

Portable Manual

Feeder

DADF-M1

Canon

Feb 21 2005

Application

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

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Caution

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

Symbols Used

This documentation uses the following symbols to indicate special information:

Symbol	Description
	Indicates an item of a non-specific nature, possibly classified as Note, Caution, or Warning.
	Indicates an item requiring care to avoid electric shocks.
	Indicates an item requiring care to avoid combustion (fire).
	Indicates an item prohibiting disassembly to avoid electric shocks or problems.
	Indicates an item requiring disconnection of the power plug from the electric outlet.
 Memo	Indicates an item intended to provide notes assisting the understanding of the topic in question.
 REF.	Indicates an item of reference assisting the understanding of the topic in question.
	Provides a description of a service mode.
	Provides a description of the nature of an error indication.

The following rules apply throughout this Service Manual:

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

In the diagrams,  represents the path of mechanical drive; where a signal name accompanies the symbol, the arrow  indicates the direction of the electric signal.

The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.

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

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

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.

All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine."

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Chapter 1 Maintenance and Inspection

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1.1 Periodically Replaced Parts

1.1.1 Periodically Replaced Parts

0003-1674

The machine does not have parts that must be replaced on a periodical basis.

1.2 Durables

1.2.1 Durables

0003-1675

Some parts of the machine may have to be replaced once or more over the period of product life because of wear or damage. Replace them when they fail⁷, using the following table as a guide; the number of originals the machine has picked up may be checked using the host machine's service mode:

T-1-1

No	Parts name	Parts No.	Q'ty	Lifetime
1	Pickup roller	FC3-0722	1	80,000 originals
2	Separation Base	FL2-0748	1	80,000 originals
3	Feed Roller	FC5-3155	1	80,000 originals
4	Separation pad	FL2-0749	1	80,000 originals
5	Dust-colleting tapeA	FC5-2959	1	80,000 originals
6	Dust-colleting tapeB	FC5-2960	1	80,000 originals
7	Dust-colleting tapeC	FC5-2961	1	80,000 originals
8	Dust-colleting tapeD	FC5-3016	2	80,000 originals
9	Dust-colleting tapeE	FC5-3017	5	80,000
10	Stamp(option)	FB5-9410	1	7,000 originals

 Expected service life shows the central value of a group of evaluation data points. Parts Numbers may subject to change because of design

1.3 Periodical Servicing

1.3.1 Scheduled Servicing Chart

0003-1677

 Do not use solvents or oils other than those indicated.

Be sure to clean the rollers and scrapers, as the presence of paper lint or dust on them can cause lines in images.

A: clean B: lubricate C: replace D: adjustment

T-1-2

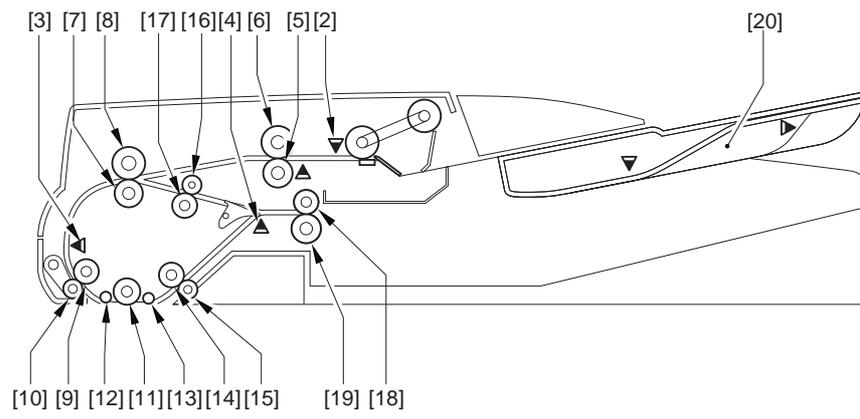
No	Parts name	Servicing*1	
		80,000 originals or 6 months	160,000 originals or 12 month
1	White plate (copyboard cover)	A	
2	Post-separation sensor (prism)		A
3	Read sensor (prism)		A
4	Delivery reversal sensor (prism)		A
5	No. 1 registration roller	A	
6	No. 1 registration roll	A	
7	No. 2 registration roller	A	
8	No. 2 registration roll	A	
9	Read roller 1	A	
10	Read roll 1	A	
11	Platen roller	A	
12	Platen upstream roll	A	
13	Platen downstream roll	A	
14	Read roller 2	A	
15	Read roll 2	A	
16	Reversing roll	A	
17	Reversing roller	A	

No	Parts name	Servicing*1	
		80,000 originals or 6 months	160,000 originals or 12 month
18	Delivery reversing upper roller	A	
19	Delivery reversing lower roller	A	
20	Original pickup tray	A	
21	Open/close guide (including sheets)	A	
22	Delivery guide	A	
23	Reversing guide	A	
24	Pre-registration guide (including sheets)	A	
25	Feed guide	A	
26	Reversing flapper	A	
27	White plastic film	A	
28	Dust-colleting tape	C	
29	Reading glass*2	B	
30	DADF height (See the Adjustment Procedure.)	D	
31	Roll scraper	A	

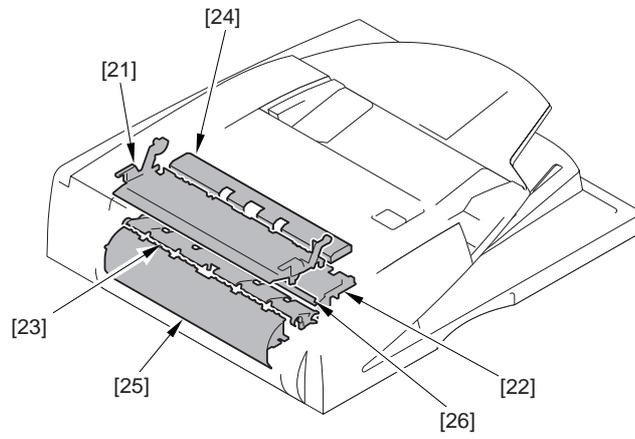
*1: the actual number of originals the machine has handled may be checked using its host machine's service mode: COPIER>COUNTER>FEEDER>FEED.

*2: apply silicone oil.

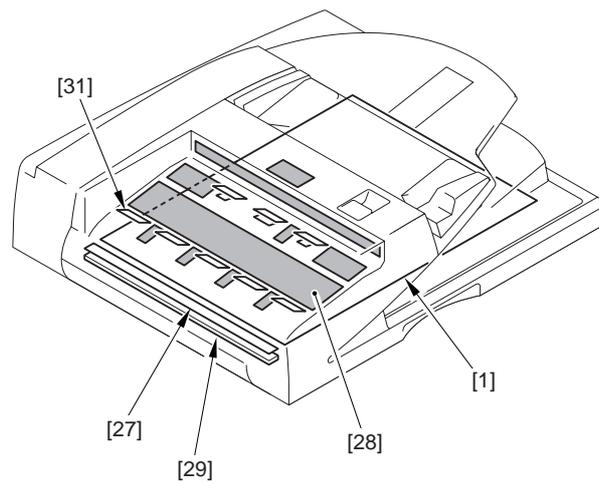
The following diagram shows the arrangement of the parts that need to be serviced on a periodical basis:



F-1-1



F-1-2



F-1-3

1.4 Cleaning

1.4.1 Parts of the ADF

0003-1690

1. Platen Roller, Platen Upstream Roll, and Platen Downstream Roll

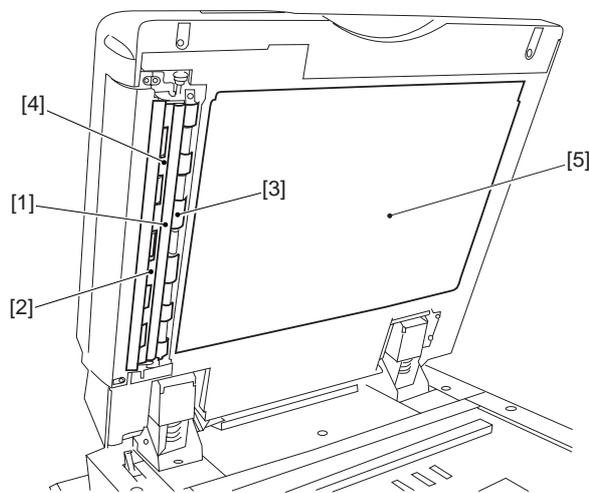
Wipe the platen roller [1] platen upstream roll [2], and platen downstream roll [3] with a cloth moistened with water (well wrung); then, dry wipe them.

2. White Plastic Film

Wipe the white plastic film [4] with a cloth moistened with water (well wrung) or alcohol; then, dry wipe it.

3. White Plate (copyboard)

Wipe the white plate [5] with a cloth moistened with water or alcohol; then, dry wipe it.



[1] Platen roller

[2] Platen upstream roll

[3] Platen downstream roll

[4] White plastic film

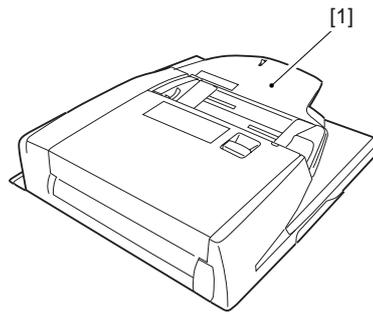
[5] White plate (copyboard cover)

1.4.2 Rollers and Guides

0003-1708

1. Original Pickup Tray

Wipe the original pickup tray [1] with lint-free paper moistened with alcohol.

