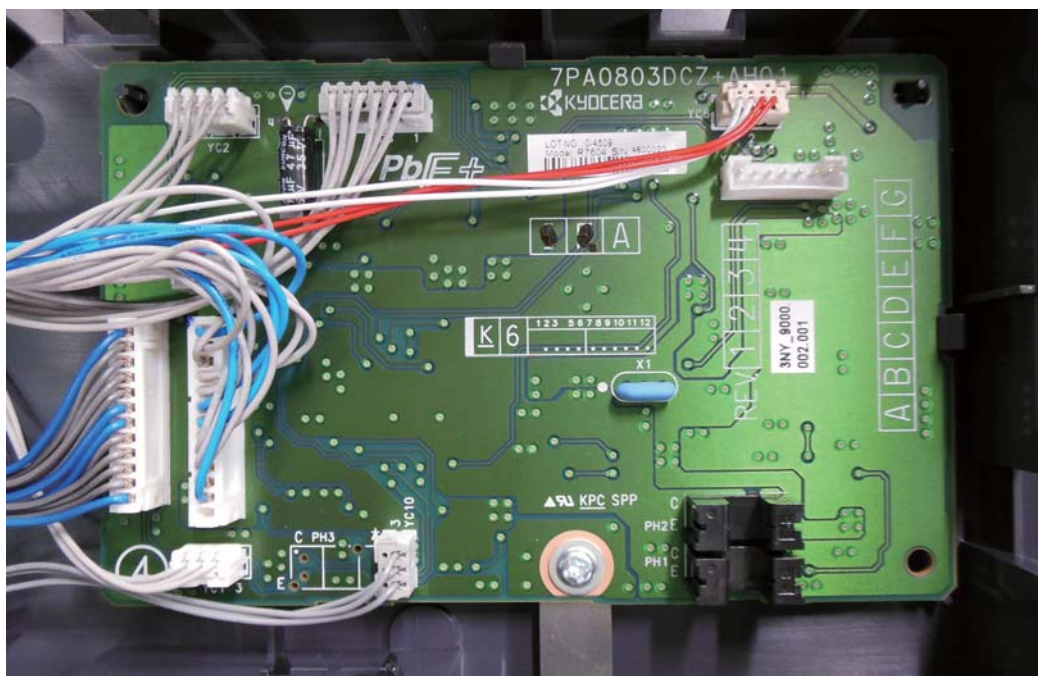
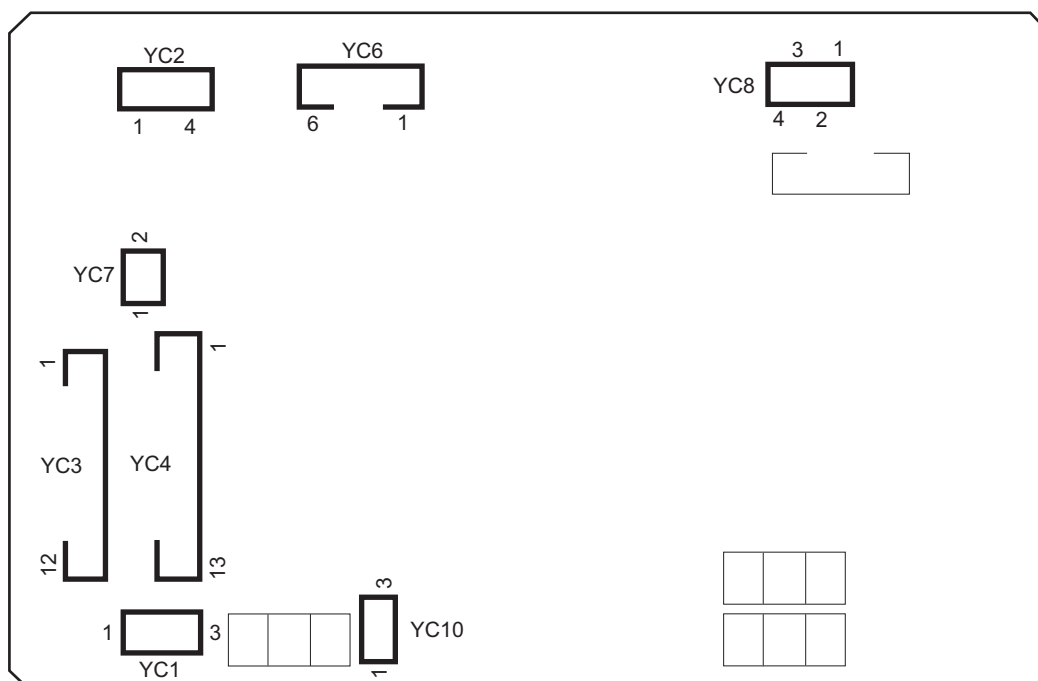


Figure 2-3-6

Connector	Pin	Signal	I/O	Voltage	Description
YC1 Connected to the PF paper fed sensor	1	+3.3V2	-	3.3 V DC	3.3 V DC power output to PFS
	2	GND	-	-	Ground
	3	OUT	I	0/3.3 V DC	PFPFS: On/Off
YC2 Connected to the PF cassette size switch	1	PAPSIZE0	I	0/3.3 V DC	PFCSSW0: On/Off
	2	PAPSIZE1	I	0/3.3 V DC	PFCSSW1: On/Off
	3	GND	-	-	Ground
	4	PAPSIZE2	I	0/3.3 V DC	PFCSSW2: On/Off
YC3 Connected to the printer by the upper paper feeder	1	+24V1	O	24 V DC	24 V DC power source
	2	OPSDO	O	0/3.3 V DC(pulse)	Synchronous serial receiving data
	3	OPSDI	O	0/3.3 V DC(pulse)	Synchronous serial send data
	4	OPCLK	O	0/3.3 V DC(pulse)	Synchronous serial clock signal
	5	OPRDYN	-	0/3.3 V DC	SPI ready signal
	6	+3.3V1	-	3.3 V DC	3.3 V DC power source
	7	GND	-	-	Ground
	8	OPSEL2	-	0/3.3 V DC	SPI_SEL 2
	9	OPSEL1	I	0/3.3 V DC	SPI_SEL 1
	10	OPSEL0	I	0/3.3 V DC	SPI_SEL 0
	11	OPPAUSEN	O	0/3.3 V DC	PF operation stop signal
	12	GND	I	-	Ground
YC4 Connected to the lower paper feeder	1	+24V1	-	24 V DC	24 V DC power source
	2	OPSDO	O	0/3.3 V DC(pulse)	Synchronous serial receiving data
	3	OPSDI	I	0/3.3 V DC(pulse)	Synchronous serial send data
	4	OPCLK	O	0/3.3 V DC(pulse)	Synchronous serial clock signal
	5	OPRDYN	I	0/3.3 V DC	SPI ready signal
	6	+3.3V1	-	3.3 V DC	3.3 V DC power source
	7	GND	-	-	Ground
	8	OPSEL2	O	0/3.3 V DC	SPI_SEL 2
	9	OPSEL1	O	0/3.3 V DC	SPI_SEL 1
	10	OPSEL0	O	0/3.3 V DC	SPI_SEL 0
	11	OPPAUSEN	O	0/3.3 V DC	PF operation stop signal
	12	GND	-	-	Ground
	13	NC	-	-	-

Connector	Pin	Signal	I/O	Voltage	Description
YC6 Connected to the PF paper feed motor	1	TMDIR	O	0/3.3 V DC	PFPFM rotation direction signal
	2	TMLOCK	I	0/3.3 V DC	PFPFM rotation stable signal
	3	TMCLK	O	0/3.3 V DC(pulse)	PFPFM clock signal
	4	TMDRVN	O	0/3.3 V DC	PFPFM control signal
	5	GND	-	-	Ground
	6	+24V2	-	24 V DC	24 V DC power output to PFPFM
YC7 Connected to the PF lift motor	1	GND	-	-	Ground
	2	LMOTOR	O	0/24 V DC	PFLM control signal
YC8 Connected to the PF paper feed clutch and PF feed clutch	1	+24V2	-	24 V DC	24 V DC power output to PFFCL
	2	FEEDCLN	O	0/3.3 V DC	PFFCL control signal
	3	+24V2	-	24 V DC	24 V DC power output to PFPFCL
	4	TRANSCLN	O	0/3.3 V DC	PFPFCL control signal
YC10 Connected to the PF lift sensor	1	+3.3V_LIFT	I	DC0V/3.3V	PFLS: On/Off
	2	GND	-	-	Ground
	3	LIFTOUT	O	3.3 V DC	3.3 V DC power output to PFLS

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2-4-1 Appendixes

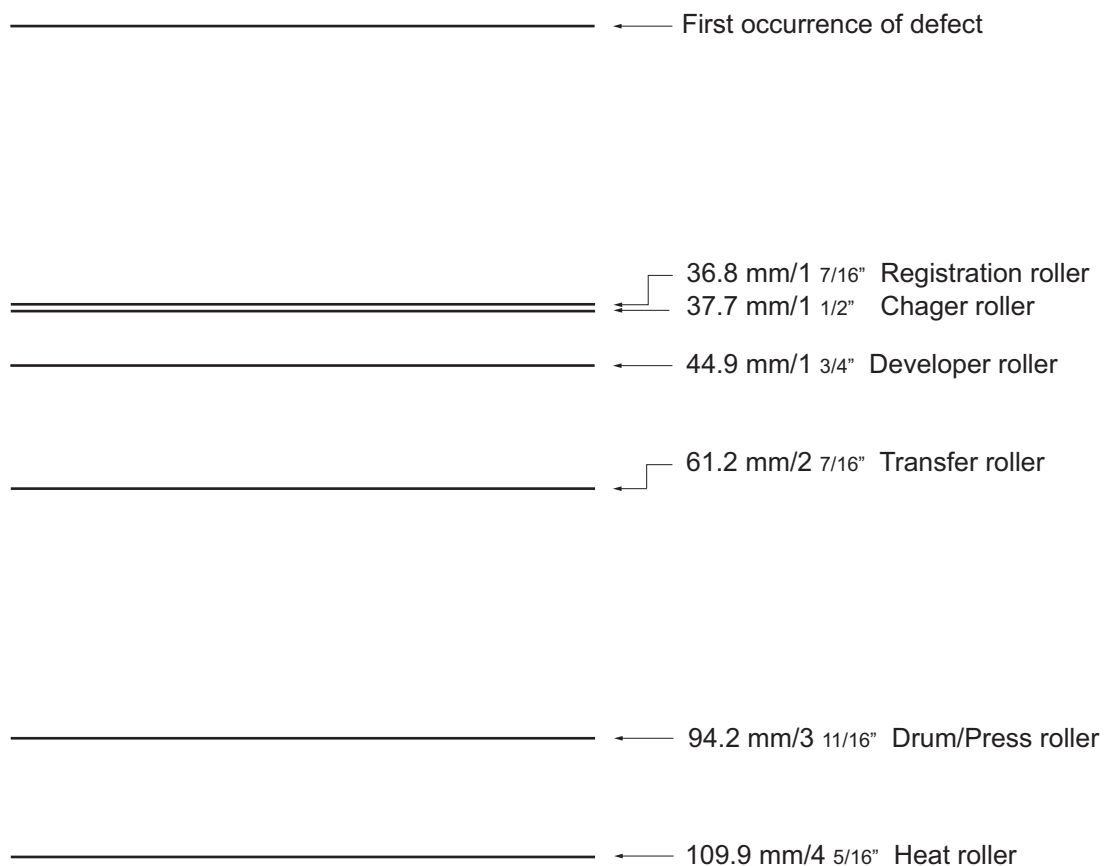
(1) Maintenance kits

KDE

Maintenance part name		Parts No.	Alternative part No.
Name used in service	Name used in parts list		
MK-7300/MAINTENANCE KIT (500,000 images)	MK-7300/MAINTENANCE KIT	1702P78NL0	072P78NL
Retard roller assembly	RETARD ROLLER ASSY	-	-
Drum unit	DRUM UNIT (KDE)	-	-
Fuser unit	FUSER UNIT (KDE)	-	-
Transfer roller assembly	ROLLER TRANSFER ASSY	-	-
Paper feed roller assembly	HOLDER FEED ASSY SP	-	-
Developer unit	DLP UNIT	-	-

KDAU

Maintenance part name		Parts No.	Alternative part No.
Name used in service	Name used in parts list		
MK-7304/MAINTENANCE KIT (500,000 images)	MK-7304/MAINTENANCE KIT	1702P78AS0	072P78AS
Retard roller assembly	RETARD ROLLER ASSY	-	-
Drum unit	DRUM UNIT (KDAU)	-	-
Fuser unit	FUSER UNIT (KDE)	-	-
Transfer roller assembly	ROLLER TRANSFER ASSY	-	-
Paper feed roller assembly	HOLDER FEED ASSY SP	-	-
Developer unit	DLP UNIT	-	-

(2) Repetitive defects gauge

* : The repetitive marks interval may vary depending on operating conditions.

(3) Firmware environment commands

The printer maintains a number of printing parameters in its memory. These parameters may be changed permanently with the FRPO (Firmware RePrOgram) commands.

This section provides information on how to use the FRPO command and its parameters using examples.

Using FRPO commands for reprogramming the firmware

The current settings of the FRPO parameters are listed as the optional values on the service status page.

Note: Before changing any FRPO parameters, print out a service status page, so you will know the parameter values before the changes are made. To return FRPO parameters to their factory default values, send the FRPO INIT (FRPO-INITialize) command.(!R! FRPO INIT; EXIT;)

The FRPO command is sent to the printer in the following sequence:

!R! FRPO parameter, value; EXIT;

Example: Changing emulation mode to PC-PR201/65A

!R! FRPO P1, 11; EXIT;

FRPO parameters

Item	FRPO	Setting values	Factory setting
Top margin	A1	Integer value in inches	0
	A2	Fraction value in 1/100 inches	0
Left margin	A3	Integer value in inches	0
	A4	Fraction value in 1/100 inches	0
Page length	A5	Integer value in inches	17
	A6	Fraction value in 1/100 inches	30
Page width	A7	Integer value in inches	17
	A8	Fraction value in 1/100 inches	30
Default pattern resolution	B8	0: 300 dpi 1: 600 dpi	0
Copy count	C0	Number of copies to print:1-999	1
Page orientation	C1	0: Portrait 1: Landscape	0
Default font No.	C2	Middle two digits of power-up font	0
	C3	Last two digits of power-up font	0
	C5	First two digits of power-up font	0
PCL font switch	C8	0:HP compatibility mode (Characters higher than 127 are not printed.) 32:Conventional mode (Characters higher than 127 are printed. Supported symbol sets: ISO-60 Norway [00D], ISO-15 Italian [00I], ISO-11 Sweden [00S], ISO-6 ASCII [00U], ISO-4 U.K. [01E], ISO-69 France [01F], ISO-21 Germany [01G], ISO-17 Spain [02S], Symbol [19M])	0

Item	FRPO	Setting values	Factory setting
Printing concentration	D4	1: Thin. 2: Slightly Thin. 3: Standard 4: Slightly Deep. 5: Deep.	3
Total host buffer size	H8	0 to 99 in units of the size defined by FRPO S5	5
Form feed time-out value	H9	Value in units of 5 seconds (0 to 99).	6
KIR mode	N0	0: Off 2: On	2
Duplex binding	N4	0: Off 1: Long edge 2: Short edge	0
Sleep timer time-out time	N5	1 to 240 minutes [0: Off]	1
Ecoprint level	N6	0: Off 2: On	0
Resolution	N8	0: 300dpi 1: 600dpi 3: 1200dpi	1
Parallel interface mode	O0	0: Standard Mode 1: Fast Mode 5: Nibble (High Speed) Mode 70: Automatic Mode	70
Parallel interface Error control	O2	0: Line Control OFF 2: Compatibility with PCL	2
Default emulation mode	P1	0 : Line printer 1 : IBM proprinter 2 : DIABLO 630 5 : Epson LQ-850 6 : PCL6 (except PCL XL) 8 : KC-GL 9 : KPD L 11 : PC-PR201 12 : IBM 5577 13 : VP-1000 14 : N5200 15 : FMPR-359F1	6
Carriage-return action *	P2	0: Ignores 0x0d 1: Carriage-return 2: Carriage-return+linefeed	1
Linefeed action *	P3	0: Ignores 0x0d 1: Linefeed 2: Linefeed+carriage-return	1

