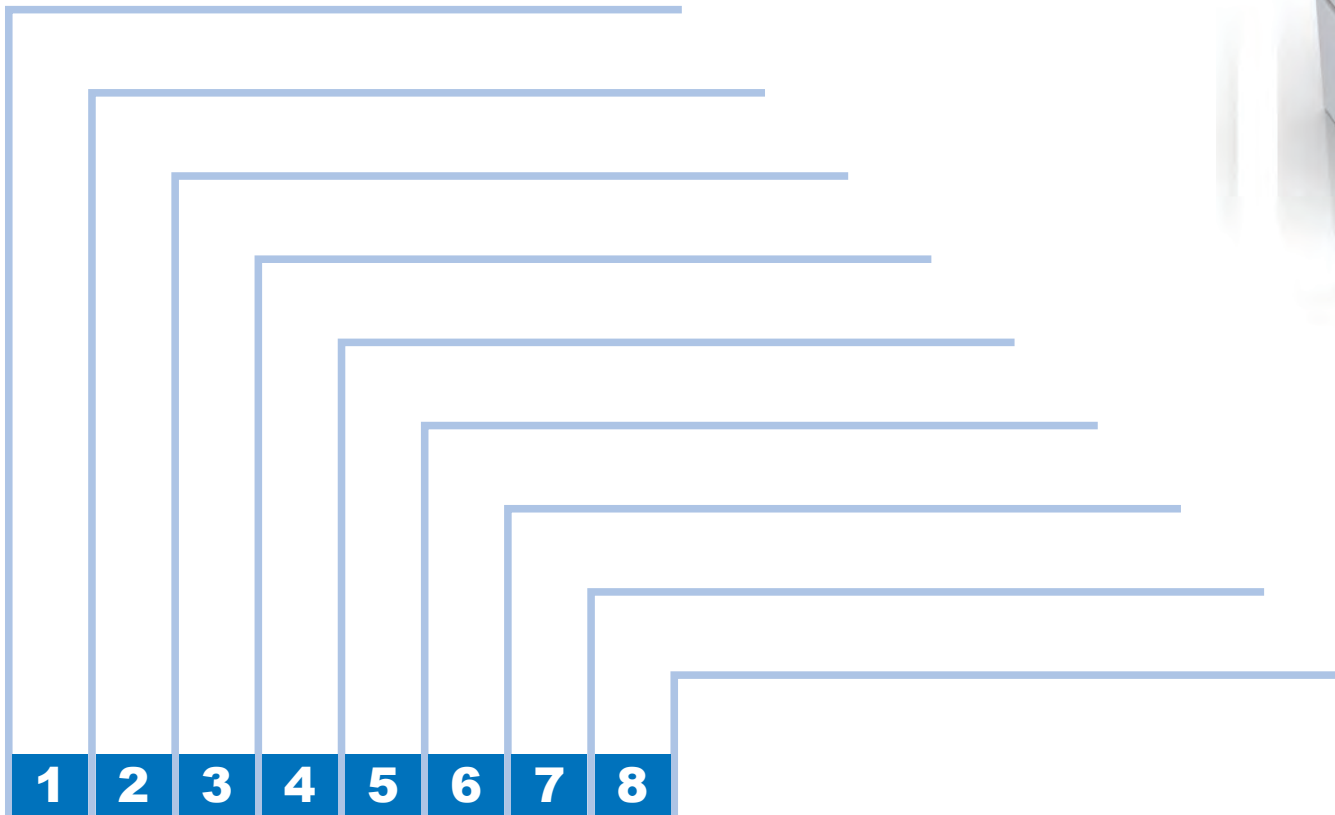




MF8300Series/MF8000Series

Service Manual



Application

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

Corrections

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

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Caution



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

Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Explanation	Symbols	Explanation
	Check.		Remove the claw.
	Check visually.		Insert the claw.
	Check the noise.		Use the bundled part.
	Disconnect the connector.		Push the part.
	Connect the connector.		Plug the power cable.
	Remove the cable/wire from the cable guide or wire saddle.		Turn on the power.
	Set the cable/wire to the cable guide or wire saddle.		
	Remove the screw.		
	Tighten the screw.		

The following rules apply throughout this Service Manual:

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

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

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

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

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Safety Precautions

- CDRH Provisions
- Laser Safety
- Toner Safety
- Notes on Handling Lithium Battery
- Notes on Assembly/Disassembly



CDRH Provisions

Food and Drug CDRH (Center for Devices and Radiological Health) under FDA (Food and Drug Administration) enforced provisions of the section for laser and laser products on August 2, 1976. These provisions are applicable to all laser products manufactured or assembled after August 1, 1976 and allow only products certified their compliance with the provisions to market in the US. Each product shall have affixed the applicable label as shown below to follow the labeling requirements prescribed in CDRH provisions.

Note that the wording included in labels is different depending on laser product classifications.



Note that the wording included in labels is different depending on laser product classifications.

Laser Safety

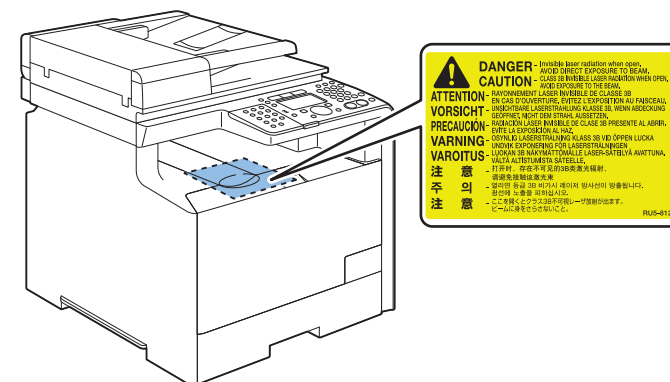
About Laser Beams

Laser radiation may be hazardous to human. The laser scanner unit mounted in this device is sealed in the protective housing and the external cover to prevent laser beams from leaking to the environment. As long as the device is operated under normal conditions, users are safely arded from laser leaks.

Handling Laser Scanner Unit

Before providing service works for the laser scanner unit and its peripherals, ensure to turn off the power of the device.

Any cover with potential dangers of laser beam reflection has affixed the caution label at the position shown in the figure below.



F-0-2

Toner Safety

About Toner

Toner is a nontoxic matter composed of plastic, iron and a trace of pigments.

Never throw toner in flames to avoid explosion.



Never throw toner in flames to avoid explosion.

Handling Adhered Toner

- Use dry tissue paper to wipe off toner adhered to skin or clothes and wash in water.
- Never use warm water for cleaning up toner to prevent toner particles from being gelated to soak into fibers permanently.
- Toner particles are reactive with vinyl polymers. Avoid contacting these materials.

Notes on Handling Lithium Battery



Replacing with wrong battery types may cause explosion.

Follow instructions to dispose used batteries properly.

Notes on Assembly/Disassembly

Follow the items below to assemble/disassemble the device.

1. Disconnect the power plug to avoid any potential dangers during assembling/disassembling works.
2. If not specially instructed, reverse the order of disassembly to reinstall.
3. Ensure to use the right screw type (length, diameter, etc.) at the right position when assembling.
4. To keep electric conduction, binding screws with washers are used to attach the grounding wire and the varistor. Ensure to use the right screw type when assembling.
5. Unless it is specially needed, do not operate the device with some parts removed.
6. Never remove the paint-locked screws when disassembling.




Product Overview



- Product Lineups
- Product Features
- Specifications
- Name of Parts

Product Lineups

Main Unit

Function	MF8300 Series				
	MF8380	MF8360	MF8350	MF8340	MF8330
Appearance					
Copy	Yes	Yes	Yes	F-1-1 Yes	Yes
Print	Yes	Yes	Yes	Yes	Yes
Fax	Yes	Yes	Yes	-	-
USB Scan	Yes	Yes	Yes	Yes	Yes
Network Scan	Yes	Yes	Yes	Yes	Yes
Wireless LAN	Yes	-	-	-	-
SEND	Yes	-	-	Yes	-
Secure Print	Yes	Yes	-	Yes	-
Remote UI	Yes	Yes	Yes	Yes	Yes
ADF (1-side)	Yes	Yes	Yes	Yes	Yes
ADF (2-side)	Yes	Yes	-	Yes	-
Automatic 2-sided Print	Yes	Yes	Yes	Yes	Yes

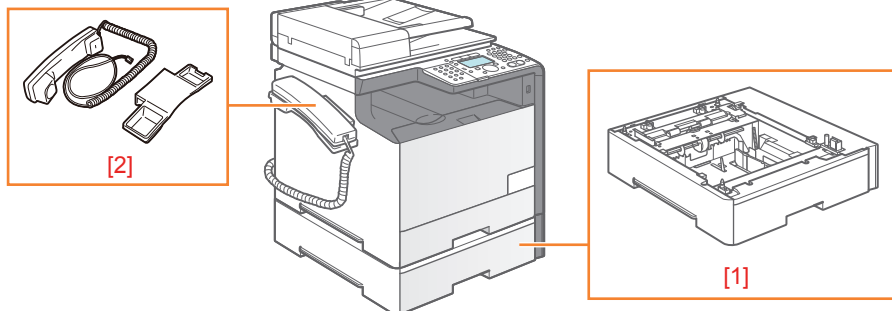
T-1-1

Function	MF8000 Series				
	MF8080	MF8050	MF8040	MF8030	MF8010
Appearance					
Copy	Yes	Yes	Yes	F-1-2 Yes	Yes
Print	Yes	Yes	Yes	Yes	Yes
Fax	Yes	Yes	-	-	-
USB Scan	Yes	Yes	Yes	Yes	Yes
Network Scan	Yes	Yes	Yes	Yes	Yes
Wireless LAN	Yes	-	-	-	-
SEND	-	-	-	-	-
Secure Print	-	-	-	-	-
Remote UI	Yes	Yes	Yes	Yes	Yes
ADF (1-side)	Yes	Yes	Yes	Yes	-
ADF (2-side)	-	-	-	-	-
Automatic 2-sided Print	-	-	-	-	-

T-1-2

Options

MF8300 Series

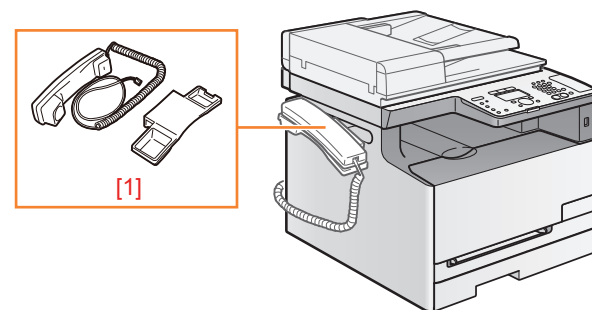


F-1-4

No.	Name	Description	Remarks
1	Cassette Feeding Module-V1	A cassette unit with 250 sheet capacity (for paper of 60-90g/m ²)	
2	TELEPHONE 6 KIT Long cord Cool White	Telephone call is enabled by using the handset.	AUS, EUR
	HANDSET KIT 3 Long cord Cool White		SGP, CHN, TWN

T-1-3

MF8000 Series



F-1-5

No.	Name	Description	Remarks
1	TELEPHONE 6 KIT Long cord Cool White *1	Telephone call is enabled by using the handset.	AUS, EUR
	HANDSET KIT 3 Long cord Cool White *1		SGP, CHN, TWN

T-1-4

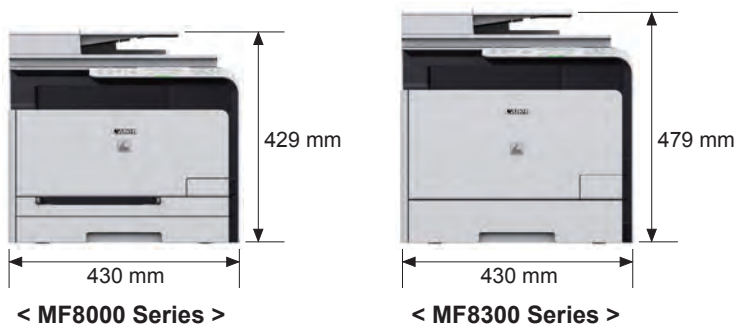
*1 for MF8080 only

Product Features

Features

■ Compact MFP

By introducing horizontal inline cartridges, this product attained the compact footprint with reduced height.



F-1-6

■ High-speed & High-quality MFP

The compact A4 color MFP (MF8300 Series) achieved the print speed of 20 pages per minutes (A4). The full-automatic image exposure control function is introduced firstly in this class, enhancing print quality.

■ Power-saving MFP

On-demand fixing and 3W sleep employed in this product achieved lower power consumption.

■ Enhanced Usability

With increased operability and installability, this product provides better usability.

- Front access: Jam recovery and cartridge replacement can be done from the front of the device.
- Wide LCD panel: The movie shown on the panel will guide you how to recover jam, etc.

< Front Operation >

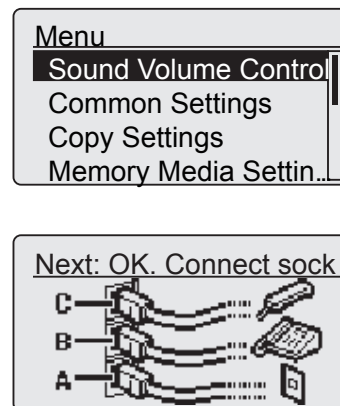


Takeoff paper



Toner Cartridge Replacement

< Wide LCD Panel >



F-1-7

Specifications

Main Unit Specifications

Item	Specification / function	
	MF8300 Series	MF8000 Series
Copyboard	Fixed	
Device Installation	Desktop	
Light source	LED (RGB)	
Photoreceptor	OPC drum (φ24)	
Image scanning	CIS (color)	
Light exposure method	Laser beam exposure	
Charging method	Roller charging	
Developing method	Contact development	
Transfer method	Intermediate transfer (ITB: intermediate transfer belt)	
Separation method	Curvature separation	
Cassette paper feed	Simple separation retard	
Multi-purpose tray paper feed	Pad separation method	Separation roller method
Drum cleaning method	Cleaning blade	
Transfer cleaning method	Cleaning brush and roller	
Fixing method	On-demand fixing	
Paper delivery method	Face-down	
Toner level sensor	Mounted	
Toner type	Non-magnetic one-component toner	
Toner supply method	All-in-one cartridge (drum + toner)	
Toner save mode	N/A	
Document types	Sheet, book, 3-dimensional (up to 2 kg)	
Maximum document size	216 x 356 mm	
Document size sensor	N/A	
Image size magnification	AB series :50%, 70%, 81%, 86%, 115%, 122%, 141%, 200% Inch series :50%, 64%, 78%, 12%, 200% A series :50%, 70%, 141%, 200% Zoom :25 to 400% (1% increment)	
Warm-up Time *1	About 23 seconds or less	About 30 seconds or less
Print area	For print jobs Leading edge: 4.0±2.0 mm Side:3.0±2.0 mm Trailing edge:5.0±2.0 mm For copy jobs: Leading edge:4.0±2.0 mm Side:3.0±2.0 mm Trailing edge:4.0±2.0 mm Reception output Leading edge:2.0±2.0 mm Side:2.0±2.0 mm Trailing edge:6.0±2.0 mm	
Reading resolution	Color: 600 x 600 dpi, 300 x 600 dpi, 300 x 300 dpi B&W: 600 x 600 dpi, 300 x 600 dpi	

Item	Specification / function	
	MF8300 Series	MF8000 Series
Reading Speed	Fixed (A4/LTR): N/A Continuous reading (A4/LTR): Color: 10 images / minute B&W: 20/21 images/minute SEND (A4 / Letter) Color: 10 images / minute B&W: 20/21 images/minute	Fixed (A4/LTR): N/A Continuous reading (A4/LTR): Color: 8 images / minute B&W: 12 images/minute SEND (A4 / Letter) Color: 10 images / minute B&W: 20/21 images/minute
Copy resolution	600 x 600 dpi (Fixed,Continuous reading)	
Print resolution	600 x 600 dpi	
First copy time	Fixed (A4/LTR): Color: 17 seconds or less B&W: 16 seconds or less Continuous reading: (A4/LTR) Color: 23 seconds or less B&W: 22 seconds or less	Fixed (A4/LTR): Color: 30 seconds or less B&W: 23 seconds or less Continuous reading (A4/LTR) Color: 36 seconds or less B&W: 29 seconds or less
First print time	Color: 15 seconds or less (A4/LTR) B&W: 15 seconds or less (A4/LTR)	Color: 29/28 seconds or less (A4/LTR) B&W: 22 seconds or less (A4/LTR)
Print Speed (Plain paper)	Color: 20/21 ppm (A4/LTR) B&W: 20/21 ppm (A4/LTR) (See "Print Speed" for details.)	Color: 8 ppm (A4/LTR) B&W: 12 ppm (A4/LTR) (See "Print Speed" for details.)
Available paper type for cassette	Plain paper, Recycled paper, Color paper, Thick paper, Coated paper, Transparency, Label, Index card, Envelope (See "Paper types" for details.)	
Available paper type for MP tray	Plain paper, Recycled paper, Color paper, Thick paper, Coated paper, Transparency, Label, Index card, Envelope (See "Paper types" for details.)	
Available paper size in Cassette	A4, B5, A5, LGL, LTR, STMT, EXEC, OFFICIO, B-OFFICIO, M-OFFICIO, G-LTR, Envelopes (COM10, Monarch, C5, B5, DL) Custom Paper Size Width:100 to 215.9mm, Length:148 to 355.6mm	
Available paper size in multi-purpose tray	A4, B5, A5, LGL, LTR, STMT, EXEC, OFFICIO, B-OFFICIO, M-OFFICIO, G-LTR, Envelopes (COM10, Monarch, C5, B5, DL) Custom paper size Width:76.2 to 215.9mm, Length:127 to 355.6mm	
Cassette capacity	Cassette: 250 sheets (60 to 90 g/m ²) Option: 250 sheets (60 to 90 g/m ²)	Cassette: 150 sheets (60 to 90 g/m ²)
MP tray capacity	50 sheets (60 to 90 g/m ²)	1 sheet
Delivery tray stacking capacity	125 sheets (60 to 90 g/m ²)	
Continuous copying	1 - 99 sheets	
Automatic 2-sided	Available (A4, B5, LGL, LTR, EXEC, FLSC)	N/A
Memory capacity	MF8350/MF8330 : 128 MB MF8380/MF8360/MF8340 : 256MB	128MB
Sleep mode	Available	

Item	Specification / function	
	MF8300 Series	MF8000 Series
Allowable environmental temperature	10 - 30 deg C	
Allowable humidity	20 - 80% in relative humidity (no condensation)	
Operational noise	At stand-by: • 46dB or lower (acoustic power level) During copy jobs: • Color:67 dB or lower • B&W: 66 dB or lower	At stand-by: • 43 dB or lower (acoustic power level) During copy jobs: • Color: 63.4 dB or lower • B&W: 63.2 dB or lower
Power rating	Rated input voltage : 100-127 V(100V system)/ 220-240 V (200V system) Rated input frequency: 50/60 Hz	
Maximum power consumption	1200 W or lower	900 W or lower
Power consumption	MF8350/MF8330 • At stand-by: Approx. 23 W • During sleep mode: Approx. 3 W MF8380/MF8360/MF8340 • At stand-by: Approx. 23 W • Approx. 1.4 W (Approx. 2.2 W by Wireless Connections)	MF8050/MF8030 • At stand-by: Approx. 15 W • During sleep mode: Approx. 3 W MF8080/MF8040/MF8010 • At stand-by: Approx. 15 W • During sleep mode: Approx. 2.1W(Approx. 2.5 W by Wireless Connections)
Ozone emission	Color: 3.0 mg/hr B&W: 1.5 mg/hr	
Footprint	Device: 430 mm x 484 mm x 479 mm With accessories: 430 mm x 484 mm x 579 mm	Device: 430 mm x 484 mm x 429 mm MF8010 430 mm x 484 mm x 375 mm
Weight	Approx. 31 kg (including toner cartridges)	Approx. 26 kg (including toner cartridges) MF8010 Approx. 24 kg (including toner cartridges)
Accessories:	See accessory configuration	

*1: Temperature: 20 degC, Humidity: 65%, from when the machine is turned on to when the standby screen is displayed.

ADF Specifications

Item	Specification / Function
Document setting direction	Set the document face up (face-up method)
Document setting position	Center reference
Document processing mode	One-face document→1-sided/2-sided
Document scanning	Continuous reading
Loadable sheets	A4/LTR 50 sheets(80g/m ²) LGL 30 sheets(80g/m ²)
Mixed paper reading	Available
Document AE sensor	N/A
Document size sensor	N/A
Stamp function	N/A
Allowable environment	Same as device

Wireless LAN Specifications

Item	Specification / Function
Standard	IEEE802.11g/IEEE802.11b/IEEE 802.11n*
Transmission Scheme	DS-SS System/OFDM System
Frequency Range	2412 to 2472 MHz
Data Transmission Rate	<ul style="list-style-type: none"> • IEEE802.11g 6/9/12/18/24/36/48/54 Mbps • IEEE802.11b 1/2/5.5/11 Mbps • IEEE 802.11n - SGI Invalidated 20 MHz : 6.5/13/19.5/26/39/52/58.5/65 Mbps - SGI Validated 20 MHz : 7.2/14.4/21.7/28.9/43.3/57.8/72.2 Mbps - SGI Invalidated 40 MHz : 13.5/27/40.5/81/108/121.5/135 Mbps - SGI Validated 40 MHz : 15/30/45/60/90/120/150 Mbps
Communication Mode	Infrastructure Mode
Security	WEP, WPA-PSK (TKIP/AES-CCMP), WPA2-PSK (TKIP/AES-CCMP)

* WPS (Wi-Fi Protected Setup), Connection can be established by manually setting values.

SEND Specifications

Item	Specification / Function
Communication Protocol	<ul style="list-style-type: none"> File Server Transmission (SMB (TCP/IP)) E-mail Sending (SMTP*)
Data Format	<ul style="list-style-type: none"> File Server Transmission (PDF (Compact), PDF, JPEG, TIFF) E-mail Sending (PDF (Compact), PDF)
System Environment	<ul style="list-style-type: none"> Windows XP/Vista/7/Server 2003/Server 2008 Solaris Version 2.6 or later Mac OS X Red Hat Linux 7.2 or later
Interface	100BASE-TX, 10BASE-T
Color Mode	Color, Black/White
Inputted Image	Text, Text/Photo, Photo
Paper Size	LGL/LTR/STMT

* POP3 is available to use only when authenticating before sending.

FAX Specifications

Item	Specification/function
Suitable line	Public Switched Telephone Network (PSTN) Up to 28.8Kbps in modem speed is currently available in PSTN. Note that available modem speed is telephone-line dependent. Telephone line connection: 1
Communication Protocol	Super G3
Modulation method	Image modulation: V.34/V.17/V.29/V.27ter Transmission procedure: V.21
Transmission speed	33,600 bps
Coding	Compression method: JBIG, MMR, MR, MH
Error correction	ECM
Minimum receivable input level	V.17, V.27ter, V.29: -6 to -43 dBm V.34: -10 to -43 dBm
Modem IC	CONEXANT DFX336
Scanning line density	Normal: 8 dots/mm x 3.85 lines/mm Fine: 8 dots/mm x 7.7 lines/mm Super fine: 8 dots/mm x 15.4 lines/mm Ultra fine: 16 dots/mm x 15.4 lines/mm
Half tone	256 tones
Reproduction resolution	600 x 600 dpi
Receivable reduction setting	Automatic reduction: 75-100% (1% increment)
FAX/TEL switching	Available
Answering machine transfer setting	Available
Remote reception	Available
Auto-dialing	Available
Delayed transmission	N/A
Broadcast transmission	MF8350/MF8050 • Destinations: up to 201 MF8380/MF8360/MF8080 • Destinations: up to 210
Dual access	Up to 70 schedules
Image data backup	Available

T-1-6

 Print Speed

 MF8300 Series

Unit: page/minute.

Paper type		Cassette		MP Tray	
		1-sided	2-sided	1-sided	2-sided
Plain 1 (60 to 74g/m ²)	A4	20.0	9.9	16.0	9.1
	LTR	21.0	10.2	16.0	9.2
	LGL	17.1	9.2	14.1	8.4
Thick 1 (86 to 119g/m ²)	A4	20.0	9.9	16.0	9.1
	LTR	21.0	10.2	16.0	9.2
	LGL	17.1	9.2	14.1	8.4
Thick 2 (120 to 128g/m ²)	A4	11.9	8.8	11.9	8.8
	LTR	12.2	9.0	12.2	9.0
	LGL	10.8	8.0	10.8	8.0
Thick 3 (129 to 163g/m ²)	A4	9.7	5.0	7.6	4.6
	LTR	9.7	5.2	7.6	4.6
	LGL	8.3	5.0	6.7	4.4
Coated 1 (100 to 110g/m ²)	A4	11.9	8.8	11.9	8.8
	LTR	12.2	9.0	12.2	9.0
	LGL	10.8	8.0	10.8	8.0
Coated 2 (120 to 130g/m ²)	A4	6.5	3.0	5.0	3.0
	LTR	6.9	3.0	5.0	3.0
	LGL	5.6	3.0	4.4	2.8
Coated 3 (155 to 165g/m ²)	A4	6.5	-	5.0	-
	LTR	6.9	-	5.0	-
	LGL	5.6	-	4.4	-
Coated 4 (210 to 220g/m ²)	A4	6.5	-	5.0	-
	LTR	6.9	-	5.0	-
	LGL	5.6	-	4.4	-
Transparency		6.5	-	5.0	-
Label		9.7	-	7.6	-
Index card		4.3	-	4.6	-
Envelope		7.6	-	5.4	-

T-1-7

 MF8000 Series

Unit: page/minute

Paper type		Color Mode	B&W Mode
Plain 1 (60 to 74g/m ²)	A4	8.0	12.0
	LTR	8.0	12.0
	LGL	6.8	10.2
Thick 1 (91 to 120g/m ²)	A4	6.0	6.0
	LTR	6.0	6.0
	LGL	5.0	5.0
Thick 2 (121 to 163g/m ²)	A4	6.0	6.0
	LTR	6.0	6.0
	LGL	5.0	5.0
Thick 3 (164 to 176 g/m ²)	A4	6.0	6.0
	LTR	6.0	6.0
	LGL	5.0	5.0
Transparency		6.0	6.0
Label		6.0	6.0
Index card		6.0	6.0
Envelope		6.0	6.0

T-1-8

Paper types

Paper type		Printer driver setting	Cassette	MP tray /Manual feed slot
Plain ^{*1} (MF8300 series)	60 to 74 g/m ²	Plain 1	Yes	Yes
	70 to 90 g/m ²	Plain 2	Yes	Yes
Plain (MF8000 series)	60 to 74 g/m ²	Plain 1	Yes	Yes
	75 to 90 g/m ²	Plain 2	Yes	Yes
Thick ^{*1} (MF8300 series)	86 to 119 g/m ²	Heavy 1	Yes	Yes
	120 to 128 g/m ²	Heavy 2	Yes	Yes
	129 to 163 g/m ²	Heavy 3	Yes	Yes
Thick (MF8000 series)	91 to 120 g/m ²	Heavy 1	Yes	Yes
	121 to 163 g/m ²	Heavy 2	Yes	Yes
	164 to 176 g/m ²	Heavy 3	-	Yes
Recycled ^{*1*3}	60 to 74 g/m ²	Recycled	Yes	Yes
Color	60 to 74 g/m ²	Color	Yes	Yes
Coated ^{*1}	100 to 110 g/m ²	Glossy 1 ^{*2}	Yes	Yes
	120 to 130 g/m ²	Glossy 2 ^{*2}	Yes	Yes
	155 to 165 g/m ²	Glossy 3 ^{*2}	Yes	Yes
	210 to 220 g/m ²	Glossy 4	Yes ^{*5}	Yes
Transparency ^{*4}		Transparency	Yes	Yes
Label		Labels	Yes	Yes
Index Card		Heavy 2	Yes	Yes
Envelope		Envelope	Yes	Yes

T-1-9

*1: Auto 2-sided print is available only in MF8300 series.

*2: Auto 2-sided print provided in MF8300 series meet A4 or letter size only.

*3: 100% recycled paper is also usable.

*4: Use transparency sheets for laser printers.

Canon's genuine transparency sheets are specially recommended.

*5: Coated Paper 4 is available only in MF8300 series.

Paper size

Paper size	Cassette *1	MP tray /Manual feed slot
A4 (210.0 mm × 297.0 mm) ^{*2*3}	Yes	Yes
B5 (182.0 mm × 257.0 mm) ^{*2}	Yes	Yes
A5 (148.0 mm × 210.0 mm)	Yes	Yes
Legal (LGL) (215.9 mm × 355.6 mm) ^{*2}	Yes	Yes
Letter (LTR) (215.9 mm × 279.4 mm) ^{*2*3}	Yes	Yes
Statement (STMT) (139.7 mm × 215.9 mm)	Yes	Yes
Executive (EXEC) (184.0 mm × 266.7 mm) ^{*2}	Yes	Yes
Officio (215.9 mm × 317.5 mm)	Yes	Yes
Brazil Officio (215.9 mm × 355.6 mm)	Yes	Yes
Mexico Officio (215.9 mm × 341 mm)	Yes	Yes
Government Letter (203.2 mm × 266.7 mm)	Yes	Yes
Government Legal (203.2 mm × 330.2 mm)	Yes	Yes
FOOLSCAP (215.9 mm × 330.2 mm) ^{*2}	Yes	Yes
Envelope COM10 (104.7 mm x 241.3 mm)	Yes	Yes
Envelope Monarch (98.4 mm x 190.5 mm)	Yes	Yes
Envelope C5 (162 mm x 229 mm)	Yes	Yes
Envelope B5 (176 mm x 250 mm)	Yes	Yes
Envelope DL (110 mm x 220 mm)	Yes	Yes
Custom Paper Size	Yes ^{*4}	Yes ^{*5}

T-1-10

*1: Cassette Feeding Module-V1 is available only in MF8300 series.

*2: Auto 2-sided print is available only in MF8300 series.

*3: Received documents, report and lists can be printed.

*4: You can load paper of the following custom paper sizes.

- MF8300 series
Width 4" to 8 1/2"(100 to 215.9 mm); Length 5 7/8" to 14"(148 to 355.6 mm)
- MF8000 series
Width 3" to 8 1/2" (76.2 to 215.9 mm); Length 5" to 14"(127 to 355.6 mm)

*5: You can load paper of the following custom paper sizes.

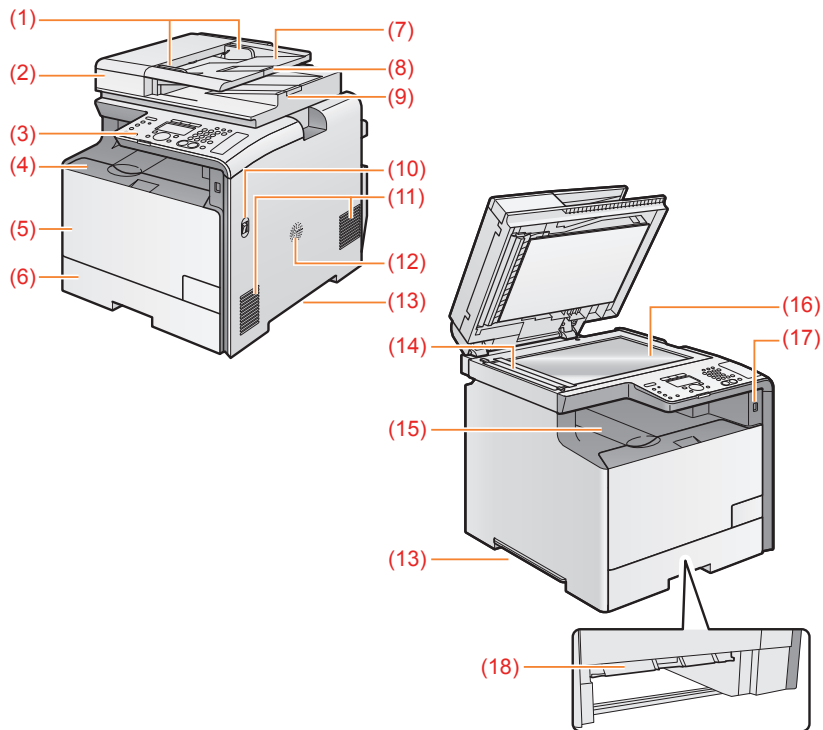
- Width 3" to 8 1/2" (76.2 to 215.9 mm); Length 5" to 14"(127 to 355.6 mm)

Name of Parts

External View

MF8300 Series

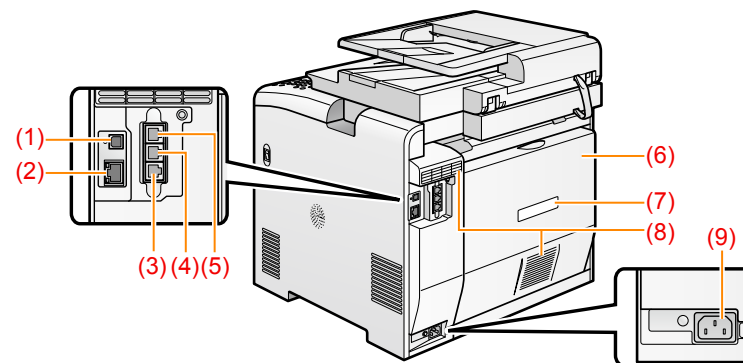
Front Side



F-1-8

- | | |
|--------------------------------|---|
| 1 Document guide | 10 Main power switch |
| 2 Feeder | 11 Vent-hole |
| 3 Control panel | 12 Speaker |
| 4 Front cover | 13 Grip |
| 5 Multi-purpose tray (MP tray) | 14 Paper scanner for document from feeder |
| 6 Paper cassette | 15 Delivery tray |
| 7 Document feed tray | 16 Copyboard glass |
| 8 Extension tray | 17 USB memory port |
| 9 Document delivery tray | 18 Manual feed guide |

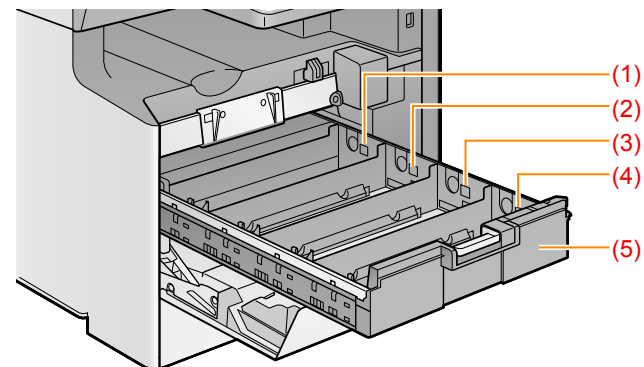
Rear Side



F-1-9

- | | |
|--|----------------|
| 1 USB port | 6 Rear cover |
| 2 LAN port | 7 Rating plate |
| 3 Telephone line terminal (only for MF8350 / MF8380) | 8 Vent-hole |
| 4 External telephone terminal (only for MF8350 / MF8380) | 9 Power socket |
| 5 Handset terminal (only for MF 8350 / MF8380) | |

Inside

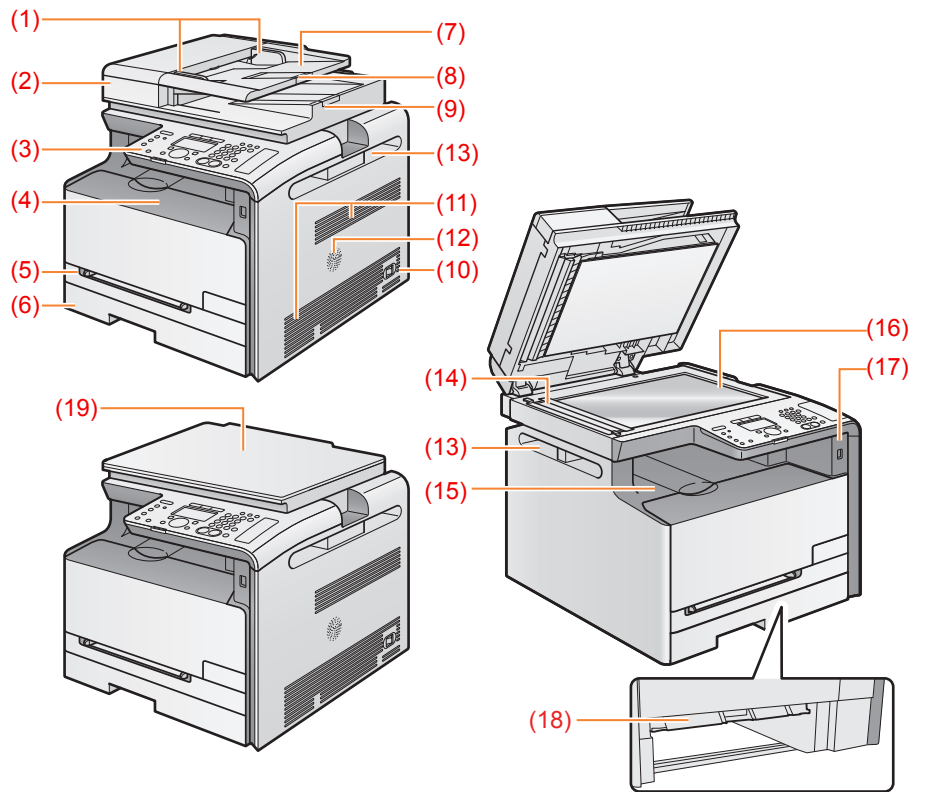


F-1-10

- | |
|---------------------------|
| 1 Y toner cartridge slot |
| 2 M toner cartridge slot |
| 3 C toner cartridge slot |
| 4 Bk toner cartridge slot |
| 5 Toner cartridge tray |

MF8000 Series

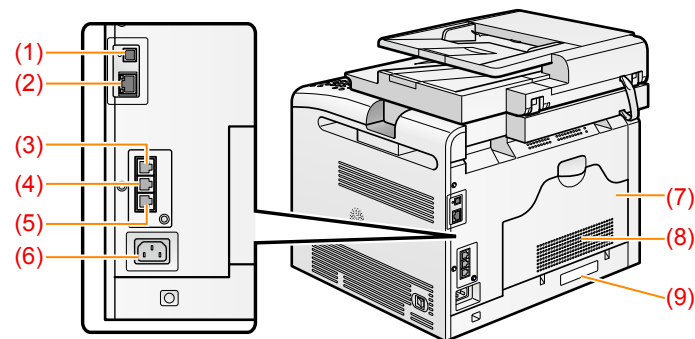
Front Side



F-1-11

- | | |
|--------------------------|--------------------------------------|
| 1 Document guide | 11 Vent-hole |
| 2 Feeder | 12 Speaker |
| 3 Control panel | 13 Grip |
| 4 Front cover | 14 Scanner for documents from feeder |
| 5 Manual feed slot | 15 Delivery tray |
| 6 Cassette | 16 Copyboard glass |
| 7 Document feed tray | 17 USB memory port |
| 8 Extension tray | 18 Manual feed guide |
| 9 Document delivery tray | 19 Platen Cover (for MF8010 only) |
| 10 Main power switch | |

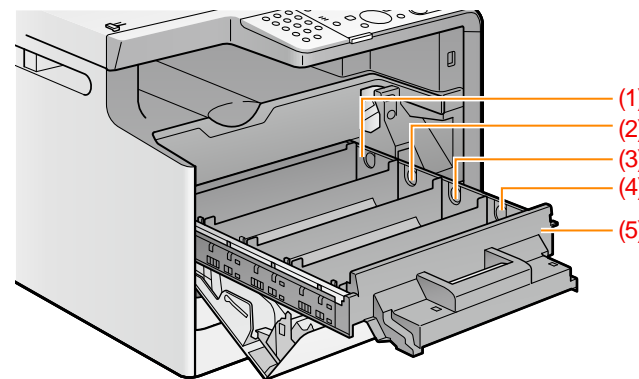
Rear Side



F-1-12

- | | |
|--|----------------|
| 1 USB port | 6 Power socket |
| 2 LAN port | 7 Rear cover |
| 3 Handset terminal (only for MF8050 / MF8080)* | 8 Vent-hole |
| 4 External telephone terminal (only for MF8050 / MF8080) | 9 Rating plate |
| 5 Telephone line terminal (for MF8050 / MF8080 only) | |

Inside



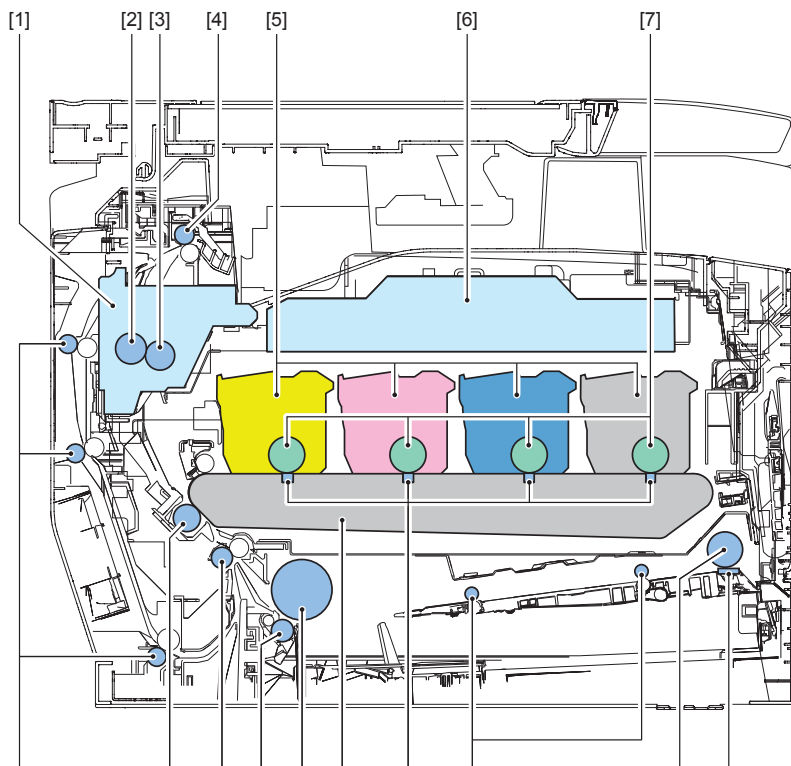
F-1-13

- | |
|---------------------------|
| 1 Y toner cartridge slot |
| 2 M toner cartridge slot |
| 3 C toner cartridge slot |
| 4 Bk toner cartridge slot |
| 5 Toner cartridge tray |

Cross Section View

MF8300 Series

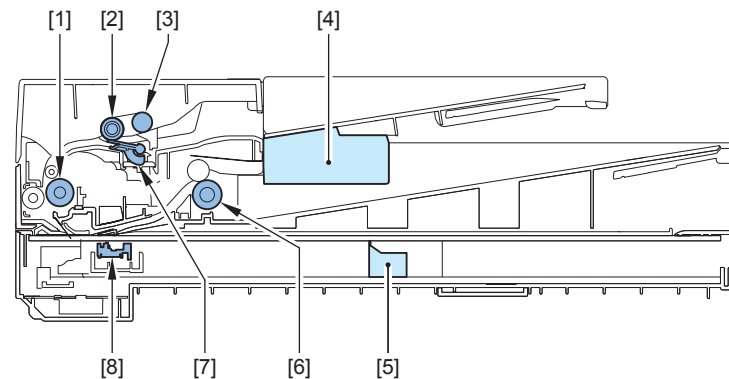
Printer



F-1-14

- | | |
|--------------------------|---------------------------------------|
| 1 Fixing assembly | 10 MP tray feed roller |
| 2 Pressure roller | 11 Primary transfer pad |
| 3 Fixing film unit | 12 ITB unit |
| 4 Delivery roller | 13 Cassette pickup roller |
| 5 Toner cartridge | 14 Cassette separation roller |
| 6 Laser scanner unit | 15 Registration roller |
| 7 Photosensitive drum | 16 Secondary transfer external roller |
| 8 MP tray separation pad | 17 Duplex feed roller |
| 9 MP tray pickup roller | |

Reader/ADF Unit

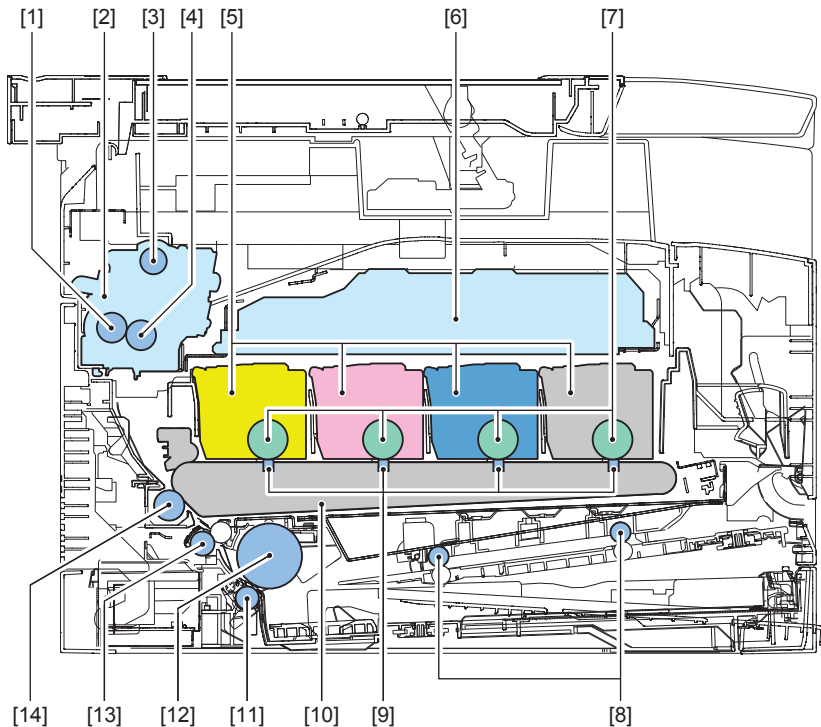


F-1-15

- | | |
|---|-------------------------|
| 1 | ADF registration roller |
| 2 | ADF separation roller |
| 3 | ADF pickup roller |
| 4 | ADF unit |
| 5 | Reader unit |
| 6 | ADF delivery roller |
| 7 | ADF separation pad |
| 8 | CIS unit |

MF8000 Series

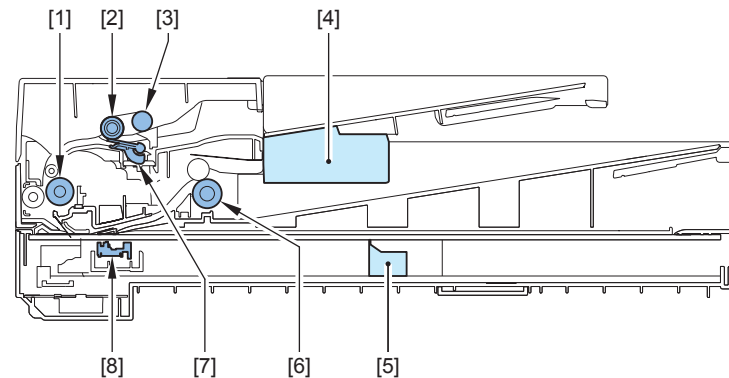
Printer



F-1-16

- | | |
|-----------------------|---------------------------------------|
| 1 Pressure roller | 8 Manual feed roller |
| 2 Fixing assembly | 9 Primary transfer pad |
| 3 Feed roller | 10 ITB unit |
| 4 Fixing film unit | 11 Cassette separation roller |
| 5 Toner cartridge | 12 Cassette pickup roller |
| 6 Laser scanner unit | 13 Registration roller |
| 7 Photosensitive drum | 14 Secondary transfer external roller |

Reader/ADF Unit



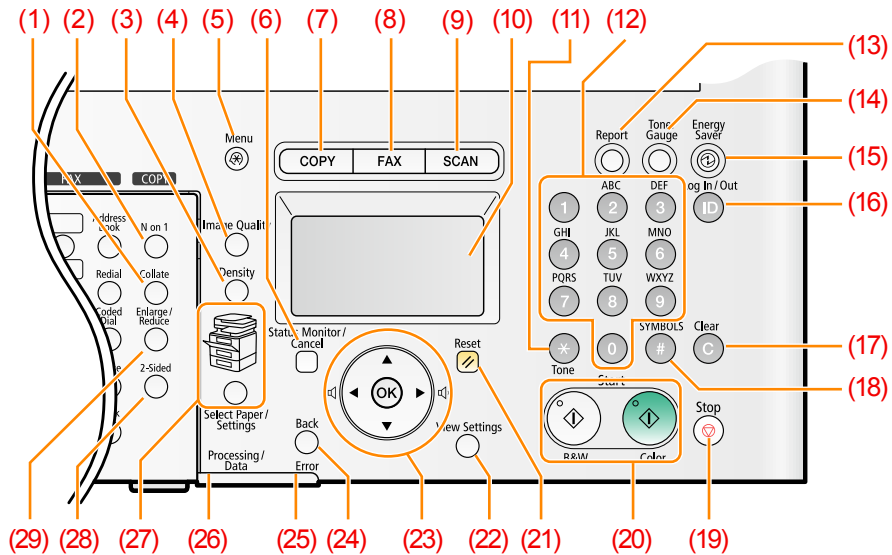
F-1-17

- | |
|---------------------------|
| 1 ADF registration roller |
| 2 ADF separation roller |
| 3 ADF pickup roller |
| 4 ADF unit |
| 5 Reader unit |
| 6 ADF delivery roller |
| 7 ADF separation pad |
| 8 CIS unit |

Control Panel

MF8350 / MF8330 Series

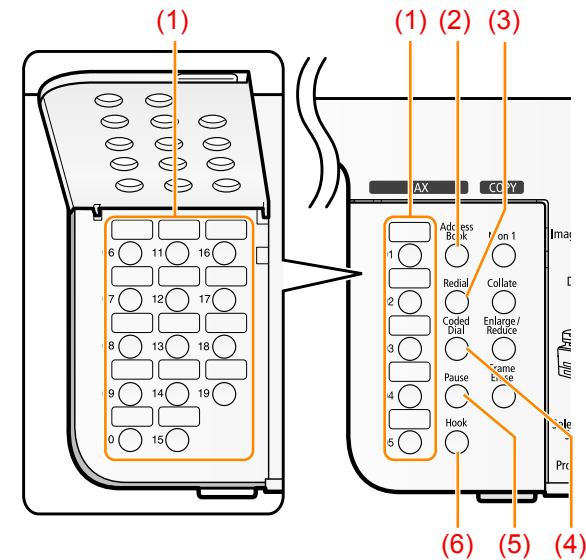
Main Control Panel



- | | |
|-------------------------------|--------------------------------|
| 1 [Collate] key | 16 [ID] key |
| 2 [N on 1] key | 17 [Clear] key |
| 3 [Density] key | 18 [#] key |
| 4 [Image quality] key | 19 [Stop] key |
| 5 [Menu] key | 20 [Start] key |
| 6 [Confirm status/Cancel] key | 21 [Reset] key |
| 7 [Copy] key | 22 [View Settings] key |
| 8 [FAX] key (only for MF8350) | 23 [▲][▼][<] [>] key |
| 9 [Scan] key | 24 [Back] key |
| 10 Display | 25 [Error] indicator |
| 11 [*] key | 26 [Processing/Data] indicator |
| 12 [Numeric] keys | 27 [Select Paper/Settings] key |
| 13 [Report] key | [Select Paper] indicator |
| 14 [Toner Gauge] key | 28 [2-sided] key |
| 15 [Energy Saver] key | 29 [Enlarge / Reduce] key |

F-1-18

FAX Control Panel (only for MF8350)

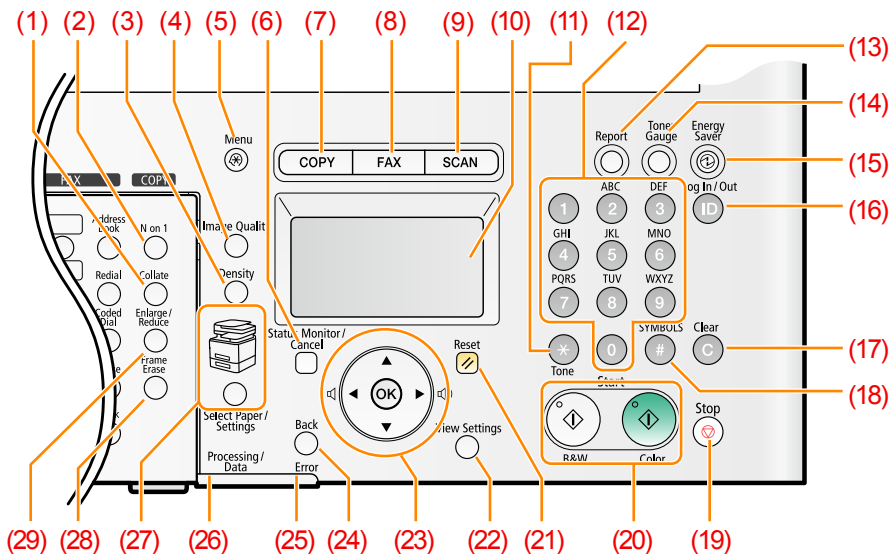


F-1-19

- 1 [One-touch Speed Dial] keys
- 2 [Address Book] key
- 3 [Redial] key
- 4 [Coded Dial] key
- 5 [Pause] key
- 6 [Hook] key

MF8050 / MF8030 Series

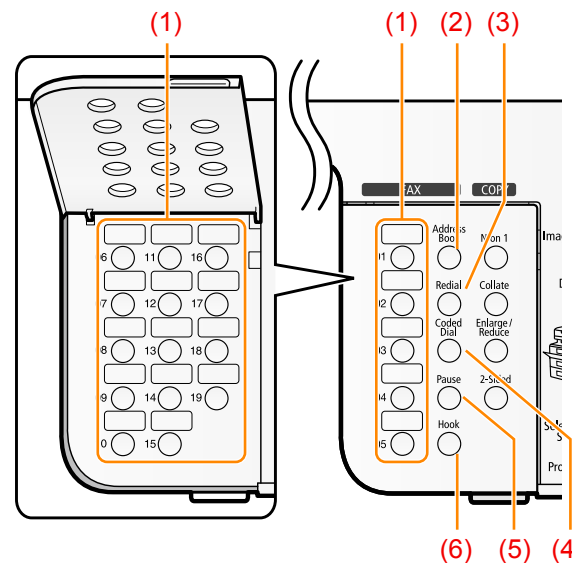
Main Control Panel



- | | |
|----------------------------------|--------------------------------|
| 1 [Collate] key | 16 [ID] key |
| 2 [N on 1] key | 17 [Clear] key |
| 3 [Density] key | 18 [#] key |
| 4 [Image quality] key | 19 [Stop] key |
| 5 [Menu] key | 20 [Start] key |
| 6 [Confirm status/Cancel] key | 21 [Reset] key |
| 7 [Copy] key | 22 [View Settings] key |
| 8 [FAX] key (only for MF8050Cdn) | 23 [▲][▼][<] [>] key |
| 9 [Scan] key | 24 [Back] key |
| 10 Display | 25 [Error] indicator |
| 11 [*] key | 26 [Processing/Data] indicator |
| 12 [Numeric] keys | 27 [Select Paper/Settings] key |
| 13 [Report] key | [Select Paper] indicator |
| 14 [Toner Gauge] key | 28 [Frame Erase] key |
| 15 [Energy Saver] key | 29 [Enlarge / Reduce] key |

F-1-20

FAX Control Panel (only for MF8050)

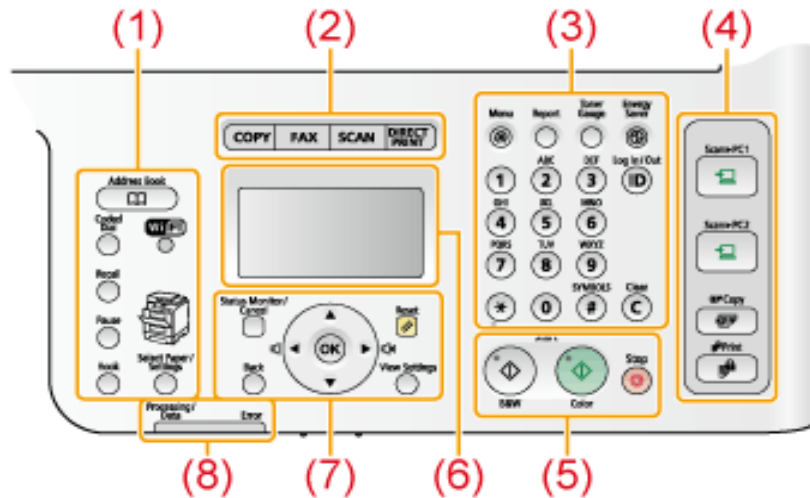


F-1-21

- 1 [One-touch Speed Dial] keys
- 2 [Address Book] key
- 3 [Redial] key
- 4 [Coded Dial] key
- 5 [Pause] key
- 6 [Hook] key

MF8380/MF8340/MF8080/MF8040

Main Control Panel (MF8380/MF8340/MF8080/MF8040)



F-1-22

Name	Description
(1) [Address Book] key*1	Searches recipients registered in the Favorites list or coded dial codes.
[Coded Dial] key*1	Specifies recipients registered under coded dial codes.
[Recall] key*1	Redial the last number called. (Only enabled when the mode screens for fax, e-mail or file server operations are displayed.)
[Pause] key*1	Press to insert a pause in the fax number.
[Hook] key*1	Press when you want to dial without lifting up the handset of the external telephone.
[Wi-Fi] LED*2	Turns on when the machine is connected to Wireless LAN.
[Select Paper/Settings] key	Press to select the paper source to use (The indicator for the selected paper source is lit up above the key.). Also press to specify the paper size and type to load in each paper source.
(2) Mode switch keys	Press to switch the mode to copy, fax (MF8380 / MF8080 only), scan or USB direct print.

Name	Description
(3) [Menu]key	Press to specify or register various settings.
[*] key	Press to switch the character entry mode. Press to switch between pulse and tone dialing to send a fax.
[Toner Gauge] key	Press to check the remaining amount of toner.
[Energy Saver] key	Press to manually set or cancel the Sleep mode. The Energy Saver indicator lights green while in the sleep mode.
[ID] key	Press to log in/out of the machine when the machine is managed by Department ID management.
Numeric keys ([0]-[9] keys)	Enter characters and numbers.
[#] key	Press to enter symbols.
[Report] key	Press to manually print reports and lists. You can also specify whether to print a report automatically.
[Clear] key	Deletes characters and numbers entered.
(4) [Scan > PC1] key	Press to send your scans to the computer registered in each key.
[Scan > PC2] key	
[Secure Print] key (MF8380Cdw only)	Press to use the Secure Print function. You can print your secure print jobs using this key.
[Paper Save Copy] key	Press to make copies with the preset modes to reduce paper consumption.
(5) [B&W] key	Press to start copying, scanning, sending a fax or USB direct print in black and white.
[Color] key	Press to start copying, scanning or USB direct print in color.
[Stop] key	Press to cancel jobs.
(6) LCD	Displays messages and operation status. Displays items, texts, and numbers when you are specifying settings.
(7) [Status Monitor/Cancel] key	Press to check the status of jobs or cancel jobs. You can also check the status of the network and machine.
[▲] key	Press to scroll up or to increase the value.
[▼] key	Press to scroll down or to decrease the value.
[<] key	Press to return to the previous screen or move the cursor to the left. Press to decrease the sound volume of fax communications.
[>] key	Press to proceed to the next screen or move the cursor to the right. Press to increase the sound volume of fax communications.
[OK] key	Confirms specified or registered settings.
[Reset] key	Resets the specified settings for the copy/fax/scan/USB direct print mode to their default.
[View Settings] key	You can check the settings
[Back] key	Press to return to the previous screen.
(8) [Processing/Data] indicator	Blinks during transmission and lights up when the machine has waiting jobs.
[Error] indicator	Blinks when an error occurs.

T-1-11

*1 MF8380Cdw/MF8360Cdn/MF8080Cw only

*2 MF8380Cdw/MF8080Cw only

*3 MF8380Cdw/MF8340Cdn only

2

Technical Overview

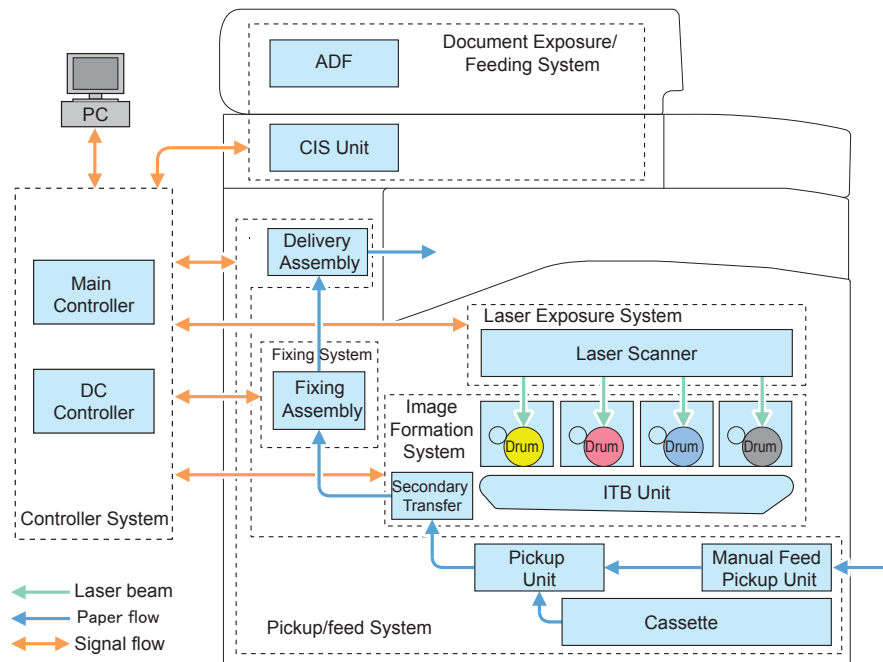
- Basic Configuration
- Document Exposure/Feeder System
- Controller System
- Laser Control System
- Image Formation System
- Fixing System
- Pickup / Feed System

Basic Configuration

Configuration function

This device is roughly composed of the 6 functional blocks as shown in the figure below

- Document exposure/delivery system
- Controller system
- Laser exposure system
- Image formation system
- Fixing system
- Pickup / Feed System



F-2-1

Basic Sequence

Basic Operational Sequence

The CPU on the DC controller PCB controls the operational sequence. The table below shows the operation and the purposes in each status from start-up of the device and to last rotation after print job completion.

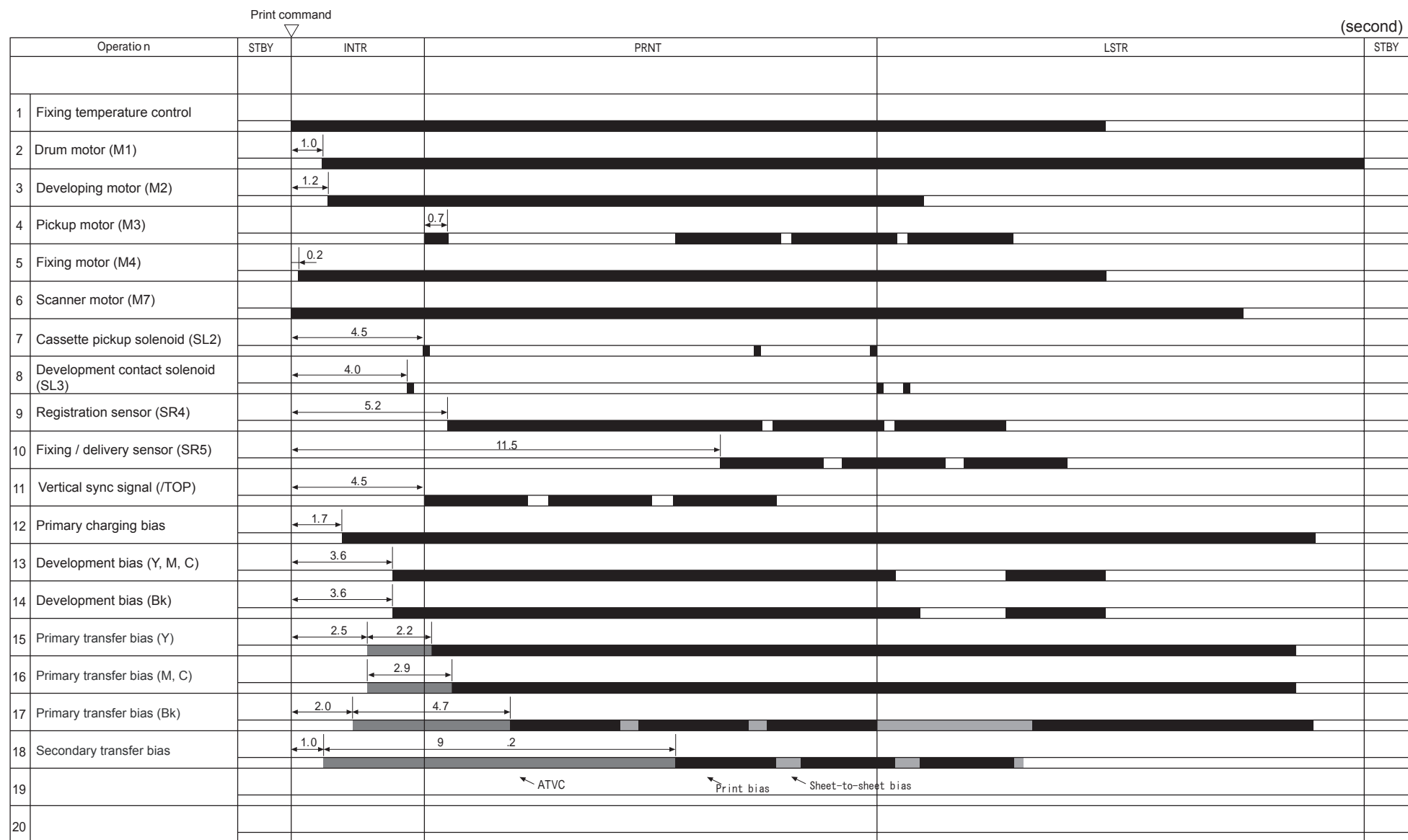
Status	Operation
WAIT (Wait)	Interval from power-ON or reactivation from sleep mode upon shutting the door(s) to entering the print-ready status Activate the printer to be ready for printing. During WAIT time, the following operations are done: pressure is applied to the pressure roller of the fixing assembly; check cartridges and units being in place; move the developing unit to the home position; and, clean the ITB. When needed, color displacement is corrected and the image is stabilized.
STBY (STBY)	Interval from the wait time or the last rotation to issuance of a print command from the main controller or power-OFF. Maintain the print-ready status. The printer enters the sleep mode upon receiving a "sleep" command from the main controller during the stand-by status. The printer executes color displacement correction or image stabilization upon receiving corresponding commands from the main controller.
INTR (IINTR)	Interval from issuance of a print command from the main controller during the stand-by status to warming up the fixing assembly to the target temperature. To make the printer ready for print jobs, activate high-voltage bias PCBs, the laser scanner unit and the fixing assembly.
PRINT (Print)	Interval from the initial rotation to completion of last page fixation. Based on the video signals input from the main controller, form the static latent image on the photosensitive drum to transfer and fix the toner image on paper. When a certain pages are printed after power-ON, the device undergoes color displacement correction and/or image stabilization.
LSTR (Last rotation)	Interval from print job completion to motor deactivation. The last page of the print job is completely delivered. In this status, the laser scanner unit and high-voltage bias PCBs are inactive. The printer starts the initial rotation upon receiving a print command from the main controller during this status.

T-2-1

Print Sequence

MF8300 Series

Full-color print on A4 plain paper (3 pages)



MF8000 Series

Full-color print on A4 plain paper (3 pages)



Print Mode

MF8300 Series

The models of this series switch among 3 print modes to optimize the paper feed speed for printing.

Print mode	Paper feed speed	Paper type	Print speed	Remarks
Normal speed mode	1/1 speed	Plain paper 1 (60 to 74 g/m ²) Plain paper 2 (75 to 90 g/m ²) Recycled paper (60 to 74 g/m ²) Color paper (60 to 74 g/m ²) Thick paper 1 to 2 (91 to 128 g/m ²)* ¹ Coated paper 1 (100 to 110 g/m ²) Postcards* ³	20 ppm* ⁴	Common to color and B&W printing
1/2 speed mode	1/2 speed	Thick paper 1 to 2 (91 to 128 g/m ²) Thick paper 3 (129 to 163 g/m ²) Envelopes Labels Postcards* ³	9.7 ppm* ⁴	
1/3 speed mode	1/3 speed	Thick paper 3 (129 to 163 g/m ²)* ² Coated paper 2 to 4 (120 to 220 g/m ²) Transparency	7.6 ppm* ⁴	

T-2-2

*1: For Thick Paper 1 and 2 (91 to 128 g/m²), switched to normal mode when environment temperature is 20 deg C and above, and switched to 1/2 speed mode when the temperature is lower than 20 deg C.

*2: For Thick Paper 3 (129 to 163 g/m²), switched to 1/2 speed mode when environment temperature is 20 deg C and above, and switched to 1/3 speed mode when the temperature is lower than 20 deg C.

*3: For Postcard, switched to normal mode when environment temperature is 20 deg C and above, and switched to 1/2 speed mode when the temperature is lower than 20 deg C.

*4: The fastest print speed in each mode. The print speed differs depending on paper type

MF8000 Series

The models of this series switch among 3 print modes to optimize the normal print speed each for color and B&W printing.

Print mode	Paper feed speed	Paper type	Print speed	Remarks
B&W normal speed mode	3/2 speed	Plain paper 1 (60 to 74 g/m ²) Plain paper 2 (70 to 90 g/m ²) Recycled paper (60 to 74 g/m ²) Color paper (60 to 74 g/m ²)	12 ppm	for B&W printing
Color normal speed mode	1/1 speed	Plain paper 1 (60 to 74 g/m ²) Plain paper 2 (70 to 90 g/m ²) Recycled paper (60 to 74 g/m ²) Color paper (60 to 74 g/m ²)	8 ppm	for color printing
3/4 speed mode	3/4 speed	Thick paper 1 to 3 (91 to 163 g/m ²) Coated paper 1 to 4 (100 to 220 g/m ²) Transparency Labels Envelopes Postcards	6 ppm	Common to color and B&W printing

T-2-3

Document Exposure/Feeder System

Document Exposure System

Overview

Specifications / Control / Function List

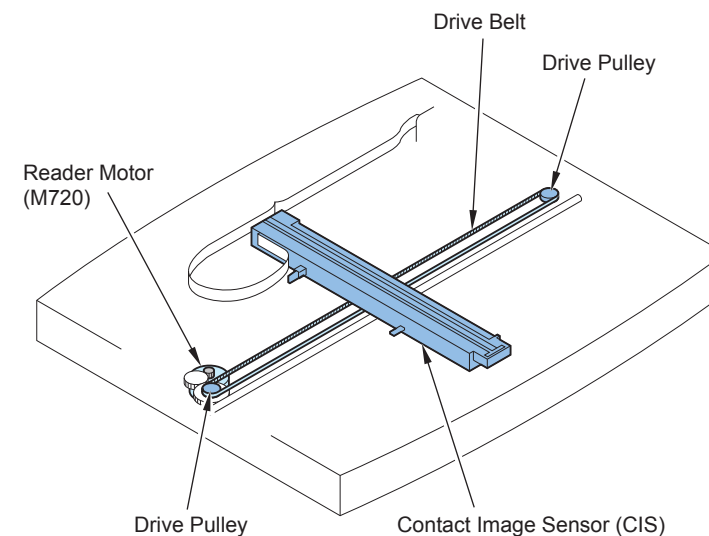
Item	Function / Method
Document Exposure	LED
Document Scan	Book Mode: • Scan by the shift of the contact sensor (CIS) ADF : • Document stream reading by fixed contact sensor (CIS)
Scanning Resolution	600dpi(Horizontal Scanner)×600dpi(Vertical Scanner)
Number of Gradations	256 Gradations
Magnification	50% to 200% Horizontal: Image processing by Main Controller PCB Vertical: Change of carriage shift speed, image processing by Main Controller PCB
Lens	Rod Lens Array
CIS	Number of lines: 1 line Number of pixels: 5184 pixels as total pixels (5107 pixels as effective pixels) Maximum document scanning width: 216mm
CIS Drive Control	Drive Control by Reader Motor (M720)
Document Size Detection	None
Dirt Sensor Detection	Yes

T-2-4

Major Components

Followings are the major components for Document Exposure System.

- The contact sensor to scan document.
 - The Reader motor (M720), The drive pulley, The drive belt, to shift The contact sensor
- In image scanning control, the contact sensor is shifted by rotating the Reader motor based on the drive signal from the Main Controller PCB and scan the original on the copyboard glass. When ADF is in use, image is scanned by feeding the originals by ADF instead of shifting the contact sensor.



F-2-4

Document Feeder System

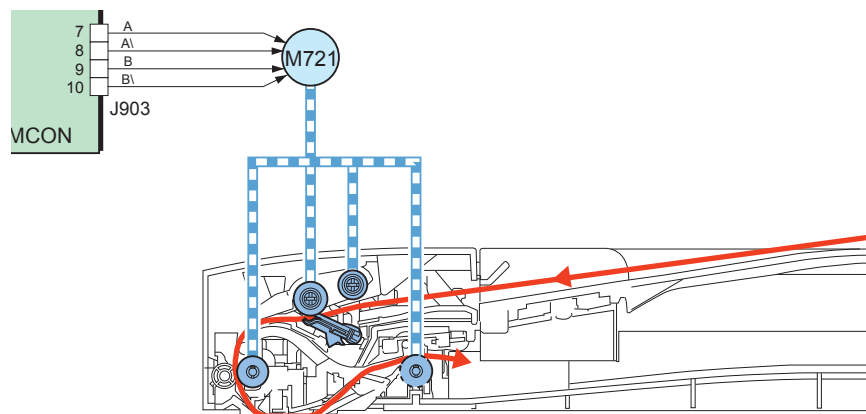
Overview

Pickup/Feed/Delivery Operation

The Auto Document Feeder (ADF) mounted onto this host machine is dedicated to stream-reading.

1 Motor (ADF Motor: M721) is engaged in Pickup/Feeding/Delivery.

At the start of Copy/Fax/Scan, the ADF Motor (M721) is driven by the drive command from the Main Controller PCB to Pickup/Feed the originals set face up on the original tray one by one in order from the top. The original is scanned by the contact sensor when moving through the copyboard glass, and then delivered face down to the original Delivery Assembly.



F-2-5

Various Control

Original Detection

There are two types of Original Detection in this Equipment.

1. Original Presence / Absence Detection

Setting the original onto the original tray pushes up the actuator, activating (light shielded =>light transmitted) the Document Sensor (SR703), and resulting in detection of the presence of original.

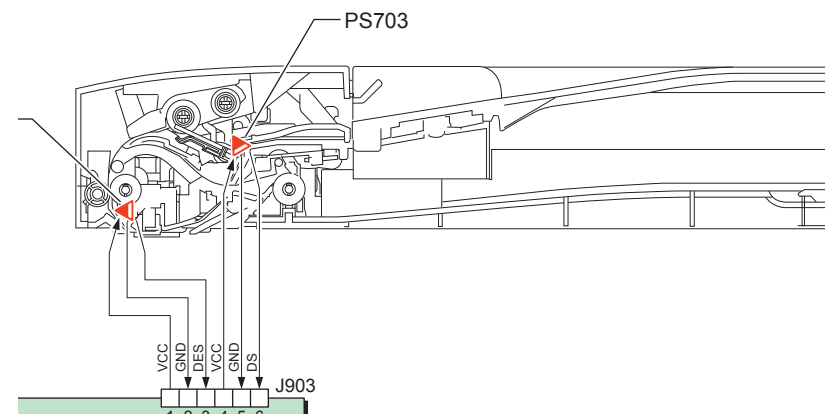
2. Detection of the End of the Original

The leading edge of the original that is fed pushes up the actuator, activating the Document End Sensor (SR702) (light shielded =>light transmitted) and resulting in detection of the reach of the leading edge of original. Furthermore, when the trailing edge of the original passes the actuator position, the actuator returns to the original position, inactivating the Document End Sensor (SR702) (light transmitted => light shielded). The trailing edge of the original is detected by this mechanism.

The original length that can be scanned with this equipment is less than 400 mm. Passing of the original longer than this results in jam stop. The original length is calculated by the time it takes from detection of the leading edge of the original to detection of the trailing edge of the original.

MEMO:

There is no function to detect the original size (original width, length) in this equipment.



F-2-6

● Jam Detection

The following cases are judged as jam.

1. In case of delay in reaching DS/DES or stationary during scanning of original
 2. In case DS/DES is detected as ON at power-on (residual paper jam)
 3. In case of detecting original of which length is 400 mm or longer
- Operation after Detection of Jam
The host machine stops scanning operation and displays "CHECK DOCUMENT" on the control panel. No jam code is displayed.
In case of the model equipped with fax function (with built-in speaker), the warning beep occurs at the detection of jam.
 - How to release Jam.
Remove the jammed paper and open / close the ADF upper cover

● Service Tasks

■ Action for Parts Replacement

Outline of the measures is described in this section. For the detailed procedure, refer to the "Chapter 5 Adjustment".

● After replacing ADF Unit

- 1)Execute the white level adjustment.
- 2)Execute the reading position adjustment.
- 3)Execute the original stop position and feed speed adjustment at stream reading.

● Reader Unit

- 1)Enter the setting value of the Standard White Plate.
- 2)Execute the color/B&W AGC adjustment.
- 3)Execute the reading position adjustment.
- 4)Execute the white level adjustment.
- 5)Enter the value on the label packed with the part in the service mode item.
- 6)Execute the image reading adjustment at ADF reading.

● Reader Unit Upper Cover (Copyboard Glass)

- 1)Enter the value on the label affixed on the glass in the service mode item.
- 2)Execute the reading position adjustment.
- 3)Execute the white level adjustment.

● CIS Unit

- 1)Execute the color/B&W AGC adjustment.
- 2)Execute the auto detection of the reading position at DF stream reading.
- 3)Execute the white level adjustment.
- 4)Execute the image reading position adjustment.
- 5)Execute the image reading adjustment at ADF reading.

■ Maintenance

No periodically replaced parts, durable parts or periodical service is set for this product.

■ Service Notes

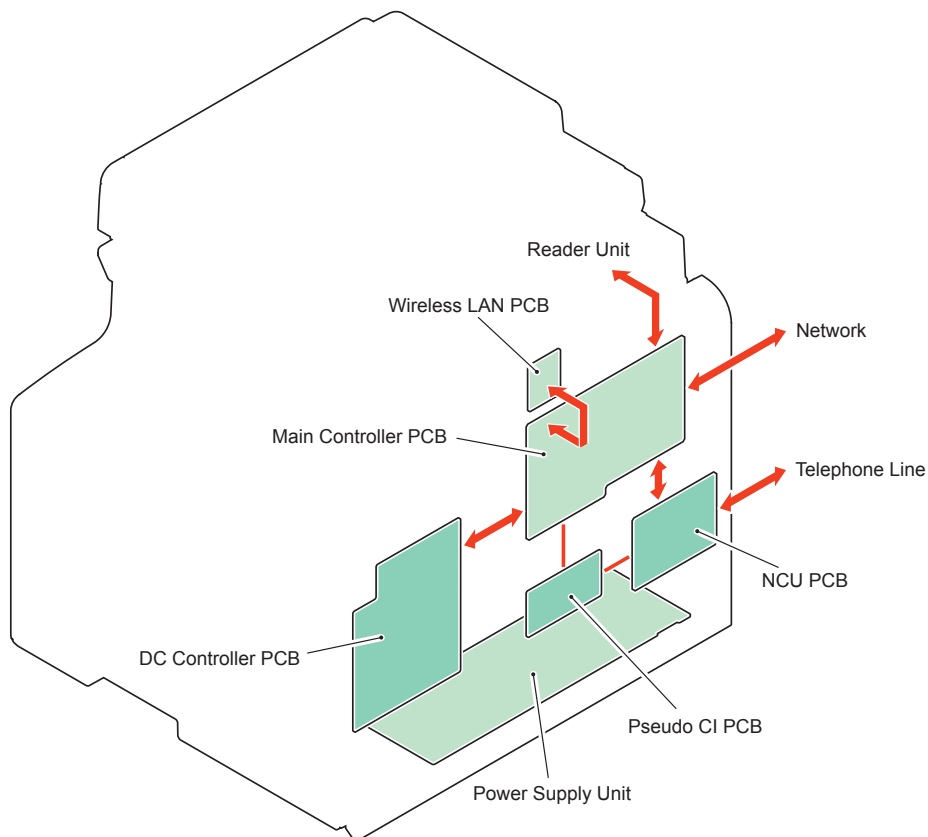
None

Controller System

Overview

Overview

This product is mainly controlled by the main and DC controllers.