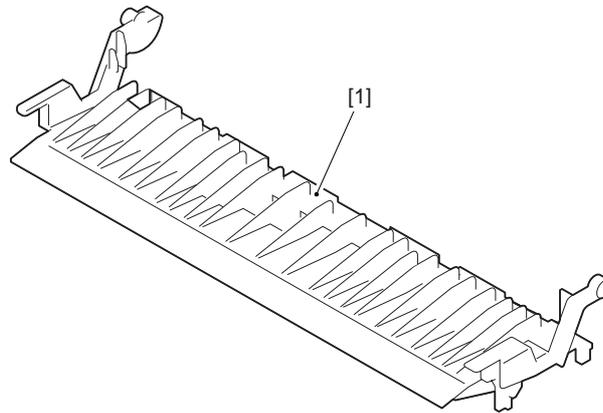


F-1-5

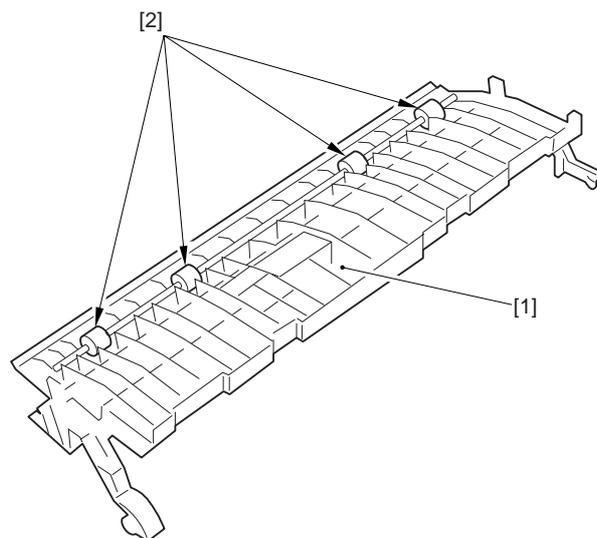
2. Open/Close Guide (including sheets) and Reversing Roll

1) Open the feeder cover, and detach the open/close guide.

2) Wipe the area of the open/close guide (including sheets) [1] coming into contact with paper and the reversing roll [2] found behind the open/close guide with lint-free paper moistened with alcohol.



F-1-6



F-1-7

3. No. 1 Registration Roller, No. 2 Registration Roller, No. 1 Registration Roll, No. 2 Registration Roll, and Reversing Roller.

1) Clean the following in the order indicated: platen roller, No. 1 registration roll [1], No. 1 registration roller [2], No. 2 registration roll [3], No. 2 registration roller [4], reversing roller [5].

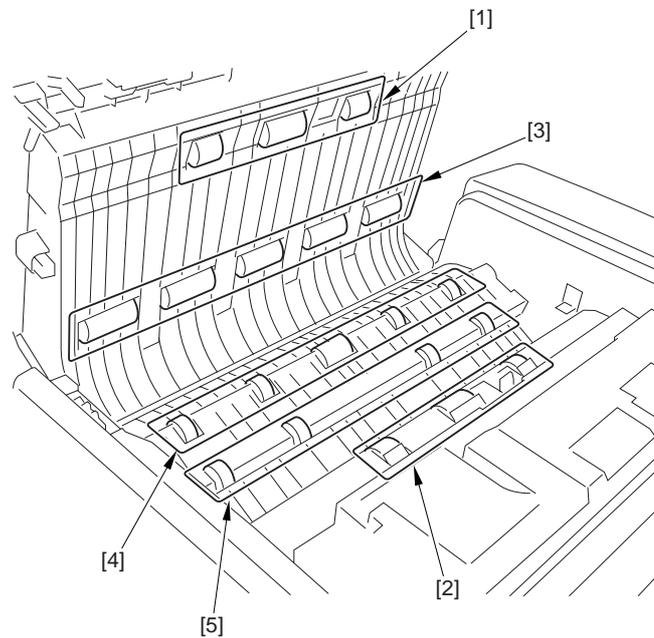
1. make the following selections in service mode to highlight [ROLL-CLN], and press the OK key to rotate the rollers: FEEDER>FUNCTION>ROLL-CLN.

2. force lint-free paper moistened with alcohol against the rollers to clean them.

3. press the OK key to stop the rollers.

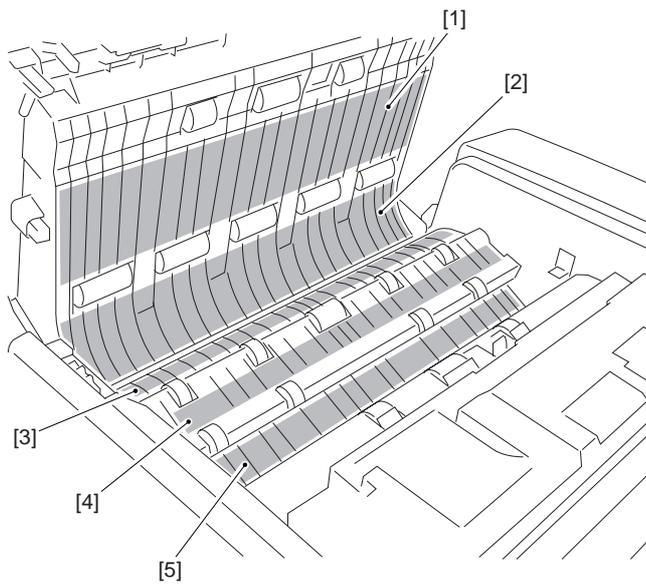
Memo:

The No. 1 registration roller and the No. 2 registration roller will not rotate even when the foregoing service mode is executed (i.e., FEEDER>FUNCTION>ROLL-CLN).



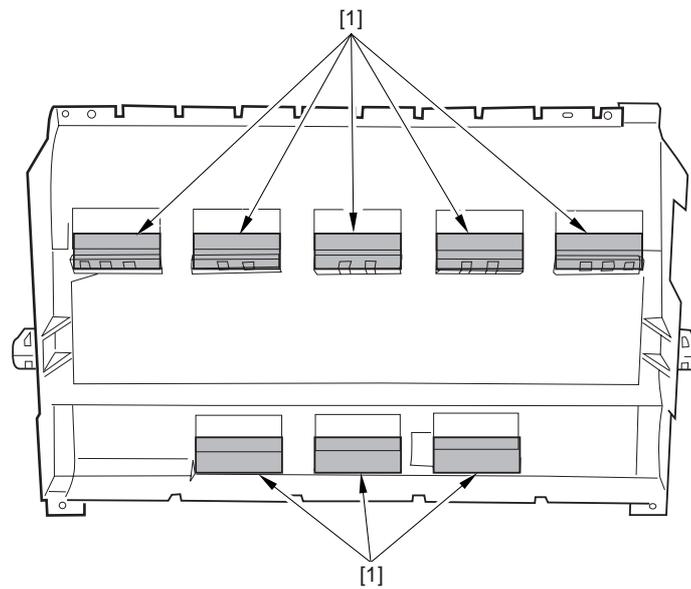
F-1-8

2) Clean the feeder inside cover [1], feed guide [2], reversing guide [3], delivery guide [4], and registration guide [5] (including sheets) with lint-free paper moistened with alcohol.



F-1-9

3) Remove the feeder cover and the feeder inside cover; then, clean the roll scraper [1] with lint-free paper moistened with alcohol.



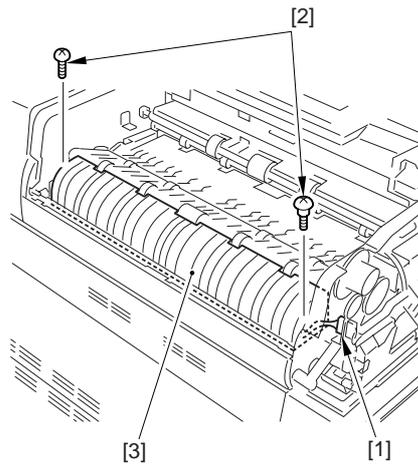
F-1-10

4. Read Roller 1 and Read Roller 2

1) Remove the 3 screws, and detach the front cover.

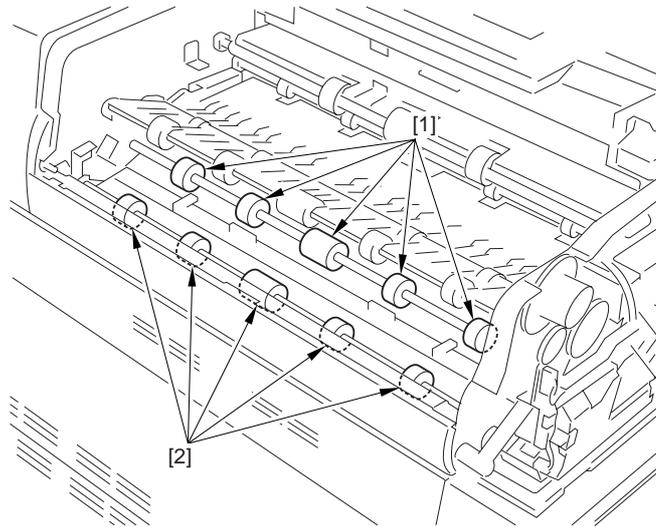
2) Detach the feeder cover.