Item	FRPO	Setting values	Factory setting
Automatic emulation sensing (For KPDL3)	P4	0: AES disabled 1: AES enabled	0
Alternative emulation	P5	6: PCL 6	6
Automatic emulation switching trigger (For KPDL3)	P7	0: Page eject commands 1: None 2: Page eject and PRESCRIBE EXIT 3: PRESCRIBE EXIT 4: Formfeed (^L) 6: Page eject, PRESCRIBE EXIT and formfeed 10: Page eject commands; if AES fails, resolves to KPDL	10
Command recognition character	P9	ASCII code of 33 to 126	82 (R)
Default stacker	R0	1 (inner tray) 3 5	1
Default paper size	R2	0: Size of the default paper cassette (See R4.) 1: Monarch (3-7/8 × 7-1/2 inches) 2: Business (4-1/8 × 9-1/2 inches) 3: International DL (11 × 22 cm) 4: International C5 (16.2 × 22.9 cm) 5: Executive (7-1/4 × 10-1/2 inches) 6: US Letter (8-1/2 × 11 inches) 7: US Legal (8-1/2 × 14 inches) 8: A4 (21.0 × 29.7 cm) 9: JIS B5 (18.2 × 25.7 cm) 10: A3 (29.7 × 42 cm) 11: B4 (25.7 × 36.4 cm) 12: US Ledger (11 × 17 inches) 13: ISO A5 14: A6 (10.5 × 14.8 cm) 15: JIS B6 (12.8 × 18.2 cm) 16: Commercial #9 (3-7/8 × 8-7/8 inches) 17: Commercial #6 (3-5/8 × 6-1/2 inches) 18: ISO B5 (17.6 × 25 cm) 19: Custom (11.7 × 17.7 inches) 30: C4 (22.9 × 32.4 cm) 31: Hagaki (10 × 14.8 cm) 32: Ofuku-hagaki (14.8 × 20 cm) 33: Officio II 39: 8K 40: 16K 42: 216x340 50: Statement 51: Folio 52: Youkei 2 53: Youkei 4	0

Item	FRPO	Setting values	Factory setting
Default cassette	R4	0: MP tray 1: Cassette 1 2: Cassette 2 3: Cassette 3	1
MP tray paper size	R7	Same as the R2 values except: 0	8
A4/letter equation	S4	0: Off 1: On	1
Host buffer size	S5	0: 10kB (x H8) 1: 100kB (x H8) 2: 1024kB (x H8)	1
RAM disk size	S6	1 to 1024 MB	400
RAM disk mode	S7	0: Off 1: On	1 (0: BAM)
Wide A4	T6	0: Off 1: On	0
Line spacing	U0	Lines per inch (integer value)	6
Line spacing	U1	Lines per inch (fraction value)	0
Character spacing	U2	Characters per inch (integer value)	10
Character spacing	U3	Characters per inch (fraction value)	0
Country code	U6	0: US-ASCII 1: France 2: Germany 3: UK 4: Denmark 5: Sweden 6: Italy 7: Spain 8: Japan 9: US Legal 10: IBM PC-850 (Multilingual) 11: IBM PC-860 (Portuguese) 12: IBM PC-863 (Canadian French) 13: IBM PC-865 (Norwegian) 14: Norway 15: Denmark 2 16: Spain 2 17: Latin America 21: US ASCII (U7 = 50 SET) 77: HP Roman-8 (U7 = 52 SET)	41

Item	FRPO	Setting values	Factory setting
Code set at power up in daisy-wheel emulation	U7	0: Same as the default emulation mode (P1) 1: IBM 6: IBM PC-8 50: US ASCII (U6 = 21 SET) 52: HP Roman-8 (U6 = 77 SET)	53
Font pitch for fixed pitch scalable font	U8	Integer value in cpi: 0 to 99	10
	U9	Fraction value in 1/100 cpi: 0 to 99	0
Font height for the default scalable font	V0	Integer value in 100 points: 0 to 9	0
	V1	Integer value in points: 0 to 99	12
	V2	Fraction value in 1/100 points: 0, 25, 50, 75	0
Default scalable font	V3	Name of typeface of up to 32 characters, enclosed with single or double quotation marks	Courier
Default weight (courier and letter Gothic)	V9	0: Courier = darkness Letter Gothic = darkness 1: Courier = regular Letter Gothic = darkness 4: Courier = darkness Letter Gothic = regular 5: Courier = regular Letter Gothic = regular	5

Item	FRPO	Setting values	Factory setting
Paper type for the MP tray	X0	1: Plain 1 2: Transparency 3: Preprinted 4: Label 5: Bond 6: Recycle 7: Vellum 9: Letterhead 10: Color 11: Prepunched 12: Envelope 13: Cardstock 16: Thick 17: High quality 21: Custom1 22: Custom2 23: Custom3 24: Custom4 25: Custom5 26: Custom6 27: Custom7 28: Custom8	1
Paper type for paper cassettes 1	X1	1: Plain 3: Preprinted 5: Bond 6: Recycled 9: Letterhead 10: Color 11: Prepunched 17: High quality 21: Custom1 22: Custom2 23: Custom3 24: Custom4 25: Custom5 26: Custom6 27: Custom7 28: Custom8	1

Item	FRPO	Setting values	Factory setting
Paper type for paper cassettes 2 to 5	X2	1: Plain	1
	X3	3: Preprinted	
	X4	5: Bond	
	X5	6: Recycled	
		9: Letterhead	
		10: Color	
		11: Prepunched	
		17: High quality	
		21: Custom1	
		22: Custom2	
		23: Custom3	
		24: Custom4	
		25: Custom5	
		26: Custom6	
		27: Custom7	
		28: Custom8	
PCL paper source	X9	0: Paper selection depending on an escape sequence compatible with HP-LJ5Si. 2: Paper selection depending on an escape sequence compatible with HP-LJ8000.	0
Automatic continue for 'Press GO'	Y0	0: Off 1: On	0
Automatic continue timer	Y1	Number from 0 to 99 in increments of 5 seconds	6 (30 seconds)
Heater ON/OFF switch	Y2	0: Heater OFF at the time of "Ready" 1: Heater ON at the time of "Ready"	0
Error message for device error	Y3	0: Not detect 1: Detect	0

Item	FRPO	Setting values	Factory setting
Duplex operation for specified paper type (Prepunched, Preprinted and Letterhead)	Y4	0: Off 1: On	0
Default operation for PDF direct printing	Y5	0: Enlarges or reduces the image to fit in the current paper size. Loads paper from the current paper cassette. 1: Through the image. Loads paper which is the same size as the image. 2: Enlarges or reduces the image to fit in the current paper size. Loads Letter, A4 size paper depending on the image size. 3: Through the image. Loads Letter, A4 size paper depending on the image size. 8: Through the image. Loads paper from the current paper cassette. 9: Through the image. Loads Letter, A4 size paper depending on the image size. 10: Enlarges or reduces the image to fit in the current paper size. Loads Letter, A4 size paper depending on the image size.	0
e-MPS error	Y6	0: Does not print the error report and display the error message. 1: Prints the error report. 2: Displays the error message. 3: Prints the error report and displays the error message.	3

(4) Maintenance Commands

This section provides information on how to use the maintenance command and its parameters using examples.

Adjusting the print start timing (alternative command for the maintenance mode U034)

Description

Adjusts the leading edge registration or left edge.

Purpose

Make the adjustment if there is a regular error between the leading edges of the print image and original.

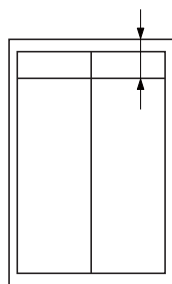
Make the adjustment if there is a regular error between the left edges of the print image and original.

Format	!R! KCFG“PFRC”,#1 ,#2 ,#3;	
Parameter	#1	Paper source number 0: MP tray 2-6 : Cassette2-6 100: Duplex (e.g. landscape images short-edge bind) 200: Rotated duplex (e.g. portrait images long-edge bind)
	#2	Edge to adjust 1: Leading edge 2: Left edge
	#3	Adjustable range (-128 to +127) number of dot in 600dpi

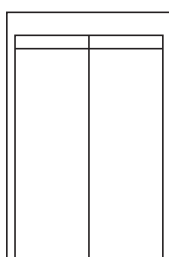
Example: Set the leading edge of MP tray to +30 dots

!R! KCFG “PFRC”,0,1,30;EXIT;