Parts name	Role
Main Controller PCB	Provides controls on the system, image processing, reader / ADF, FAX and network and maintain various setting values.
DC Controller PCB	Provides controls on printer, laser, high-voltage PCBs, I/O, etc. and maintain setting values.

Controls

Motor Controls

This product uses 3 motors for paper feed and image formation. The tables below show motor specifications used in this product.

- MF8350Cdn/8330Cdn

Name	Driven parts	Type	Failure detection
Drum Motor	M1 Photosensitive drum, developing cylinder, ITB	DC Motor	Available
Registration Motor	M3 Registration Roller	Stepping Motor	Not Available
Developing Motor	M2 Developing Cylinder	DC Motor	Available
Fixing Motor	M4 Pressure Roller, Delivery Roller, Duplex Feed Roller	Stepping Motor	Not Available
Pickup Motor	M5 Pickup Roller, Multi Manual feed Roller, Multi Purpose Tray Pickup Roller	Stepping Motor	Not Available

T-2-5

- MF8050Cn/8030Cn

Name	Driving parts	Type	Failure detection
Drum Motor	M701 Photosensitive Drum, Developing Cylinder, ITB	DC Motor	Available
Pickup Motor	M702 Pickup Roller, Feed Roller, Registration Roller	Stepping Motor	Not Available
Fixing Motor	M703 Pressure Roller, Delivery Roller	Stepping Motor	Not Available

T-2-6

Open door detection

This product detects door opening by the door open sensor.

Sensor Name	Function
Front Cover Sensor (SR612)	Detect open the Front Cover.
Rear Cover Sensor (SR613)	Detect open the Rear Cover.

When this sensor detects door opening, the DC controller stops driving motors and solenoids.

Low-Voltage Power Supply Control

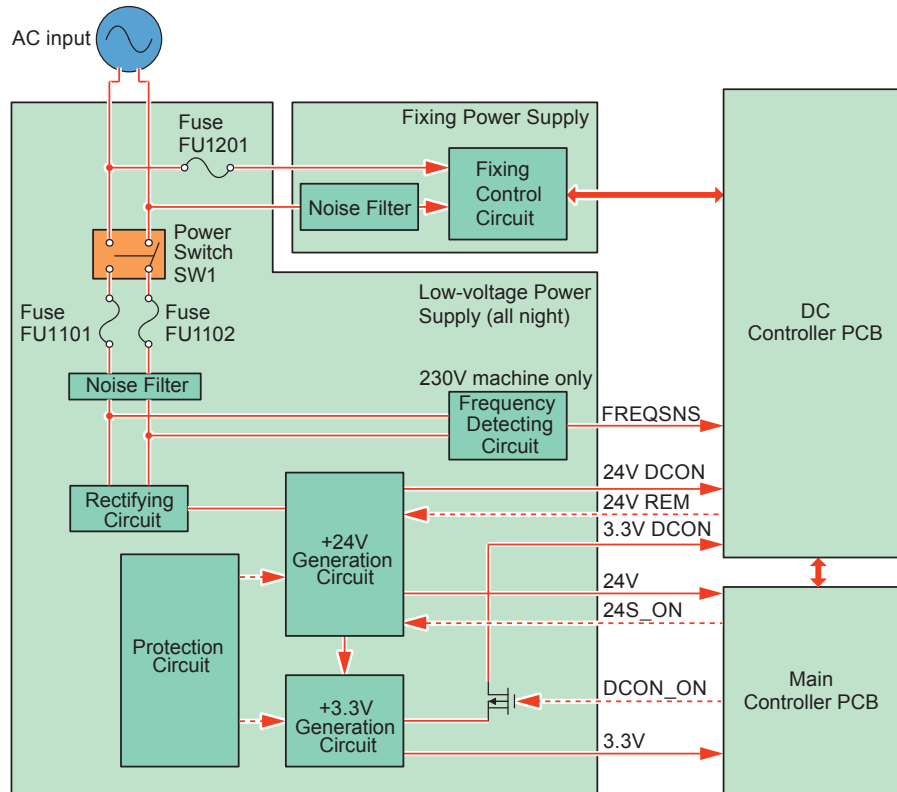
This circuit converts AC voltage input from the power supply receptacle through the fixing power supply into DC power supply and supplies it to each load.

See the figures below for low-voltage / fixing power supply block diagrams.

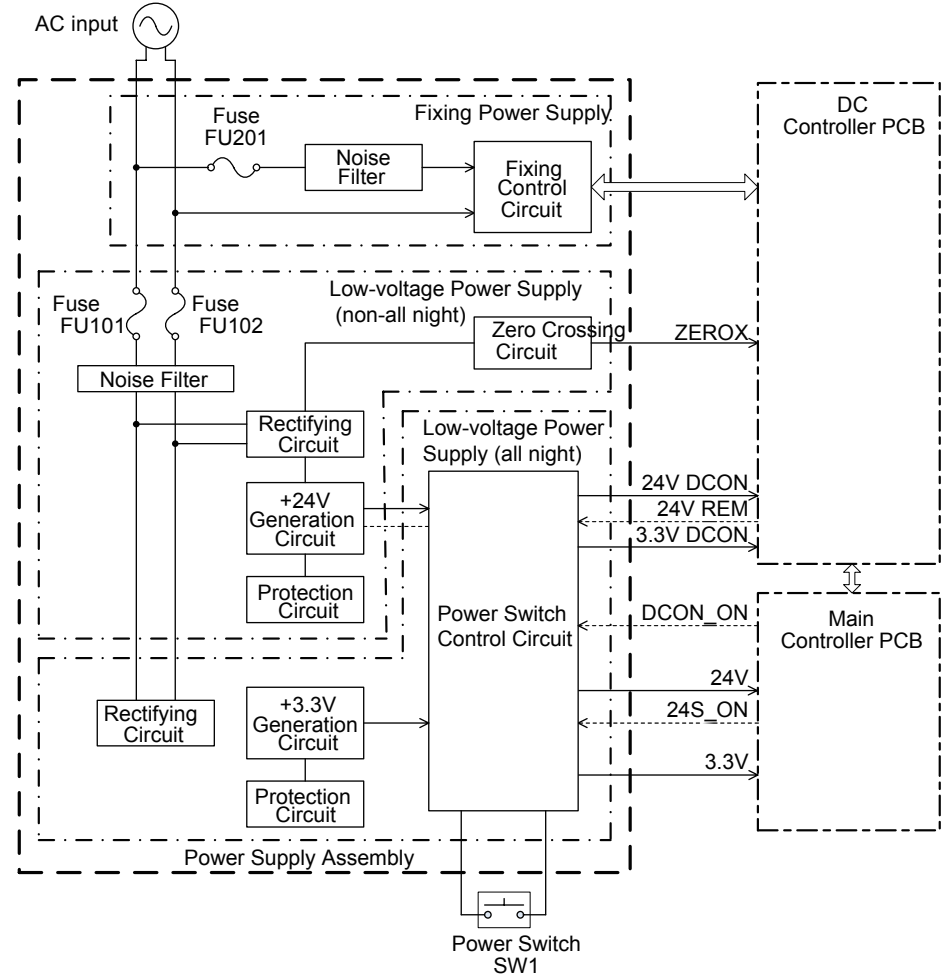
- Low-voltage power supply: generates DC power supply required in the printer.
- Fixing power supply: supplies AC power supply to the low-voltage power supply and control the fixing heater temperatures.

The low-voltage power supply is actuated when the AC power supply is attached to the inlet and the power switch is turned on. The AC power supply supplied through the fixing power supply is converted to +24V and +3.3V of the DC power supply in the low-voltage power supply before supplied to the printer engine.

- MF8350Cdn/8330Cdn



- MF8050Cn/8030Cn



F-2-9

Protective control

The low-voltage power supply has protective controls against excessive current and voltage, which automatically detect excessive current or abnormal voltage to shut off the output voltage for avoiding the power supply circuit failures.

In case the DC voltage output is not detected from the low-voltage power supply, the protective control may be activated. Turn off the power switch and remove the AC power supply from the inlet to settle load troubles. Once these are settled, turn on the power switch again.

Another protective control is provided by 2 power fuses on the fixing power supply. These are open when excessive current is detected to shut off power supply to low-voltage power supply.

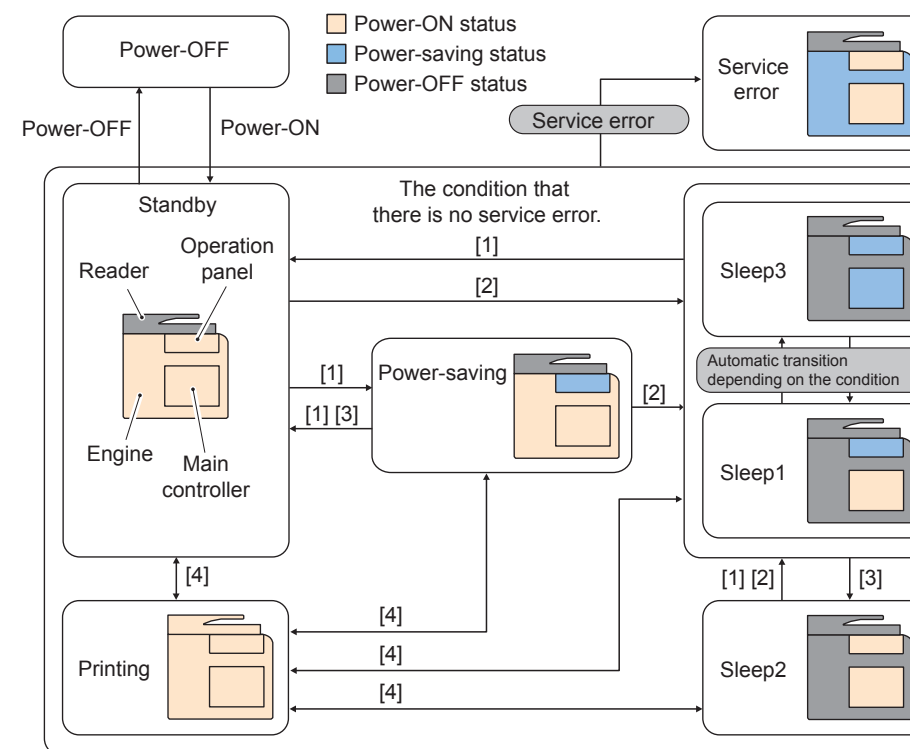
Power-Saving Mode

This is the function to save power consumed by the printer.

The table below lists various power-saving modes.

Power-Saving Mode		Status
Stand-by		at power-OFF on the reader
Power-saving		at power-OFF on the reader and the display (LCD)
Sleep	Sleep 1	at power-OFF on the reader, engine and the display (LCD)
	Sleep 2	at power-OFF on the reader and the engine.
	Sleep 3 (3W sleep)	at power-off on the reader, the engine and the display (LCD) The main controller enters the power-saving mode.

T-2-7



F-2-10

[1]	Press [Power-saving] key.	[3]	Detects hook.
[2]	Enters auto-sleep status.	[4]	Start / complete jobs.

Service Tasks

■ Action for Parts Replacement

Outline of the measures is described in this section. For the detailed procedure, refer to the "Chapter 5 Adjustment".

● After replacing Main Controller PCB

- Before replacing PCBs

Back up user data (settings / registered data, etc.) and Service mode data for setting / registration after replacing PCBs. Take notes of data unable to back up.

- After replacing PCBs

- 1) Setting of destination / paper size groups
- 2) Clearing setting / registered data
- 3) Adjustment and input of default values

● After replacing DC controller PCB

- 1) Restore the DC Controller backup information.
- 2) Turn OFF/ON the power.
- 3) Execute the print color displacement correction and the quick correction.
- 4) Turn OFF/ON the power.

■ Maintenance

No periodically replaced parts, durable parts or periodical service is set for this product.

■ Service Notes

None

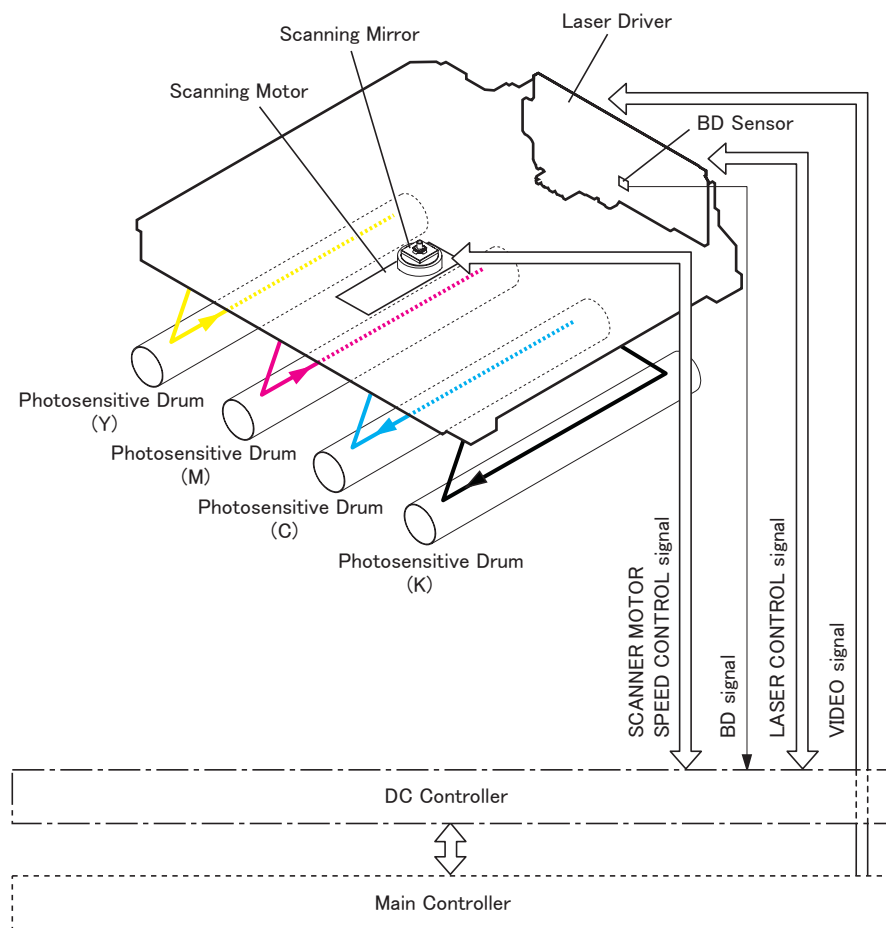
Laser Control System

Overview

The Laser Scanner system is to form a static latent image on the photosensitive drum based on the video signal sent from the Main Controller.

The Laser Scanner Unit is composed of the laser driver, the Scanner Motor Unit and other components, which are controlled based on signals input by the DC Controller.

The figure below shows the Laser Scanner Unit schematically.



F-2-11

Controls

Failure detection

1. Scanner Motor failures

- The rotation does not reach the pre-defined value after a certain time elapsed from the Scanner Motor actuated.
- The rotation failed to meet the tolerable range consecutively within a certain time during the Scanner Motor in drive.

Error Code: E110-0000

2. BD failures

- When out-of-range BD cycle is detected during printing.

Service Tasks

■ Action for Parts Replacement

Outline of the measures is described in this section. For the detailed procedure, refer to the "Chapter 5 Adjustment".

● After replacing Laser Scanner Unit

- 1) Register the value on the label packed with the Laser Scanner Unit in service mode.
- 2) After the registration, affix the label packed with the unit on the inside of the Right Cover.

■ Maintenance

No periodically replaced parts, durable parts or periodical service is set for this product.

■ Service Notes

● Point to note when replacing the laser scanner unit

Do not disassemble the laser scanner unit in the field because it has been adjusted in the factory.

Otherwise, it may cause image fault such as color displacement. (you need to replace the laser scanner unit in that case.)

Image Formation System

Overview

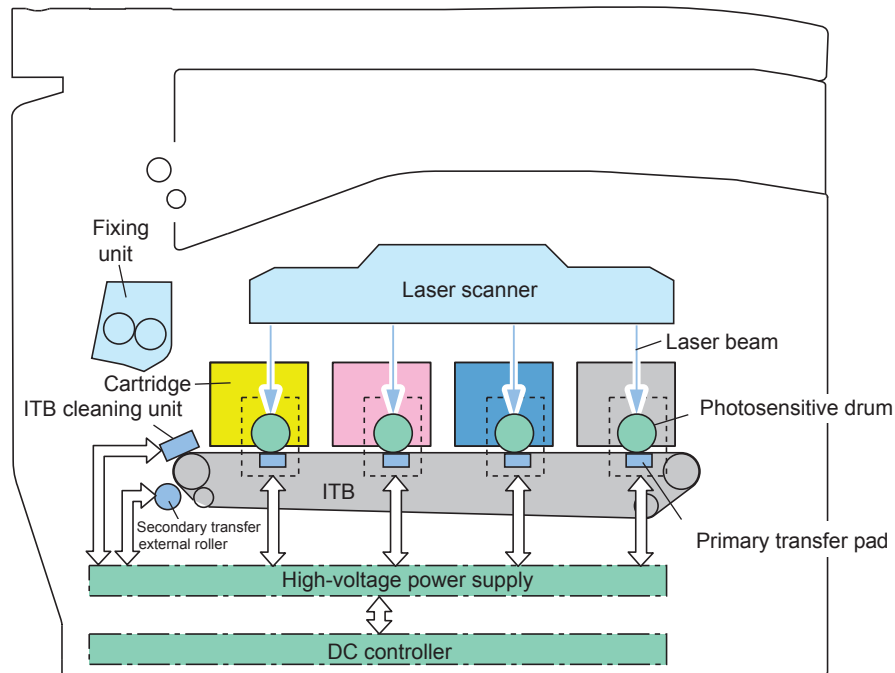
The image formation system holds the core function of this product to form toner images on paper.

To form toner images, the DC controller controls various high-voltage power supply PCBs. This product is a compact and high-speed color printing device that employs the 4-drum and intermediate transfer method.

The image formation system is composed of the following components.

- 4 cartridges
- ITB unit
- Secondary transfer external roller

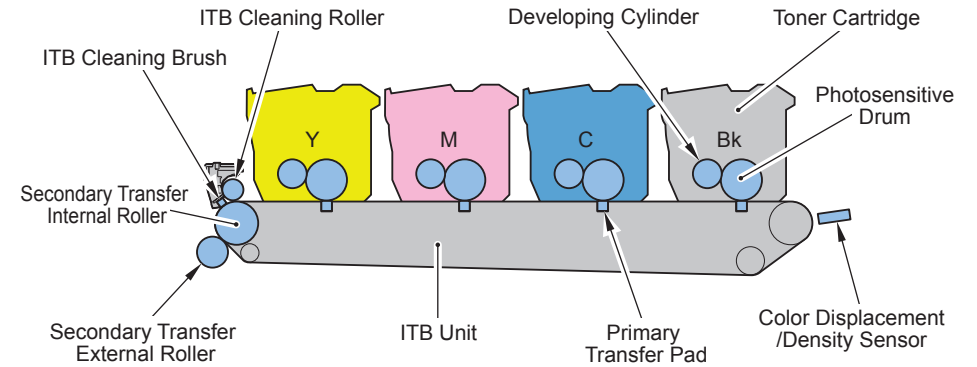
The figure below shows the image formation system schematically.



F-2-12

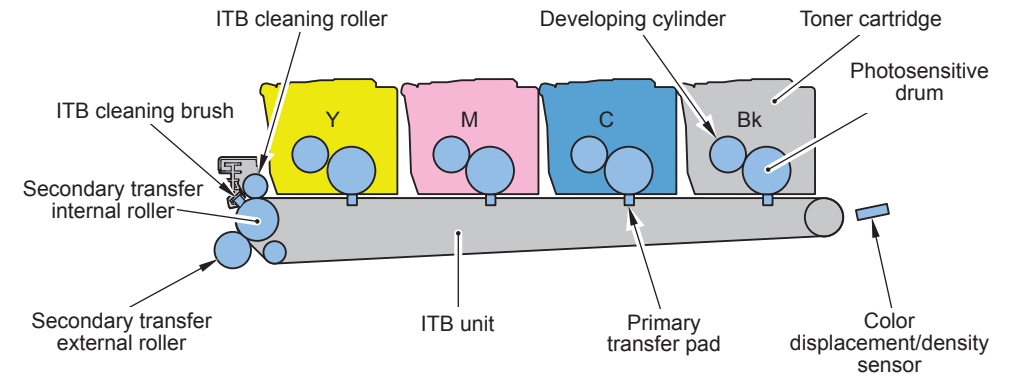
Parts

MF8350Cdn/8330Cdn



F-2-13

MF8050Cn/8030Cn



F-2-14

Image Forming Process

Overview

The image forming process of this product is composed roughly of 6 blocks and 9 steps.

Block	Step	Description	
Static latent image forming block	1	Primary charging	Charge the photosensitive drum surface negatively.
	2	Laser beam exposure	Form a static latent image on the photosensitive drum.
Development block	3	Development	Deposit toner to visualize the static latent image.
Transfer block	4	Primary transfer	Transfer the toner image on the photosensitive drum to the ITB.
	5	Secondary transfer	Transfer the toner image on the ITB to the paper.
	6	Separation	Separate the paper from the ITB.
Fixing block	7	Fixing	Fix the toner image on the paper.
ITB cleaning block	8	ITB cleaning	Clean the residual toner on the ITB.
Drum cleaning block	9	Drum cleaning	Clean the residual toner on the photosensitive drum.

T-2-8

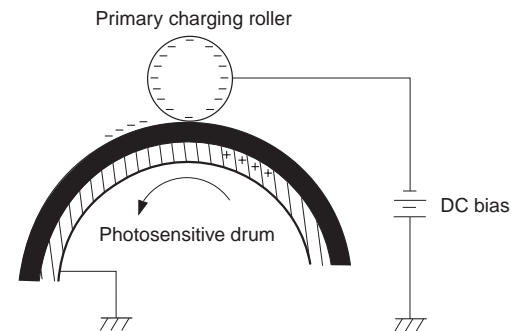
Static latent image forming block

This block consists of 2 steps to form a static latent image on the photosensitive drum.

Step 1: Primary charging

Before forming a static latent image, the photosensitive drum surface should be charged negatively.

This product employs the method to charge the photosensitive drum directly from the primary charging roller, applying the DC negative bias in order to negatively charge the photosensitive drum surface.

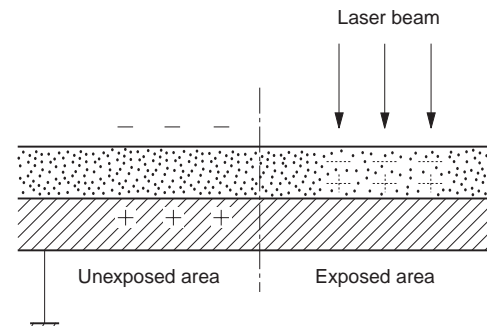


F-2-16

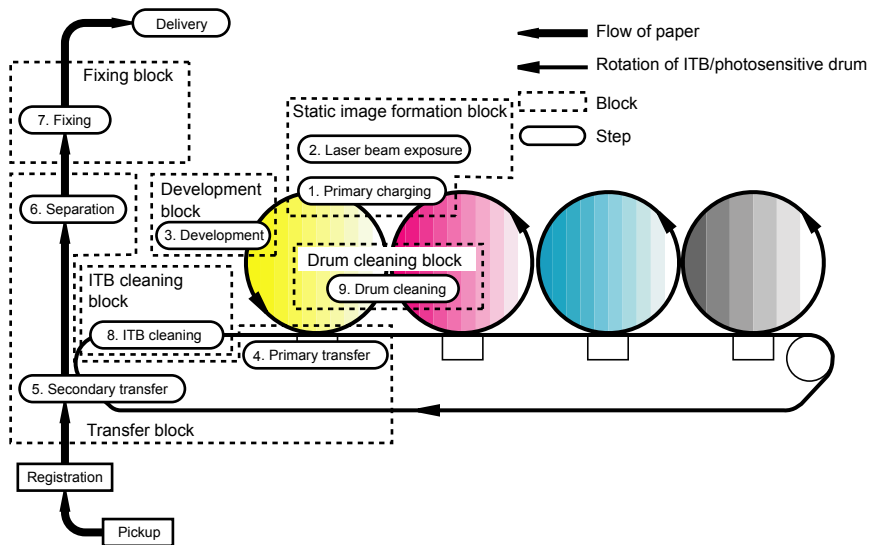
Step 2: Laser beam exposure

Expose the photosensitive drum with laser beams to form a static latent image.

The static latent image is formed by laser beam scanning that neutralizes or strips negative potentials on the scanned parts.



F-2-17



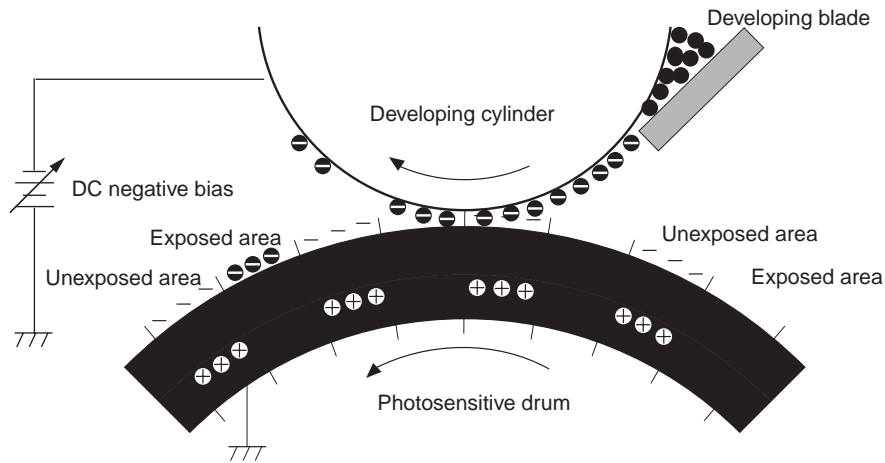
F-2-15

Development block

The static latent image formed on the photosensitive drum is visualized by toner deposited in this block.

Step 3: Development

Toner is deposited on the static latent image formed on the photosensitive drum. Toner is then charged negatively through friction between the developing cylinder and the developing blade surface. The DC bias is applied to the developing cylinder to generate potential difference from the photosensitive drum. When the negatively charged toner contacts the photosensitive drum, it is deposited on the static latent image due to potential difference between the drum and the developing cylinder.

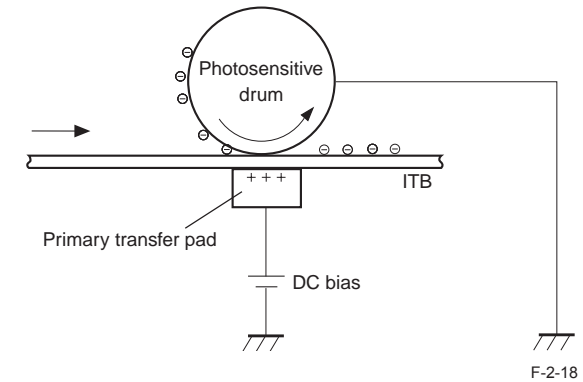


Transfer block

The toner image on the photosensitive drum is transferred to paper through 3 steps in this block.

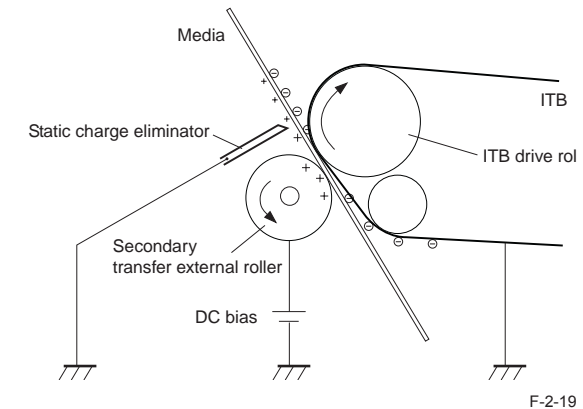
Step 4: Primary transfer

Transfer the toner image on the photosensitive drum to the ITB. The DC positive bias is applied to the primary transfer pad to charge the ITB positively. By this, the negatively charged toner on the photosensitive drum is transferred to the ITB.



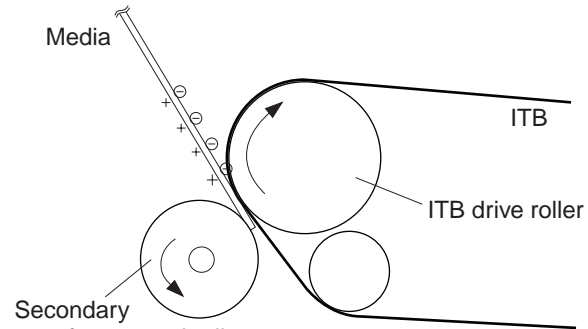
Step 5: Secondary transfer

Transfer the toner image on the ITB to paper. The DC positive bias is applied to the secondary transfer external roller to charge the paper positively. By this, the negatively charged toner image on the ITB is transferred to the paper.



● Step 6: Separation

Separate the paper from the ITB using paper elasticity and curvature of the ITB drive motor. To stabilize the paper delivery and image quality, use the static eliminator to decay the potential on the back of the paper after image transfer.



F-2-20

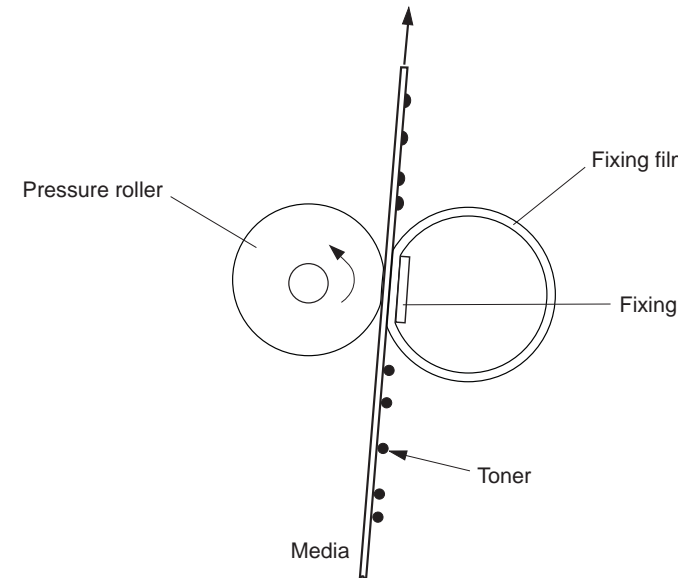
■ Fixing block

The toner image is fixed on the paper in this block.

● Step 7: Fixing

This product employs the on-demand fixing method.

By applying pressure and heat on the paper and the toner image on it, the toner is fused to develop the permanent image.



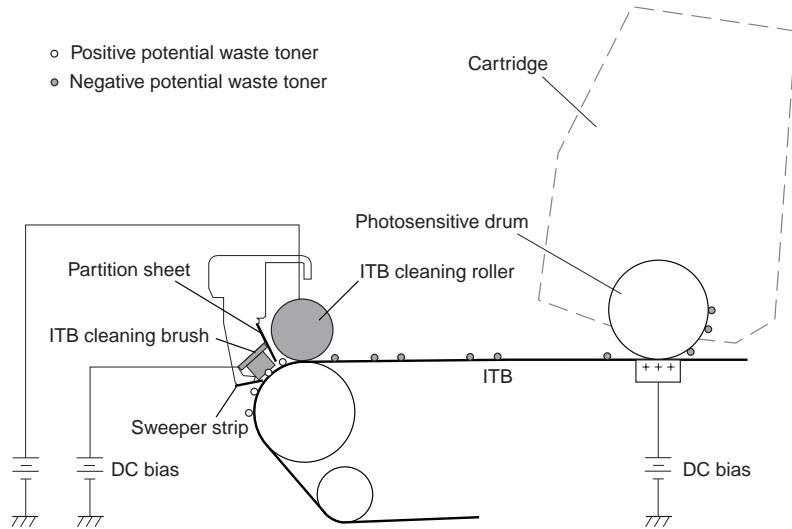
F-2-21

■ Cleaning block

The residual toner on the ITB surface is cleaned in this step.

● Step 8: ITB cleaning

The DC positive bias is applied to the ITB cleaning roller and the ITB cleaning brush to charge the collected toner positively. The positively charged collected toner is reversely transferred from the ITB to the photosensitive drum by the primary transfer pad.



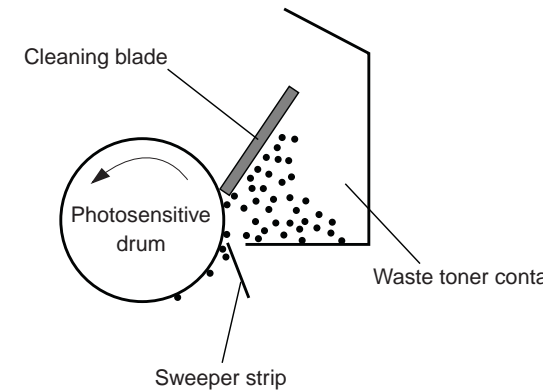
F-2-22

■ Cleaning block

The residual toner on the photosensitive drum is cleaned in this block.

● Step 9: Drum cleaning

The cleaning blade scrapes off the residual toner on the photosensitive drum to collect into the cleaner container. Now the photosensitive drum is cleaned.



F-2-23

Controls

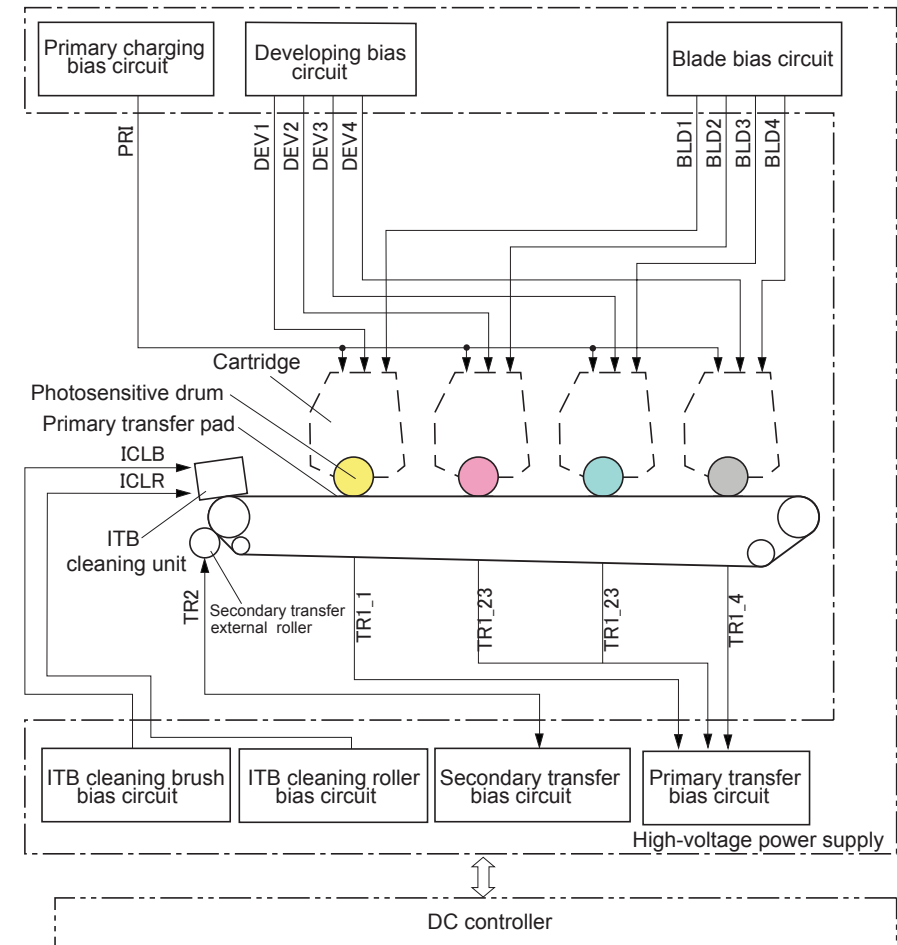
High-voltage power supply control

Overview

The high-voltage power supply PCBs are to apply high-voltage bias to the primary charging roller, the primary transfer pad, the secondary transfer external roller, and the ITB cleaning unit. Such high-voltage bias is generated through control by the DC controller on the high-voltage power supply PCBs.

The figure below shows the high-voltage power source schematically.

Type	Bias applied	Purpose	Applied to
Primary charging bias	DC negative	Charge the photosensitive drum surface negatively.	Primary charging roller (cartridge)
Developing bias	DC negative	Deposit toner on the static latent image formed on the photosensitive drum.	Developing cylinder (cartridge)
Blade bias	DC negative	Adjust the charged toner amount on the developing cylinder.	Developing blade (cartridge)
Primary transfer bias	DC negative	Transfer the toner image on the photosensitive drum to the ITB.	Developing blade (cartridge)
Secondary transfer bias	DC positive	Transfer the toner image on the ITB to the paper.	Secondary transfer external roller
	DC negative	Clean the secondary transfer external roller.	
ITB cleaning brush bias	DC positive	Charge the toner on the ITB positively.	ITB cleaning brush
ITB cleaning roller bias	DC positive	Charge the toner on the ITB positively.	ITB cleaning roller



F-2-24

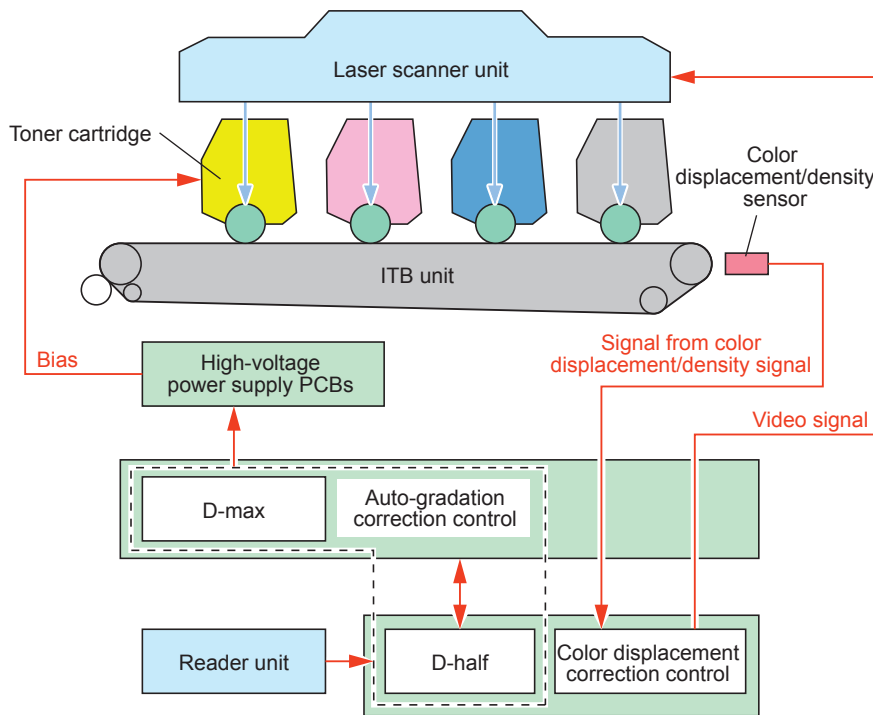
Image stabilization control

Overview

This product controls image stabilization to avoid faulty images due to environmental changes, deteriorated photosensitive drum or toner, etc. The controls listed in the table below are executed when needed to stabilize image quality.

Control	Description
D-max control	Correct values of the primary charging bias and/or developing bias based on signals from the environment sensor.
D-half control	Correct the gradation data in the main controller PCB based on signals from the color displacement / density sensor.
Color displacement correction control	Correct the video signal output timing based on signals from the color displacement / density sensor.
Auto-gradation control	To stabilize the image gradation density characteristics, users execute full or quick correction, or copy image correction.

T-2-9



F-2-25

Execution timing

The table below lists the execution timing and duration of each control.

No.	Execution timing	Duration		D-max	D-half	Color displacement correction	Remarks
		MF8300 series	MF8000 series				
1	Power-ON	Approx.195 seconds	Approx.120 seconds	○	○	○	Executed at initial rotation
2	Toner cartridge replacement	Approx.195 seconds	Approx.120 seconds	○	○	○	Executed at initial rotation
3	Environmental changes	Approx.195 seconds	Approx.120 seconds	○	○	○	Executed after job completion Detected by the environment sensor
4	After the pre-defined counts printed	Approx.195 seconds	Approx.120 seconds	○	○	○	Executed after job completion
5	After the pre-defined time elapsed	Approx.195 seconds	Approx.120 seconds	○	○	○	Executed after job completion
6	Resumed from sleep (after 8 hours or more)	Approx.100 seconds	Approx.60 seconds	○	○	-	Executed after job completion upon resumed
7	Full correction	Approx.100 seconds	Approx.60 seconds	○	○	-	Executed by users
8	Quick correction	Approx.100 seconds	Approx.60 seconds	○	○	-	
9	Copy image correction	Approx.100 seconds	Approx.60 seconds	○	○	-	

T-2-10

● Image density correction control (D-max control)

This control is to stabilize the print image density.

The DC controller PCB triggers D-max control under the pre-defined conditions.

1. Measure the density detection patterns for each color on the ITB.
2. To optimize the density of the measured patterns, control the primary charging bias and the developing bias.

The image density correction control is triggered under the conditions below.

- In the case of Menu > Adjustment/Cleaning > Auto Adjustment Settings > Auto Adjustment Image Regularly: OFF (default)
 - 1) At power ON (When the environmental change is great compared with the condition before turning OFF the power (more than +/-10 degC))
 - 2) When replacing the Toner Cartridge
 - 3) When the environmental change is great while not getting into the sleep state (more than +/-5 degC)
 - 4) After printing the specified number of sheet (every 500 sheets)
 - 5) After printing or after 300 min. since the execution of the image density correction
 - 6) At recovery from the sleep state (When the environmental change is great compared with the condition before getting into the sleep state (more than +/-10 degC))
 - 7) When the user commands execution of the calibration
- In the case of Menu > Adjustment/Cleaning > Auto Adjustment Settings > Auto Adjustment Image Regularly: ON, the operation of (1) and (6) mentioned in the above conditions will be as follow:
 - 1)' Must execute at power ON
 - 6)' Must execute at recovery from the 8-hour (or longer) sleep state

● Image gradation correction control (D-half control)

This control is to correct the gradation by the main controller PCB based on the half-tone density measured by the DC controller PCB.

Upon D-max control completed, the DC controller PCB and the main controller PCB enter the following steps of D-half control.

1. The DC controller PCB measures the density detection patterns on the ITB by applying the primary charging bias and the developing bias optimized through D-max control to send the density data to the main controller PCB.
2. The main controller PCB corrects gradation based on the density data to reproduce the ideal half-tone images.

● Color displacement control

This control is to correct color displacement due to variability of the laser units or toner cartridges.

The following displacements are corrected through this control.

- Horizontal scanning start position
- Horizontal scanning magnification
- Vertical scanning start position

The DC controller PCB controls the color displacement/density sensor and the color displacement sensor under the conditions below.

- In the case of Menu > Adjustment/Cleaning > Auto Adjustment Settings > Correct Color Mismatch when turned ON: OFF (default)
 - 1) When completing the first job after power ON
 - 2) When replacing the Toner Cartridge
 - 3) After printing the specified number of sheet (every 150 sheets)
 - 4) After the specified time has passed
 - MF8000 Series: only twice (100 min, and 300 min)
 - MF8300 Series: 60 min, after that every 240 min
 - 5) When completing the first job after recovering from the 8-hour (or longer) sleep state
 - 6) When the user commands execution of the color displacement correction
- In the case of Menu > Adjustment/Cleaning > Auto Adjustment Settings > Correct Color Mismatch when turned ON: ON, the operation of (1) and (5) mentioned in the above conditions will be as follow:
 - 1)' At power ON, execute before executing a job
 - 5)' At recovery from the 8-hour (or longer) sleep state, execute before executing a job

This control follows the sequence below.

- 1) The DC controller computes the color displacement degree for each color based on the color displacement detection patterns measured on the ITB. The computed color displacement data is sent to the main controller.
- 2) The main controller controls the video signals for each color based on the data received from the DC controller to adjust the horizontal scanning start position, the horizontal scanning magnification and the vertical scanning start position.

In addition to the above, the DC controller PCB on the printer engine controls the scanner motor speed to correct the color displacement in the vertical scanning direction.

Scanning magnification

This refers to the size of the image in the horizontal scanning direction.

The laser path length is dependent on the photosensitive drums independently included in each toner cartridge. This causes color displacement at the trailing edge due to cartridge-dependent image area in the horizontal scanning direction.

● Auto-gradation correction control

This control is to stabilize the image gradation density characteristic.

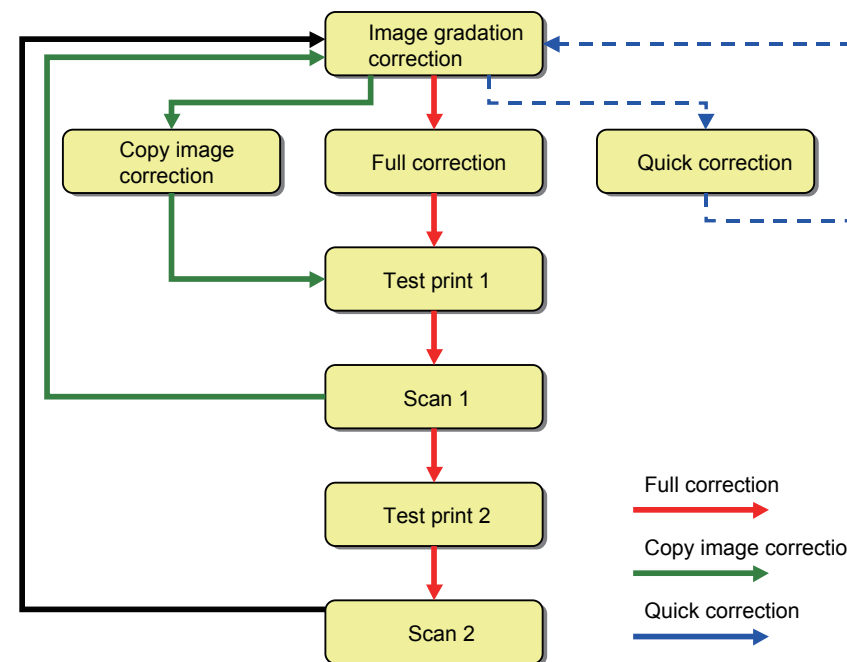
To execute this control, go to “Adjustment / Cleaning > Auto-gradation correction” in User mode.

This control is performed in the following 3 approaches.

Item	Description	Test pattern	
		Output sheets	Type
Full correction (PASCAL)	Gradation is corrected based on the gradation density read on output test patterns by the reader.	2 sheets	1: for error diffusion process 2: for screen
Quick correction	Gradation is corrected by D-half control not using output test patterns.	-	-
Copy image correction	Gradation of copy images is corrected based on the gradation density read on output test pattern by the reader.	1 sheet	for for error diffusion process

Operational flow

Gradation is corrected either in the 3 approaches above in the following flow.



F-2-26

■ Toner cartridges

● Developing cylinder contact control

The control makes the developing cylinder engagement / disengagement to the photosensitive drum as required in the specified print mode (full color or monochrome). By controlling the developing cylinder engagement to the photosensitive drum only when needed, this control effectively prevents the photosensitive drums from being deteriorated to maximize the service life.

The DC controller actuates the motor (MF8300: Developing motor, MF8000: Main motor) to switch the direction of the engagement / disengagement cam to contact / separate the developing cylinder to / from the photosensitive drum.

The DC controller controls the developing cylinder (engagement / disengagement) by regulating the main motor rotation upon detecting signals from the development home position sensor.

The state of the Developing Cylinder for each color (engagement / disengagement) differs depending on the condition of the Main Body.

Condition of the Main Body	Y	M	C	Bk
Power OFF/Standby	Disengagement			
Monochrome print	Disengagement			Engagement
full-color print	Engagement			

T-2-11

Related Error Code

- E015-000 (Error in developing roller contact)

Failed to detect changes in developing home position sensor signals within the pre-defined time after actuating motor (MF8300: Developing motor, MF8000: Main motor) to control the developing roller contact.

■ Transfer unit

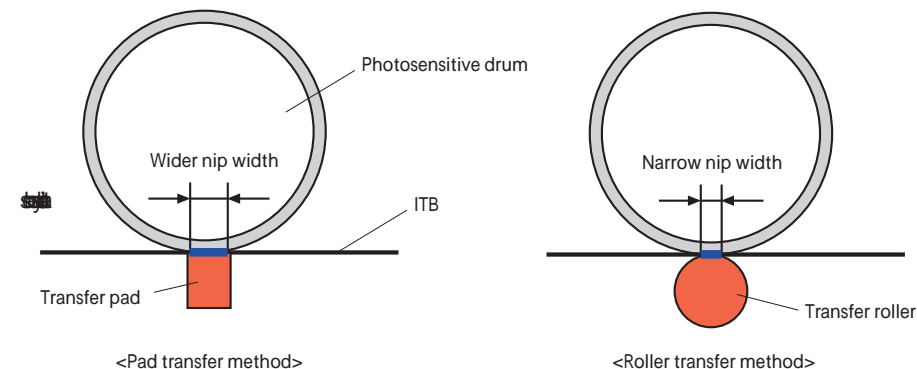
● Pad transfer method

This product employs the pad transfer method in the primary transfer mechanism.

Enhanced image stabilization is achieved by replacing the conventional transfer roller with the transfer pad. The characteristic of the pad transfer method is:

- It maintains the wider nip to the photosensitive drum to increase transferability.

The figures below show the difference between the pad transfer method and the conventional roller transfer method



Service Tasks

■ Action for Parts Replacement

No work is required at parts replacement of this product.

■ Maintenance

No periodically replaced parts, durable parts or periodical service work is set for this product.

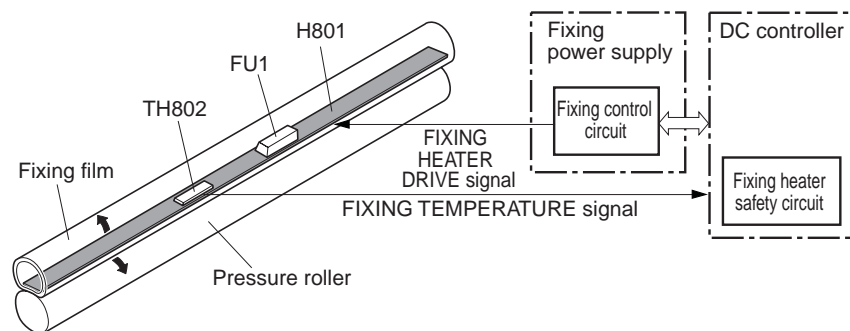
■ Notes on Field Service

Fixing System

Overview

The fixing power supply controls temperatures of the Fixing Assembly.

This product employs the on-demand fixing method in the Fixing Assembly. The figure below shows the structure schematically.



F-2-27

Name	MF8300	MF8000	Role
Fixing heater	100V	H100	T801 To heat the fixing film
	120V	H120	
	230V	H220	
Main thermistor	TH801	TH802	To detect the fixing heater temperature (center of the heater, contact thermistor)
Sub thermistor 1	TH802	-	To detect the fixing heater temperature (heater ends, contact thermistor)
Sub thermistor 2	TH803	-	
Temperature fuse	FU1		To prevent abnormal temperature rise in the fixing heater

T-2-12

The temperature fuse is attached to the center of the fixing heater.

When the fixing heater comes to be abnormally hot, the temperature fuse is open to shut off the power supply to the fixing heater.

The thermistor detects the fixing heater temperature to input the temperature detection signal to the DC controller. Note that temperatures at heater ends are not detected in models of MF8000 series with slower print speed.

The temperatures in the whole fixing assembly are controlled by the fixing control circuit and the fixing heater safety circuit based on commands from the DC controller.

Controls

Fixing Speed Control

Reduction of Throughput Based on Detected Temperature of Sub Thermistor

Paper interval extension time is determined based on the detected temperature of the Sub Thermistor.

Paper interval extension time determined by the detected temperature of the Sub Thermistor is added to the paper interval extension time derived from the paper width detection result and paper length detection result.

Detection of temperature by the Sub Thermistor is performed when the Delivery Sensor turns OFF.

When the Paper Width Sensor is ON, reduction of throughput based on the detected temperature of the Sub Thermistor is not executed.

Temperature of Sub Thermistor: Tx	Paper interval (sec)
T1	3
T2	6
T3	9
T4	15

Note :

- With MF8000 series, this control is not executed since detection of temperature by the Sub Thermistor is not performed.
- Temperature of Sub Thermistor: $T1 < T2 < T3 < T4$

Reduction of Throughput Based on Environment Temperature

When 17 deg C or lower is detected: reduce throughput for heavy paper 1 and 2 from 6 ppm to 5 ppm

When 13 deg C or lower is detected: reduce throughput for B&W from 12 ppm to 10 ppm

Note:

This control is executed only for MF8000 series.

Reduction of Throughput by Feeding Small Size Paper

Note :

When paper size is specified by user, paper interval is increased from the 2nd sheet of the job.

When a sensor detects that the paper size is small, paper interval is increased from 3rd or 4th sheet of the job.

MF8300 Series

Based on the combination of detection result of the Pre-registration Detection Sensor and detection result of paper length (L), paper interval extension time is determined according to the table shown below.

Category	Paper type
(1)	Plain paper (environment temperature is 18 deg C or lower), heavy paper 1, heavy paper 2
(2)	Plain paper (environment temperature is higher than 18 deg C), heavy paper 3, label paper
(3)	Others

T-2-13

Pre-registration Detection Sensor	Paper length (L)	Paper interval extension time (seconds)		
		(1)	(2)	(3)
ON	-	0 (Not extended)		
OFF	L >= 270 mm	10	8	6
	L < 270mm	8	4	2

T-2-14

MF8000 Series

When small standard size paper other than A4 or LTR or custom paper size which paper width is less than 195 mm is specified, throughput is reduced according to the number of prints.

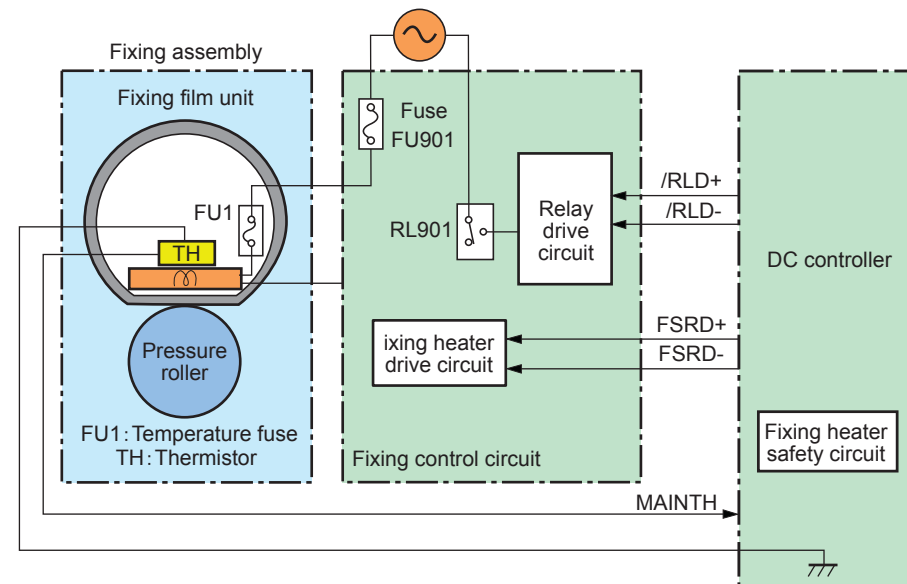
Paper Type	Print speed				
	1-5 sheets	6-10 Sheets	11-20 sheets	21-50 sheets	50 sheets
Plain paper1 (60 to 74g/m ²) Plain paper2 (75 to 90g/m ²)	8	6	5.5	4	2
Thick paper1(91 to 120 g/m ²) Thick paper2 (121 to 163 g/m ²)	6	5	5	2	2
Coated paper 1(100 to 110g/m ²)	5.5	5	5	2	2
Coated paper 2(120 to 130g/m ²)	5	5	5	2	2
Coated paper 3(155 to 165g/m ²)	4	4	4	2	2

T-2-15

Fixing temperature control

The fixing control circuit controls temperatures of the fixing heater to attain the respective target temperatures.

The figure below shows this circuit schematically.



F-2-28

The DC controller monitors the fixing heater temperature detection signal (MAINTH) to output the respective fixing heater drive signals (FSRD+, FSRD-) depending on the detected temperatures. The fixing heater drive circuit controls the fixing heater based on the output signal to attain the target temperature in the fixing heater.

1) Start-up temperature control

This controls the fixing heater warm-up to the target temperature.

Different temperatures are targeted depending on elapsed time after the last print job, paper types or the environment.

2) Printing temperature control

This controls the fixing film temperature during printing to maintain the target.

Different temperatures are set in the fixing film depending on paper types.

3) Sheet-to-sheet temperature control

This control lowers the sheet-to-sheet fixing heater temperature during continuous printing in the low-speed mode to prevent temperature rise on the pressure roller.

Different sheet-to-sheet temperatures are set depending on sheet intervals or paper types.

Protective Control

This control is to detect abnormal temperature rise in the fixing assembly to shut off power supply to the fixing heater.

This product has the following 3 protective controls to prevent abnormal temperature rise in the fixing assembly.

- DC controller
- Fixing heater safety circuit
- Temperature fuse

The descriptions below are the details of each protective control.

1) DC controller

When DC Controller monitors temperature of the central thermistor of the fixing heater and exceeds the pre-defined temperature, which is thought abnormally high temperature, therefore the drive signal (FSRD+, FSRD-) of the fixing heater is stopped outputting and the relay is turned off and the power distribution to the heater is stopped.

2) Fixing heater safety circuit

This circuit detects abnormal temperatures in the center of the fixing heater to shut off power supply to the heater.

3) Temperature fuse

When the temperature of the fixing heater abnormally rises, the temperature fuse is open to shut off power supply to the heater.

- 226 deg C or higher detected at the temperature fuse.

Failure detection

The DC controller determines failures of the fixing assembly under conditions below to stop the fixing heater drive signal output (FSRD+, FSRD-) and shut off relay and power supply to the heater. At the same time, it notifies the failure occurrence to the main controller.

1) Start-up failure detection

- The thermistor temperature does not exceed startup temperature 1 within the pre-defined time after start-up of the heater from the waiting status.
- The thermistor temperature does not exceed startup temperature 2 within the pre-defined time after reaching startup temperature 1 upon start-up of the heater from the waiting status.
- The thermistor temperature does not reach the target temperature within the pre-defined time after heater temperature control during initial rotation.

[Related error code]

E000-0000

2) Abnormally high temperature failure

- The thermistor temperature remains at pre-defined temperature or higher for the pre-defined time.

[Related error code]

E001-0000 main thermistor

E001-0001 sub thermistor (MF8300 Series only)

3) Abnormally low temperature failure

- The thermistor temperature remains at pre-defined temperature or lower within the pre-defined time after heater temperature control during printing.

[Related error code]

E003-0000 main thermistor

E003-0001 sub thermistor (MF8300 Series only)

4) Fixing heater drive circuit failure

- The zero-cross signal has not been detected for a certain times within the pre-defined time after power-ON.
- ned time after power-ON.
- The zero-cross signal is detected after power-ON but has not been detected continuously within the pre-defined time during printing.

[Related error code]

E004-0000

Service Works

■ At parts replacement

No work is required for this product at parts replacement.

■ Maintenance

No periodically replaced parts, durable parts or periodical service is set for this product.

■ Notes on service works

When removing the fixing assembly, perform the operation after the fixing assembly is surely cooled. The fixing assembly just after printing may cause burn injury.

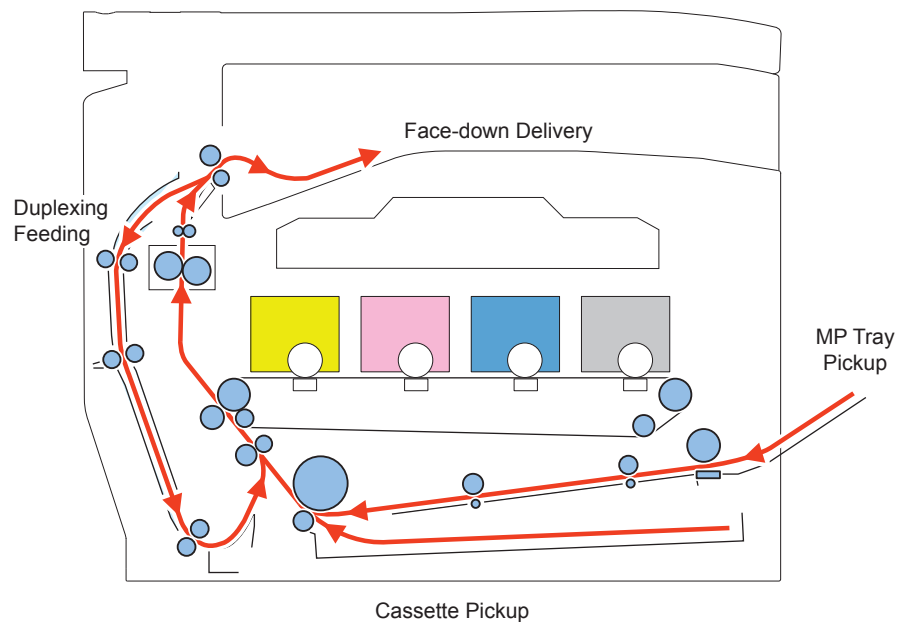
Pickup / Feed System

Overview

The Pickup / Feed System is responsible for paper pickup and delivery, made up with multiple rollers.

The figure below shows the structure of the Pickup/Feed System schematically.

MF8300 Series



<Pickup slot>

- Cassette
- MP tray

<Delivery slot>

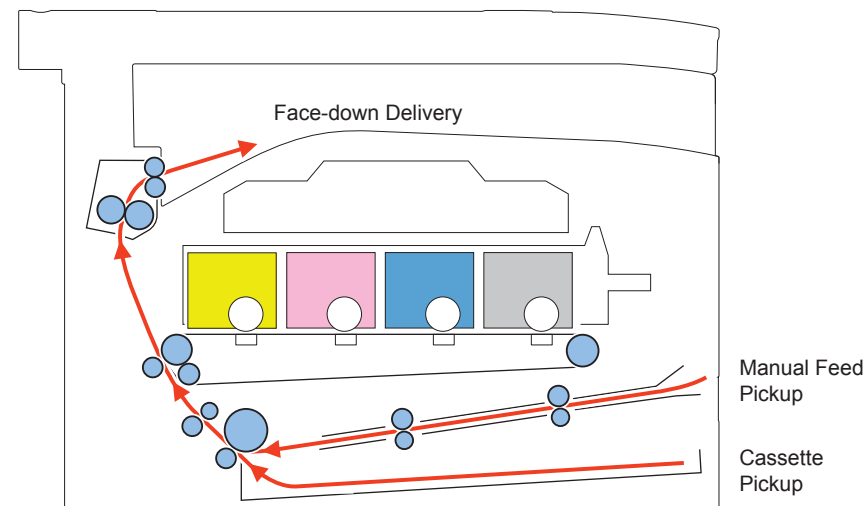
- Face-down tray

<Automatic 2-sided>

- Available

F-2-29

MF8000 Series



<Pickup slot>

- Cassette
- Manual feed slot

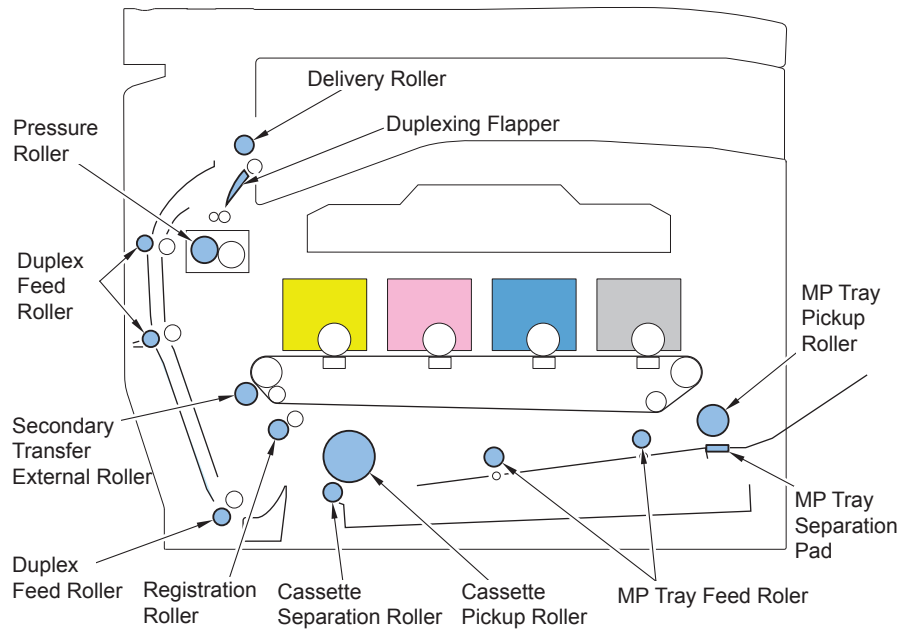
<Delivery slot>

- Face-down tray
- <Automatic 2-sided>
- Not Available

F-2-30

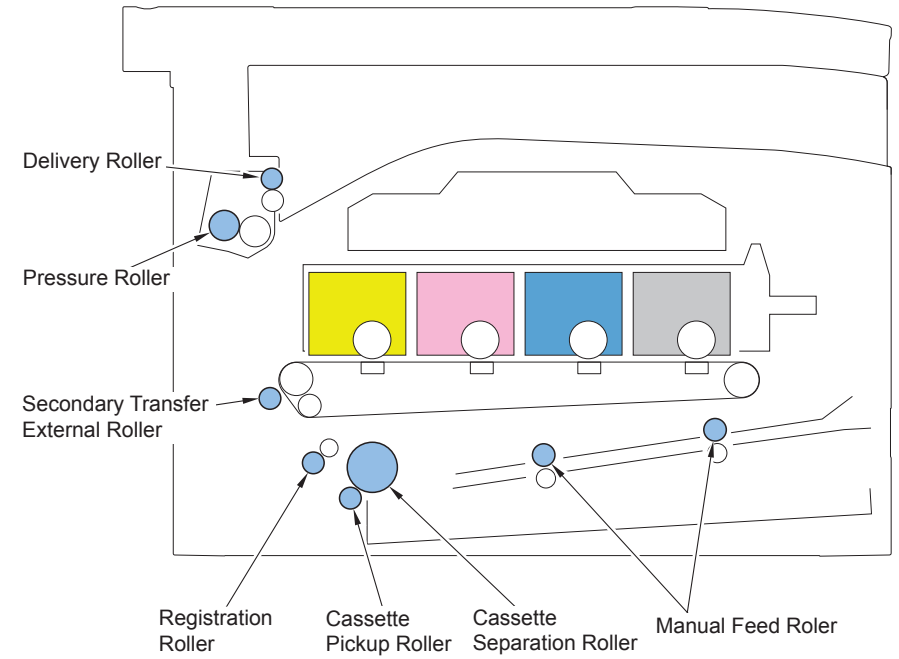
Parts Configuration

MF8300 Series



F-2-31

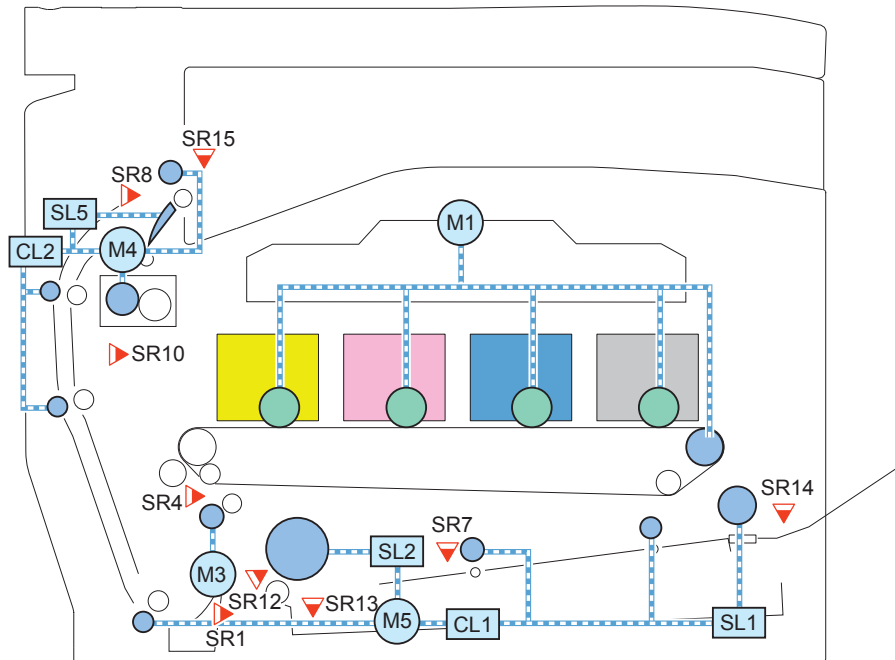
MF8000 Series



F-2-32

Drive Configuration

MF8300 Series

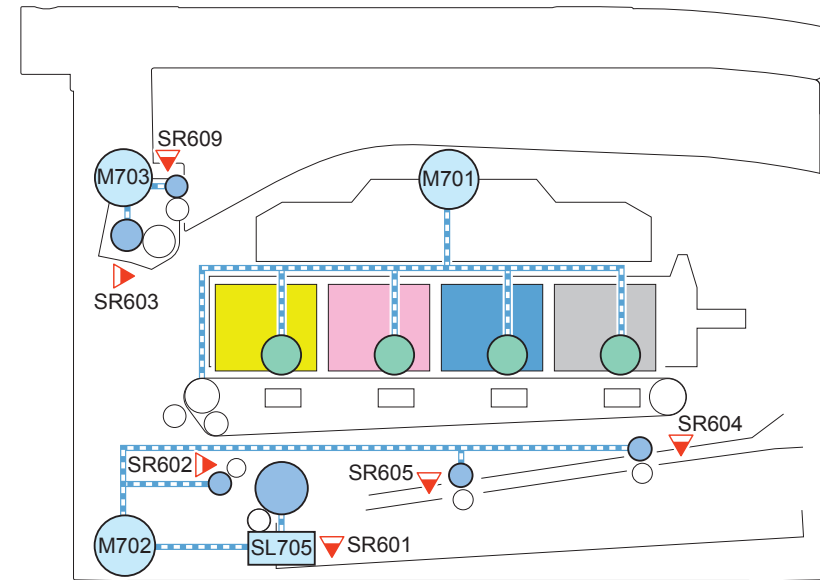


F-2-33

Symbol	Name	Symbol	Name
M1:	Drum Motor	SR1:	Paper feeder pre-registration sensor
M3:	Registration Motor	SR4:	Registration sensor
M4:	Fixing Motor	SR7:	MP tray pre-registration sensor
M5:	Pickup Motor	SR8:	Fixing delivery sensor
SL1:	MP Tray Pickup Solenoid	SR10:	Fixing arch sensor
SL2:	Cassette Pickup solenoid	SR12:	Pre-registration sensor
SL5:	Duplex reversal solenoid	SR13:	Cassette paper sensor
CL1:	MP Tray Feeding Clutch	SR14:	MP tray paper sensor
CL2:	Duplex feeding clutch	SR15:	Delivery full sensor

T-2-16

MF8000 Series



F-2-34

Symbol	Name	Symbol	Name
M701:	Main Motor	SR601:	Cassette paper sensor
M702:	Pickup Motor	SR602:	Registration sensor
M703:	Fixing Motor	SR603:	Fixing arch sensor
SL705:	Cassette pickup solenoid	SR604:	Manual feed paper sensor
		SR605:	Manual feed pre-registration sensor
		SR609:	Fixing delivery sensor

T-2-17

Controls

■ Cassette paper feed

● Roller separation method

This product employs the separation roller method to avoid multi-feeding.

This method prevents multiple sheets from being fed by the driven separation roller. The separation roller is driven by the pickup roller.

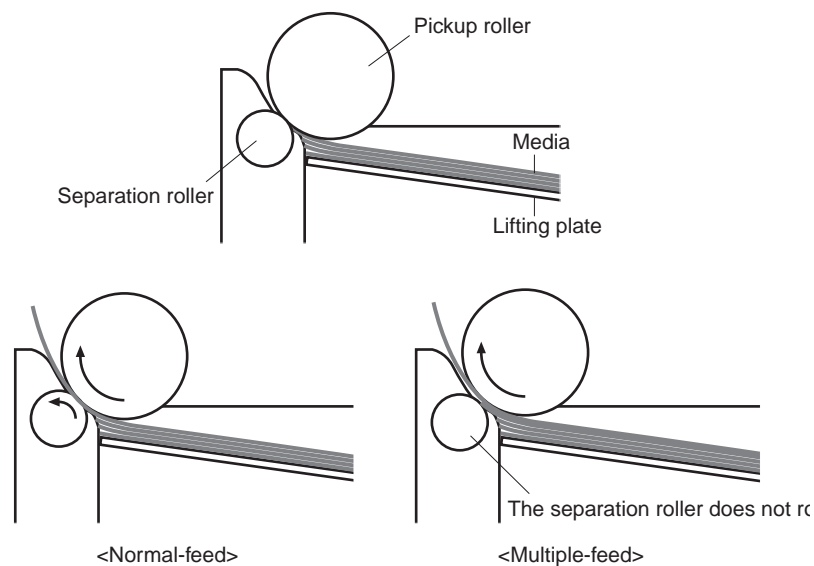
<When normally operated>

The separation roller is driven by the pickup roller to feed paper. By this, the separation roller rotates in the paper feed direction.

<When multiple sheets are fed>

Multiple sheets weaken friction between rollers, decaying the driving force conveyed from the pickup roller to the separation roller. This product has the mechanism to regulate the separation roller rotation, which stops the roller rotation at multi-feeding under weaker driving force conveyed from the pickup roller. This enables to avoid multi-feeding.

The figure below shows the multi-feeding prevention mechanism employed in this product.



F-2-35

■ Jam detection

● Overview

This product has the paper sensors as listed below to detect paper level and paper feed status.

- Registration sensor
- MP tray pre-registration sensor (MF8300 Series only)
- Manual feed pre-registration sensor (MF8000 Series only)
- Fixing delivery sensor
- Fixing arch sensor
- Pre-registration sensor (MF8300 Series only)
- Cassette paper sensor
- MP tray paper sensor (MF8300 Series only)
- Delivery full sensor (MF8300 Series only)
- Paper feeder pre-registration sensor (MF8300 Series only)

The following jams are detected in this product.

1. Pickup delay jam 1
2. Pickup delay jam 2 (MF8300 Series only)
3. Pickup stationary jam
4. Fixing / delivery delay jam
5. Delivery stationary jam
6. Fixing seizure jam
7. Internal paper remaining jam
8. Duplex re-pickup jam (MF8300 Series only)
9. Open door jam

● Delay jams

Pickup delay jam 1

This occurs when the leading edge of the paper is not detected by the registration sensor^{*} from the start of image formation to re-pickup.

^{*}: MF8300: SR4, MF8000: SR602

Pickup delay jam 2 (MF8300 Series only)

This occurs when the leading edge of the paper is not detected by the MP tray pre-registration sensor (SR7) within the pre-defined duration after the paper is fed from the multi-purpose tray.

Fixing / delivery delay jam

This occurs when the leading edge of the paper is not detected by the fixing delivery sensor^{*1} within the pre-defined duration after re-pickup; or when the leading edge of the paper is not detected by the delivery full sensor^{*2} during the pre-defined duration after the trailing edge of the paper is detected by the registration sensor.

^{*1}: MF8300: SR8, MF8000: SR609

^{*2}: MF8300: SR15

● Stationary jams

Pickup stationary jam

This occurs when the trailing edge of the paper is not detected by the registration sensor^{*} within the pre-defined duration after re-pickup.

^{*}: MF8300: SR4, MF8000: SR602

Fixing / delivery stationary jam

This occurs when the trailing edge of the paper is not detected by the fixing delivery sensor^{*2} within the pre-defined duration after the trailing edge of the paper is detected by the registration sensor^{*1}.

^{*1}: MF8300: SR4, MF8000: SR602

^{*2}: MF8300: SR8, MF8000: SR609

● Other jams

Fixing seizure jam

This occurs when the fixing / delivery sensor (SR8) detected the leading edge of the paper but the sensor went off before starting the fixing / delivery stationary detection.

^{*}: MF8300: SR8, MF8000: SR609

Internal paper remaining jam

When the sensor below detects "Paper Sensor" before-and-after Power on, Door close, Print operation.

< MF8300 Series >

- Paper feeder pre-registration sensor (SR1)
- Registration sensor (SR4)
- MP tray pre-registration sensor (SR7)
- Fixing delivery sensor (SR8)
- Fixing arch sensor (SR10)
- Pre-registration sensor (SR12)

< MF8000 Series >

- Registration sensor (SR602)
- Fixing arch sensor (SR603)
- Manual feed pre-registration sensor (SR605)
- Fixing delivery sensor (SR609)

Duplex re-pickup jam (MF8300 Series only)

This occurs when the leading edge of the paper is not detected by the registration sensor (SR4) within the pre-defined duration elapsed from starting reversing.

Open door jam

This occurs when any of sensors detected paper in the device and the door opening is detected during print jobs.

Service Works

■ At parts replacement

No work is accompanied with parts replacement.

■ Maintenance

No periodically replaced parts, durable parts or periodical service is set for this product.

■ Notes on service works

No periodically



Periodical Services

- Periodically Replaced Parts
- Durable Parts
- Periodical Services
- Cleaning

Periodically Replaced Parts

No periodically replaced parts is set for this product.

Durable Parts

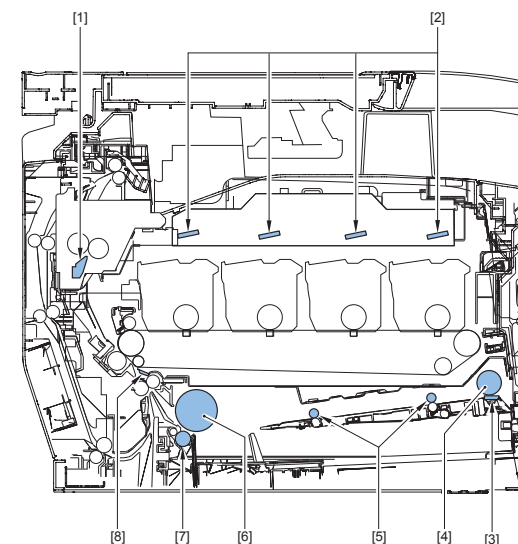
No durable parts is set for this product.

Periodical Services

No periodical service is set for this product.

Cleaning

- MF8350/8330 series

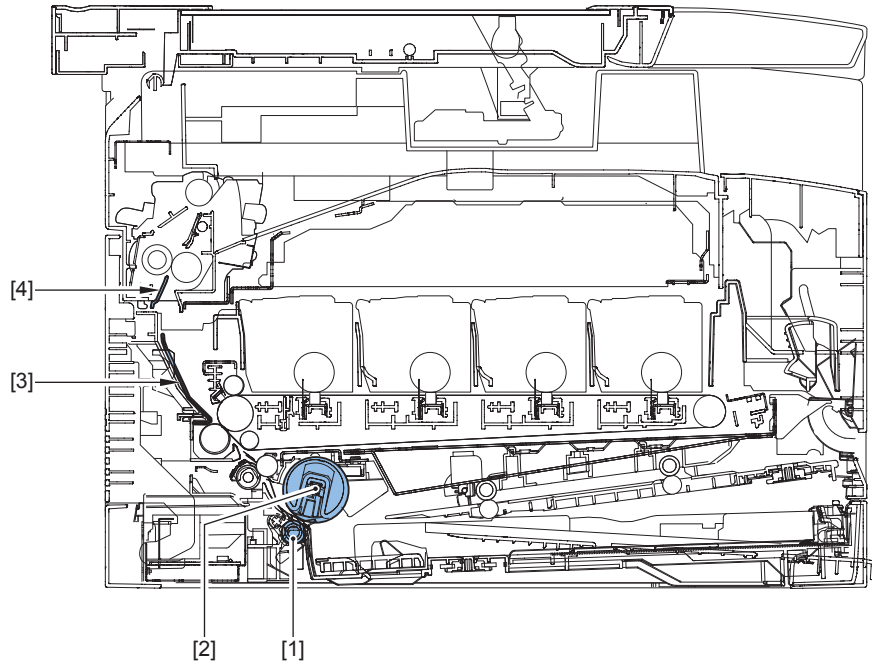


F-3-1

Cleaning parts		Procedure
1	Fixing front guide	Clean with lint-free paper. For heavy soils, use alcohol to wipe off with lint-free paper.
2	Laser beam window glass	Clean with lint-free paper.
3	Multi-purpose tray separation pad	Clean with lint-free paper. For heavy soils, use alcohol to wipe off with lint-free paper.
4	Multi-purpose tray pickup roller	
5	Multi-purpose tray feed roller	
6	Cassette pickup roller	
7	Cassette separation roller	
8	Registration upper guide	Clean with lint-free paper.