3) Disconnect the connector [1], and remove the 2 screws [2]; then, detach the feed guide [3].



F-1-11

4) Clean the red roller 2 [1] and the read roller [2] with lint-free paper moistened with alcohol.

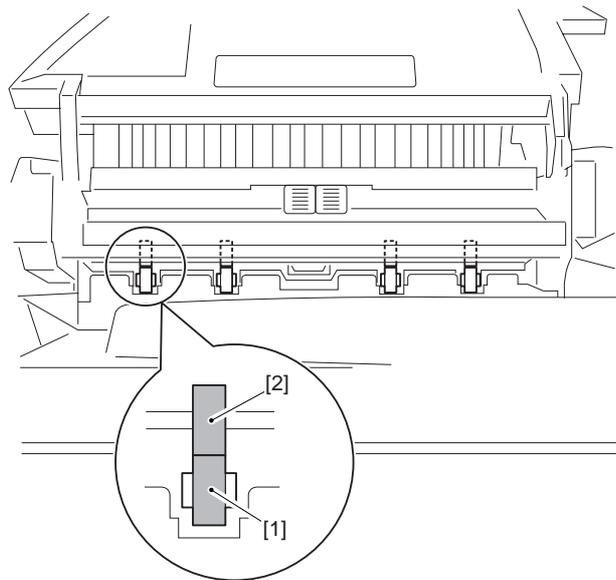


F-1-12

5. Delivery Reversing Upper Roller and Delivery Reversing Lower Roller

- 1) Open the feeder cover; then, remove the 2 screws, and detach the inside cover.
- 2) Shift up the original pickup tray, and clean the delivery reversing lower roller [1] and the delivery reversing upper roller [2] with lint-free paper moistened with alcohol.

⚠ Take care so that the lint-free paper will not touch the tip of the static eliminator.

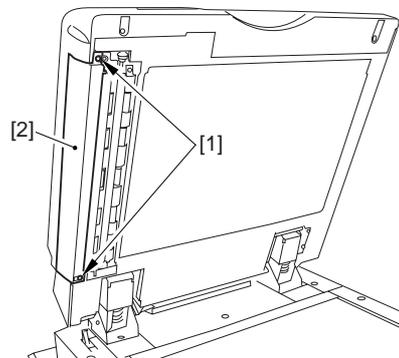


F-1-13

3) When done, mount back the inside cover.

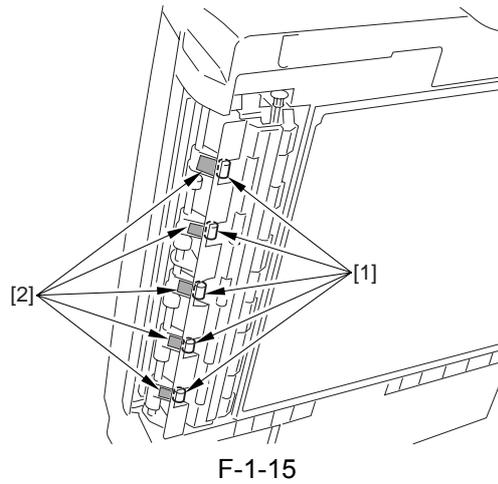
6. Read Roll and Roll Scraper

1) Remove the lower left cover.



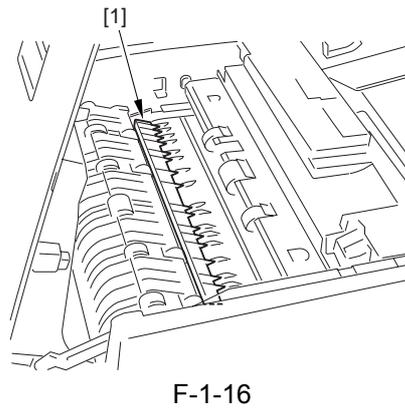
F-1-14

2) Clean the read roll [1] and the roll scraper [2] with lint-free paper moistened with alcohol.



7. Reversing Flapper

- 1) Open the feeder cover and the open/close guide.
- 2) Clean the area of the reversing flapper [1] coming into contact with paper using lint-free paper moistened with alcohol.

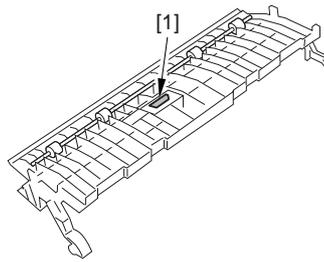


1.4.3 Sensors

0003-2455

1. Delivery Reversal Sensor, Prism

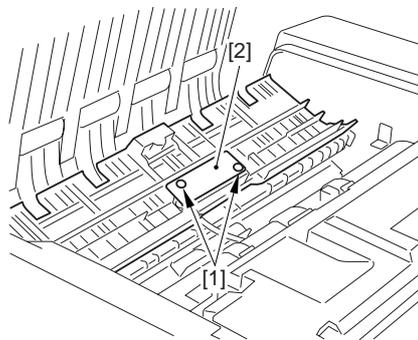
- 1) Open the feed cover.
- 2) Remove the open/close guide.
- 3) Clean the prism [1] found on the back of the open/close guide using an air blower brush.



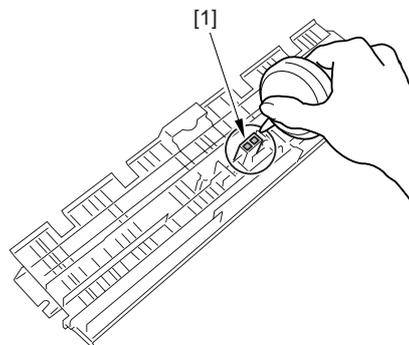
F-1-17

4) Remove the delivery guide.

5) Remove the 2 screws, and detach the delivery reversal sensor; then, clean the delivery reversal sensor and the reflecting sheet using an air blower brush.



F-1-18



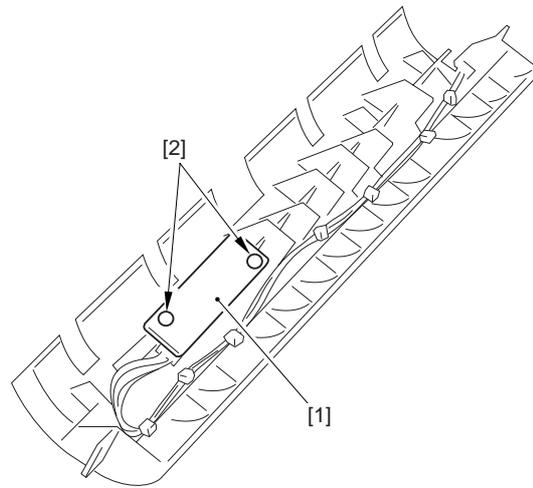
F-1-19

2. Read Sensor, Prism

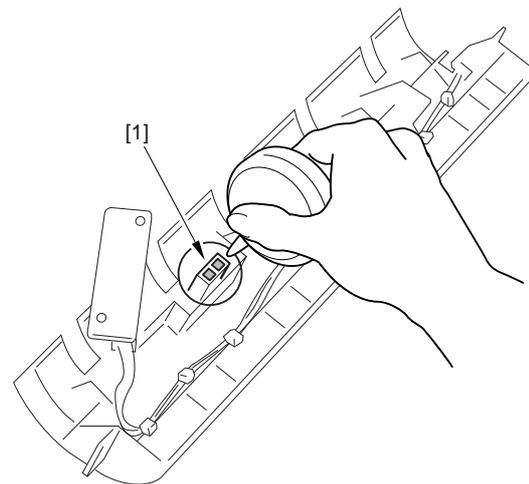
1) Remove the feed cover.

2) Remove the feed guide.

3) Remove the 2 screws, and detach the read sensor; then, clean the read sensor using an air blower brush.

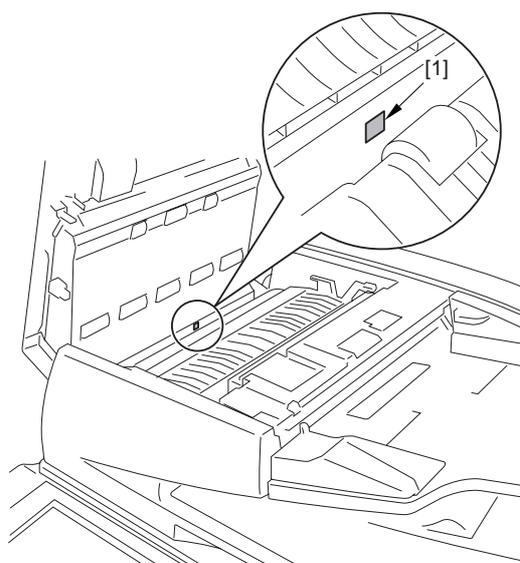


F-1-20



F-1-21

4) Clean the top face (plastic film) [1] of the prism.