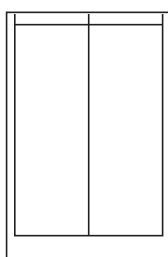
Leading edge registration



Correct image

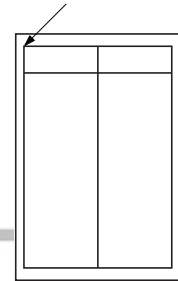


Output
example 1

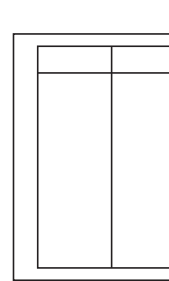


Output
example 2

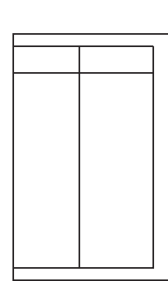
Left edge of printing



Correct image



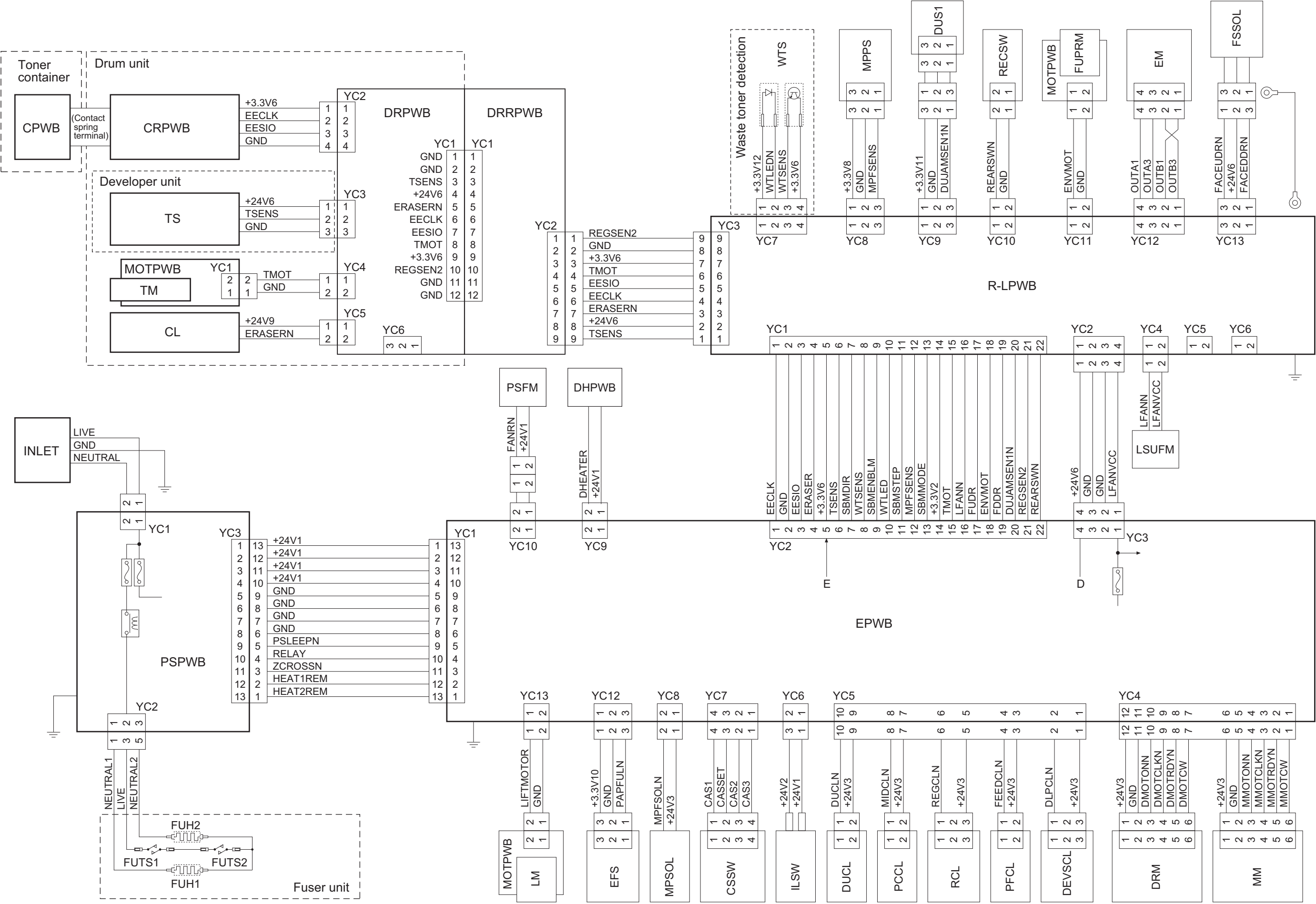
Output
example 1

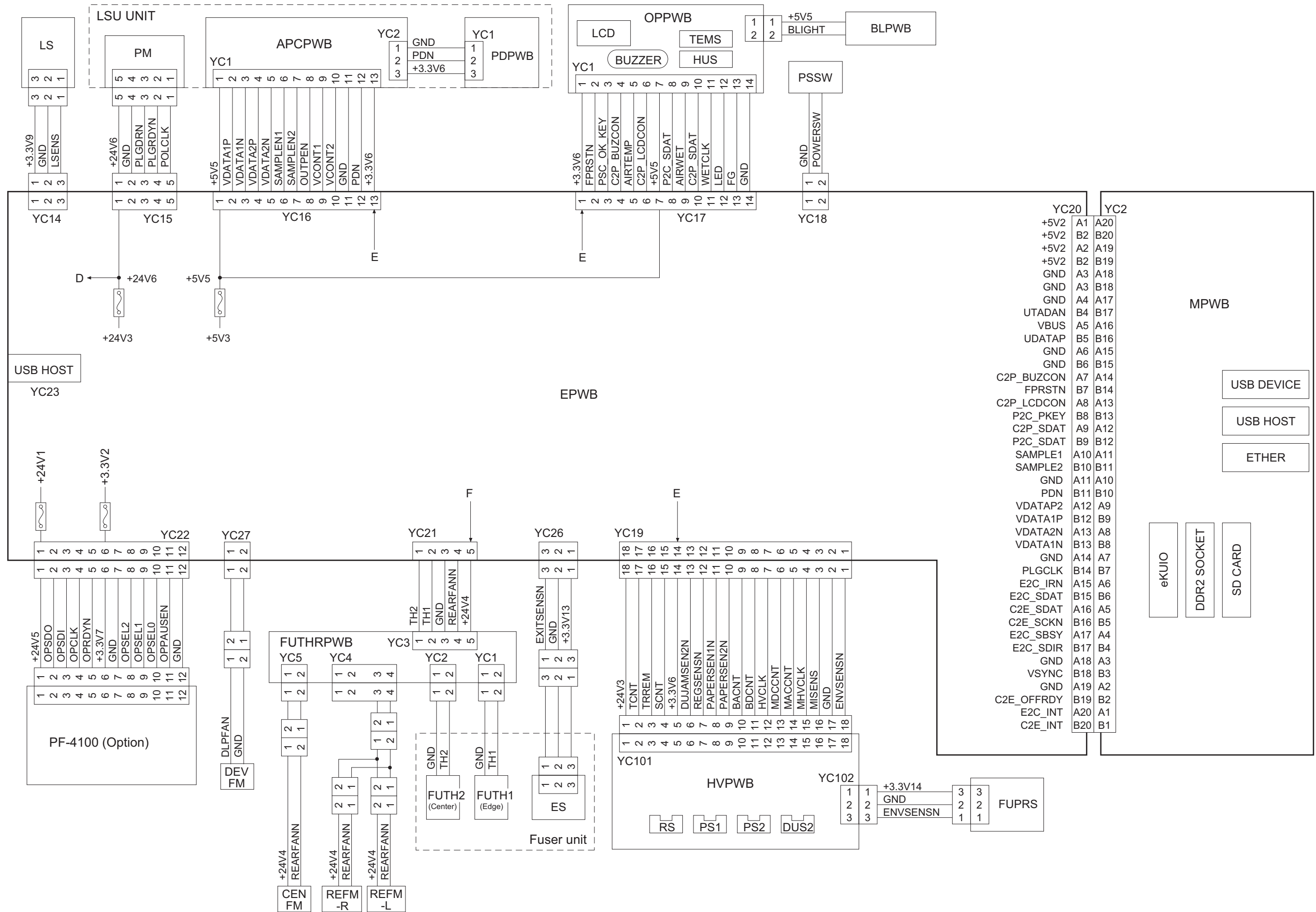


Output
example 2

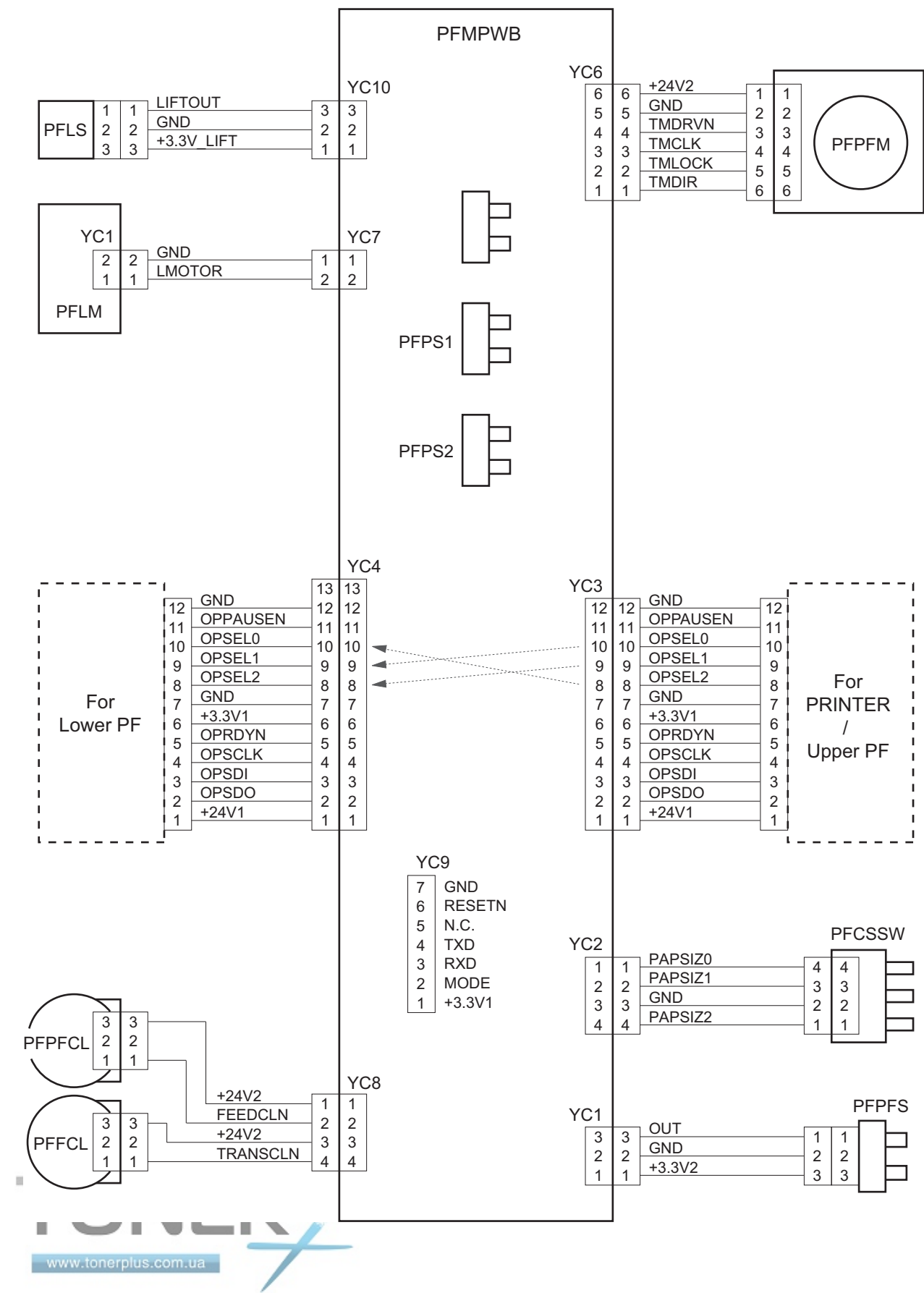
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(5) Wiring diagram (Printer)





(6) Wiring diagram (PF-4100)



500 sheets paper feeder Installation Guide

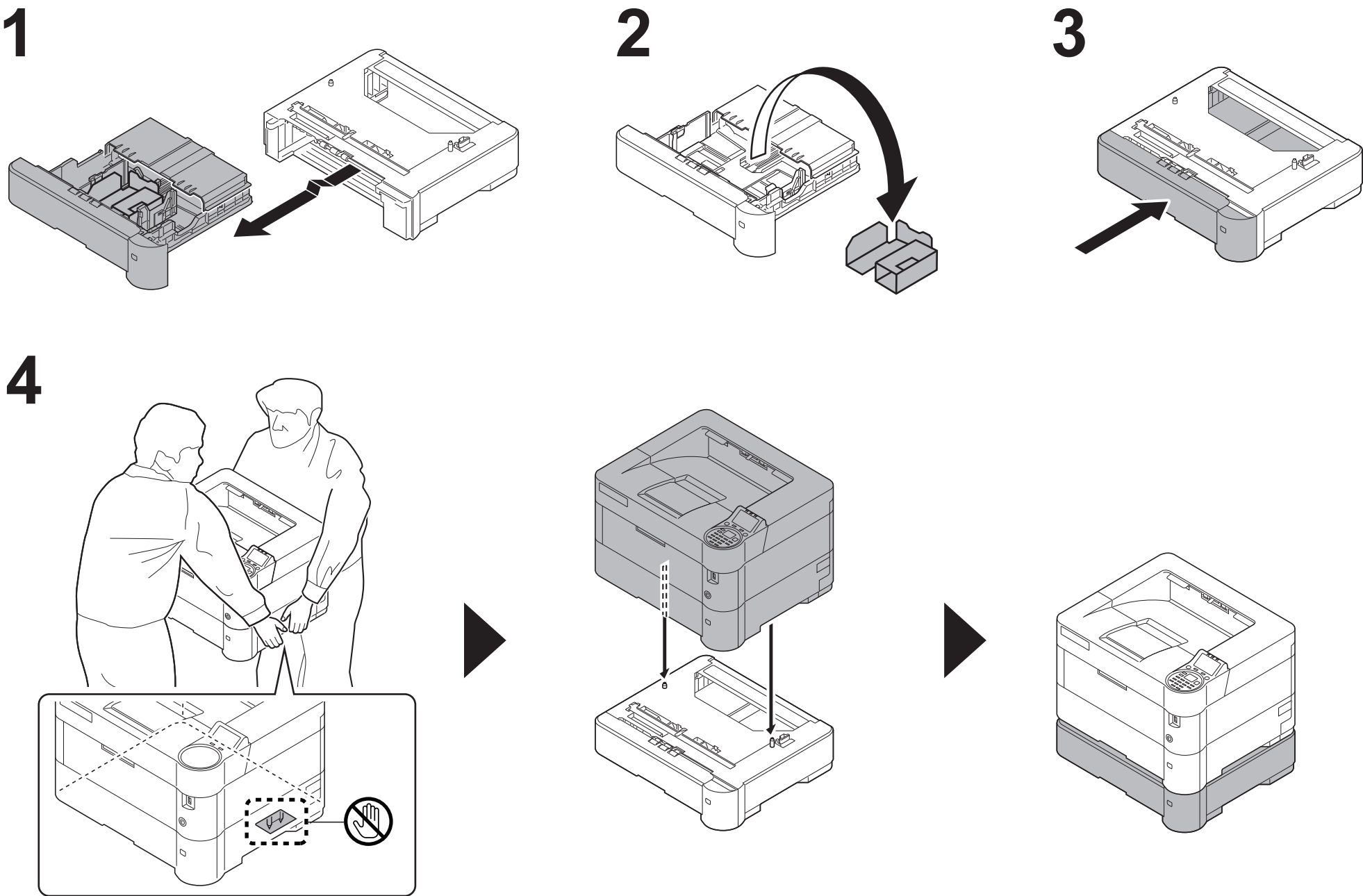


Installation Guide
Installationsanleitung
Guide d'installation

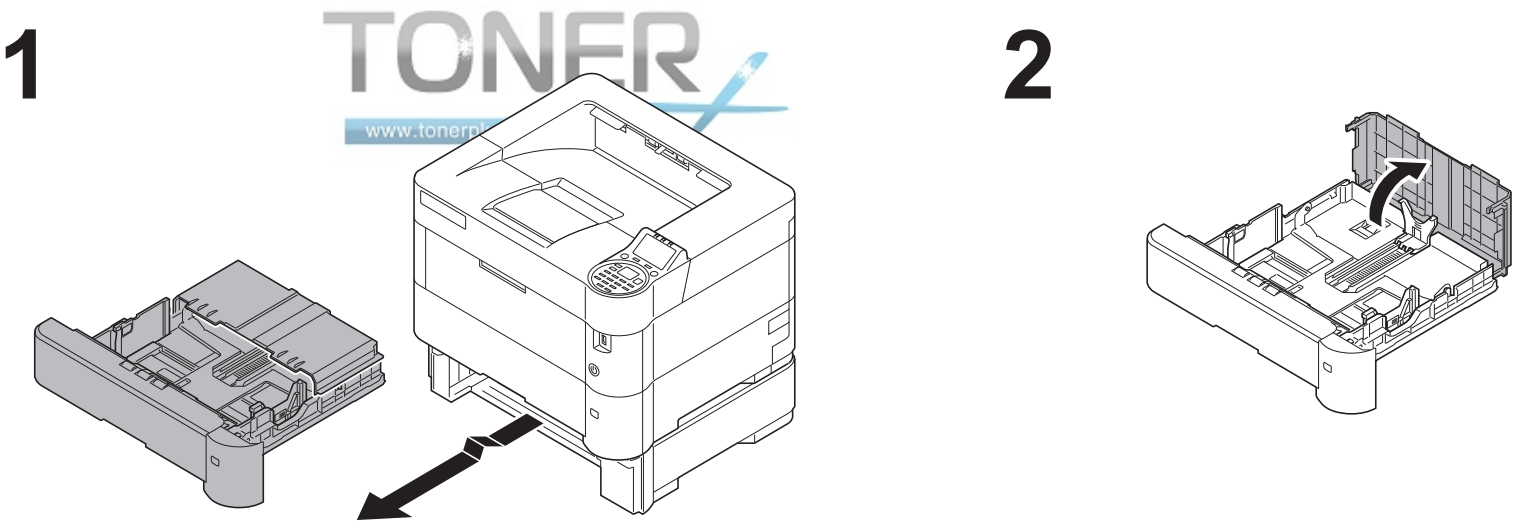
Guida all'installazione
Guía de instalación
Руководство по установке

설치안내서
安裝手冊
インストールガイド

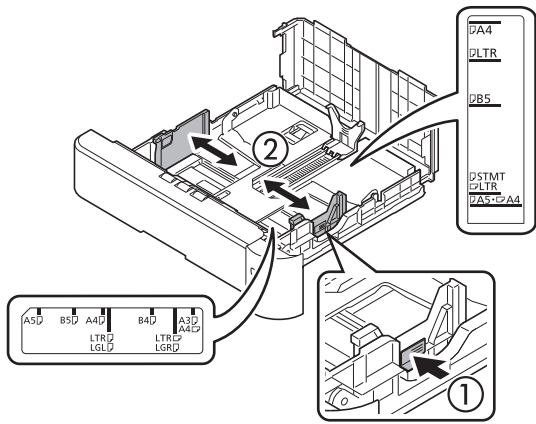
Installation of PF-4100 Installazione di PF-4100 PF-4100설치
Installation von PF-4100 Instalación de PF-4100 安裝PF-4100
Installation de PF-4100 Установка PF-4100 PF-4100의設置



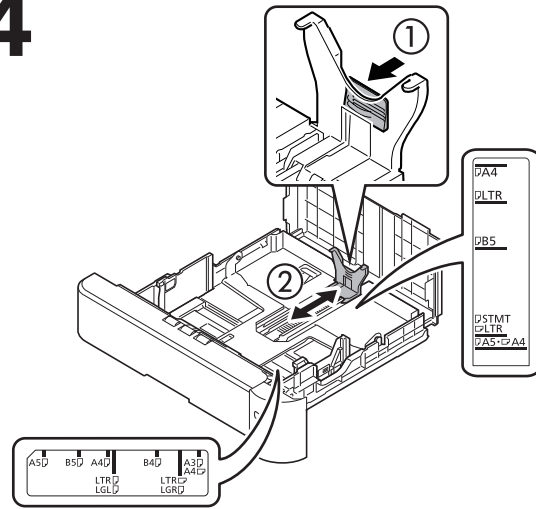
Adjustment of paper size Registrazione del formato carta 용지 크기의 조정
Justage des Papierformats Ajuste del tamaño del papel 調整紙張尺寸
Ajustement de format papier Регулировка размера бумаги 用紙サイズの調整



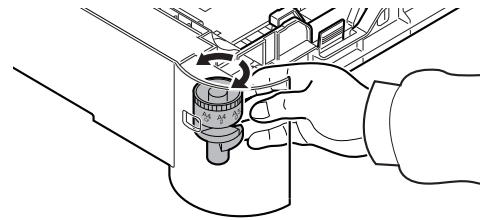
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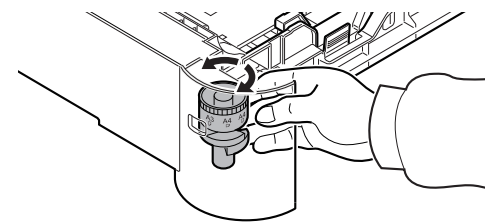
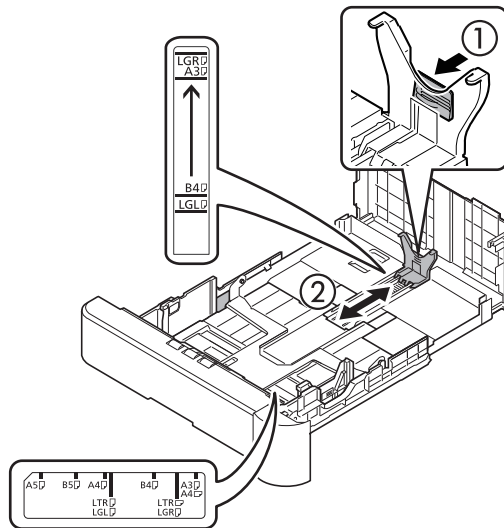
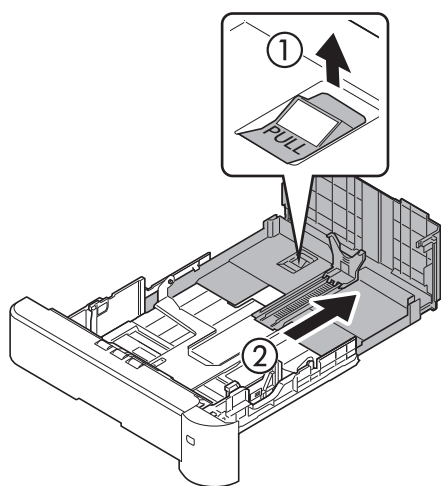
4