MF8050/8030 series

T-3-1



F-3-2

Cleaning parts		Procedure
1	Pickup roller	Clean with lint-free paper. For heavy soils, use alcohol to wipe off with lint-free paper.
2	Separation roller	
3	Paper feed guide	
4	Fixing front guide	

T-3-2

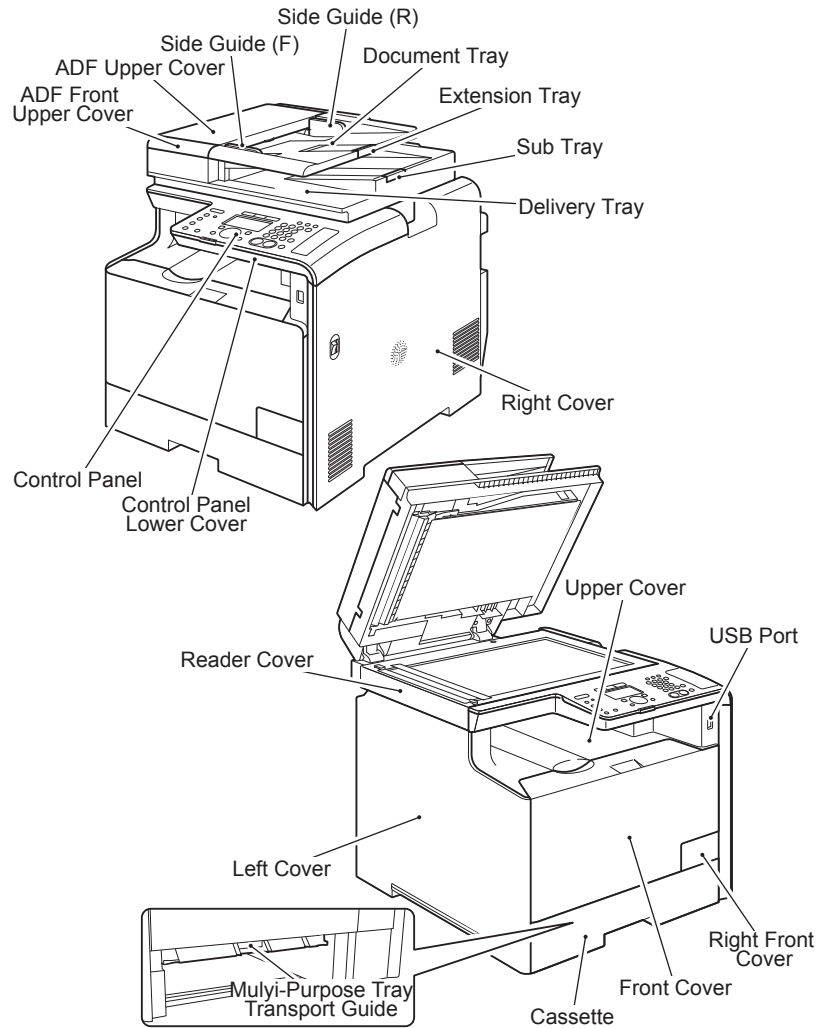
4

Disassembly/ Assembly

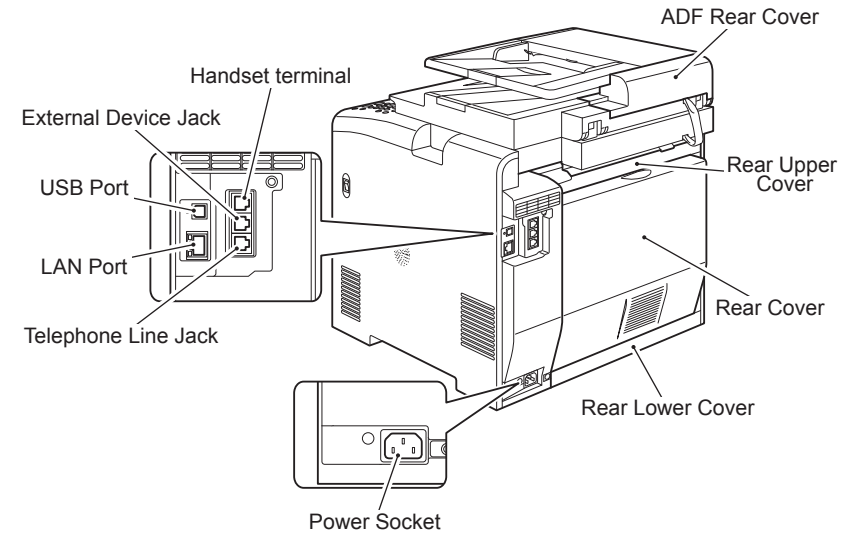
- MF8300 Series
 - List of Parts
 - External Cover, Internal Cover
 - Document Exposure, Feed System
 - Controller System
 - Laser Exposure System
 - Image Formation System
 - Fixing System
 - Pickup Feeder System
- MF8000 Series
 - List of Parts
 - External Cover, Internal Cover
 - Document exposure/ feeder system
 - Controller System
 - Laser Exposure System
 - Image Formation System
 - Fixing System
 - Pickup Feeder System

MF8300 series

List of Parts

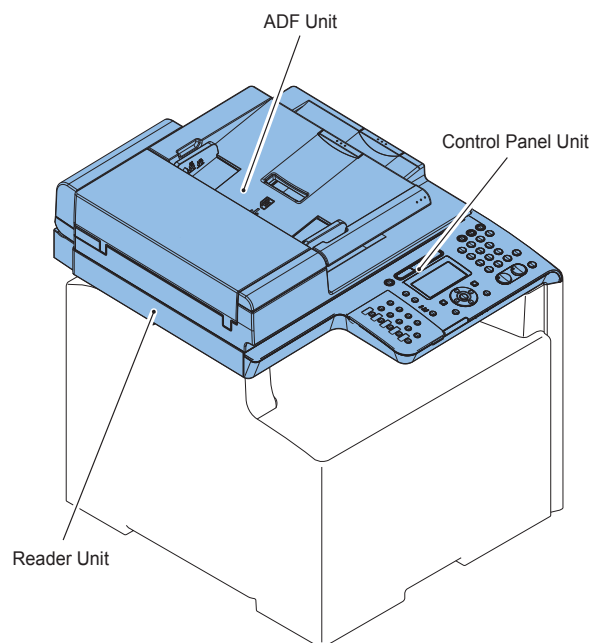


F-4-1



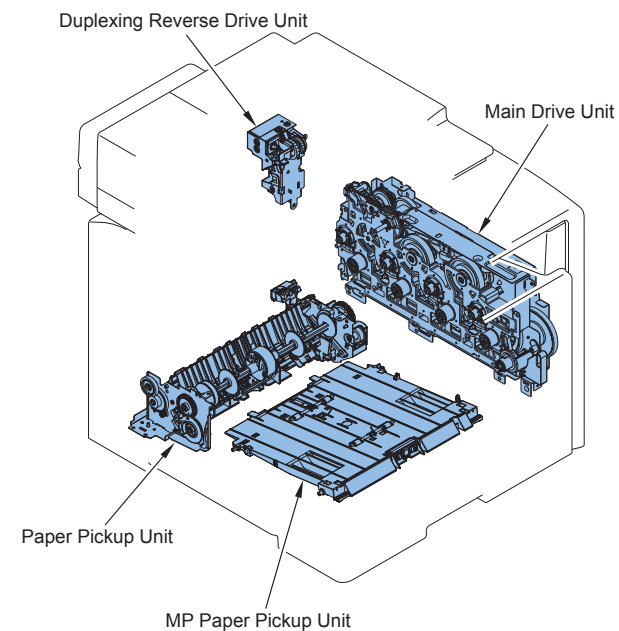
F-4-2

List of Main Unit



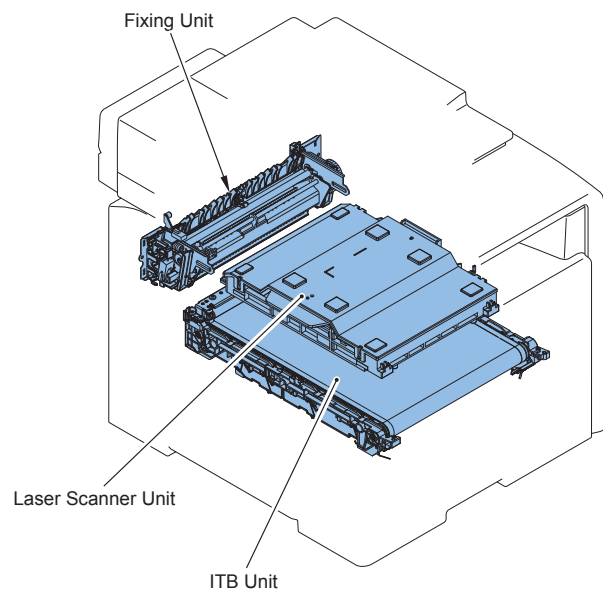
F-4-3

Name	Reference	Adjustment during parts replacement
ADF Unit	Refer to page 4-33 Refer to page 4-34	Refer to page 5-3
Reader Unit	Refer to page 4-33 Refer to page 4-34	Refer to page 5-3
Control Panel Unit	Refer to page 4-71	-



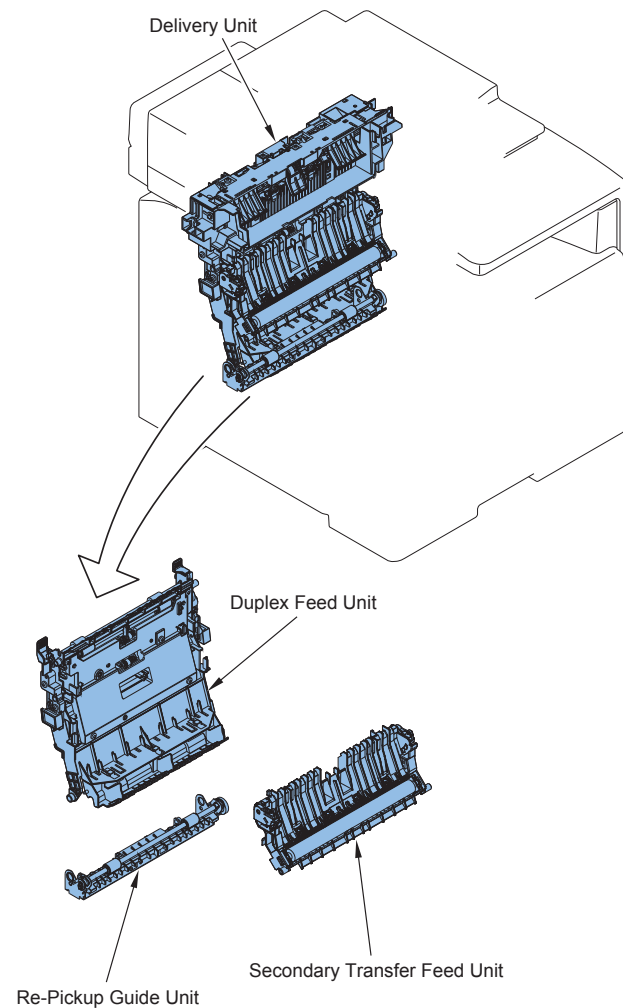
F-4-4

Name	Reference	Adjustment during parts replacement
Main Drive Unit	Refer to page 4-75	-
Duplexing Reverse Drive Unit	Refer to page 4-82	-
Paper Pickup Unit	Refer to page 4-117	-
MP Paper Pickup Unit	Refer to page 4-122	-



F-4-5

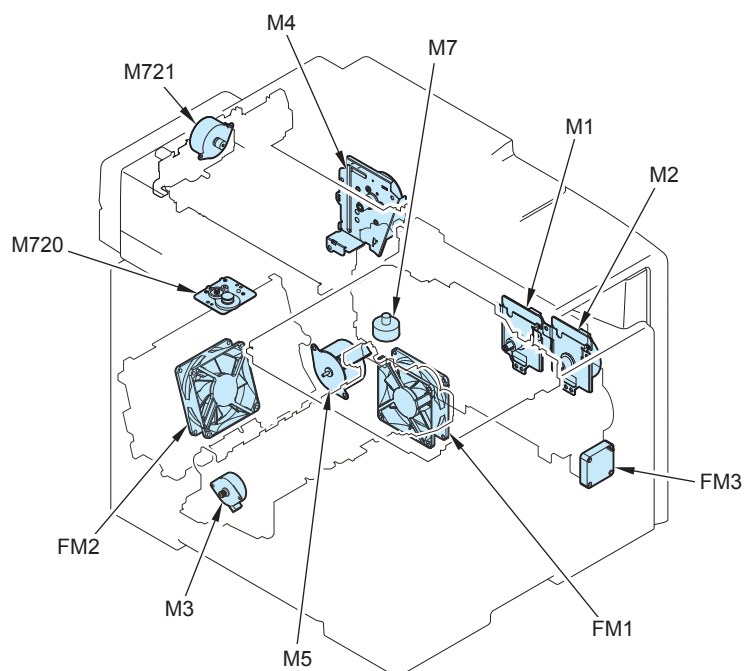
Name	Reference	Adjustment during parts replacement
Fixing Unit	Refer to page 4-103	-
Laser Scanner Unit	Refer to page 4-89	Refer to page 5-7
ITB Unit	Refer to page 4-95	-



F-4-6

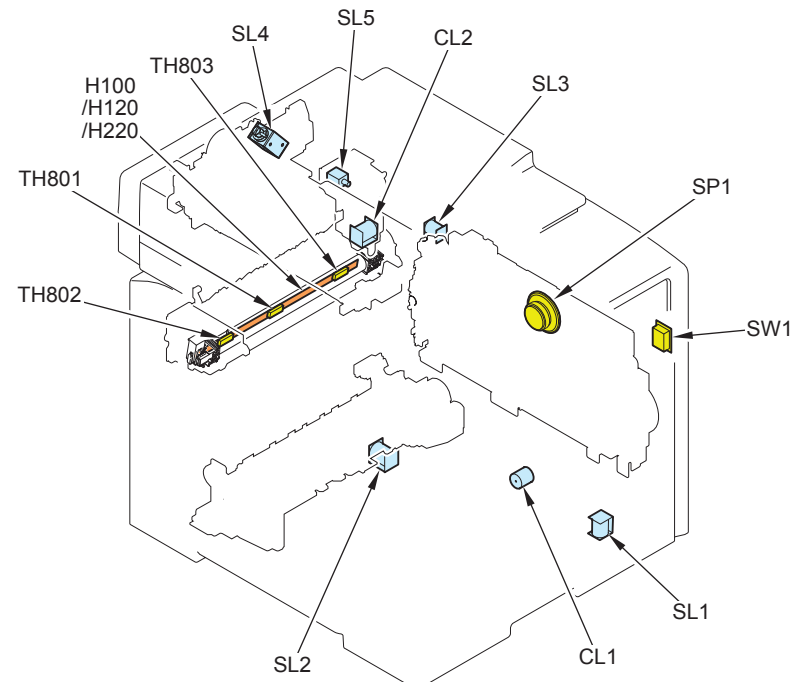
Name	Reference	Adjustment during parts replacement
Secondary Transfer Feed Unit	Refer to page 4-124	-
Delivery Unit	Refer to page 4-125	-
Duplex Feed Unit	Refer to page 4-126	-
Re-Pickup Guide Unit	Refer to page 4-127	-

List of Motor/Fan



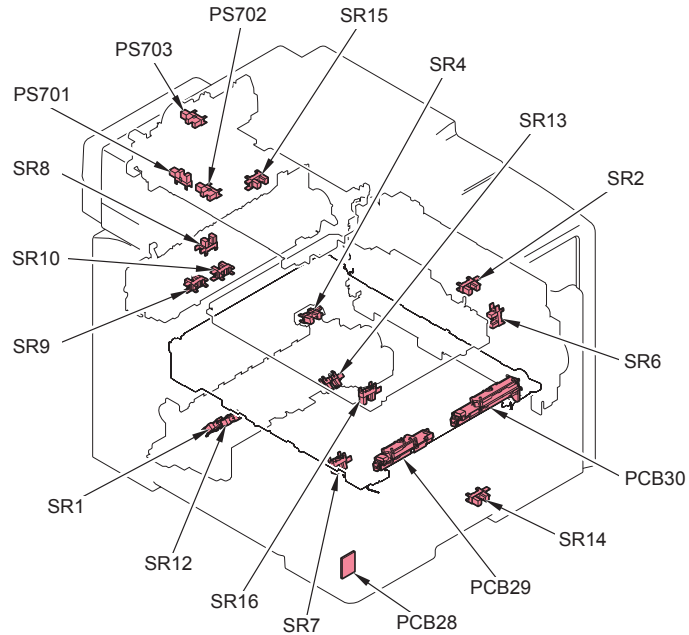
No.	Name	Main Unit	Reference	Adjustment during parts replacement
FM1	Fixing /Fixing Power Supply Cooling Fan	Product configuration	Refer to page 4-85	-
FM2	Duplex Cooling Fan	Multi-purpose Feed Unit	Refer to page 4-86	-
FM3	Low Voltage Unit Cooling Fan	Product configuration	Refer to page 4-83 (MF8350 / MF8330 only)	-
M1	Drum Motor	Main Drive Unit	Refer to page 4-98	-
M2	Developing Motor	Main Drive Unit	Refer to page 4-100	-
M3	Registration Motor	Pickup Unit	-	-
M4	Fixing Motor	Product configuration	Refer to page 4-109	-
M5	Pickup Motor	Product configuration	Refer to page 4-115	-
M7	Laser Scanner Motor	Laser Scanner Unit	Refer to page 4-89	Refer to page 5-7
M720	Reader Motor	Reader Unit	Refer to page 4-55	-
M721	ADF Motor	ADF Unit	Refer to page 4-49	-

List of Clutch / Solenoid/Heater/Thermistor/Switch/speaker



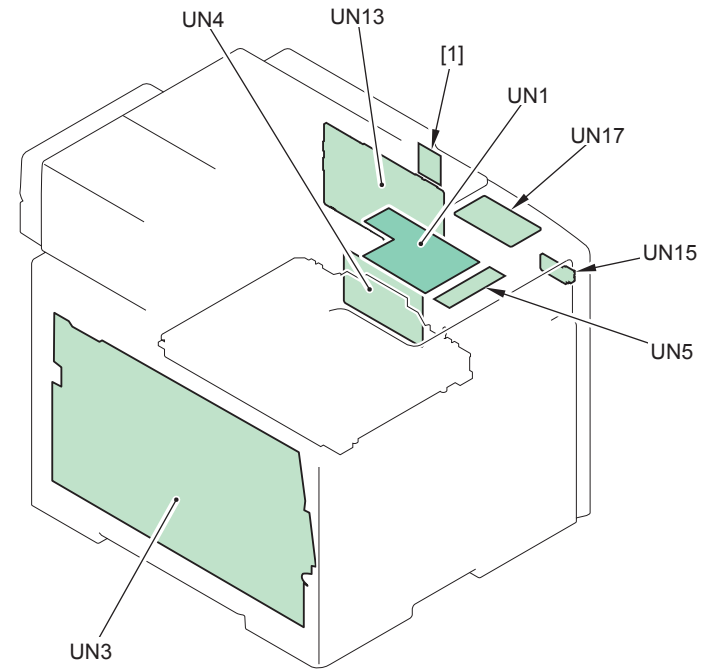
No.	Name	Main Unit	Reference	Adjustment during parts replacement
H100	Fixing Heater (100V)	Fixing Assembly	-	-
H120	Fixing heater (120V)	Fixing Assembly	-	-
H220	Fixing heater (230V)	Fixing Assembly	-	-
TH801	Main Thermistor	Fixing Assembly	-	-
TH802	Sub Thermistor 1	Fixing Assembly	-	-
TH803	Sub Thermistor 2	Fixing Assembly	-	-
SP1	Speaker	Product configuration	Refer to page 4-88	-
CL1	MP Tray Feeding Clutch	Product configuration	-	-
CL2	Duplex Feeding Clutch	Duplex Reversing Drive Unit	-	-
SL1	MP Tray Pickup Solenoid	Product configuration	-	-
SL2	Cassette Pickup Solenoid	Pickup Unit	-	-
SL3	Developing Separation Solenoid	Main Drive Unit	-	-
SL4	Duplex Reverse Solenoid	Main Drive Unit	-	-
SL5	Duplex Reversal Solenoid	ADF Unit	-	-
SW1	Main Power Switch	Product configuration	-	-

List of Sensor



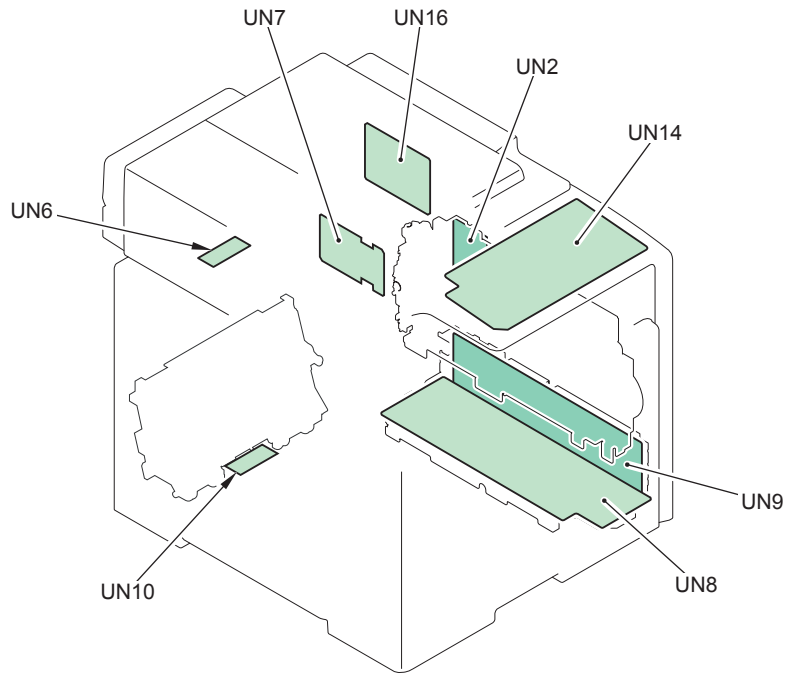
No.	Name	Main Unit ^{F-4-9}
PCB28	Environment Sensor	Product configuration
PCB29	Patch Sensor	Product configuration
PCB30	Patch Registration Sensor	Product configuration
PS701	CIS Unit Homeposition Sensor	Product configuration
PS702	Document Sensor	ADF Unit
PS703	Document End Sensor	ADF Unit
SR1	Paper Feeder Pre-Registration Detection Sensor	Pickup Unit
SR2	Front Cover Sensor	Product configuration
SR4	Registration Detection Sensor	Pickup Unit
SR6	Developing Homeposition Sensor	Product configuration
SR7	MP Tray Pre-Registration Detection Sensor	Product configuration
SR8	Fixing Delivery Sensor	Fixing Assembly
SR9	Fixing Pressure Release Sensor	Fixing Assembly
SR10	Fixing Loop Sensor	Fixing Assembly
SR12	Pre-registration Detection Sensor	Pickup Unit
SR13	Cassette Paper Detection Sensor	Pickup Unit
SR14	MP Tray Paper Detection Sensor	Product configuration
SR15	Delivery Full Sensor	Delivery Unit
SR16	ITB Pressure Release Sensor	ITB Unit

PCB



F-4-10

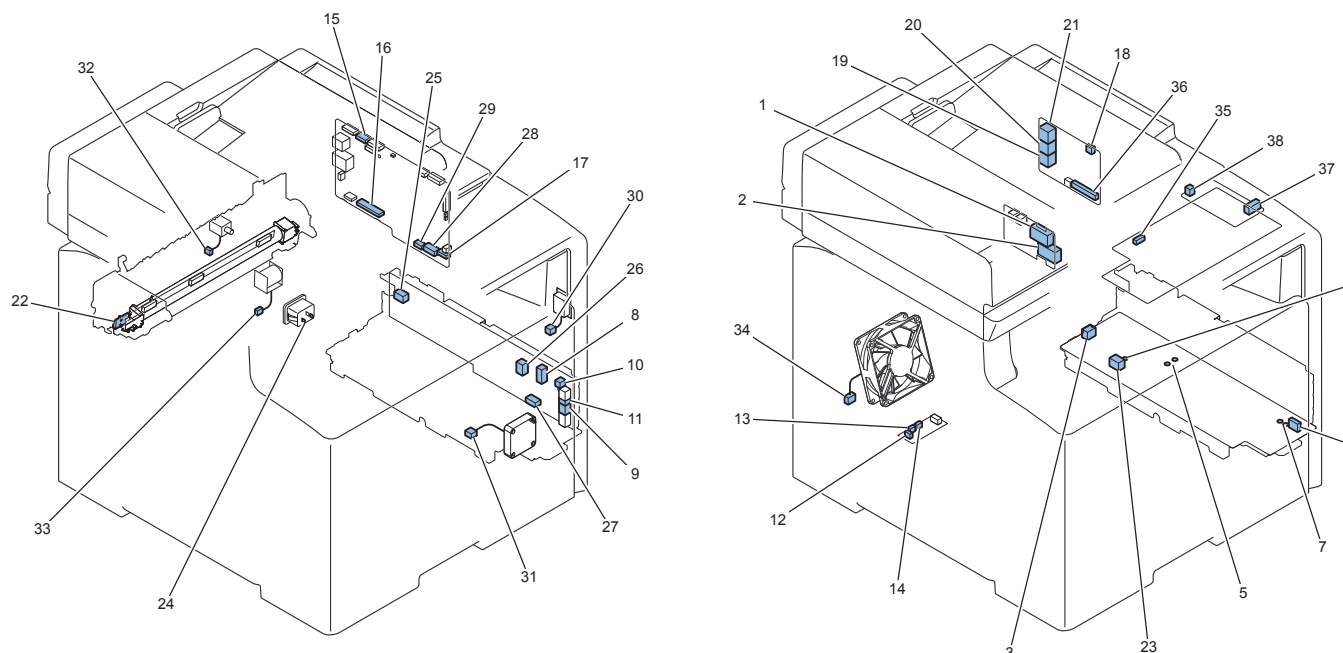
No.	Name	Main Unit	Reference	Adjustment during parts replacement
UN1	DC Controller PCB	Product configuration	Refer to page 4-63	Refer to page 5-7
UN3	High Voltage PCB	Product configuration	Refer to page 4-65	-
UN4	Laser Driver PCB	Laser Scanner Unit	Refer to page 4-89	Refer to page 5-7
UN5	Relay PCB	Product configuration	Refer to page 4-70	-
UN13	Main Controller PCB	Product configuration	Refer to page 4-61	Refer to page 5-6
UN17	Off Hook PCB	Product configuration	-	-
[1]	Wireless LAN PCB	Product configuration	MF8380 only	-



F-4-11

No.	Name	Main Unit	Reference	Adjustment during parts replacement
UN2	Driver PCB	Product configuration	-	-
UN6	Fixing Relay PCB	Product configuration	-	-
UN7	Fixing Sub PCB	Product configuration	Refer to page 4-68	-
UN8	Low Voltage Main PCB	Product configuration	Refer to page 4-67	-
UN9	Low Voltage Sub PCB	Product configuration	Refer to page 4-67	-
UN10	Duplex Driver PCB	Product configuration	Refer to page 4-69	-
UN16	FAX-NCU PCB	Product configuration	Refer to page 4-74	-

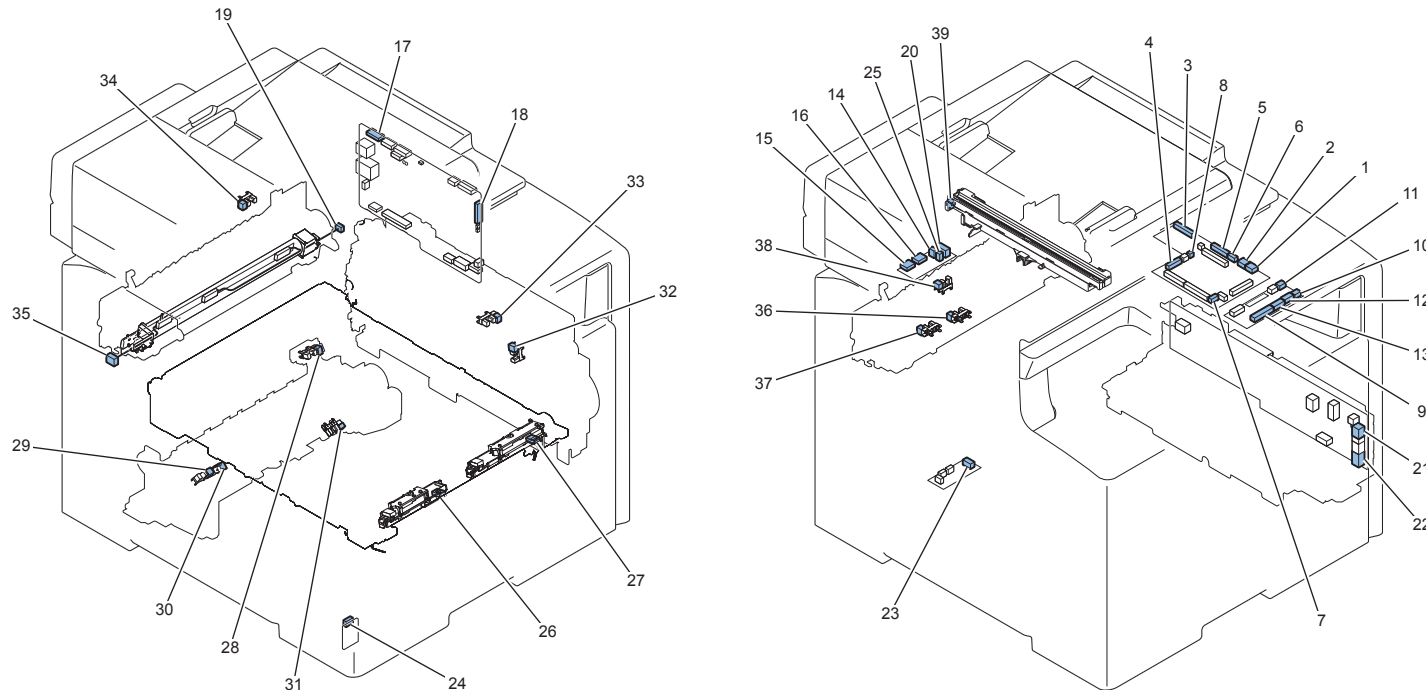
List of Connector (MF8350 / MF8330)



F-4-12

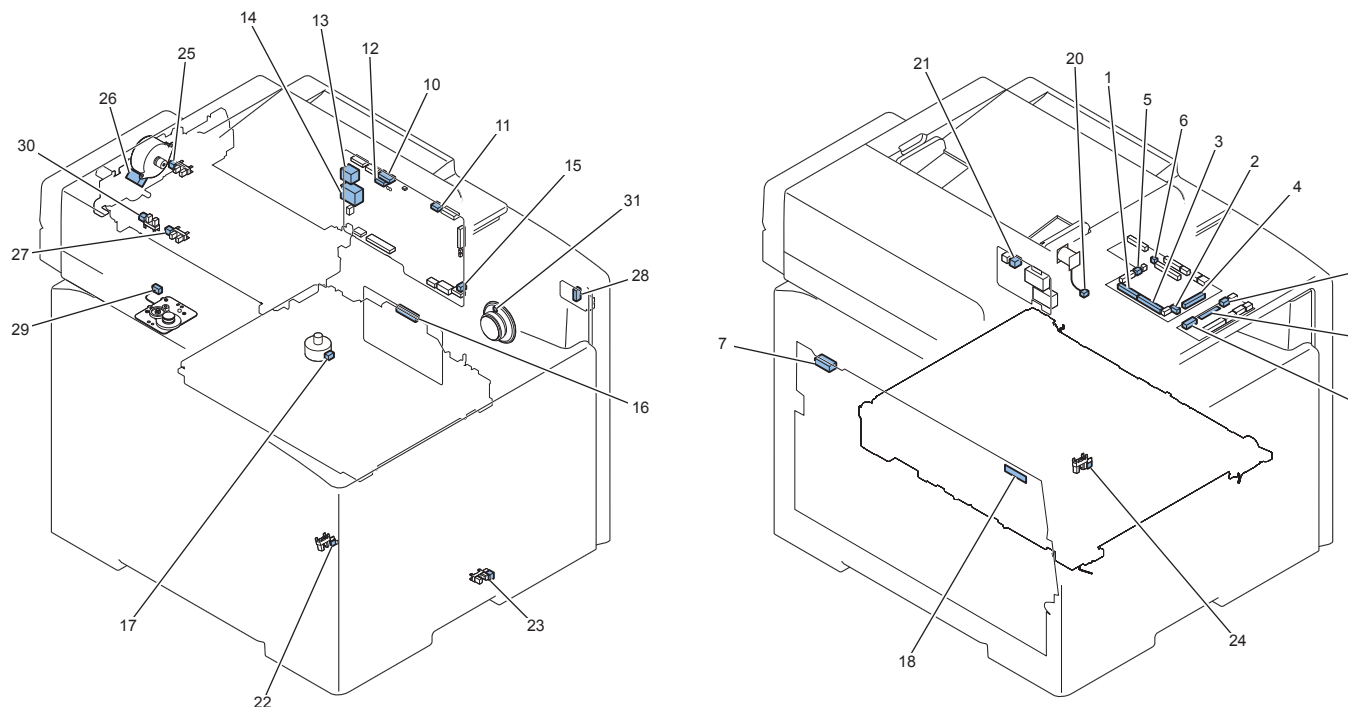
KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector			KeyNo.	J No.	Electric symbol	Electric parts name	REMARKS
1	J651	UN7	Fixing Sub PCB	J4003F	J4003M		22	J1301	H100	Fixing Heater(100V)	
1	J651	UN7	Fixing Sub PCB	J4003F	J4003MA		22	J1301A	H120	Fixing Heater(120V)	
1	J651	UN7	Fixing Sub PCB	J4003F	J4003MB		22	J1301B	H230	Fixing Heater(230V)	
2	J652	UN7	Fixing Sub PCB				23	J311	UN8	Low Voltage Main PCB	
3	J301B	UN8	Low Voltage Main PCB				24	J6002	-	INLET	200V
4	J321	UN8	Low Voltage Main PCB	J322	J323		-	-	UN16	FAX-NCU PCB	
5	J381	UN8	Low Voltage Main PCB				25	J386	UN9	Low Voltage Sub PCB	
5	J382	UN8	Low Voltage Main PCB				25	J386	UN9	Low Voltage Sub PCB	
6	J383	UN8	Low Voltage Main PCB				26	J387	UN9	Low Voltage Sub PCB	
7	J384	UN8	Low Voltage Main PCB				27	J388	UN9	Low Voltage Sub PCB	
7	J385	UN8	Low Voltage Main PCB				27	J388	UN9	Low Voltage Sub PCB	
8	J351	UN9	Low Voltage Sub PCB				28	J914	UN13	Main Controller PCB	
9	J352	UN9	Low Voltage Sub PCB				29	J915	UN13	Main Controller PCB	
10	J391	UN9	Low Voltage Sub PCB	J1391D	J1391DH		30	J1391L	SW1	Main Power Switch	
11	J392	UN9	Low Voltage Sub PCB	J5001D	J5001DH		31	J5001L	FM3	Low Voltage Unit Cooling Fan	
12	J703	UN10	Duplex Driver PCB				32	-	SL5	Duplex Reversal Solenoid	
13	J704	UN10	Duplex Driver PCB				33	-	CL2	Duplex Feeding Clutch	
14	J705	UN10	Duplex Driver PCB				34	-	FM2	Duplex Cooling Fan	

KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector				KeyNo.	J No.	Electric symbol	Electric parts name	REMARKS
15	J913	UN13	Main Controller PCB					35	J952	UN14	Operation Panel PCB	
16	J918	UN13	Main Controller PCB					36	J931	UN16	FAX-NCU PCB	
17	J921	UN13	Main Controller PCB					37	J6011	UN17	Off Hook PCB	
18	J932	UN16	FAX-NCU PCB					38	J602	UN17	Off Hook PCB	
19	J933	UN16	FAX-NCU PCB					-	-	-	-	
20	J934	UN16	FAX-NCU PCB					-	-	-	-	
21	J935	UN16	FAX-NCU PCB					-	-	-	-	

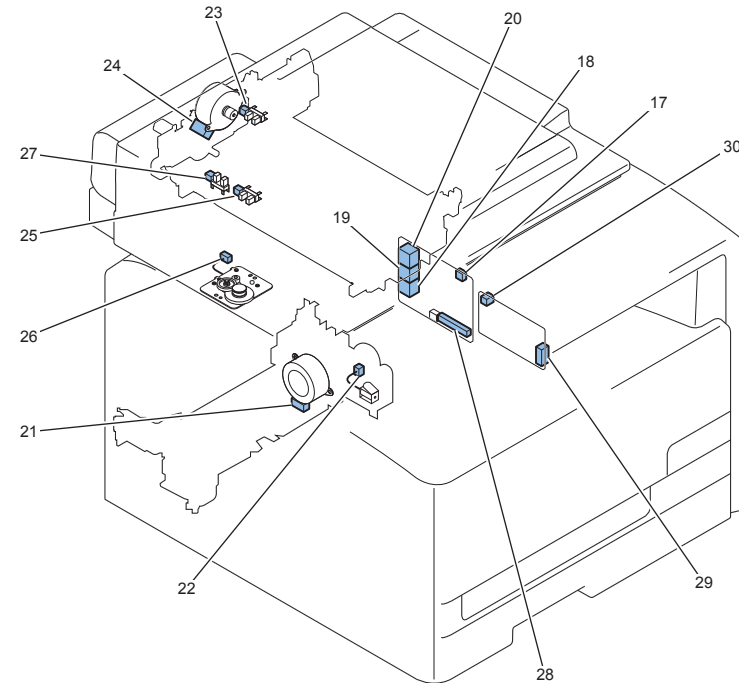
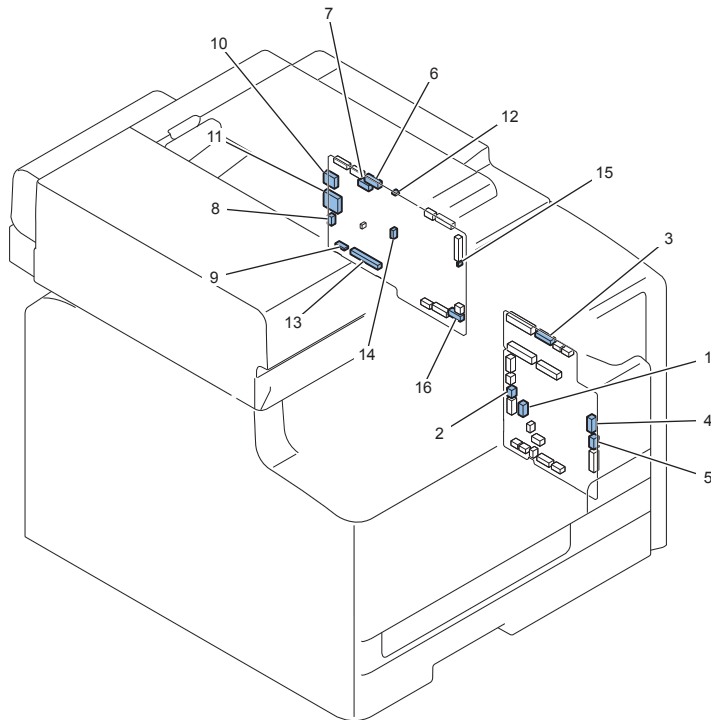


KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector		KeyNo.	J No.	Electric symbol	Electric parts name F-4-13	REMARKS
1	J110	UN1	DC Controller PCB			-	-	-	IOT	
2	J111	UN1	DC Controller PCB			-	-	-	Flash Writer	
3	J130	UN1	DC Controller PCB			18	J912	UN13	Main Controller PCB	
4	J150	UN1	DC Controller PCB	J4001D	J4001DH	19	J4001L	TH801	Main Thermistor	
4	J150	UN1	DC Controller PCB	J4001D	J4001DH	19	J4001L	TH802	Sub Thermistor 1	
4	J150	UN1	DC Controller PCB			20	J707	UN6	Fixing Relay PCB	
5	J151	UN1	DC Controller PCB			21	J361	UN9	Low Voltage Sub PCB	
5	J151	UN1	DC Controller PCB			22	J362	UN9	Low Voltage Sub PCB	
6	J152	UN1	DC Controller PCB			23	J701	UN10	Duplex Driver PCB	
7	J153	UN1	DC Controller PCB			24	J3015	PCB28	Environment Ssensor	
8	J157	UN1	DC Controller PCB			25	J706	UN6	Fixing Relay PCB	
9	J161	UN5	Relay PCB			26	J601	PCB29	Patch Sensor	
9	J161	UN5	Relay PCB			27	J611	PCB30	Patch Registration Sensor	
10	J163	UN5	Relay PCB			28	J3011	SR4	Registration Detection Sensor	
11	J164	UN5	Relay PCB			29	J3002	SR1	Paper Feeder Pre-Registration Detection Sensor	
12	J165	UN5	Relay PCB			30	J3003	SR12	Pre-Registration Detection Sensor	
12	J165	UN5	Relay PCB			31	J3004	SR13	Cassette Paper Detection Sensor	
13	J166	UN5	Relay PCB			32	J3001	SR6	Developing Homeposition Sensor	

KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector				KeyNo.	J No.	Electric symbol	Electric parts name	REMARKS
13	J166	UN5	Relay PCB					33	J3005	SR2	Front Cover Sensor	
14	J708	UN6	Fixing Relay PCB					34	J4018	SR15	Delivery Full Sensor	
15	J709	UN6	Fixing Relay PCB					35	-	TH803	Sub Thermistor 2	
16	J710	UN6	Fixing Relay PCB					36	J3012	SR10	Fixing Loop Sensor	
16	J710	UN6	Fixing Relay PCB					37	J3013	SR9	Fixing Pressure Release Sensor	
16	J710	UN6	Fixing Relay PCB					38	J3014	SR8	Fixing Delivery Sensor	
17	J901	UN13	Main Controller PCB					39	J409	-	CIS Unit	

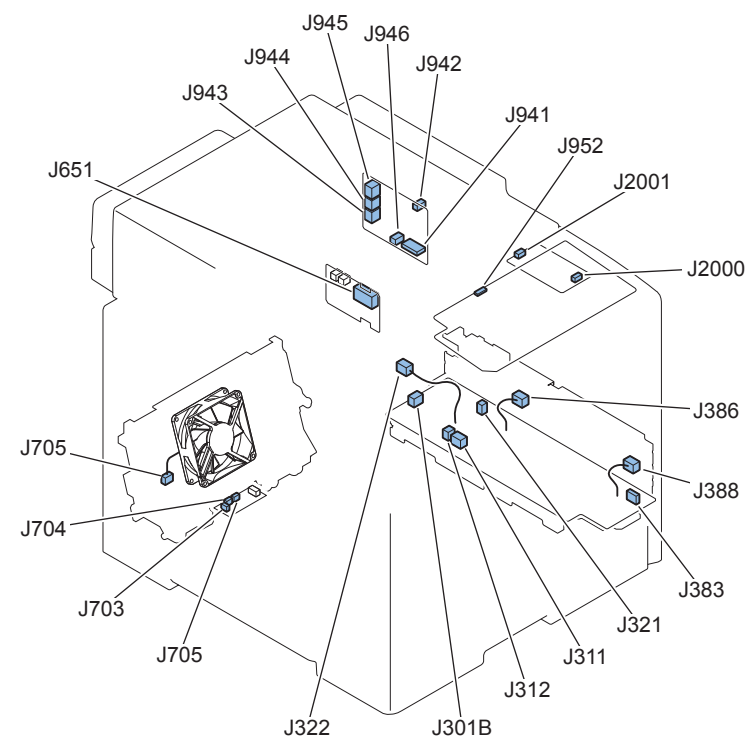
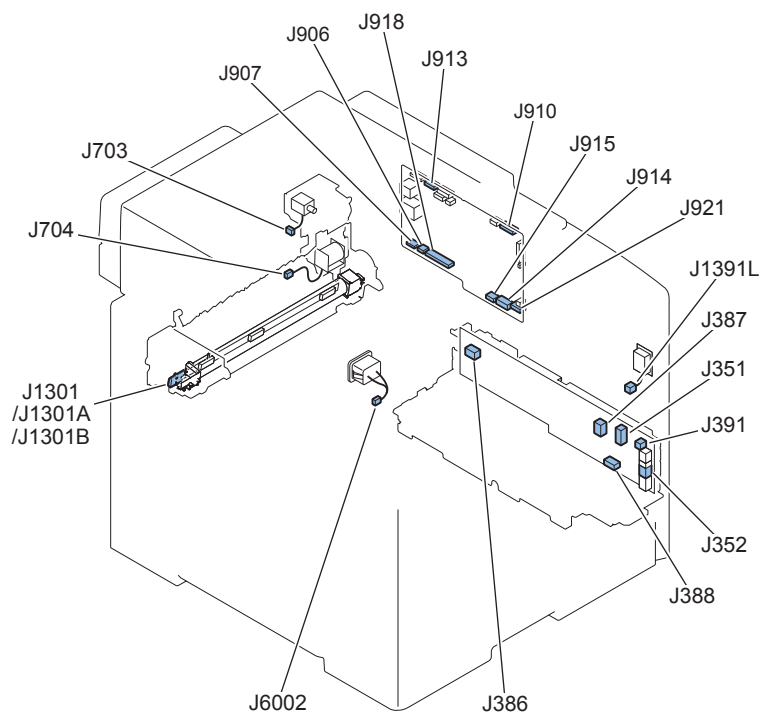


KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector			KeyNo.	J No.	Electric symbol	Electric parts name ¹⁴	REMARKS
1	J131	UN1	DC Controller PCB				16	J501	UN4	Laser Driver PCB	
2	J132	UN1	DC Controller PCB				17	J2007	M7	Laser Scanner Motor	
3	J133	UN1	DC Controller PCB				18	J1001	UN3	High Voltage PCB	
4	J141	UN1	DC Controller PCB				19	J160	UN5	Relay PCB	
5	J154	UN1	DC Controller PCB				20	-	SL3	Developing Separation Solenoid	
6	J156	UN1	DC Controller PCB				21	J654	UN7	Fixing Sub PCB	
7	J1002	UN3	High Voltage PCB				-	-	-	TAG 1,2,3,4	
8	J162	UN5	Relay PCB				22	J3010	SR7	MP Tray Pre-Registration Detection Sensor	
9	J167	UN5	Relay PCB				23	J3006	SR14	MP Tray Paper Detection Sensor	
9	J167	UN5	Relay PCB	J4017D	J4017DH	J4017L	24	J3009	SR16	ITB Pressure Release Sensor	
10	J903	UN13	Main Controller PCB				25	J1302	PS703	Document End Sensor	
10	J903	UN13	Main Controller PCB				26	J1305	M721	ADF Motor	
10	J903	UN13	Main Controller PCB	J1310D	J1310DH	J1310L	27	J1312	PS702	Document Sensor	
11	J908	UN13	Main Controller PCB	J908			28	J2	UN15	USB Host PCB	
12	J904	UN13	Main Controller PCB	J1402D	J1402DH		29	J1402L	M720	Reader Motor	
12	J904	UN13	Main Controller PCB	J1401D	J1401DH	J1401L	30	J1404	PS701	CIS Unit Homeposition Sensor	
13	J909	UN13	Main Controller PCB				-	-	-	-	
14	J911	UN13	Main Controller PCB				-	-	-	-	
15	J922	UN13	Main Controller PCB				31	-	SP1	Speaker	



KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector	KeyNo.	J No.	Electric symbol	Electric parts name ^{F-4-15}	REMARKS
1	J140	UN1	DC Controller PCB		13	J201	UN2	Driver PCB	
2	J202	UN2	Driver PCB		14	J2004	M5	Pickup Motor	
3	J203	UN2	Driver PCB		15	J2005	M3	Registration Motor	
4	J204	UN2	Driver PCB		16	J2003	M2	Developing Motor	
5	J205	UN2	Driver PCB		17	J2001	M4	Fixing Motor	
6	J206	UN2	Driver PCB		18	-	FM1	Fixing /Fixing Power Supply Cooling Fan	
7	J207	UN2	Driver PCB		19	-	SL2	Cassette Pickup Solenoid	
8	J208	UN2	Driver PCB		20	-	CL1	MP Tray Feeding Clutch	
9	J209	UN2	Driver PCB		21	-	SL1	MP Tray Pickup Solenoid	
10	J210	UN2	Driver PCB		22	J363	UN9	Low Voltage Sub PCB	
10	J210	UN2	Driver PCB		22	J364	UN9	Low Voltage Sub PCB	
11	J211	UN2	Driver PCB		23	J2002	M1	Drum Motor	
12	J213	UN2	Driver PCB	J4004D	-	J4004L	-	Paper Feeder Relay PCB	
12	J213	UN2	Driver PCB	J4004D	24	J653	UN7	Fixing Sub PCB	

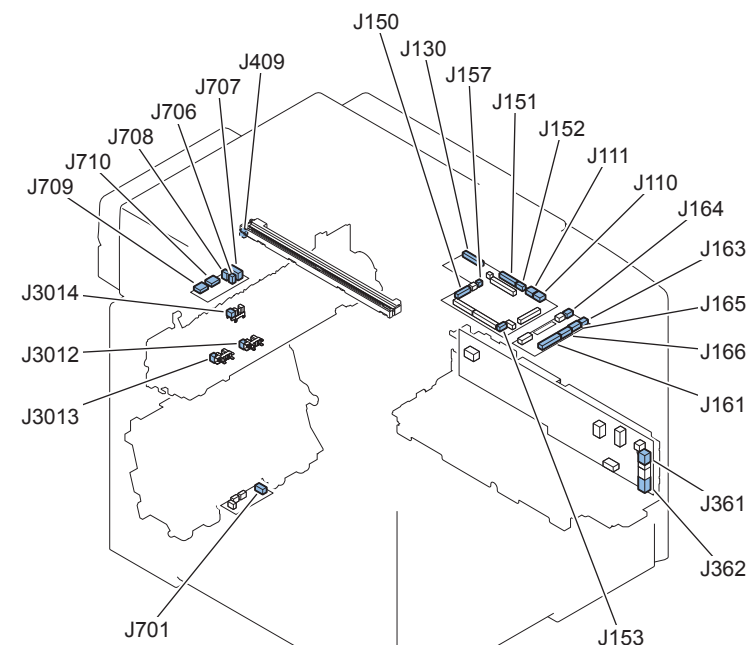
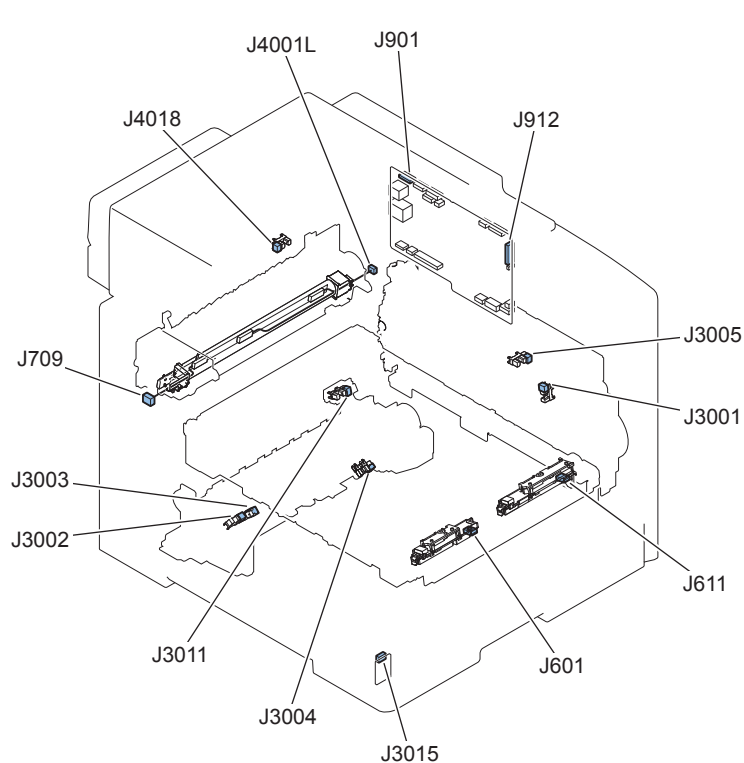
List of Connector (MF8380 / MF8340)



J No.	Electric symbol	Electric parts name	Relay connector		J No.	Electric symbol	Electric parts name	REMARKS
J651	UN7	Fixing Sub PCB	J4003F	J4003M	J1301	H100	Fixing Heater (100V)	
J651	UN7	Fixing Sub PCB	J4003F	J4003MA	J1301A	H120	Fixing Heater (120V)	
J651	UN7	Fixing Sub PCB	J4003F	J4003MB	J1301B	H230	Fixing Heater (230V)	
J652	UN7	Fixing Sub PCB			J311	UN8	Low Voltage Main PCB	
J651	UN7	Fixing Sub PCB			J312	UN8	Low Voltage Main PCB	
J311	UN8	Low Voltage Main PCB	J4003F	J4003M	J1301	H100	Fixing Heater	
J301B	UN8	Low Voltage Main PCB			J6002	-	INLET	200V
J322	UN8	Low Voltage Main PCB	J323		-	UN16	FAX-NCU PCB	
J386	UN8	Low Voltage Main PCB			J386	UN9	Low Voltage Sub PCB	
J383	UN8	Low Voltage Main PCB			J387	UN9	Low Voltage Sub PCB	
J388	UN8	Low Voltage Main PCB			J388	UN9	Low Voltage Sub PCB	
J351	UN9	Low Voltage Sub PCB			J914	UN13	Main Controller PCB	
J352	UN9	Low Voltage Sub PCB			J915	UN13	Main Controller PCB	
J391	UN9	Low Voltage Sub PCB	J1391D	J1391DH	J1391L	SW1	Main Power Switch	
J703	UN10	Duplex Driver PCB			J703	SL5	Duplex Reversal Solenoid	
J704	UN10	Duplex Driver PCB			J704	CL2	Duplex Feeding Clutch	

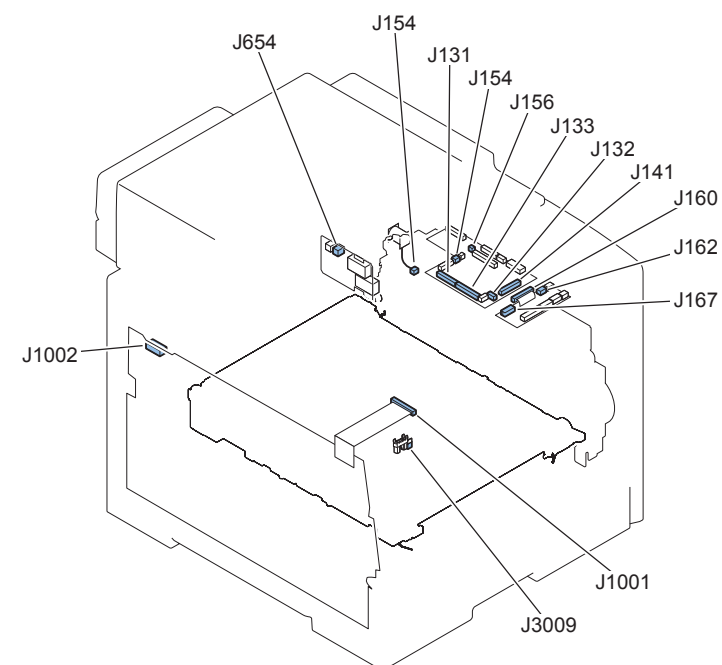
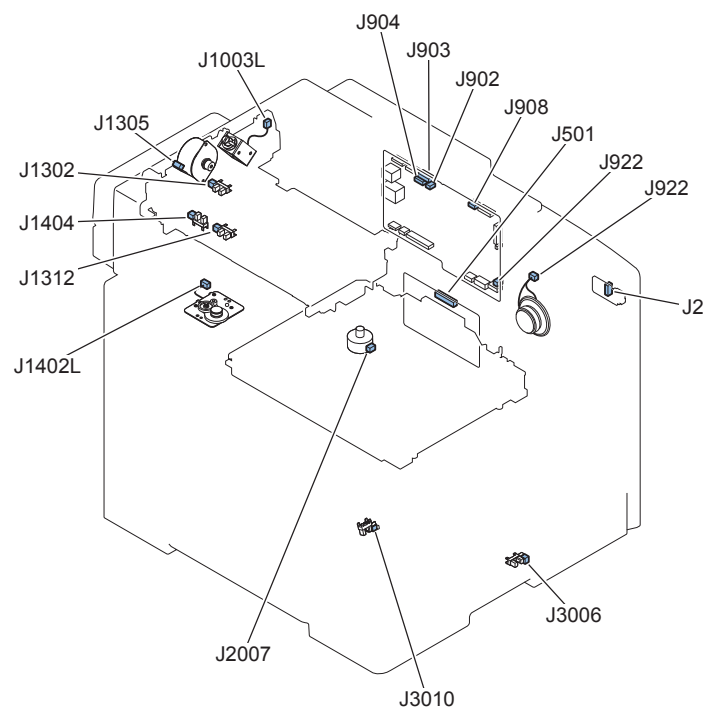
F-4-16

J No.	Electric symbol	Electric parts name	Relay connector			J No.	Electric symbol	Electric parts name	REMARKS
J705	UN10	Duplex Driver PCB				J705	FM2	Duplex Cooling Fan	
J913	UN13	Main Controller PCB				J952	UN14	Control Panel PCB	
J918	UN13	Main Controller PCB				J941	UN16	FAX-NCU PCB	
J921	UN13	Main Controller PCB				J2000	UN17	Off Hook PCB	120V/230V
J942	UN16	FAX-NCU PCB				J2001	UN17	Off Hook PCB	120V/230V
J943	UN16	FAX-NCU PCB				-	-	-	
J944	UN16	FAX-NCU PCB				-	-	-	
J945	UN16	FAX-NCU PCB				-	-	-	
J906	UN13	Main Controller PCB				-	-	-	
J907	UN13	Main Controller PCB				-	-	-	
J946	UN16	FAX-NCU PCB				-	-	-	

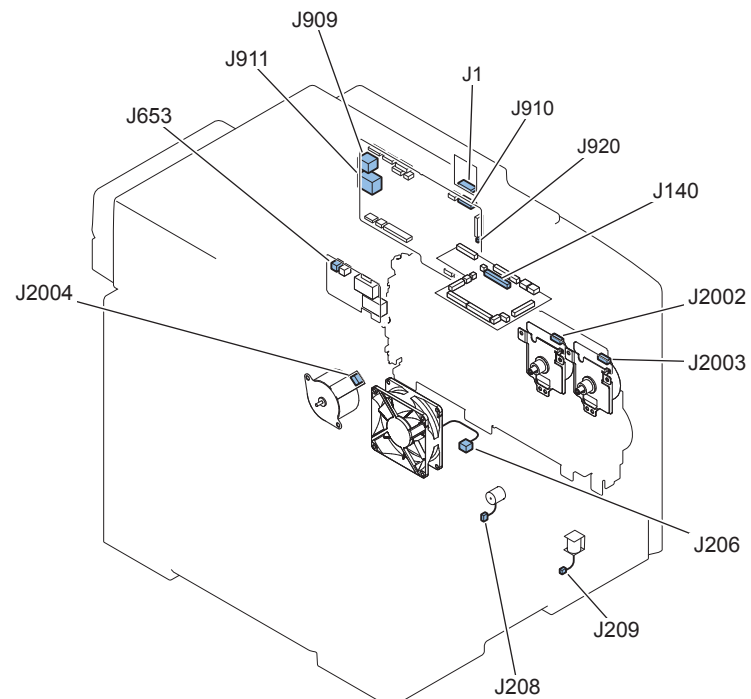
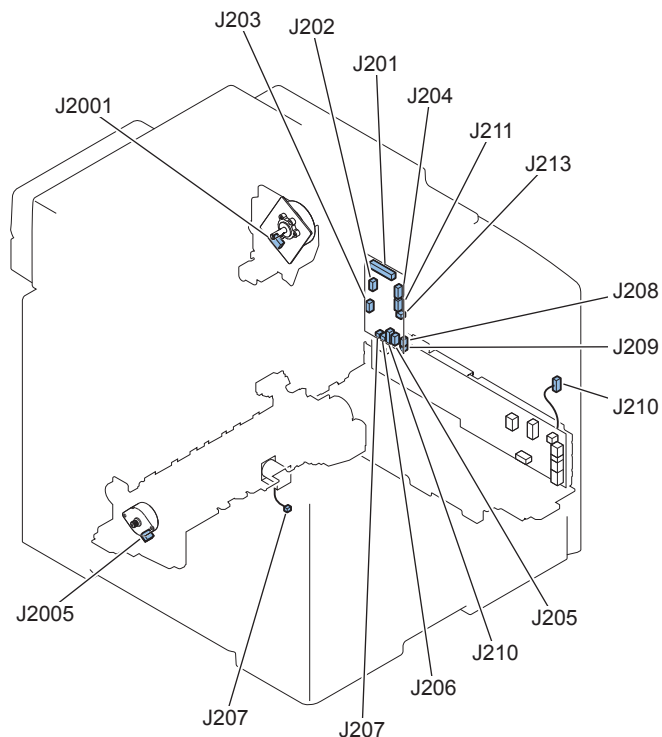


J No.	Electric symbol	Electric parts name	Relay connector		J No.	Electric symbol	Electric parts name	REMARKS ^{4,7}
J110	UN1	DC Controller PCB			J4007	-	IOT	
J111	UN1	DC Controller PCB			J4006	-	Flash Writer	
J130	UN1	DC Controller PCB			J912	UN13	Main Controller PCB	
J150	UN1	DC Controller PCB	J4001D	J4001DH	J4001L	TH801	Main Thermistor	
J150	UN1	DC Controller PCB	J4001D	J4001DH	J4001L	TH802	Sub Thermistor 1	
J150	UN1	DC Controller PCB			J707	UN6	Fixing Relay PCB	
J151	UN1	DC Controller PCB			J361	UN9	Low Voltage Sub PCB	
J151	UN1	DC Controller PCB			J362	UN9	Low Voltage Sub PCB	
J152	UN1	DC Controller PCB			J701	UN10	Duplex Driver PCB	
J153	UN1	DC Controller PCB			J3015	PCB28	Environment Sensor	
J157	UN1	DC Controller PCB			J706	UN6	Fixing Relay PCB	
J161	UN5	Relay PCB			J601	PCB29	Patch Sensor	
J161	UN5	Relay PCB			J611	PCB30	Patch Registration Sensor	
J164	UN5	Relay PCB			J3011	SR4	Registration Detection Sensor	
J165	UN5	Relay PCB			J3002	SR1	Paper Feeder Pre-Registration Detection Sensor	
J165	UN5	Relay PCB			J3003	SR12	Pre-registration Detection Sensor	
J165	UN5	Relay PCB			J3004	SR13	Cassette Paper Detection Sensor	

J No.	Electric symbol	Electric parts name	Relay connector			J No.	Electric symbol	Electric parts name	REMARKS
J166	UN5	Relay PCB				J3001	SR6	Developing Homeposition Sensor	
J166	UN5	Relay PCB				J3005	SR2	Front Cover Sensor	
J708	UN6	Fixing Relay PCB				J4018	SR15	Delivery Full Sensor	
J709	UN6	Fixing Relay PCB				J709	TH803	Sub Thermistor 2	
J710	UN6	Fixing Relay PCB				J3012	SR10	Fixing Loop Sensor	
J710	UN6	Fixing Relay PCB				J3013	SR9	Fixing Pressure Release Sensor	
J710	UN6	Fixing Relay PCB				J3014	SR8	Fixing Delivery Sensor	
J901	UN13	Main Controller PCB				J409	-	CIS Unit	



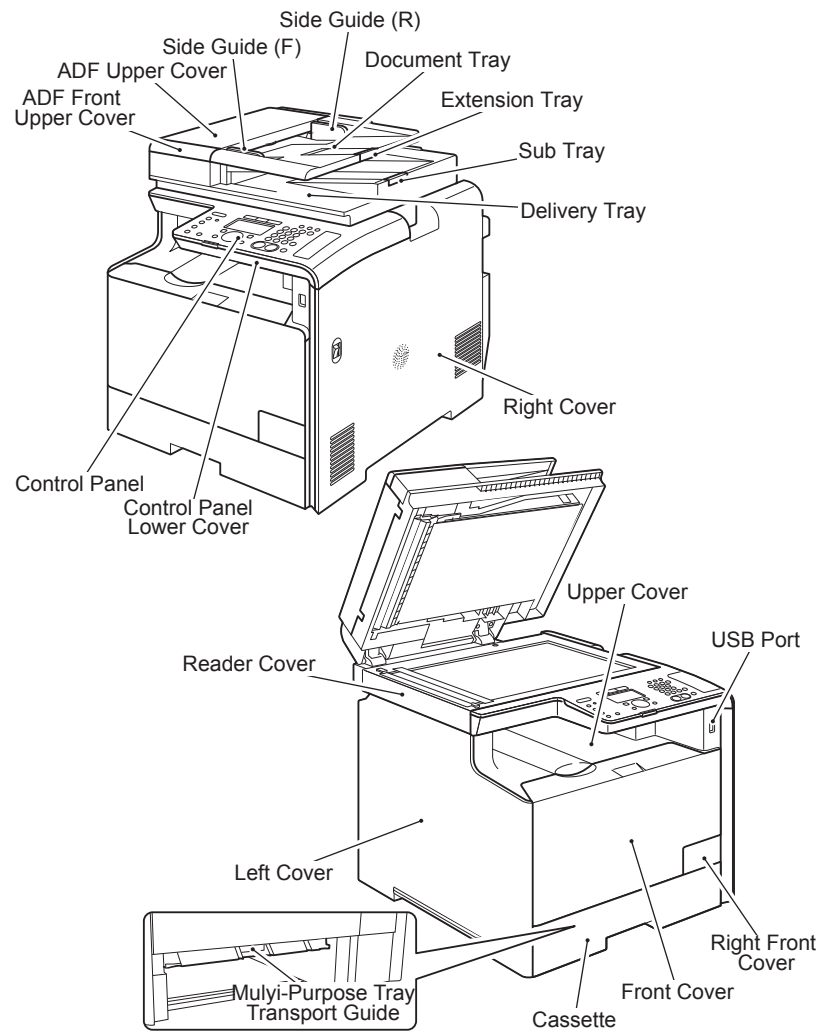
J No.	Electric symbol	Electric parts name	Relay connector			J No.	Electric symbol	Electric parts name	REMARKS
J131	UN1	DC Controller PCB				J501	UN4	Laser Driver PCB	
J132	UN1	DC Controller PCB				J2007	M7	Laser Scanner Motor	
J133	UN1	DC Controller PCB				J1001	UN3	High Voltage PCB	
J141	UN1	DC Controller PCB				J160	UN5	Relay PCB	
J154	UN1	DC Controller PCB				J154	SL3	Developing Separation Solenoid	
J156	UN1	DC Controller PCB				J654	UN7	Fixing Sub PCB	
J1002	UN3	High Voltage PCB				J1002	-	TAG 1,2,3,4	
J162	UN5	Relay PCB				J3010	SR7	MP Tray Pre-Registration Detection Sensor	
J167	UN5	Relay PCB				J3006	SR14	MP Tray Paper Detection Sensor	
J167	UN5	Relay PCB	J4017D	J4017DH	J4017L	J3009	SR16	ITB Pressure Release Sensor	
J903	UN13	Main Controller PCB				J1302	PS703	Document End Sensor	
J903	UN13	Main Controller PCB				J1305	M721	ADF Motor	
J903	UN13	Main Controller PCB	J1310D	J1310DH	J1310L	J1312	PS702	Document Sensor	
J908	UN13	Main Controller PCB	J908			J2	UN15	USB Host PCB	
J904	UN13	Main Controller PCB	J1402D	J1402DH		J1402L	M720	Reader Motor	
J904	UN13	Main Controller PCB	J1401D	J1401DH	J1401L	J1404	PS701	CIS Unit Homeposition Sensor	
J922	UN13	Main Controller PCB				J922	SP1	Speaker	
J902	UN13	Main Controller PCB				J1003L	SL4	ADF Pickup Solenoid	



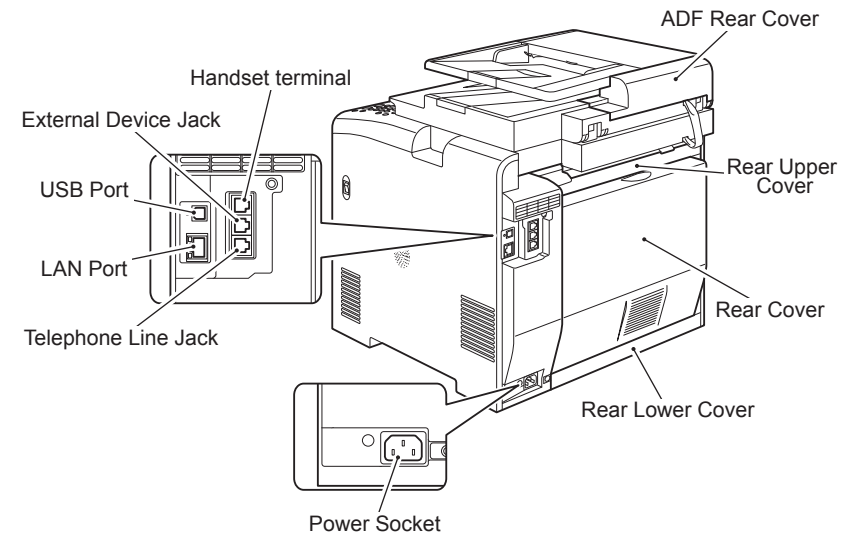
J No.	Electric symbol	Electric parts name	Relay connector	J No.	Electric symbol	Electric parts name	REMARKS ^{F-4-19}
J140	UN1	DC Controller PCB		J201	UN2	Driver PCB	
J202	UN2	Driver PCB		J2004	M5	Pickup Motor	
J203	UN2	Driver PCB		J2005	M3	Registration Motor	
J204	UN2	Driver PCB		J2003	M2	Developing Motor	
J205	UN2	Driver PCB		J2001	M4	Fixing Motor	
J206	UN2	Driver PCB		J206	FM1	Fixing/Fixing Power Supply Cooling Fan	
J207	UN2	Driver PCB		J207	SL2	Cassette Pickup Solenoid	
J208	UN2	Driver PCB		J208	CL1	MP Tray Feeding Clutch	
J209	UN2	Driver PCB		J209	SL1	MP Tray Pickup Solenoid	
J210	UN2	Driver PCB		J210	UN9	Low Voltage Sub PCB	
J211	UN2	Driver PCB		J2002	M1	Drum Motor	
J213	UN2	Driver PCB	J4004D	J4004L	-	Paper Feeder Relay PCB	
J213	UN2	Driver PCB	J4004D	J653	UN7	Fixing Sub PCB	
J909	UN13	Main Controller PCB		-	-	-	
J911	UN13	Main Controller PCB		-	-	-	
J920	UN13	Main Controller PCB		-	-	-	
J910	UN13	Main Controller PCB		J1	-	Wireless LAN PCB	MF8380 only

External Cover, Internal Cover

Location



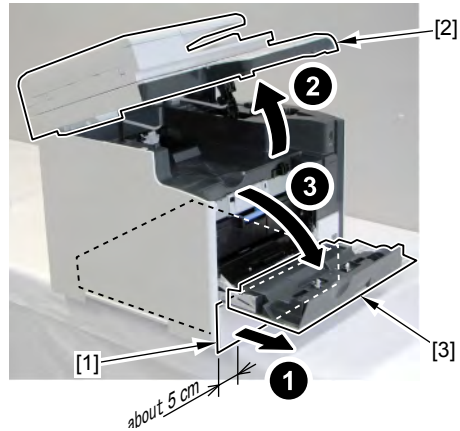
F-4-20



F-4-21

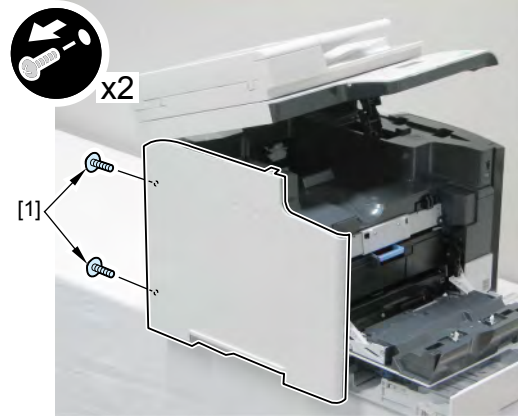
Removing the Left Cover

- 1) To remove the lower claw of the Left Cover, shift the host machine by 5cm from the base.
- 2) Remove the Cassette [1].
- 3) Open the ADF Unit + Reader Unit [2] and the Front Cover [3].



F-4-22

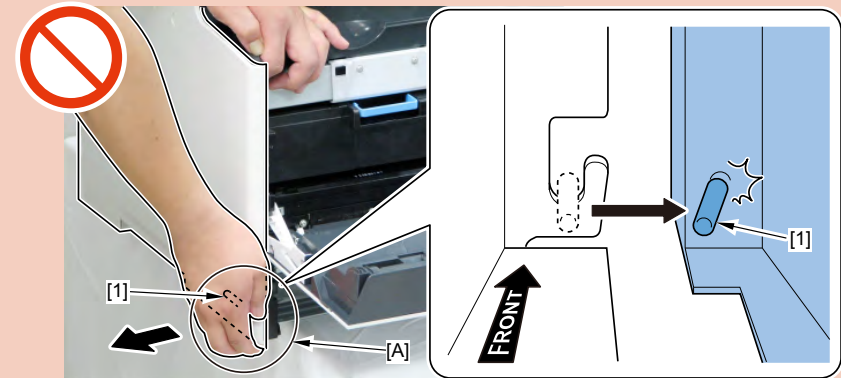
- 4) Remove the 2 screws [2].



F-4-23

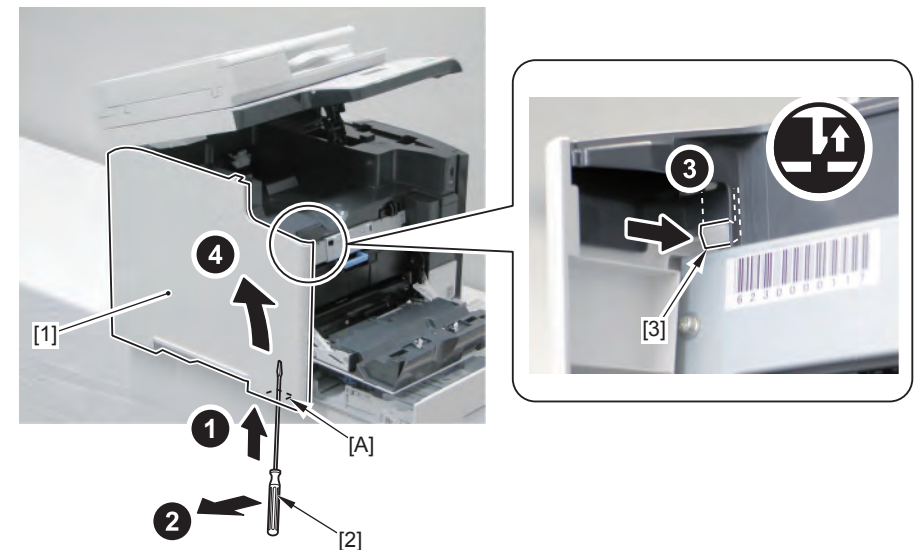
Caution:

Do not open [A] part of the Left Cover in the direction of the arrow when removing the Left Cover; otherwise, the projection [1] of the Left Cover can be damaged/broken.



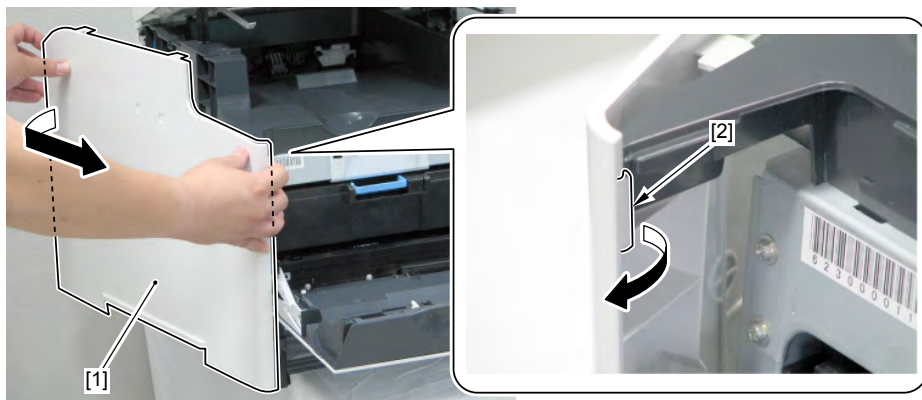
F-4-24

- 5) Insert the flat-blade screwdriver [2] into the hole [A] of the Left Cover [1].
- 6) Push the claw [3] and lift the front of the Left Cover [1] while pulling the flat-blade screwdriver [2].



F-4-25

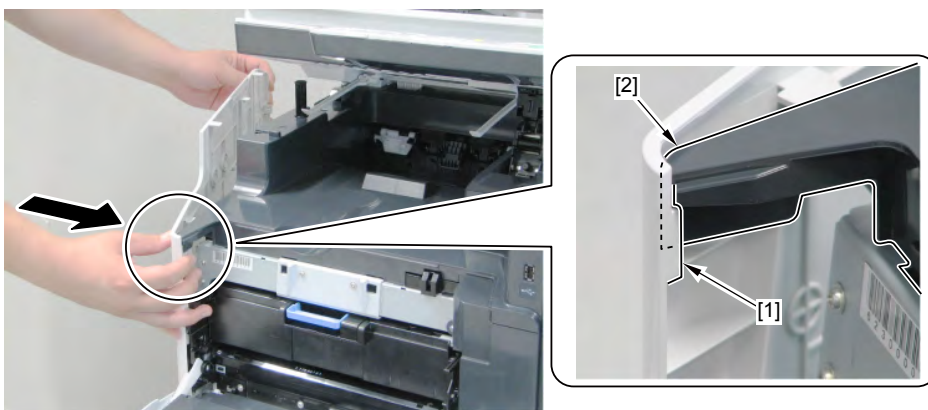
- 7) Release the hook [2] and remove the Left Cover [1] while opening the rear of the Left Cover [1].



F-4-26

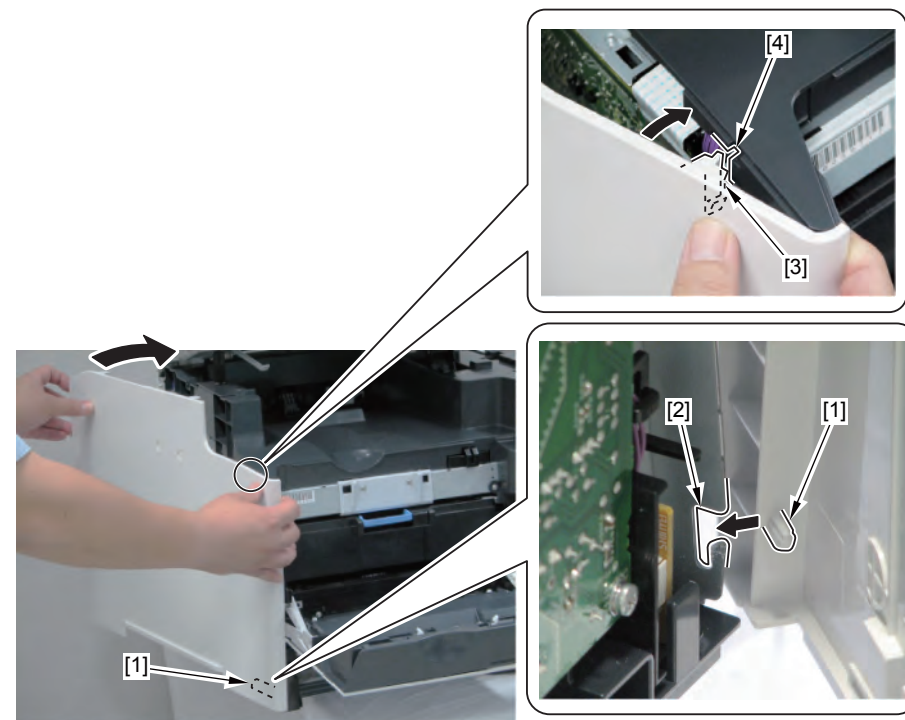
Installing the Left Cover

- 1) Fit the hook [1] at the upper right side of the Left Cover to the upper left area [2] of the Upper Cover.