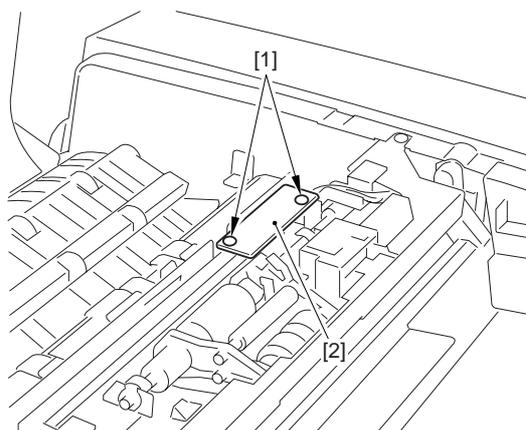


F-1-22

⚠ The surface of the prism coming in contact with paper is covered with plastic film. Be sure to clean the film.

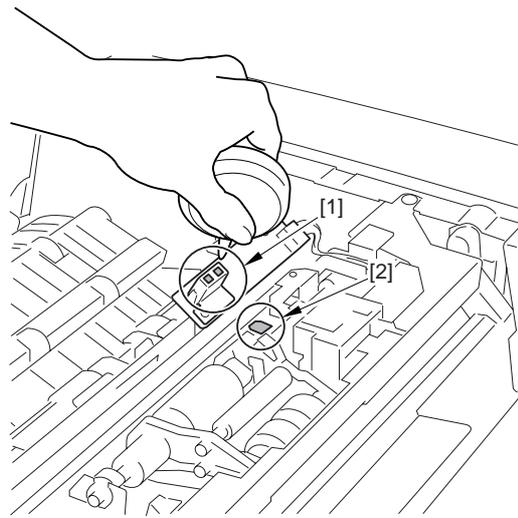
3. Post-Separation Sensor, Prism

- 1) Remove the inside cover.
- 2) Remove the 2 screws [1], and detach the post-separation sensor [2]; then, clean the post-separation sensor using an air blower brush.



F-1-23

- 3) Clean the prism [1] using a cotton swab.



F-1-24

1.4.4 Applying Silicone Oil to the Reading Glass (copyboard glass)

0003-2473

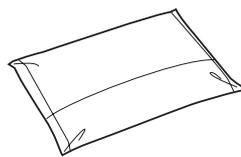
1. Tools to Prepare

i. silicone oil



F-1-25

ii. cleaning tissue



F-1-26

Memo:

silicone oil: FY9-6013-000

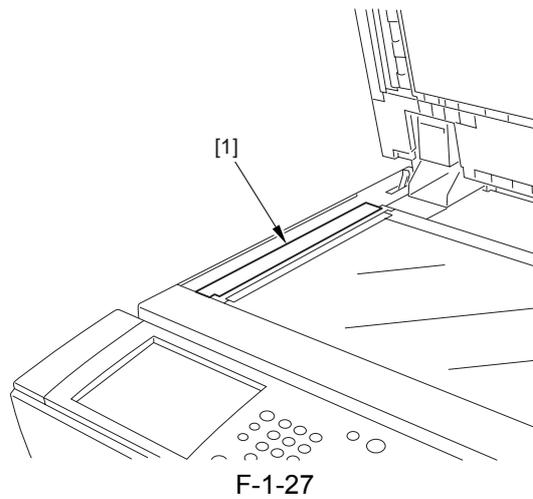
cleaning tissue: FC5-4430-000

2. Before Starting the Work

1) Clean the reading glass.

- Dry wipe the reading glass [1] using cleaning tissue.

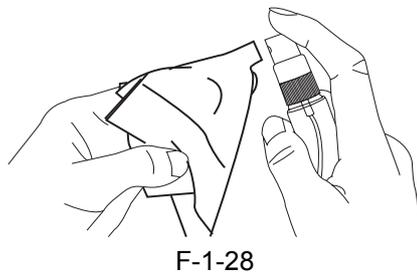
⚠ At this print, avoid moistening the cleaning tissue with silicone oil.



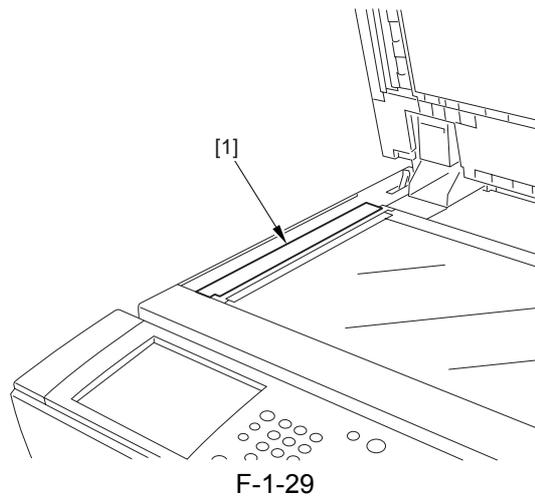
3. Applying the Silicone Oil

1) Squeeze the silicone oil bottle [1] 2 to 3 times, thereby moistening cleaning tissue [2] with an appropriate amount of it.

⚠ Avoid inhaling the vapor of the oil.



2) Apply the silicone oil to the reading glass [1] with the cleaning tissue.



4. Dry Wiping

- 1) Using a fresh area of the cleaning tissue (i.e., free of silicone oil), dry wipe the reading glass.

Chapter 2 Standards and Adjustments

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2.1 Basic Adjustment

2.1.1 Overview

0003-1634

The machine's basic adjustments must be made in the following order:

- [1] angle guide (angle of opening at 90 deg)
- [2] tray width*1
- [3] sensor output*1
- [4] tilt
- [5] height
- [6] right angle
- [7] angle guide (angle of opening at 70 deg)
- [8] magnification*1
- [9] horizontal registration*1
- [10] leading edge registration*1
- [11] white level*1

*1: adjustment made using the host machine's service mode.

Memo:

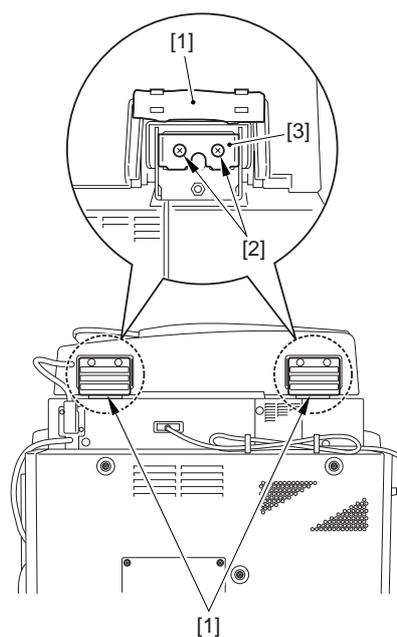
Be sure to make these basic adjustments whenever you have detached the machine or replaced any of the parts indicated.

2.1.2 Angle Guide (angle of opening at 90 deg)

0003-1796

Adjust the angle of opening. If it is 90 deg, go to the next item of adjustment (i.e. tray width).

- 1) Bend over the edge of the rubber cover [1], and remove the 2 mounting screws [2]; then, detach the angle guide plate [3].



F-2-1

2.1.3 Sensor Output

0004-9325

Make the following adjustments if you have replaced any of the following parts:

- reader controller PCB
- post-separation sensor (PI7)
- read sensor (PI8)
- delivery reversal sensor (PI9)

⚠ If you have replaced any of the sensors (i.e., PI7, PI8, PI9), be sure to clean the surface of the prism before starting to make the adjustments.

Adjustment Procedure

- 1) Turn on the host machine, and start its service mode.

<Starting Service Mode>

Press the User Mode key; press the 2 and 8 keys at the same time; then, press the user Mode key once again.

⚠ Check to be sure that there is no paper inside the ADF before starting the adjustments.

2) Make the following selections to highlight [SENS-IN]; FEEDER>FUNCTION>SENS-IN.

3) Press the OK key.

In response, the machine will run an automatic adjustment session, and will indicate 'OK!' if it ends normally.

4) When done, end service mode.

2.1.4 Tray Width

0003-3042

▲ To adjust the tray width, go through the steps under either "1. AB-Configuration" or "2. Inch-Configuration."

1. AB-Configuration

1) Turn on the host machine, and start its service mode.

<Starting Service Mode>

Press the User Mode key; press the 2 and 8 keys at the same time; then, press the User Mode key once again.

2) Touch the following in sequence on the screen to bring up the Adjustment screen: FEEDER>FUNCTION>TRY-A4.

3) Move the tray side guide to the index A4/A3.

4) Press the OK key to register the A4 width.

5) Move the tray side guide to the index A5R.

6) Touch [TRY-A5R] to highlight.

7) Move the tray side guide to the index A5R.

8) Press the OK key to register the A5R width.

9) Press the Reset key twice to end service mode.

10) Turn off the host machine's control panel power switch and main power switch in sequence.

11) Turn on the host machine's main power switch.

2. Inch-Configuration

1) Turn on the host machine, and start its service mode.

<Service Mode>

Press the User Mode key, and press the 2 and 8 keys

at the same time; then, press the User Mode key once again.

2) Touch the following in sequence on the screen to bring up the Adjustment screen: FEEDER>FUNCTION>TRY-LTR.

3) Move the tray side guide to the index LTR/11x17.

4) Press the OK key to register the LTR width.

5) Touch [TRY-LTRR] to highlight.

6) Move the tray side guide to the index STRM/LTRR/LGL.

7) Press the OK key to register the LTRR width.