5



(For A3/B4/Legal/Ledger)

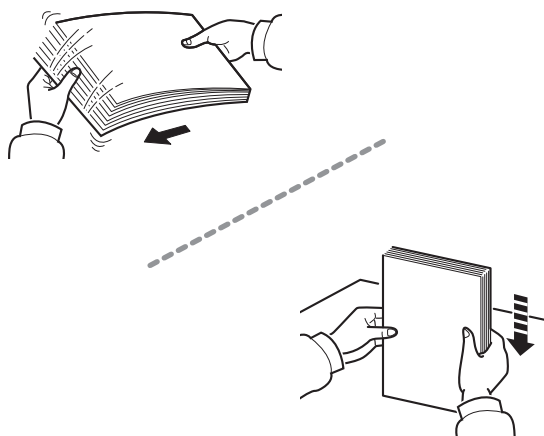


Loading paper
Ladenpapier
Papier de chargement

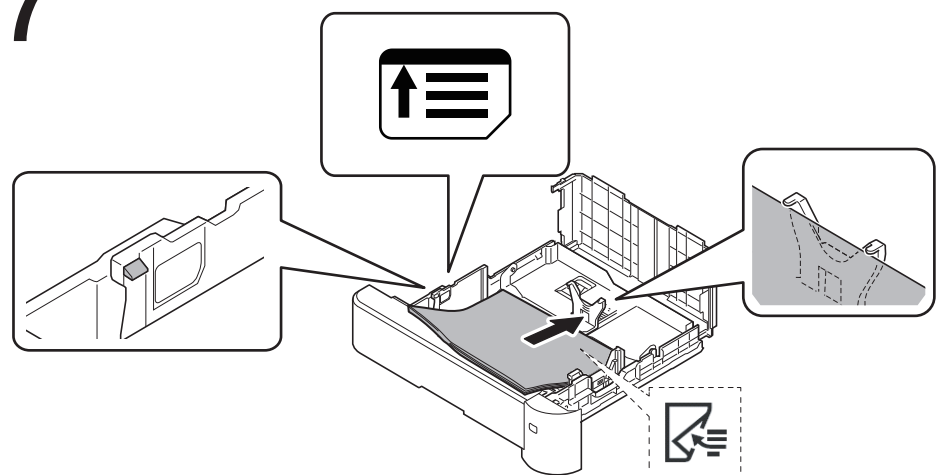
Carta da caricamento
Papier del cargamento
Зарузка бумаги

용지 적재
裝入紙張
用紙のセット

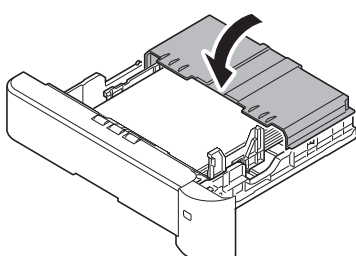
6



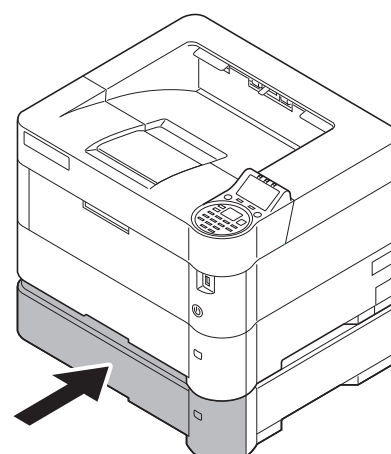
7



8



9



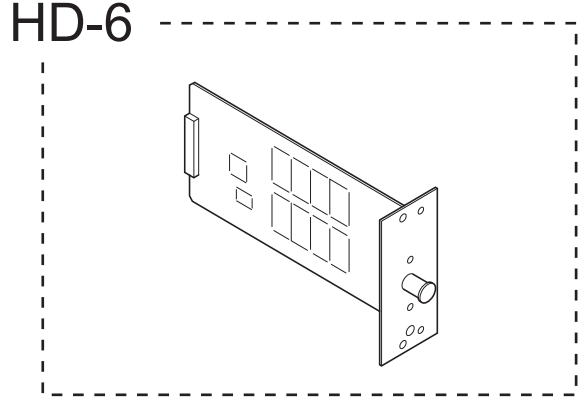
TONER
www.tonerplus.com.ua

SSD (HD-6/7) Installation Guide

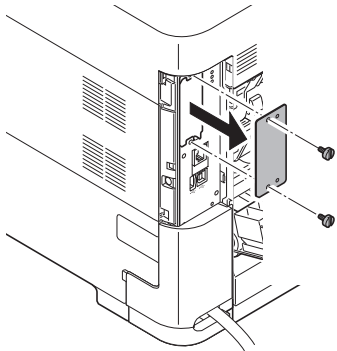


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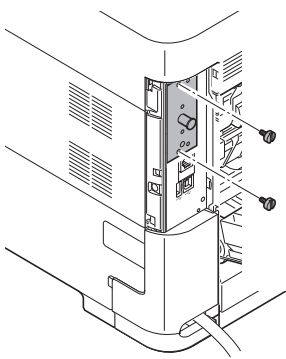
HD-6



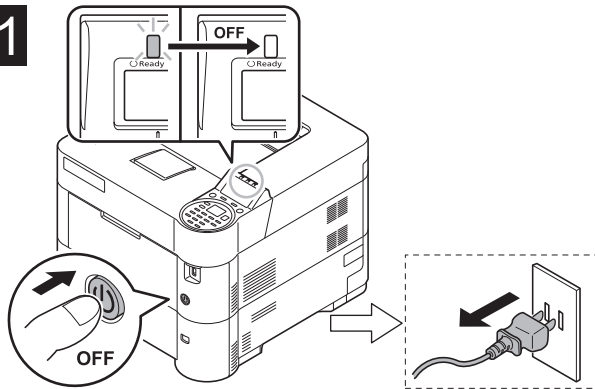
3



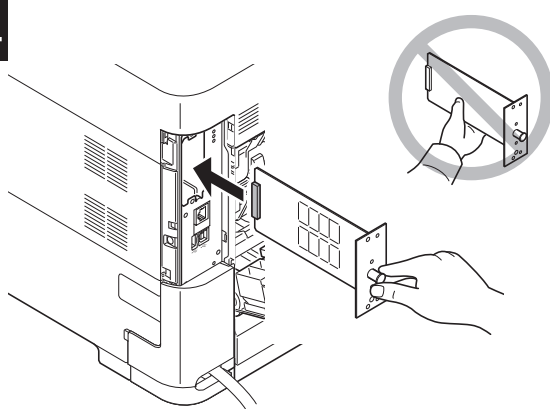
6



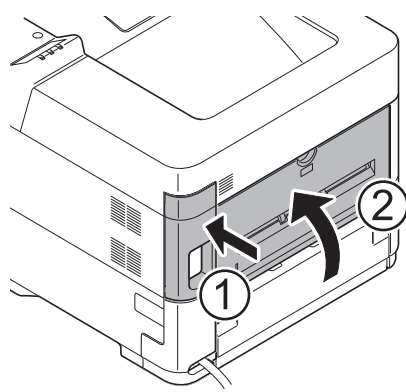
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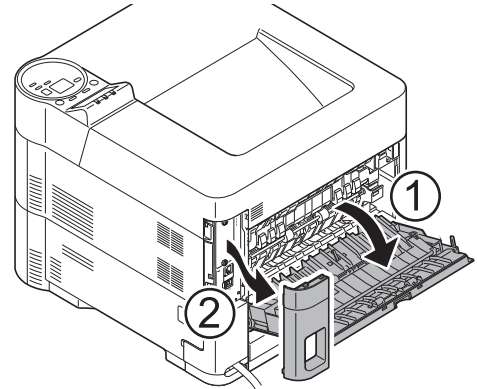
4



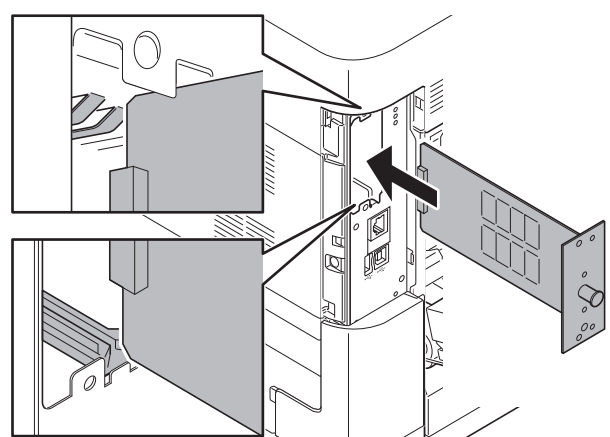
7



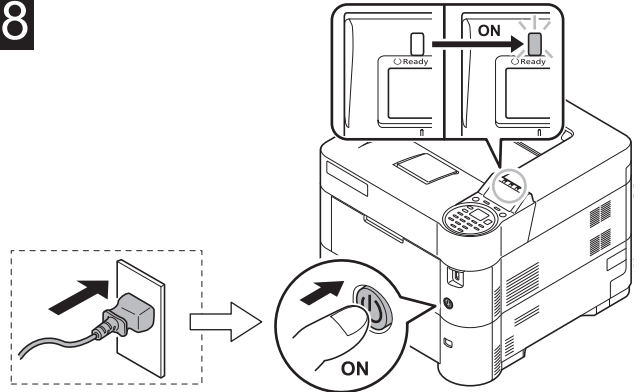
2



5



8



English

Optional SSD HD-6 Installation Guide

Introduction

The HD-6 is an optional SSD for use with the MFPs and the page printers. Please read this Installation Guide thoroughly so that you understand the correct installation method. This SSD can be installed in other models using the same installation procedure.

Packing List

HD-6	1
Installation Guide (this guide)	1

Precautions for Handling the SSD

When handling the SSD, adhere to the following precautions.

- The SSD is delivered in an antistatic bag. To prevent any damage, briefly touch a large metal object to ensure discharge of static electricity before removing the SSD from the bag.
- Never touch the SSD's connector section directly with hands.
- When holding the SSD, avoid contact with the surface of the circuit board. Hold it at the edges.
- Do not apply undue force when installing.

Installing the SSD

CAUTION

Before installing (or removing) the SSD, be sure to turn off the machine's power and disconnect the power cord plug from the AC outlet.

Formatting the SSD

After installing the SSD in the machine, the SSD must be formatted before used. Formatting is performed from the machine's operation panel. Refer to the Operation Guide for the formatting of the SSD.

Verifying Installation of the SSD

To verify that the SSD has been correctly installed, try to print out the status page. Refer to the Operation Guide for the method for printing a status page.

Français

SSD HD-6 en option Guide d'installation

Introduction

Le HD-6 est un SSD optionnel destiné à être utilisé avec les imprimantes multifonctions et les imprimantes par page. Veuillez lire entièrement ce guide d'installation et vous assurer que vous comprenez bien les méthodes d'installation. Ce SSD peut être installé dans d'autres modèles en utilisant la même procédure d'installation.

Contenu de l'emballage

HD-6	1
Guide d'installation (ce manuel)	1

Précautions de manipulation du SSD

Lorsque vous manipulez le SSD, observez les précautions suivantes.

- Le SSD est livré dans un sac antistatique. Avant de le retirer du sac, touchez brièvement un grand objet métallique pour vous décharger de toute électricité statique. Vous éviterez ainsi d'endommager le SSD.
- Ne touchez jamais directement la partie du connecteur du SSD avec les mains.
- Lorsque vous tenez le SSD, ne touchez pas la surface de la carte de circuits imprimés. Saisissez-le par les bords.
- N'appliquez aucune force inutile en l'installant.

Installation du SSD

ATTENTION

Avant d'installer (ou de retirer) le SSD, mettez toujours l'imprimante hors tension et débranchez la fiche du cordon d'alimentation de la prise de courant.

Formatage du SSD

Après avoir installé le SSD dans l'imprimante, vous devez le formater pour pouvoir l'utiliser. Le formatage s'effectue depuis le panneau de commande de l'imprimante.

Consultez le manuel d'utilisation pour formater le SSD.

Vérification de l'installation du SSD

Pour vous assurer que le SSD a été correctement installé, essayez d'imprimer la page d'état de l'imprimante. Pour connaître la méthode d'impression de la page d'état, consultez le manuel d'utilisation.

Español

SSD HD-6 opcional Guía de instalación

Introducción

HD-6 es una SSD opcional para utilizar con la copiadora e impresora de hojas. Lea detenidamente esta Guía de instalación para entender los métodos de instalación y operación correctos. Esta SSD puede instalarse en otros modelos utilizando el mismo procedimiento de instalación.

Lista del contenido del paquete

HD-6	1
Guía de instalación (este folleto)	1

Precauciones para el manejo de la SSD

Cuando maneje la SSD, tenga en cuenta las siguientes precauciones.

- La SSD se entrega en una bolsa antiestática. Para evitar cualquier daño, antes de sacar la SSD de la bolsa, toque un objeto metálico grande para descargar la electricidad estática de su cuerpo.
- Nunca toque la sección del conector de la SSD directamente con las manos.
- Cuando sostenga la SSD, no toque con las manos la superficie de la placa del circuito impreso. Sujétela por los bordes.
- No aplique demasiada fuerza al realizar la instalación.

Instalación de la SSD

PRECAUCIÓN

Antes de instalar (o desmontar) la SSD, asegúrese de desconectar la alimentación de la impresora y de desenchufar el cable de alimentación de la toma de corriente de CA.

Inicialización de la SSD (formateo)

Después de instalar la SSD en la impresora, deberá inicializarla (formatearla) antes de utilizarla. La inicialización se realiza desde el panel de control de la impresora.

Consulte la Guía de uso para inicializar (formatear) la SSD.

Verificación de la instalación de la SSD

Para verificar que la SSD ha sido instalada correctamente, trate de imprimir la página de estado de la impresora.

Consulte la Guía de uso para obtener información sobre la impresión de la página de estado de la impresora.

Deutsch

Optionale SSD HD-6 Installationsanleitung

Einführung

Die HD-6 ist eine optionale SSD zur Verwendung mit den MFPs und den Seitendruckern. Bitte lesen Sie sich diese Installationsanleitung sorgfältig durch, damit Sie das Gerät korrekt installieren. Diese SSD kann mithilfe des selben Installationsvorgangs in anderen Modellen eingebaut werden.

Verpackungsinhalt

HD-6.....	1
Installationsanleitung (diese Anleitung).....	1

Vorsichtshinweise beim Umgang mit der SSD

- Bitte beachten Sie die folgenden Vorsichtshinweise beim Umgang mit der SSD.
- Die SSD wird in einem Antistatikbeutel geliefert. Um eine Beschädigung der SSD zu vermeiden, sollten Sie kurz einen großen Gegenstand aus Metall berühren, um sich von statischer Elektrizität zu entladen, bevor Sie die SSD aus der Verpackung entfernen.
 - Berühren Sie auf keinen Fall die Steckleiste der SSD mit bloßen Händen.
 - Achten Sie beim Halten der SSD darauf, eine Berührung der Platinenoberfläche zu vermeiden. Halten Sie die SSD stets an den Kanten der Platine.
 - Vermeiden Sie übermäßige Kraftanwendung beim Installieren.

Installation der SSD

VORSICHT

Achten Sie vor dem Installieren (bzw. Entfernen) der SSD unbedingt darauf, den Drucker auszuschalten und das Netzkabel von der Netzsteckdose zu trennen.