F-4-27

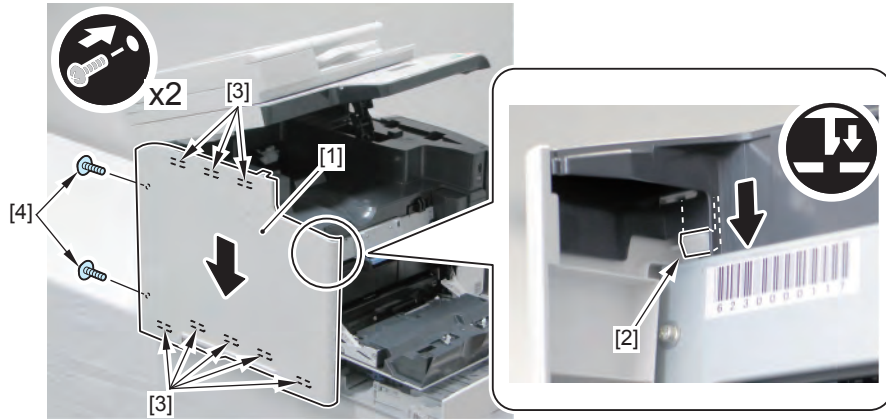
- 2) Fit the protrusion [1] of Left Cover to the groove [2] of the frame.
3) Insert the claw [3] of the Left Cover to the groove [4] of the Upper Cover to match the Left Cover to the machine.



F-4-28

4) Install the Left Cover [1].

- 1 Claw [2]
- 8 Hooks [3]
- 2 Screws [4]

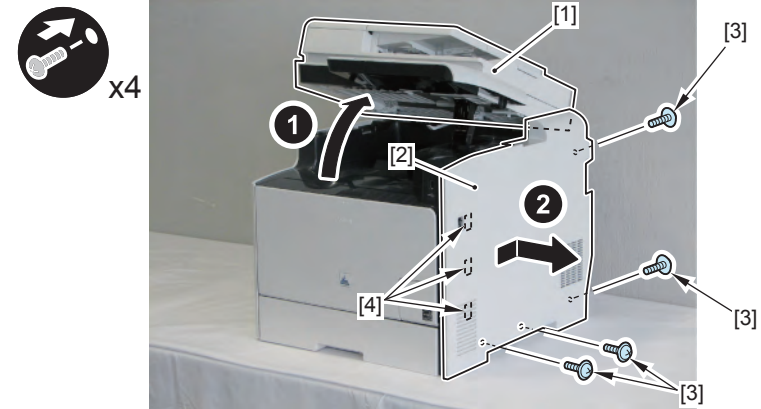


F-4-29

■ Removing the Right Cover

1) Open the ADF Unit + Reader Unit [1], and remove the Right Cover [2].

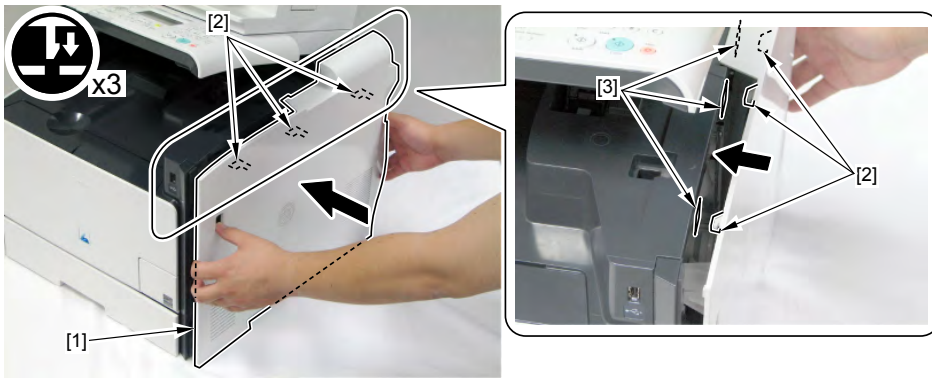
- 4 Screws [3]
- 3 Hooks [4]



F-4-30

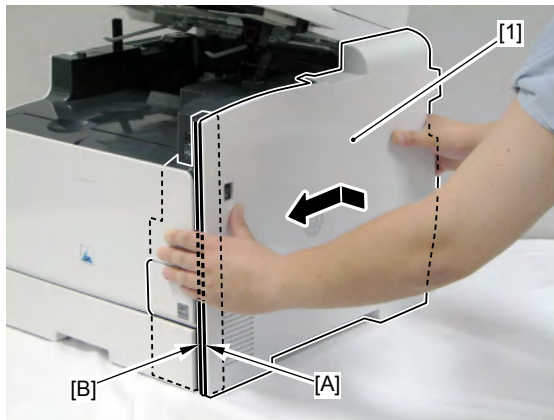
Installing the Right Cover

1) Fit the 3 hooks [2] of the Right Cover into the holes [3] of the Upper Cover



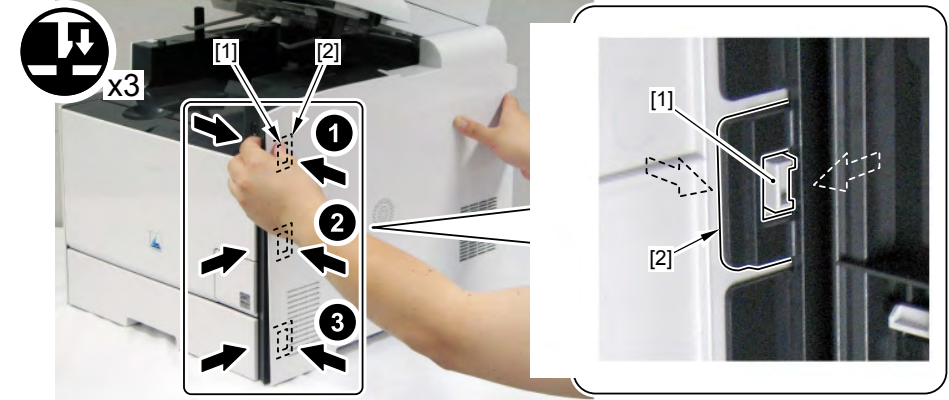
F-4-31

2) While pushing the Right Cover [1] to the Host Machine to slide, fit the left surface [A] of the Right Cover to the right surface [B] of the Right Front Cover.



F-4-32

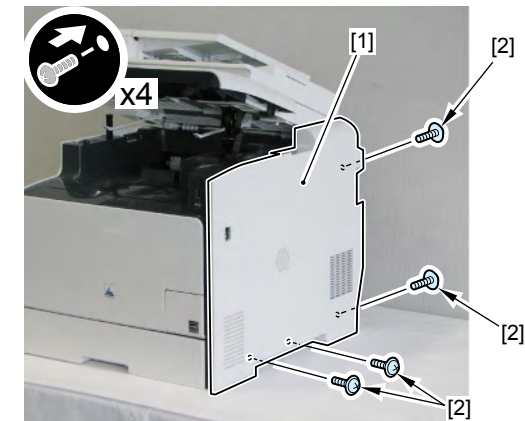
3) Install the 3 hooks [1] at the left side of the Right Cover and the 3 hooks [2] of the Right Front Cover.



F-4-33

4) Install the Right Cover [1].

- 4 screws [2]



F-4-34

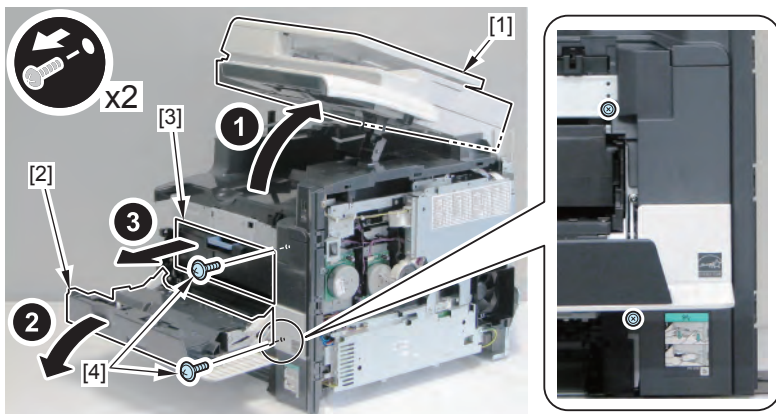
■ Removing the Right Front Cover

Pre-procedure

1) Remove the Right Cover. Refer to page 4-23.

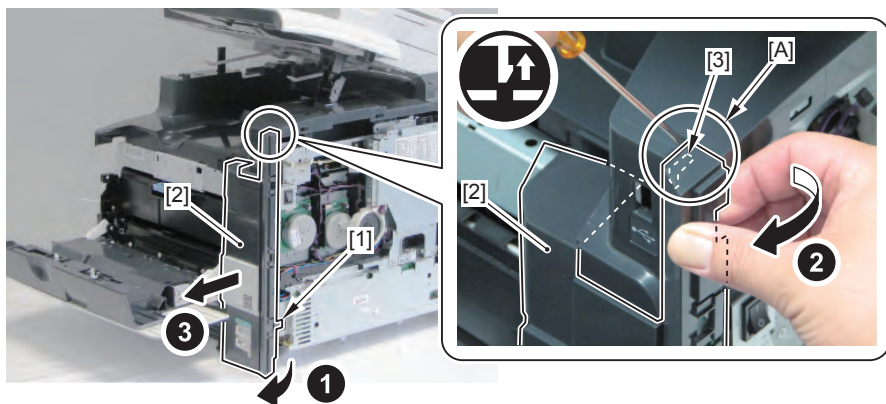
Procedure

- 1) Remove the Cassette.
- 2) Open the ADF Unit + Reader Unit [1] and the Front Cover [2].
- 3) Draw out the Cartridge Tray.
- 4) Remove the 2 screws [2].



- 5) Remove the claw [1] at the lower right side of the Right Front Cover.
- 6) Put a flat-blade screwdriver into the gap [A] between the upper area of the Right Front Cover and the Upper Cover to remove the claw [2] in the direction of the arrow.

F-4-35



F-4-36

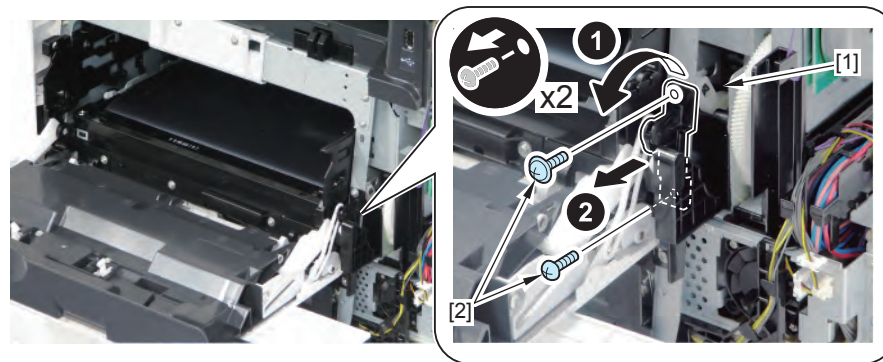
■ Removing the Front Cover

Pre-procedure

- 1) Remove the Cartridge Tray. Refer to page 4-31.
- 2) Remove the Right Cover. Refer to page 4-23.
- 3) Remove the Right Front Cover. Refer to page 4-25.

Procedure

- 1) Remove the bushing support [1].
 - 2 screws [2]



F-4-37

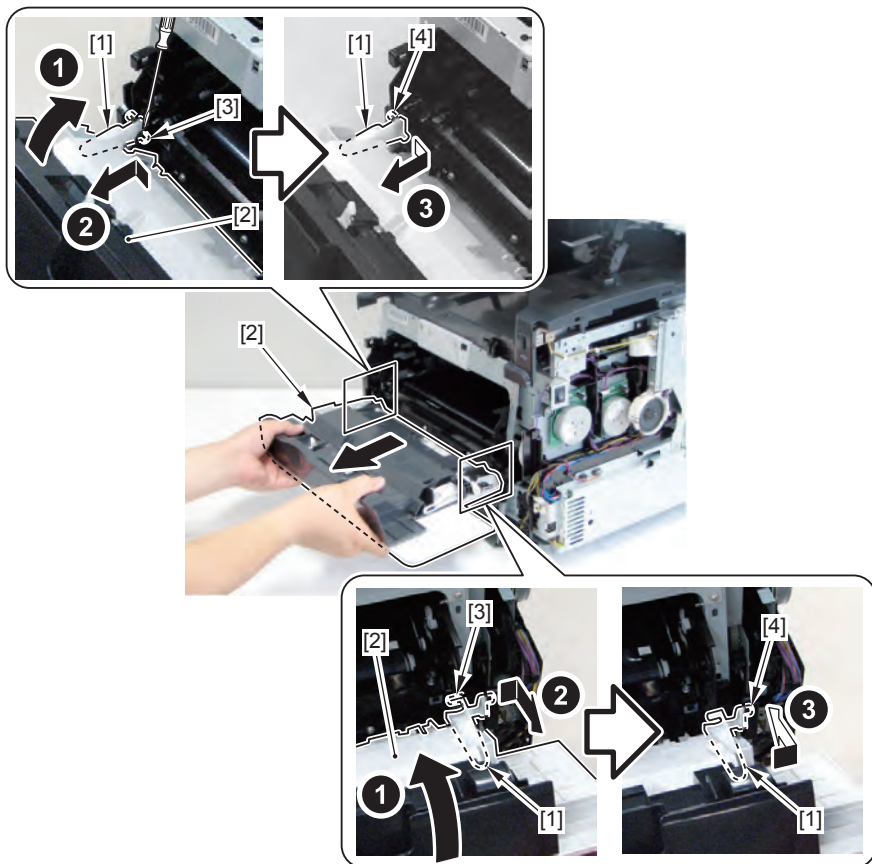
- 2) Remove the 2 pins [1] using a screwdriver.



F-4-38

3) Remove the 2 links [1] and the Front Cover [2].

- 2 Shafts [3]
- 2 Protrusions [4]



F-4-39

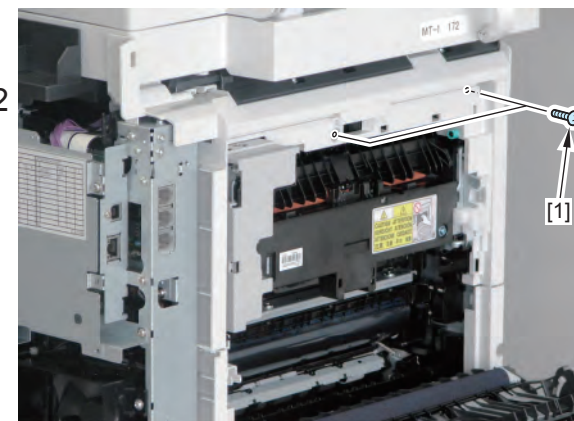
Removing the Rear Upper Cover

Pre-procedure

- 1) Remove the Right Cover. Refer to page 4-23
- 2) Remove the Left Cover. Refer to page 4-21.

Procedure

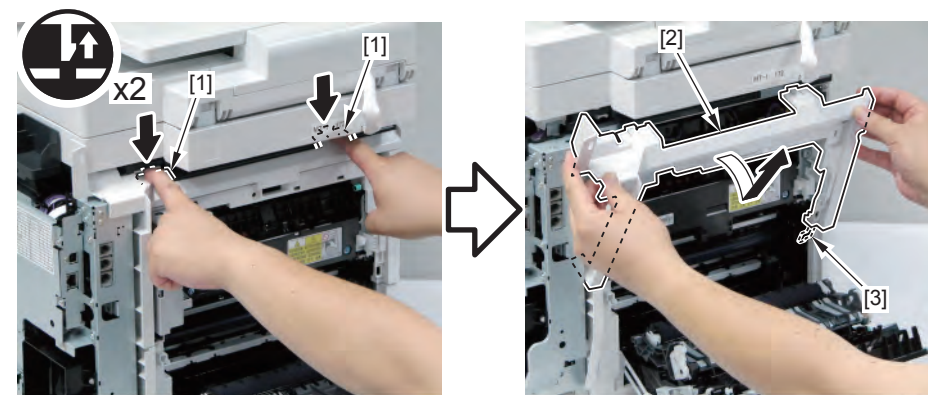
- 1) Open the Rear Cover.
- 2) Remove the 2 screws [1].



F-4-40

3) Push the 2 claws [1] to remove the Rear Upper Cover [2].

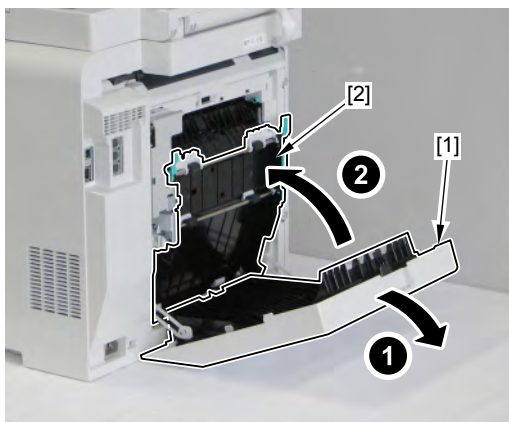
- 1 Hook [3]



F-4-41

Removing the Rear Cover

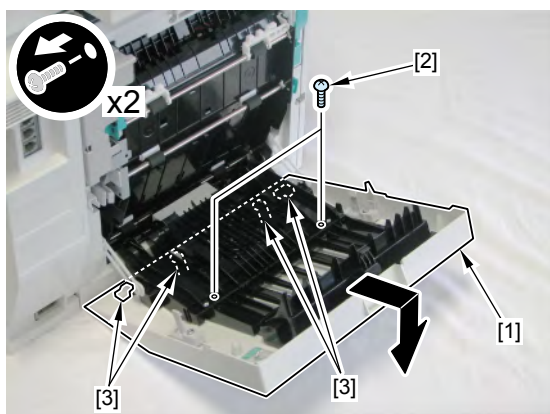
- 1) Open the Rear Cover [1].
- 2) Close the Duplex Feed Unit [2].



F-4-42

- 3) Remove the Rear Cover [1].

- 2 screws [2]
- 4 hooks [3]



F-4-43

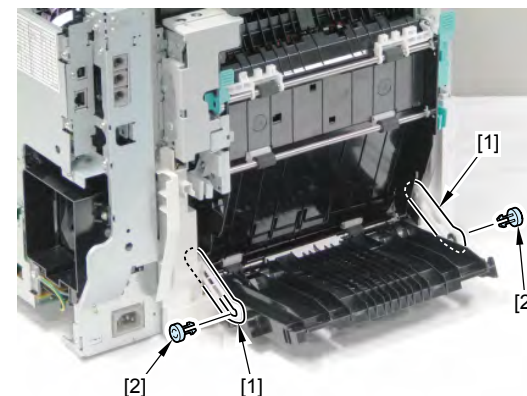
Removing the Rear Lower Cover

Pre-procedure

- 1) Remove the Right Cover. Refer to page 4-23.
- 2) Remove the Left Cover. Refer to page 4-21.
- 3) Remove the Rear Upper Cover. 4-26.
- 4) Remove the Rear Cover. 4-27.

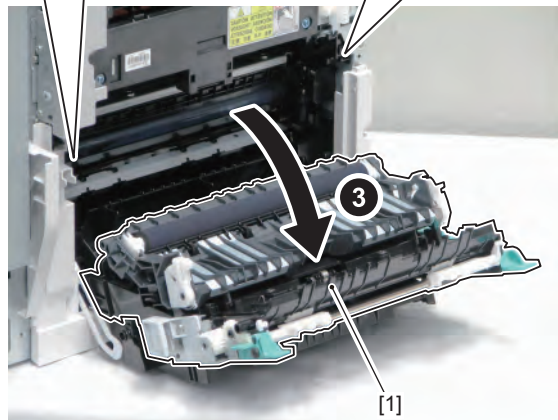
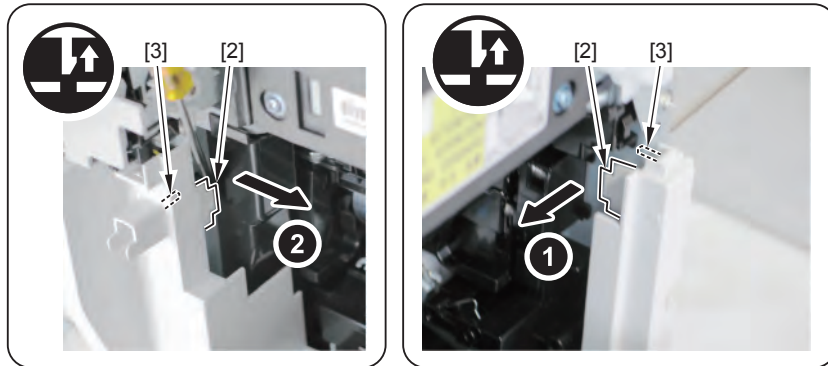
Procedure

- 1) Remove the arm [1].
- 2 link caps [2]

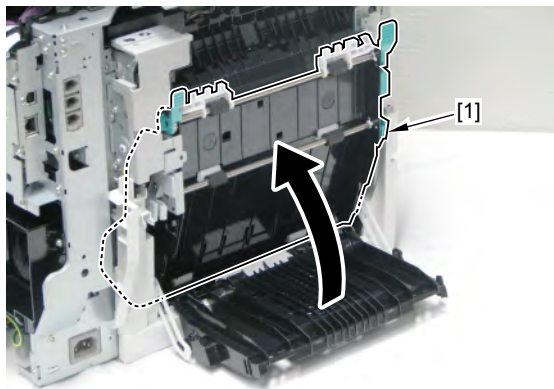


F-4-44

2) Open the Duplex Feed Unit [1] and remove the 2 claws [2] and 2 bosses [3].



3) Close the Duplex Feed Unit [1].



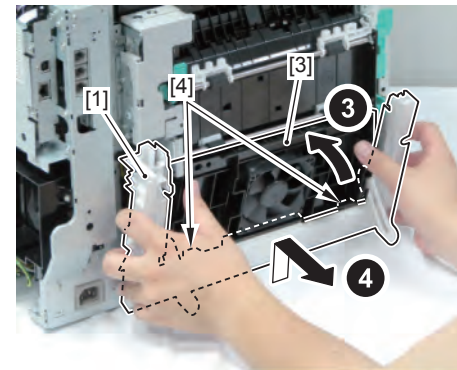
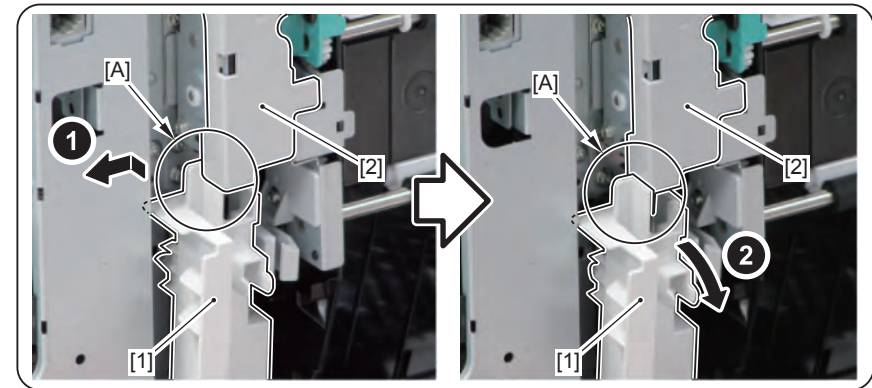
F-4-46

F-4-45

4) Move the Rear Lower Cover [1] aside from the [A] part of the Duplex Reverse Drive Unit [2].

5) Hold the Rear Cover Rib Unit [3] and remove the Rear Lower Cover [1].

• 2 Hooks [4]



F-4-47

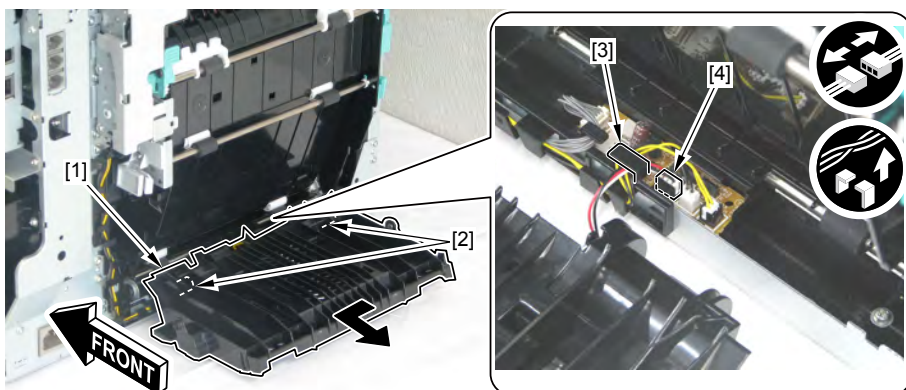
Removing the Rear Cover Rib Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page 4-23.
- 2) Remove the Left Cover. Refer to page 4-21.
- 3) Remove the Rear Upper Cover. Refer to page 4-26.
- 4) Remove the Rear Cover. Refer to page 4-27
- 5) Remove the Rear Lower Cover. Refer to page 4-27

Procedure

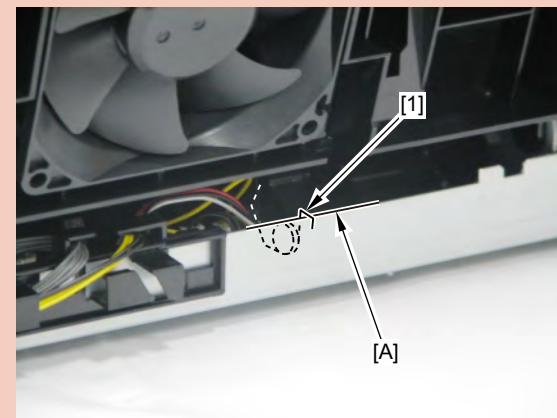
- 1) Remove the Rear Cover Rib Unit [1].
 - 2 bearing holders [2]
 - 1 fixing guide [3]
 - 1 connector [4]



F-4-48

Caution:

At installation, make sure that the spring [1] is installed on [A] part before installing the Rear Cover Rib Unit.



F-4-49

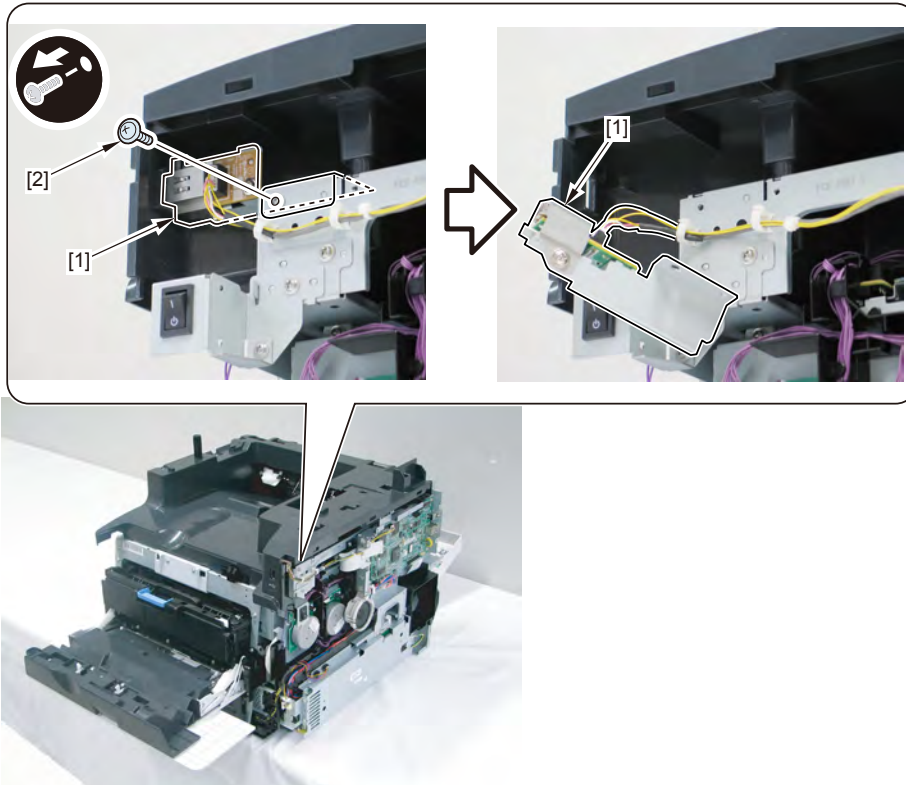
Removing the Upper Cover

Pre-procedure

- 1) Remove the Right Cover. Refer to page 4-23.
- 2) Remove the Left Cover. Refer to page 4-21.
- 3) Remove the Right Front Cover. Refer to page 4-25.
- 4) Remove the ADF Unit + Reader Unit. Refer to page 4-33.
- 5) Remove the Rear Upper Cover. Refer to page 4-26.

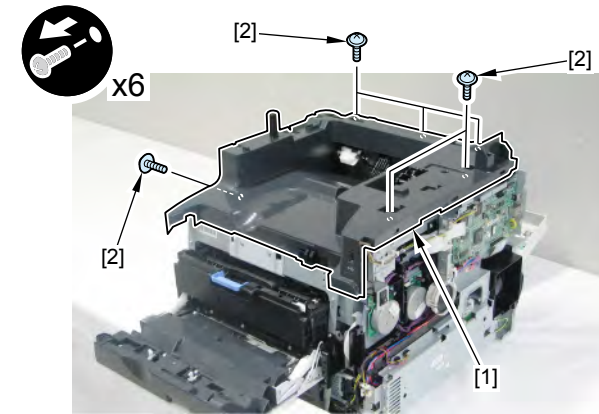
Procedure

- 1) Remove the USB Host PCB Unit [1].
 - 1 screw [2]



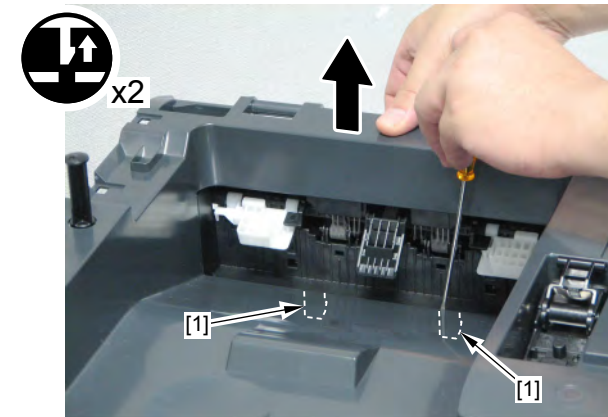
F-4-50

- 2) Remove 6 screws [1].



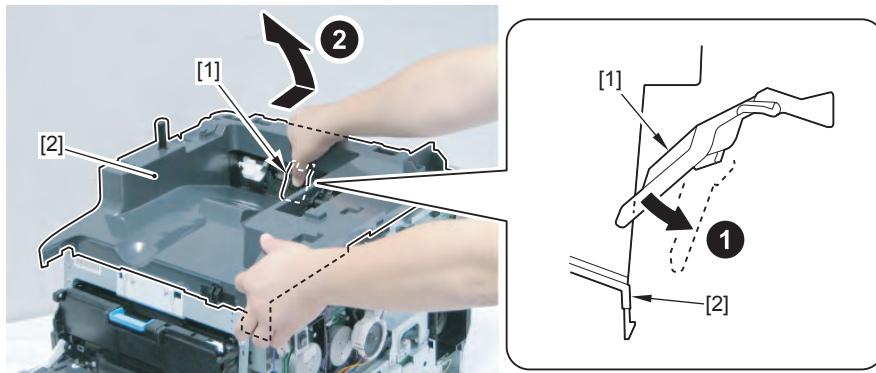
F-4-51

- 3) Release 2 claws [1] of the Upper Cover with a flat-blade screwdriver.



F-4-52

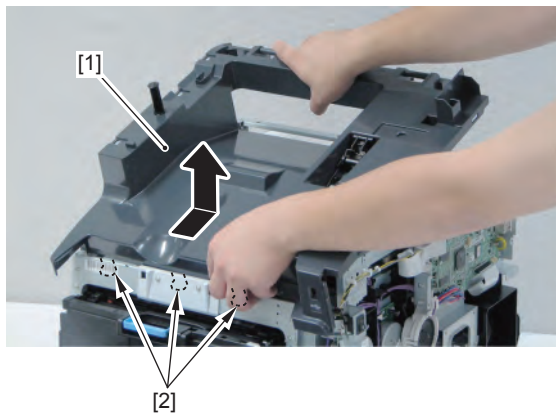
4) Push down the flag [1] and remove the rear side of the Upper Cover [2].



F-4-53

5) Remove the Upper Cover [1].

- 3 Hooks [2]



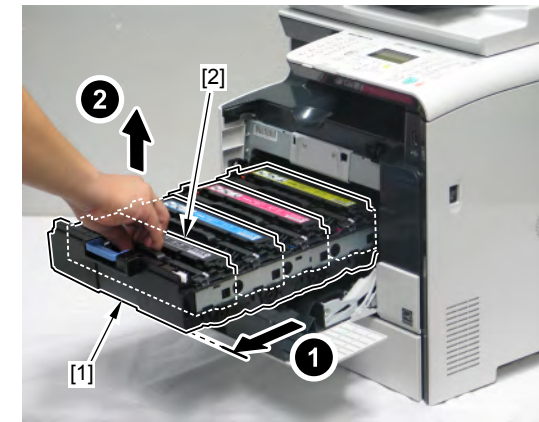
F-4-54

Removing the Cartridge Tray

Caution:

When removing the Toner Cartridge, be careful not to damage the Photosensitive Drum. Also, be sure to block light.

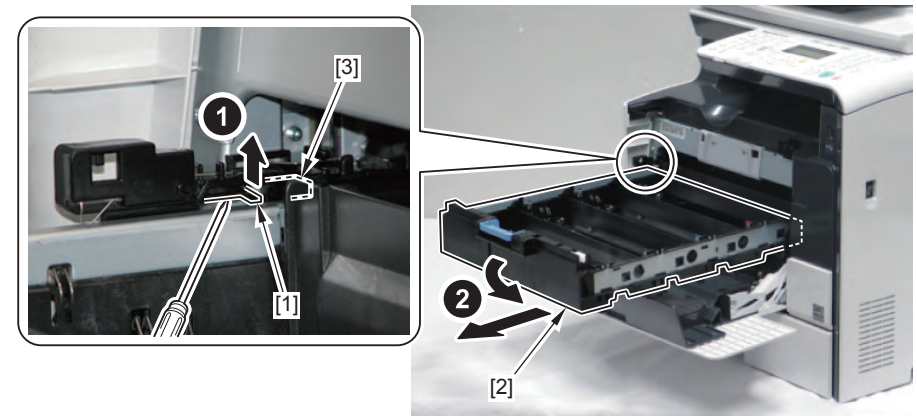
- 1) Open the Front Cover.
- 2) Pull out the Cartridge Tray [1].
- 3) Remove the toner cartridges (Y, M, C, Bk) [2].



F-4-55

4) While raising the stopper [1], remove the Cartridge Tray [2].

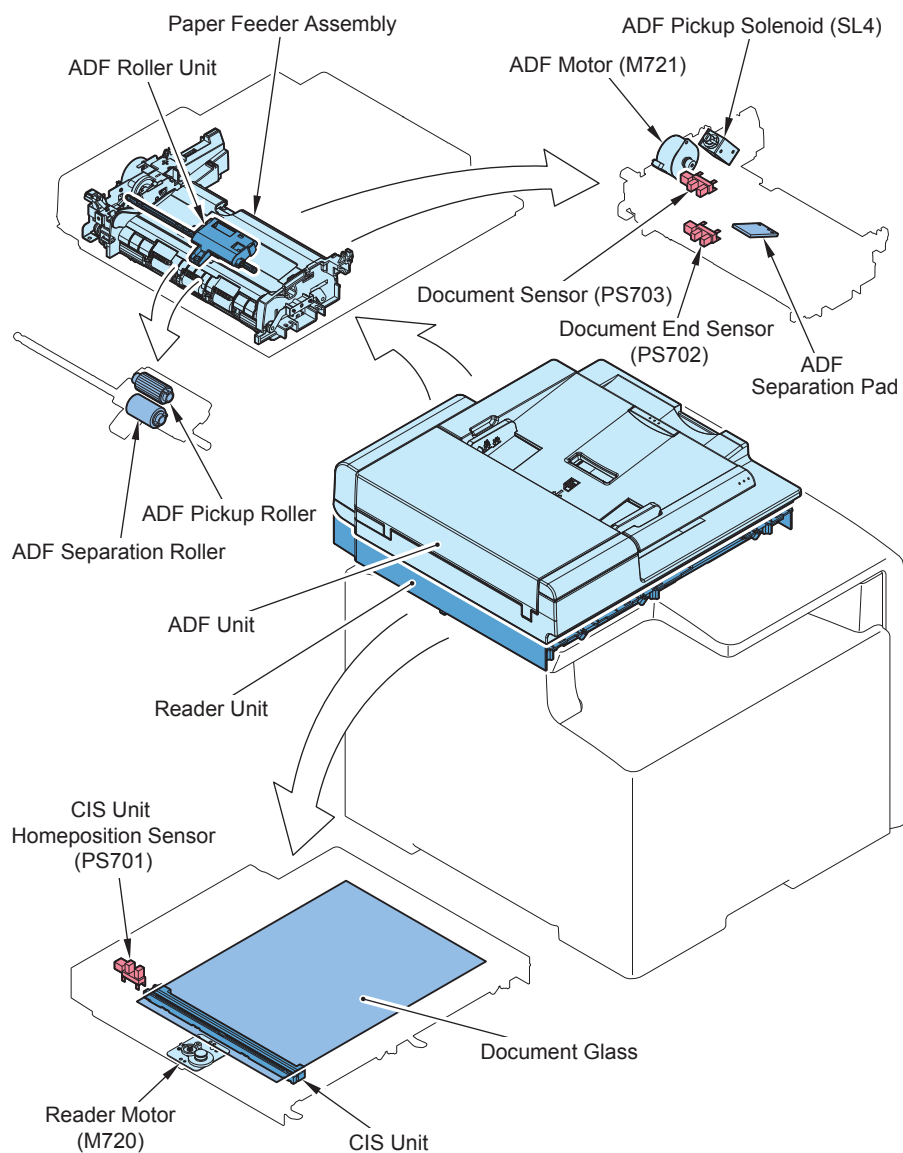
- 1 Protrusion [3]



F-4-56

Document Exposure, Feed System

Location



F-4-57

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	ADF Unit	-	Refer to page 4-33 Refer to page 4-34	Refer to page 5-3
-	Reader Unit	-	Refer to page 4-33 Refer to page 4-34	Refer to page 5-3
-	ADF Roller Unit	-	Refer to page 4-37	-
-	ADF Separation Roller	-	Refer to page 4-39	-
-	ADF Pickup Roller	-	Refer to page 4-39	-
-	Paper Feeder Assembly	MF8350/8330 ME8380/8360/8340	Refer to page 4-44 Refer to page 4-47	-
PS702	Document End Sensor	-	-	-
M721	ADF Motor	-	Refer to page 4-49	-
PS703	Document Sensor	-	-	-
-	ADF Separation Pad	MF8350/8330 ME8380/8360/8340	Refer to page 4-41 Refer to page 4-43	-
-	Document Glass	-	Refer to page 4-50	Refer to page 5-4
-	CIS Unit	-	Refer to page 4-52	Refer to page 5-5
M720	Reader Motor	-	Refer to page 4-55	-
PS701	CIS Unit HomePosition Sensor	-	-	-
SL4	ADF Pickup Solenoid	ME8380/8360/8340	-	-

T-4-1

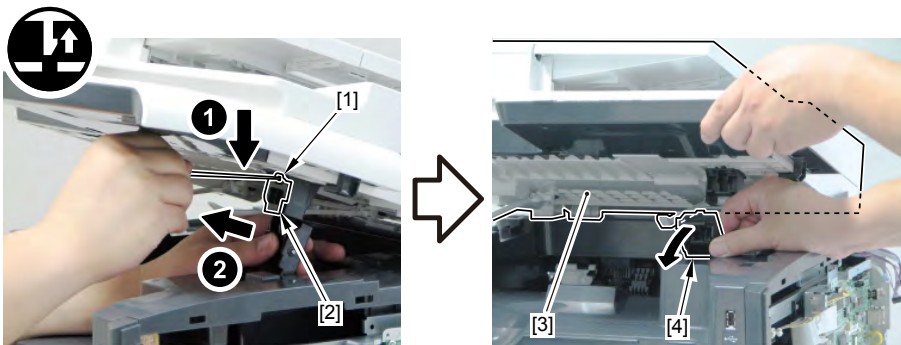
Removing the ADF Unit + Reader Unit

Pre-procedure

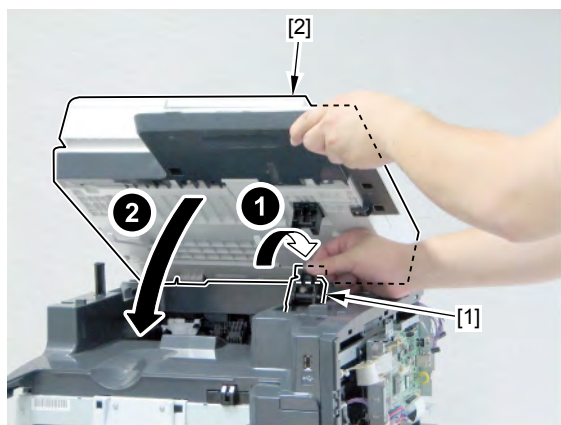
- 1) Remove the Right Cover. Refer to page 4-23.
- 2) Remove the Left Cover. Refer to page 4-21.

Procedure

- 1) Open the ADF Unit + Reader Unit.
- 2) Remove the claw [1] to remove the Reader Shaft Retainer [2].
- 3) While supporting the ADF Unit + Reader Unit [3], remove the Reader Support Shaft [4].



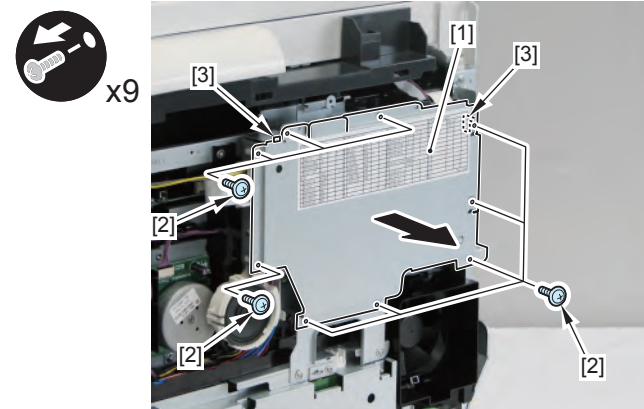
- 4) Bring down the Reader Support Shaft [1] to close the ADF Unit +Reader Unit [2].



F-4-58

- 5) Remove the Controller Cover [1] at the right side of the host machine.

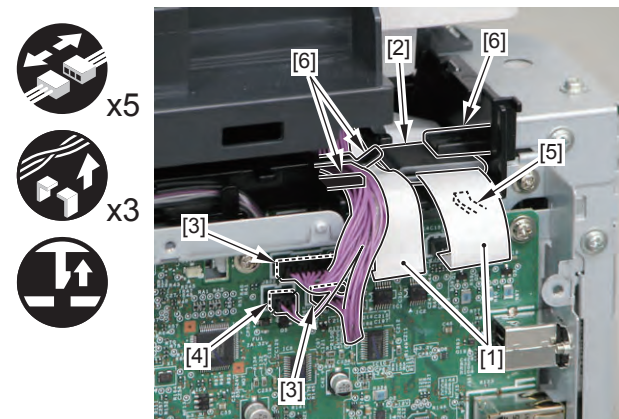
- 9 screws [2]
- 2 Hooks [3]



F-4-59

- 6) Remove the 2 Flat Cables [1] and Ferrite Core [2] at the right side of the machine.

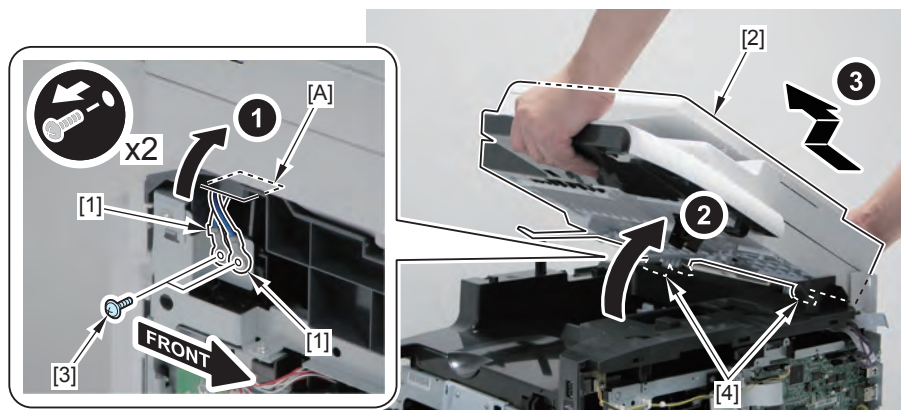
- 2 Connectors [3]
- 1 Connector [4] (MF8380/8360/8340 only)
- 1 Claw [5]
- 3 Harness Guides [6]



F-4-60

7) Put the 2 Grounding Wires [1] through the hole [A] and open and remove the ADF Unit + Reader Unit [2].

- 2 Screws [3]
- 2 Hooks [4]



F-4-61

Caution:

When ADF Unit and Reader Unit are exchanged, the treats after ADF Unit and Reader Unit are exchanged must be done.

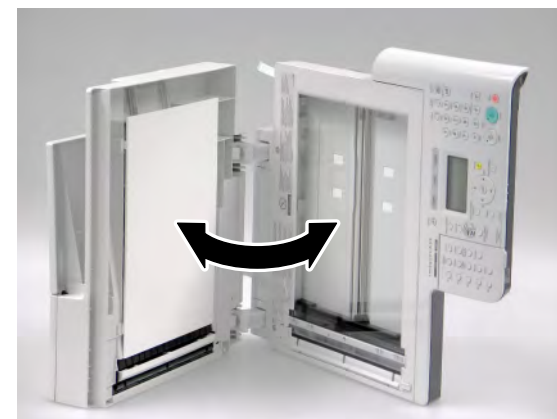
■ Separating the ADF Unit + Reader Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page 4-23.
- 2) Remove the Left Cover. Refer to page 4-21.
- 3) Remove the ADF Unit + Reader Unit. Refer to page 4-33.

Procedure

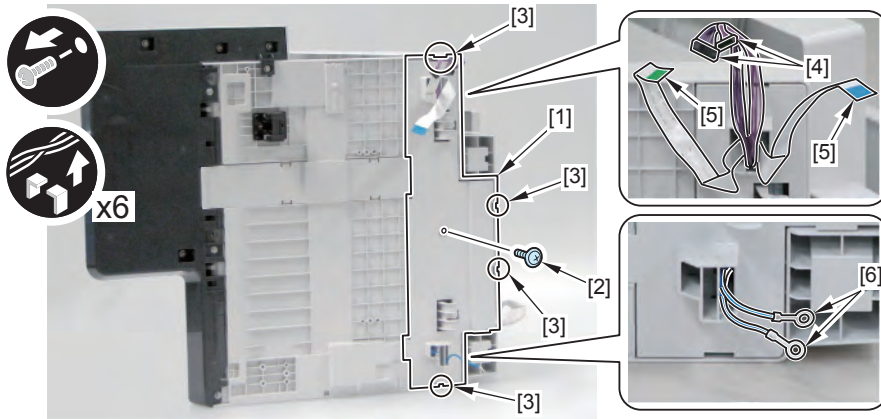
- 1) Place the ADF Unit and Reader Unit in the open status as shown in the figure below.



F-4-62

2) Remove the Reader Unit Lower Cover [1].

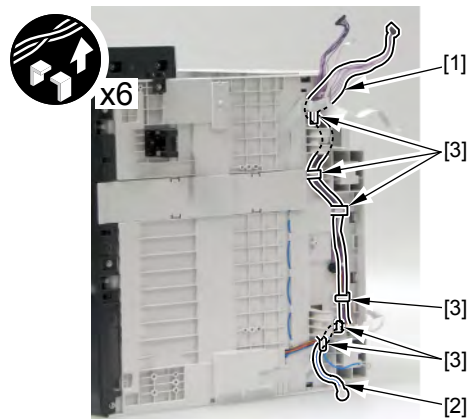
- 1 Screw [2]
- 4 Claws [3]
- 2 Harnesses [4]
- 2 Flat Cables [5]
- 2 Grounding Wires [6]



F-4-63

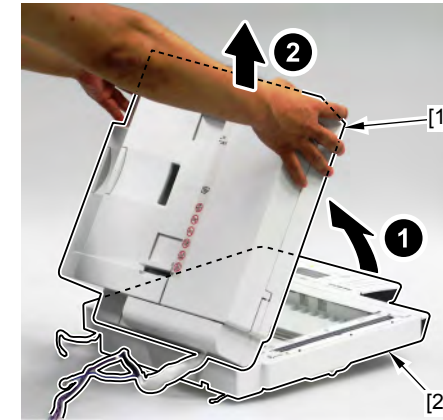
3) Remove the harness [1] and the grounding [2].

- 6 harness guides [3]



F-4-64

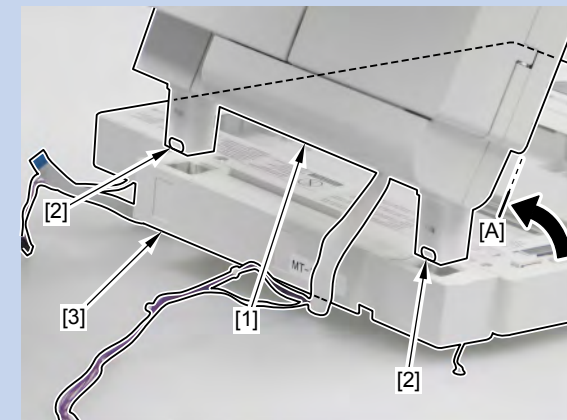
4) Raise the ADF Unit [1] to separate from the Reader Unit [2] in the direction of the arrow.



F-4-65

NOTE:

Be sure to open the ADF Unit [1] to the degree indicated with the direction of the arrow [A]; otherwise, the ADF Unit cannot be separated from the Reader Unit [3] because of the 2 claws [2].



F-4-66

After replacing ADF units

1) After executing the white level adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1. White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

2. Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

2) Execute the reading position adjustment with the following service mode.

- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning position in FEEDER mode)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)

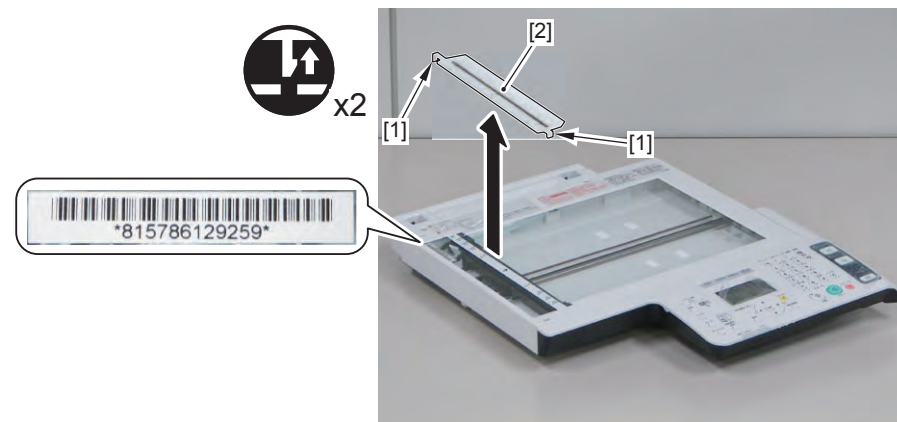
3) Execute the original stop position and feed speed adjustment at stream reading.

- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
- FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

After replacing reader units

1) Release 2 claws [1] and Remove the Scoopup sheet holder [2], Enter the setting value of the Standard White Plate.

- COPIER > ADJUST > CCD > W-PLT-X (X signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Y (Y signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Z (Z signal data for the standard white plate)



F-4-67

2) Execute the white level adjustment.

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

3) After executing the CCD reading position adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1. COPIER> FUNCTION> INSTALL> STRD-POS (CCD reading position adjustment auto execution)
2. COPIER> ADJUST> ADJ-XY> STRD-POS (CCD reading position adjustment value reference)

4) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1. White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])

scanning])

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2. Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

5) Enter the value on the label packed with the part in the following service mode item.

- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning position in FEEDER mode)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)
- COPIER> ADJUST> CCD> 50-RG (Color displacement correction value between RG in the vertical scanning direction (50%))
- COPIER> ADJUST> CCD>50-GB (Color displacement correction value between GB in the vertical scanning direction (50%))
- COPIER> ADJUST> CCD>100-RG (Color displacement correction value between RG in the vertical scanning direction (100%))
- COPIER> ADJUST> CCD>100-GB (Color displacement correction value between GB in the vertical scanning direction (100%))
- COPIER>ADJUST>PASCAL>OFST-P-Y (Adjustment of test chart reading density)
- COPIER>ADJUST>PASCAL> OFST-P-M (Adjustment of test chart reading density)
- COPIER>ADJUST>PASCAL> OFST-P-C (Adjustment of test chart reading density)
- COPIER>ADJUST>PASCAL> OFST-P-K (Adjustment of test chart reading density)

6) Read the image and execute the adjustment with the following service mode.

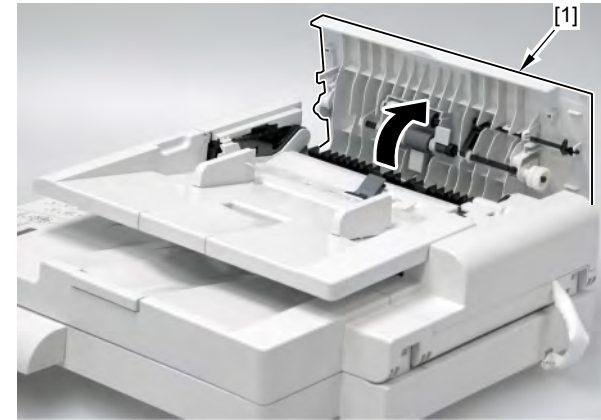
- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
- FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

Removing the ADF Roller Unit

Caution:

Do not touch the surface of the roller.

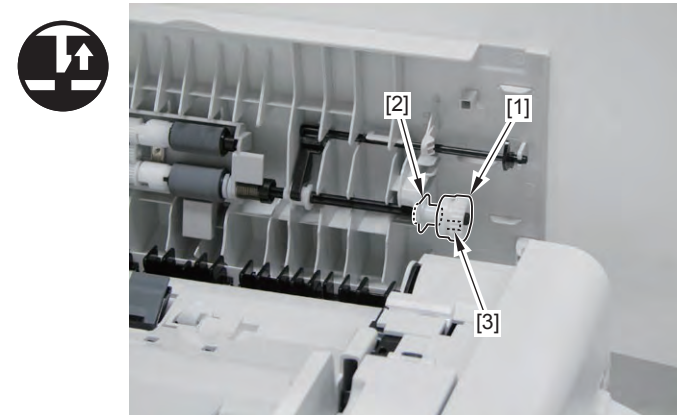
1) Open the ADF Upper Cover [1].



F-4-68

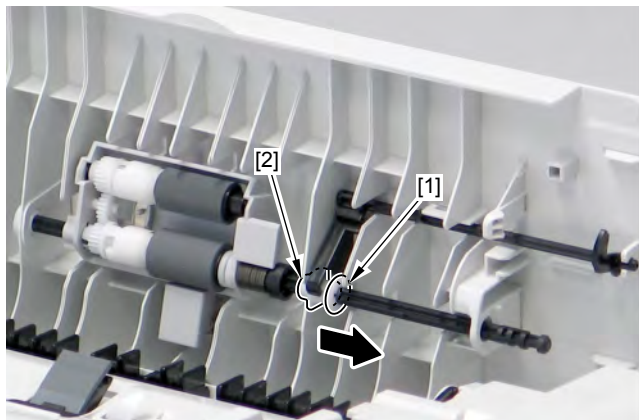
2) Remove the gear [1] and the bushing [2].

- 1 claw [3]



F-4-69

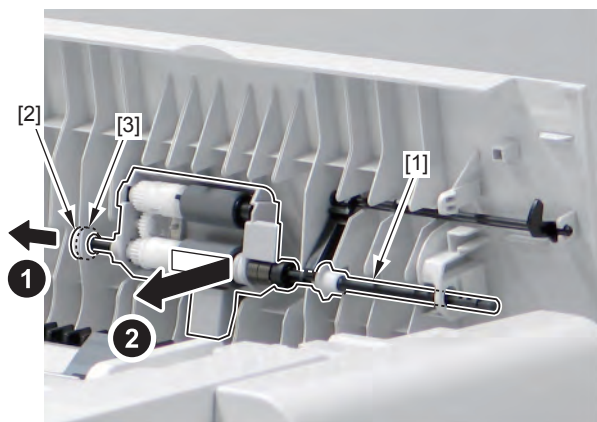
3) Remove the plastic E-ring [1] and slide the bushing [2].



F-4-70

4) Remove the ADF Roller Unit [1].

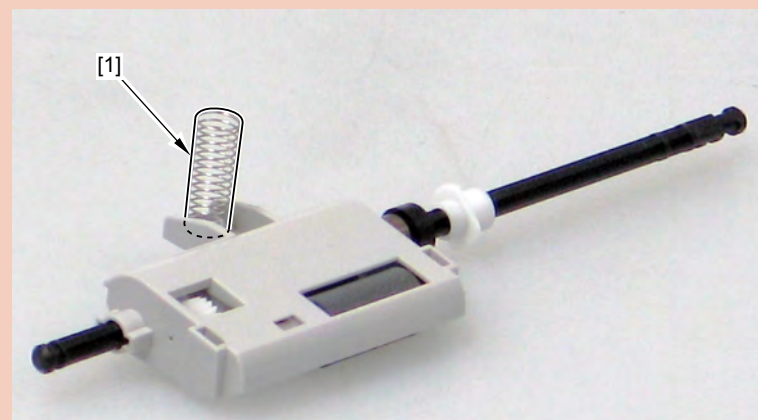
- 1 plastic E-ring [2]
- 1 bushing [3]



F-4-71

Caution:

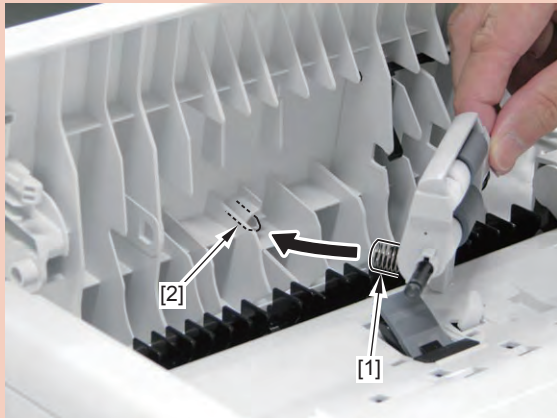
Be careful not to lose the spring [1] attached to the ADF Roller Unit.



F-4-72

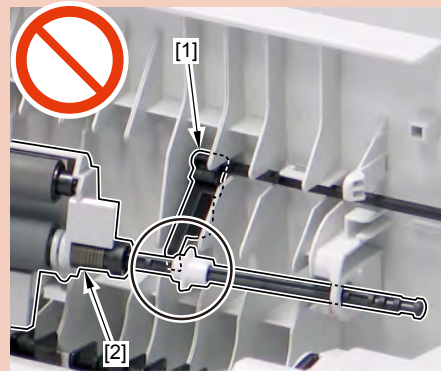
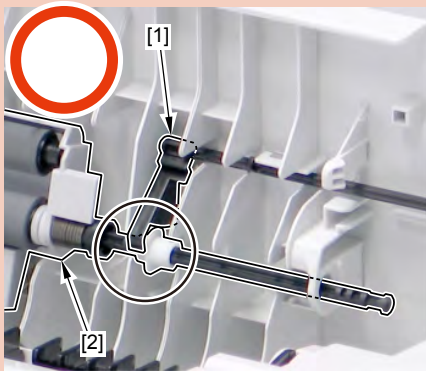
Caution:

- When installing, match the spring [1] of the ADF Roller Unit to the boss [2].



F-4-73

- Be sure to put the Sensor Flag [1] above the ADF Roller Unit [2] at installation work.



F-4-74

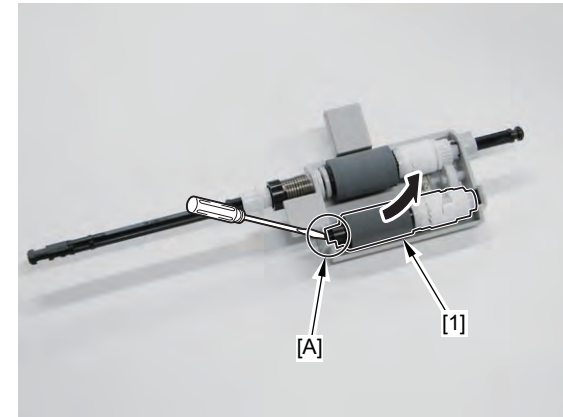
Removing the ADF Pickup Roller**Pre-procedure**

- Remove the ADF Roller Unit. Refer to page 4-37.

Procedure**Caution:**

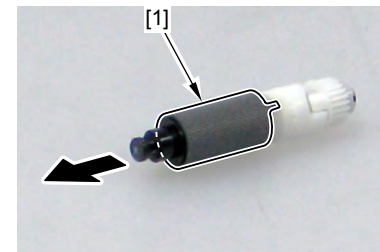
Do not touch the surface of the roller.

- Insert the end of the flat-blade screwdriver into the [A] part to remove the ADF Pickup Roller Unit [1].



F-4-75

- Remove the ADF Pickup Roller [1].



F-4-76

■ Removing the ADF Separation Roller

Pre-procedure

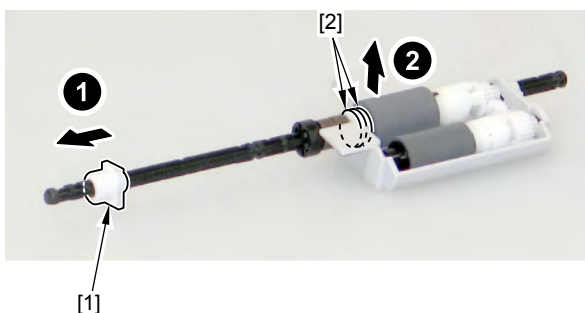
1) Remove the ADF Roller Unit. Refer to page 4-37.

Procedure

Caution:

Do not touch the surface of the roller.

1) Remove the bushing [1] and the 2 plastic E-rings [2].

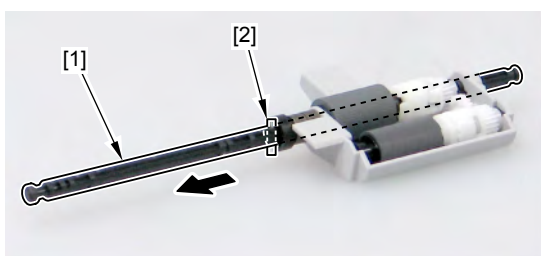


F-4-77

2) Slide the Roller Shaft [1] to remove the parallel pin [2] and the bushing [3].

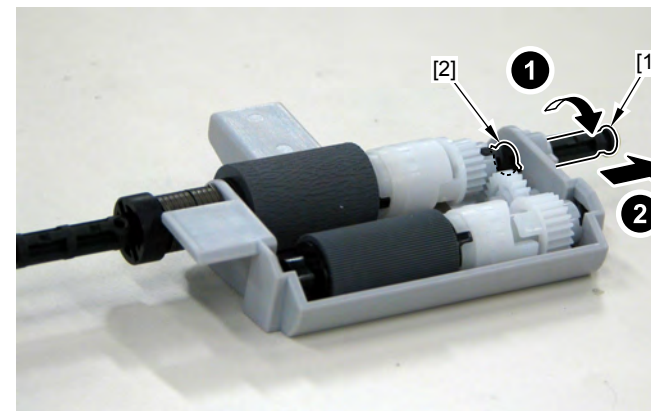
Caution:

Be careful not to lose the parallel pin [2] at assembly/disassembly.



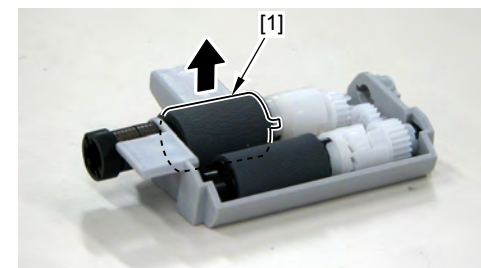
F-4-78

3) Turn the Roller Shaft [1] in the direction of the arrow and fit the projection [2] to the hole of the Roller Holder to remove.



F-4-79

4) Remove the ADF Separation Roller [1].



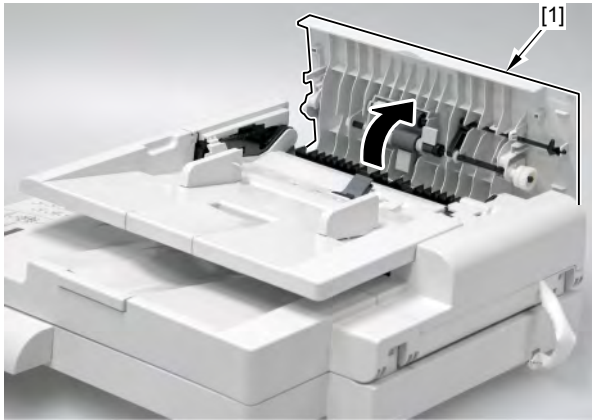
F-4-80

Removing the ADF Separation Pad (MF8350/8330)

Caution:

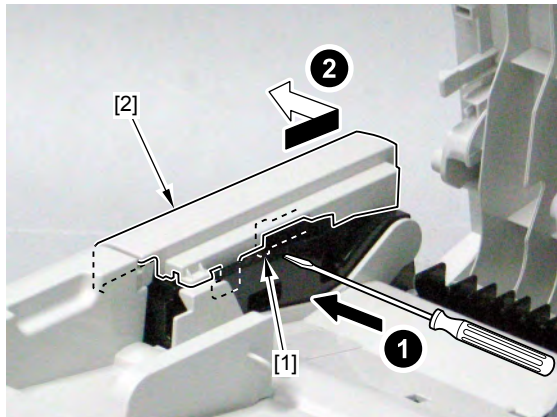
Do not touch the surface of the roller or pad.

1) Open the ADF Upper Cover [1].



F-4-81

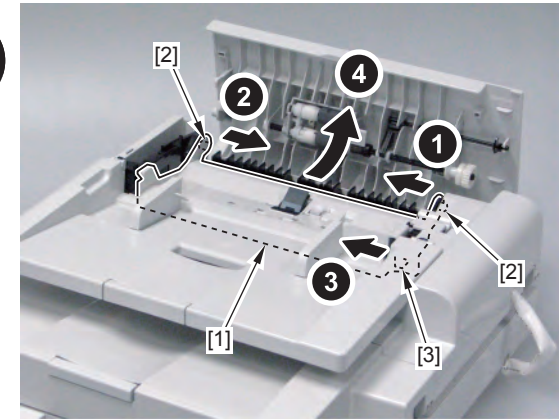
2) Unhook the hook [1] using the flat-head screw driver and remove the ADF Front Cover [2] in the direction of the arrow.



F-4-82

3) Remove the Feed Guide [1] in the direction of the arrow.

- 2 bosses [2]
- 1 claw [3]

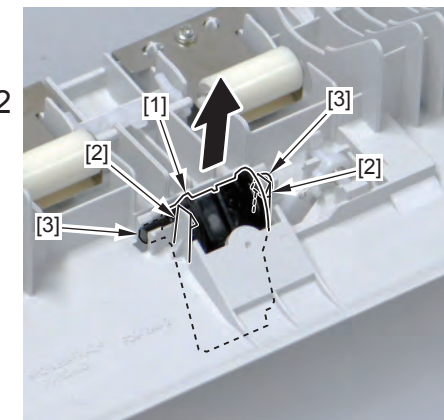


F-4-83

4) Reverse the Feed Guide.

5) Remove the Separation Pad Holder [1].

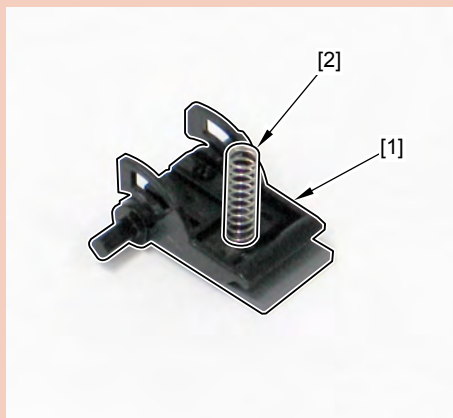
- 2 Claws [2]
- 2 Shafts [3]



F-4-84

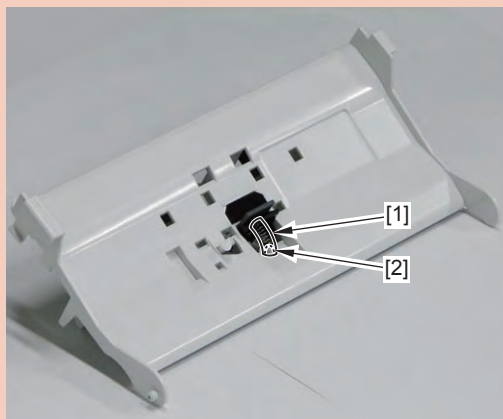
Caution:

- Be careful not to lose the spring [2] attached to the Separation Pad Holder [1].



F-4-85

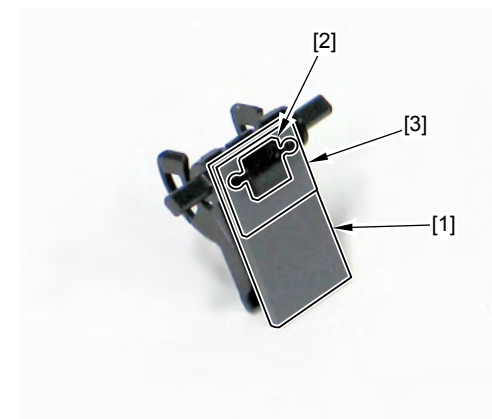
- When installing, match the spring [1] to the boss [2] of the Feed Guide.



F-4-86

6) Remove the Separation Pad [1].

- Pad retainer [2]
- Sheet [3]



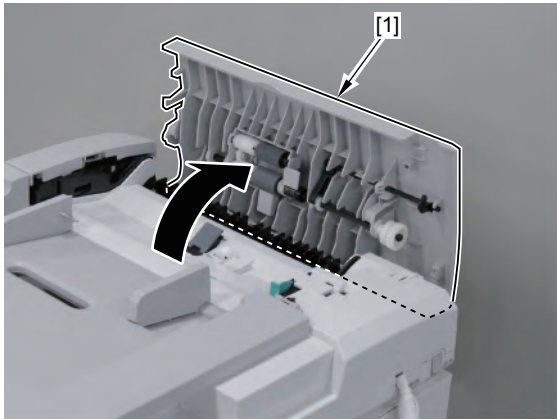
F-4-87

Removing the ADF Separation Pad (MF8380/8360/8340)

Caution:

Do not touch the surface of the roller or pad.

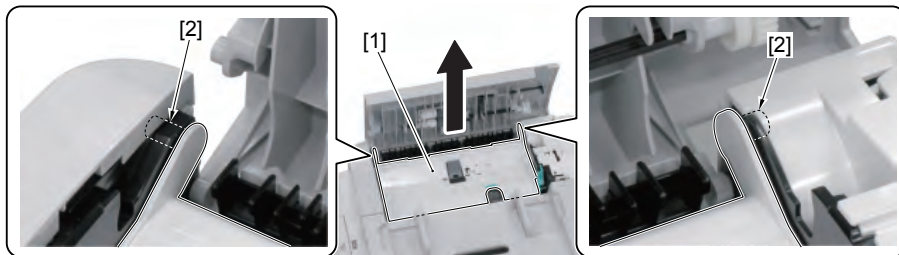
1) Open the ADF Upper Cover [1].



F-4-88

2) Remove the Feed Guide [1].

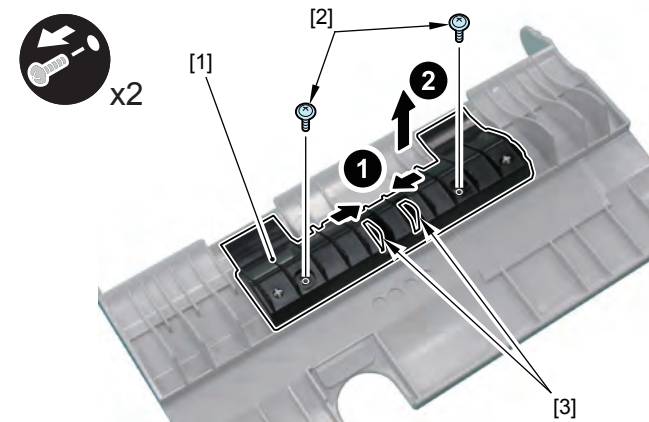
- 2 Bosses [2]



F-4-89

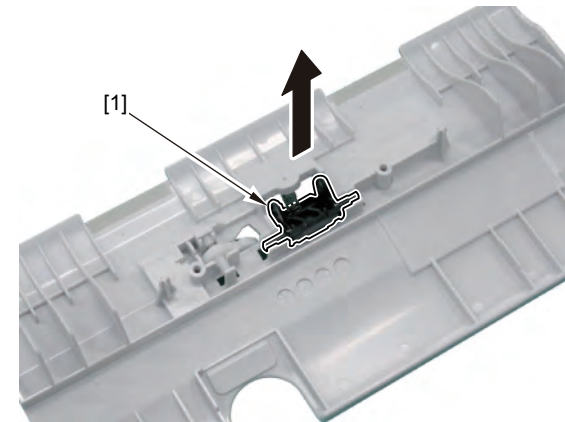
3) Remove the Retaining Plate [1] On the Back of the Feed Guide.

- 2 Screws [2]
- 2 Tabs [3] of the Separation Pad Holder



F-4-90

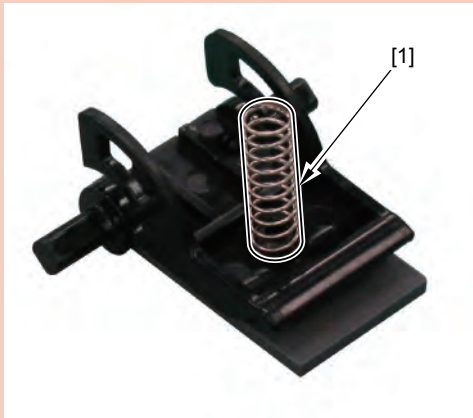
4) Remove the Separation Pad Holder [1].



F-4-91

Caution:

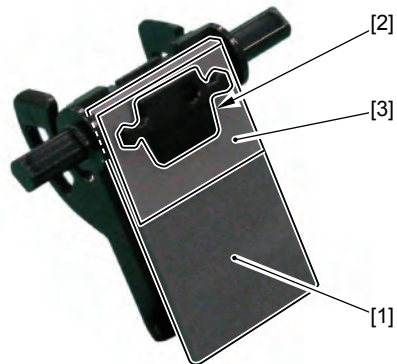
Be careful not to lose the Spring [1] on the Separation Pad Holder.



F-4-92

5) Remove the ADF Separation Pad [1].

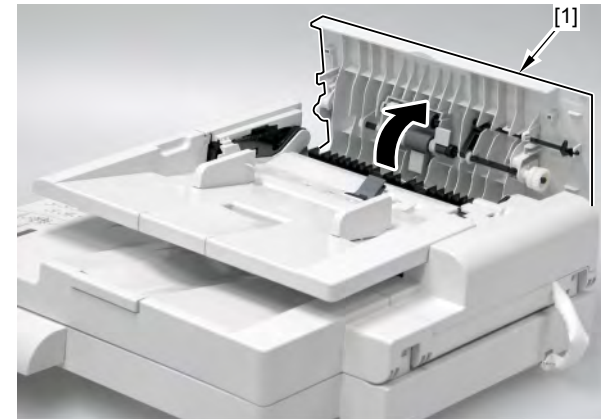
- Pad Retainer [2]
- Sheet [3]



F-4-93

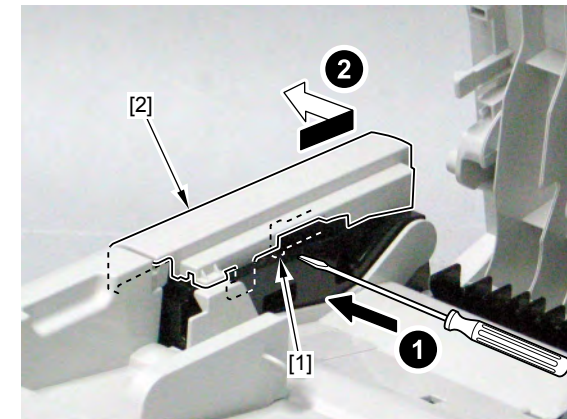
■ Removing the ADF Pickup Feed Unit (MF8350/8330)

1) Open the ADF Upper Cover [1].



F-4-94

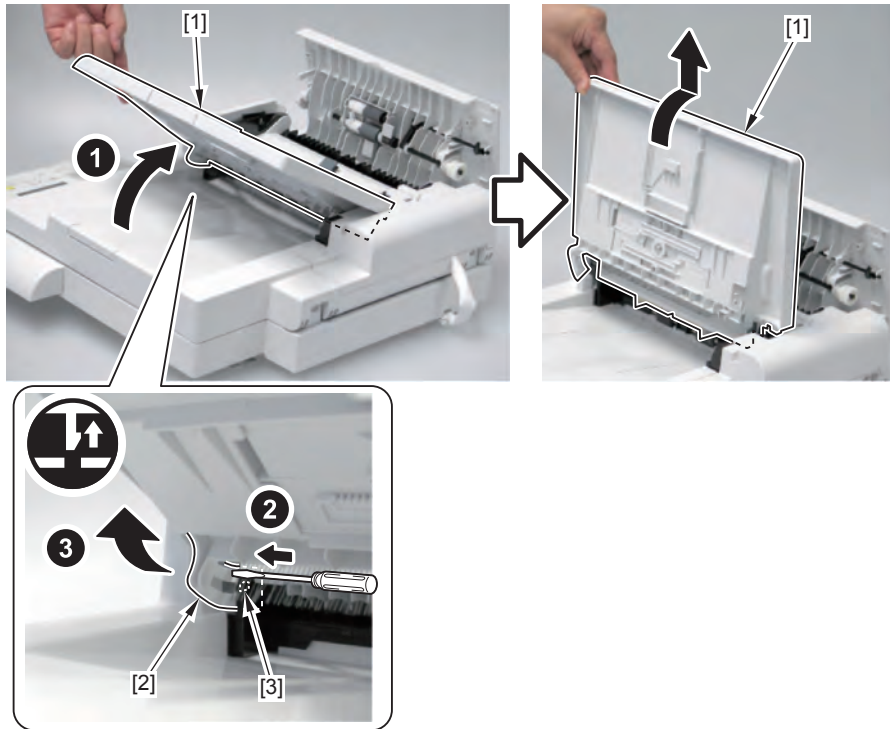
2) Remove the ADF Front Cover [1] in the direction of the arrow.



F-4-95

3) Lift the ADF Tray [1] until it stops and release the hook [2] to tip the tray into the perpendicular position and remove by pulling upward.