8) Press the Reset key twice to end service mode.

9) Turn off the host machine's control panel power switch and main power switch in sequence.

10) Turn on the host machine's main power switch.

2.1.5 Eliminating the Tilt

0003-1846

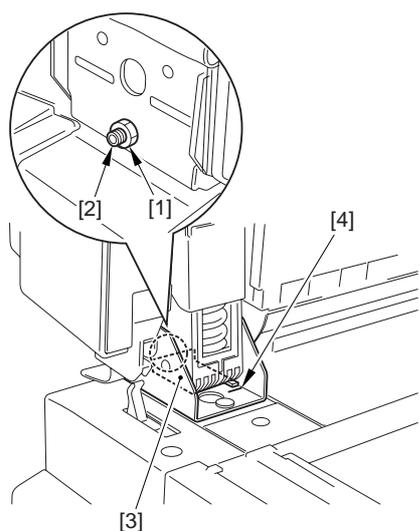
▲ Be sure you have adjusted the angle of the ADF before starting the following adjustment:

1) Loosen the nut [1] found at the rear of the left hinge; then, turn the hex bolt [2] so that the fixing member [3] is as far as the line marking [4].

- turn the bolt clockwise to move the member ahead.

- turn the bolt counterclockwise to move the member in reverse.

2) Tighten the nut.

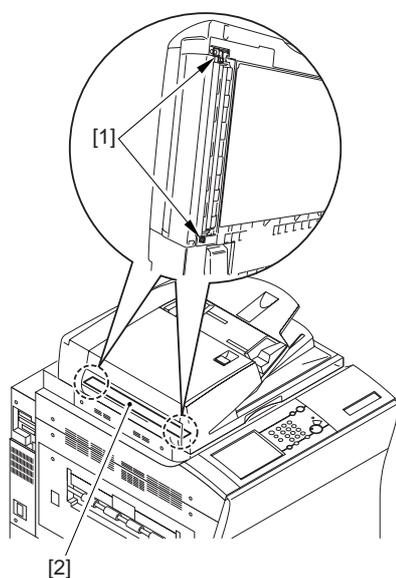


F-2-2

2.1.6 Height

0003-1849

- 1) With the machine closed, check to see if the height adjusting rolls [1] found at the left rear and front are in contact with the reading glass [2].



F-2-3

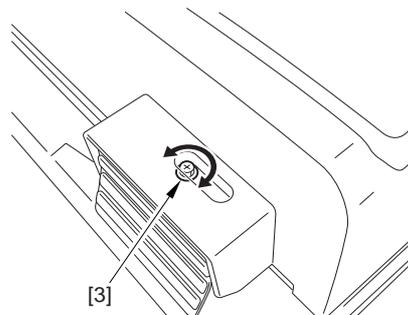
Memo:

To facilitate the work, try executing the following to turn on the scanning lamp using the host machine's service mode: COPIER>FUNCTION>MISC-

R>SCANLAMP.

<If Not in Contact>

If the height adjusting rolls [1] at the left front and rear are not in contact with the reading glass [2], turn the fixing screw [3] found at the top of the left hinge.



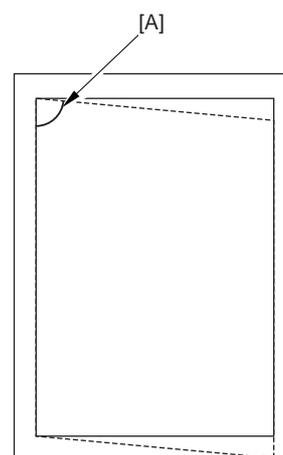
F-2-4

2.1.7 Right Angle

0003-2252

The following steps adjust the relationship between the machine's original feed direction and the host machine's scanner system:

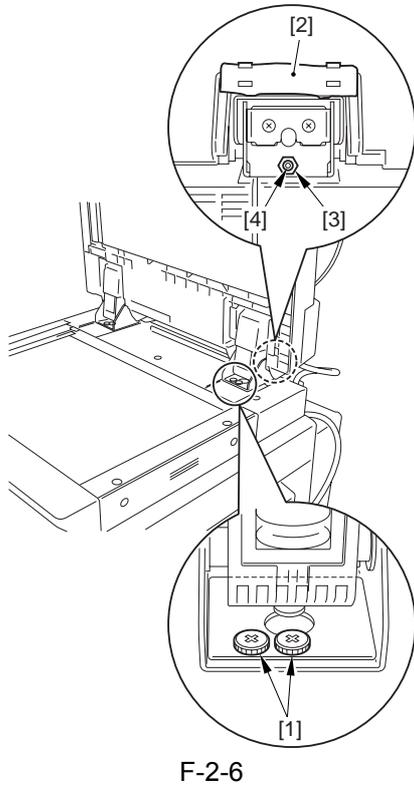
- 1) Place the Test Chart in the machine, and make a copy.
- 2) Check the right angle of the image in relation to the leading edge of the output (i.e., angle A).



F-2-5

- 3) Loosen the 2 knurled screws found at the front of the right hinge unit.
- 4) Bend over the edge of the rubber cover [2] found at

the rear of the right hinge unit, and loosen the fixing nut [3]; make adjustments using the bolt with a hex hole [4].



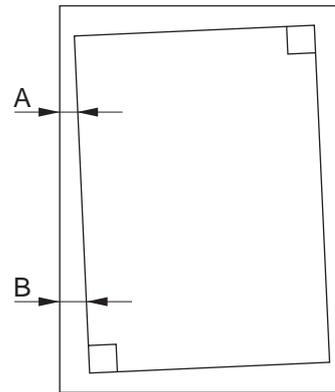
F-2-6

- if $A > B$ (less than 90 deg), turn the bolt clockwise.
- if $A < B$ (90 deg or more), turn the bolt counterclockwise.

5) After adjustment, tighten the nut to fix the bolt with a hex hole [3] in place.

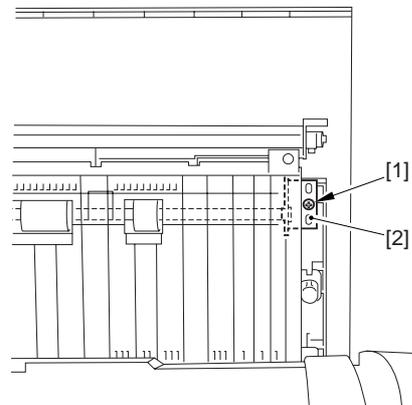
6) Place the Test Chart in the machine once again, and make a copy; then, check to see that the angle is a right angle.

If the following image appears after adjusting the right angle (i.e., if paper moves askew), go to the next adjustment to remove the skew (registration roller). In principle, the foregoing adjustment should correct the angle.



F-2-7

7) Remove the screw [1], and fit it and temporarily tighten it in the screw hole [2].



F-2-8

- if $A > B$, move up the plate [1] to make adjustments.
- if $A < B$, move down the place [1] to make adjustments.

8) When done, move back the screw [1] to its initial hole, and tighten it fully.

9) Make a copy of the Text Chart, and make sure that the angle is a right angle by comparing the output and the Test Chart.

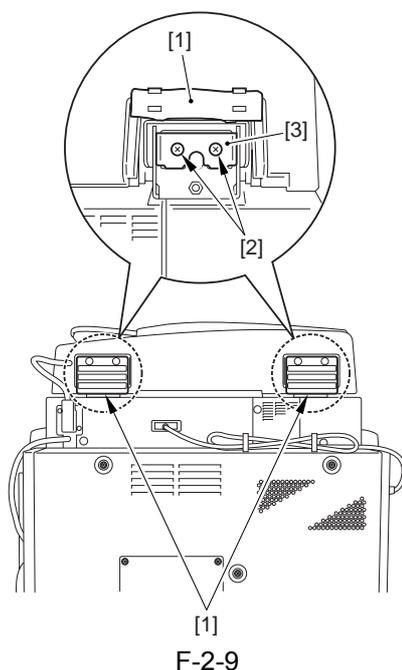
2.1.8 Angle Guide (angle of opening of 70 deg)

0003-2278

Adjust the angle of opening as follows:

- 1) Bend over the edge of the rubber cover [1], and

mount the angle guide plate [3] in place using 2 screws [2].



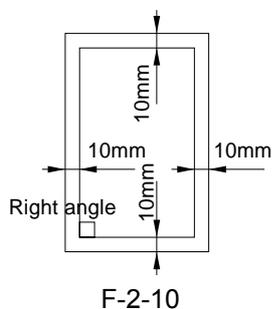
2.1.9 Magnification

0003-2302

Memo:

To adjust the magnification, compare an image made in stream reading mode and an image made in copyboard mode. Unlike other ADFs, you will not be comparing a copy image and its original.

1) Using A4 or LTR paper, prepare a test chart as follows:



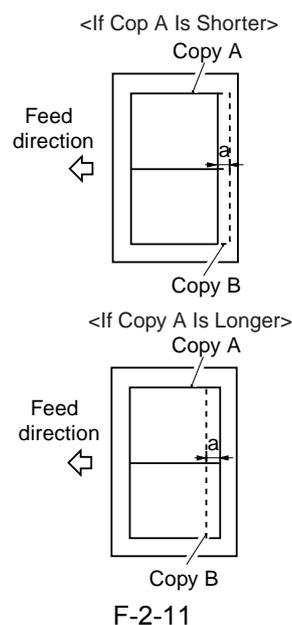
2) Place the test chart you have prepared on the copyboard glass, and make a copy. Refer to the output

as copy A.