Formatierung der SSD

Nach der Installation der SSD im Drucker muss diese vor der Inbetriebnahme formatiert werden. Die Formatierung wird am Bedienfeld des Druckers ausgeführt. Die Vorgehensweise für die Formatierung der SSD finden Sie in der Bedienungsanleitung.

Überprüfung der Installation der SSD

Um eine korrekte Installation der SSD zu überprüfen, drucken Sie die Statusseite aus.

Die Vorgehensweise für das Ausdrucken einer Statusseite finden Sie in der Bedienungsanleitung.

Italiano

SSD HD-6 opzionale Guida all'installazione

Introduzione

HD-6 è un'unità a stato solido (SSD) opzionale per utilizzi con stampanti multifunzione (MFP) e con stampanti a pagine. Si prega di leggere attentamente la presente Guida all'installazione per comprendere il corretto metodo di installazione. Questa SSD può essere installata in altri modelli che utilizzano la stessa procedura di installazione.

Contenuto della confezione

HD-6.....	1
Guida all'installazione (la presente guida).....	1

Precauzioni d'uso per la SSD

Durante l'utilizzo della SSD, adottare le precauzioni che seguono.

- La SSD è spedita in una custodia antistatica. Per evitare eventuali danni, toccare per pochi istanti un oggetto metallico di grandi dimensioni per assicurarsi di scaricare l'elettricità statica prima di rimuovere la SSD dalla custodia.
- Non toccare la sezione del connettore della SSD direttamente con le mani.
- Nell'afferrare la SSD, evitare il contatto con la superficie della scheda a circuito. Afferrarla alle estremità.
- Non esercitare una forza eccessiva durante l'installazione.

Installazione della SSD

ATTENZIONE:

prima di installare (o di rimuovere) la SSD, assicurarsi di aver spento l'alimentazione della macchina e di aver disconnesso la spina del cavo di alimentazione dalla presa CA.

Formattazione della SSD

Dopo aver installato la SSD nella macchina, è necessario formattarla prima dell'utilizzo. La formattazione può essere eseguita dal pannello operativo della macchina.

Per la formattazione della SSD, consultare la Guida alle funzioni.

Verifica dell'installazione della SSD

Per verificare che la SSD sia stata installata correttamente, stampare la pagina di stato.

Per scoprire le modalità di stampa della pagina di stato, consultare la Guida alle funzioni.

简体中文

选装 SSD HD-6 安装手册

前言

HD-6 是一款适用于 MFP 和页式打印机的选装 SSD。为了解正确的安装方法，请仔细阅读本《安装手册》。本 SSD 可通过同样的安装步骤安装到其他机型上去。

包装内容列表

HD-6.....	1
安装手册（本手册）.....	1

使用本 SSD 的注意事项

使用本 SSD 时，请遵守以下注意事项。

- 本 SSD 被包装在防静电袋中。将 SSD 从包装袋中取出之前，请短暂触摸大件金属物体以消除静电，以免造成损坏。
- 请勿直接用手触摸 SSD 的连接器部分。
- 拿握 SSD 时，请勿接触到电路板的表面。请掌握其边缘。
- 安装时请不要过于用力。

安装本 SSD

注意：

安装（或拆卸）本 SSD 前，请务必关掉机器的电源并将电源线插头从 AC 插座上断开。

格式化本 SSD

将 SSD 安装入机器后，必须在使用之前对 SSD 进行格式化。通过机器的操作面板来执行格式化操作。

有关格式化 SSD 的相关信息，请参阅《操作手册》。

确认本 SSD 安装正确

为确认本 SSD 已经正确安装，请尝试打印状态页。

有关打印状态页的方法，请参阅《操作手册》。

동봉물

옵션 SSD HD-6 설치 안내서

소개

HD-6는 MFP 및 페이지 프린터에 사용되는 옵션 SSD입니다.

본 설치 안내서를 주의 깊게 읽고 올바른 설치 방법을 숙지하시기 바랍니다. 본 SSD는 같은 설치 절차를 적용하여 다른 모델에 설치될 수 있습니다.

포장 내용물

HD-6.....	1
설치 안내서 (본 안내서)	1

SSD 취급 시 주의사항

SSD 취급 시, 다음과 같은 주의사항을 지켜주시기 바랍니다.

- SSD는 정전기 방지 봉투에 포장되어 있습니다. SSD를 꺼내기 전에 손상을 예방하기 위해 큰 금속 물체를 잠시 만져서 정전기를 방지하시기 바랍니다.
- SSD 연결부를 직접 손으로 만지지 마십시오.
- SSD를 잡을 때는 회로판 표면에 닿지 않도록 끝부분을 잡으십시오.
- 설치 시 과도한 힘을 가하지 마십시오.

SSD 설치

주의사항

SSD를 설치(또는 제거)하기 전, 기기의 전원을 끄고 AC 아웃렛에서 전원선을 분리하십시오.

SSD 포맷

SSD를 기기에 설치한 뒤, 사용하기 전에 반드시 SSD를 포맷해야 합니다. 기기의 조작 패널에서 포맷을 수행할 수 있습니다. SSD 포맷에 관한 자세한 내용은 사용설명서를 참고하시기 바랍니다.

SSD 설치 확인

SSD가 올바르게 설치되었는지 확인하려면 상태 페이지를 출력해보십시오. 상태 페이지를 출력하는 방법에 관해서는 사용설명서를 참고하시기 바랍니다.

日本語

オプションSSD HD-6 インストールガイド

はじめに

HD-6 は弊社複合機およびプリンター用 SSD ユニットです。本書をよくお読みいただき、正しく装着してください。なお、本オプションはその他の機種でも同様の手順で装着できます。

梱包内容の確認

HD-6 本体.....	1
インストールガイド(本書)	1

取扱以上の注意

本オプションの取り扱いには、以下のことにご注意ください。

- 本品は静電気防止対策済みの袋に入っています。袋の中から取り出す際は、念のため大きな金属物に触れて身体の静電気を取り除いてください。
- 本品のコネクター部分には手を触れないでください。
- 本品を持つ際は基板の表面に手を触れずに、基板の端を持ってください。
- 装着時は無理な力を加えないでください。

SSD ユニットの装着

注意

本オプションの装着（または取り外し）は、複合機またはプリンターの電源を切り、電源プラグをコンセントから抜いた状態で行ってください。

SSD のフォーマット

本オプション装着後は、使用する前に操作パネルからフォーマットをする必要があります。

SSD のフォーマットは、使用説明書を参照してください。

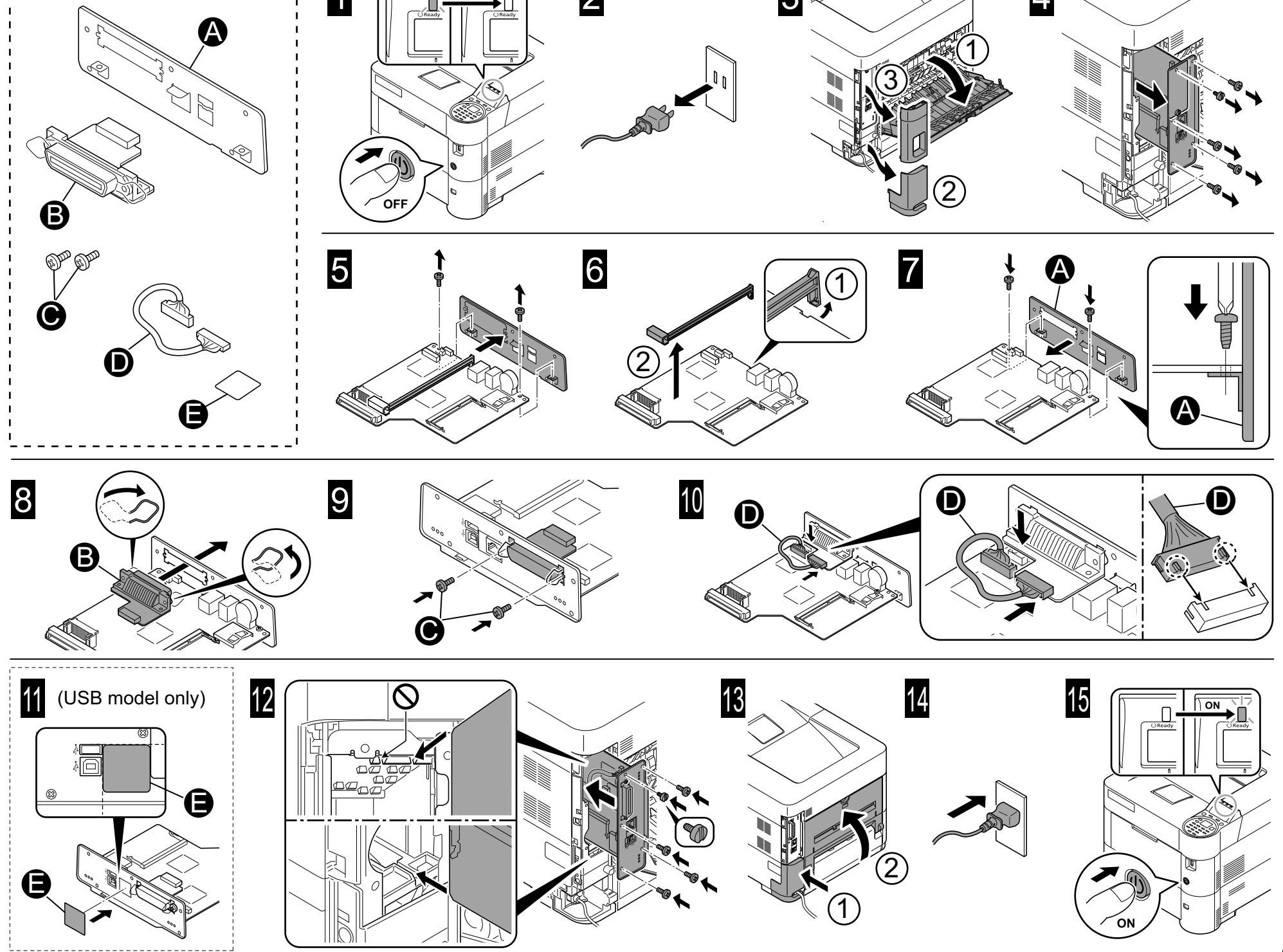
装着の確認

ステータスページを印刷して、本オプションが正しく装着されたかを確認します。ステータスページの印刷方法は、使用説明書を参照してください。



IEEE1284 Interface Installation Guide

IB-32



English

Optional Parallel Interface Kit IB-32 Installation Guide

Introduction

The IB-32 is an optional parallel interface kit for use with the page printers. Please read this Installation Guide thoroughly so that you understand the correct installation method.

This parallel interface kit can be installed in other models using the same installation procedure.

Packing List

IB-32	1
Plate	1
Screw	2
Relay cable	1
Seal	1
Installation Guide (this guide)	1

Precautions for Handling the Parallel Interface Kit

When handling the parallel interface kit, adhere to the following precautions.

- The parallel interface kit is delivered in an antistatic bag. To prevent any damage, briefly touch a large metal object to ensure discharge of static electricity before removing the parallel interface kit from the bag.
- Never touch the parallel interface kit's connector section directly with hands.
- When holding the parallel interface kit, avoid contact with the surface of the circuit board. Hold it at the edges.
- Do not apply undue force when installing.

Installing the Parallel Interface Kit

CAUTION

Before installing (or removing) the parallel interface kit, be sure to turn off the machine's power and disconnect the power cord plug from the AC outlet.

Verifying Installation of the Parallel Interface Kit

To verify that the parallel interface kit has been correctly installed, try to print out the status page.

Refer to the Operation Guide for the method for printing a status page.

Français

Kit d'interface parallèle IB-32 en option Guide d'installation

Introduction

L'IB-32 est un kit d'interface parallèle en option destiné à être utilisé avec les imprimantes par page. Veuillez lire entièrement ce guide d'installation et vous assurer que vous comprenez bien les méthodes d'installation.

Ce kit d'interface parallèle peut être installé dans d'autres modèles à l'aide de la même procédure d'installation.

Contenu de l'emballage

IB-32	1
Plaque	1
Vis	2
Câble de relais	1
Obturbateur	1
Guide d'installation (ce manuel)	1

Précautions de manipulation du kit d'interface parallèle

Lorsque vous manipulez le kit d'interface parallèle, observez les précautions suivantes.

- Le kit d'interface parallèle est livré dans un sac antistatique. Avant de le retirer du sac, touchez brièvement un grand objet métallique pour vous décharger de toute électricité statique. Vous éviterez ainsi d'endommager le kit d'interface parallèle.
- Ne touchez jamais directement la partie du connecteur du kit d'interface parallèle avec les mains.
- Lorsque vous tenez le kit d'interface parallèle, ne touchez pas la surface de la carte de circuits imprimés. Saisissez-le par les bords.
- N'appliquez aucune force inutile en l'installant.

Installation du kit d'interface parallèle

ATTENTION

Avant d'installer (ou de retirer) le kit d'interface parallèle, mettez toujours l'imprimante hors tension et débranchez la fiche du cordon d'alimentation de la prise de courant.

Vérification de l'installation du kit d'interface parallèle

Pour vous assurer que le kit d'interface parallèle a été correctement installé, essayez d'imprimer la page d'état de l'imprimante. Pour connaître la méthode d'impression de la page d'état, consultez le manuel d'utilisation.

Español

Kit de interfaz en paralelo IB-32 opcional Guía de instalación

Introducción

El IB-32 es un kit de interfaz en paralelo opcional para utilizar con la impresora de hojas. Lea completamente esta Guía de instalación de forma que pueda entender los métodos de instalación y operación correctos.

Este kit de interfaz en paralelo puede instalarse en otros modelos utilizando el mismo procedimiento de instalación.

Lista del contenido del paquete

IB-32	1
Placa	1
Tornillo	2
Cable de relé	1
Sello	1
Guía de instalación (este folleto)	1

Precauciones para el manejo del kit de interfaz en paralelo

Cuando maneje el kit de interfaz en paralelo, tenga en cuenta las siguientes precauciones.

- El kit de interfaz en paralelo se entrega en una bolsa antiestática. Para evitar cualquier daño, antes de sacar el kit de interfaz en paralelo de la bolsa, toque un objeto metálico grande para descargar la electricidad estática de su cuerpo.
- Nunca toque la sección del conector del kit de interfaz en paralelo directamente con las manos.
- Cuando sostenga el kit de interfaz en paralelo, no toque con las manos la superficie de la placa del circuito impreso. Sujétela por los bordes.
- No aplique demasiada fuerza al realizar la instalación.

Instalación del kit de interfaz en paralelo

PRECAUCIÓN

Antes de instalar (o desmontar) el kit de interfaz en paralelo, asegúrese de desconectar la alimentación de la impresora y de desenchufar el cable de alimentación de la toma de estado de la impresora.

Verificación de la instalación del kit de interfaz en paralelo

Para verificar que el kit de interfaz en paralelo ha sido instalado correctamente, trate de imprimir la página de estado de la impresora. Consulte la Guía de uso para obtener información sobre la impresión de la página de estado de la impresora.

Optionales Parallel Interface Kit IB-32
Installationsanleitung

Einführung
Das IB-32 ist ein optionales Parallel Interface Kit zur Verwendung mit Seitendruckern. Bitte lesen Sie sich diese Installationsanleitung sorgfältig durch, damit Sie das Gerät korrekt installieren.
Dieses Parallel Interface Kit kann mithilfe des selben Installationsvorgangs in anderen Modellen eingebaut werden.

Verpackungsinhalt
IB-32 1
Platte 1
Schraube 2
Relaiskabel..... 1
Dichtung 1
Installationsanleitung (diese Anleitung)..... 1

Vorsichtsmaßnahmen bei der Handhabung des Parallel Interface Kits
Bitte beachten Sie die folgenden Vorsichtshinweise beim Umgang mit dem Parallel Interface Kit.