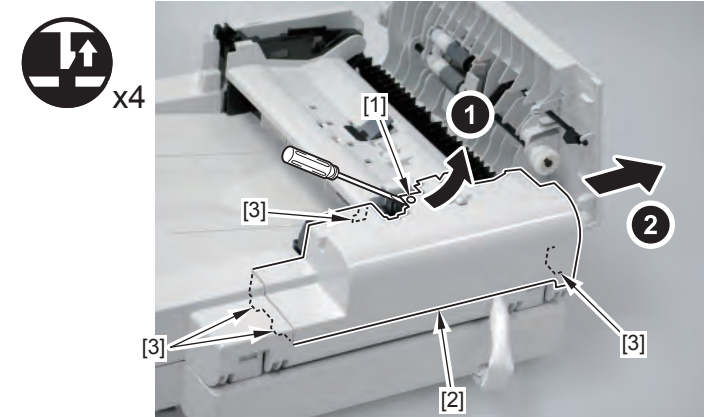
- 1 Claw [3]



F-4-96

4) Remove the boss [1] to remove the ADF Rear Cover [2] in the direction of the arrow.

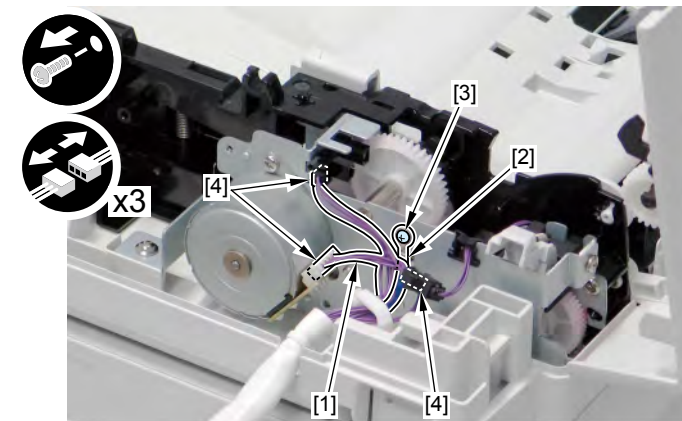
- 4 claws [3]



F-4-97

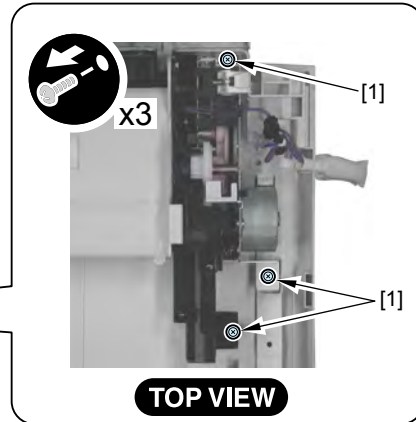
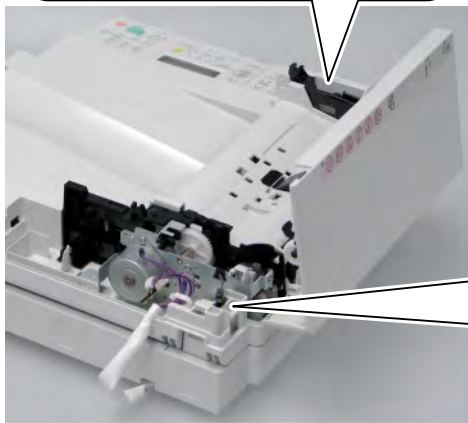
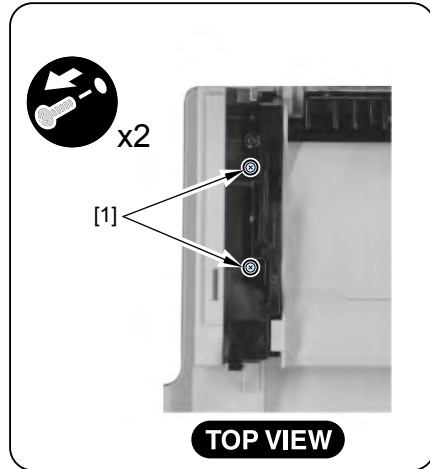
5) Remove the harness [1] and the grounding cord [2].

- 1 screw (binding) [3]
- 3 connectors [4]



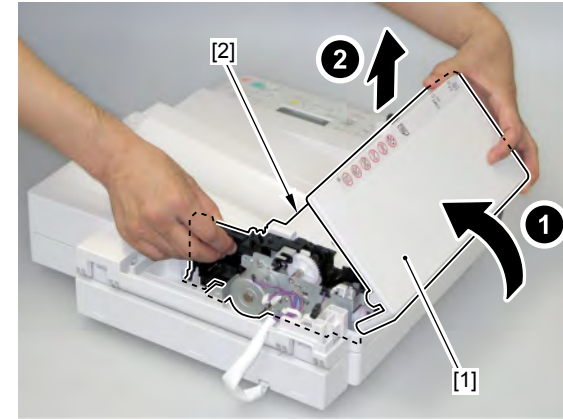
F-4-98

6) Remove the 4 screws [1] of the ADF Pickup Feed Unit.



F-4-99

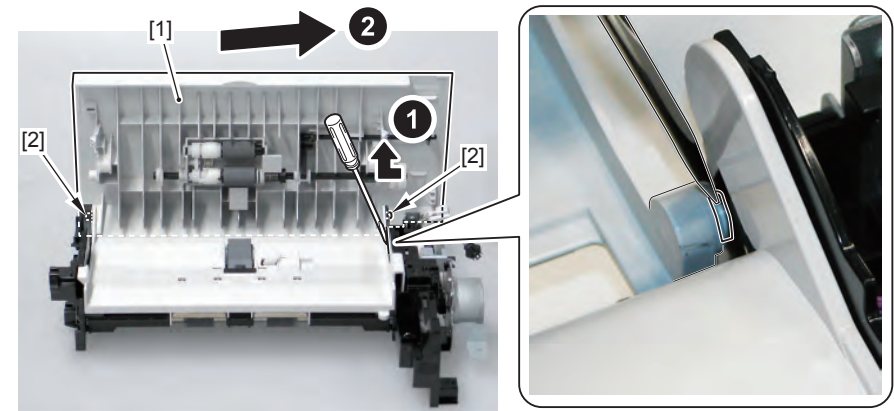
7) Close the ADF Upper Cover [1] to remove the ADF Pickup Feed Unit [2].



F-4-100

8) Remove the ADF Upper Cover Unit [1].

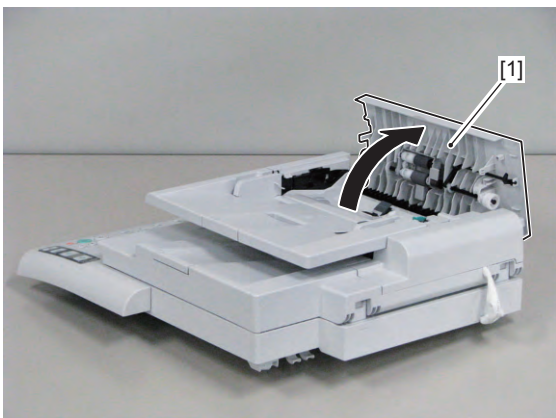
- 2 bosses [2]



F-4-101

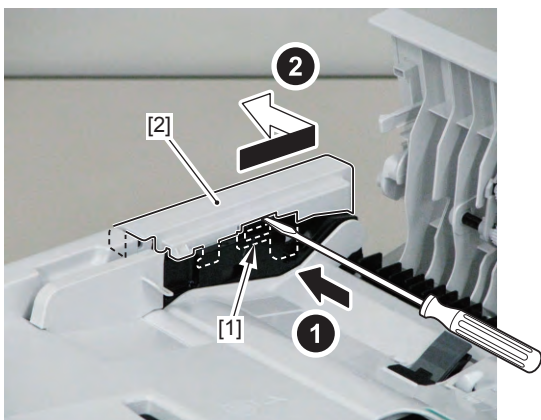
■ Removing the ADF Pickup Feed Unit (MF8380/8360/8340)

1) Open the ADF Upper Cover [1].



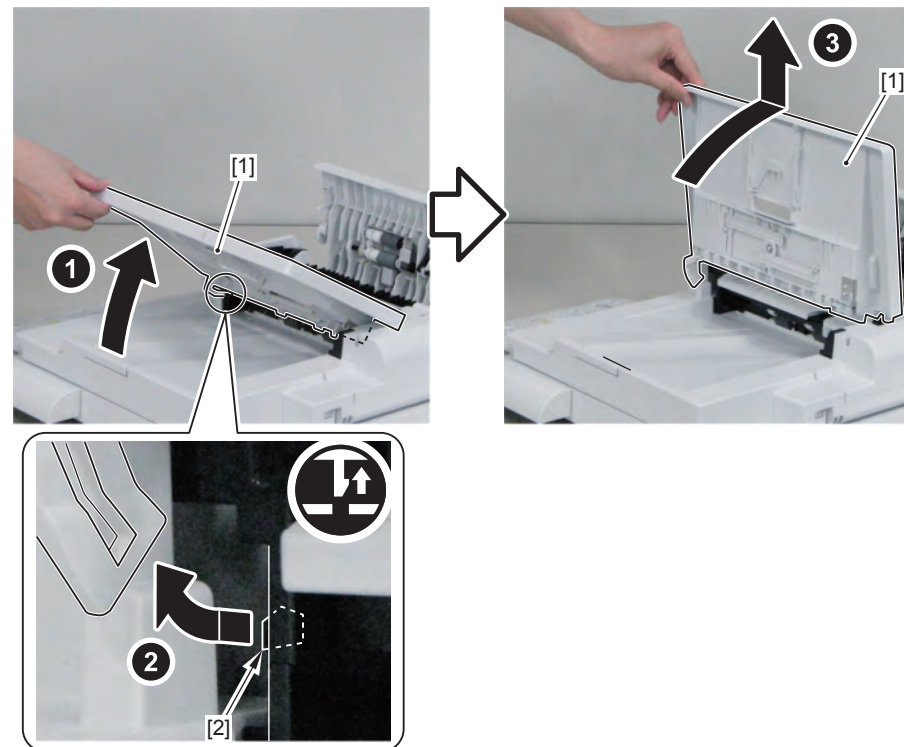
F-4-102

2) Remove the hook [1] using flat-head driver, and remove the ADF Front Cover [2] in the direction of the arrow.



F-4-103

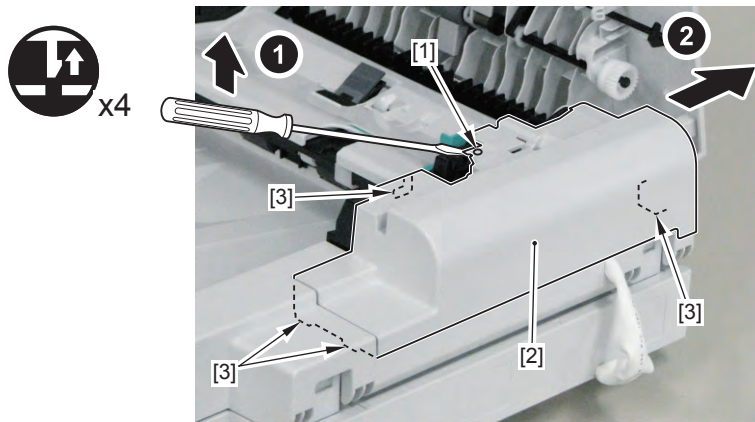
3) Lift the ADF Tray [1] until it stops and release the hook [2] to tip the tray into the perpendicular position and remove by pulling upward.



F-4-104

4) Remove the boss [1] to remove the ADF Rear Cover [2] in the direction of the arrow.

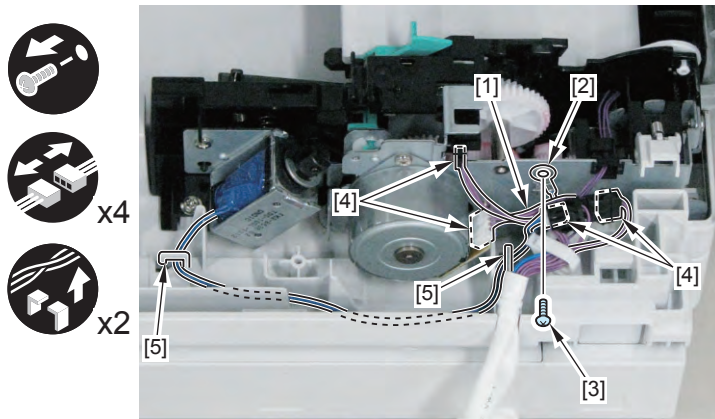
- 4 claws [3]



F-4-105

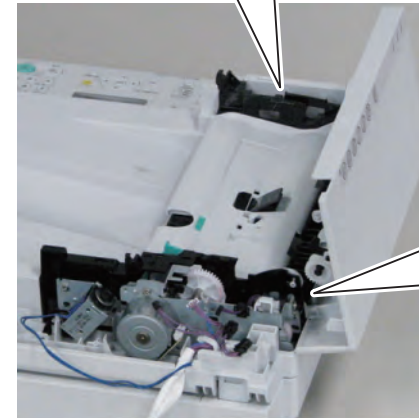
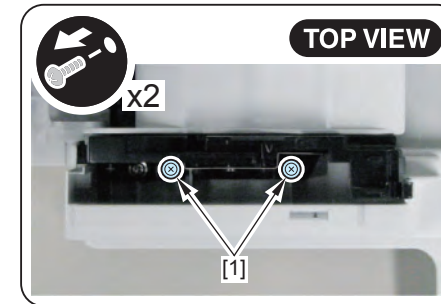
5) Remove the harness [1] and the grounding cord [2].

- 1 screw (binding) [3]
- 4 connectors [4]
- 2 Harness Guide [5]



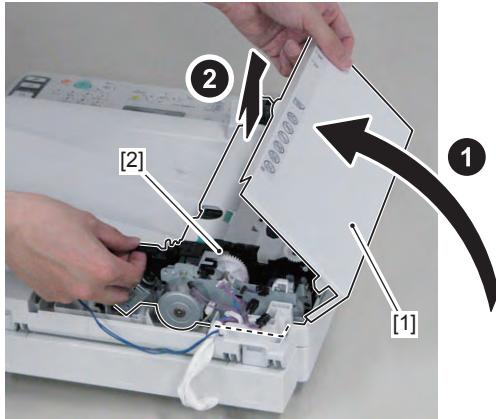
F-4-106

6) Remove the 4 screws [1] of the ADF Pickup Feed Unit.



F-4-107

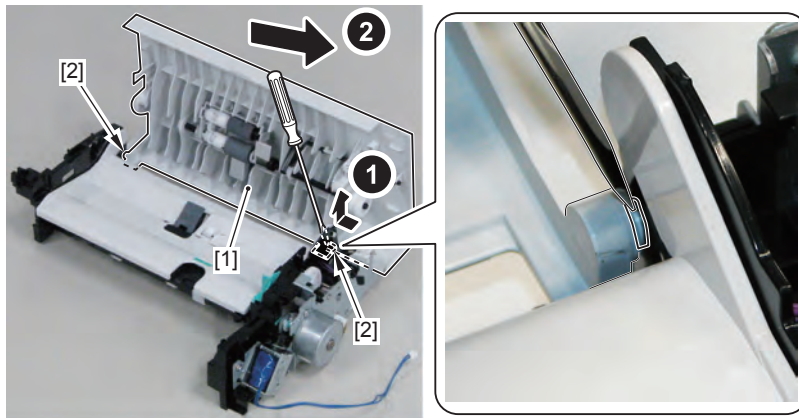
7) Close the ADF Upper Cover [1] to remove the ADF Pickup Feed Unit [2].



F-4-108

8) Remove the ADF Upper Cover Unit [1].

- 2 bosses [2]



F-4-109

■ Removing the ADF Pickup Motor

Pre-procedure

1) Remove the ADF Pickup Feed Unit. (Refer to page 4-44) / Refer to page 4-47.

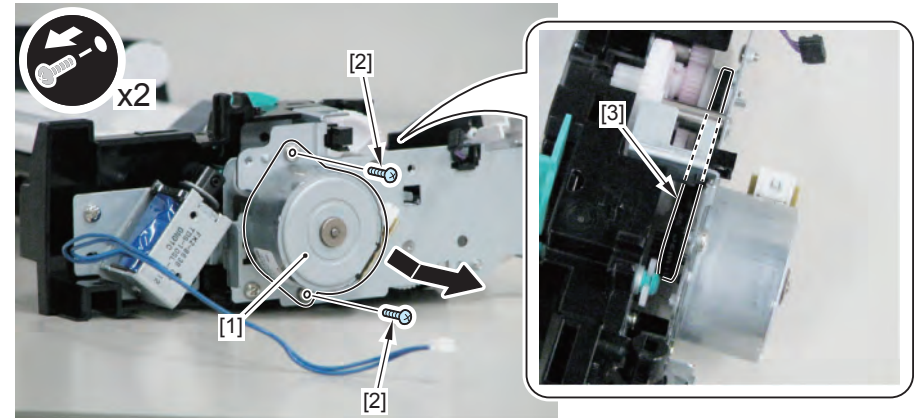
Procedure

NOTE:

When removing the ADF Pickup Motor, it is not necessary to remove the ADF Upper Cover Unit described in the previous step.

1) Remove the ADF Motor [1] in the direction of the arrow.

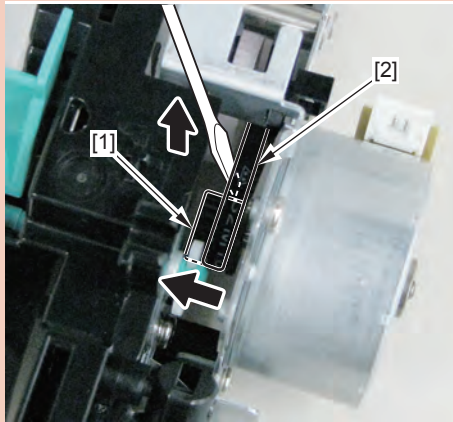
- 2 screws [2]
- 1 belt [3]



F-4-110

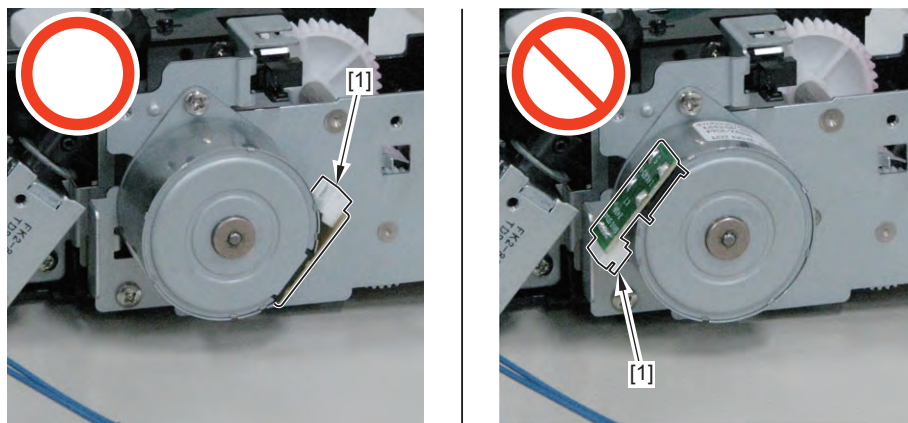
Caution:

- When installing the ADF Pickup Motor, be sure to hook the gear [1] of the motor on the belt [2].



F-4-111

- When installing the ADF Pickup Motor, be sure to install with the connector [1] on the right side.



F-4-112

Removing the Reader Unit Upper Cover

Pre-procedure

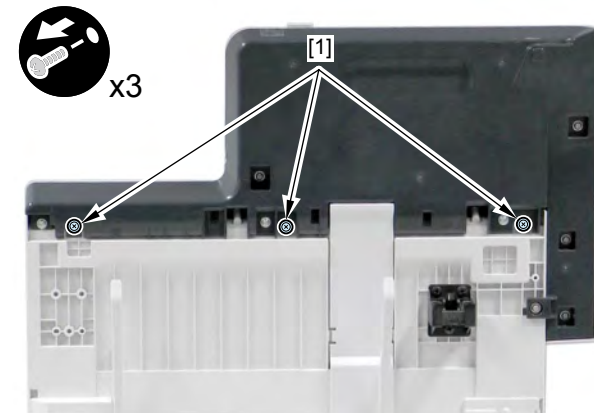
- 1) Remove the Right Cover. Refer to page 4-23.
- 2) Remove the Left Cover. Refer to page 4-21.
- 3) Remove the ADF Unit + Reader Unit. Refer to page 4-33.
- 4) Separate the ADF Unit from the Reader Unit. Refer to page 4-34.

Procedure

Caution:

To replace the Copyboard Glass, be sure to replace the Copyboard Glass together with the Reader Unit Upper Cover.

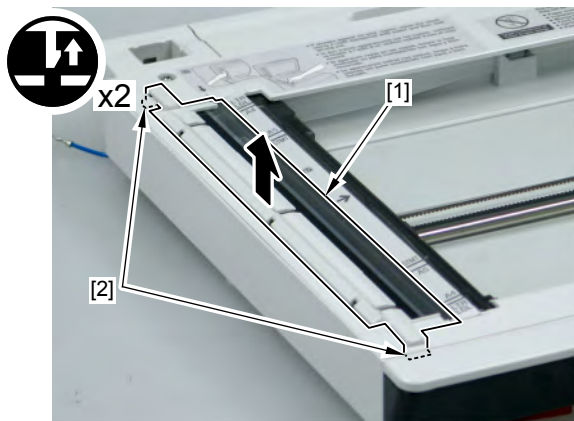
- 1) Remove the 3 screws [1] at the bottom of the Reader Unit.



F-4-113

2) Remove the Scoopup sheet holder [1].

- 2 claws [2]



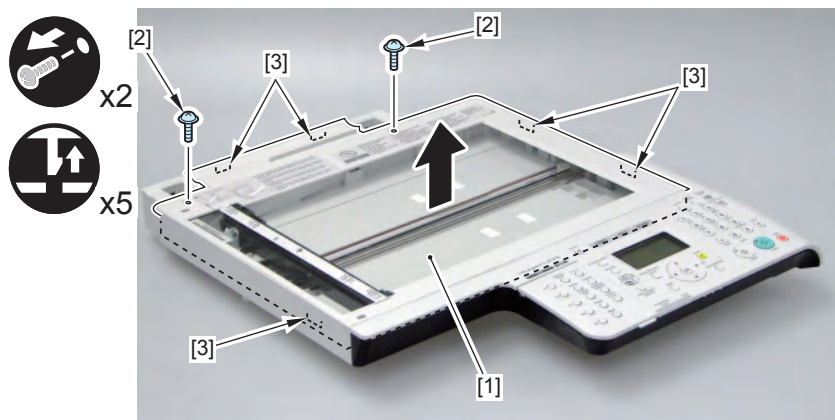
F-4-114

3) Remove the Reader Unit Upper Cover [1].

- 2 screws [2]
- 5 claws [3]

Caution:

Because the Copyboard Glass [2] is attached to the Upper Cover [1], be careful not to drop or damage the Upper Cover.



F-4-115

After Replacing the Reader Upper Cover Unit

1) Enter the setting value of the Standard White Plate.

- COPIER > ADJUST > CCD > W-PLT-X (X signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Y (Y signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Z (Z signal data for the standard white plate)



F-4-116

2) After executing the CCD reading position adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

- 1.COPIER> FUNCTION> INSTALL> STRD-POS (CCD reading position adjustment auto execution)
- 2.COPIER> ADJUST> ADJ-XY> STRD-POS (CCD reading position adjustment value reference)

3) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1. White level adjustment

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2. Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

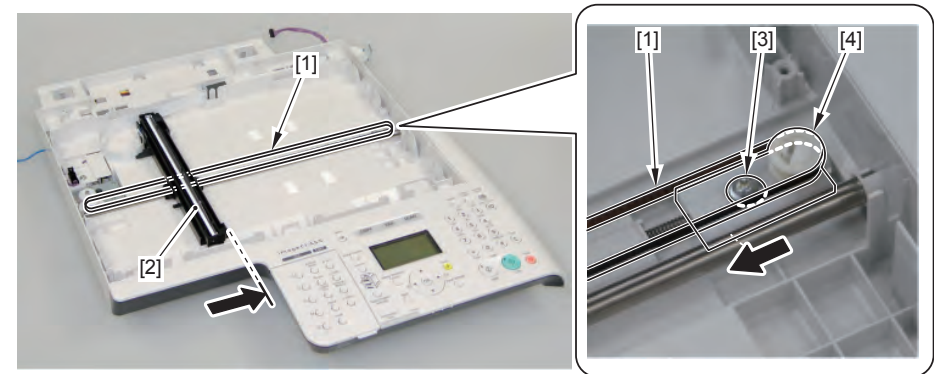
■ Removing the CIS Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page 4-23.
- 2) Remove the Left Cover. Refer to page 4-21.
- 3) Remove the ADF Unit + Reader Unit. Refer to page 4-33.
- 4) Separate the ADF Unit from the Reader Unit. Refer to page 4-34.
- 5) Remove the Reader Unit Upper Cover Unit. 4-13.

Procedure

- 1) Loosen the screw [1] and move the Pulley holder [2] in the direction to the arrow to remove the drive belt [3].



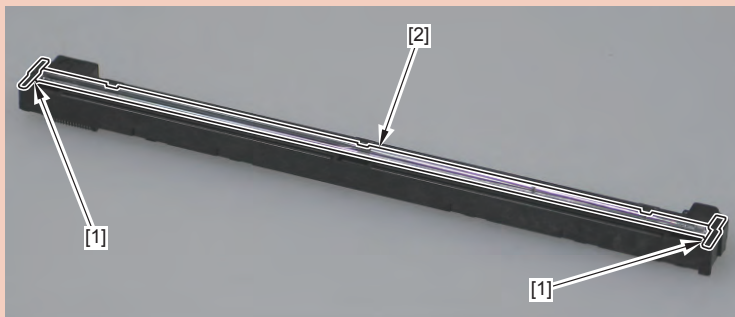
F-4-117

2) Remove the CIS Unit Mount [1] and remove the flat cable [2].

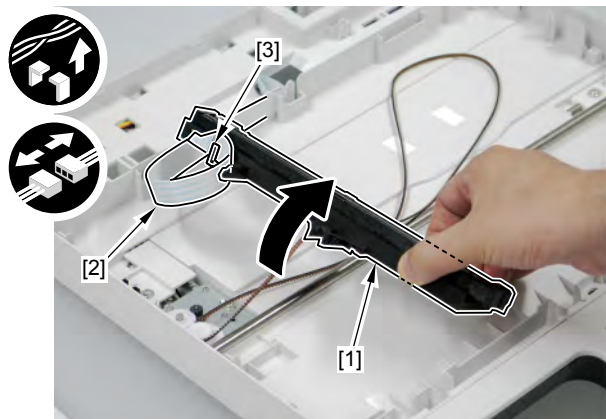
- 1 guide [3]

Caution:

- When assembling/disassembling the copyboard glass, take care not to lose the 2 CIS unit spacers [1].
- When assembling/disassembling the copyboard glass, do not touch the copy reading area [2] of the CIS unit.

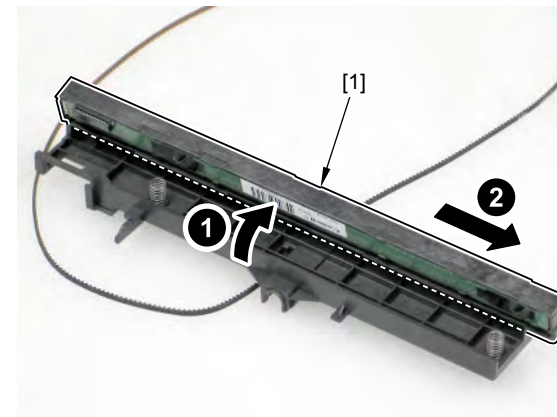


F-4-118



F-4-119

3) Bring up the CIS Unit [1] to remove in the direction of the arrow.

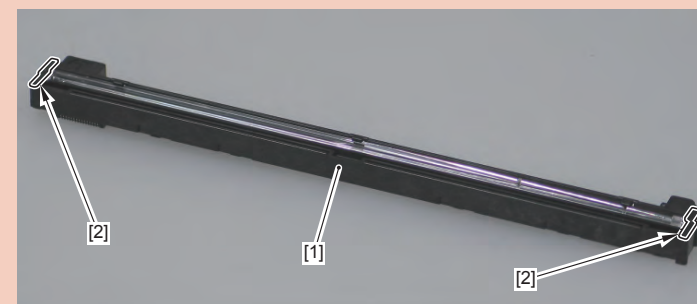


F-4-120

Caution:

When replacing the CIS Unit [1], be sure to replace the CIS Unit [1] and the CIS Spacer [2], which are included in the package of the service part, at the same time.

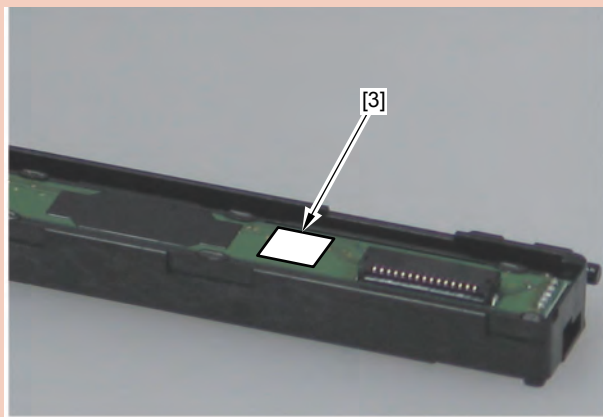
If a different spacer is used, image reading error may occur.



F-4-121

Caution:

- When installing the CIS Unit [1], be sure to replace the CIS Spacer [2] together with the CIS Unit [1] (included in the package of the Service Parts).



F-4-122

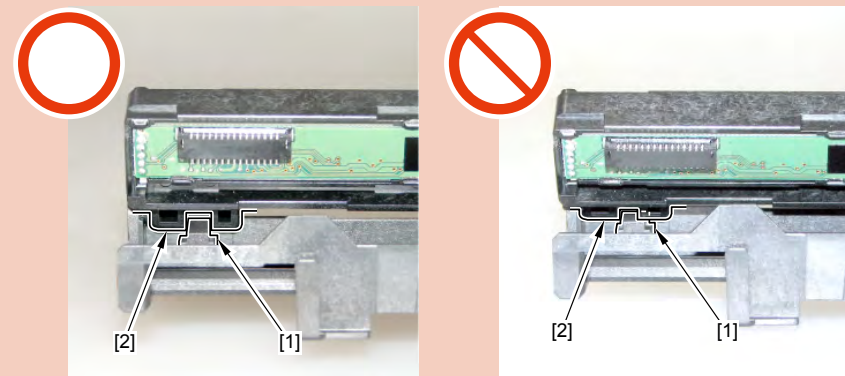
- When the CIS Spacers are mixed up or lost, check the CIS Rank Label [3] to use, and use the appropriate CIS Spacer that fits the rank of the CIS Unit.

Rank	Dimension (Height of spacer)	Part No.	Color of spacer
rank A	1.17 mm	FC9-7573	light gray
rank B	1.27 mm	FC9-7571	dark gray
rank C	1.37 mm	FC9-7574	brown

T-4-2

Caution:

When installing the CIS Unit, be sure to check that the projection [1] is fitted to the dent [2] to install.



F-4-123

After replacing CIS units

1) Execute the white level adjustment. If it fails, turn OFF/ON the power and execute the operation again.

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

2) After executing the CCD reading position adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1. COPIER> FUNCTION> INSTALL> STRD-POS (CCD reading position adjustment auto execution)
2. COPIER> ADJUST> ADJ-XY> STRD-POS (CCD reading position adjustment value reference)

3) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1. White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2. Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

4) Execute the reading position adjustment with the following service mode.

- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning position in FEEDER mode)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)

5) Execute the original stop position and feed speed adjustment at stream reading.

- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
- FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

Removing the Reader Scanner Motor

Pre-procedure

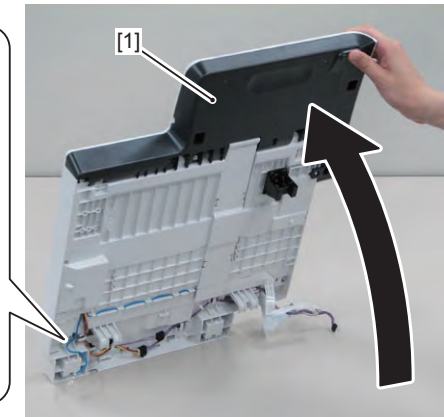
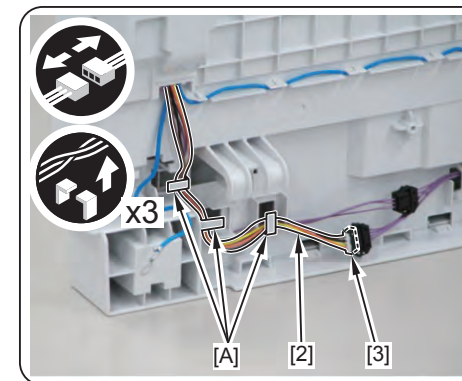
- 1) Remove the Right Cover. Refer to page 4-23.
- 2) Remove the Left Cover. Refer to page 4-21.
- 3) Remove the ADF Unit + Reader Unit. Refer to page 4-33.
- 4) Separate the ADF Unit from the Reader Unit. Refer to page 4-34.
- 5) Remove the Reader Unit Upper Cover Unit. Refer to page 4-50.

Procedure

- 1) Free the harness [2] while holding the Reader Unit [1].
 - 1 Connector [3]
 - 3 Harness Guides at the [A] location

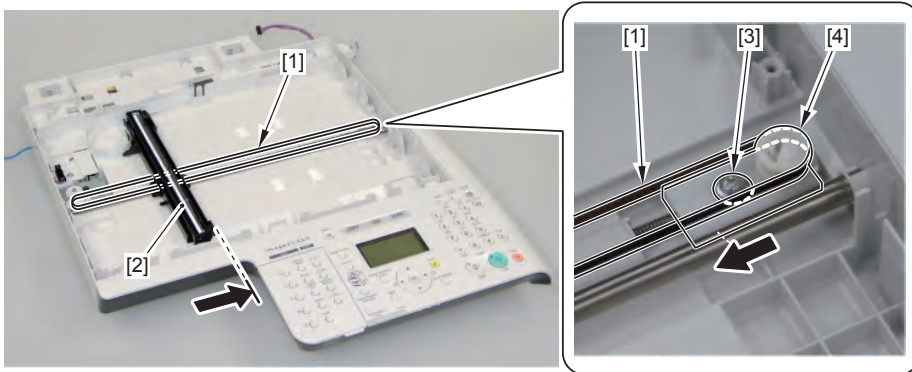
CAUTION:

To prevent parts on the top side of the Reader Unit, do not tip the Reader Unit [1] into the perpendicular position.

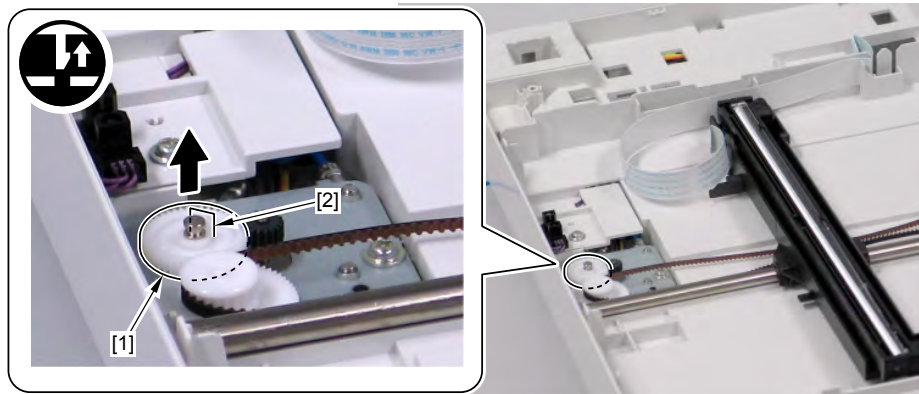


F-4-124

- 2) Pull the Drive Belt [1] to move the CIS Unit [2].
 3) Loosen the screw [3] and move the Pulley Holder [4] in the direction of the arrow to remove the Drive Belt [1].

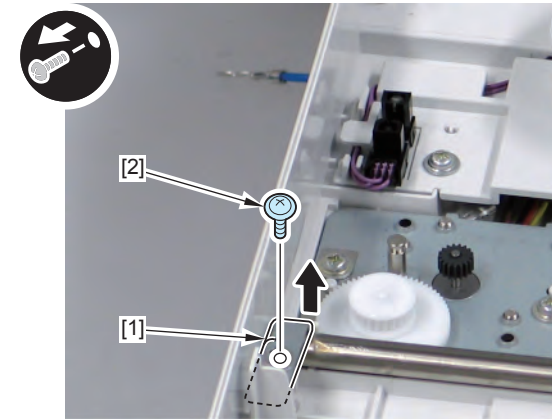


- 4) Remove the gear [1].
 • 1 claw [2]



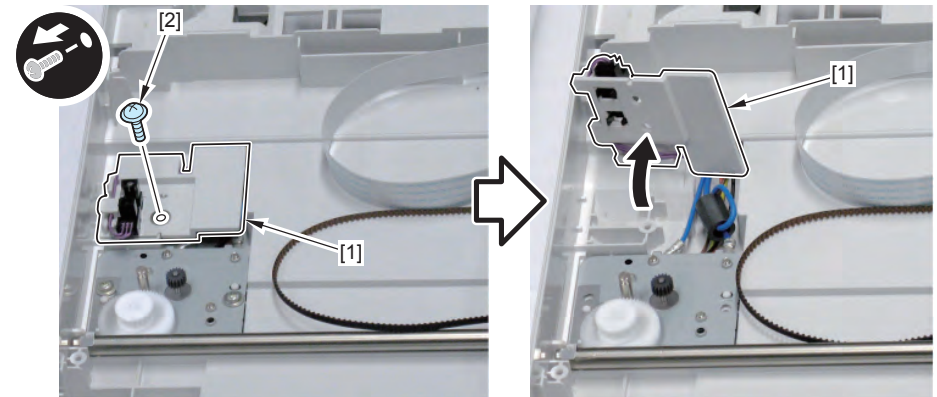
F-4-125

- 5) Remove the Shaft Retaining Plate [1].
 • 1 screw [2]



F-4-126

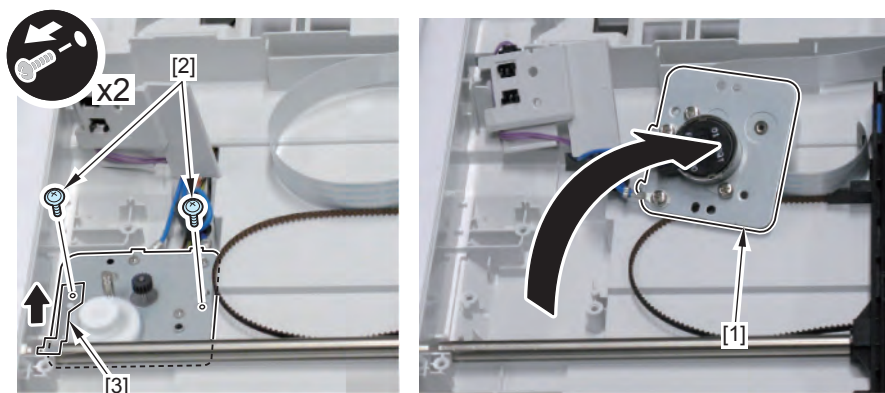
- 6) Move the Sensor Mount [1].
 • 1 screw [2]



F-4-127

7) Move the Motor Mounting Plate [1] and turn it over.

- 2 screws [2]
- 1 Grounding Plate [3]

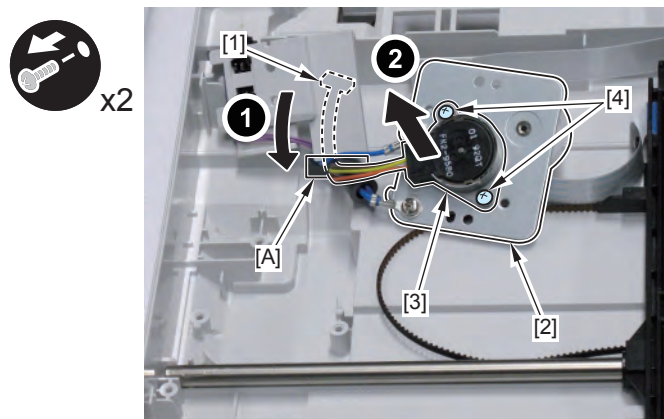


F-4-128

8) Pass the connector [1] through the hole [A].

9) Remove the Reader Scanner Motor [3] from the Motor Mounting Plate [2].

- 2 screws [4]

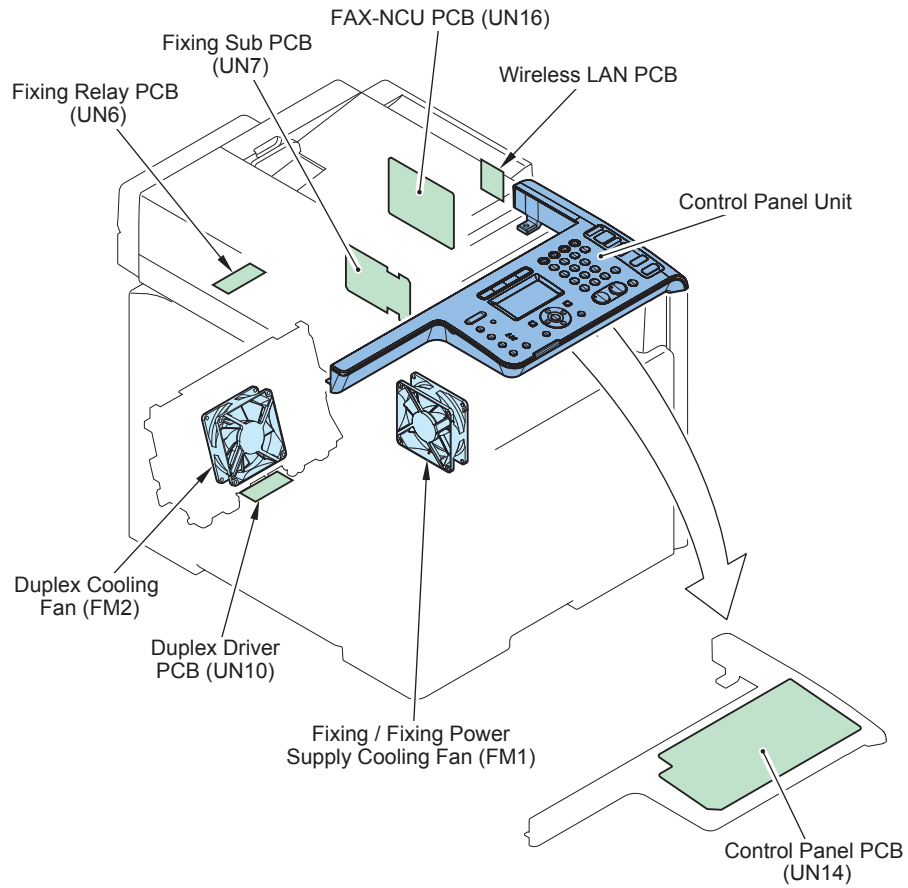


F-4-129

Controller System

Location

(1/2)

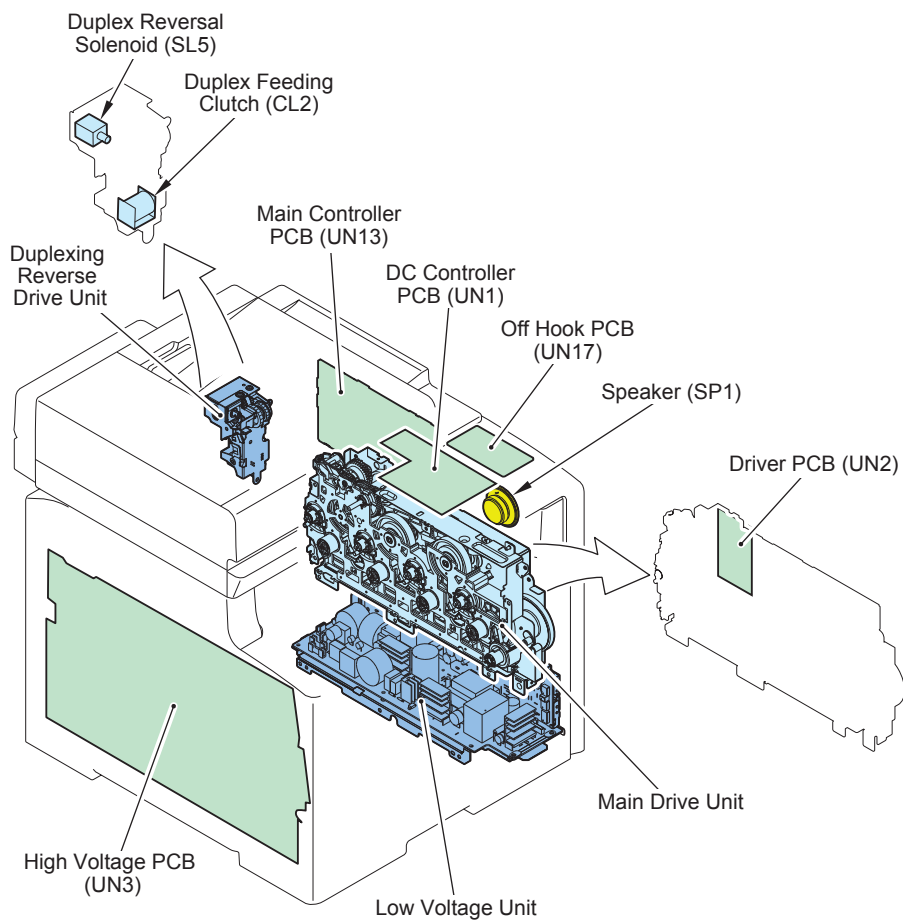


F-4-130

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	Control Panel Unit	(MF8350/8330)	Refer to page 4-71	-
-		(MF8380/8360 /8340)	Refer to page 4-72	-
UN14	Control Panel PCB	(MF8350/8330)	Refer to page 4-73	-
		(MF8380/8360 /8340)	Refer to page 4-74	-
FM1	Fixing/Fixing Power Supply Cooling Fan Unit	-	Refer to page 4-85	-
UN10	Duplex Driver PCB	-	Refer to page 4-69	-
FM2	Duplex Feeding Fan	-	Refer to page 4-86	-
UN6	Fixing Relay PCB	-	Refer to page 4-70	-
UN7	Fixing Sub PCB	-	Refer to page 4-68	-
UN16	FAX-NCU PCB	(MF8350/8380 /8360)	Refer to page 4-74	-
-	Wireless LAN PCB	(MF8380)	Refer to page 4-60	-

T-4-3

(2/2)



F-4-131

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	Duplex Reverse Drive Unit	-	Refer to page 4-82	-
UN13	Main Controller PCB	-	Refer to page 4-61	Refer to page 5-6
-	Main Drive Unit	-	Refer to page 4-75	-
SL5	Duplex Reversal Solenoid	-	-	-
CL2	Duplex Feeding Clutch	-	-	-
UN2	Driver PCB	-	Refer to page 4-69	-
UN1	DC Controller PCB	-	Refer to page 4-63	Refer to page 5-7
SP1	Speaker	(MF8350/8380 /8360)	Refer to page 4-88	-
FM3	Low Voltage Unit Cooling Fan	(MF8350/8380)	Refer to page 4-83	-
-	Low Voltage Unit	-	Refer to page 4-67	-
UN3	High Voltage Power Supply PCB	-	Refer to page 4-65	-
UN17	Off Hook PCB	(MF8380/8360)	Refer to page 4-75	-

T-4-4

■ Removing the Controller Cover

Pre-procedure

1) Removing the Right Cover. Refer to page 4-23

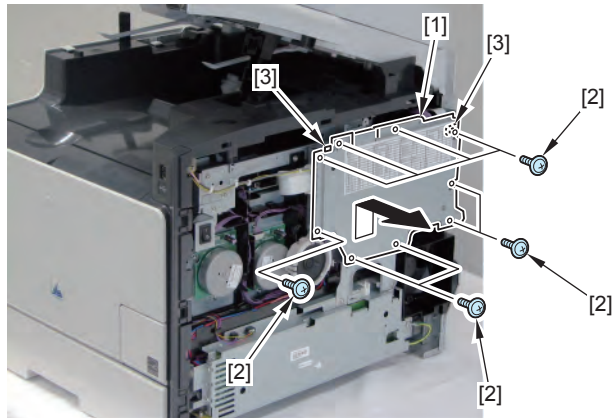
Procedure

1) Remove the Controller Cover [1].

- 9 Screws [2]
- 2 Hooks [3]



x9



F-4-132

■ Removing the Wireless LAN PCB (MF8380)

Pre-procedure

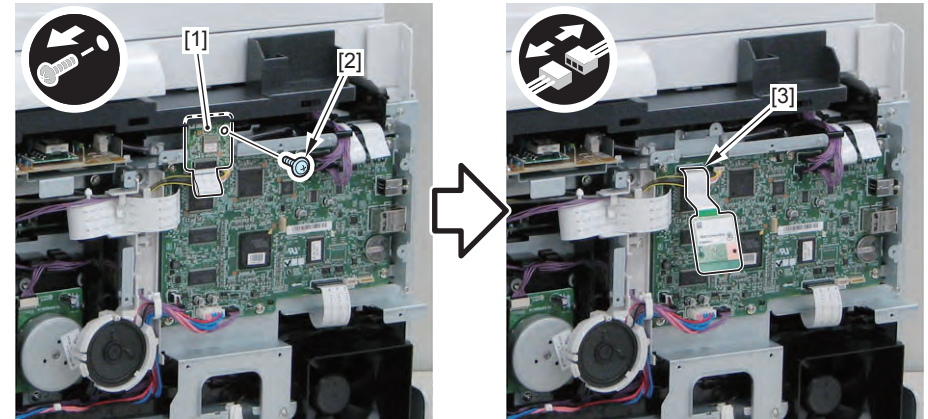
1) Removing the Right Cover. Refer to page 4-23

2) Removing the Controller Cover. Refer to page 4-60

Procedure

1) Remove the Wireless LAN PCB [1].

- 1 Screw [2]
- 1 Flat Cable [3]



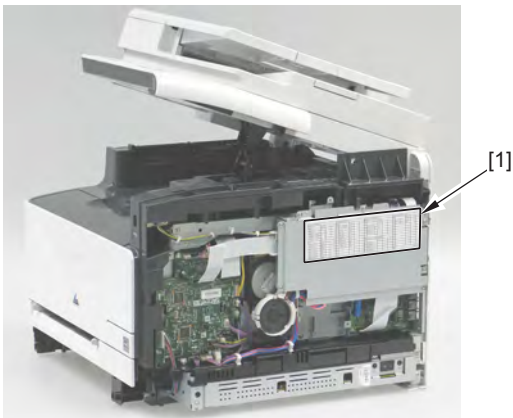
F-4-133

Removing the Main Controller PCB

Measures before the replacement

Back up user data (settings, registered data, etc.) and service mode data for setting and registration after PCB replacement. Take notes if data is unable to back up.

- 1) In Remote UI, export user data.
- 2) Record the default settings shown on the service label [1] (these are entered after replacement).



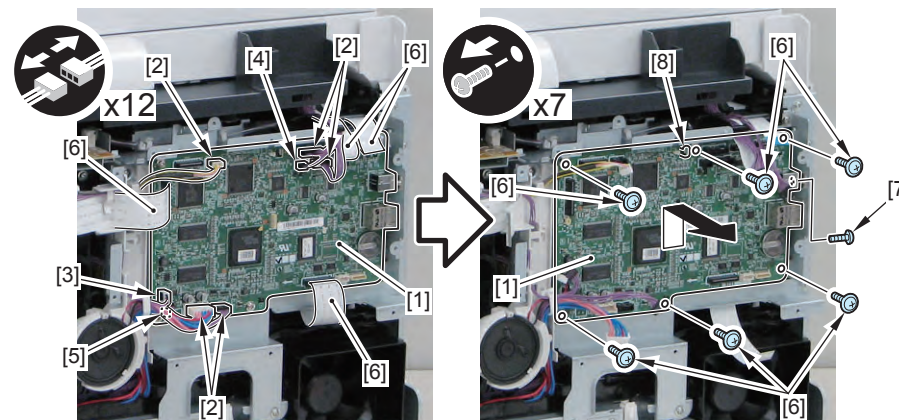
F-4-134

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Controller Cover. Refer to page 4-60
- 3) Removing the Wireless LAN PCB.(MF8380 only) Refer to page 4-60

Procedure

- 1) Remove the following parts from the the Main Controller PCB [1].
 - 6 Connectors [2]
 - 1 Connector [3] (Fax model only)
 - 1 Connector [4] (MF8380/8340 only)
 - 1 Connector [5] (MF8380 only)
 - 4 Flat Cables [6]
- 2) Remove the Main Controller PCB [1].
 - 6 Screws [6] (TP)
 - 1 Screw [7] (Binding)
 - 1 Hook [8]



F-4-135

After replacing main controller PCB

1. Setting of destination/paper size group

- 1) COPIER > OPTION > BODY > LOCALE (to set destination groups)

[Settings]

1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia,
8: Oceania

- 2) COPIER > OPTION > BODY > SIZE-LC (to set paper size groups)

[Settings]

1: AB series, 2: Inch series, 3: A series, 4: AB/Inch series

2. Clearing Setting/Registration data

- 1) COPIER > FUNCTION > CLEAR > ALL (to clear all data)

Once executed, the following data are cleared according to the values of LOCALE and SIZE-LC set in step 1.

- Setting / Registration data (the default value for each destination is set).
- Service mode data (the default value for each destination is set).
- Job IDs
- Log data
- Dates

- 2) COPIER > FUNCTION > CLEAR > R-CON (to clear default setting values for the reader/DF)

3. Adjustment, input of default setting values

- 1) Close the ADF.

- 2) COPIER> FUNCTION > CCD > CL-AGC, BW-AGC (to adjust white levels)

The white level is adjusted.

- 3) Enter default setting values indicated on the service label in the corresponding service mode items.

- 4) COPIER> FUNCTION > VIFFNC > STOR-DCN (to back up DC controller setting values)

Purpose: to be prepared for replacing DC controller PCBs

- 5) Turn off and on the power.

- 6) Start in the initial installation mode. Follow instructions shown on the screen for setup. (setting of date/time, auto-gradation correction)

- 7) In Remote UI, import user data.

4. Reinstall the drivers.

- 1) Uninstalling Old Drivers.

- Printer Driver
- FAX Driver
- Scanner Driver
- Network Scan Utility. (for machines with network connection)

* As for the procedure, refer to "Uninstalling the Software" in the Starter Guide.

- 2) Install the drivers which have been uninstalled in step 1.

* As for the procedure, refer to the following items in the Starter Guide.

- In case of network connection: "Installing via Network Connection"
- In case of USB connection: "Installing with USB Connection"

■ Removing the Main Controller Support Plate

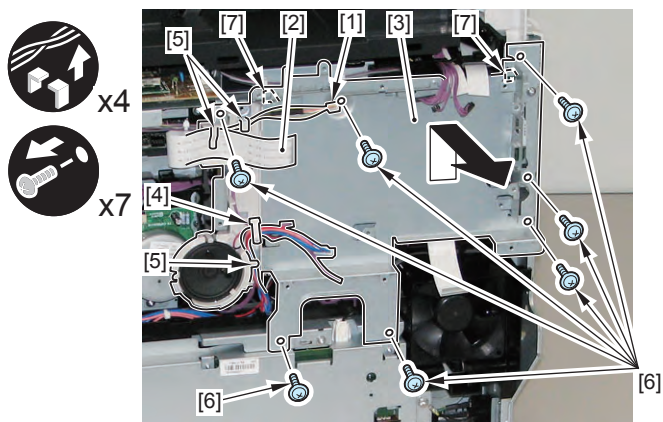
Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Controller Cover. Refer to page 4-60
- 3) Removing the Wireless LAN PCB.(MF8380 only) Refer to page 4-60
- 4) Removing the Main Controller PCB. Refer to page 4-61

Procedure

- 1) Free the harness [1] and Flat Cable [2], remove the Main Controller Support Plate [3].

- 1 Wire Saddle [4]
- 3 Harness Guides [5]
- 7 Screws [6]
- 2 Hooks [7]



F-4-136

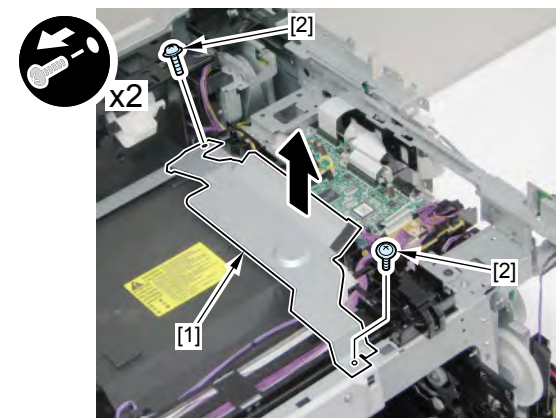
■ Removing the DC Controller PCB

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Rear Upper Cover. Refer to page 4-26
- 4) Removing the ADF Unit + Reader Unit. Refer to page 4-33
- 5) Removing the Right Front Cover. Refer to page 4-25
- 6) Removing the Upper Cover. Refer to page 4-30

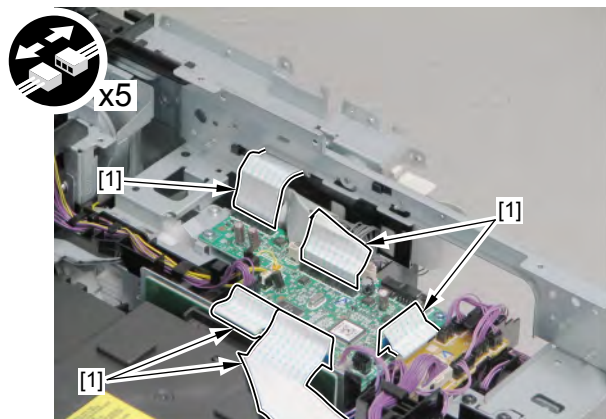
Procedure

- 1) Remove the Harness Cover Plate [1].
- 2 screws [2]



F-4-137

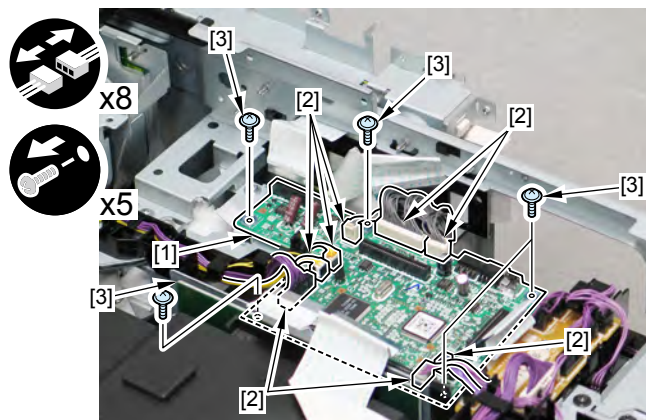
2) Disconnect the 5 flat cables [1].



F-4-138

3) Remove the DC Controller PCB [1].

- 8 connectors [2]
- 5 screws [3]



F-4-139

After replacing DC Controller PCB

1) Execute the following in Service Mode

- COPIER>FUINCTION>VIFFNC>RSTR-DCN

MEMO

After executing the Printer Recovery Setting, be sure to wait for about 15 seconds because of internal process/operation.

2) Turn OFF and then ON the power.

3) *Execute the following: > Adjustment/Cleaning > Print Color Displacement Correction

4) * Execute the following: > Adjustment/Cleaning > Auto Gradation Correction > Quick Correction

5) Turn OFF and then ON the power.

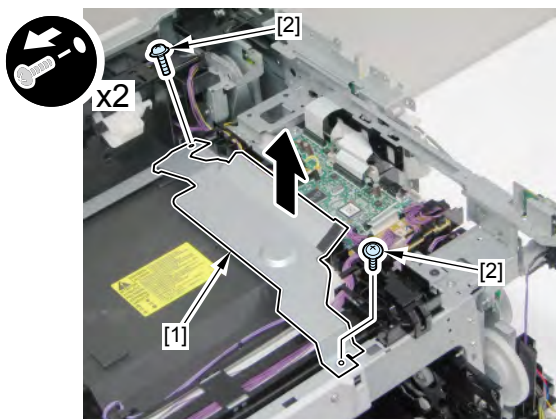
Removing the High Voltage Power Supply PCB

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Rear Upper Cover. Refer to page 4-26
- 4) Removing the ADF Unit + Reader Unit. Refer to page 4-33
- 5) Removing the Right Front Cover. Refer to page 4-25
- 6) Removing the Upper Cover. Refer to page 4-30

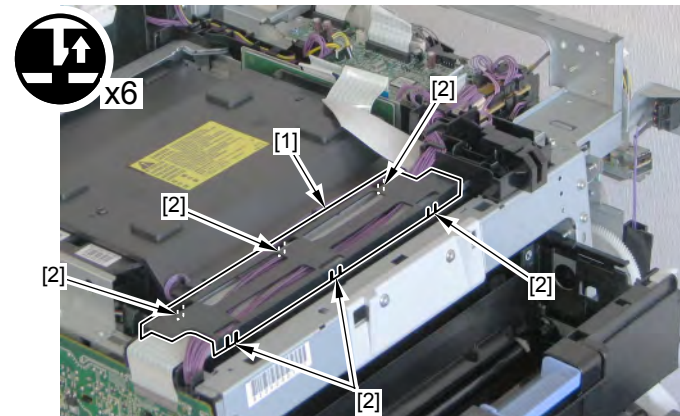
Procedure

- 1) Remove the Harness Cover Plate [1].
 - 2 screws [2]



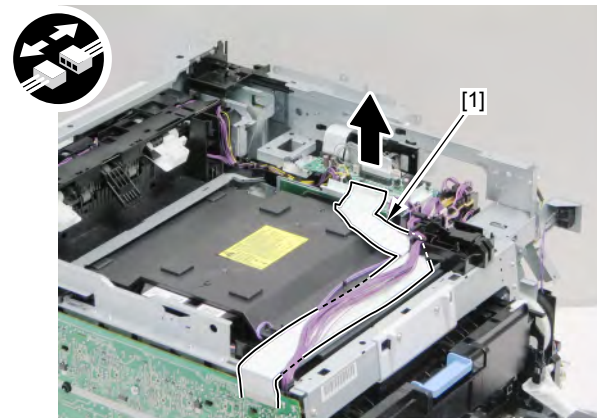
F-4-140

- 2) Remove the harness guide [1].
 - 6 claws [2]



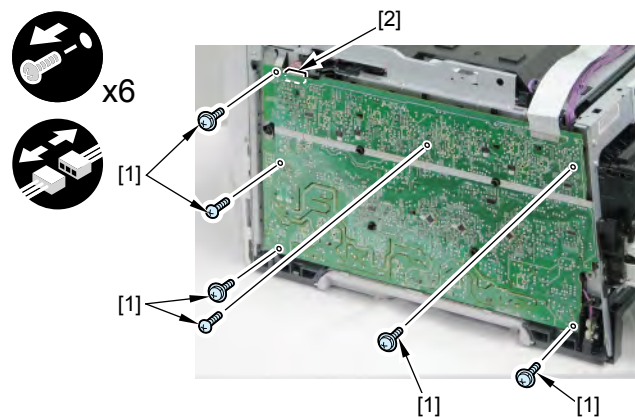
F-4-141

- 3) Disconnect the flat cable [1].



F-4-142

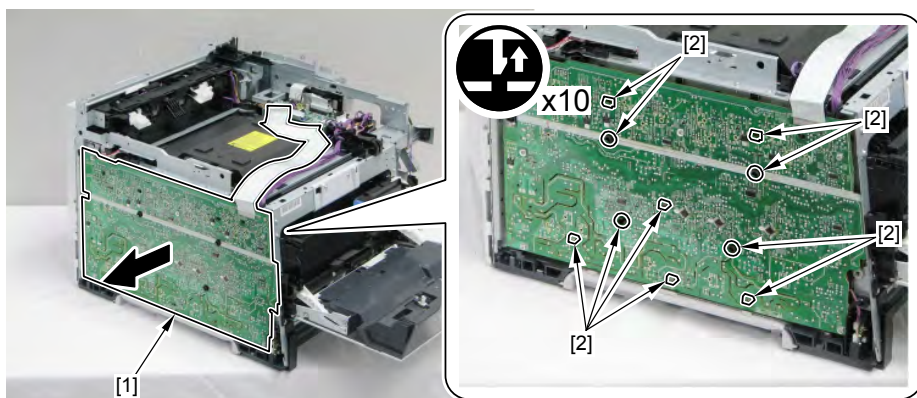
4) Remove the 6 screws [1] and disconnect the connector [2].



F-4-143

5) Remove the High Voltage Power Supply PCB [1].

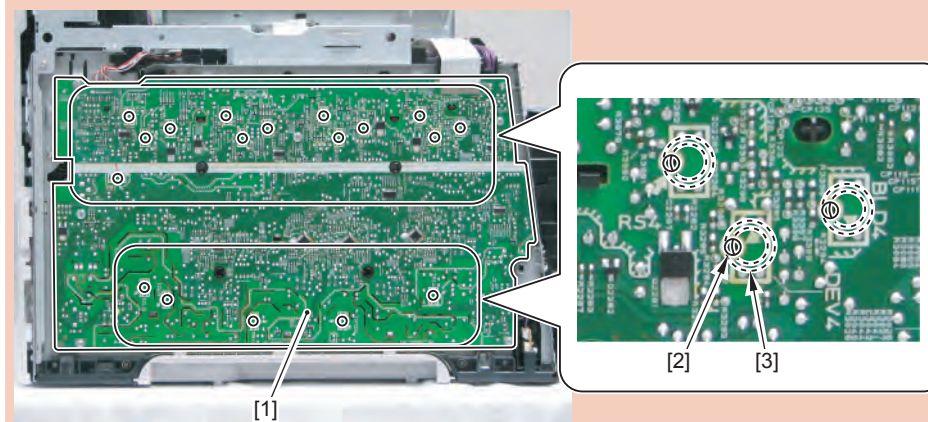
- 9 claws [2]



F-4-144

Caution:

When installing the High-voltage Power PCB [1] to the host machine, make sure that the contact spring [3] is connected from the 18 round holes [2].



F-4-145

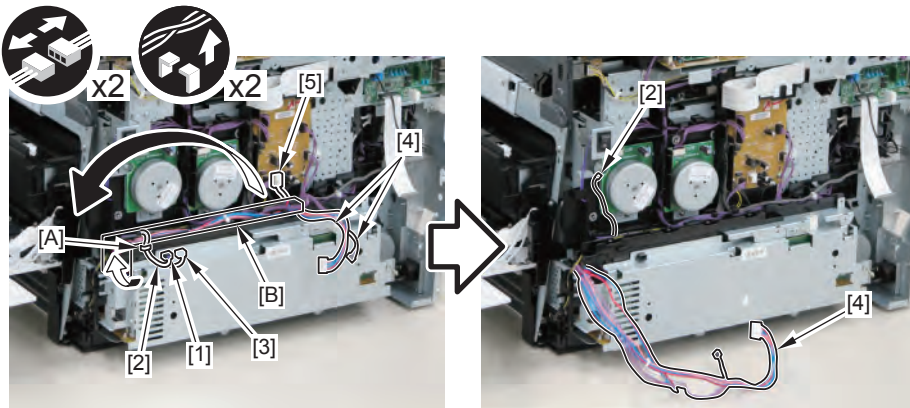
Removing the Low Voltage Unit

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-21
- 2) Removing the Right Front Cover. Refer to page 4-25
- 3) Removing the Controller Cover. Refer to page 4-60
- 4) Removing the Wireless LAN PCB.(MF8380 only) Refer to page 4-60
- 5) Removing the Main Controller PCB. Refer to page 4-61
- 6) Removing the Main Controller Support Plate. Refer to page 4-63
- 7) Removing the Fixing/Fixing Power Supply Cooling Fan Unit. Refer to page 4-85

Procedure

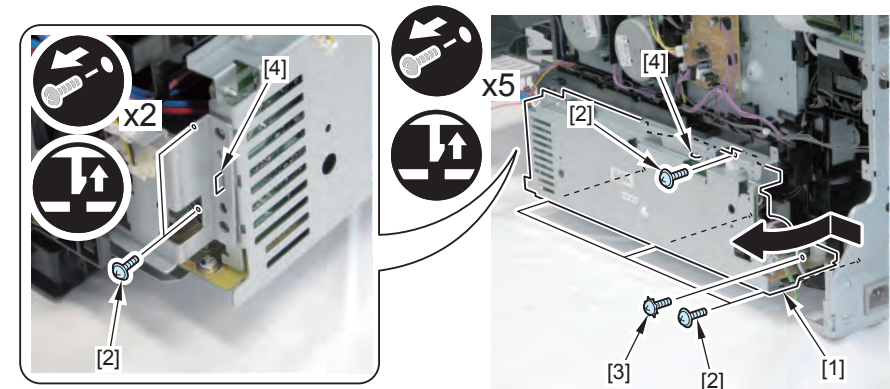
- 1) Free the harness [1] from the Harness Guide [A].
 - 1 Connector [2]
 - 1 Connector [5] (MF8350/8330 only)
- 2) Free the harness [4] from the Harness Guide [B].
 - 1 Connector [5]



F-4-146

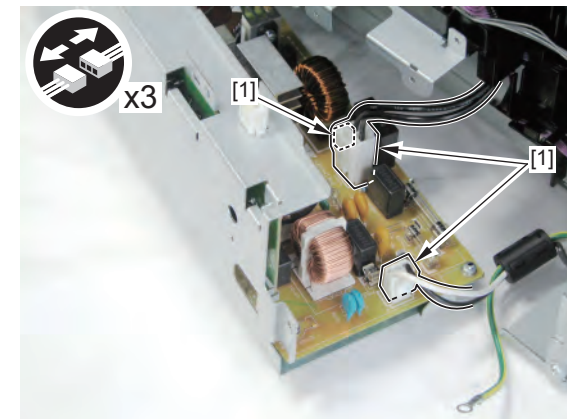
- 3) Slide and open the Power Supply Unit [1] in the direction of the arrow.

- 6 Screws [2]
- 1 Screw [3] (Toothed washer screw)
- 2 Claws [4]



F-4-147

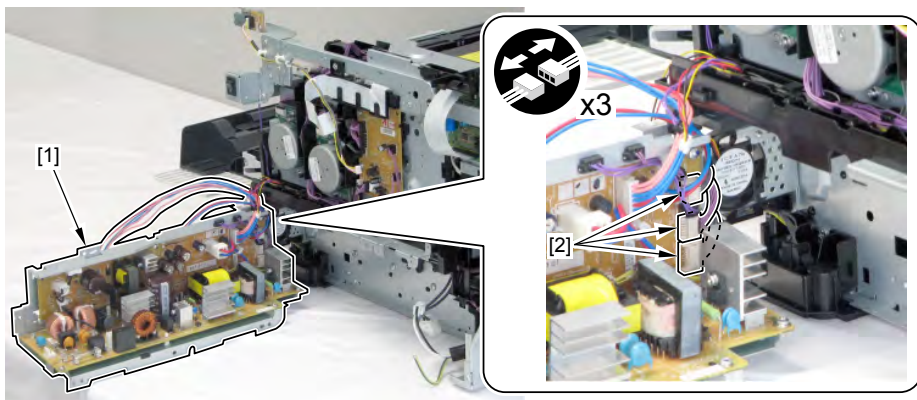
- 4) Remove 3 connectors [1].



F-4-148

5) Remove the Low Voltage Unit [1]

- 3 connectors [2]



F-4-149

■ Removing the Fixing Sub PCB

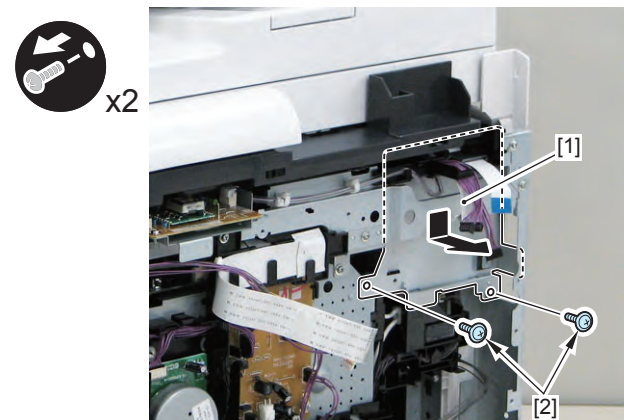
Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Controller Cover. Refer to page 4-60
- 3) Removing the Wireless LAN PCB.(MF8380 only) Refer to page 4-60
- 4) Removing the Main Controller PCB. Refer to page 4-61
- 5) Removing the Main Controller Support Plate. Refer to page 4-63
- 6) Removing the FAX PCB. Refer to page 4-74
- 7) Removing the Fixing/Fixing Power Supply Cooling Fan Unit. Refer to page 4-85

Procedure

- 1) Remove the PCB fixing plate [1].

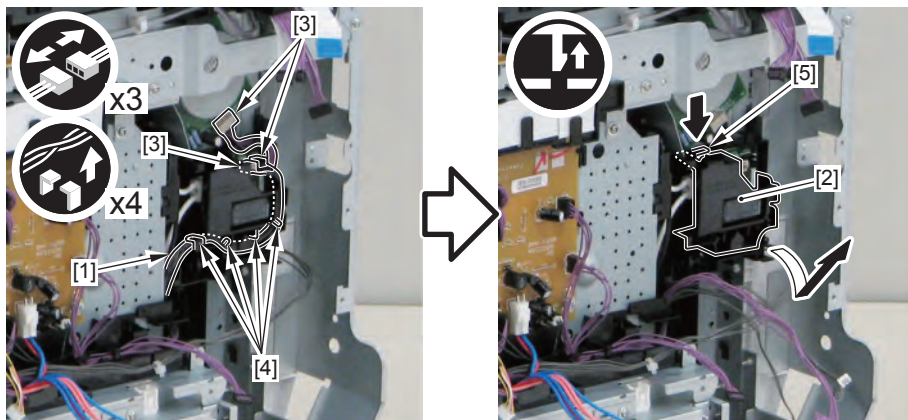
- 2 screws [2]



F-4-150

2) Remove the wire harness [1], and remove the wire harness guide [2].

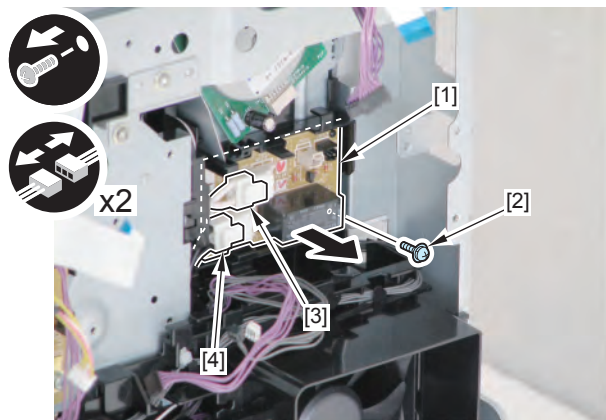
- 3 connectors [3]
- 4 fixing guides [4]
- 1 claw [5]



F-4-151

3) Remove the Fixing Sub PCB [1].

- 1 screw [2]
- 1 connector [3]
- 1 connector [4] (MF8350/8330 only)



F-4-152

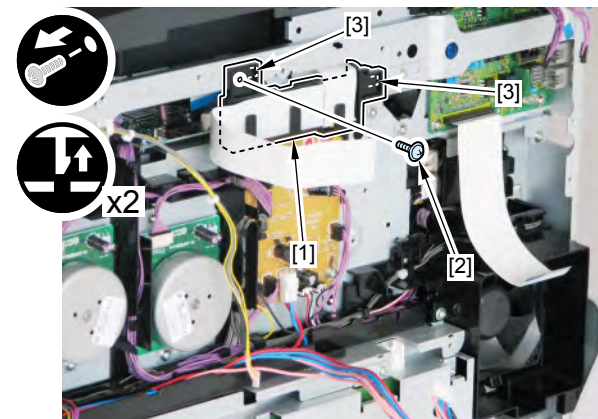
Removing the Duplex Driver PCB

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Right Front Cover. Refer to page 4-25
- 4) Removing the ADF Unit + Reader Unit. Refer to page 4-33
- 5) Removing the Rear Upper Cover. Refer to page 4-26
- 6) Removing the Upper Cover. Refer to page 4-30
- 7) Removing the Wireless LAN PCB.(MF8380 only) Refer to page 4-60
- 8) Removing the Main Controller PCB. Refer to page 4-61

Procedure

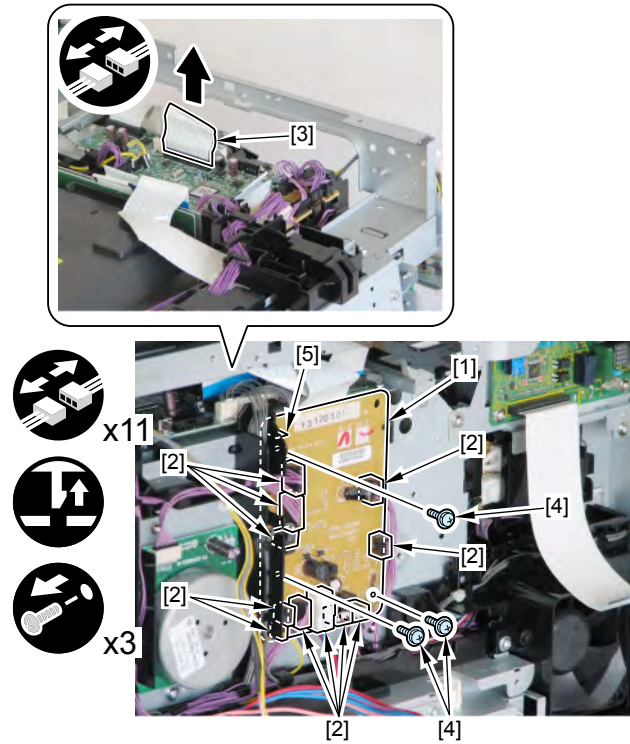
- 1) Remove the flat cable guide case [1].
 - 1 screw [2]
 - 2 claws [3]



F-4-153

2) Remove the Duplex Driver PCB [1].

- 11 connectors [2]
- 1 flat cable [3]
- 3 screws [4]
- 1 claw [5]



F-4-154

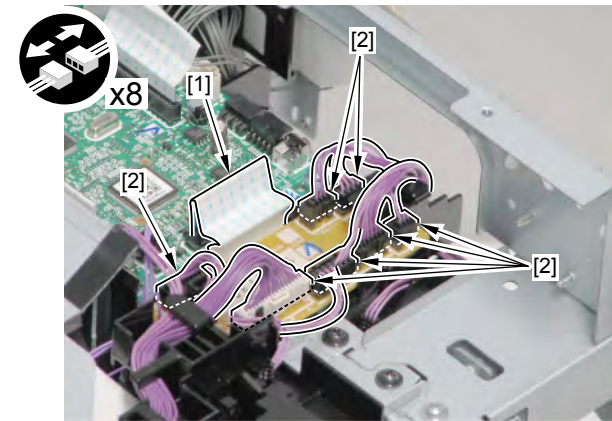
■ Removing the Relay PCB

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Rear Upper Cover. Refer to page 4-26
- 4) Removing the ADF Unit + Reader Unit. Refer to page 4-33
- 5) Removing the Right Front Cover. Refer to page 4-25
- 6) Removing the Upper Cover. Refer to page 4-30

Procedure

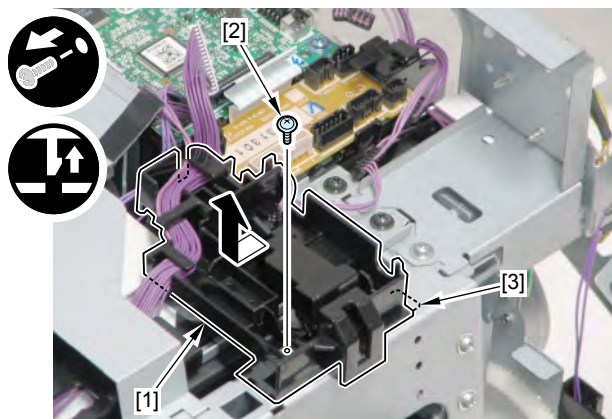
- 1) Disconnect the flat cable [1] and the 7 connectors [2].



F-4-155

2) Remove the harness guide [1].