3) Place the test chart in the original pickup tray, and make a copy at a 100% reproduction ratio. Refer to the output as copy B.

4) Put copy A and copy B together, and compare the length of the image in feed direction, making sure that dimension a is as indicated. If not, go to step 5).

standard: $a \leq 1 \text{ mm}$



5) Start service mode as follows: press the User Mode key, press the 2 and 8 keys at the same time, and press the User Mode key once again.

6) Make the following selections: FEEDER>ADJUST>LA-SPEED; then, change the setting to make adjustments.

-To make the image on copy B longer, decrease the setting (so that the stream reading speed will be decreased).

To make the image on copy B shorter, increase the setting (so that the stream reading speed will be increased).

[range -30 to 30 : -3 to +3 %]

7) Make a copy of the test chart once again, and check to see that the image is as indicated.

2.1.10 Horizontal Registration

0003-2279

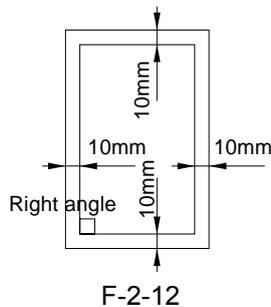
Memo:

If the image is still not indicated after making adjustments using the host machine's service mode, adjust the side guide plate of the ADF original pickup tray.

a. Making Adjustments Using the Host Machine's Service Mode

1) Obtain the Test Chart.

If the Test Chart is not available, prepare one using A4 or LTR paper as follows:



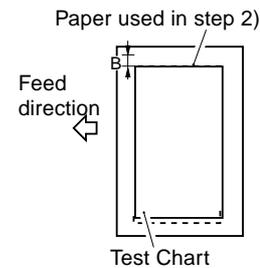
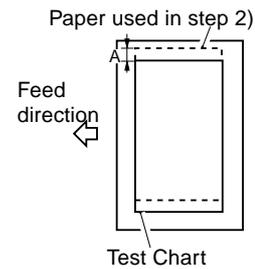
2) Place the Test Chart in the original pickup tray, and make a copy at a 100% reproduction ratio.

3) Put the Test Chart over the output of step 2), and check to see that the following is true

A \leq 1 mm

B \leq 1 mm

If not, go to step 4).



F-2-13

4) Start service mode as follows: press the User Mode key, press the 2 and 8 keys at the same time, and press the User Mode key once again.

5) Make the following selections: COPIER>ADJUST>ADJ-XY>ADY-Y-DF. Then, change the setting to make adjustments.

- A higher setting will increase the margin of A, decreasing the margin of B.

(in: 0.1 m)

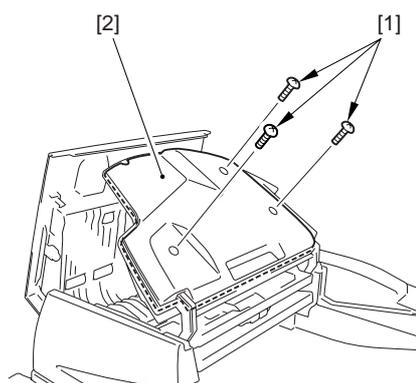
(range: -30 to 30)

6) Make a copy of the Test Chart once again, and check to see that the image is as indicated.

b. Adjusting the Side Guide Plate Position of the ADF Original Pickup Tray

1) Open the feeder cover, and detach the inside cover.

2) Remove the 3 mounting screws [1], and detach the cover [2].

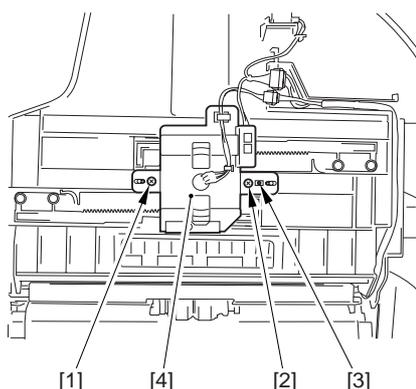


F-2-14

3) Loosen the mounting screw [1], and remove the screw [2] from the positioning hole, and fit it and temporarily tighten it in the adjusting angular hole [3].

- if $A > 1$ mm, move the volume unit [6] to the front.

- if $B > 1$ mm, move the volume unit [6] to the rear.



F-2-15

4) Move the original width volume unit [4] to the front or the rear to make adjustments.

5) Tighten the screw [1] that has been tentatively tightened and the screw [3] that has been fitted in the adjusting angular hole.

6) When done, mount back the cover.

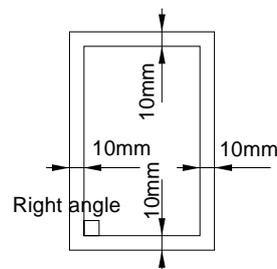
7) Make a copy of the Test Chart once again, and see that the image is as indicated.

2.1.11 Leading Edge Registration

0003-2362

1) Obtain the Text Chart.

If the Text Chart is not available, make one using A4 or LTR paper as follows:



F-2-16

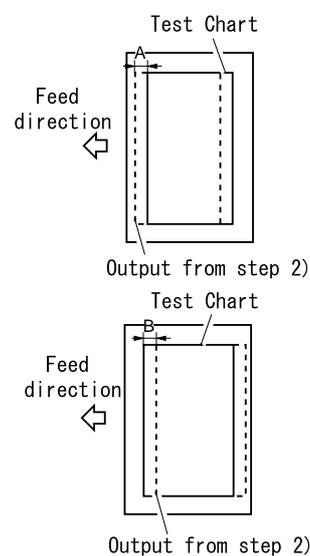
2) Place the Text Chart in the original tray, and make a copy of it at a 100% reproduction ratio.

3) Check to see that dimension A of the Test Chart and the image obtained in step 2) are as indicated:

$A \leq 1$ mm

$B \leq 1$ mm

If not, go to step 4).



F-2-17

4) Start service mode as follows: press the User Mode key, press the 2 and 8 keys at the same time, and press the User Mode key once again.

5) Make the following selections: FEEDER>ADJUST>DOCST. Then, change the setting to make adjustments.

- if A \geq 1 mm, increase the setting (so that the margin will be increased).

- if B \geq 1 mm, decrease the setting (so that the margin will be decrease).

(unit: 0.5 mm)

(range: -30- to 10; -5 to +5 mm)

6) Make a copy of the Test Chart once again, and see the image is as indicated.

2) Check to see if the height is 10 to 20 cm in range.
<If Not As Indicated>

1. if 10 cm or less, turn it counterclockwise using a hex wrench to make adjustments.

2. if 20 cm or more, turn it clockwise using a hex wrench to make adjustments.

Memo

Service Tool

hex wrench (8 mm); CK - 0540

2.1.12 White Level

0003-2377

1) Place A4 or LTRR paper on the copyboard glass, and close the machine.

! Make sure that the paper is not too small. Otherwise, white level may not be adjusted.

2) Make the following selections on the Service Mode screen to bring up the Adjustment screen: COPIER>FUNCTION>CCD.

3) Touch [DF-WLVL1] to highlight.

4) Press the OK key.

In response, the machine runs an auto adjustment session, and will indicate 'OK!' if it ends normally.

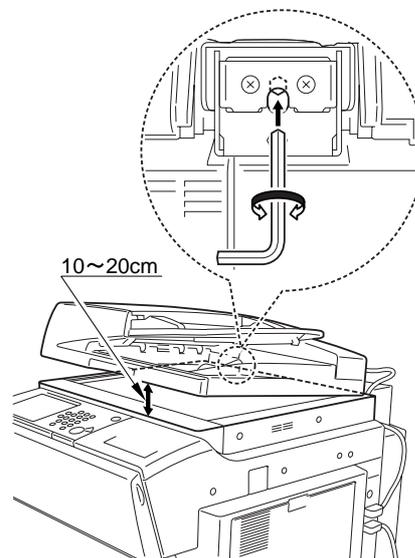
5) Remove the paper from the copyboard glass, and place it in the original pickup tray of the machine.

6) Press [DF-WLVL2] on the touch panel to highlight.

7) Press the OK key.

In response, the machine will run an auto adjustment session (duplexing stream reading).

8) Press the Reset key twice to end service mode.



F-2-18

2.1.13 Adjusting the Hinge

Pressure

0003-1932

1) Open the ADF, and measure the height of the point at which it stops closing when let go.

2.2 Adjustment at Time of Parts Replacement

2.2.1 Overview

0003-8360

Make the appropriate adjustments whenever you have replaced the following major parts:

- reader controller PCB (i.e., after EEPROM initialization)

- [1]sensor output

- [2]tray width

- [3]magnification

- [4]horizontal registration

- [5]leading edge registration

- [6]white level

- Post-separation sensor

- [1]sensor output

- Read sensor

- [1]sensor output

- Post-separation sensor

- [1]sensor output

- Original detecting volume

- [1]tray width

Memo:

For details of these adjustments, see the instructions given for basic adjustments.

If you have replaced the reader controller PCB (or initialized EEPROM), see the descriptions given under "After Replacing the Reader Controller PCB" on the host machine service manual.