- Das Parallel Interface Kit wird in einem Antistatikbeutel geliefert. Um eine Beschädigung zu vermeiden, sollten Sie kurz einen großen Gegenstand aus Metall berühren, um sich von statischer Elektrizität zu entladen, bevor Sie das Parallel Interface Kit aus der Verpackung entfernen.
- Berühren Sie auf keinen Fall die Steckleiste des Parallel Interface Kits mit bloßen Händen.
- Achten Sie beim Halten des Parallel Interface Kits darauf, eine Berührung der Platinenoberfläche zu vermeiden. Halten Sie das Parallel Interface Kit stets an den Kanten der Platine.
- Vermeiden Sie übermäßige Kraftanwendung beim Installieren.

Installation des Parallel Interface Kits
VORSICHT
Achten Sie vor dem Installieren (bzw. Entfernen) des Parallel Interface Kits unbedingt darauf, den Drucker auszuschalten und das Netzkabel von der Netzsteckdose zu trennen.

Überprüfung der Installation des Parallel Interface Kits
Um eine korrekte Installation des Parallel Interface Kits zu überprüfen, drucken Sie die Statusseite aus.
Die Vorgehensweise für das Ausdrucken einer Statusseite finden Sie in der Bedienungsanleitung.

Kit interfaccia parallela IB-32 opzionale
Guida all’installazione

Introduzione
IB-32 è un kit interfaccia parallela opzionale per utilizzi con stampanti a pagine. Si prega di leggere attentamente la presente Guida all’installazione per comprendere il corretto metodo di installazione.
Questo kit interfaccia parallela può essere installato in altri modelli che utilizzano la stessa procedura di installazione.

Contenuto della confezione
IB-32 1
Vassoio 1
Vite 2
Cavo relè 1
Chiusura 1
Guida all’installazione (la presente guida)..... 1

Precauzioni d'uso del kit interfaccia parallela
Durante l'utilizzo del kit interfaccia parallela, adottare le precauzioni che seguono.

- Il kit interfaccia parallela è spedito in una custodia antistatica. Per evitare eventuali danni, toccare per pochi istanti un oggetto metallico di grandi dimensioni per assicurarsi di scaricare l'elettricità statica prima di rimuovere il kit interfaccia parallela dalla custodia.
- Non toccare la sezione del connettore del kit interfaccia parallela direttamente con le mani.
- Nell'afferrare il kit interfaccia parallela, evitare il contatto con la superficie della scheda a circuito. Afferrarlo alle estremità.
- Non esercitare una forza eccessiva durante l'installazione.

Istallazione del kit interfaccia parallela
ATTENZIONE:
prima di installare (o di rimuovere) il kit interfaccia parallela, assicurarsi di aver spento l'alimentazione della macchina e di aver disconnesso la spina del cavo di alimentazione dalla presa CA.

Verifica dell'installazione del kit interfaccia parallela
Per verificare che il kit interfaccia parallela sia stato installato correttamente, stampare la pagina di stato.
Per scoprire le modalità di stampa della pagina di stato, consultare la Guida alle funzioni.

选装并行接口套件 IB-32
安装手册

前言
IB-32 是一款适用于页式打印机的选装并行接口套件。为了解正确的安装方法，请仔细阅读本《安装手册》。
本并行接口套件可通过同样的安装步骤安装到其他机型上去。

包装内容列表
IB-32 1
板 1
螺钉 2
继电器电缆 1
密封件 1
安装手册（本手册） 1

使用本并行接口套件的注意事项
使用本并行接口套件时，请遵守以下注意事项。

- 本并行接口套件被包装在防静电袋中。将并行接口套件从包装袋中取出之前，请短暂触摸大件金属物体以消除静电，以免造成损坏。
- 请勿直接用手触摸并行接口套件的连接器部分。
- 拿握并行接口套件时，请勿接触到电路板的表面。请拿握其边缘。
- 安装时请不要过于用力。

安装本并行接口套件
注意：
安装（或拆卸）本并行接口套件前，请务必关掉机器的电源并将电源线插头从 AC 插座上断开。

确认本并行接口套件安装正确
为确认本并行接口套件已经正确安装，请尝试打印状态页。
有关打印状态页的方法，请参阅《操作手册》。

옵션 병렬 인터페이스 키트 IB-32
설치 안내서

소개
IB-32는 페이지 프린터에 사용되는 옵션 병렬 인터페이스 키트입니다.
본 설치 안내서를 주의 깊게 읽고 올바른 설치 방법을 숙지하시기 바랍니다. 본 병렬 인터페이스 키트는 같은 설치 절차를 적용하여 다른 모델에 설치될 수 있습니다.

포장 내용물
IB-32 1
플레이트..... 1
나사..... 2
릴레이 케이블..... 1
실 1
설치 안내서 (본 안내서) 1

병렬 인터페이스 키트 취급 시 주의사항
병렬 인터페이스 키트 취급 시, 다음과 같은 주의사항을 지켜주시기 바랍니다.

- 병렬 인터페이스 키트는 정전기 방지 봉투에 포장되어 있습니다. 병렬 인터페이스 키트를 꺼내기 전에 손상을 예방하기 위해 큰 금속 물체를 잠시 만져서 정전기를 방지하시기 바랍니다.
- 병렬 인터페이스 키트의 연결부를 직접 손으로 만지지 마십시오.
- 병렬 인터페이스 키트를 잡을 때는 회로판 표면에 닿지 않도록 끝부분을 잡으십시오.
- 설치 시 과도한 힘을 가하지 마십시오.

병렬 인터페이스 키트 설치
주의사항
병렬 인터페이스 키트를 설치(또는 제거)하기 전, 기기의 전원을 끄고 AC 아웃렛에서 전원선을 분리하십시오.

병렬 인터페이스 키트 설치 확인
병렬 인터페이스 키트가 올바르게 설치되었는지 확인하려면 상태 페이지를 출력해 보십시오. 상태 페이지를 출력하는 방법에 관해서는 사용설명서를 참고하시기 바랍니다.

オプションパラレルインターフェイスキット IB-32
インストールガイド

はじめに
IB-32 は弊社プリンター用パラレルインターフェイスキットです。本書をよくお読みいただき、正しく装着してください。なお、本オプションはその他の機種でも同様の手順で装着できます。

梱包内容の確認
IB-32 本体 1
プレート 1
ネジ 2
中継線 1
シール 1
インストールガイド(本書) 1

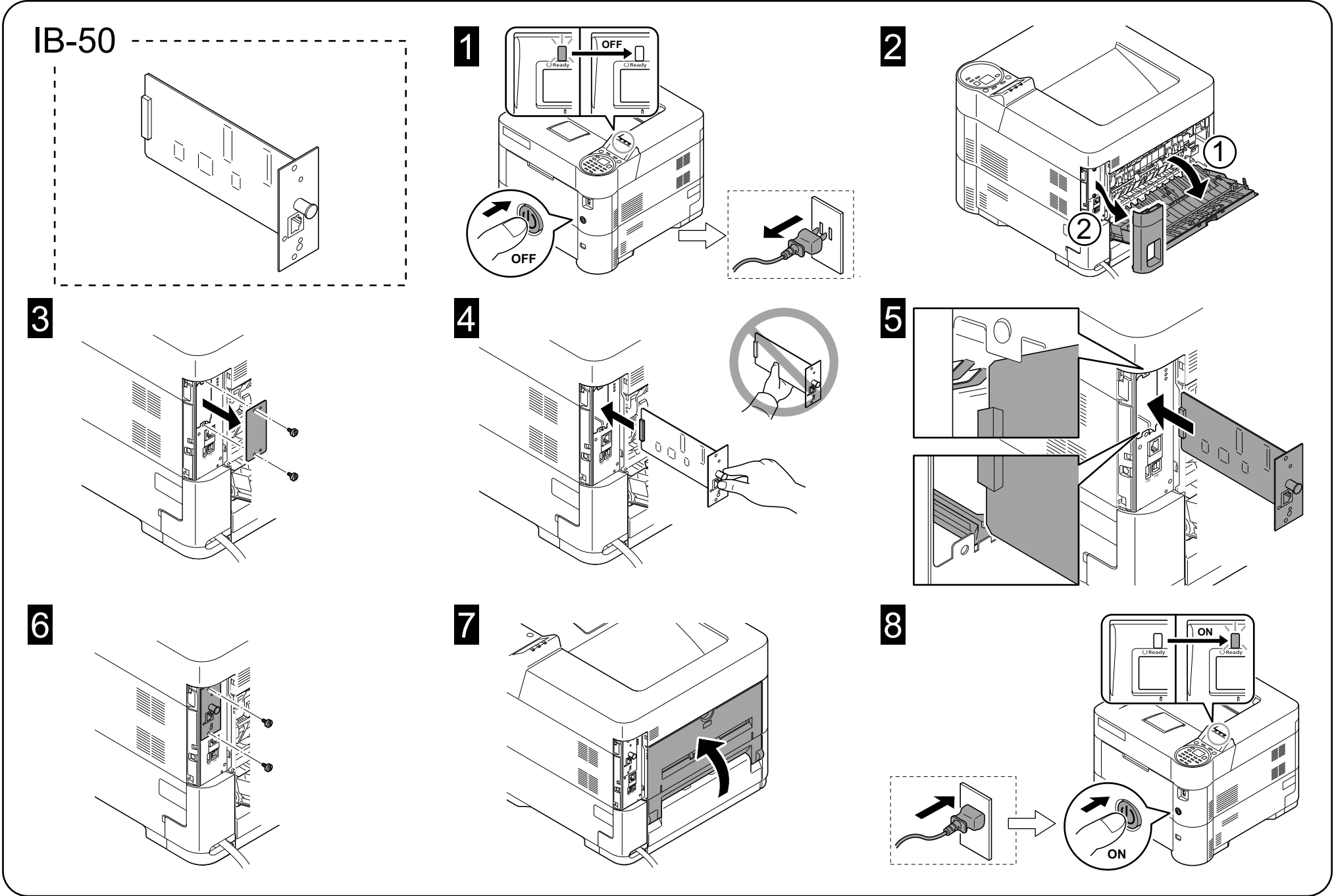
取扱以上の注意
本オプションの取り扱いには、以下のことにご注意ください。

- 本品は静電気防止対策済みの袋に入っています。袋の中から取り出す際は、念のため大きな金属物に触れて身体の静電気を取り除いてください。
- 本品のコネクター部分には手を触れないでください。
- 本品を持つ際は基板の表面に手を触れずに、基板の端を持ってください。
- 装着時は無理な力を加えないでください。

パラレルインターフェイスキットの装着
注意
本オプションの装着（または取り外し）は、プリンターの電源を切り、電源プラグをコンセントから抜いた状態で行ってください。

装着の確認
ステータスページを印刷して、本オプションが正しく装着されたかを確認できます。
ステータスページの印刷方法は、使用説明書を参照してください。

Network interface Installation Guide



English

Optional Network Interface Kit IB-50
Installation Guide

Introduction
The IB-50 is an optional network interface kit for use with the MFPs and the page printers. Please read this Installation Guide thoroughly so that you understand the correct installation method.
This network interface kit can be installed in other models using the same installation procedure.

Packing List

IB-50	1
Installation Guide (this guide)	1
Setup Guide	1
CD-ROM	1

- Precautions for Handling the Network Interface Kit**
When handling the network interface kit, adhere to the following precautions.
- The network interface kit is delivered in an antistatic bag. To prevent any damage, briefly touch a large metal object to ensure discharge of static electricity before removing the network interface kit from the bag.
 - Never touch the network interface kit's connector section directly with hands.
 - When holding the network interface kit, avoid contact with the surface of the circuit board. Hold it at the edges.
 - Do not apply undue force when installing.

Installing the Network Interface Kit

CAUTION
Before installing (or removing) the network interface kit, be sure to turn off the machine's power and disconnect the power cord plug from the AC outlet.

Verifying Installation of the Network Interface Kit

To verify that the network interface kit has been correctly installed, try to print out the status page.
Refer to the Operation Guide for the method for printing a status page.

Network settings

Refer to the Operation guide for the network settings.

Français

Kit d'interface réseau IB-50 en option
Guide d'installation

Introduction
L'IB-50 est un kit d'interface réseau en option destiné à être utilisé avec les imprimantes multifonctions et les imprimantes par page. Veuillez lire entièrement ce guide d'installation et vous assurer que vous comprenez bien les méthodes d'installation.

Ce kit d'interface réseau peut être installé dans d'autres modèles à l'aide de la même procédure d'installation.

Contenu de l'emballage

IB-50	1
Guide d'installation (ce manuel)	1
Guide de mise en service	1
CD-ROM	1

Précautions de manipulation du kit d'interface réseau

Lorsque vous manipulez le kit d'interface réseau, observez les précautions suivantes.

- Le kit d'interface réseau est livré dans un sac antistatique. Avant de le retirer du sac, touchez brièvement un grand objet métallique pour vous décharger de toute électricité statique. Vous éviterez ainsi d'endommager le kit d'interface réseau.
- Ne touchez jamais directement la partie du connecteur du kit d'interface réseau avec les mains.
- Lorsque vous tenez le kit d'interface réseau, ne touchez pas la surface de la carte de circuits imprimés. Saisissez-le par les bords.
- N'appliquez aucune force inutile en l'installant.

Installation du kit d'interface réseau

ATTENTION

Avant d'installer (ou de retirer) le kit d'interface réseau, mettez toujours l'imprimante hors tension et débranchez la fiche du cordon d'alimentation de la prise de courant.

Vérification de l'installation du kit d'interface réseau

Pour vous assurer que le kit d'interface réseau a été correctement installé, essayez d'imprimer la page d'état de l'imprimante.

Pour connaître la méthode d'impression de la page d'état, consultez le manuel d'utilisation.

Réglages réseau

Pour connaître les réglages réseau, consultez le manuel d'utilisation.

Español

Kit de interfaz de red IB-50 opcional
Guía de instalación

Introducción

El IB-50 es un kit de interfaz de red opcional para utilizar con la copiadora e impresora de hojas. Lea completamente esta Guía de instalación de forma que pueda entender los métodos de instalación y operación correctos.

Este kit de interfaz de red puede instalarse en otros modelos utilizando el mismo procedimiento de instalación.

Lista del contenido del paquete

IB-50	1
Guía de instalación (este folleto)	1
Guía de configuración	1
CD-ROM	1

Precauciones para el manejo del kit de interfaz de red

Cuando maneje el kit de interfaz de red, tenga en cuenta las siguientes precauciones.

- El kit de interfaz de red se entrega en una bolsa antiestática. Para evitar cualquier daño, antes de sacar el kit de interfaz de red de la bolsa, toque un objeto metálico grande para descargar la electricidad estática de su cuerpo.
- Nunca toque la sección del conector del kit de interfaz de red directamente con las manos.
- Cuando sostenga el kit de interfaz de red, no toque con las manos la superficie de la placa del circuito impreso. Sujétela por los bordes.
- No aplique demasiada fuerza al realizar la instalación.

Instalación del kit de interfaz de red

PRECAUCIÓN

Antes de instalar (o desmontar) el kit de interfaz de red, asegúrese de desconectar la alimentación de la impresora y de desenchufar el cable de alimentación de la toma de corriente de CA.

Verificación de la instalación del kit de interfaz de red

Para verificar que el kit de interfaz de red ha sido instalado correctamente, trate de imprimir la página de estado de la impresora.

Consulte la Guía de uso para obtener información sobre la impresión de la página de estado de la impresora.

Configuración de la red

Consulte la Guía de uso para obtener información sobre la configuración de la red.

Optionales Network Interface Kit IB-50
Installationsanleitung

Einführung
Das IB-50 ist ein optionales Network Interface Kit zur Verwendung mit den MFPs und den Seitendruckern. Bitte lesen Sie sich diese Installationsanleitung sorgfältig durch, damit Sie das Gerät korrekt installieren.
Dieses Network Interface Kit kann mithilfe des selben Installationsvorgangs in anderen Modellen eingebaut werden.