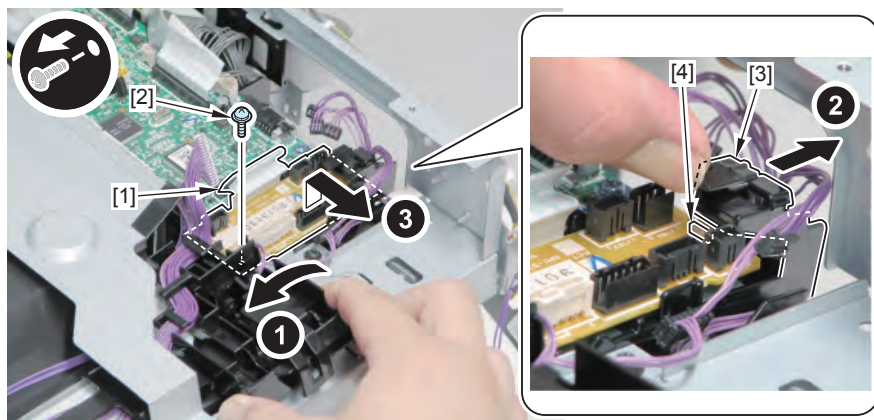
- 1 screw [2]
- 1 hook [3]



F-4-156

3) Remove the Relay PCB [1].

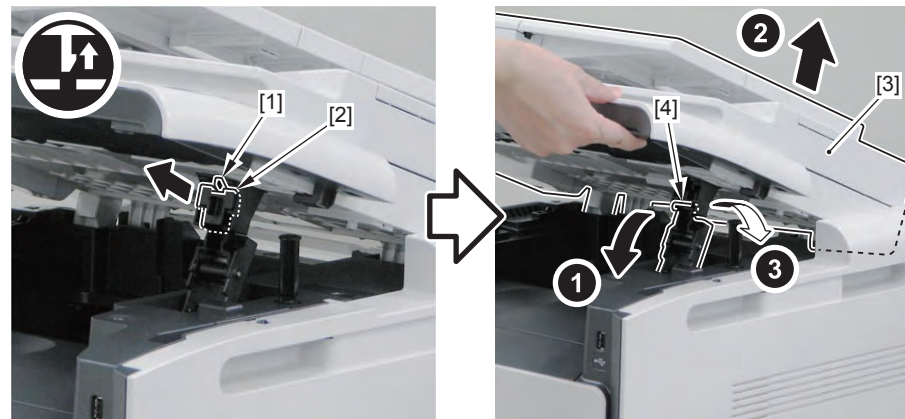
- 1 screw [2]
- 1 harness guide [3]
- 1 protrusions [4]



F-4-157

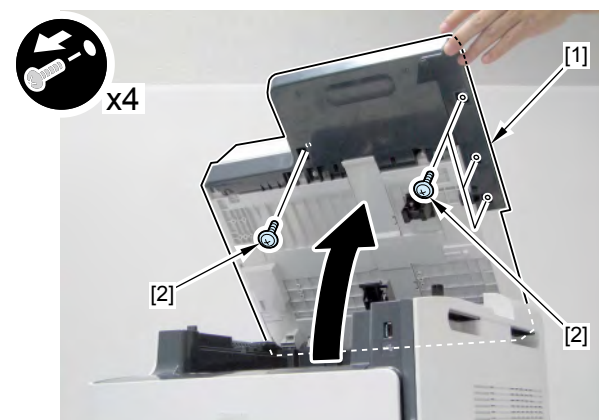
■ Removing the Control Panel Unit (MF8350/8330)

- 1) Remove the claw [1] to remove the Reader Shaft Retainer [2].
- 2) While supporting the ADF Unit + Reader Unit [3], remove the Reader Support Shaft [4].
- 3) Bring down the Reader Support Shaft [4] to close the ADF Unit + Reader Unit [3].



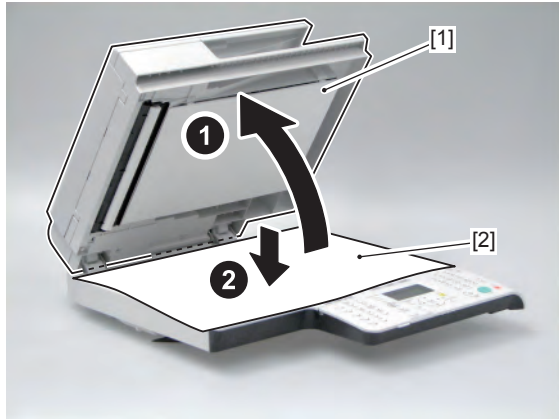
F-4-158

- 4) Open the ADF Unit + Reader Unit [1] to remove the 4 screws (TP) [2] at the bottom of the Reader Unit.



F-4-159

5) Open the ADF Unit [1] and place a sheet of paper [2] on the copyboard.



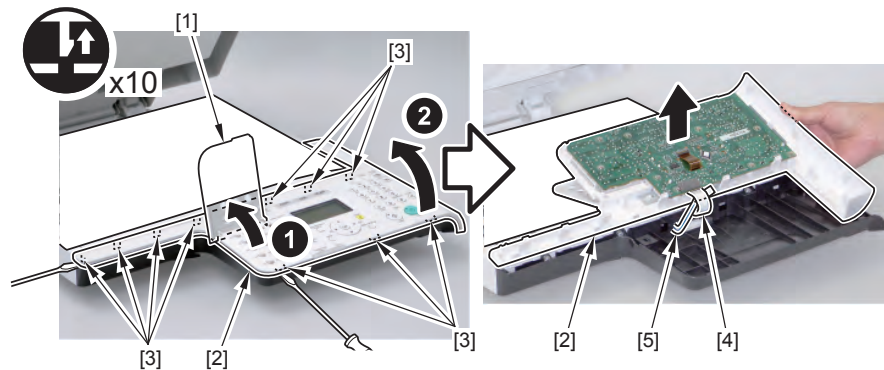
F-4-160

6) Open the Control Panel Cover [1] to remove the Control Panel Unit [2].

- 10 claws [3]
- 1 flat cable [4]
- 1 grounding cord [5]

Caution:

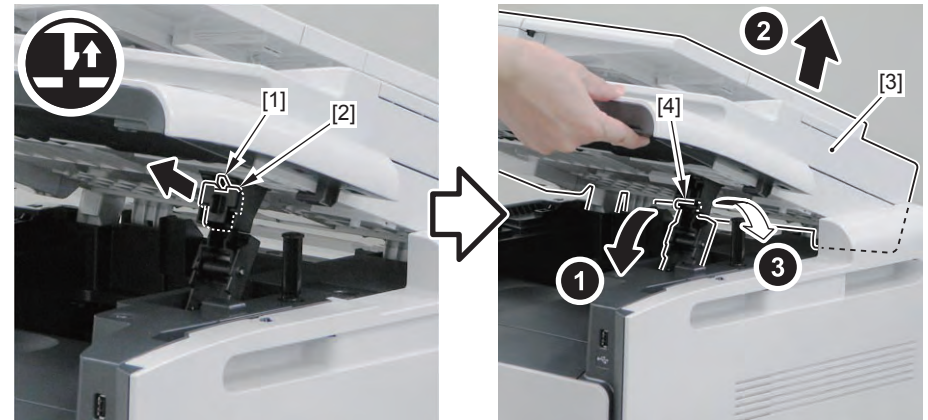
- Do not open circuit the Flat Cable [4] and Grounding Wire [5].
- Do not allow connectors of the Flat Cable [4] and Grounding Wire [5] to disconnect.



F-4-161

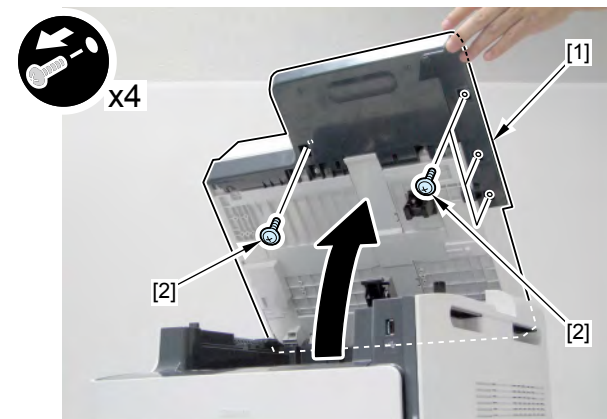
Removing the Control Panel Unit (MF8380/8360/8340)

- 1) Remove the claw [1] to remove the Reader Shaft Retainer [2].
- 2) While supporting the ADF Unit + Reader Unit [3], remove the Reader Support Shaft [4].
- 3) Bring down the Reader Support Shaft [4] to close the ADF Unit + Reader Unit [3].



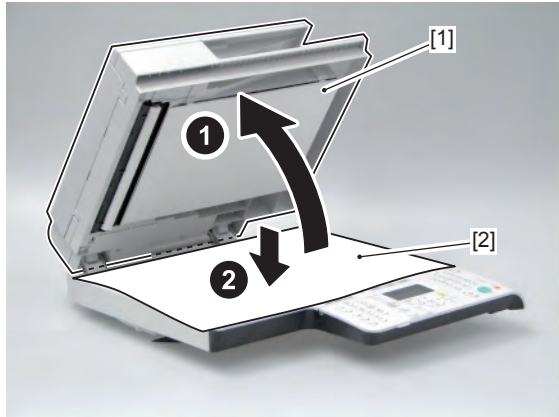
F-4-162

4) Open the ADF Unit + Reader Unit [1] to remove the 4 screws (TP) [2] at the bottom of the Reader Unit.



F-4-163

5) Open the ADF Unit [1] and place a sheet of paper [2] on the copyboard.



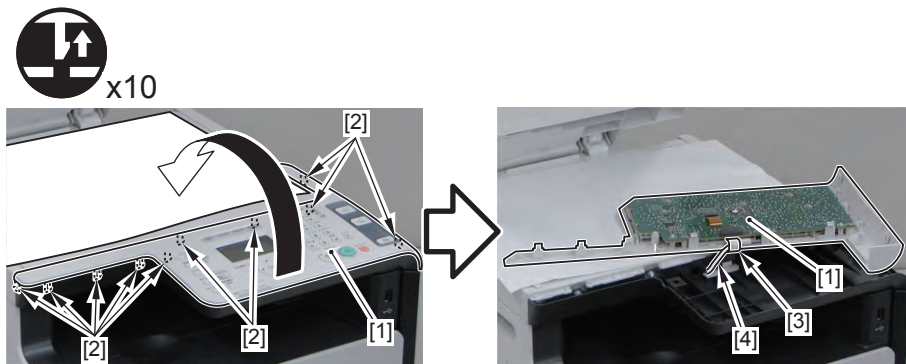
F-4-164

6) Remove the Control Panel Unit [1].

- 10 claws [2]
- 1 flat cable [3]
- 1 grounding cord [4]

Caution:

- Do not open circuit the Flat Cable [3] and Grounding Wire [4].
- Do not allow connectors of the Flat Cable [3] and Grounding Wire [4] to disconnect.



F-4-165

■ Removing the Control Panel PCB (MF8350/8330)

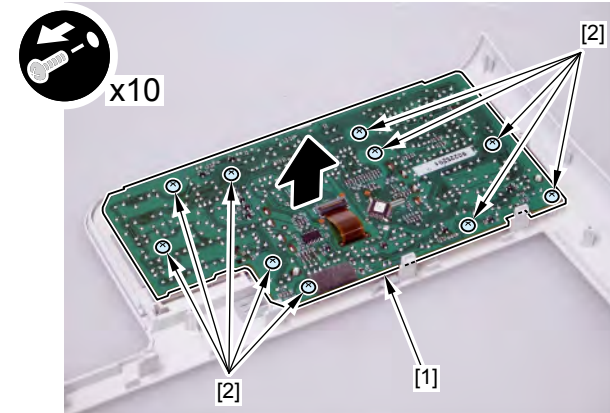
Pre-procedure

1) Removing the Control Panel Unit. (MF8350/8330) Refer to page 4-71

Procedure

1) Remove the Control Panel PCB [1].

- 10 screws [2]



F-4-166

■ Removing the Control Panel PCB (MF8380/8360/8340)

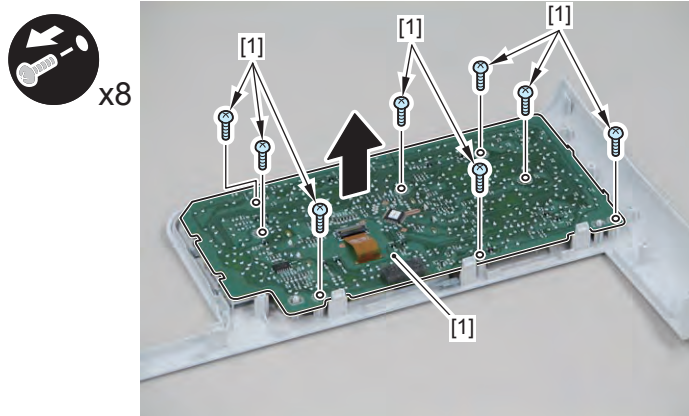
Pre-procedure

1) Removing the Control Panel Unit. (MF8380/8360/8340) Refer to page 4-72

Procedure

1) Remove the Control Panel PCB [1].

- 8 screws [2]



F-4-167

■ Removing the FAX PCB (MF8350/8380/8360)

Pre-procedure

1) Removing the Right Cover. Refer to page 4-23

2) Removing the Controller Cover. Refer to page 4-60

3) Removing the Wireless LAN PCB. (MF8380 only) Refer to page 4-60

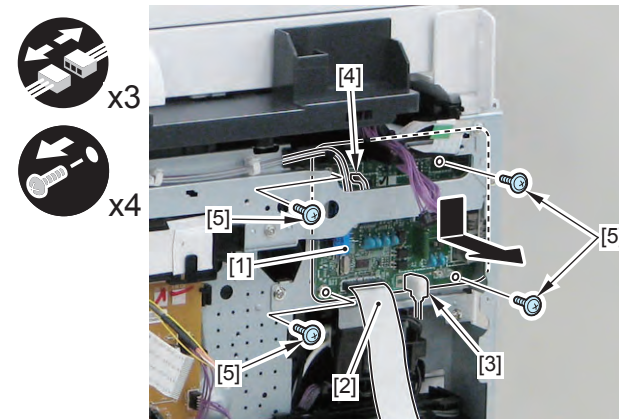
4) Removing the Main Controller PCB. Refer to page 4-61

5) Removing the Main Controller Support Plate. Refer to page 4-63

Procedure

1) Remove the Fax PCB [1].

- 1 Flat Cable [2]
- 1 Grounding Wire [3]
- 1 Connector [4] (MF8380 only)
- 4 Screws [5]



F-4-168

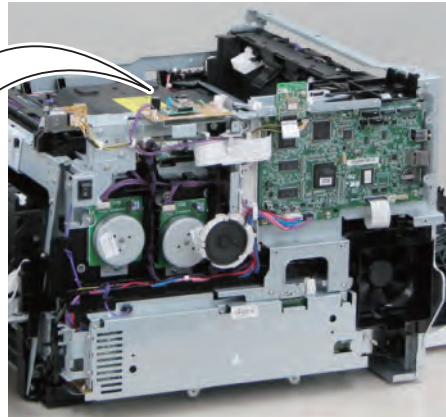
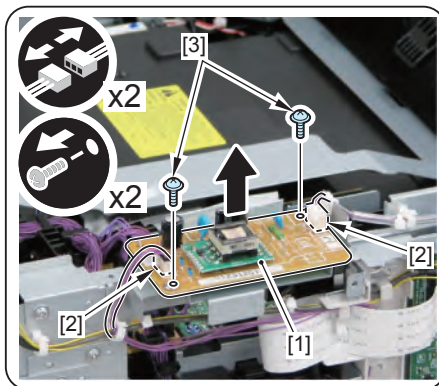
■ Removing the Off Hook PCB (MF8380/8360)

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Right Front Cover. Refer to page 4-25
- 4) Removing the ADF Unit + Reader Unit. Refer to page 4-33
- 5) Removing the Rear Upper Cover. Refer to page 4-26
- 6) Removing the Upper Cover. Refer to page 4-30

Procedure

- 1) Remove the Off Hook PCB [1].
 - 2 Connector [2]
 - 2 Screws [3]



F-4-169

■ Removing the Drive Unit

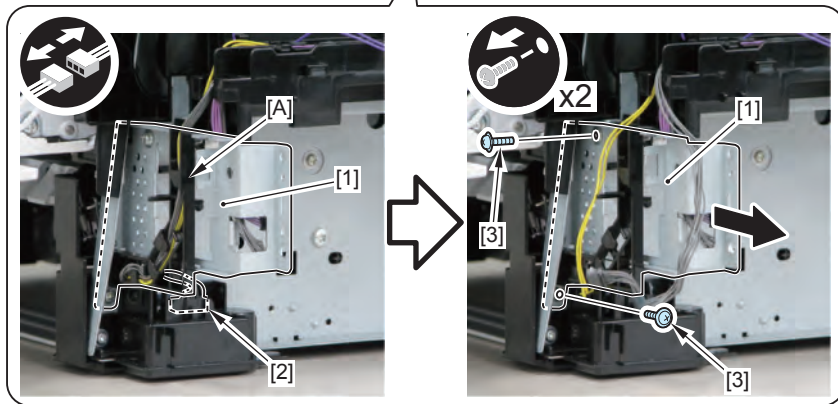
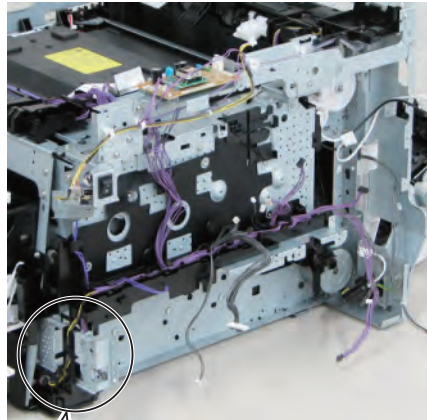
Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Right Front Cover. Refer to page 4-25
- 4) Removing the ADF Unit + Reader Unit. Refer to page 4-33
- 5) Removing the Rear Upper Cover. Refer to page 4-26
- 6) Removing the Upper Cover. Refer to page 4-30
- 7) Removing the Wireless LAN PCB.(MF8380 only) Refer to page 4-60
- 8) Removing the Main Controller PCB. Refer to page 4-61
- 9) Removing the Main Controller Support Plate. Refer to page 4-63
- 10) Removing the Drum Motor. Refer to page 4-98
- 11) Removing the Developing Motor. Refer to page 4-100
- 12) Removing the Duplex Driver PCB. Refer to page 4-69
- 13) Removing the FAX PCB. Refer to page 4-74
- 14) Removing the Fixing/Fixing Power Supply Cooling Fan Unit. Refer to page 4-85
- 15) Removing the Fixing Sub PCB. Refer to page 4-68
- 16) Removing the Fixing Motor Unit. Refer to page 4-109
- 17) Removing the Low Voltage Unit. Refer to page 4-67

Procedure

1) Remove the Harness Guide and plate [1].

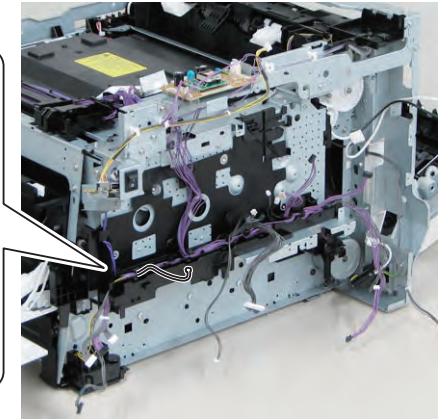
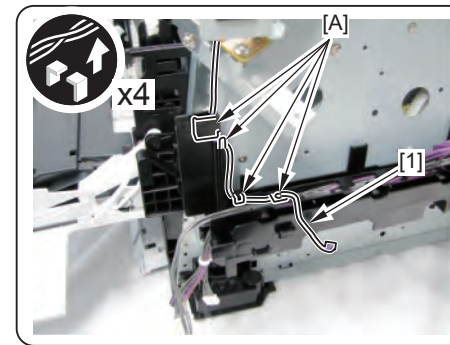
- 1 Connector [2]
- 1 Harness Guide [A]
- 2 Screws [3]



F-4-170

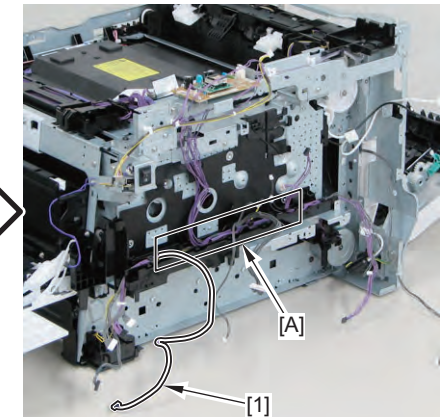
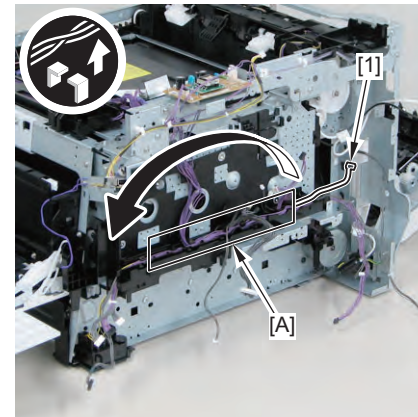
2) Free the harness [1].

- 4 Harness Guides [A]



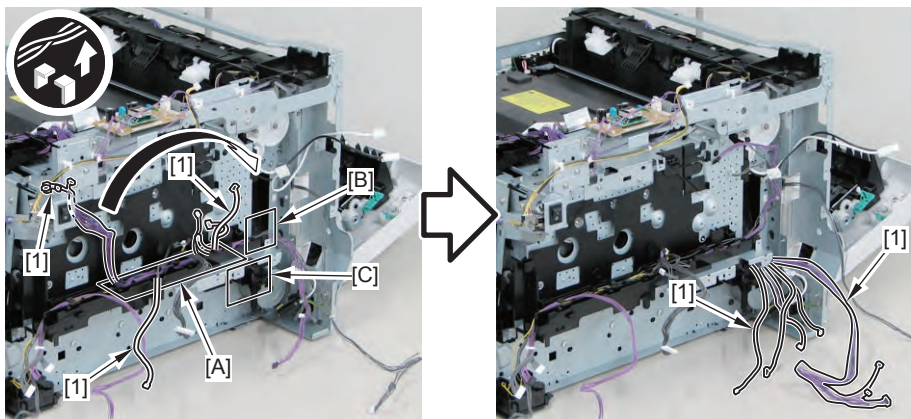
F-4-171

3) Free the harness [1] from the Harness Guide [A].



F-4-172

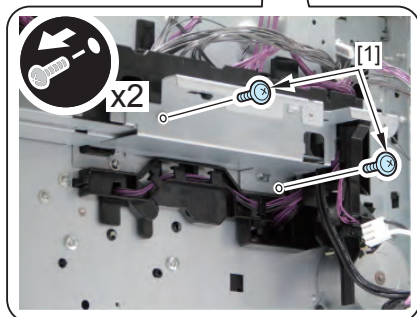
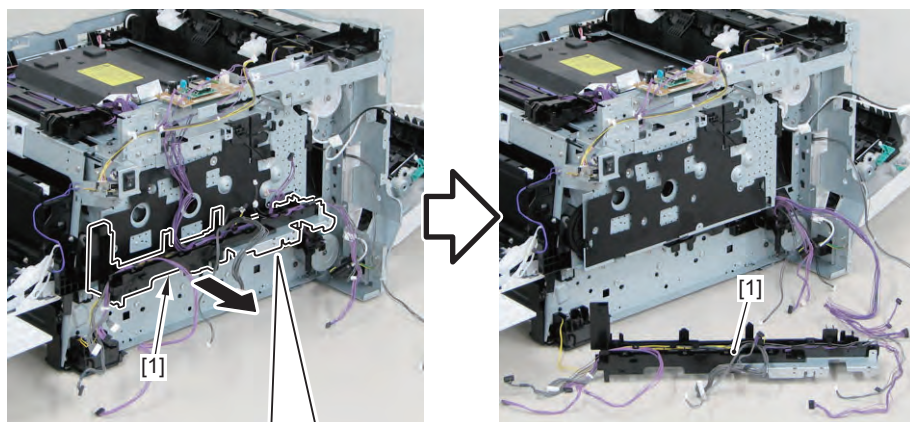
- 4) Free the harness [1] extruding out of the rear side [B] and [C] of the machine from the Harness Guide [A].



- 5) Remove the Harness Guide and Power Auxiliary Plate [1].

- 2 Screws [2]

F-4-173



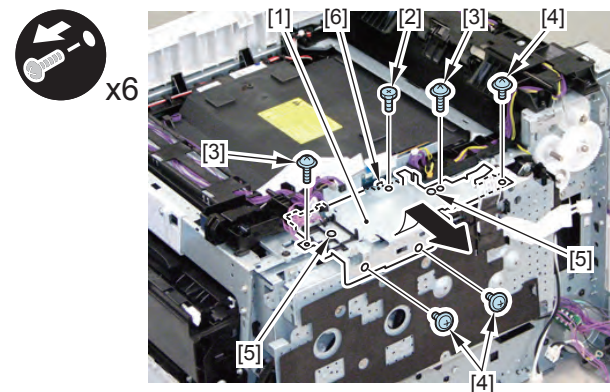
F-4-174

- 6) Remove the DC Controller Support Plate [1].

- 1 Special Flat-head Screw [2]
- 2 Black Screws [3]
- 3 Screws [4]
- 2 Bosses [5]
- 1 Protrusion [6]

CAUTION:

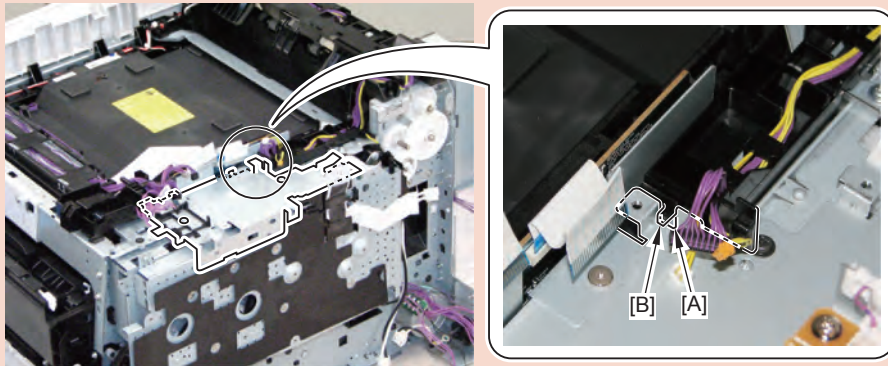
Since the Special Flat-head Screw [2] adjusts the interval between the plate [1] and parts in the vicinity, be sure to install the Special Flat-head Screw [2] in the location it was in before removal.



F-4-175

Caution:

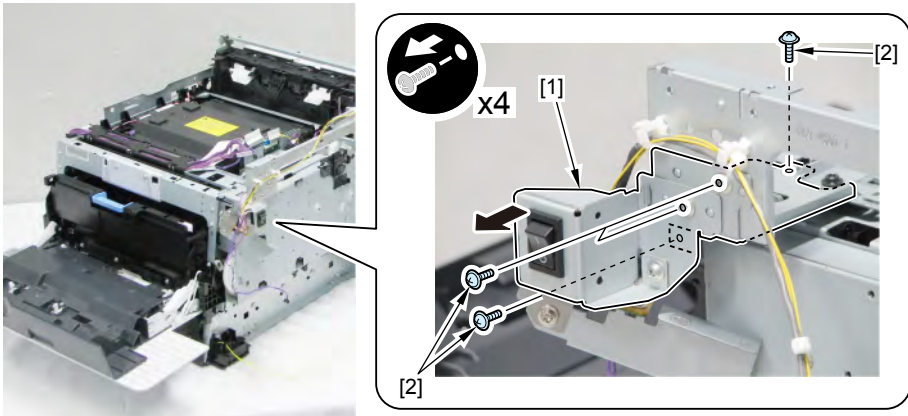
When installing, be sure to place the [A] part of DC Controller Support Plate under the [B] part of the Harness Guide.



F-4-176

7) Remove the Main Switch Unit [1].

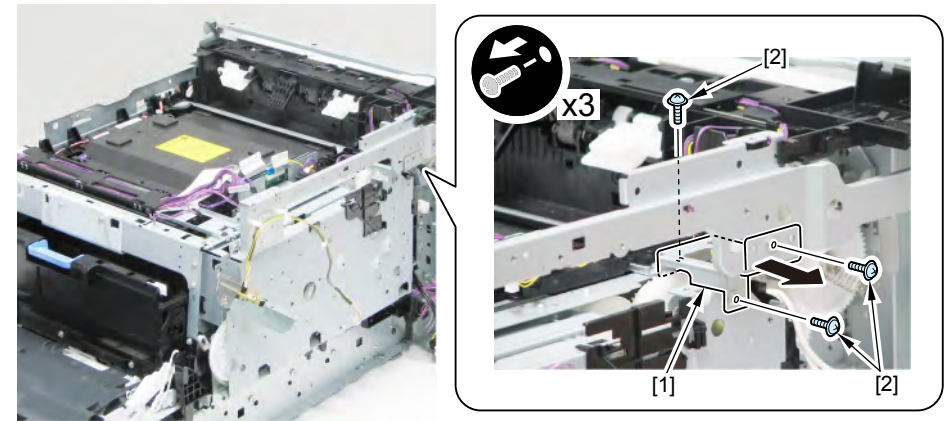
- 4 screws [2]



F-4-177

8) Remove the Right Frame Supporting Plate [1].

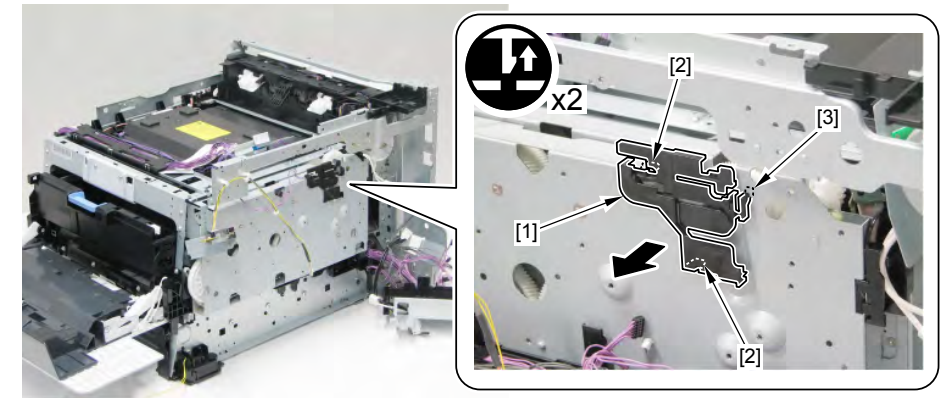
- 3 screws [2]



F-4-178

9) Remove the wire harness guide [1].

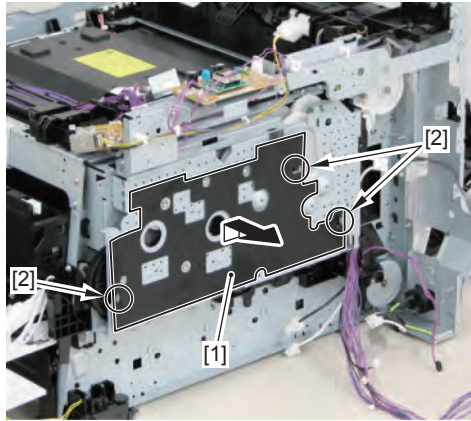
- 2 claws [2]
- 1 hook [3]



F-4-179

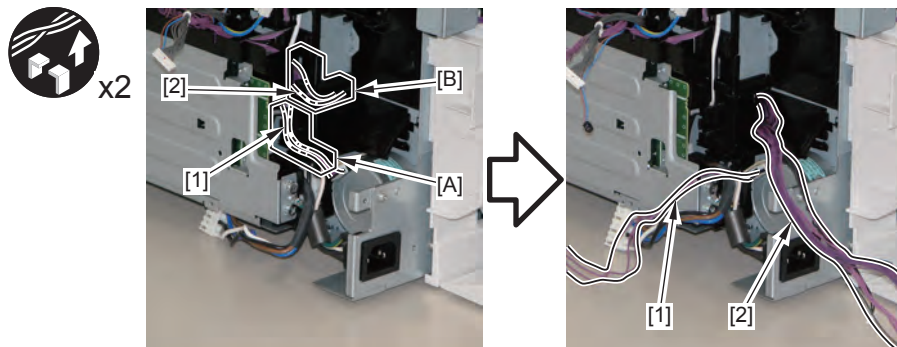
10) Remove the sheet [1].(MF8380/8360/8340)

- 3 Hooks [2]



F-4-180

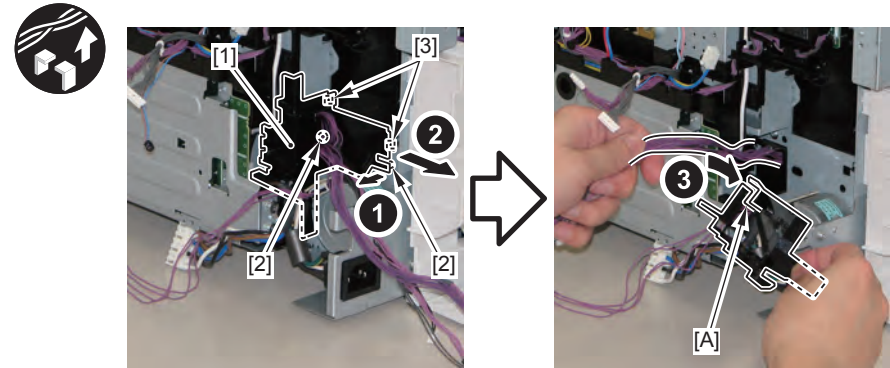
11) Free the harness [1] and [2] from the Harness Guide [A] and [B].



F-4-181

12) Remove the Harness Guide [1].

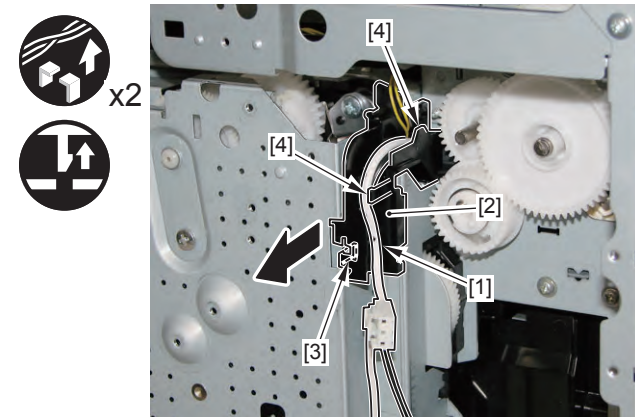
- Harness Guide [A]
- 2 Boss [2]
- 2 Hooks [3]



F-4-182

13) Remove the wire harness [1] from the wire harness guide [2], and remove the wire harness guide [2] in the arrow direction.

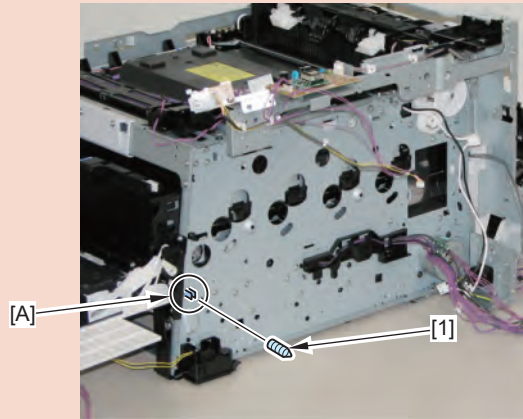
- 1 claw [3]
- 2 fixing guides [4]



F-4-183

Caution:

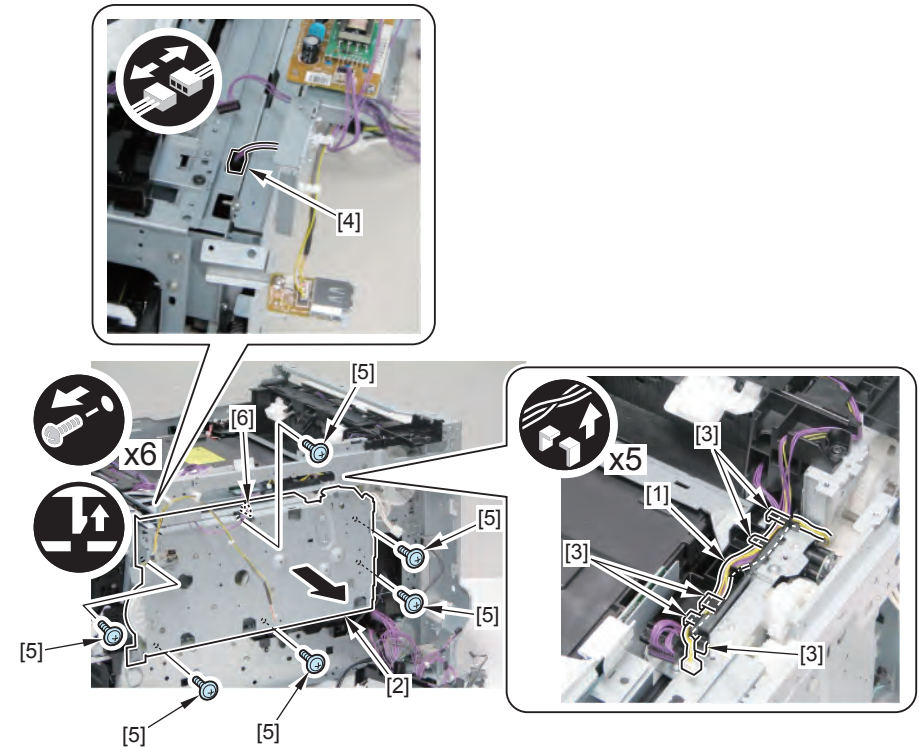
When removing the Main Drive Unit, the Contact Spring [1] may come off so be sure not to lose it. When it comes off, attach it on the protrusion [A] on the plate at the right side of the host machine.



F-4-184

14) Remove the wire harness [1], and remove the Drive Unit [2].

- 5 fixing guides [3]
- 1 Connector [4]
- 6 screws [5]
- 1 claw [6]



F-4-185

CAUTION: Installing the Main Drive Unit

1. Before installing it, make sure that following 1) to 4) statuses are met.

[Main Drive Unit side]

1) 4 Arm Shafts [1] are on the right side.

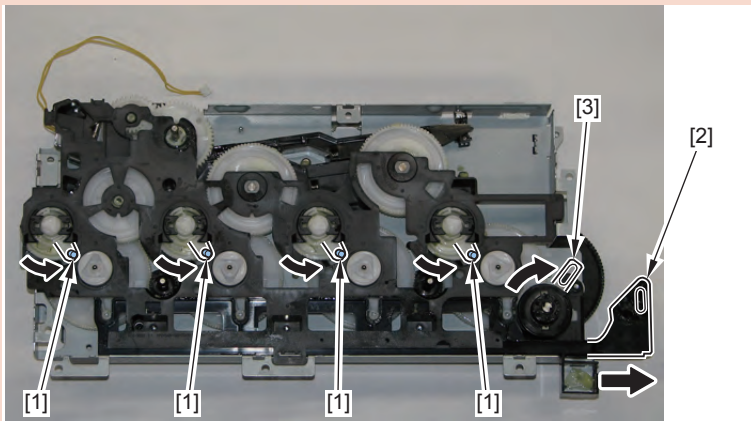
2) 1 Front Door Arm [2] is pulled out.

(If they are not in above positions, the protrusion of cartridge's joint remains protruded and Cartridge Tray cannot be stored.)

3) 1 Link [3] is on the right side.

[Host machine side]

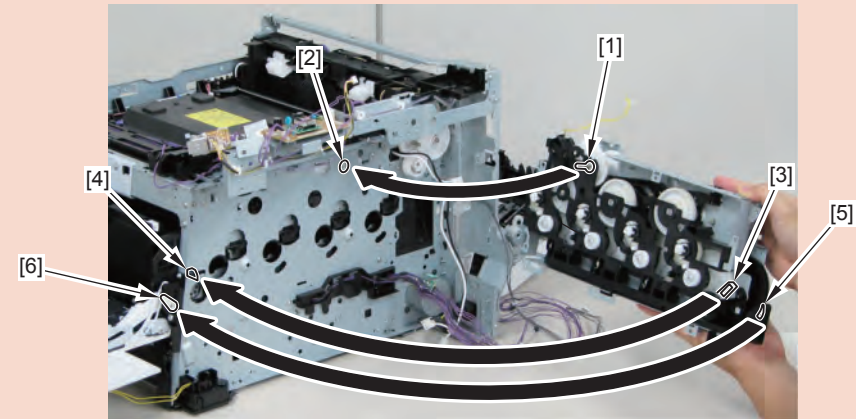
4) The Front Cover must be open.



F-4-186

2. Be sure to keep the following in mind when installing.

- Fit the gear shaft [1] of the Main Drive Unit in the hole [2] of the host machine.
- Fit the hole [3] on the link with the shaft [4] on the host machine.
- Fit the hole [5] on the Front Door Arm with the shaft [6] on the host machine.



F-4-187

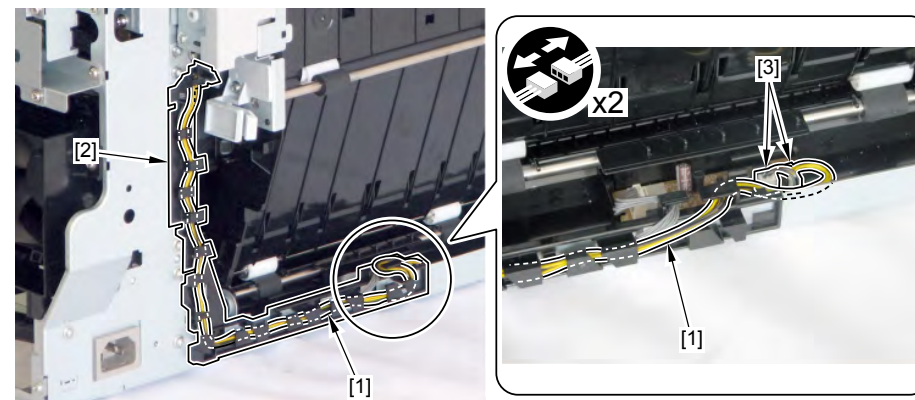
Removing the Duplex Reverse Drive Unit

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Rear Upper Cover. Refer to page 4-26
- 4) Removing the Rear Cover. Refer to page 4-27
- 5) Removing the Rear Lower Cover. Refer to page 4-27
- 6) Removing the Rear Cover Rib Unit. Refer to page 4-29

Procedure

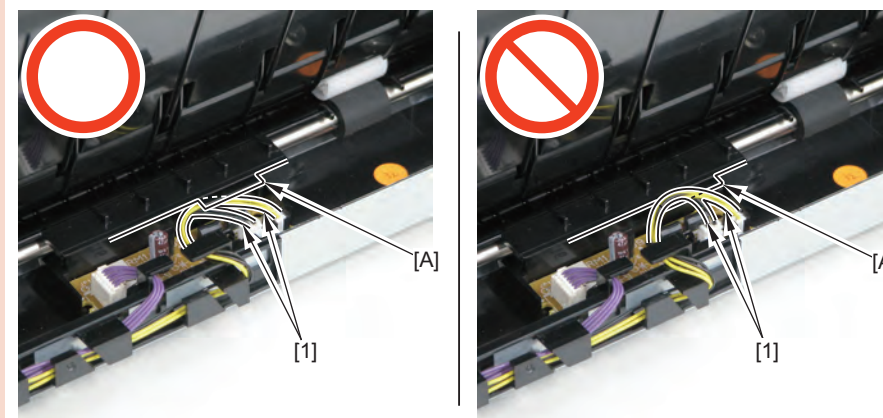
- 1) Remove the wire harness [1] from the wire harness cover [2].
 - 2 connectors [3]



F-4-188

CAUTION:

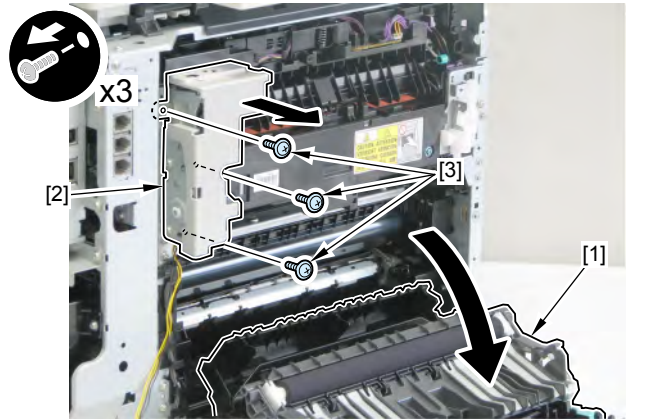
Be sure to insert the 2 harnesses [1] at the bottom of the Guide [A] when installing.



F-4-189

2) Open [1] the Duplex Feed Unit, and remove the Duplex Reverse Drive Unit [2].

- 3 screws [3]



F-4-190

■ Removing the Low Voltage Unit Cooling Fan (MF8350/8330)

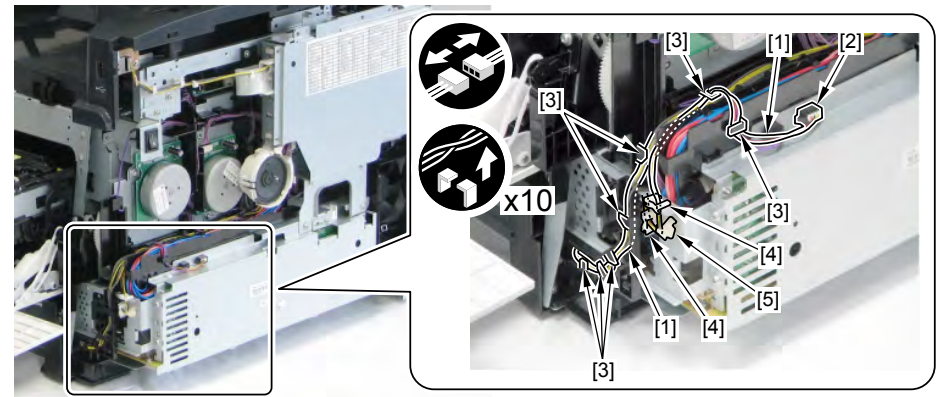
Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Right Front Cover. Refer to page 4-25

Procedure

1) Remove the wire harness [1].

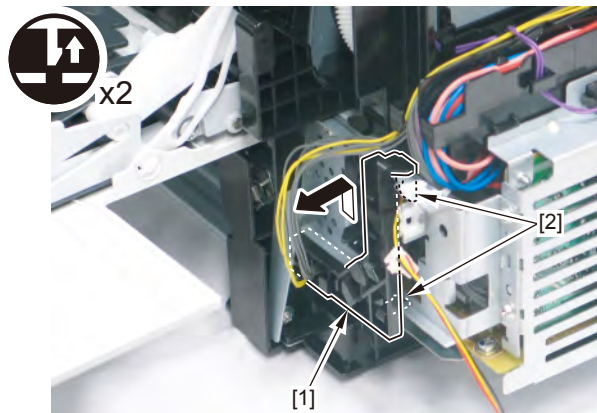
- 1 connector [2]
- 7 fixing guides [3]
- 2 edge saddles [4]
- 1 Re-use band [5]



F-4-191

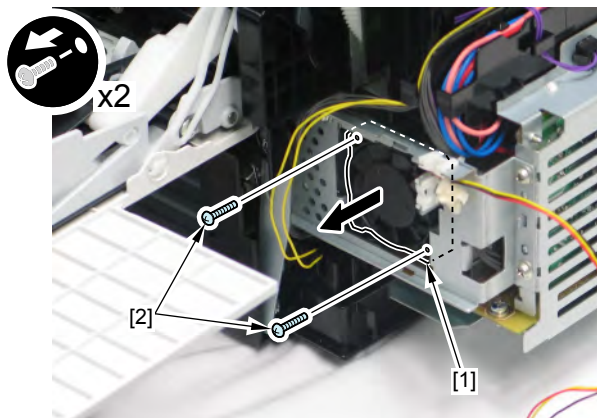
2) Remove the wire harness guide [1].

- 2 claws [2]



3) Remove the Low Voltage Unit Cooling Fan [1].

- 2 screws [2]



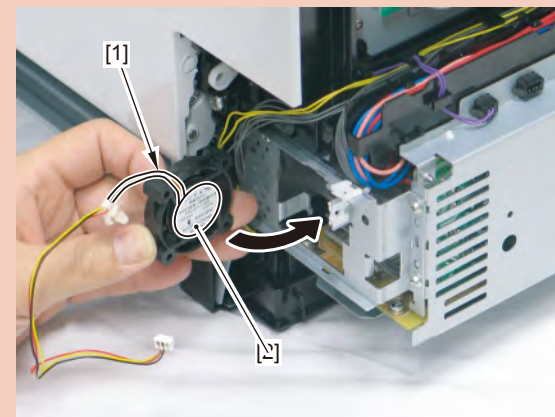
F-4-192

F-4-193

Caution:

When installing the Low Voltage Unit Cooling Fan, ensure its direction.

- Put the Fan Cable [1] at the position shown in the figure.
- Ensure that the label [2] on the fan is facing to the Power Supply Unit.



F-4-194

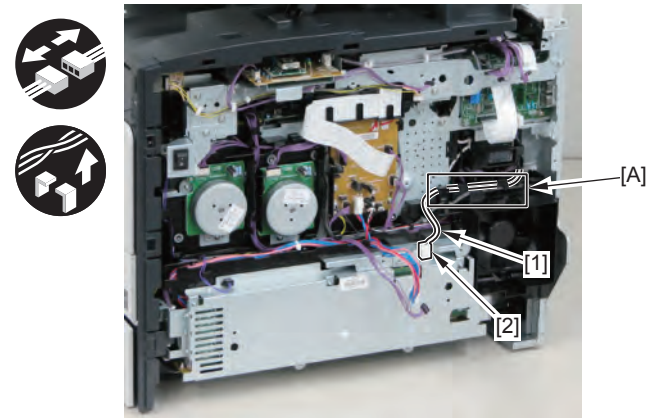
■ Removing the Fixing/Fixing Power Supply Cooling Fan Unit

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Controller Cover. Refer to page 4-60
- 3) Removing the Wireless LAN PCB.(MF8380 only) Refer to page 4-60
- 4) Removing the Main Controller PCB. Refer to page 4-61
- 5) Removing the Main Controller Support Plate. Refer to page 4-63

Procedure

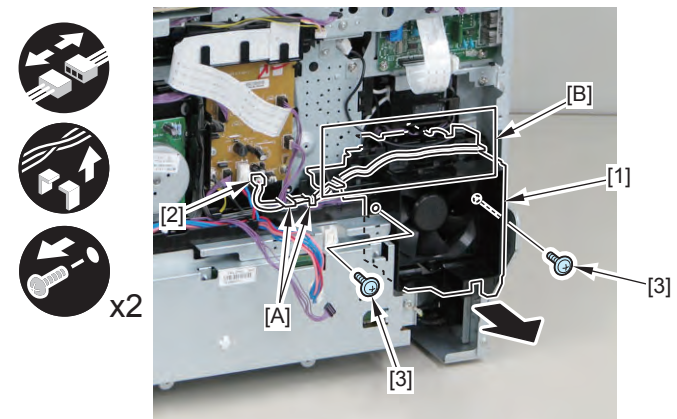
- 1) Free the Grounding Wire [1] from the Harness Guide [A]. (Fax model only)
 - 1 Connector [2]



F-4-195

- 2) Remove the Cooling Fan Unit [1].

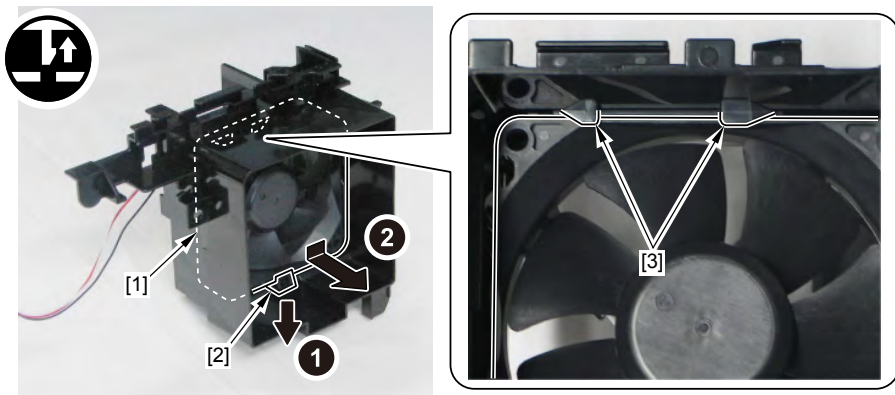
- 1 Connector [2]
- 2 Screws [3]
- 2 Harness Guides [A]
- 1 Harness Guide [B]



F-4-196

3) Remove the Fixing/Fixing Power Supply Cooling Fan [1].

- 1 claw [2]
- 2 protrusions [3]

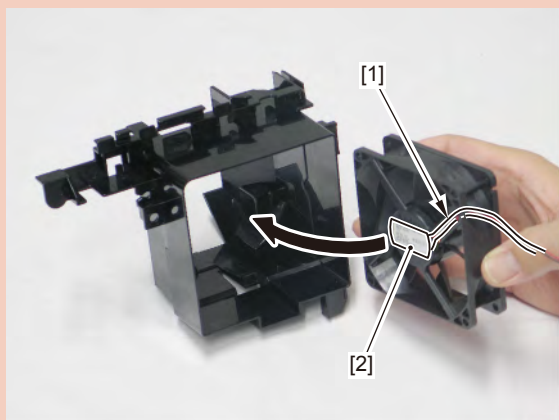


F-4-197

Caution:

When installing the Cooling Fan, be careful of the installation direction.

- Place the Fan Cable [1] in the indicated position.
- Make sure that the fan label [2] faces to the inside of the host machine.



F-4-198

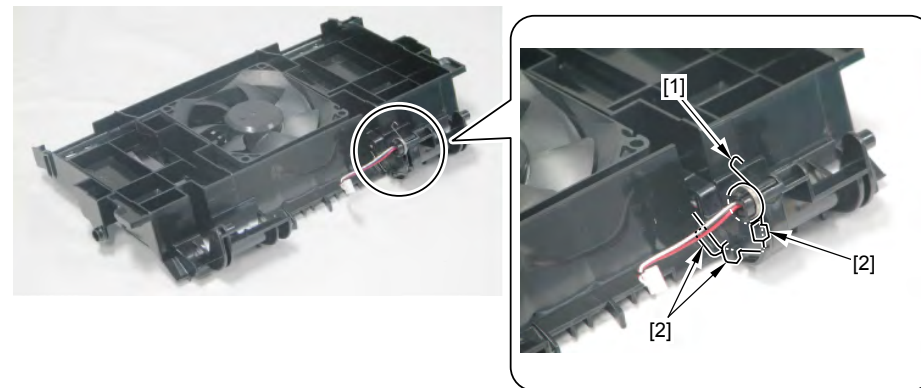
■ Removing the Duplex Feeding Fan

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Rear Upper Cover. Refer to page 4-26
- 4) Removing the Rear Cover. Refer to page 4-27
- 5) Removing the Rear Lower Cover. Refer to page 4-27
- 6) Removing the Rear Cover Rib Unit. Refer to page 4-29

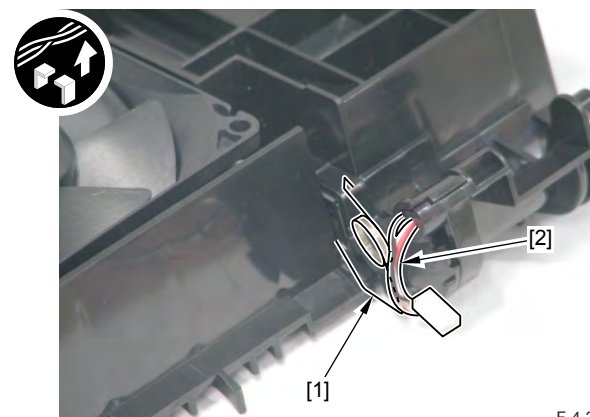
Procedure

- 1) Remove the spring [1].
 - 3 bosses [2]



F-4-199

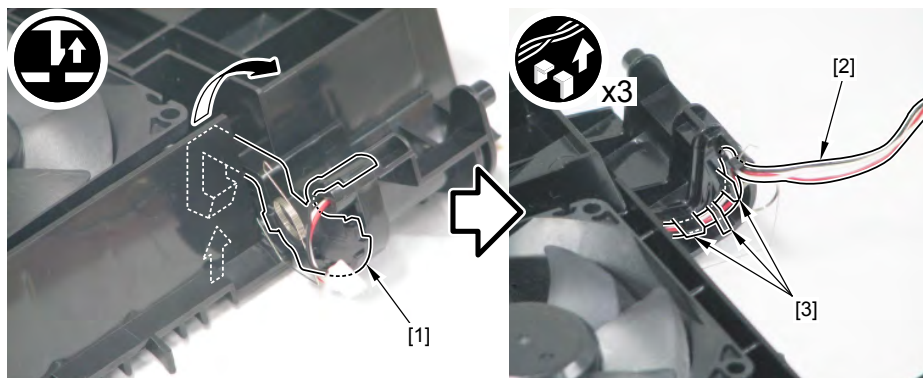
- 2) Free the harness [2] from the spring [1].



F-4-200

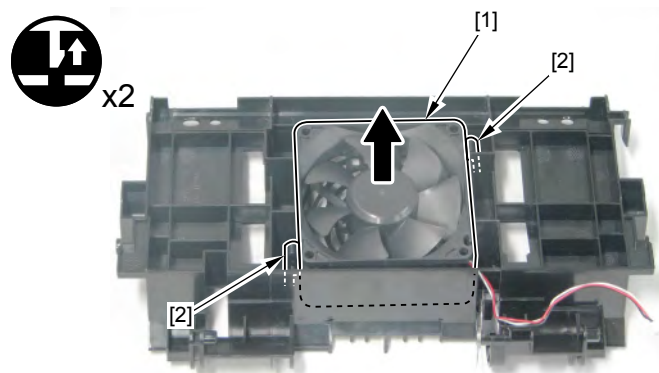
3) Remove the fixing guide [1] and free the harness [2] from the harness guide.

- 3 fixing guides [3]



F-4-201

4) Remove the 2 claws [1] to remove the Duplex Feeding Fan [2].

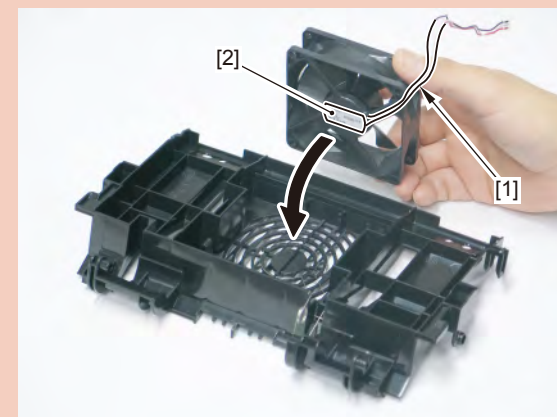


F-4-202

Caution:

When installing the Duplex Feeding Fan, be careful of the installation direction.

- Place the Fan Cable [1] in the indicated position.
- Make sure that the fan label [2] faces to the Duplex Feeding Unit side.



F-4-203

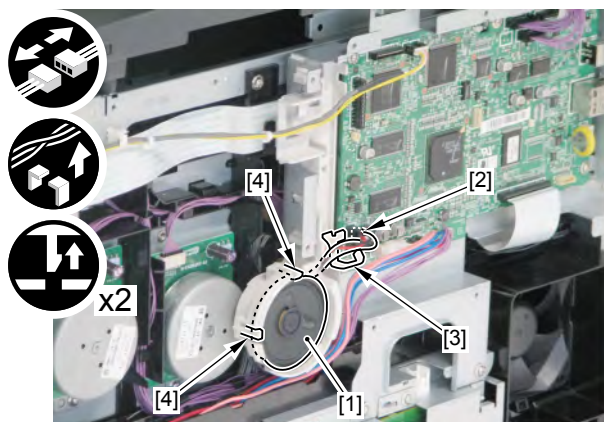
■ Removing the Speaker (MF8350/8380/8360)

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Controller Cover. Refer to page 4-60

Procedure

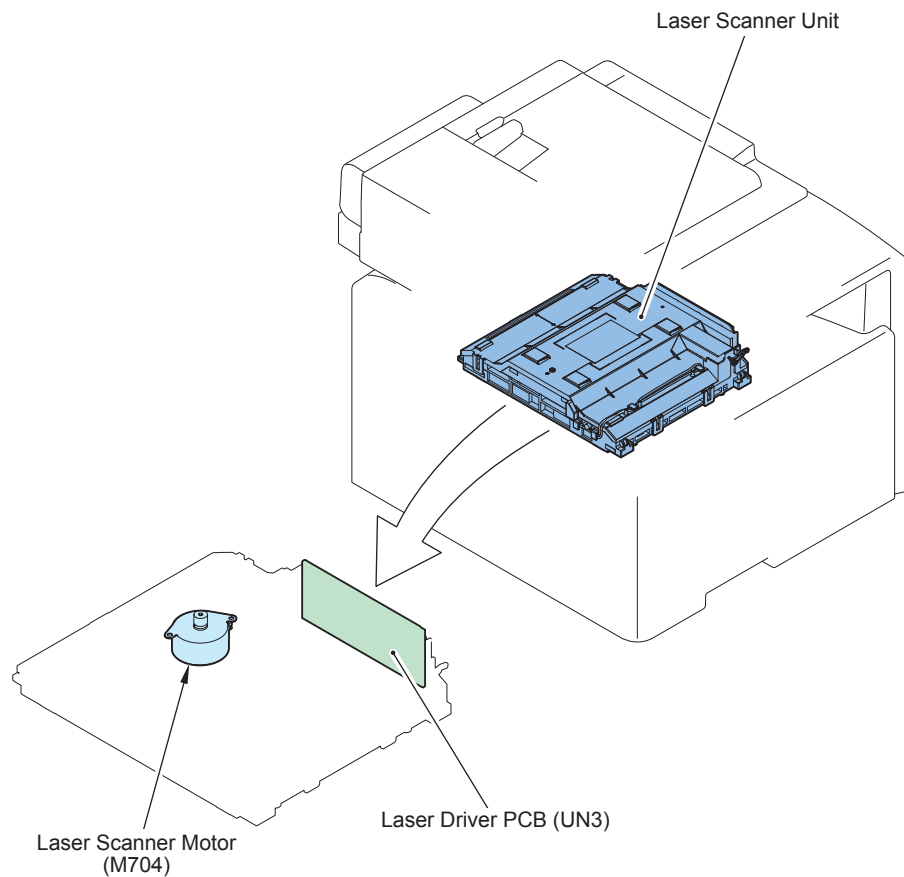
- 1) Remove the Speaker [1].
 - 1 connector [2]
 - 1 wire saddle [3]
 - 2 claws [4]



F-4-204

Laser Exposure System

Location



F-4-205

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	Laser Scanner Unit	-	Refer to page 4-89	Refer to page 5-7
UN3	Laser Driver PCB	-	-	-
M704	Laser Scanner Motor	-	-	-

T-4-5

Removing the Laser Scanner Unit

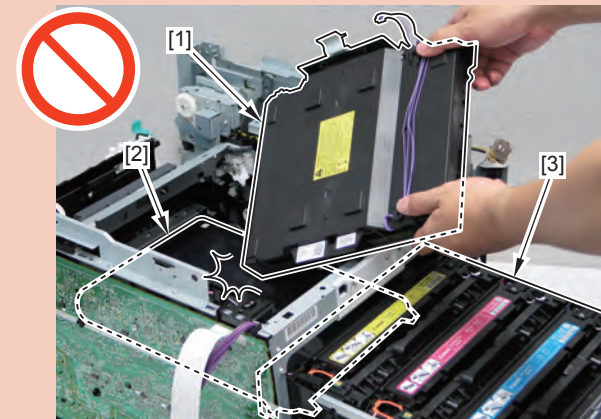
Pre-procedure

- 1) Removing the Right Cover Refer to page 4-23
- 2) Removing the Left Cover Refer to page 4-21
- 3) Removing the Right Front Cover Refer to page 4-25
- 4) Removing the ADF Unit + Reader Unit Refer to page 4-33
- 5) Removing the Rear Upper Cover Refer to page 4-26
- 6) Removing the Upper Cover Refer to page 4-30
- 7) Removing the Rear Cover Refer to page 4-27
- 8) Removing the Rear Lower Cover Refer to page 4-27
- 9) Removing the Rear Cover Rib Unit. Refer to page 4-29
- 10) Removing the Duplex Printing Reverse Drive Unit Refer to page 4-82
- 11) Removing the Fixing Assembly Refer to page 4-103
- 12) Removing the Delivery Unit Refer to page 4-125

Procedure

Caution:

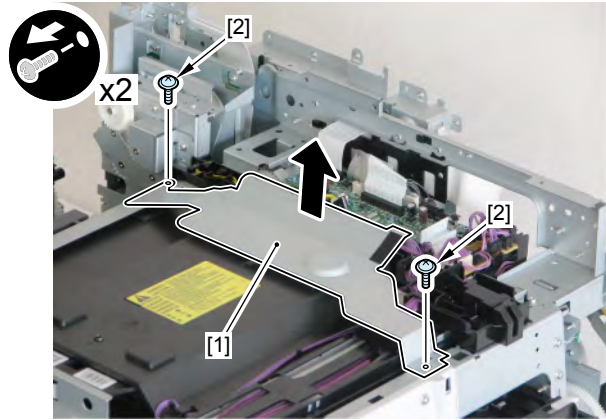
The ITB Unit is under the Laser Scanner Unit. Ensure to close a Cartridge Tray when performing this procedure, because there is a possibility that the ITB Unit might be damaged when the Laser Scanner Unit is mistakenly dropped during installation/removal.



F-4-206

1) Remove the wire harness cover plate [1].

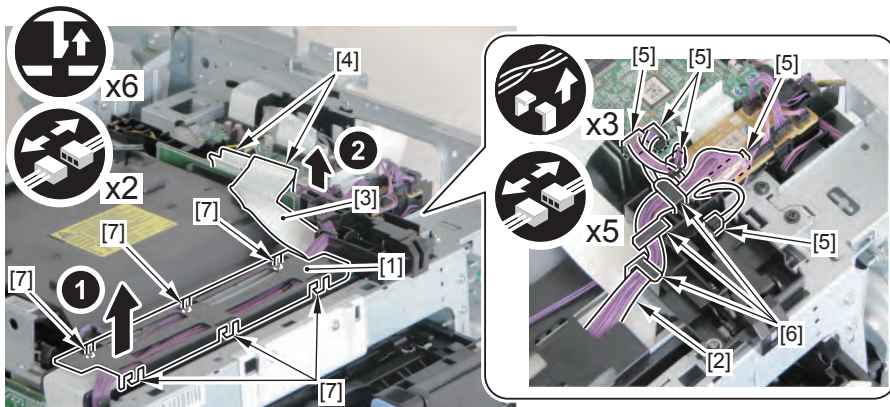
- 2 screws [2]



F-4-207

2) Remove the Harness Guide [1] and free the harness [2] and the Flat Cable [3].

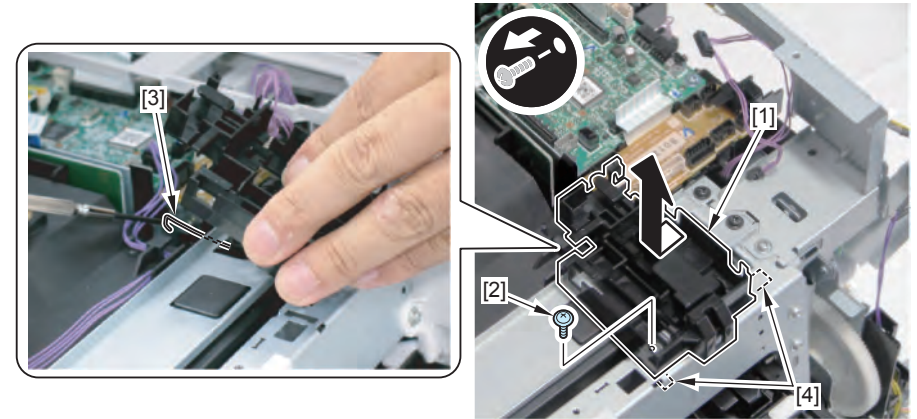
- 2 Flat Cables [4]
- 5 Connectors [5]
- 3 Fixation Guides [6]
- 6 Claws [7]



F-4-208

3) Remove the Harness Guide [1].

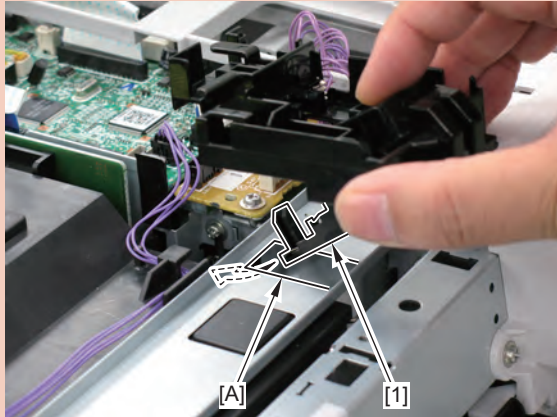
- 1 Screw [2]
- 1 Spring [3]
- 2 Hooks [4]



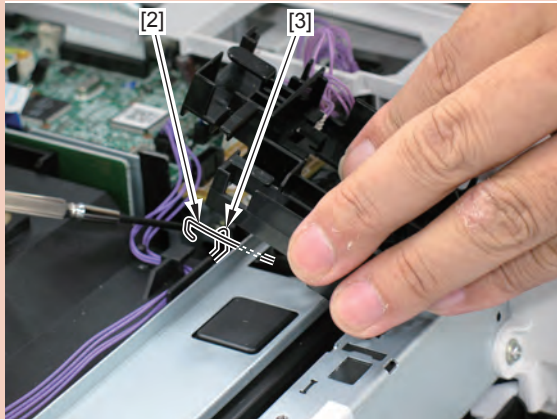
F-4-209

CAUTION:

Be sure to put the flag [1] of the Harness Guide through the hole [A] of the plate, and hook the spring [2] on the flag [3] of the Laser Scanner Unit when installing.



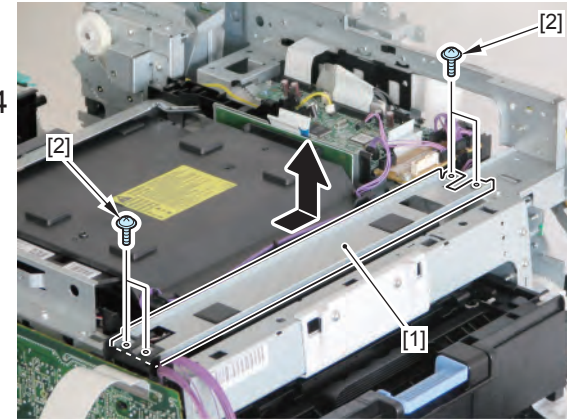
F-4-210



F-4-211

4) Remove the Upper Front Supporting Plate [1].

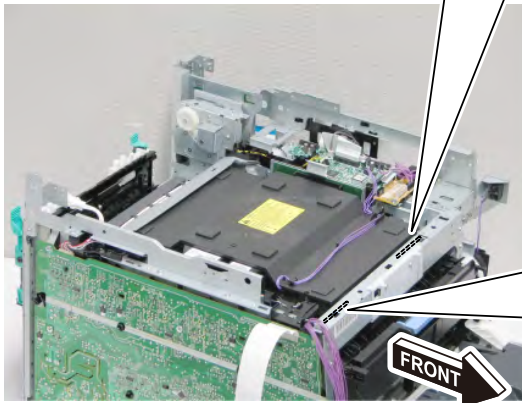
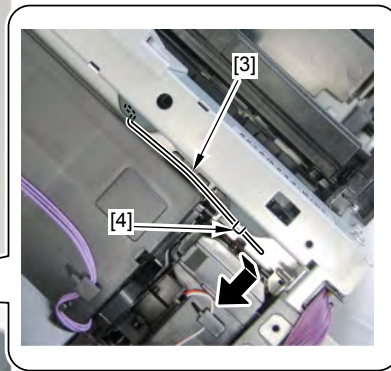
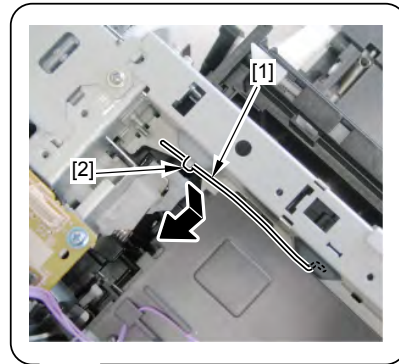
- 4 screws [2]



F-4-212

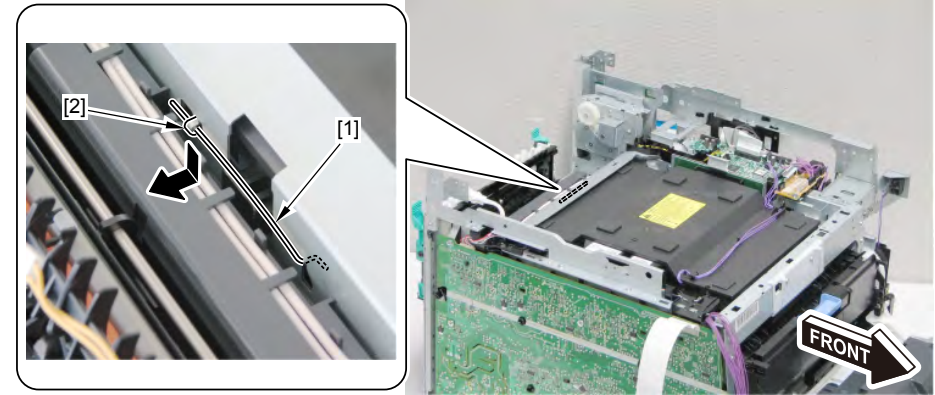
5) Remove the Scanner Fixing Spring [1] on the right side from 1 hook [2].

6) Remove the Scanner Fixing Spring [3] on the left from the 1 hook [4].



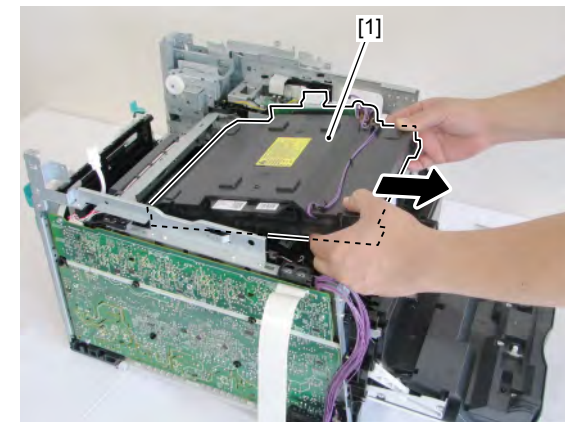
F-4-213

7) Remove the Scanner Fixing Spring [1] in the rear from 1 hook [2].



F-4-214

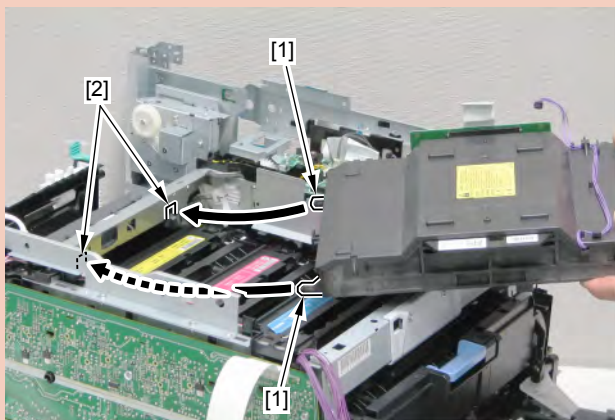
8) Remove the Laser Scanner Unit [1].



F-4-215

Caution::

Insert 2 bosses [1] into 2 boss holes [2] when installing.



F-4-216

After replacing laser exposure units

1) Register values indicated on the label packaged with the laser scanner unit in the following service mode items.

COPIER>ADJUST>SCNR>

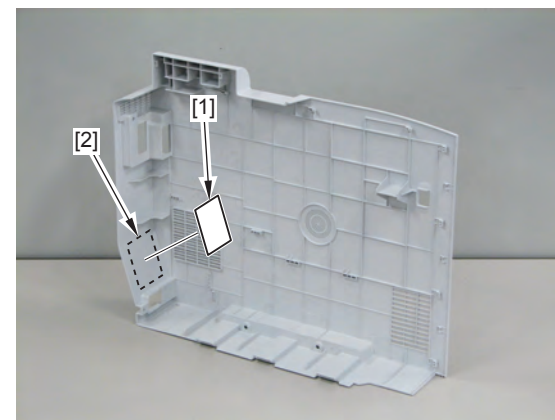
- SUB-S-Y0(Laser output correction value, vertical scanning irradiation position0 Y)
- SUB-S-M0(Laser output correction value, vertical scanning irradiation position0 M)
- SUB-S-C0(Laser output correction value, vertical scanning irradiation position0 C)
- SUB-S-K0(Laser output correction value, vertical scanning irradiation position0 K)
- SUB-S-Y1(Laser output correction value, vertical scanning irradiation position1 Y)
- SUB-S-M1(Laser output correction value, vertical scanning irradiation position1 M)
- SUB-S-C1(Laser output correction value, vertical scanning irradiation position1 C)
- SUB-S-K1(Laser output correction value, vertical scanning irradiation position1 K)
- SUB-S-Y2(Laser output correction value, vertical scanning irradiation position2 Y)
- SUB-S-M2(Laser output correction value, vertical scanning irradiation position2 M)
- SUB-S-C2(Laser output correction value, vertical scanning irradiation position2 C)
- SUB-S-K2(Laser output correction value, vertical scanning irradiation position2 K)
- MAI-S-Y0(Laser output correction value, horizontal scanning irradiation position0 Y)
- MAI-S-M0(Laser output correction value, horizontal scanning irradiation position0 M)
- MAI-S-C0(Laser output correction value, horizontal scanning irradiation position0 C)
- MAI-S-K0(Laser output correction value, horizontal scanning irradiation position0 K)

- MAI-S-Y1(Laser output correction value, horizontal scanning irradiation position1 Y)
- MAI-S-M1(Laser output correction value, horizontal scanning irradiation position1 M)
- MAI-S-C1(Laser output correction value, horizontal scanning irradiation position1 C)
- MAI-S-K1(Laser output correction value, horizontal scanning irradiation position1 K)
- MAI-S-Y2(Laser output correction value, horizontal scanning irradiation position2 Y)
- MAI-S-M2(Laser output correction value, horizontal scanning irradiation position2 M)
- MAI-S-C2(Laser output correction value, horizontal scanning irradiation position2 C)
- MAI-S-K2(Laser output correction value, horizontal scanning irradiation position2 K)

FM2-			
Serial No.000000			
Sub Scanning Line			
	0	1	2
Y	±****	±****	±****
M	±****	±****	±****
C	±****	±****	±****
K	±****	±****	±****
Main Scanning Line			
	0	1	2
Y	±****	±****	±****
M	±****	±****	±****
C	±****	±****	±****
K	±****	±****	±****

F-4-217

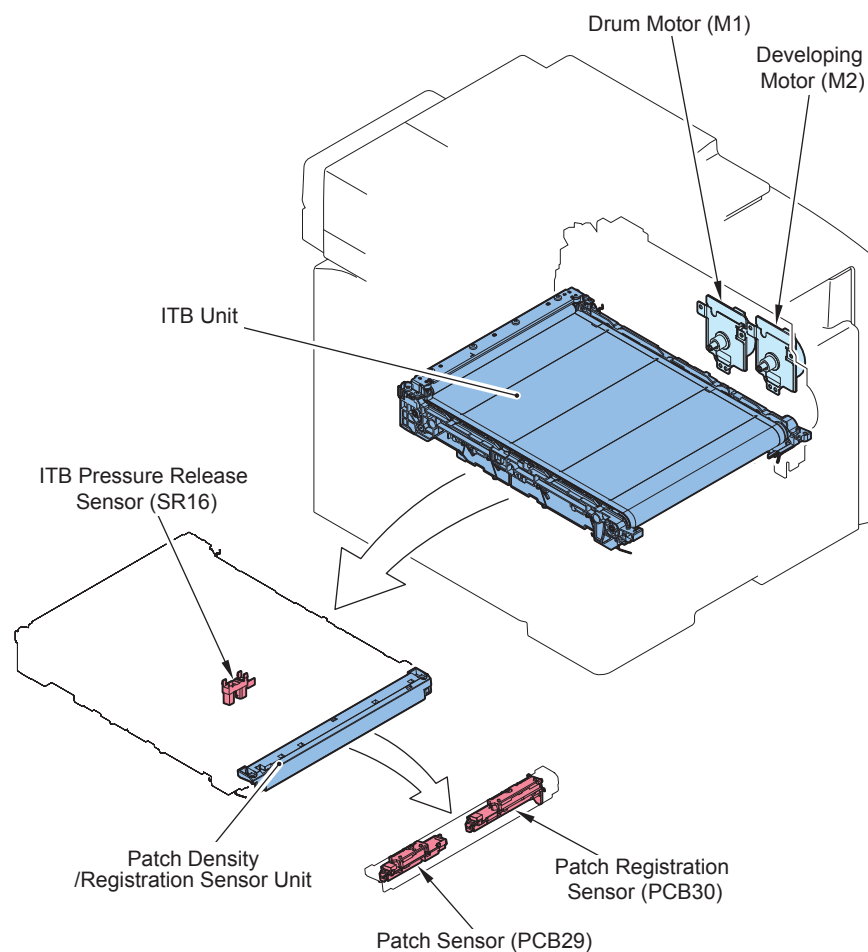
2) After values are registered, affix the label [1] packaged with the unit on the inside [2] of the right cover.