Chapter 3 Error Code

Contents

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3.1.1 Alarm Code	3-1

3.1 User Error Code

3.1.1 Alarm Code

0004-5177

The machine flashes the original detection LED at intervals of 240 msec when it identifies a fault as being an alarm condition.

T-3-1

Code	Fault	Description
xx03	Separation has failed.	The 1st original does not reach the post-separation sensor. The 1st original does not reach the registration sensor.
xx11	The number of jam recovery sheets is greater than the number of originals.	In jam recovery mode, the tray runs out of originals before as many as 'the number of recovery sheets - 1' has been delivered.
xx13	An original has been pulled out.	The read sensor is off when the preceding original has been moved to a point of reading.
xx14	High-speed duplexing operation fails.	The original is longer than the specified limit.

Chapter 4 Outline of Components

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4.2.3 Original Placement led PCB.....	4-4

4.1 Outline of Electrical Components

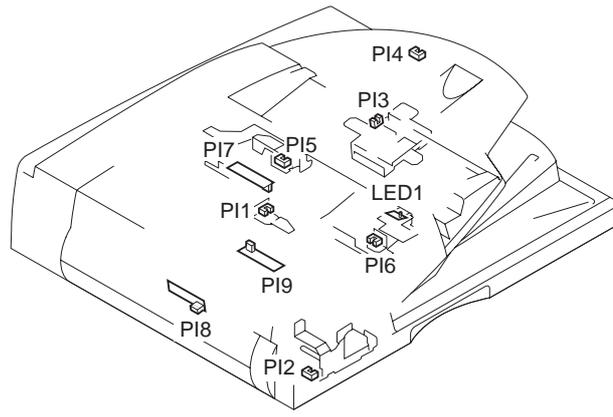
4.1.1 Sensors

0003-1671

T-4-1

Notation	Name		Description	
	Part No.	I/O >FEEDER	Connector No.	JAM/E code
PI1	Registration sensor		detects jam	
	WG8-5593	P001-1 1:paper present	J14	0003, 0004, 0043, 0044, 0094
PI2	Release HP sensor		detects pressed/released lock motor(M4)	
	WG8-5593	P005-1 1:Release	J1	
PI3	AB/INCH identification sensor		identficate AB/inch system original	
	WG8-5593	P005-5 1:AB	J3	
PI4	LGL sensor		identficate LGL/LTR size original	
	WG8-5593	P005-4 1:paper present	J3	
PI5	Original placement sensor		detects original on document tray	
	WG8-5593	P005-7 0:paper present	J2	0095
PI6	ADF cover open/closed sensor		detects cover open/close	
	WG8-5593	P004-0 0:open	J2	0092, 0093, 0095
PI7	Separation rear sensor		detects jam	
	FM2-1022	P005-3 0:paper present	J2	0001, 0002, 0042, 0045, 0046, 0094
PI8	Read sensor		measure original length, detects jam, controls original reading timing	
	FM2-1022	P001-0 0:paper present	J1	0005, 0006, 0094
PI9	Delivery reversal sensor		detects jam	
	FM2-1022	P001-2 0:paper present	J1	0007, 0008, 0047, 0048, 0094

Notation	Name		Description	
	Part No.	I/O >FEEDER	Connector No.	JAM/E code
LED1	Original placement indicator		indicate original placement on document tray	
	FM2-1023	P002-6 1:ON	J2	



F-4-1

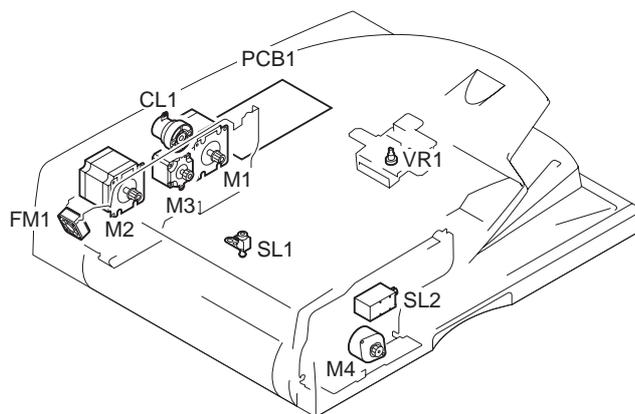
4.1.2 Motors, Clutches, Solenoids, PCBs, and Others

0003-1673

T-4-2

Notification	Name		Description		
	Part No.	I/O >FEEDER	PART-CHK	E code	Connector No.
M1	Pickup motor		drives pickup system		
	FK2-0204	P003-6, 7	MTR-CHK>0		J11
M2	Feed motor		drives feed rollers		
	FK2-0205	P003-4, 5	MTR-CHK>1		J8
M3	Delivery reversal motor		drives delivery reverse roller, reversal roller		
	FK2-0217	P002-0, 1	MTR-CHK>2		J10
M4	Locking motor		locks read roller 1		
	FK2-0207	P002-2, 3	MTR-CHK>3	E413	J9

Notificat ion	Name		Description		
	Part No.	I/O >FEEDER	PART-CHK	E code	Connector No.
CL1	Pickup clutch		drives pickup roller		
	FK2-0209	P002-5	CL-CHK>0		J10
SL1	Stamp solenoid		drives stamp		
	FK2-0216	P002-4	SL-CHK>1		J1
SL2	Locking solenoid		presses delivery reverse roller (lower)		
	FK2-0210		SL-CHK>0		J9
FM1	Cooling fan		cools unit inside		
	FK2-0208	P002-7	FAN-CHK>0		J12
PCB1	ADF drive PCB		controls ADF		
	FM2-1021				
VR1	Original width volume		mesure original width		
	FK2-1024				J3



F-4-2

4.2 Variable Resistors (VR), Light-Emitting Diodes (LED), and Check Pins by PCB

4.2.1 Overview

0003-5520

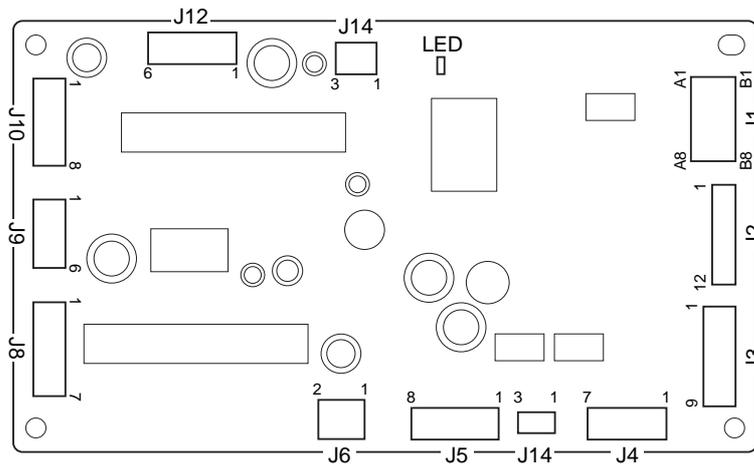
Of the LEDs and check pins used in the machine, those needed for servicing the machine in the field are discussed.

⚠ Do not touch the check pins not indicated in the list. They are intended for use at the factory, and require special tools and high accuracy.

4.2.2 ADF Driver PCB

0003-5539

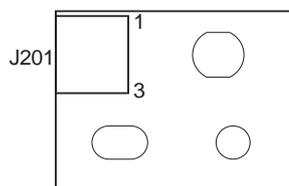
Some LEDs emit dim light even when they are off. This is a normal condition, and must be kept in mind.



F-4-3

4.2.3 Original Placement led PCB

0003-5540



F-4-4

Chapter 5 System Construction

Contents

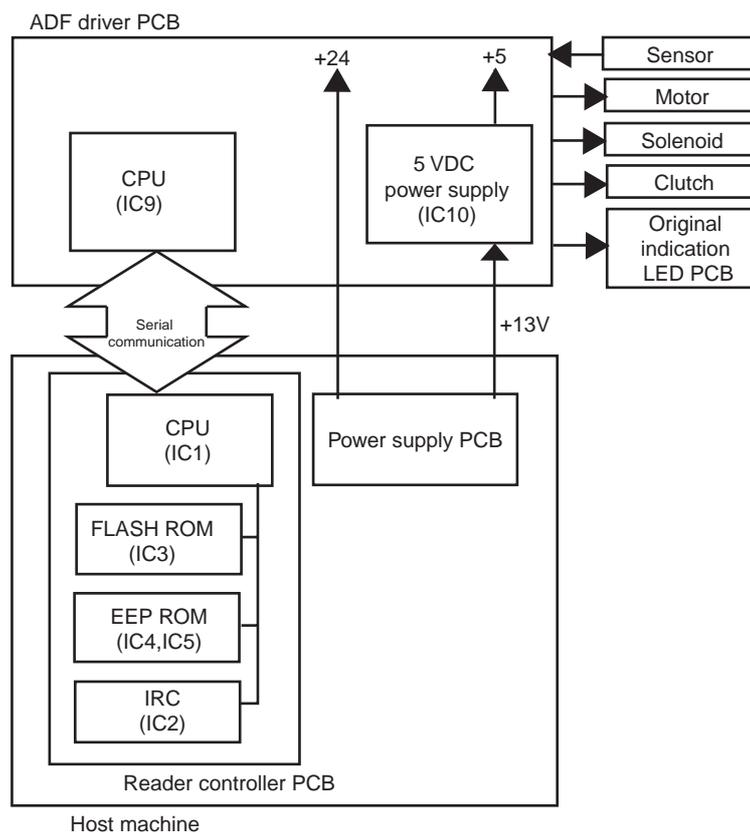
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5.1.3 Outputs from the ADF Driver PCB.....	5-2
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5.2.1 Specifications	5-4

5.1 Basic Construction

5.1.1 Overview of the Electrical Circuitry

0002-7181

The machine is not equipped with a controller PCB, and its electrical mechanisms are controlled by the reader controller PCB, which serves as a CPU (IC1). The CPU interprets signals from sensors and the host machine to generate signals used to drive DC loads (e.g., motor, solenoid) with the help of the CPU (IC9) of the ADF driver PCB.