Verpackungsinhalt
IB-50 1
Installationsanleitung (diese Anleitung)..... 1
Einrichtungsleitfaden 1
CD-ROM..... 1

Vorsichtsmaßnahmen bei der Handhabung des Network Interface Kits
Bitte beachten Sie die folgenden Vorsichtshinweise beim Umgang mit dem Network Interface Kit.
• Das Network Interface Kit wird in einem Antistatikbeutel geliefert. Um eine Beschädigung des Network Interface Kits zu vermeiden, sollten Sie kurz einen großen Gegenstand aus Metall berühren, um sich von statischer Elektrizität zu entladen, bevor Sie das Network Interface Kit aus der Verpackung entfernen.
• Berühren Sie auf keinen Fall die Steckleiste des Network Interface Kits mit bloßen Händen.
• Achten Sie beim Halten des Network Interface Kits darauf, eine Berührung der Platinenoberfläche zu vermeiden. Halten Sie das Network Interface Kit stets an den Kanten der Platine.
• Vermeiden Sie übermäßige Kraftanwendung beim Installieren.

Installation des Network Interface Kits
VORSICHT
Achten Sie vor dem Installieren (bzw. Entfernen) des Network Interface Kits unbedingt darauf, den Drucker auszuschalten und das Netzkabel von der Netzsteckdose zu trennen.

Überprüfung der Installation des Network Interface Kits
Um eine korrekte Installation des Network Interface Kits zu überprüfen, drucken Sie die Statusseite aus.
Die Vorgehensweise für das Ausdrucken einer Statusseite finden Sie in der Bedienungsanleitung.

Netzwerkeinstellungen
Die Netzwerkeinstellungen finden Sie in der Bedienungsanleitung.

Kit interfaccia di rete IB-50 opzionale
Guida all’installazione

Introduzione
IB-50 è un kit interfaccia di rete opzionale per utilizzi con stampanti multifunzione (MFP) e con stampanti a pagine. Si prega di leggere attentamente la presente Guida all'installazione per comprendere il corretto metodo di installazione.
Questo kit interfaccia di rete può essere installato in altri modelli che utilizzano la stessa procedura di installazione.

Contenuto della confezione
IB-50 1
Guida all'installazione (la presente guida)..... 1
Guida alla configurazione..... 1
CD-ROM..... 1

Precauzioni d'uso del kit interfaccia di rete
Durante l'utilizzo del kit interfaccia di rete, adottare le precauzioni che seguono.
• Il kit interfaccia di rete è spedito in una custodia antistatica. Per evitare eventuali danni, toccare per pochi istanti un oggetto metallico di grandi dimensioni per assicurarsi di scaricare l'elettricità statica prima di rimuovere il kit interfaccia di rete dalla custodia.
• Non toccare la sezione del connettore del kit interfaccia di rete direttamente con le mani.
• Nell'afferrare il kit interfaccia di rete, evitare il contatto con la superficie della scheda a circuito. Afferrarlo alle estremità.
• Non esercitare una forza eccessiva durante l'installazione.

Istallazione del kit interfaccia di rete
ATTENZIONE:
prima di installare (o di rimuovere) il kit interfaccia di rete, assicurarsi di aver spento l'alimentazione della macchina e di aver disconnesso la spina del cavo di alimentazione dalla presa CA.

Verifica dell'installazione del kit interfaccia di rete
Per verificare che il kit interfaccia di rete sia stato installato correttamente, stampare la pagina di stato.
Per scoprire le modalità di stampa della pagina di stato, consultare la Guida alle funzioni.

Impostazioni di rete
Per le impostazioni di rete, consultare la Guida alle funzioni.

选装网络接口套件 IB-50
安装手册

前言
IB-50 是一款适用于 MFP 和页式打印机的选装网络接口套件。为了解正确的安装方法，请仔细阅读本《安装手册》。
本网络接口套件可通过同样的安装步骤安装到其他机型上去。

包装内容列表
IB-50 1
安装手册（本手册） 1
设置手册 1
CD-ROM 1

使用本网络接口套件的注意事项
使用本网络接口套件时，请遵守以下注意事项。
• 本网络接口套件被包装在防静电袋中。将网络接口套件从包装袋中取出之前，请短暂触摸大件金属物体以消除静电，以免造成损坏。
• 请勿直接用手触摸网络接口套件的连接器部分。
• 掌握网络接口套件时，请勿接触到电路板的表面。请掌握其边缘。
• 安装时请不要过于用力。

安装本网络接口套件
注意：
安装（或拆卸）本网络接口套件前，请务必关掉机器的电源并将电源线插头从 AC 插座上断开。

确认本网络接口套件安装正确
为确认本网络接口套件已经正确安装，请尝试打印状态页。
有关打印状态页的方法，请参阅《操作手册》。

网络设置
有关网络设置的相关信息，请参阅《操作手册》。

옵션 네트워크 인터페이스 키트 IB-50
설치 안내서

소개
IB-50은 MFP와 페이지 프린터에 사용되는 옵션 네트워크 인터페이스 키트입니다. 본 설치 안내서를 주의 깊게 읽고 올바른 설치 방법을 숙지하시기 바랍니다. 본 네트워크 인터페이스 키트는 같은 설치 절차를 적용하여 다른 모델에 설치될 수 있습니다.

포장 내용물
IB-50 1
설치 안내서 (본 안내서) 1
설정 안내서..... 1
CD-ROM..... 1

네트워크 인터페이스 키트 취급 시 주의사항
네트워크 인터페이스 키트 취급 시, 다음과 같은 주의사항을 지켜주시기 바랍니다.
• 네트워크 인터페이스 키트는 정전기 방지 봉투에 포장되어 있습니다. 네트워크 인터페이스 키트를 꺼내기 전에 손상을 예방하기 위해 큰 금속 물체를 잠시 만져서 정전기를 방지하시기 바랍니다.
• 네트워크 인터페이스 키트의 연결부를 직접 손으로 만지지 마십시오.
• 네트워크 인터페이스 키트를 잡을 때는, 회로판 표면에 닿지 않도록 끝부분을 잡으십시오.
• 설치 시 과도한 힘을 가하지 마십시오.

네트워크 인터페이스 키트 설치
주의사항
네트워크 인터페이스 키트를 설치(또는 제거)하기 전, 기기의 전원을 끄고 AC 아웃렛에서 전원선을 분리하십시오.

네트워크 인터페이스 키트 설치 확인
네트워크 인터페이스 키트가 올바르게 설치되었는지 확인하려면 상태 페이지를 출력해보십시오. 상태 페이지를 출력하는 방법에 관해서는 사용설명서를 참고하시기 바랍니다.

네트워크 설정
네트워크 설정에 관련된 정보는 사용설명서를 참고하시기 바랍니다.

オプションネットワークインターフェイスキット IB-50
インストールガイド

はじめに
IB-50 は弊社複合機およびプリンター用ネットワークインターフェイスキットです。本書をよくお読みいただき、正しく装着してください。なお、本オプションはその他の機種でも同様の手順で装着できます。

梱包内容の確認
IB-50 本体 1
インストールガイド(本書) 1
セットアップガイド 1
CD-ROM 1

取扱い上の注意
本オプションの取り扱いには、以下のことにご注意ください。
• 本品は静電気防止対策済みの袋に入っています。袋の中から取り出す際は、念のため大きな金属物に触れて身体の静電気を取り除いてください。
• 本品のコネクター部分には手を触れないでください。
• 本品を持つ際は基板の表面に手を触れずに、基板の端を持ってください。
• 装着時は無理な力を加えないでください。

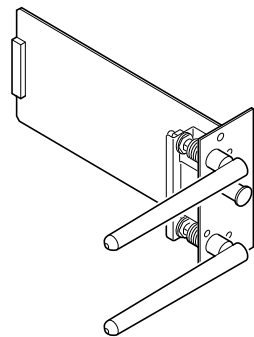
ネットワークインターフェイスキットの装着
注意
本オプションの装着（または取り外し）は、複合機またはプリンターの電源を切り、電源プラグをコンセントから抜いた状態で行ってください。

装着の確認
ステータスページを印刷して、本オプションが正しく装着されたかを確認できます。
ステータスページの印刷方法は、使用説明書を参照してください。

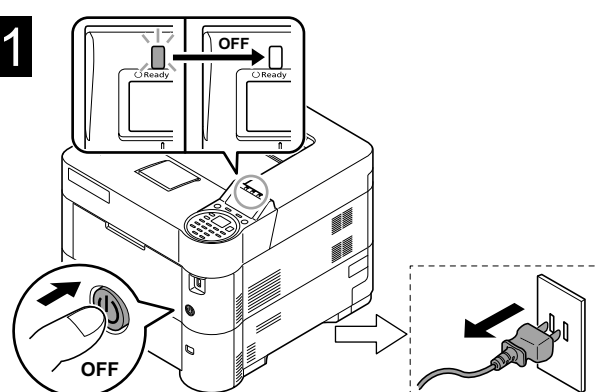
ネットワークの設定
ネットワークの設定については、使用説明書を参照してください。

Wireless LAN interface Installation Guide

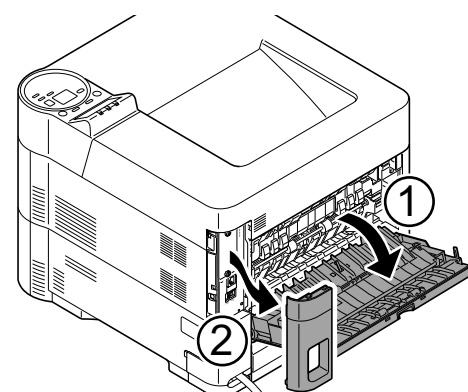
IB-51



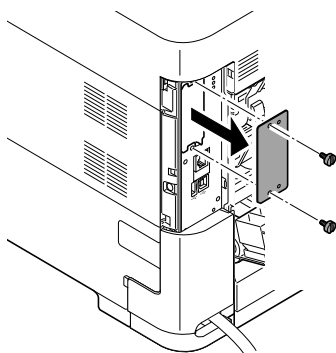
1



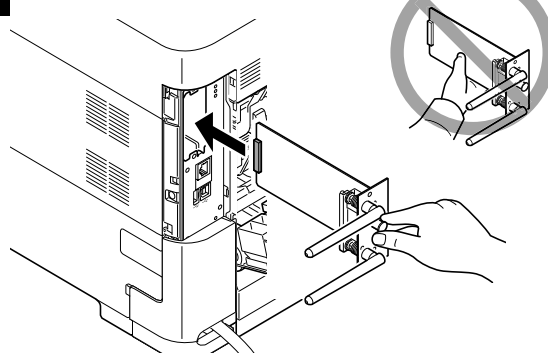
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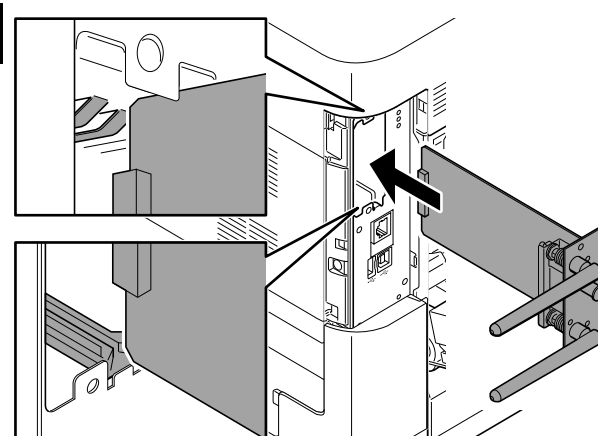
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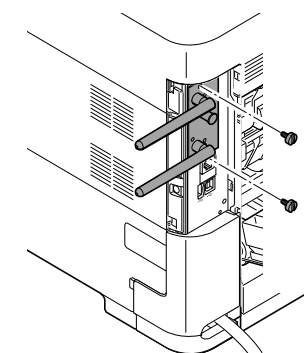
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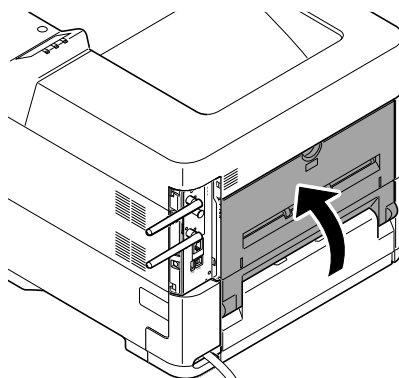
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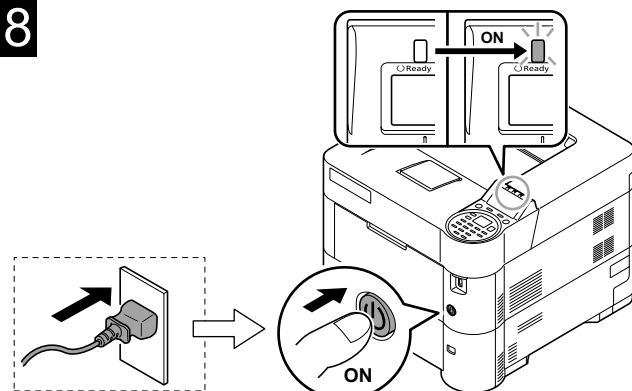
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8



English

Optional Wireless Network Interface Kit IB-51 Installation Guide

Introduction

The IB-51 is an optional wireless network interface kit for use with the MFPs and the page printers. Please read this Installation Guide thoroughly so that you understand the correct installation method. This wireless network interface kit can be installed in other models using the same installation procedure.

Packing List

IB-51	1
Installation Guide (this guide)	1
CD-ROM	1

Precautions for Handling the Wireless Network Interface Kit

When handling the wireless network interface kit, adhere to the following precautions.

- The wireless network interface kit is delivered in an antistatic bag. To prevent any damage, briefly touch a large metal object to ensure discharge of static electricity before removing the wireless network interface kit from the bag.
- Never touch the wireless network interface kit's connector section directly with hands.
- When holding the wireless network interface kit, avoid contact with the surface of the circuit board. Hold it at the edges.
- Do not apply undue force when installing.

Installing the Wireless Network Interface Kit

CAUTION

Before installing (or removing) the wireless network interface kit, be sure to turn off the machine's power and disconnect the power cord plug from the AC outlet.

Verifying Installation of the Wireless Network Interface Kit

To verify that the wireless network interface kit has been correctly installed, try to print out the status page.

Refer to the Operation Guide for the method for printing a status page.

Network settings

For the network settings and operation procedure, refer to the Operation Guide and the wireless network interface manual.

www.tonerplus.com.ua

Français

Kit d'interface réseau sans fil IB-51 en option Guide d'installation

Introduction

L'IB-51 est un kit d'interface réseau sans fil en option destiné à être utilisé avec les imprimantes multifonctions et les imprimantes par page. Veuillez lire entièrement ce guide d'installation et vous assurer que vous comprenez bien les méthodes d'installation.

Ce kit d'interface réseau sans fil peut être installé dans d'autres modèles à l'aide de la même procédure d'installation.

Contenu de l'emballage

IB-51	1
Guide d'installation (ce manuel)	1
CD-ROM	1

Précautions de manipulation du kit d'interface réseau sans fil

Lorsque vous manipulez le kit d'interface réseau sans fil, observez les précautions suivantes.

- Le kit d'interface réseau sans fil est livré dans un sac antistatique. Avant de le retirer du sac, touchez brièvement un grand objet métallique pour vous décharger de toute électricité statique. Vous éviterez ainsi d'endommager le kit d'interface réseau sans fil.
- Ne touchez jamais directement la partie du connecteur du kit d'interface réseau sans fil avec les mains.
- Lorsque vous tenez le kit d'interface réseau sans fil, ne touchez pas la surface de la carte de circuits imprimés. Saisissez-le par les bords.
- N'appliquez aucune force inutile en l'installant.