F-4-218

Image Formation System

Location



F-4-219

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	ITB Unit	-	Refer to page 4-95	-
M1	Drum Motor	-	Refer to page 4-98	-
M2	Developing Motor	-	Refer to page 4-100	-
SR16	ITB Pressure Release Sensor	-	-	-
-	Patch Density/Registration Sensor Unit	-	4-97	-
PCB29	Patch Sensor	-	-	-
PCB30	Patch Registration Sensor	-	-	-

T-4-6

■ Removing the ITB Unit

Pre-procedure

1) Removing the Cartridge Tray Refer to page 4-31

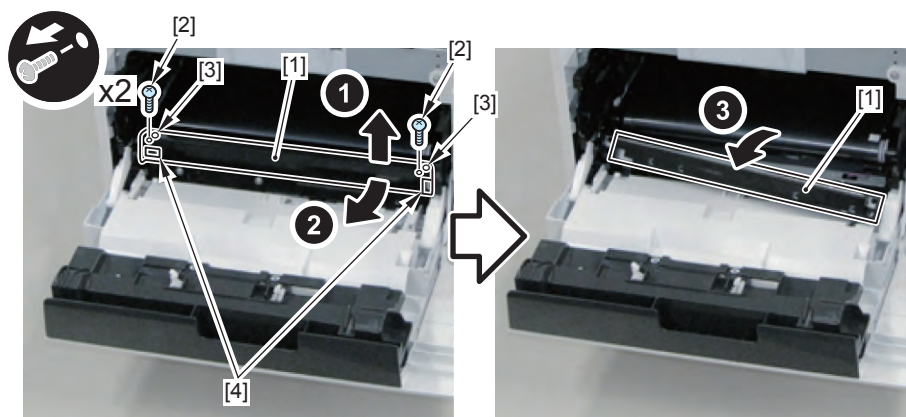
Procedure

CAUTION:

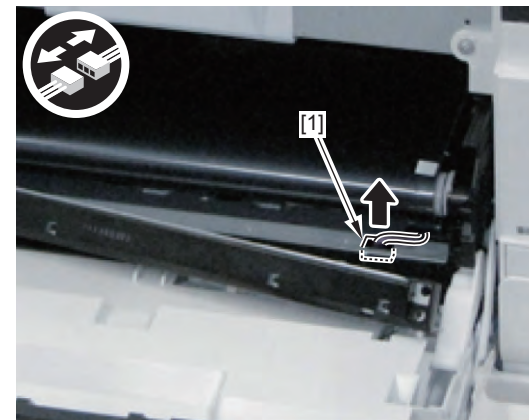
Be sure not to touch the surface of the ITB and the Secondary Transfer Roller when disassembling/assembling.

1) Move the Patch Sensor Unit [1].

- 2 Screws [2]
- 2 Bosses [3]
- 2 Protrusions [4]

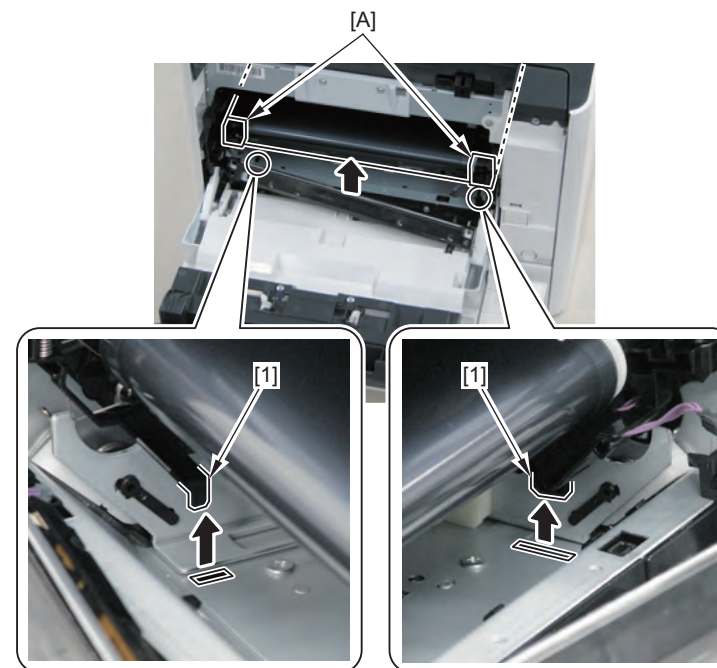


2) Disconnect the connector [1].



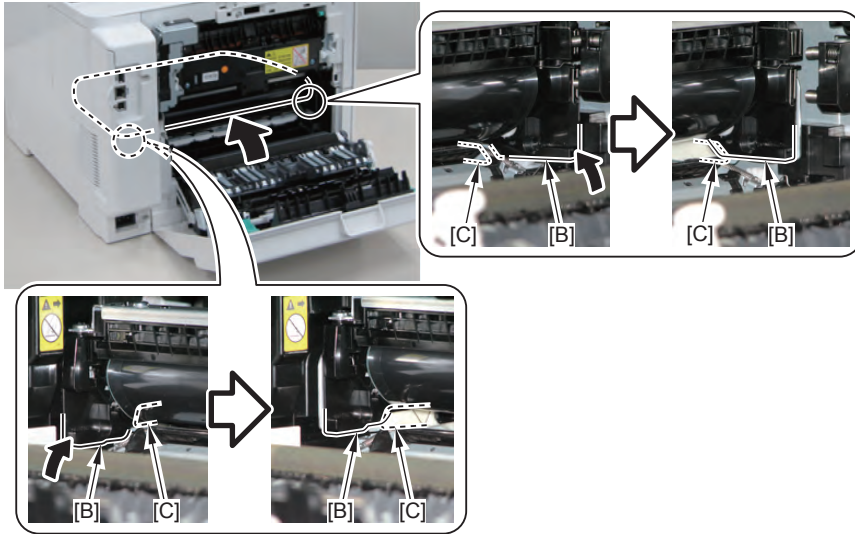
F-4-220

3) Lift the 2 parts [A] at the front side of the ITB Unit to release the 2 protrusions [1].



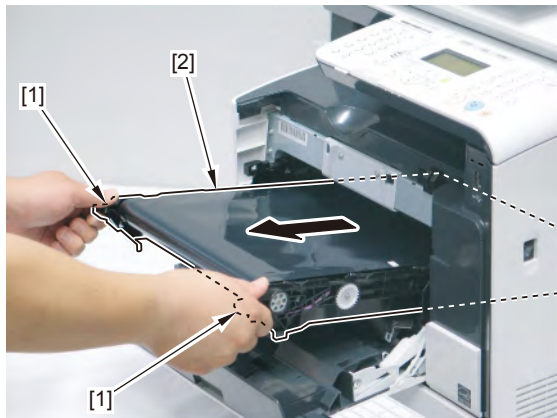
F-4-221

4) Place the 2 parts [B] at the rear side of ITB Unit on the rail [C].



F-4-222

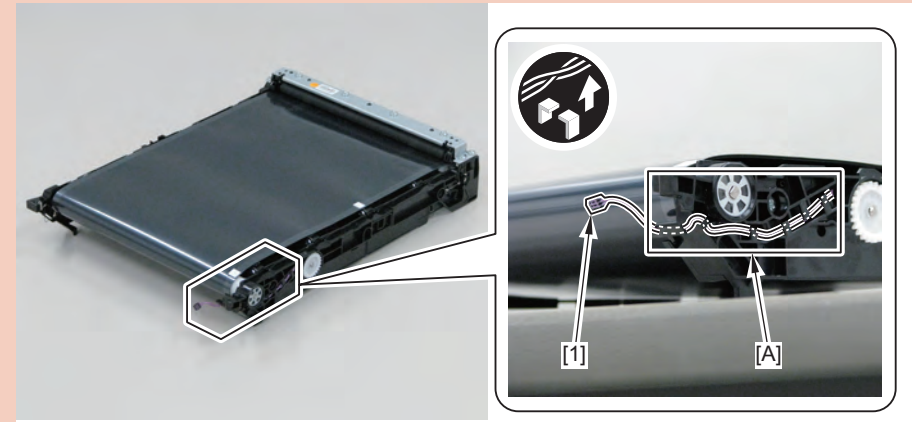
5) Hold 2 handles [1] on the ITB Unit at the front of this machine, and remove the ITB Unit [2] toward the arrow direction.



F-4-223

CAUTION:

Be sure to install the harness [1] to the guide [A] of the ITB Unit when installing.



F-4-224

Removing the Patch Density and Registration Sensor unit

Pre-procedure

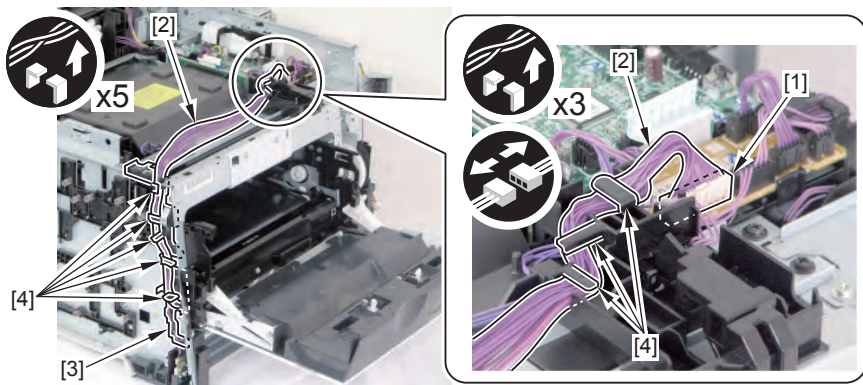
- 1) Removing the Right Cover Refer to page 4-23
- 2) Removing the Left Cover Refer to page 4-21
- 3) Removing the Rear Upper Cover Refer to page 4-26
- 4) Removing the ADF Unit + Reader Unit Refer to page 4-33
- 5) Removing the Right Front Cover Refer to page 4-25
- 6) Removing the Upper Cover Refer to page 4-30
- 7) Removing the High Voltage Power Supply PCB Refer to page 4-65
- 8) Removing the Cartridge Tray 4-31

procedure

CAUTION:

Be sure not to touch the surface of the ITB and the Secondary Transfer Roller when disassembling/assembling.

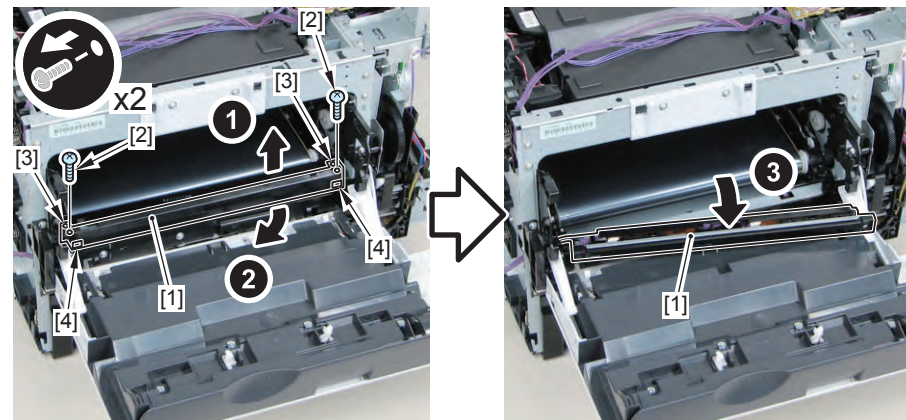
- 1) Remove 1 connector [1], and remove the wire harness [2] from the wire harness guide [3].
- 8 fixing guides [4]



F-4-225

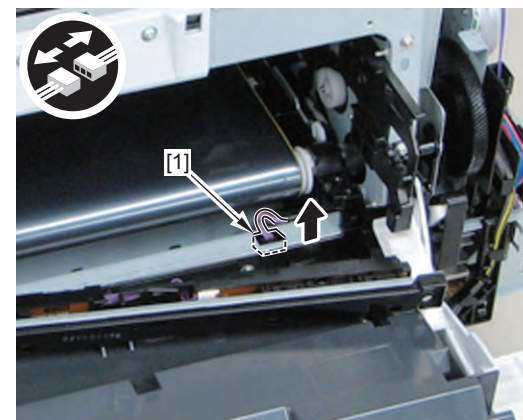
- 2) Move the Patch Sensor Unit [1].

- 2 Screws [2]
- 2 Bosses [3]
- 2 Protrusions [4]



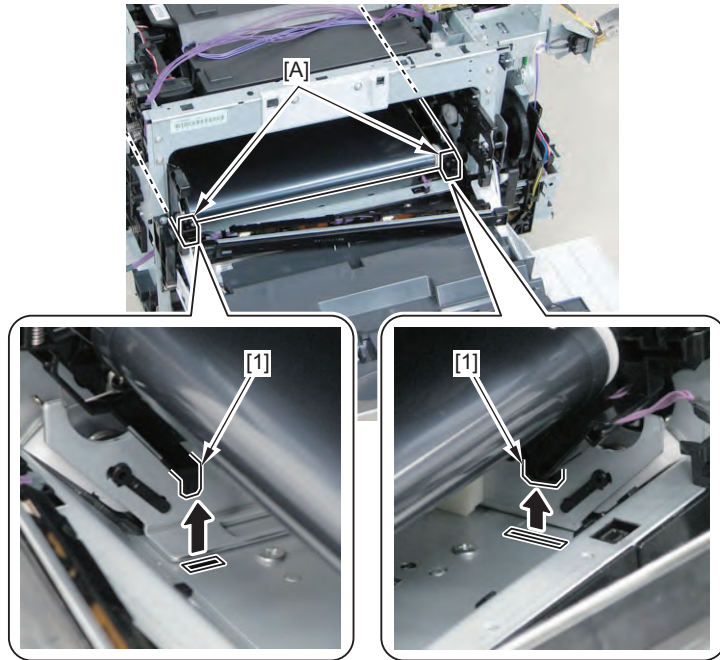
F-4-226

- 3) Disconnect the connector [1].



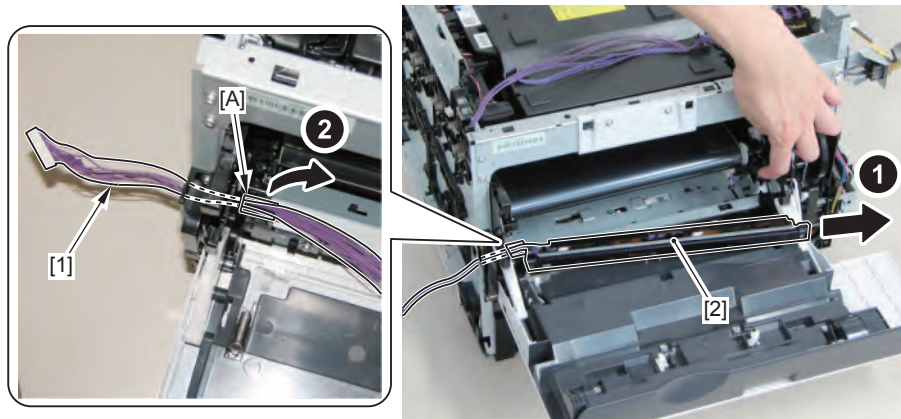
F-4-227

4) Lift the 2 parts [A] at the front side of the ITB Unit to release the 2 protrusions [1].



F-4-228

5) Put the connector [1] through the hole [A] and remove the Patch Density/Registration Patch Sensor Unit [2].



F-4-229

■ Removing the Drum Motor

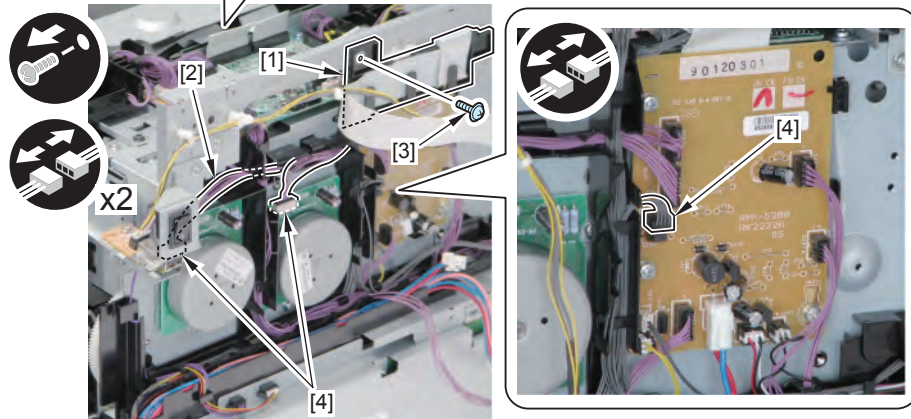
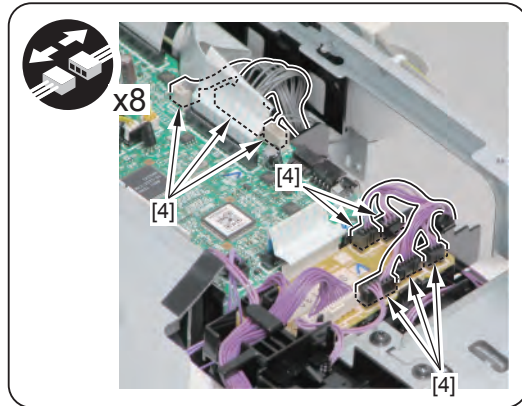
Pre-procedure

- 1) Removing the Right CoverRefer to page 4-23
- 2) Removing the Left CoverRefer to page 4-21
- 3) Removing the Right Front CoverRefer to page 4-25
- 4) Removing the ADF Unit + Reader UnitRefer to page 4-33
- 5) Removing the Rear Upper CoverRefer to page 4-26
- 6) Removing the Upper CoverRefer to page 4-30
- 7) Removing the Wireless LAN PCB(MF8380 only)4-60
- 8) Removing the Main Controller PCBRefer to page 4-61
- 9) Removing the Main Controller Support Plate4-63

procedure

1) Remove the fixing guide [1] and the wire harness [2].

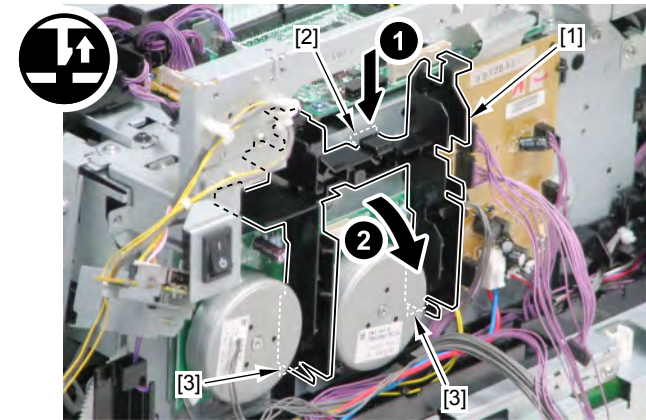
- 1 screw [3]
- 11 connectors [4]



F-4-230

2) Remove the wire harness guide [1].

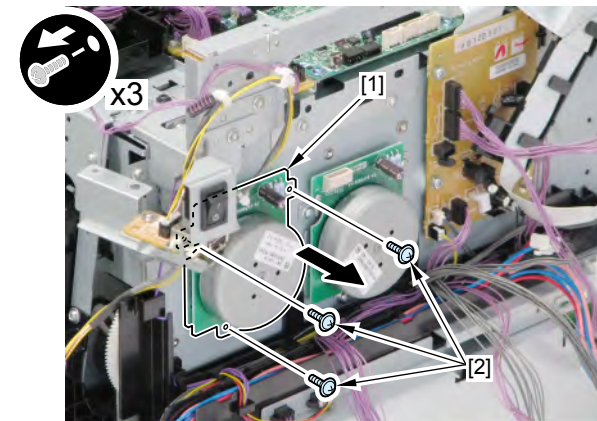
- 1 claw [2]
- 2 hooks [3]



F-4-231

3) Remove the Drum Motor [1].

- 3 screws [2]



F-4-232

■ Removing the Developing Motor

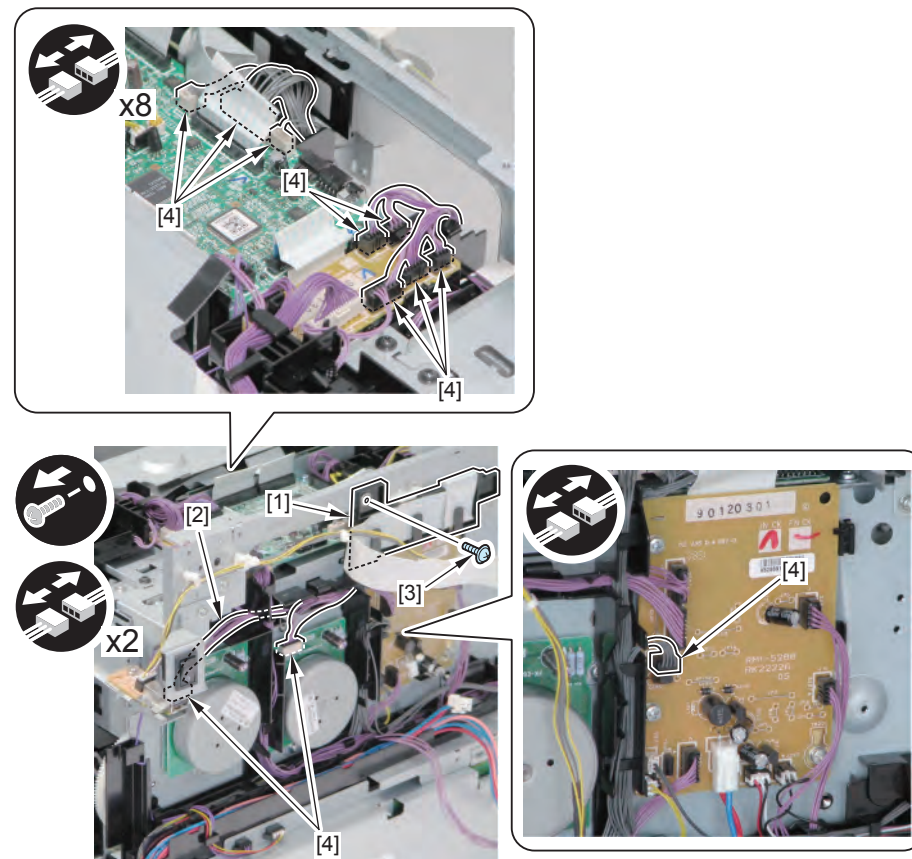
Pre-procedure

- 1) Removing the Right CoverRefer to page 4-23
- 2) Removing the Left CoverRefer to page 4-21
- 3) Removing the Right Front CoverRefer to page 4-25
- 4) Removing the ADF Unit + Reader UnitRefer to page 4-33
- 5) Removing the Rear Upper CoverRefer to page 4-26
- 6) Removing the Upper CoverRefer to page 4-30
- 7) Removing the Wireless LAN PCB(MF8380 only)4-60
- 8) Removing the Main Controller PCBRefer to page 4-61
- 9) Removing the Main Controller Support Plate4-63

procedure

1) Remove the fixing guide [1] and the wire harness [2].

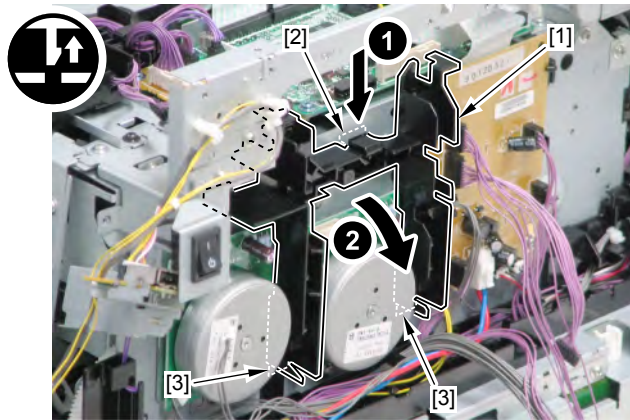
- 1 screw [3]
- 11 connectors [4]



F-4-233

2) Remove the wire harness guide [1].

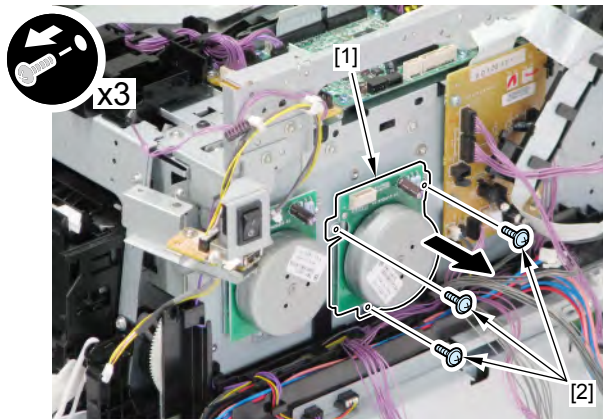
- 1 claw [2]
- 2 hooks [3]



F-4-234

3) Remove the Developing Motor [1].

- 3 screws [2]



F-4-235

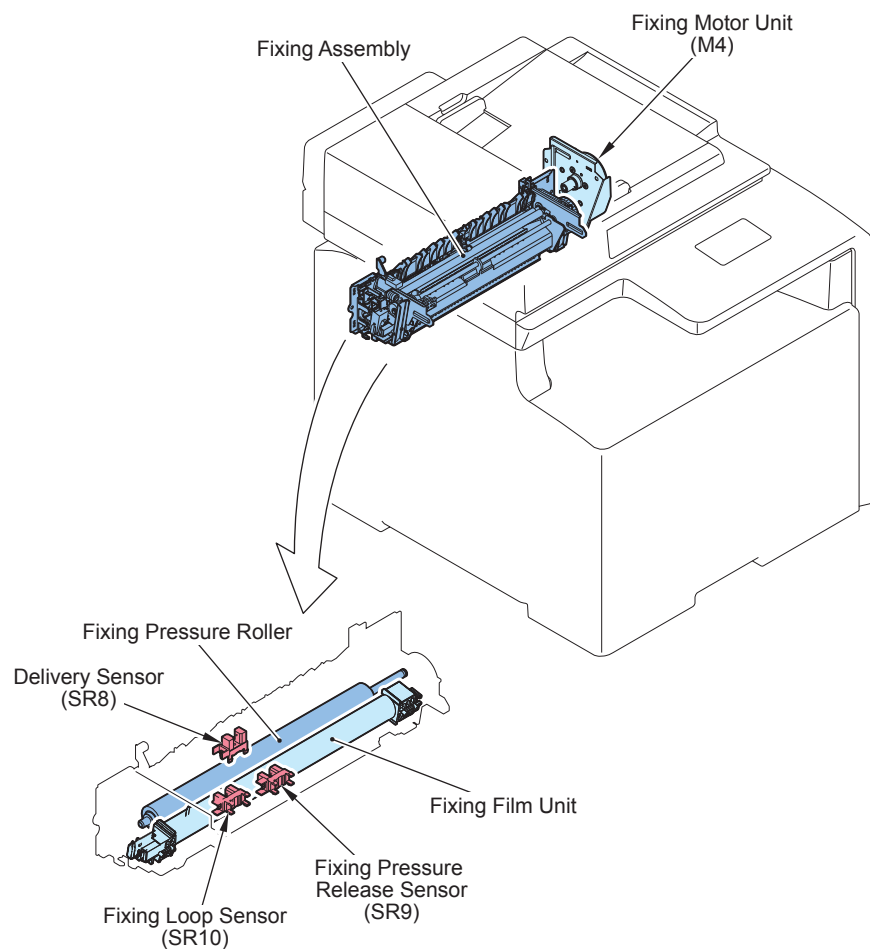
■ Removing the Secondary Transfer Outer Roller

Caution:

Secondary Transfer Outer Roller is included in Secondary Transfer FeedUnit so when replacing the Secondary Transfer Outer Roller, be sure to replace the Secondary Transfer Feed Unit itself. Refer to page 4-124

Fixing System

Location



F-4-236

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	Fixing Unit	-	Refer to page 4-103	-
M4	Fixing Motor	-	Refer to page 4-109	-
-	Fixing Pressure Roller	-	Refer to page 4-109	-
-	Fixing Film Unit	-	Refer to page 4-104	-
SR8	Fixing Delivery Sensor	-	-	-
SR9	Fixing Pressure Release Sensor	-	-	-
SR10	Fixing Loop Sensor	-	-	-

T-4-7

Removing the Fixing Assembly

Pre-procedure

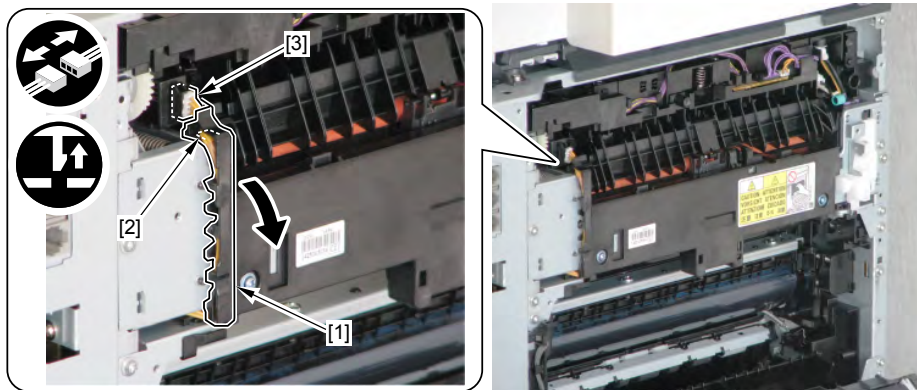
- 1) Removing the Right Cover Refer to page 4-23
- 2) Removing the Left Cover Refer to page 4-21
- 3) Removing the Rear Upper Cover Refer to page 4-26
- 4) Removing the Rear Cover Refer to page 4-26
- 5) Removing the Rear Lower Cover Refer to page 4-27
- 6) Removing the Rear Cover Rib Unit 4-29
- 7) Removing the Duplex Printing Reverse Drive Unit Refer to page 4-82

Procedure

Caution:

When removing the fixing unit, be sure to turn OFF the power.
 Since the fixing assembly is extremely hot just after the printing, do not handle it unless it cools down completely.
 If you touch the high-temperature assembly, it may cause a burn.

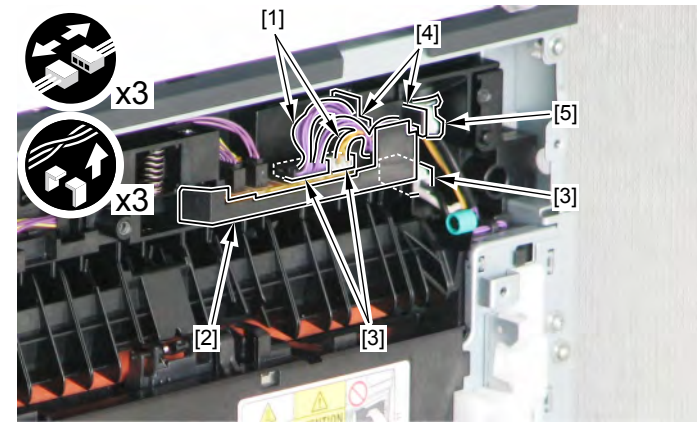
- 1) Remove the claw [2] of the harness guide [1] and disconnect the connector [3].



F-4-237

- 2) Free the harness [1] from the harness guide [2].

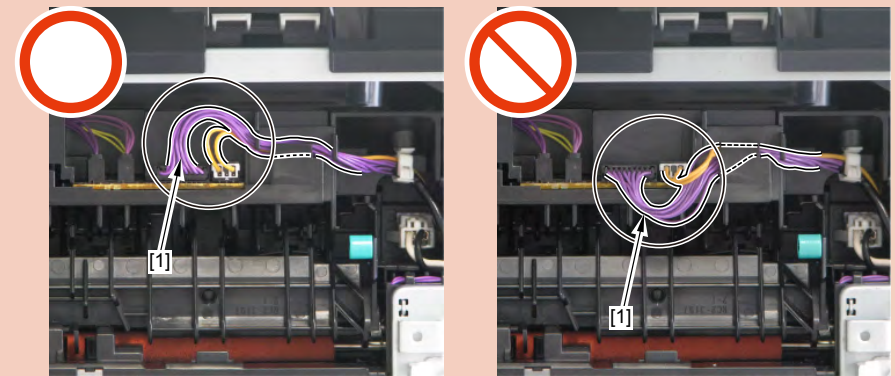
- 3 connectors [3]
- 2 fixing guides [4]
- 1 wire saddle [5]



F-4-238

Caution:

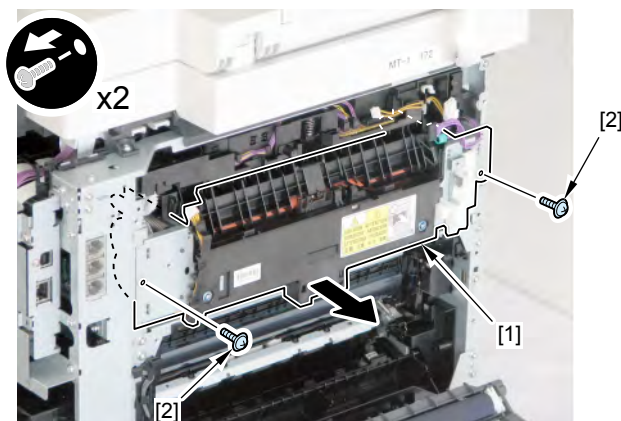
When the fixing assembly is installed, handle the harness [1] like the figure to prevent papers from the interference at the transit



F-4-239

3) Remove the Fixing Assembly [1].

- 2 screws [2]



F-4-240

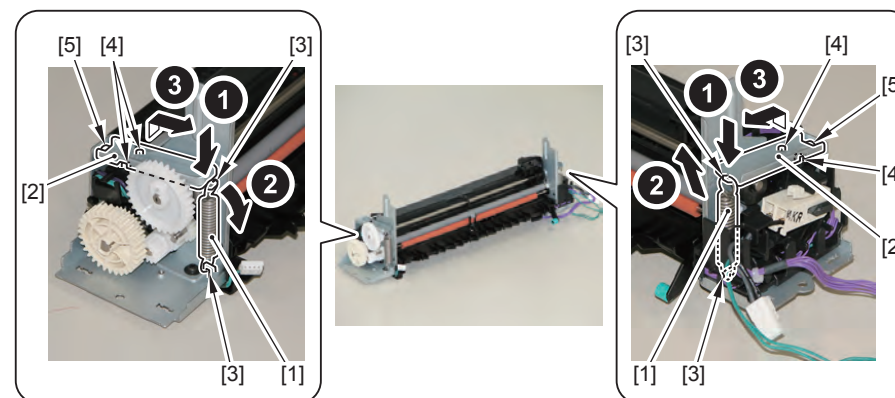
■ Removing the Fixing Film Unit

Pre-procedure

- 1) Removing the Right Cover Refer to page 4-23
- 2) Removing the Left Cover Refer to page 4-21
- 3) Removing the Rear Upper Cover Refer to page 4-26
- 4) Removing the Rear Cover Refer to page 4-26
- 5) Removing the Rear Lower Cover Refer to page 4-27
- 6) Removing the Rear Cover Rib Unit 4-29
- 7) Removing the Duplex Printing Reverse Drive Unit Refer to page 4-82
- 8) Removing the Fixing Assembly 4-103

Procedure

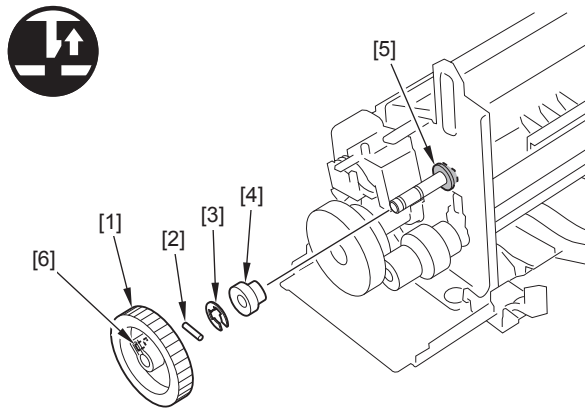
- 1) Remove the 2 Pressure Springs [1] on the right and left and the 2 Pressure Plates [2].
 - 4 Hooks [3]
 - 4 Bosses [4]
 - 2 Protrusions [5]



F-4-241

2) Remove the gear [1], Parallel Pin [2], E-Ring [3], cam [4], and bushing [5].

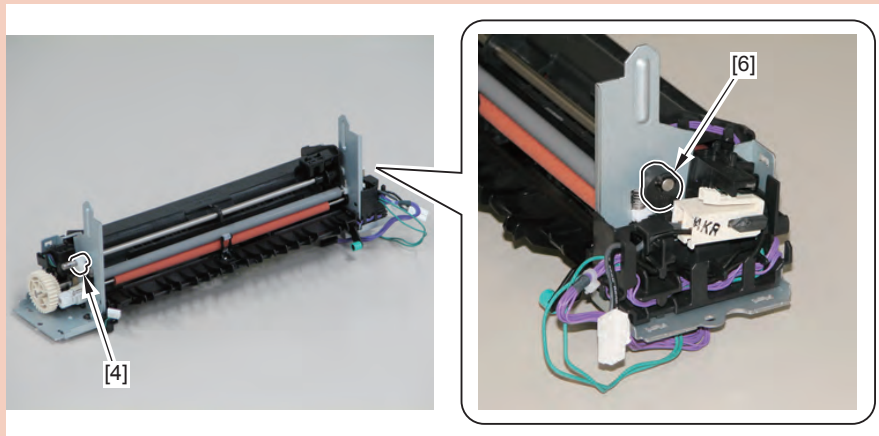
- 1 Claws [6]



F-4-242

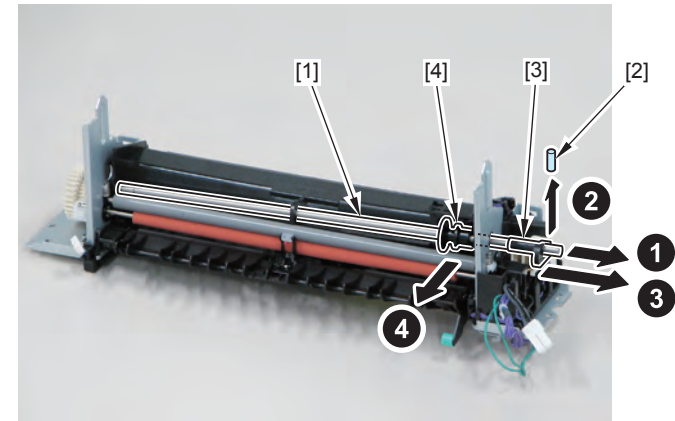
CAUTION:

At installation, be sure to match the direction of the cam [4] with that of the cam [6] on the other side of the Fixing Assembly.



F-4-243

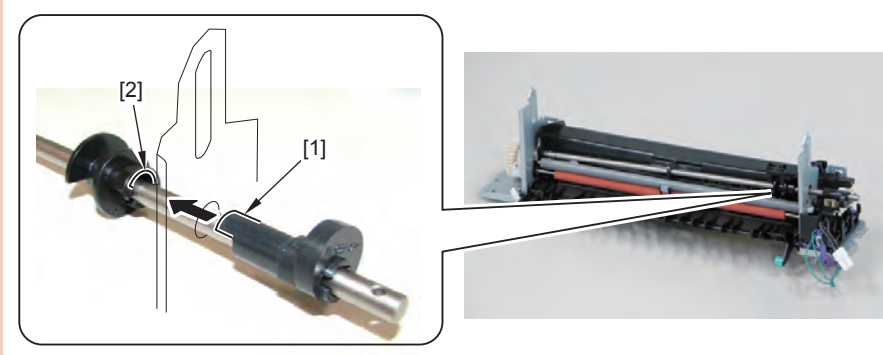
3) After sliding the shaft [1] to remove the Parallel Pins [2] and the cam [3], remove the shaft [1] and the Sensor Flag [4].



F-4-244

CAUTION:

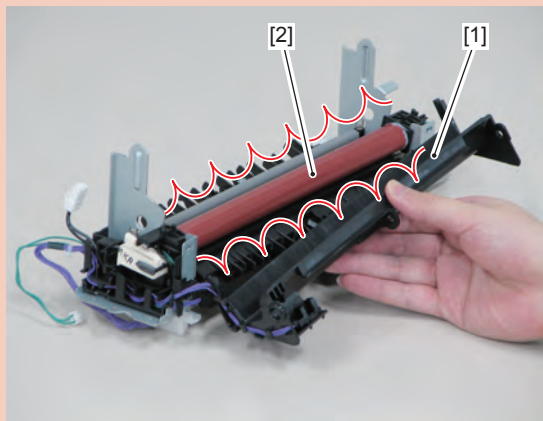
At installation, be sure to align the protrusion of the cam [1] with the groove of the Sensor Flag [2].



F-4-245

CAUTION:

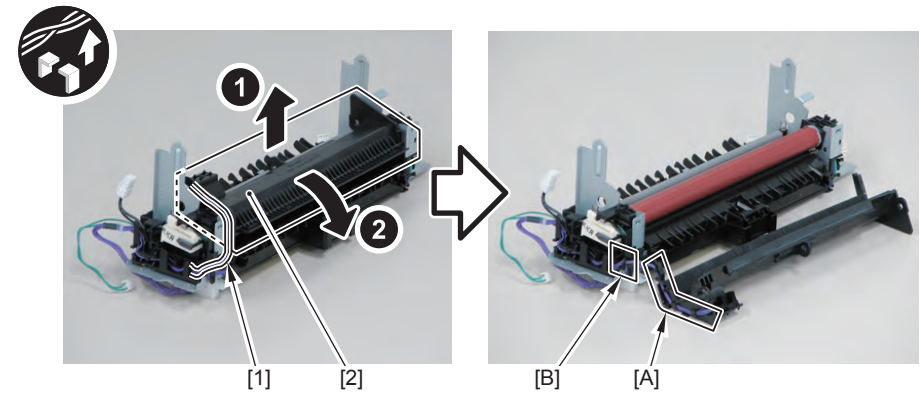
Be sure to prevent the guide [1] from hitting against the Fixing Film Unit [2] when installing/removing.



F-4-246

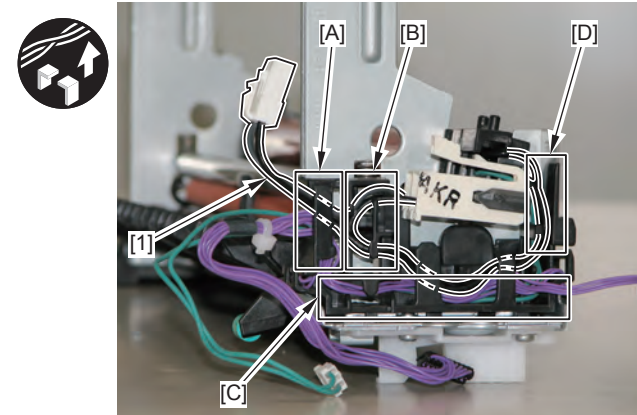
4) While securing the harness [1] to the guide [A], remove the harness [1] and the guide [2].

- Harness Guide [B]



F-4-247

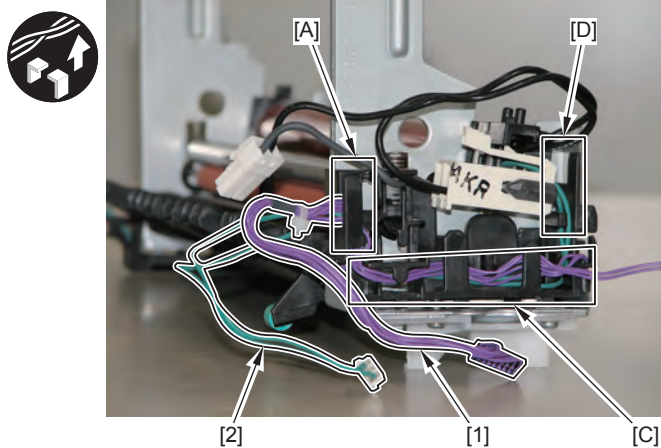
5) Free the harness (black) [1] from the Harness Guide [A], [B], [C] and [D].



F-4-248

6) Free the harness (purple) [1] from the Harness Guide [A] and [C].

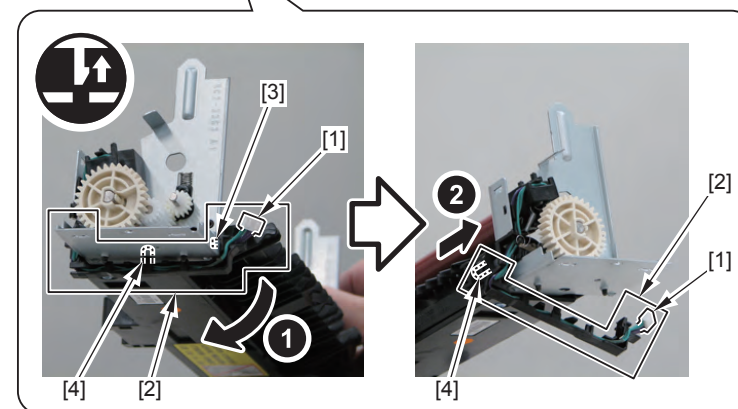
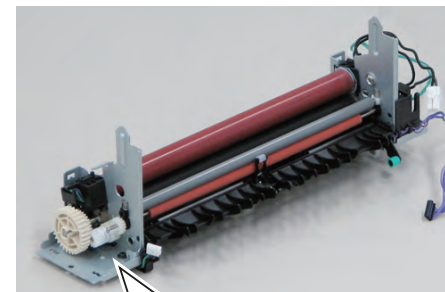
7) Free the harness (green) [2] from the Harness Guide [A], [C] and [D].



F-4-249

8) Remove the harness [1] and the guide [2].

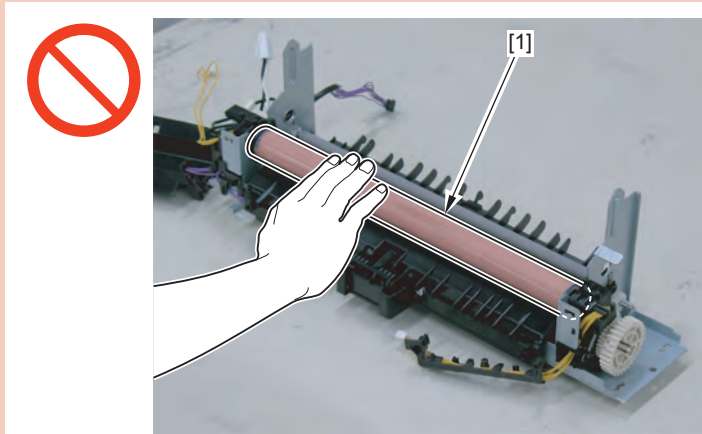
- 1 Claws [3]
- 2 Bosses [4]



F-4-250

CAUTION:

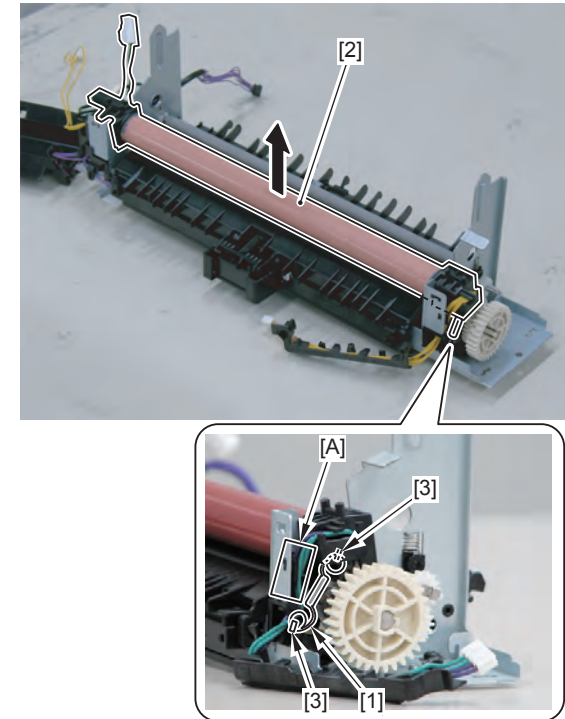
When installing/removing the Fixing Film Unit, be sure not to touch the Fixing Film [1].



F-4-251

9) Remove the spring [1] and the Fixing Film Unit [2].

- 2 Hooks [3]
- Harness Guide [A]



F-4-252

Caution:

Be careful not to lose the spring because the spring is small.

■ Removing the Fixing Pressure Roller

Pre-procedure

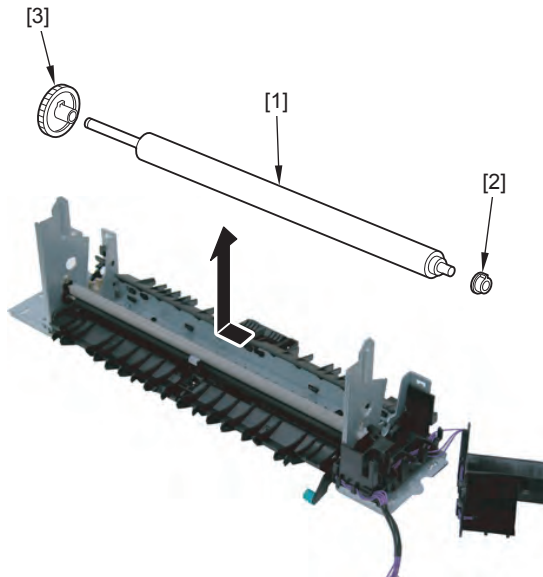
- 1) Removing the Right Cover Refer to page 4-23
- 2) Removing the Left Cover Refer to page 4-21
- 3) Removing the Rear Upper Cover Refer to page 4-26
- 4) Removing the Rear Cover Refer to page 4-26
- 5) Removing the Rear Lower Cover Refer to page 4-27
- 6) Removing the Rear Cover Rib Unit 4-29
- 7) Removing the Duplex Printing Reverse Drive Unit Refer to page 4-82
- 8) Removing the Fixing Assembly 4-103
- 9) Removing the Fixing Film Unit Refer to page 4-104

Procedure

CAUTION:

Be sure not to touch the surface of the Fixing Pressure Roller.

- 1) Remove the Fixing Pressure Roller [1].
 - 2 Bushings [2]
 - 1 Gear [3]



F-4-253

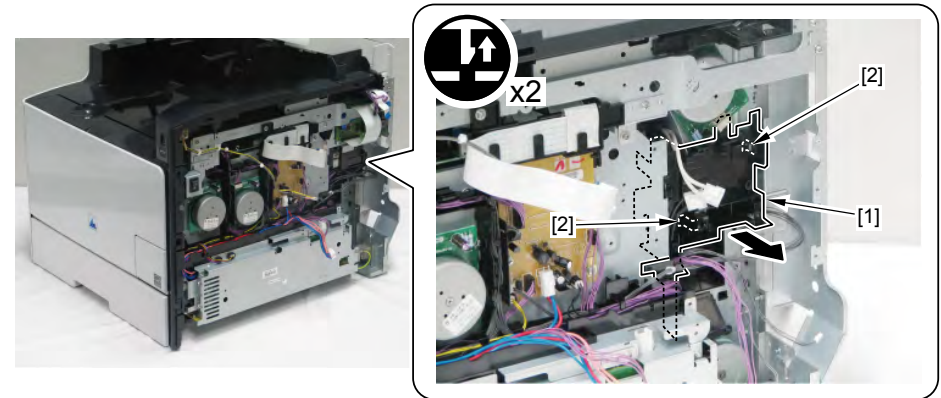
■ Removing the Fixing Motor Unit

Pre-procedure

- 1) Removing the Right Cover Refer to page 4-23
- 2) Removing the Main Controller PCB Refer to page 4-61
- 3) Removing the FAX PCB Refer to page 4-74
- 4) Removing the Fixing/Fixing Power Supply Cooling Fan Unit Refer to page 4-85
- 5) Removing the Fixing Sub PCB Refer to page 4-68

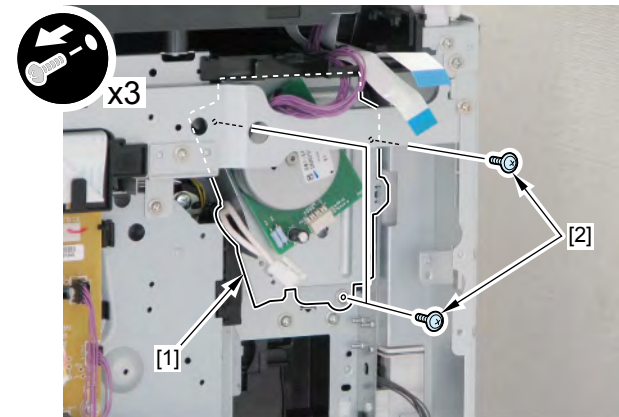
Procedure

- 1) Remove the Sub-Power Supply PCB Unit [1].
 - 2 claws [2]



F-4-254

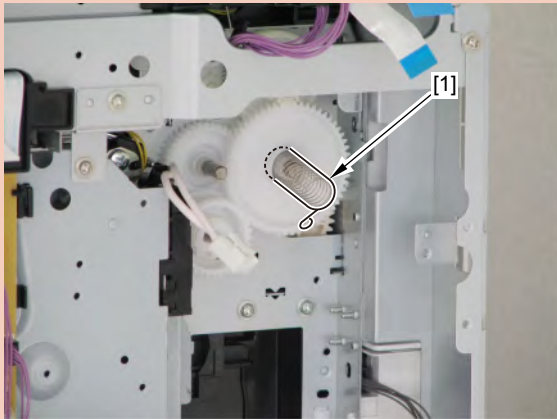
- 2) Remove the Fixing Motor unit [1].
 - 3 screws [2]



F-4-255

Caution:

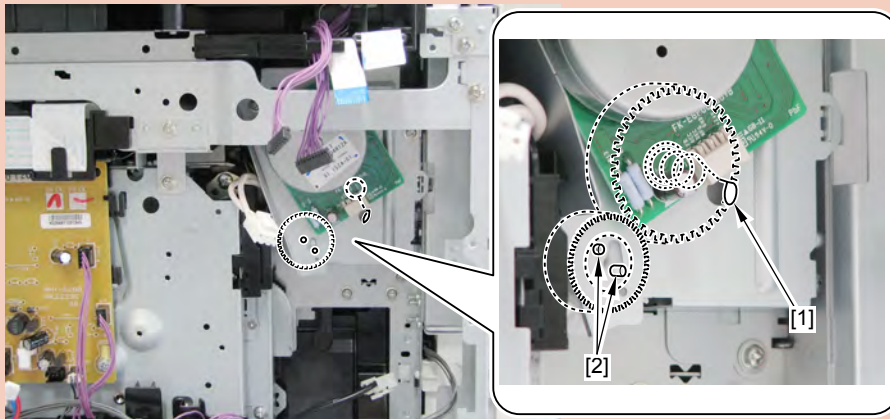
When removing the Fixing Motor Unit, do not lose the spring [1] in the backside.



F-4-256

Caution:

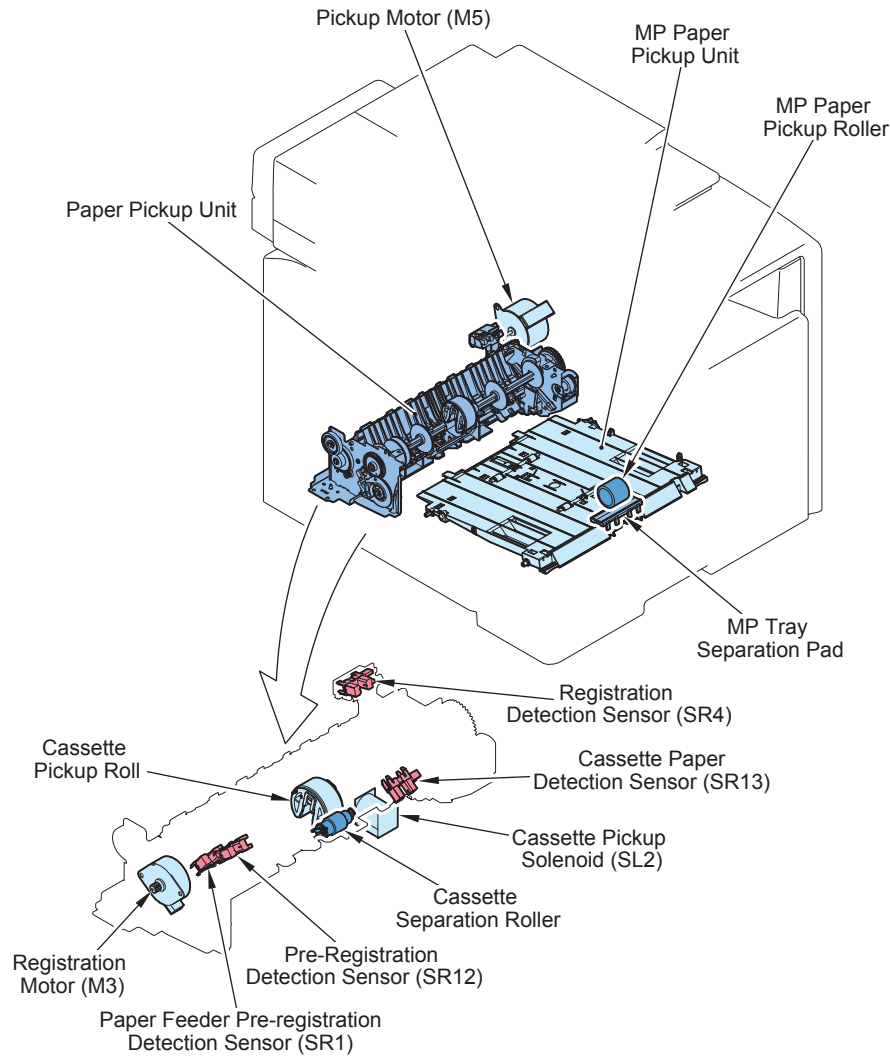
In installation, put the edge of the spring [1] and the projection [2] of the gear into the hole on the sheet metal.



F-4-257

Pickup Feeder System

Location



F-4-258

Electric symbol	Name	Remarks	Reference
-	Delivery Unit	-	Refer to page 4-125
-	Duplex Feed Unit	-	Refer to page 4-126
-	Re-Pickup Guide Unit	-	Refer to page 4-127
-	Secondary Transfer Feed Unit	-	Refer to page 4-124
-	Paper Pickup Unit	-	Refer to page 4-117
M5	Pickup Motor	-	Refer to page 4-115
-	MP Paper Pickup Unit	-	Refer to page 4-122
-	MP Paper Pickup Roller	-	Refer to page 4-114
-	MP Separation Pad	-	Refer to page 4-114
SR13	Cassette Paper Detection Sensor	-	-
SL2	Cassette Pickup Solenoid	-	-
-	Cassette Separation Roller	-	Refer to page 4-113
SR12	Pre-registration Detection Sensor	-	-
SR1	Paper Feeder Pre-registration Detection Sensor	-	-
M3	Registration Motor	-	Refer to page 4-117
-	Cassette Pickup Roller	-	Refer to page 4-112
SR4	Registration Detection Sensor	-	-

T-4-8

Removing the Cassette Pickup Roller

- 1) Turn ON the power switch.
- 2) Execute the following items in Service mode.
COPIER > FUNCTION > VIFFNC > FD-R-CHG
- 3) The Pickup Roller rotates and stops at the replacement position.
- 4) Turn OFF the power.

Caution:

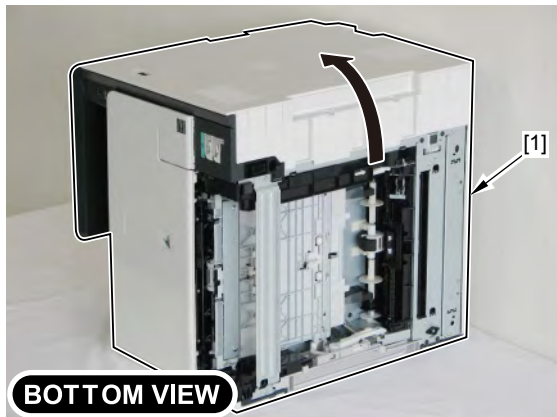
Before tilting a host machine, remove toner cartridges (Y, M, C, Bk).

- 5) Remove the cassette.
- 6) Place a host machine [1] as the Left Cover faces to the bottom.

Caution:

When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.

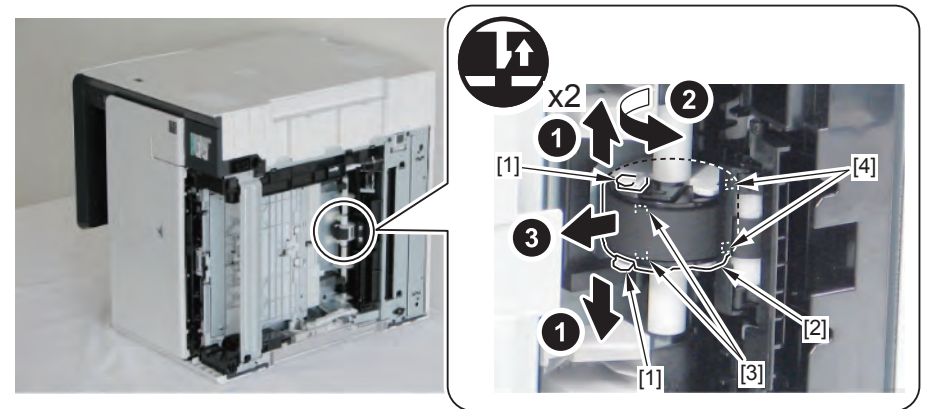
In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.



F-4-259

- 7) Open 2 projections [1], and remove the Pickup Roller [2].

- 2 Claws [3]
- 2 Hooks [4]



F-4-260

Removing the Cassette Separation Roller

Caution:

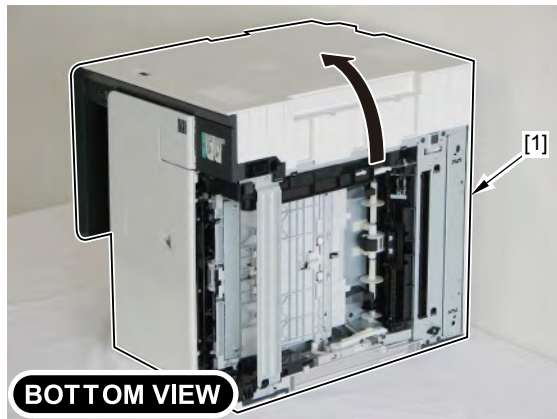
When tilting the host machine, remove the Toner Cartridge (Y, M, C, Bk) beforehand.

- 1) Remove the cassette.
- 2) Make the Left Cover face down and place the host machine [1].

Caution:

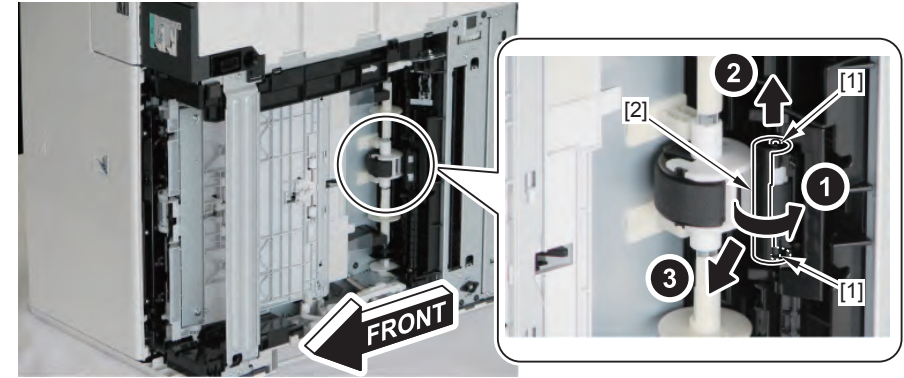
When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.

In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.



F-4-261

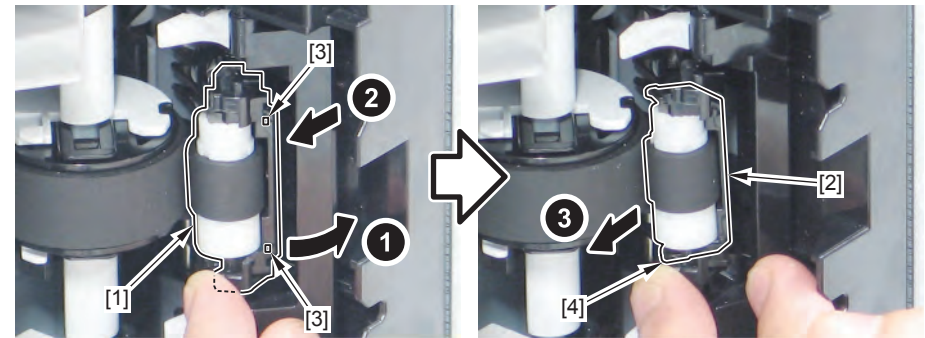
- 3) Remove the 2 projections [1] to remove the Cover [2].



F-4-262

- 4) Open the Holder [1] remove the Cassette Separation Roller [2].

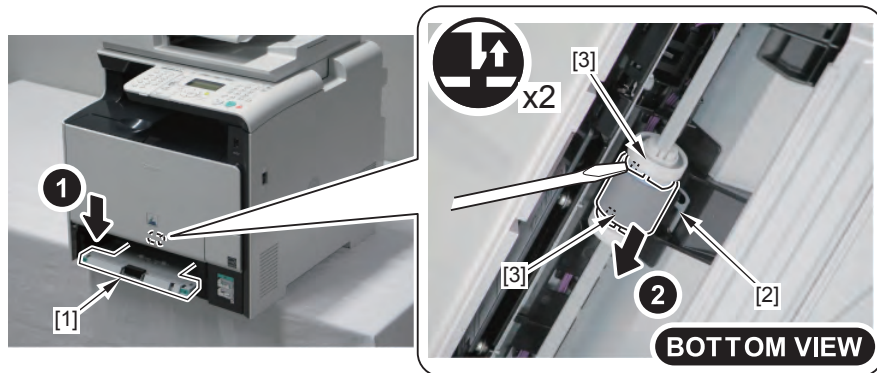
- 2 Claws [3]
- 1 projection [4]



F-4-263

■ Removing the MP Tray Pickup Roller

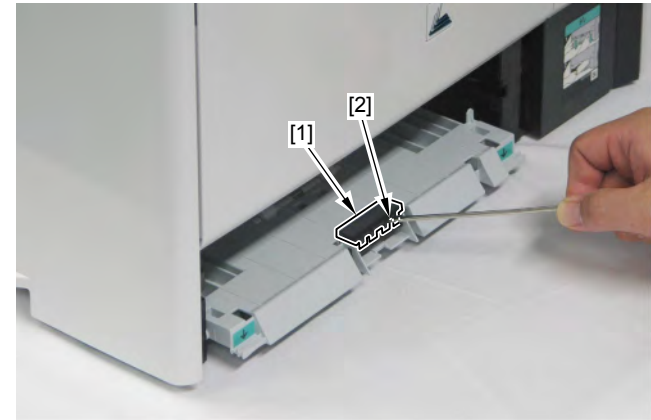
- 1) Remove the cassette.
 - 2) Lower the Multi-purpose Tray [1].
 - 3) Remove the Multi-purpose Tray Pickup Roller [2].
- 2 Claws [3]



F-4-264

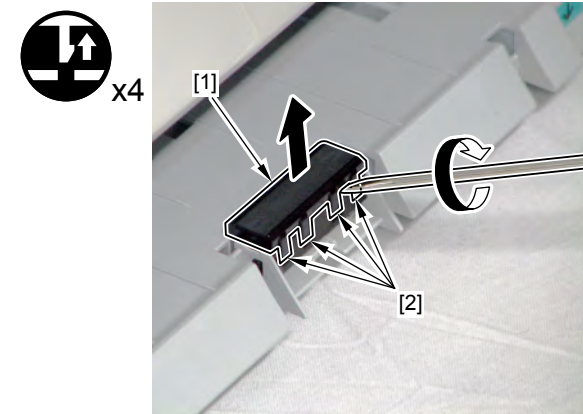
■ Removing the MP Tray Separation Pad

- 1) Put a Screwdriver into the gap [2] between the MP Tray Separation Pad [1] and the Pad Holder.



F-4-265

- 2) Turn the Screwdriver in the direction of the arrow to remove the MP Tray Separation Pad [1].
- 4 claws [2]



F-4-266

Removing the Pickup Motor

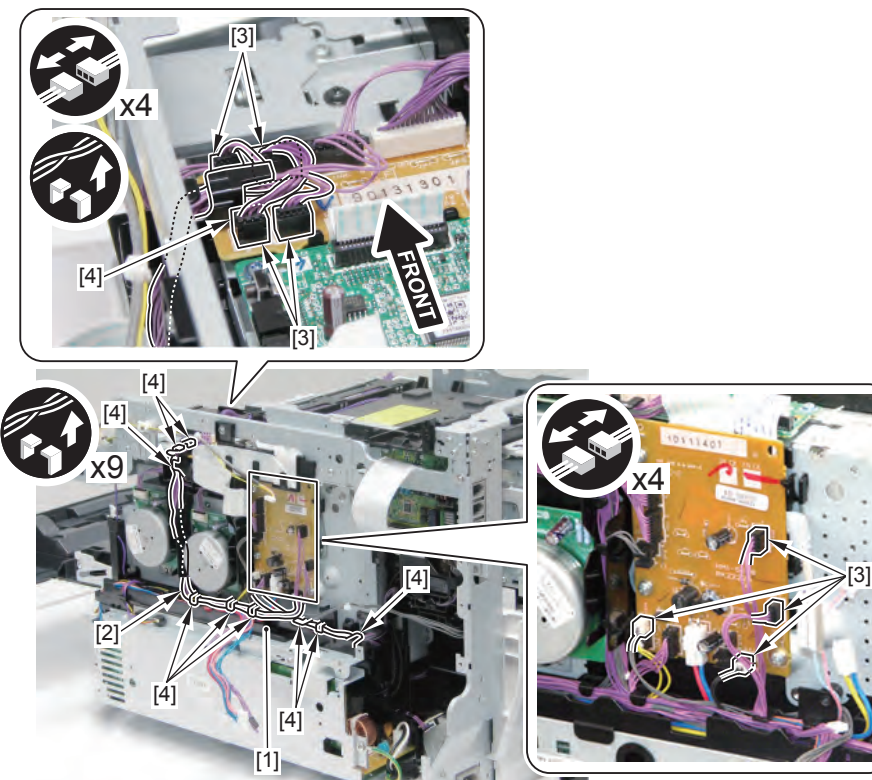
Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Right Front Cover. Refer to page 4-25
- 4) Removing the ADF Unit + Reader Unit. Refer to page 4-33
- 5) Removing the Rear Upper Cover. Refer to page 4-26
- 6) Removing the Upper Cover. Refer to page 4-30
- 7) Removing the Wireless LAN PCB. Refer to page 4-60
- 8) Removing the Main Controller PCB. Refer to page 4-61
- 9) Removing the Main Controller Support Plate. Refer to page 4-63

procedure

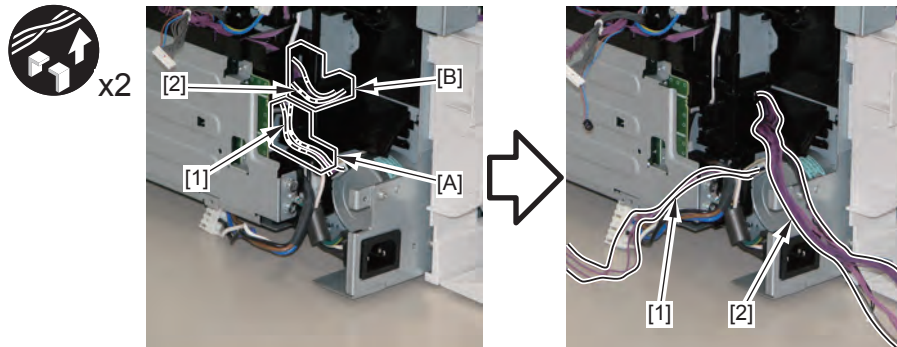
1) Remove the wire harness [2] from the wire harness guide [1].

- 8 connectors [3]
- 10 fixing guides [4]



F-4-267

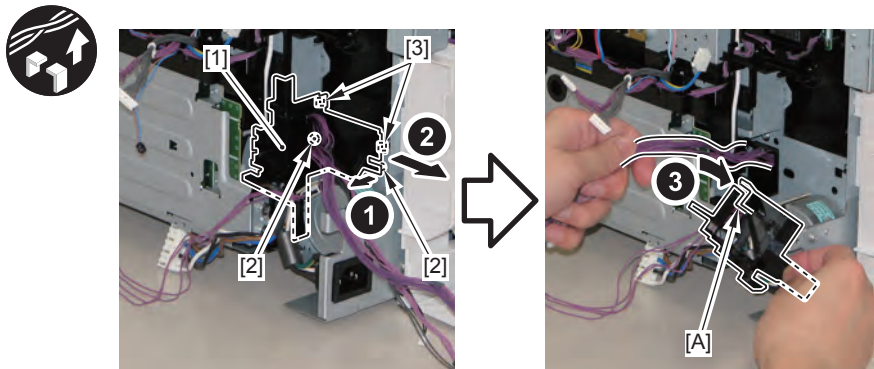
2) Free the harness [1] and [2] from the Harness Guide [A] and [B].



F-4-268

3) Remove the Harness Guide [1].

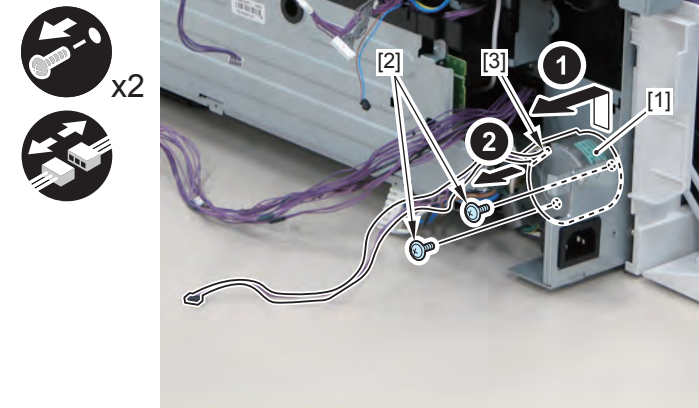
- Harness Guide [1]
- 2 Boss [2]
- 2 Hooks [3]



F-4-269

4) Remove the Pickup Motor [1].

- 2 Screws [2]
- 1 Connector [3]



F-4-270

Removing the Pickup Unit

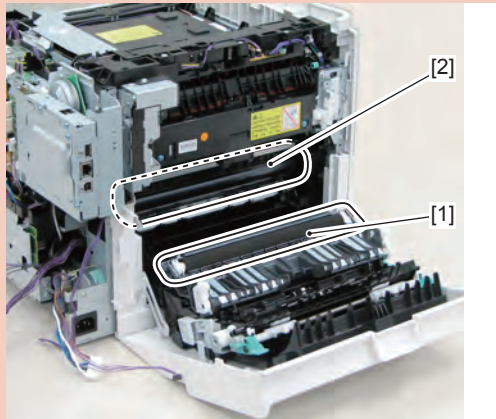
Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Right Front Cover. Refer to page 4-25
- 4) Removing the ADF Unit + Reader Unit. Refer to page 4-33
- 5) Removing the Rear Upper Cover. Refer to page 4-26
- 6) Removing the Upper Cover. Refer to page 4-30
- 7) Removing the Wireless LAN PCB. Refer to page 4-60
- 8) Removing the Main Controller PCB. Refer to page 4-61
- 9) Removing the Main Controller Support Plate. Refer to page 4-63

procedure

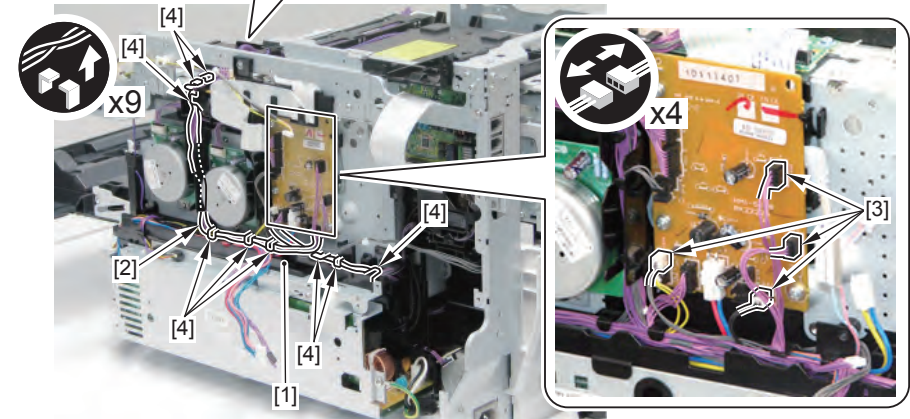
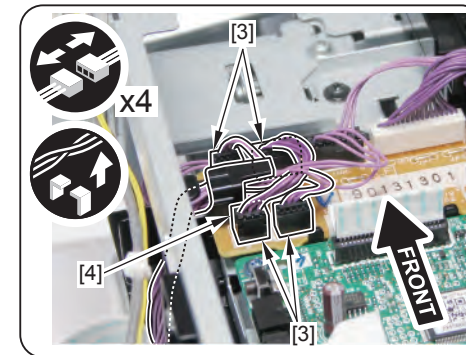
Caution:

Be sure not to touch the Secondary Transfer Roller [1] and the ITB [2].



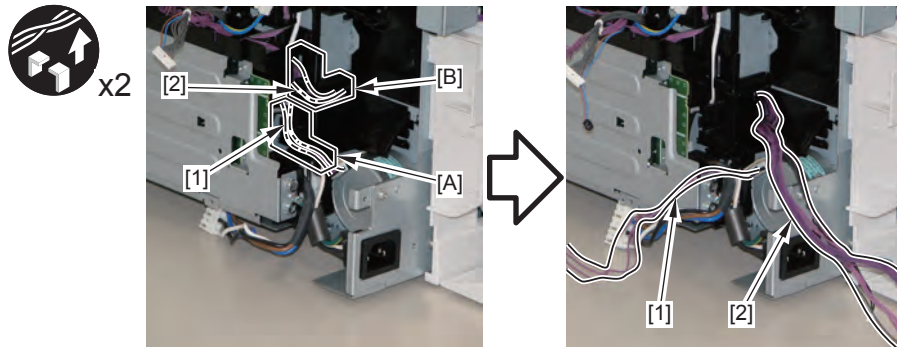
F-4-271

- 1) Remove the wire harness [2] from the wire harness guide [1].
 - 8 connectors [3]
 - 10 fixing guides [4]



F-4-272

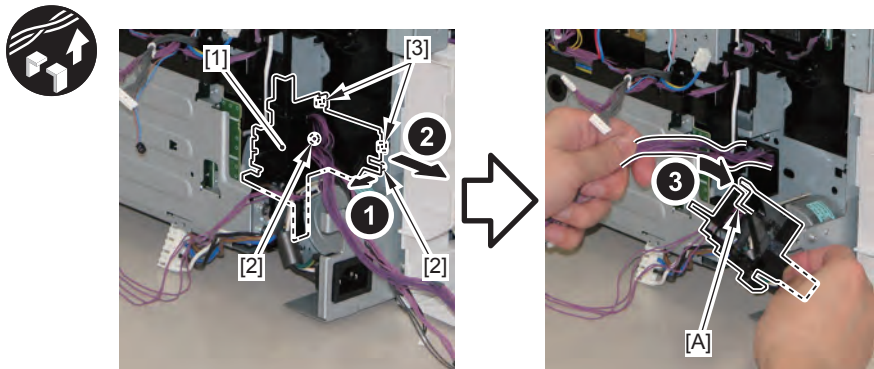
2) Free the harness [1] and [2] from the Harness Guide [A] and [B].