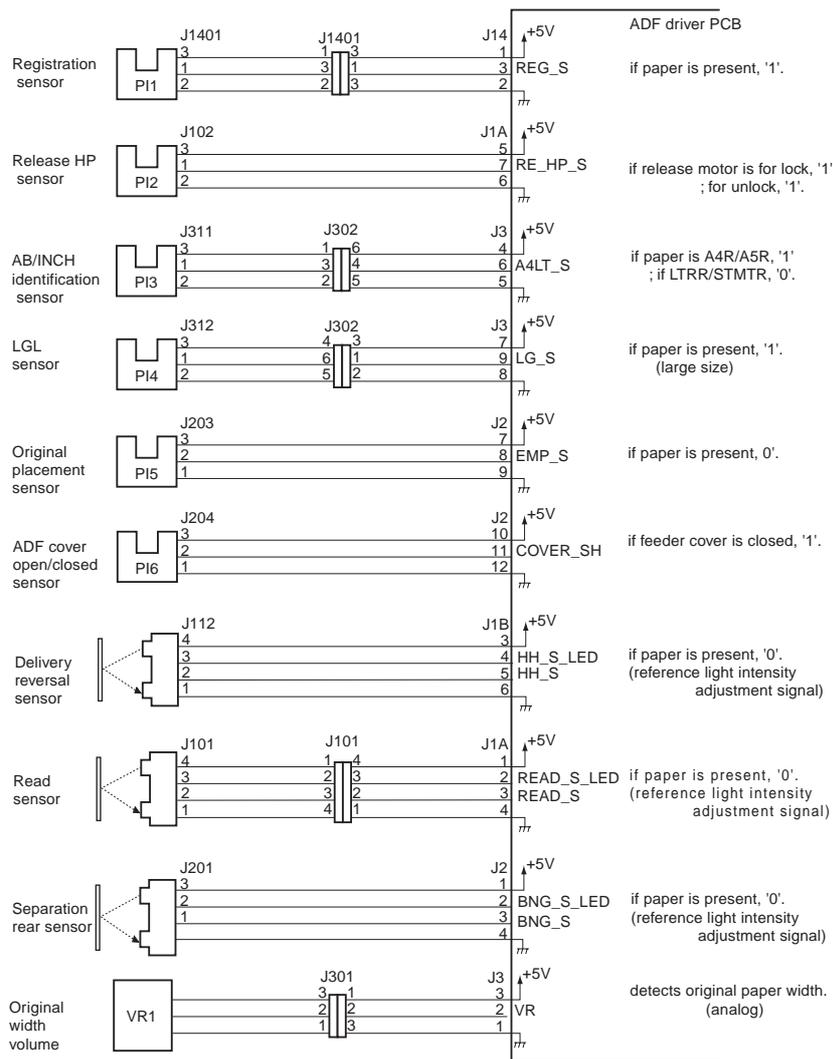


F-5-1

5.1.2 Inputs to the ADF Controller PCB

0002-7187

Inputs to the ADF Driver PCB (1/1)

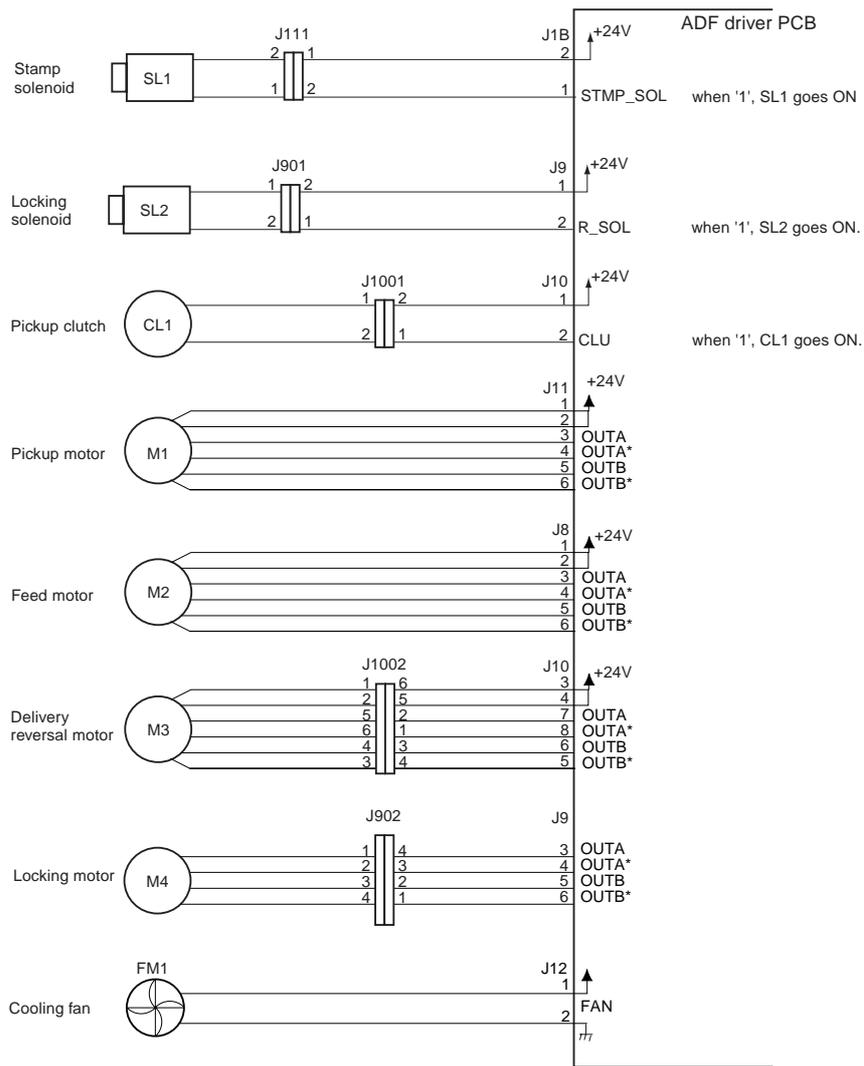


F-5-2

5.1.3 Outputs from the ADF Driver PCB

0002-7192

Outputs from the ADF Driver PCB (1/1)



F-5-3

5.2 Product Specifications

5.2.1 Specifications

0002-7206

T-5-1

Item	Description	Remarks
Pickup method	auto pickup/delivery	
Original type	sheet, book	
Original weight	Black-and-White single-sided sheet: AB: 42 to 128 g/m ² inch: 50 to 128 g/m ² double-sided sheet: 50 to 128 g/m ²	If longer than 432 mm, must be fed individually: 60 to 90 g/m ²
	Color 64 to 128 g/m ²	
	Black-and-White w/ Color 50 to 128 g/m ²	
Original size	Size B6, A5 (STMT) to A3 (11x17)	Note: If B6, cross- feed direction only.
	Feed Direction 128.0 to 432.0 mm (extra-length mode: 630 mm)	
	Cross-Feed Direction 139.7 to 297.0 mm (304.8 mm max.)	
Original placement	Original Tray face-up	
Original orientation	Original Tray center reference	
Original reading method	stream reading	
Original separation	top separation	
Original feed mode	single-sided/double-sided	

Original tray capacity	100 sheets (paper of 80 g/m2 or less)	
	if in excess of 80 g/m2, as appropriately converted	
	if folded, stack must be 13 mm or less in height	
	if in excess of 432 mm, single placement only if in excess of 432 mm, single placement only	
Original mix	yes (mix of same configurations)	Note: Be sure to place originals against the rear end.
	yes (mix of different configurations)	
	Combination of Configurations AB: 13/B4, B4/A4R, A4/B5, B5/A5	
Original size identification	width: by pickup tray side guide plate width: by pickup tray side guide plate	
	length: by sensor and LGL sensor on tray	
Residual original detection	yes (in conjunction with host machine)	
DONE stamp	yes	Note: optionally set (in service mode).
Original processing speed	single-sided: 50 ipm	
	double-sided: 25 ipm	
	high-speed double-sided (A4/LTR): 35 ipm (default)	
Communication with reader unit	serial	
Power supply	24 VDC, 13 VDC (from host machine)	
Weight	14.7 kg (approx.)	
Dimensions	575.5 (W) x 552.3 (D) x 151.2 (H) mm	

Operating environment	same as host machine	
temperature		
humidity		

*1: To enable extra-length mode, use the following service mode item: COPIER>OPTION>USER>MF-LG-SET; to enable, select '1'; to disable, select '0', which is the default.

Feb 21 2005

Canon