Installation du kit d'interface réseau sans fil

ATTENTION

Avant d'installer (ou de retirer) le kit d'interface réseau sans fil, mettez toujours l'imprimante hors tension et débranchez la fiche du cordon d'alimentation de la prise de courant.

Vérification de l'installation du kit d'interface réseau sans fil

Pour vous assurer que le kit d'interface réseau sans fil a été correctement installé, essayez d'imprimer la page d'état de l'imprimante.

Pour connaître la méthode d'impression de la page d'état, consultez le manuel d'utilisation.

Réglages réseau

Pour les réglages réseau et la procédure d'utilisation, consultez le manuel d'utilisation et le manuel de l'interface réseau sans fil.

Español

Kit de interfaz de red inalámbrica IB-51 opcional Guía de instalación

Introducción

El IB-51 es un kit de interfaz de red inalámbrica opcional para utilizar con la copiadora e impresora de hojas. Lea completamente esta Guía de instalación de forma que pueda entender los métodos de instalación y operación correctos. Este kit de interfaz de red inalámbrica puede instalarse en otros modelos utilizando el mismo procedimiento de instalación.

Lista del contenido del paquete

IB-51	1
Guía de instalación (este folleto)	1
CD-ROM	1

Precauciones para el manejo del kit de interfaz de red inalámbrica

Cuando maneje el kit de interfaz de red inalámbrica, tenga en cuenta las siguientes precauciones.

- El kit de interfaz de red inalámbrica se entrega en una bolsa antiestática. Para evitar cualquier daño, antes de sacar el kit de interfaz de red inalámbrica de la bolsa, toque un objeto metálico grande para descargar la electricidad estática de su cuerpo.
- Nunca toque la sección del conector del kit de interfaz de red inalámbrica directamente con las manos.
- Cuando sostenga el kit de interfaz de red inalámbrica, no toque con las manos la superficie de la placa del circuito impreso. Sujétela por los bordes.
- No aplique demasiada fuerza al realizar la instalación.

Instalación del kit de interfaz de red inalámbrica

PRECAUCIÓN

Antes de instalar (o desmontar) el kit de interfaz de red inalámbrica, asegúrese de desconectar la alimentación de la impresora y de desenchufar el cable de alimentación de la toma de corriente de CA.

Verificación de la instalación del kit de interfaz de red inalámbrica

Para verificar que el kit de interfaz de red inalámbrica ha sido instalado correctamente, trate de imprimir la página de estado de la impresora. Consulte la Guía de uso para obtener información sobre la impresión de la página de estado de la impresora.

Configuración de la red

Si desea obtener información sobre la configuración de la red y el procedimiento de operación, consulte la Guía de uso y el manual de la interfaz de red inalámbrica.

Optionales Wireless Network Interface Kit IB-51
Installationsanleitung

Einführung
Das IB-51 ist ein optionales Wireless Network Interface Kit zur Verwendung mit den MFPs und den Seitendruckern. Bitte lesen Sie sich diese Installationsanleitung sorgfältig durch, damit Sie das Gerät korrekt installieren.
Dieses Wireless Network Interface Kit kann mithilfe des selben Installationsvorgangs in anderen Modellen eingebaut werden.

Verpackungsinhalt
IB-51 1
Installationsanleitung (diese Anleitung)..... 1
CD-ROM.....1

Vorsichtsmaßnahmen bei der Handhabung des Wireless Network Interface Kits
Bitte beachten Sie die folgenden Vorsichtshinweise beim Umgang mit dem Wireless Network Interface Kit.
• Das Wireless Network Interface Kit wird in einem Antistatikbeutel geliefert. Um eine Beschädigung des Wireless Network Interface Kits zu vermeiden, sollten Sie kurz einen großen Gegenstand aus Metall berühren, um sich von statischer Elektrizität zu entladen, bevor Sie das Wireless Network Interface Kit aus der Verpackung entfernen.
• Berühren Sie auf keinen Fall die Steckleiste des Wireless Network Interface Kits mit bloßen Händen.
• Achten Sie beim Halten des Wireless Network Interface Kits darauf, eine Berührung der Platinenoberfläche zu vermeiden. Halten Sie das Wireless Network Interface Kit stets an den Kanten der Platine.
• Vermeiden Sie übermäßige Kraftanwendung beim Installieren.

Installation des Wireless Network Interface Kits
VORSICHT
Achten Sie vor dem Installieren (bzw. Entfernen) des Wireless Network Interface Kits unbedingt darauf, den Drucker auszuschalten und das Netzkabel von der Netzsteckdose zu trennen.

Überprüfung der Installation des Wireless Network Interface Kits
Um eine korrekte Installation des Wireless Network Interface Kits zu überprüfen, drucken Sie die Statusseite aus.
Die Vorgehensweise für das Ausdrucken einer Statusseite finden Sie in der Bedienungsanleitung.

Netzwerkeinstellungen
Netzwerkeinstellungen und Betriebsverfahren finden Sie in Bedienungsanleitung und Anleitung vom Wireless Network Interface.

Kit interfaccia di rete wireless IB-51 opzionale
Guida all’installazione

Introduzione
IB-51 è un kit interfaccia di rete wireless opzionale per utilizzi con stampanti multifunzione (MFP) e con stampanti a pagine. Si prega di leggere attentamente la presente Guida all'installazione per comprendere il corretto metodo di installazione.
Questo kit interfaccia di rete wireless può essere installato in altri modelli che utilizzano la stessa procedura di installazione.

Contenuto della confezione
IB-51 1
Guida all'installazione (la presente guida).....1
CD-ROM.....1

Precauzioni d'uso del kit interfaccia di rete wireless
Durante l'utilizzo del kit interfaccia di rete wireless, adottare le precauzioni che seguono.
• Il kit interfaccia di rete wireless è spedito in una custodia antistatica. Per evitare eventuali danni, toccare per pochi istanti un oggetto metallico di grandi dimensioni per assicurarsi di scaricare l'elettricità statica prima di rimuovere la il kit interfaccia di rete wireless dalla custodia.
• Non toccare la sezione del connettore del kit interfaccia di rete wireless direttamente con le mani.
• Nell'afferrare il kit interfaccia di rete wireless, evitare il contatto con la superficie della scheda a circuito. Afferrarlo alle estremità.
• Non esercitare una forza eccessiva durante l'installazione.

Istallazione del kit interfaccia di rete wireless
ATTENZIONE:
prima di installare (o di rimuovere) il kit interfaccia di rete wireless, assicurarsi di aver spento l'alimentazione della macchina e di aver disconnesso la spina del cavo di alimentazione dalla presa CA.

Verifica dell’installazione del kit interfaccia di rete wireless
Per verificare che il kit interfaccia di rete wireless sia stato installato correttamente, stampare la pagina di stato.
Per scoprire le modalità di stampa della pagina di stato, consultare la Guida alle funzioni.

Impostazioni di rete
Per le impostazioni di rete e la procedura operativa, consultare la Guida alle funzioni e il manuale dell'interfaccia di rete wireless.

选装无线网络接口套件 IB-51
安装手册

前言
IB-51 是一款适用于 MFP 和页式打印机的选装无线网络接口套件。为了解正确的安装方法，请仔细阅读本《安装手册》。

本无线网络接口套件可通过同样的安装步骤安装到其他机型上去。

包装内容列表
IB-51 1
安装手册（本手册） 1
CD-ROM 1

使用本无线网络接口套件的注意事项
使用本无线网络接口套件时，请遵守以下注意事项。
• 本无线网络接口套件被包装在防静电袋中。将无线网络接口套件从包装袋中取出之前，请短暂触摸大件金属物体以消除静电，以免造成损坏。
• 请勿直接用手触摸无线网络接口套件的连接器部分。
• 掌握无线网络接口套件时，请勿接触到电路板的表面。请掌握其边缘。
• 安装时请不要过于用力。

安装本无线网络接口套件
注意：
安装（或拆卸）本无线网络接口套件前，请务必关掉机器的电源并将电源线插头从 AC 插座上断开。

确认本无线网络接口套件安装正确
为确认本无线网络接口套件已经正确安装，请尝试打印状态页。
有关打印状态页的方法，请参阅《操作手册》。

网络设置
有关网络设置的操作方法和步骤，请参阅《操作手册》和无线网络接口手册。

오픈 무선 네트워크 인터페이스 키트 IB-51
설치 안내서

소개
IB-51은 MFP와 페이지 프린터에 사용되는 오픈 무선 네트워크 인터페이스 키트입니다. 본 설치 안내서를 주의 깊게 읽고 올바른 설치 방법을 숙지하시기 바랍니다. 본 무선 네트워크 인터페이스 키트는 같은 설치 절차를 적용하여 다른 모델에 설치될 수 있습니다.

포장 내용물
IB-51 1
설치 안내서 (본 안내서) 1
CD-ROM.....1

무선 네트워크 인터페이스 키트 취급 시 주의사항
무선 네트워크 인터페이스 키트 취급 시, 다음과 같은 주의사항을 지켜주시기 바랍니다.
• 무선 네트워크 인터페이스 키트는 정전기 방지 봉투에 포장되어 있습니다. 무선 네트워크 인터페이스 키트를 꺼내기 전에 손상을 예방하기 위해 큰 금속 물체를 잠시 만져서 정전기를 방지하시기 바랍니다.
• 무선 네트워크 인터페이스 키트의 연결부를 직접 손으로 만지지 마십시오.
• 무선 네트워크 인터페이스 키트를 잡을 때는 회로판 표면에 닿지 않도록 끝부분을 잡으십시오.
• 설치 시 과도한 힘을 가하지 마십시오.

무선 네트워크 인터페이스 키트 설치
주의사항
무선 네트워크 인터페이스 키트를 설치(또는 제거)하기 전, 기기의 전원을 끄고 AC 아웃렛에서 전원선을 분리하십시오.

무선 네트워크 인터페이스 키트 설치 확인
무선 네트워크 인터페이스 키트가 올바르게 설치되었는지 확인하려면 상태 페이지를 출력해보십시오. 상태 페이지를 출력하는 방법에 관해서는 사용설명서를 참고하시기 바랍니다.

네트워크 설정
네트워크 설정 및 사용 절차에 관련된 정보는 사용설명서와 무선 네트워크 인터페이스 매뉴얼을 참고하시기 바랍니다.

オプションワイヤレスネットワーク
インターフェイスキット IB-51
インストールガイド

はじめに
IB-51 は弊社複合機およびプリンター用ワイヤレスネットワークインターフェイスキットです。本書をよくお読みいただき、正しく装着してください。なお、本オプションはその他の機種でも同様の手順で装着できます。

梱包内容の確認
ワイヤレスネットワークインターフェイス本体 1
インストールガイド(本書) 1
CD-ROM 1

取扱い上の注意
本オプションの取り扱いには、以下のことにご注意ください。
• 本品は静電気防止対策済みの袋に入っています。袋の中から取り出す際は、念のため大きな金属物に触れて身体の静電気を取り除いてください。
• 本品のコネクター部分には手を触れないでください。
• 本品を持つ際は基板の表面に手を触れずに、基板の端を持ってください。
• 装着時は無理な力を加えないでください。

ワイヤレスネットワークインターフェイスキットの装着
注意
本オプションの装着（または取り外し）は、複合機またはプリンターの電源を切り、電源プラグをコンセントから抜いた状態で行ってください。

装着の確認
ステータスページを印刷して、本オプションが正しく装着されたかを確認できます。
ステータスページの印刷方法は、使用説明書を参照してください。

ネットワークの設定
ネットワークの設定、操作手順については、使用説明書とワイヤレスネットワークインターフェイスのマニュアルを参照してください。

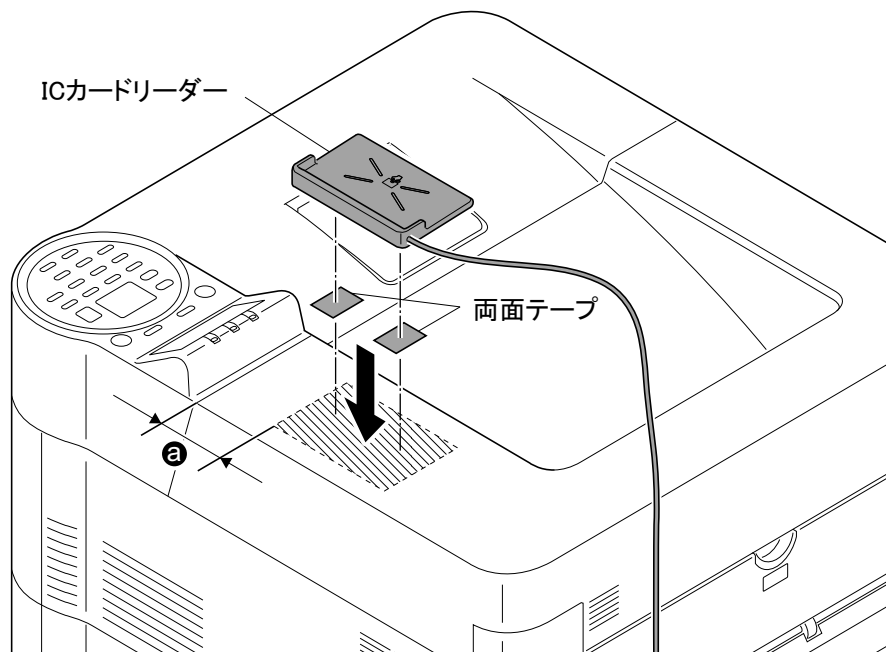
Card Authentication kit (B) Installation Guide

IC カード認証キット (B) 設置手順書

(LS-2100DN/LS-4200DN/LS-4300DN/ECOSYS P4040dn)

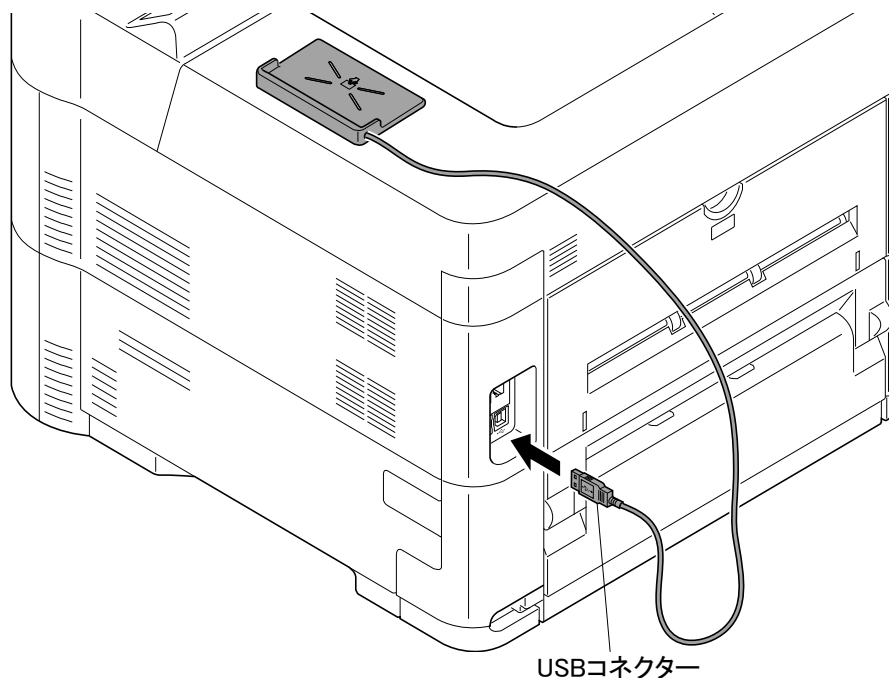
■ IC カードリーダーの取り付け

1. IC カードリーダーを両面テープで図の位置に貼り付けます。



a : 70 mm以上

2. USB コネクターをプリンターに接続します。



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