F-4-273

3) Remove the Harness Guide [1].

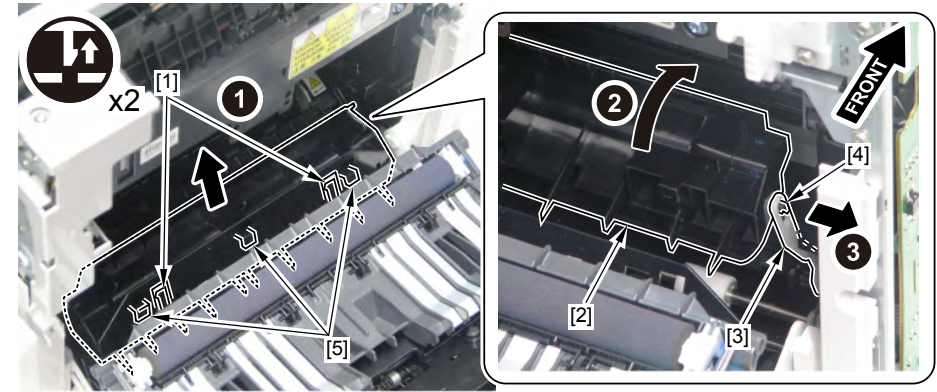
- Harness Guide [A]
- 2 Boss [2]
- 2 Hooks [3]



F-4-274

4) Release 2 claws [1], and turn the guide [2] to align the hook [4] with the hole on the arm [3], and remove the arm [3].

- 3 hooks [5]

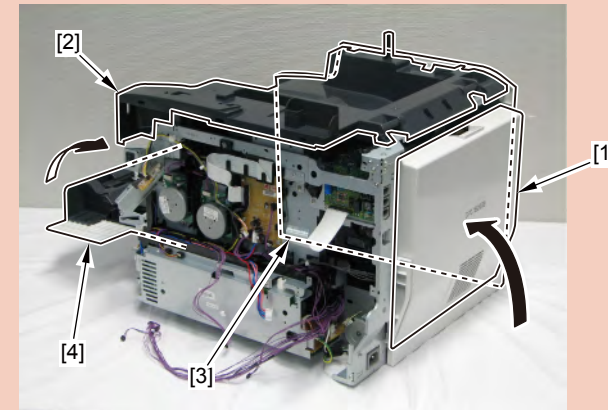


F-4-275

Caution:

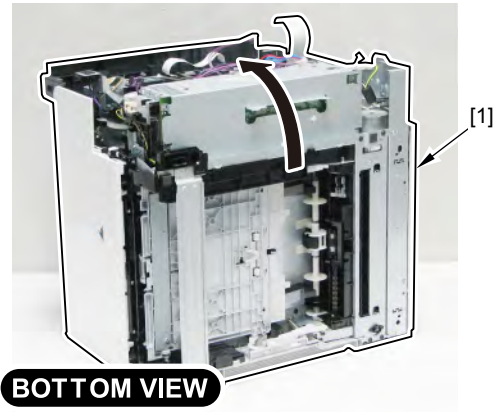
For protection, install each cover before tilting the machine.

- Close the Rear Cover [1].
- Install the Upper Cover [2].
- Install the Left Cover [3].
- Close the Front Cover [4].



F-4-276

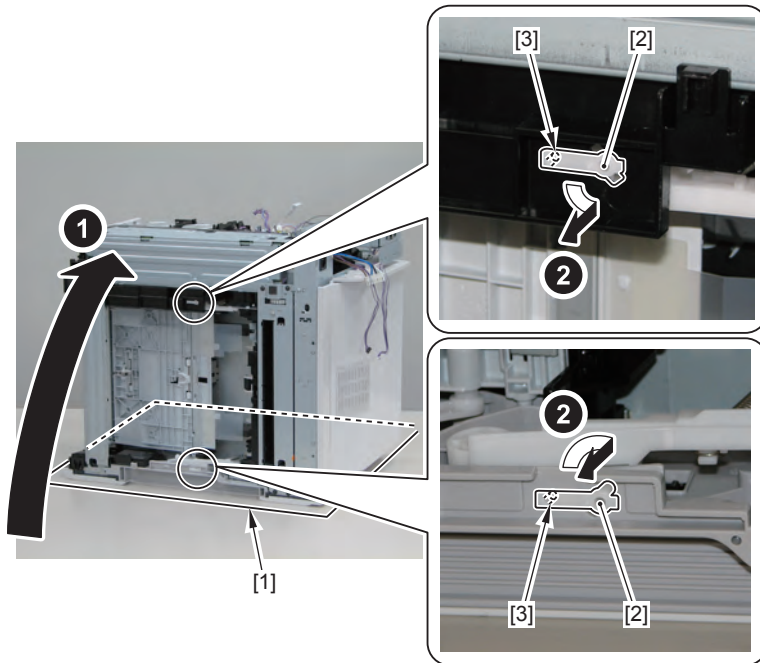
5) Please the machine as the Left Cover faces to the bottom.



F-4-277

6) Remove the 2 stoppers [2].

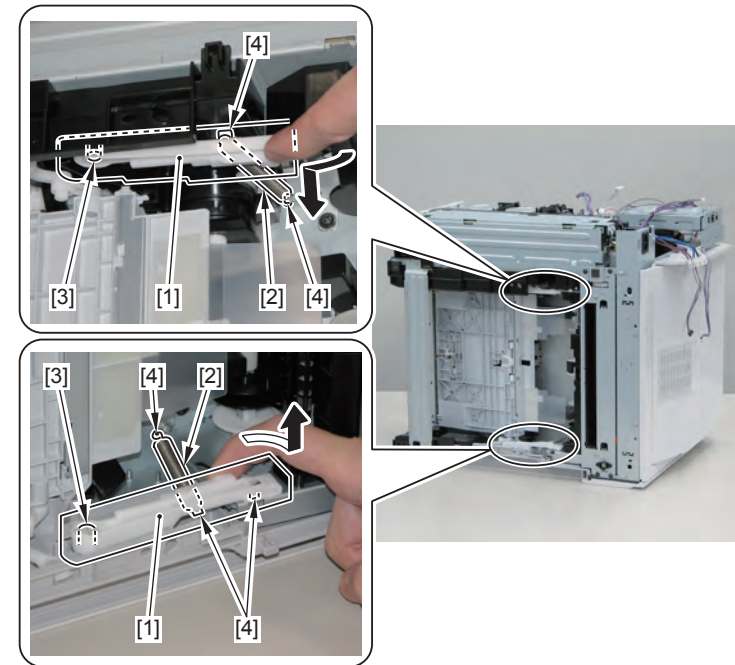
- 2 Bosses [3]



F-4-278

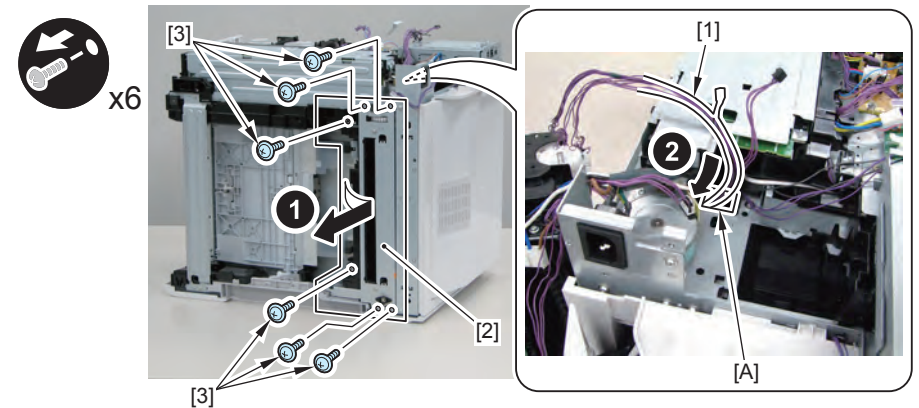
7) Remove the 2 arms [1] and the 2 springs [2].

- 2 Shafts [3]
- 5 Hooks [4]



8) Put the harness [1] through the hole [A] of the Side Plate, and remove the Pickup Unit [2].

- 6 Screws [3]

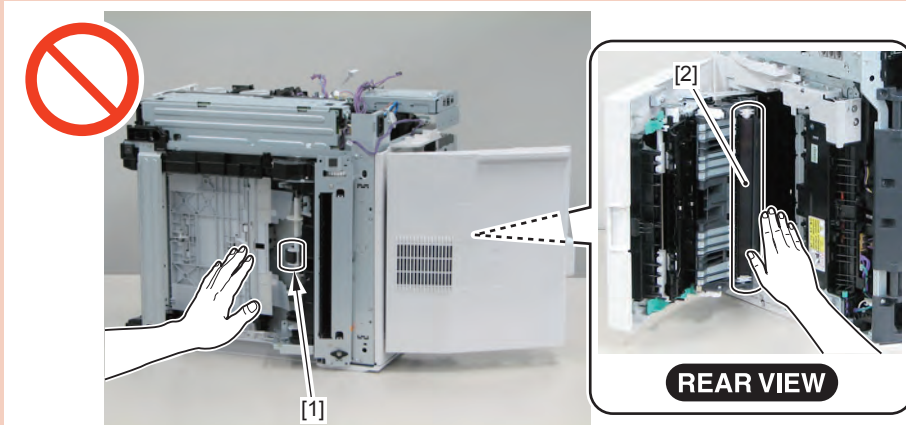


F-4-280

Installation Method

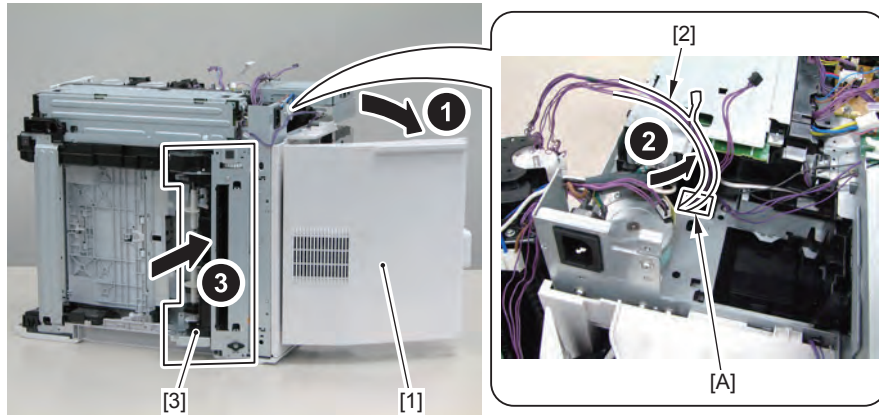
Caution:

Be sure not to touch the Pickup Roller [1] and the Secondary Transfer Roller [2].



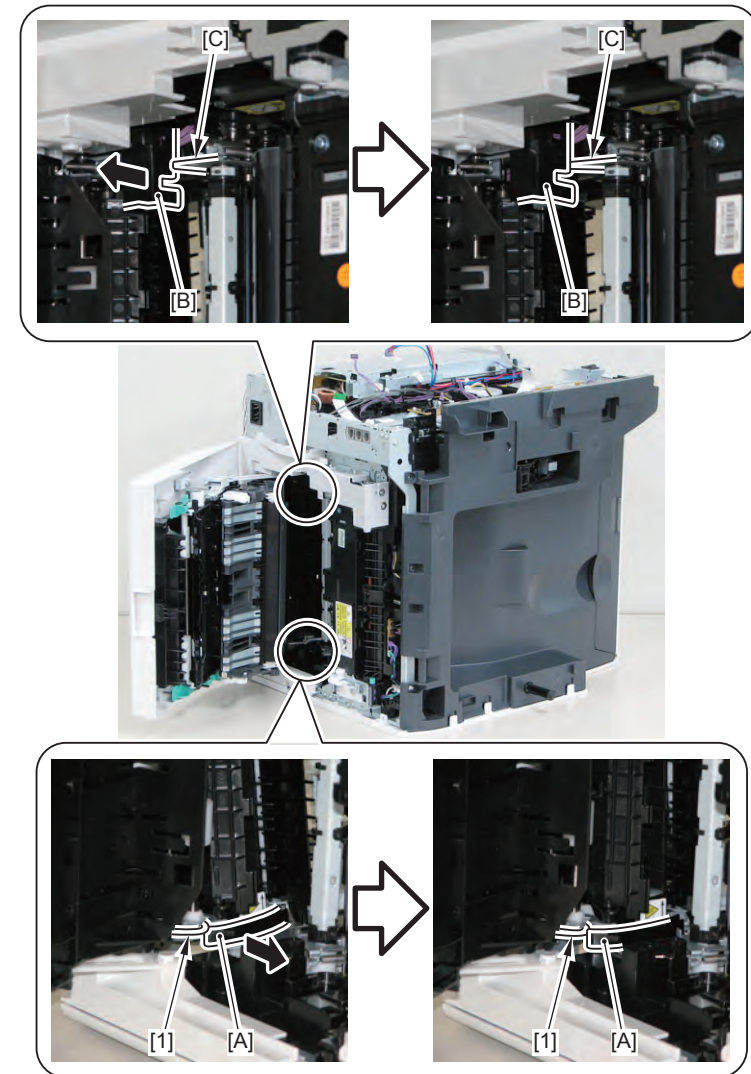
F-4-281

1) Open the Rear Cover [1], Put the harness [2] through the hole [A] of the Side Plate, and Install the Pickup Unit [3] to the host machine.



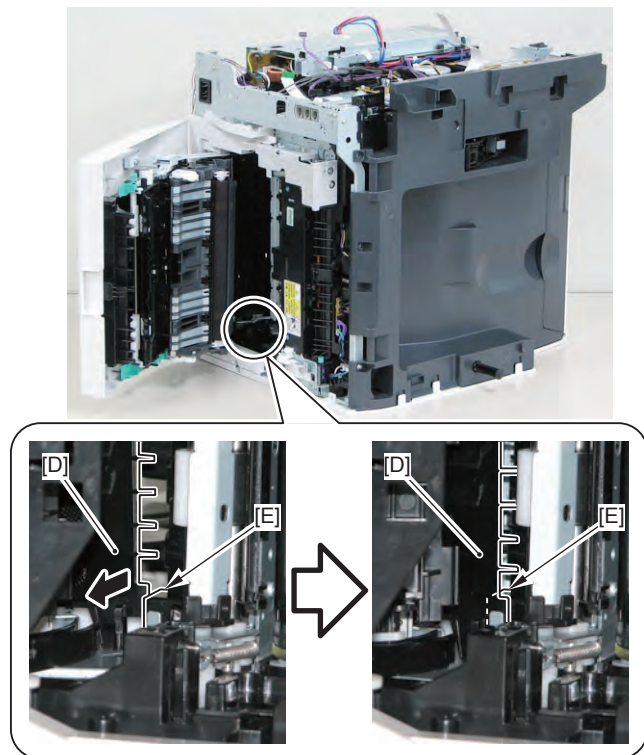
F-4-282

2) Place the edge [A] of the guide of the Pickup Unit over the spring [1] of the host machine.
3) Place the Sensor Flag Cover [B] of the Pickup Unit over the plate [C] of the Roller Unit of the host machine.



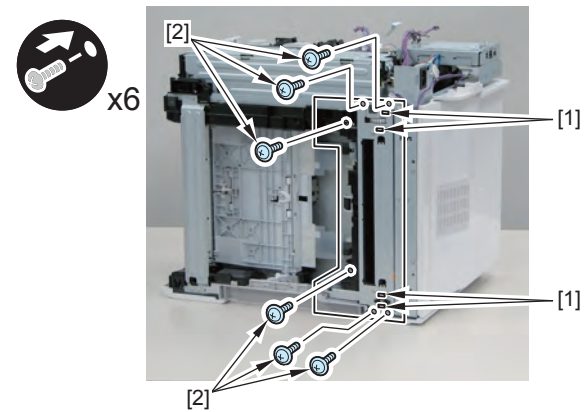
F-4-283

4) Place the edge [D] of the Feed Guide of the Pickup Unit over the edge [E] of the Roller Unit of the host machine.



F-4-284

5) Align the 4 protrusions [1], and secure the Pickup Unit with the 6 screws [2].



F-4-285

Removing the MP Tray Pickup Unit

Caution:

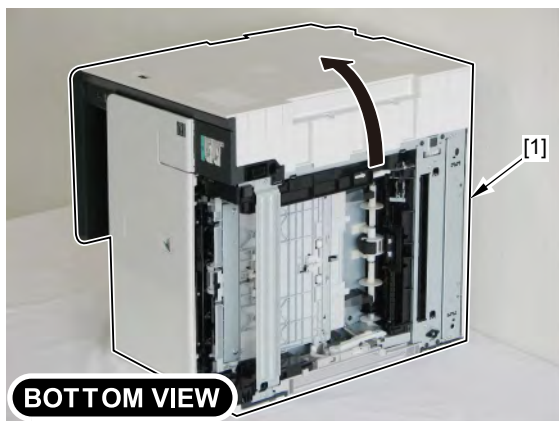
When tilting the host machine, make sure to remove the Toner Cartridge (Y, M, C, Bk) beforehand.

- 1) Remove the cassette.
- 2) Make the Left Cover face down and place the host machine [1].

Caution:

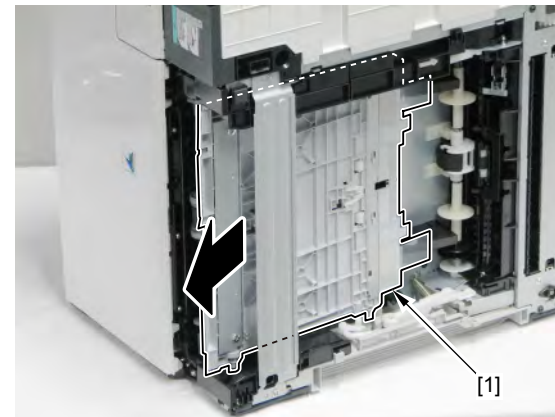
When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.

In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.



F-4-286

- 3) Move the MP Tray Pickup Unit [1] in the direction of the arrow.

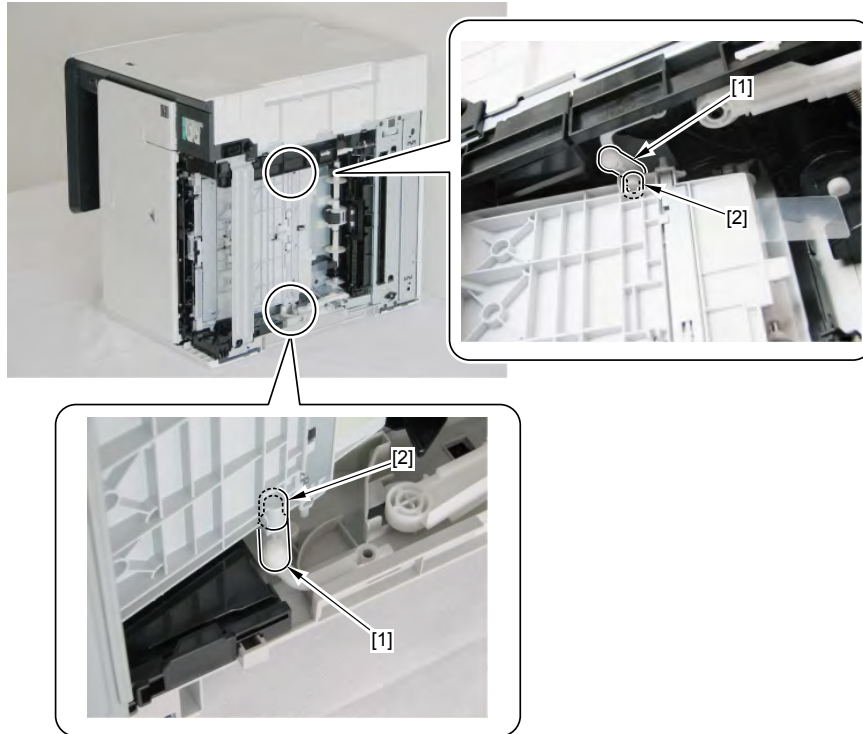


F-4-287

4) Remove the 2 Links [1] (left and right) from the bushings [2] of the MP Tray Pickup Unit.

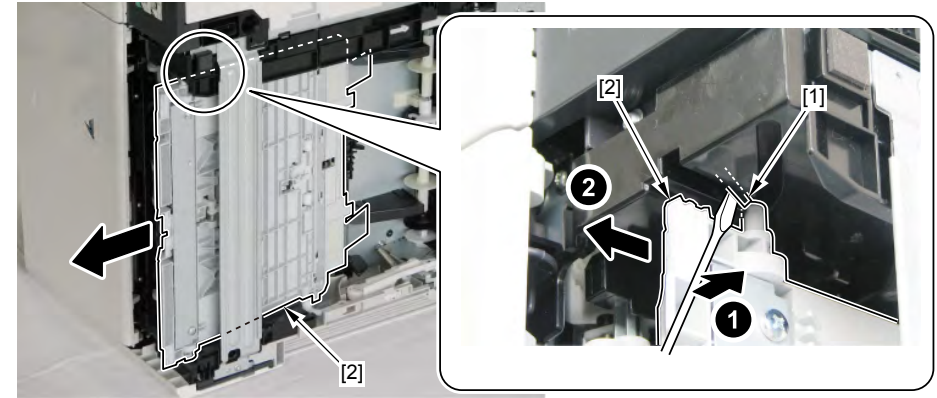
Caution:

When removing the MP Tray Pickup Unit, be careful not to lose the link.



F-4-288

5) Push a flat-blade screwdriver to the stopper [1] and remove the MP Tray Pickup Unit [2] in the direction of the arrow.



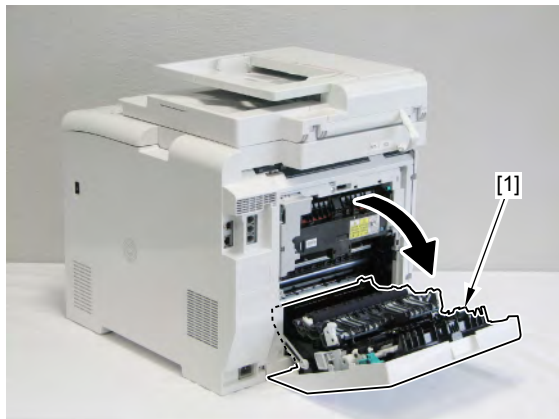
F-4-289

Removing the Secondary Transfer Feed Unit

Caution:

Secondary Transfer Outer Roller is included in Secondary Transfer Feed Unit so when replacing the Secondary Transfer Outer Roller, be sure to replace the Secondary Transfer Feed Unit itself.

1) Open the Rear Cover [1].



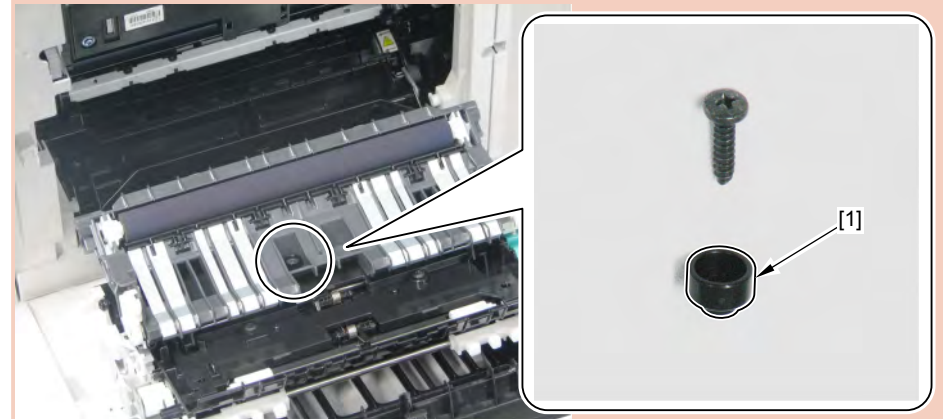
F-4-290

2) Remove the Secondary Transfer Feed Unit [1].

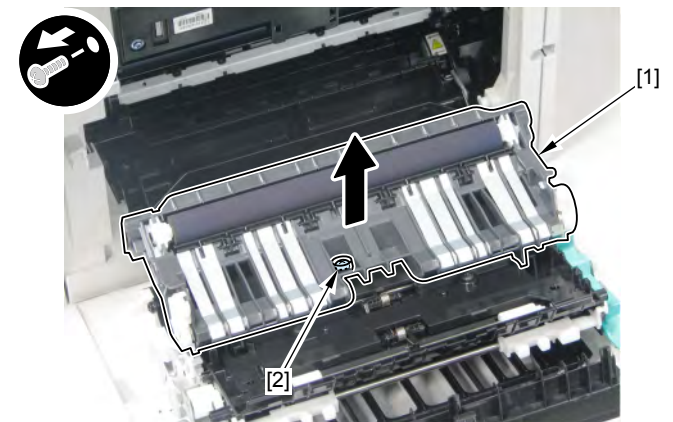
- 1 screw [2]

Caution:

When removing the screw, be careful not to lose the guide cap [1] because the guide cap is removed together with the



F-4-291



F-4-292

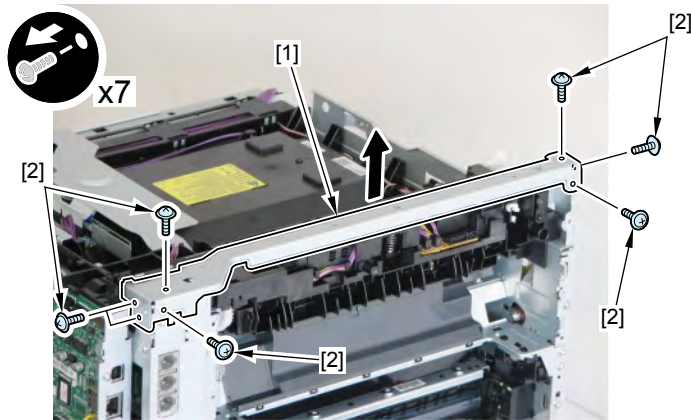
Removing the Delivery Unit

Pre-procedure

- 1) Removing the Right Cover Refer to page 4-23
- 2) Removing the Left Cover Refer to page 4-21
- 3) Removing the Rear Upper Cover Refer to page 4-26
- 4) Removing the Rear Cover Refer to page 4-27
- 5) Removing the Rear Lower Cover Refer to page 4-27
- 6) Removing the Rear Cover Rib Unit. 4-29
- 7) Removing the Duplex Printing Reverse Drive Unit Refer to page 4-82
- 8) Removing the Fixing Assembly Refer to page 4-103
- 9) Removing the ADF Unit + Reader Unit Refer to page 4-33
- 10) Removing the Upper Cover Refer to page 4-30

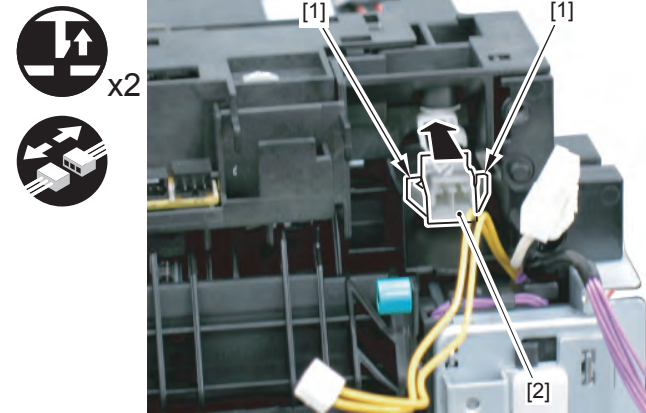
procedure

- 1) Remove the frame [1].
 - 7 screws [2]



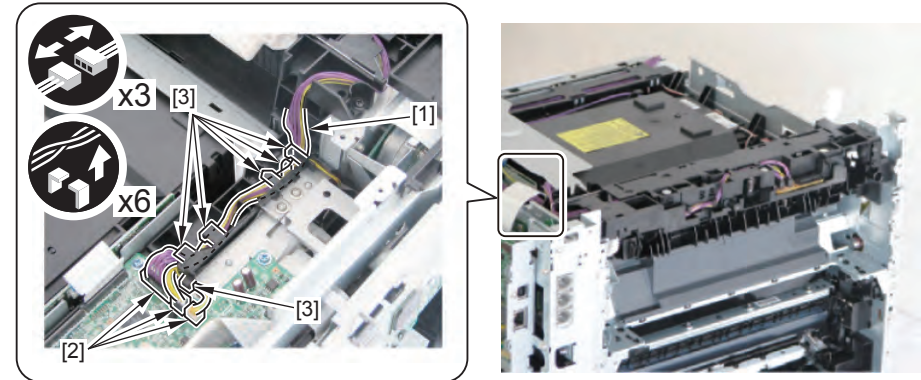
F-4-293

- 2) Release the 2 claws [1], and disconnect the connector [2].



F-4-294

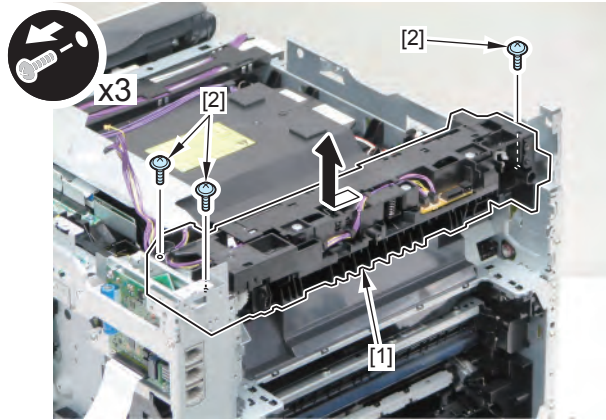
- 3) Remove the wire harness [1] from the wire harness guide.
 - 3 connectors [2]
 - 6 fixing guides [3]



F-4-295

4) Remove the Delivery Unit [1].

- 3 screws [2]



F-4-296

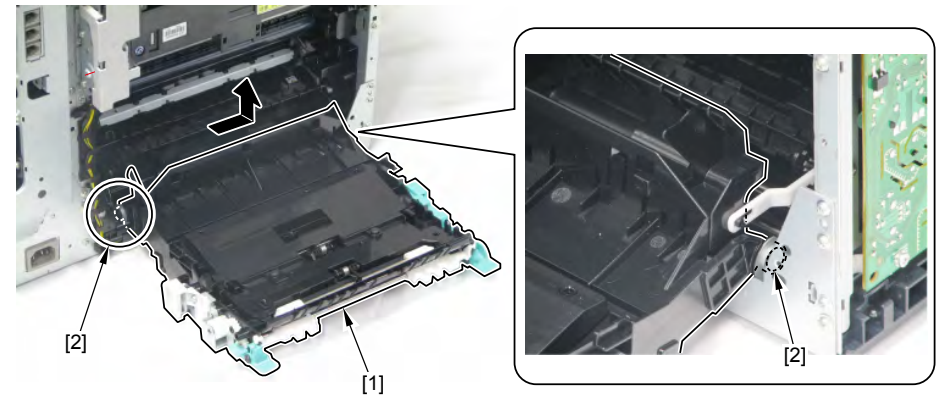
Removing the Duplex Feed Unit

Pre-procedure

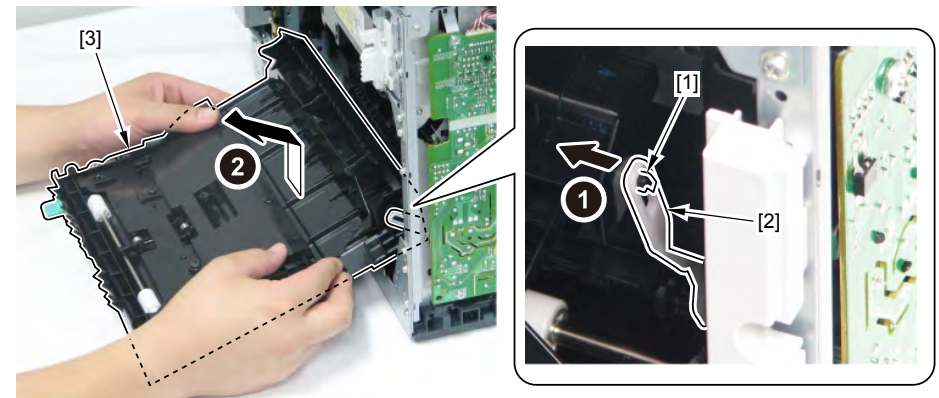
- 1) Removing the Right Cover Refer to page 4-23
- 2) Removing the Left Cover Refer to page 4-21
- 3) Removing the Secondary Transfer Feed Unit Refer to page 4-124
- 4) Removing the Rear Upper Cover Refer to page 4-26
- 5) Removing the Rear Cover Refer to page 4-27
- 6) Removing the Rear Lower Cover Refer to page 4-27

procedure

- 1) Shift the Duplex Feed Unit [1] in the direction of the arrow and remove the 2 bearings [2].



- 2) Align the claw [1] with the hole of the link [2] and remove the Duplex Feed Unit [3] in the direction of the arrow.



F-4-297

F-4-298

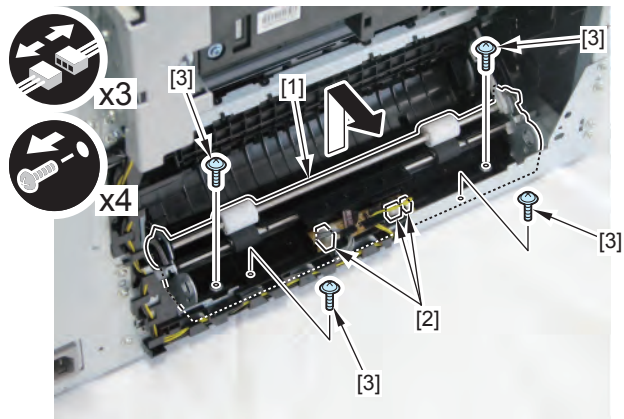
Removing the Re-pickup Guide Unit

Pre-procedure

- 1) Removing the Right Cover. Refer to page 4-23
- 2) Removing the Left Cover. Refer to page 4-21
- 3) Removing the Secondary Transfer Feed Unit. Refer to page 4-124
- 4) Removing the Rear Upper Cover. Refer to page 4-26
- 5) Removing the Rear Cover. Refer to page 4-27
- 6) Removing the Rear Lower Cover. Refer to page 4-27
- 7) Removing the Rear Cover Rib Unit. Refer to page 4-29
- 8) Removing the Duplex Feed Unit. 4-126

procedure

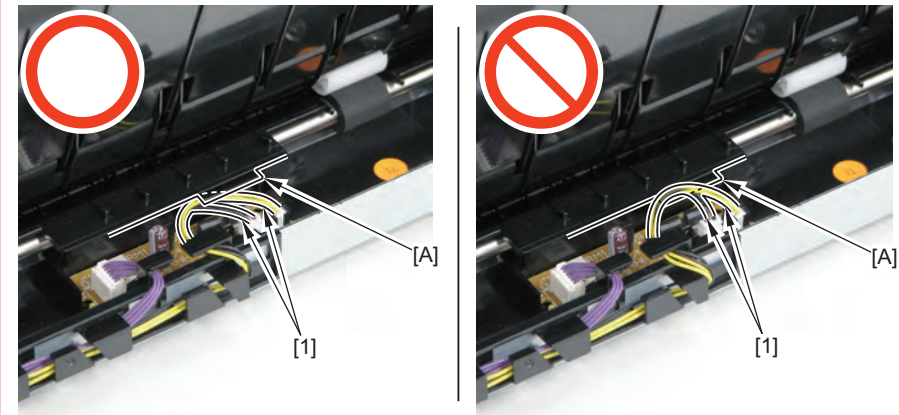
- 1) Remove the Re-pickup Guide Unit [1].
 - 3 connectors [2]
 - 4 screws [3]



F-4-299

CAUTION:

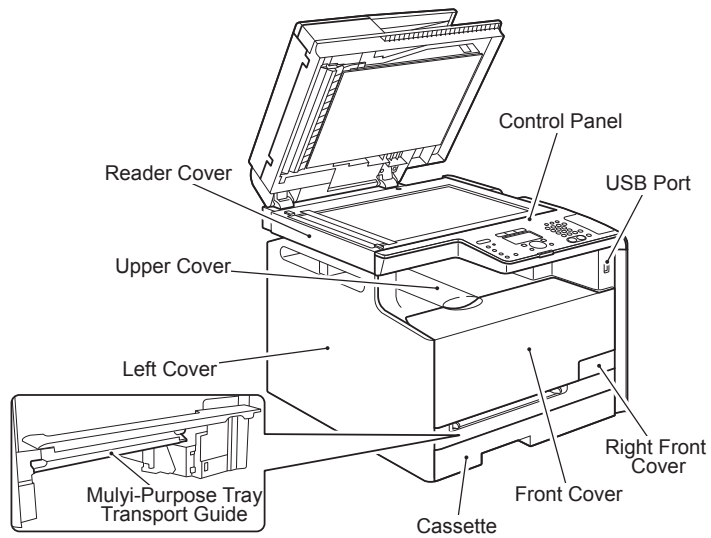
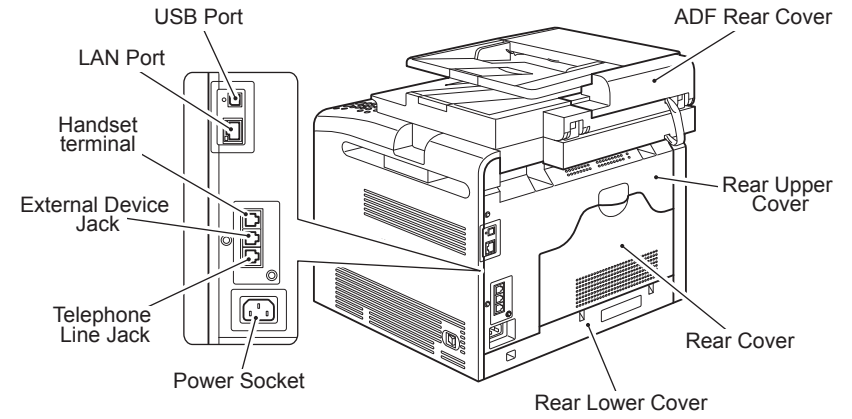
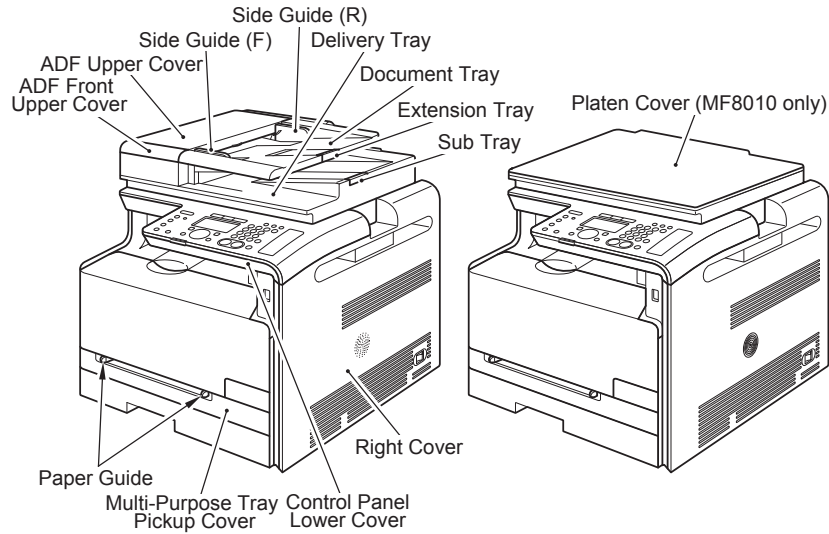
Be sure to insert the 2 harnesses [1] at the bottom of the Guide [A] when installing.



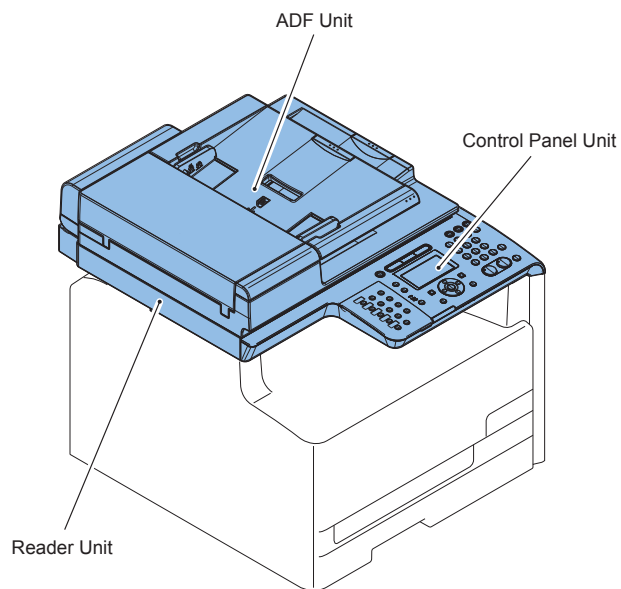
F-4-300

MF8000 series

List of External / Internal Cover

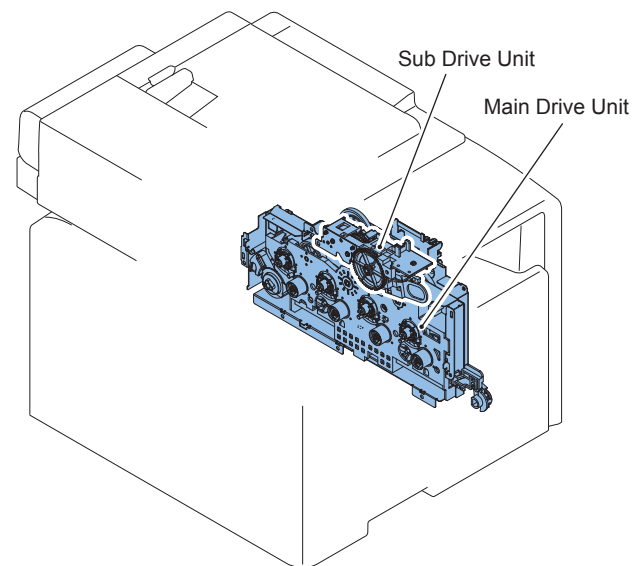


List of Main Unit



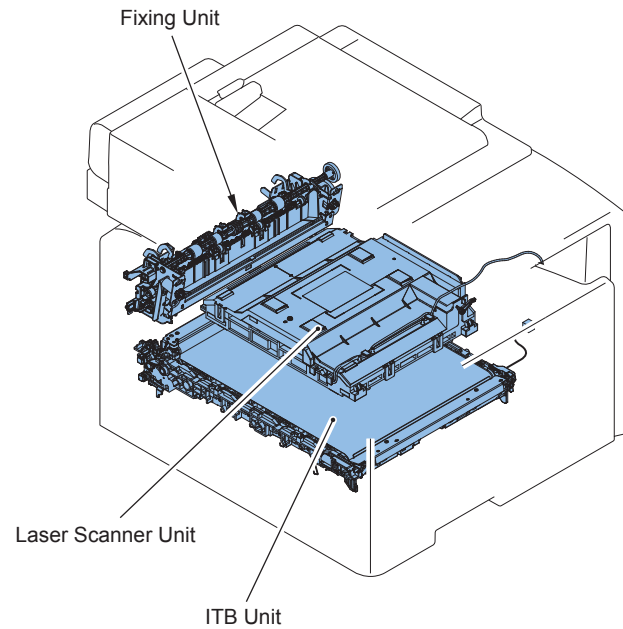
F-4-301

Name	Reference	Adjustment during parts replacement
ADF Unit	Refer to page 4-159 Refer to page 4-3	Refer to page 5-3
Reader Unit	Refer to page 4-159 Refer to page 4-3	Refer to page 5-3
Control Panel Unit	Refer to page 4-189	-



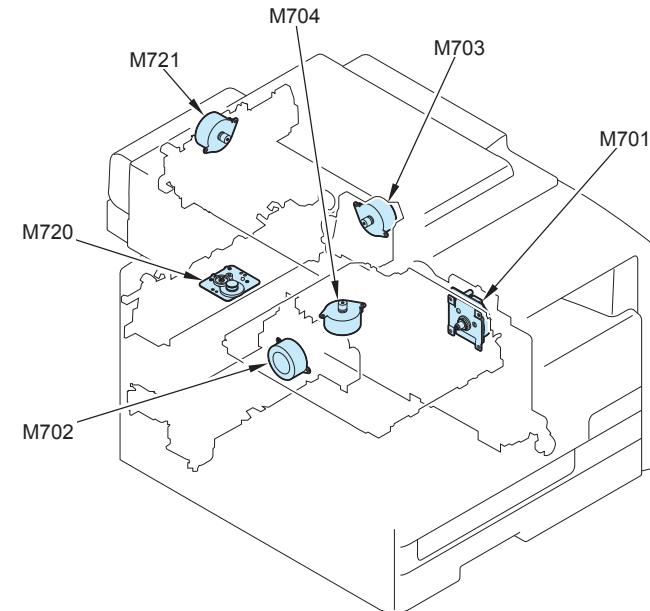
Name	Reference
Main Drive Unit	Refer to page 4-193
Sub Drive Unit	Refer to page 4-198

F-4-302



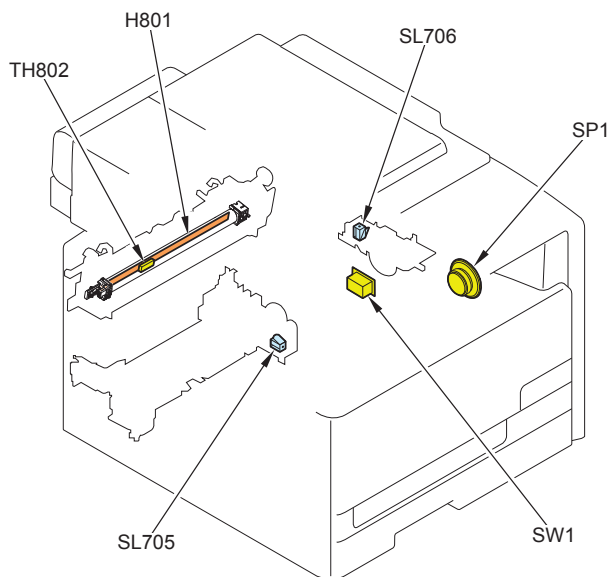
Name	Reference	Adjustment during parts replacement
Laser Scanner Unit	Refer to page 4-201	Refer to page 5-7
ITB Unit	Refer to page 4-205	
Fixing Unit	Refer to page 4-211	

List of Motor/Fan



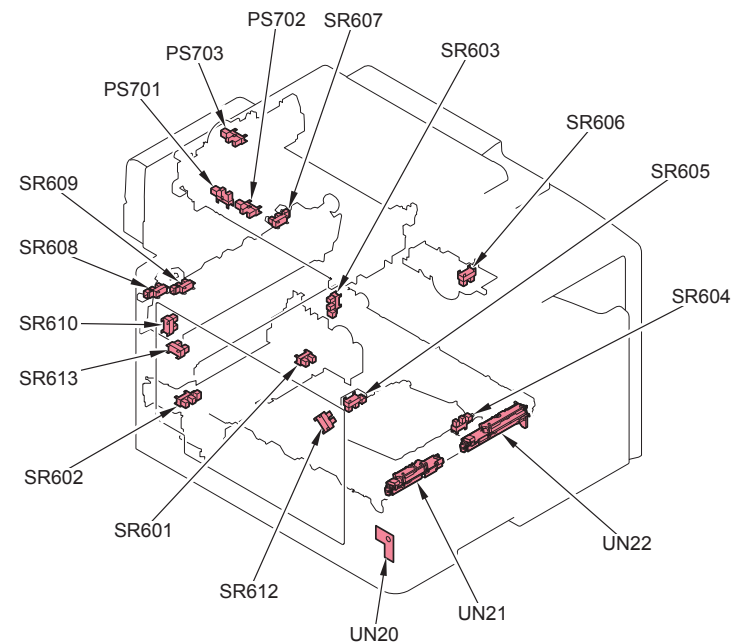
Name	Main Unit	Reference	Adjustment during parts replacement
Main Motor	Main Drive Unit	Refer to page 4-199	-
Pickup Motor	Pickup Unit	-	-
Fixing Motor	Product configuration	Refer to page 4-215	-
Laser Scanner Motor	Laser Scanner Unit	Refer to page 4-201	Refer to page 5-7
Reader Motor	Reader Unit	Refer to page 4-178	-
ADF Motor	ADF Unit	Refer to page 4-172	-

List of Clutch / Solenoid/Heater/Thermistor/Switch/speaker



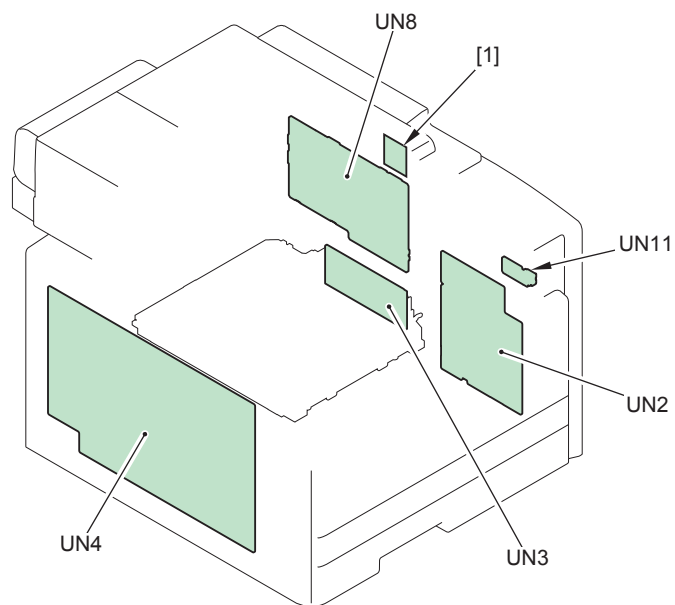
Name	Main Unit	Reference
Fixing Heater (100V)	Fixing Assembly	-
Fixing Heater (120V)		-
Fixing Heater (230V)		-
Thermistor	Fixing Assembly	-
Speaker	Product configuration	Refer to page 4-200
Developing Separation Solenoid	Sub Drive Unit	-
Cassette Pickup Solenoid	Pickup Unit	-
Main Power Switch	Product configuration	-

List of Sensor

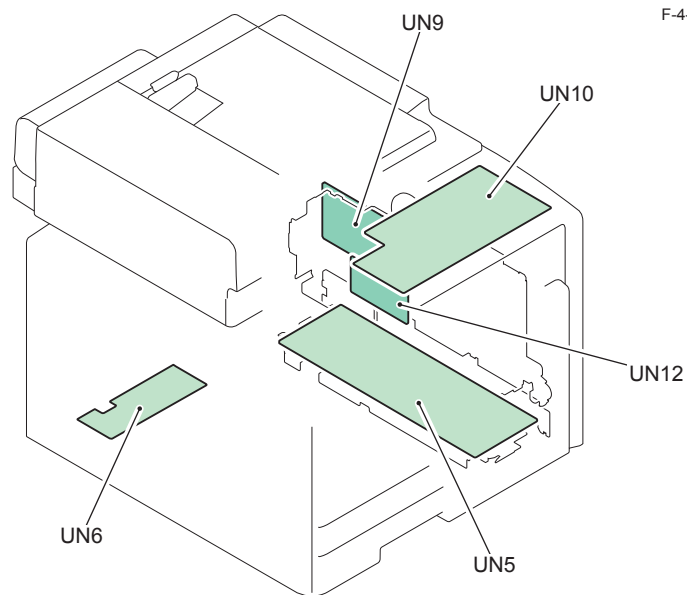


Name	Main Unit	Reference
CIS Unit Homeposition Sensor	Reader Unit	-
Document Sensor	ADF Unit	-
Document End Sensor	ADF Unit	-
Cassette Paper Detection Sensor	Pickup Unit	-
Registration Detection Sensor	Pickup Unit	-
Fixing Loop Sensor	Product configuration	-
MP Tray Paper Detection Sensor	MP Tray Unit	-
MP Tray Pre-Registration Detection Sensor	MP Tray Unit	-
Developing Homeposition Sensor	Product configuration	-
Media Width Sensor (R)	Fixing Assembly	-
Media Width Sensor (L)	Fixing Assembly	-
Fixing Delivery Sensor	Fixing Assembly	-
Fixing Pressure Release Sensor	High Voltage Power Supply	-
Front Cover Sensor	High Voltage Power Supply Unit	-
Rear Cover Sensor	High Voltage Power Supply Unit	-
Environment Sensor	Product configuration	-
Patch Sensor	ITB Unit	-
Patch Registration Sensor	ITB Unit	-

■ PCB



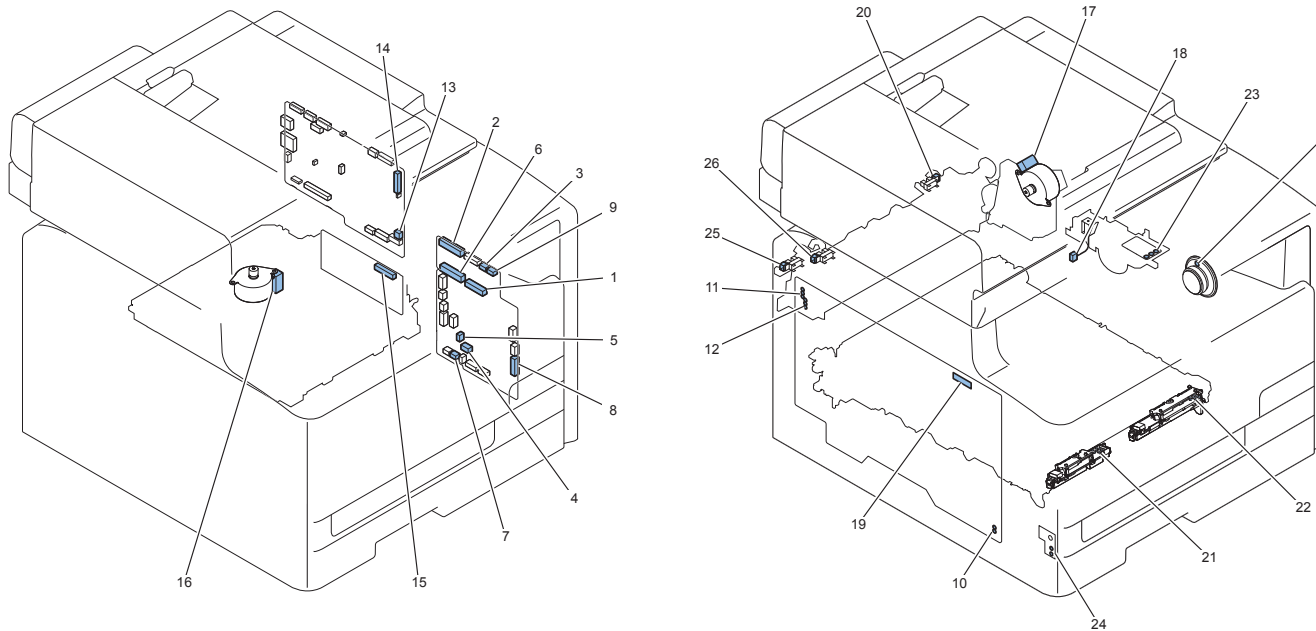
F-4-307



F-4-308

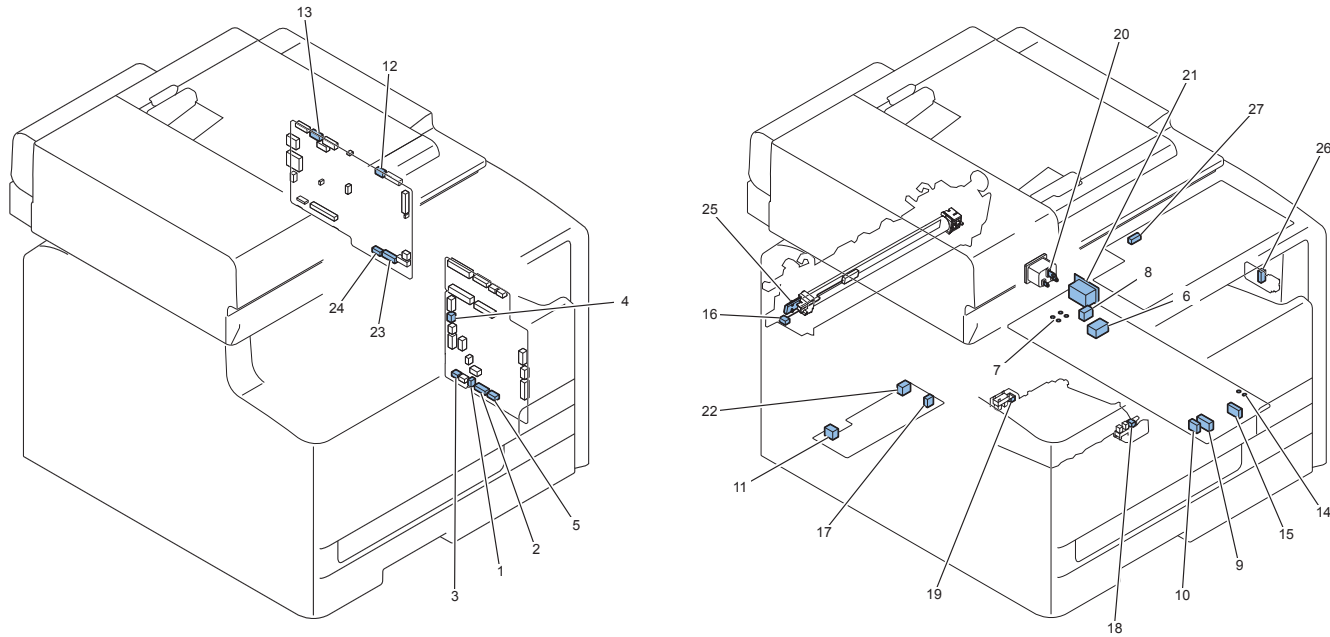
No.	Name	Main Unit	Reference	Adjustment during parts replacement
UN2	DC Controller PCB	-	Refer to page 4-184	Refer to page 4-184
UN3	Laser Driver PCB	Laser Scanner Unit	Refer to page 4-201	Refer to page 5-7
UN4	High Voltage Power Spply PCB	-	Refer to page 4-186	-
UN5	Low Voltage Power Spply PCB	-	Refer to page 4-185	-
UN6	Fixing Power Spply	-	Refer to page 4-188	-
UN8	Main Controller PCB	-	Refer to page 4-182	Refer to page 5-6
UN9	FAX-NCU PCB	-	Refer to page 4-192	-
UN10	Control Panel PCB	Control Panel Unit	Refer to page 4-191	-
UN11	USB Host PCB	-	-	-
UN12	Off Hook PCB	-	-	-
[1]	Wireless LAN PCB	-	-	-

List of connector (MF8050/MF8030)



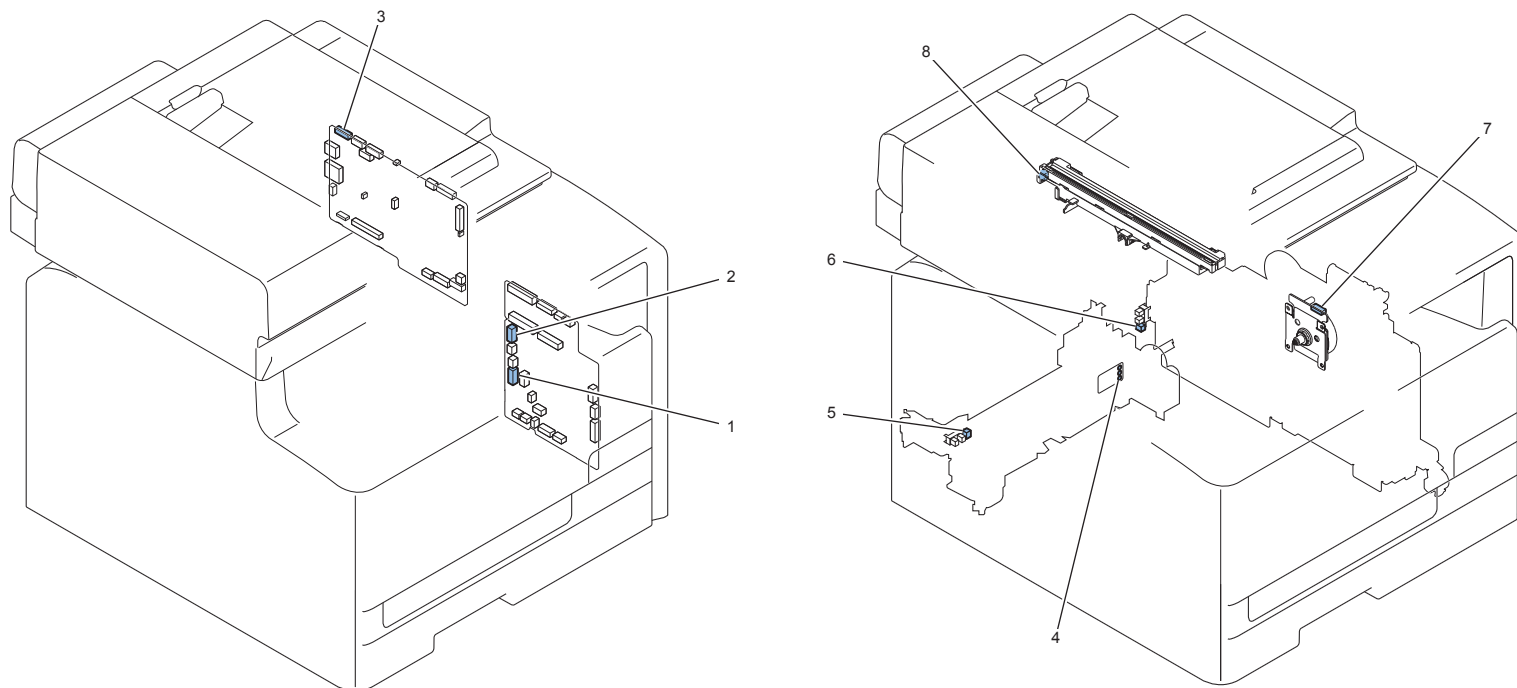
F-4-309

KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector	KeyNo.	J No.	Electric symbol	Electric parts name	REMARKS
1	J107	UN2	DC controller PCB		14	J912	UN8	Main controller PCB	
2	J108	UN2	DC controller PCB		15	J501	UN3	Laser driver PCB	
3	J109	UN2	DC controller PCB		16	J704	M704	Laser scanner motor	
4	J110	UN2	DC controller PCB		17	J703	M703	Fixing motor	
5	J112	UN2	DC controller PCB		18		SL706	Developing separation solenoid	
6	J115	UN2	DC controller PCB		19	J1001	UN4	High-voltage power spply PCB	
7	J118	UN2	DC controller PCB		20	J607	SR607	Media width sensor (R)	
8	J119	UN2	DC controller PCB		21	J119	UN21	Patch sensor	
8	J119	UN2	DC controller PCB		22	J119	UN22	Patch registration sensor	
9	J120	UN2	DC controller PCB		23	J151, J152, J153	SR606	Developing homeposition sensor	
10	J1011	UN4	High-voltage power spply PCB		24	J172	UN20	Environment sensor	
10	J1012	UN4	High-voltage power spply PCB		24	J171	UN20	Environment sensor	
11	J1021/J1022/J1023	UN4	High-voltage power spply PCB		25	J608	SR608	Media width sensor (L)	
12	J1031/J1032/J1033	UN4	High-voltage power spply PCB		26	J609	SR609	Fixing delivery sensor	
13	J922	UN8	Main controller PCB		27	-	SP1	Speaker	

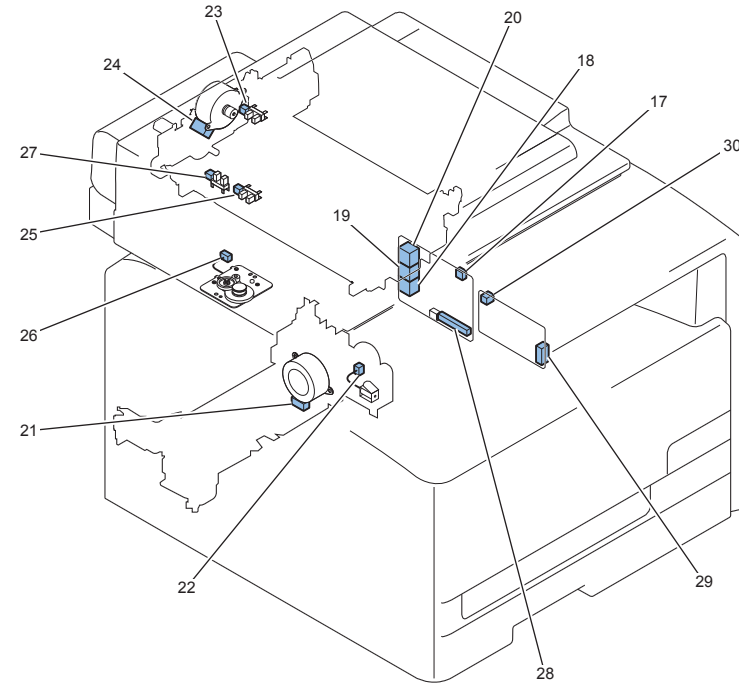
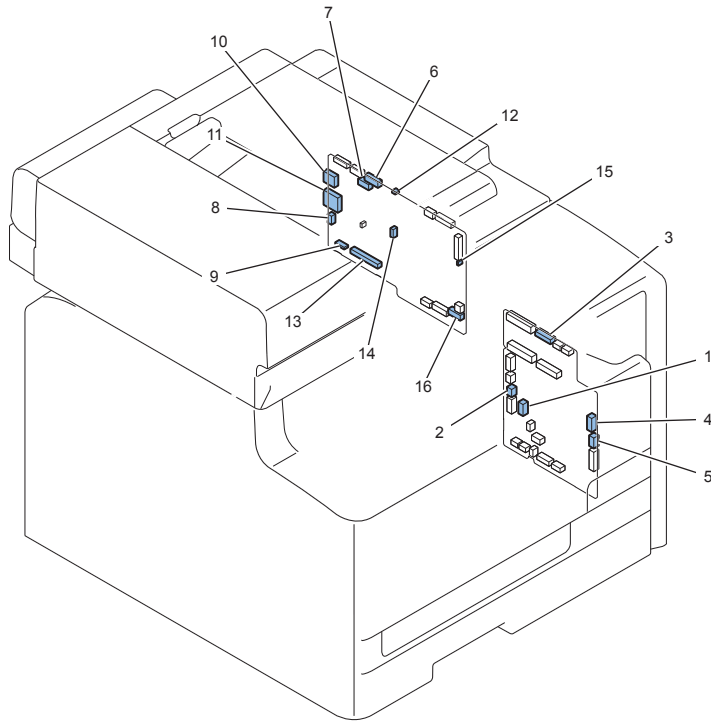


F-4-310

KeyNo	J No.	Electric symbol	Electric parts name	Relay connector	KeyNo.	J No.	Electric symbol	Electric symbol	REMARKS
1	J102	UN2	DC controller PCB		14	J371, J372	UN5	Low-voltage power spply PCB	
2	J103	UN2	DC controller PCB		15	J373	UN5	Low-voltage power spply PCB	
3	J104	UN2	DC controller PCB	J802D	J802H	16	J802L	TH802	Thermistor
4	J105	UN2	DC controller PCB		17	J374	UN6	Fixing power supply PCB	
5	J117	UN2	DC controller PCB		18	J604	SR604	MP tray paper detection sensor	
5	J117	UN2	DC controller PCB		19	J605	SR605	MP tray pre registration detection sensor	
6	J301A	UN5	Low-voltage power spply PCB		20	J6001	-	INLET	100V
6	J301B	UN5	Low-voltage power spply PCB		20	J6002	-	INLET	200V
7	J302	UN5	Low-voltage power spply PCB		21	-	SW1	Main power switch	
7	J303	UN5	Low-voltage power spply PCB		21	-	SW1	Main power switch	
7	J304	UN5	Low-voltage power spply PCB		21	-	SW1	Main power switch	
7	J305	UN5	Low-voltage power spply PCB		21	-	SW1	Main power switch	
8	J311	UN5	Low-voltage power spply PCB		22	J312	UN6	Fixing power spply	
9	J351	UN5	Low-voltage power spply PCB		23	J914	UN8	Main controller PCB	
10	J352	UN5	Low-voltage power spply PCB		24	J915	UN8	Main controller PCB	
11	J313	UN6	Fixing power spply		25	J801	H801	Fixing heater	
12	J908	UN8	Main controller PCB		26	J2	UN11	USB host PCB	
13	J913	UN8	Main controller PCB		27	J1	UN10	Control panel PCB	



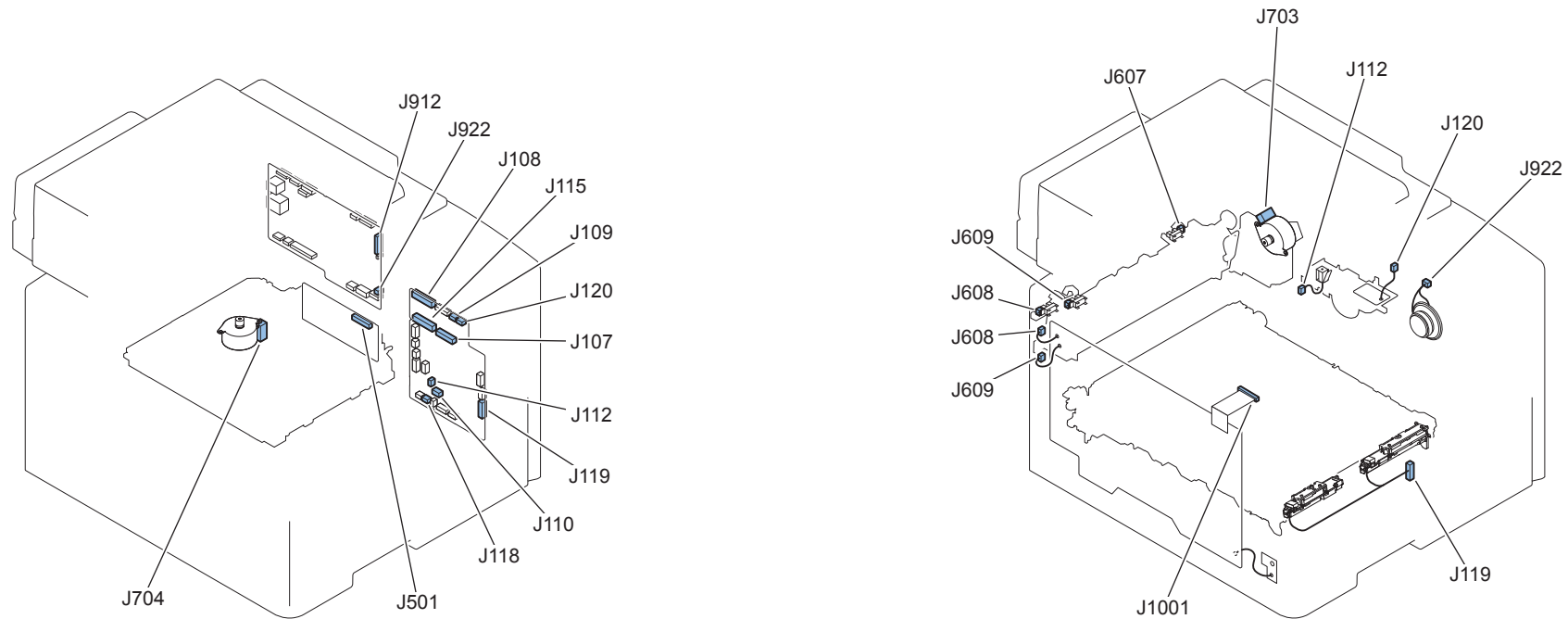
KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector	KeyNo.	J No.	Electric symbol	Electric parts name ^{F-4-311}	REMARKS
1	J116	UN2	DC controller PCB		4	J161/J162/J163/	SR601	Cassette paper detection sensor	
1	J116	UN2	DC controller PCB		5	J602	SR602	Registration detection sensor	
1	J116	UN2	DC controller PCB		6	J603	SR603	Fixing loop sensor	
2	J121	UN2	DC controller PCB		7	J701	M701	Main motor	
3	J901	UN8	Main controller PCB		8	J409	-	CIS Unit	



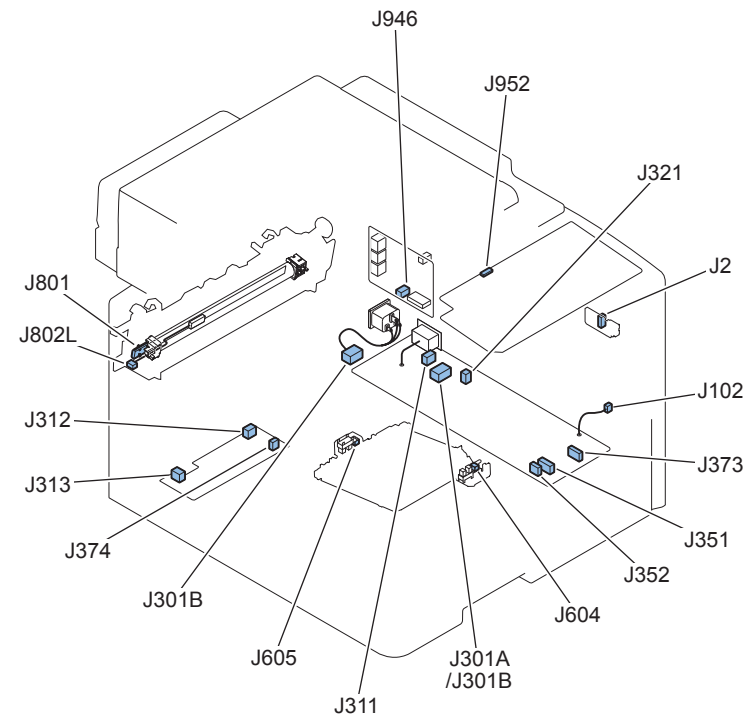
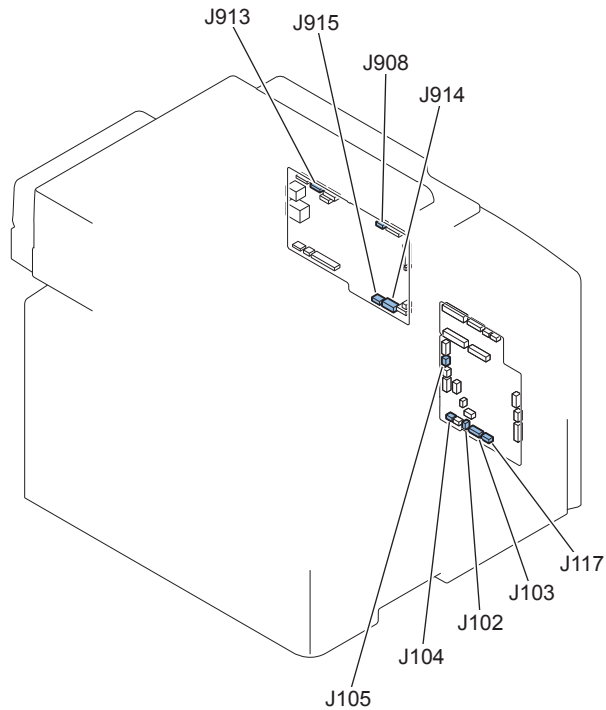
KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector			KeyNo.	J No.	Electric symbol	Electric parts name	REMARKS
1	J111	UN2	DC controller PCB				21	J702	M702	Pickup motor	
2	J113	UN2	DC controller PCB				22	-	SL705	Cassette pickup solenoid	
3	J124	UN2	DC controller PCB				-	-	-	TAG 1,2,3,4	
4	J126	UN2	DC controller PCB				-	-	-	IOT	
5	J127	UN2	DC controller PCB				-	-	-	FLASH	
6	J903	UN8	Main controller PCB				23	J1302	PS703	Document End Sensor	
6	J903	UN8	Main controller PCB				24	J1305	M721	ADF motor	
6	J903	UN8	Main controller PCB	J1310D	J1310DH	J1310L	25	J1312	PS702	Document Sensor	
7	J904	UN8	Main controller PCB	J1402D	J1402DH		26	J1402L	M720	Reader motor	
7	J904	UN8	Main controller PCB	J1401D	J1401DH	J1401L	27	J1404	PS701	CIS Unit homeposition sensor	
8	J906	UN8	Main controller PCB				-	-	-	-	
9	J907	UN8	Main controller PCB				-	-	-	-	
10	J909	UN8	Main controller PCB				-	-	-	-	
11	J911	UN8	Main controller PCB				-	-	-	-	
12	J917	UN8	Main controller PCB				-	-	-	-	
13	J918	UN8	Main controller PCB				28	J931	UN9	FAX-NCU PCB	
14	J919	UN8	Main controller PCB				-	-	-	-	
15	J920	UN8	Main controller PCB				-	-	-	-	

KeyNo.	J No.	Electric symbol	Electric parts name	Relay connector				KeyNo.	J No.	Electric symbol	Electric parts name	REMARKS
16	J921	UN8	Main controller PCB					29	J601	UN12	Off hook PCB	
16	J921B	UN8	Main controller PCB					-	-	-	-	
17	J932	UN9	FAX-NCU PCB					30	J602	UN12	Off hook PCB	
18	J933	UN9	FAX-NCU PCB					-	-	-	-	
19	J934	UN9	FAX-NCU PCB					-	-	-	-	
20	J935	UN9	FAX-NCU PCB					-	-	-	-	

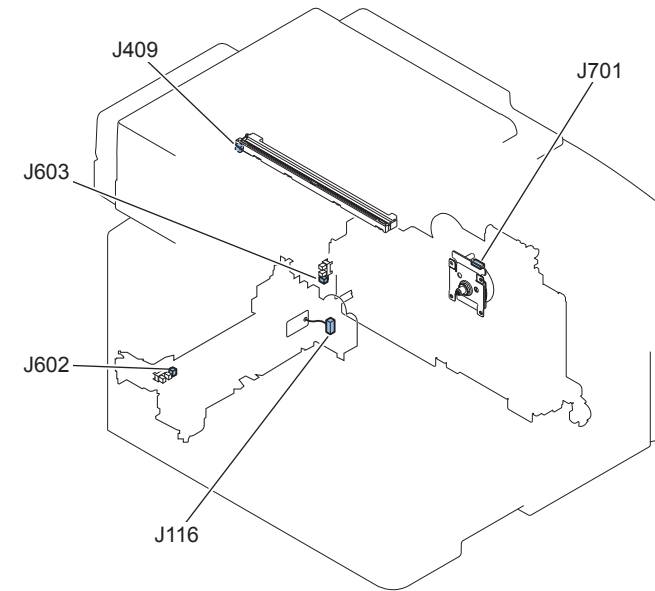
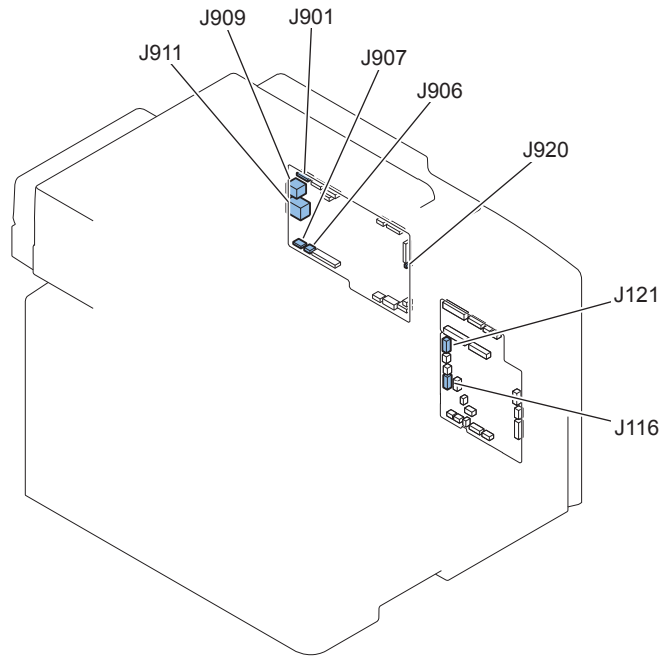
■ List of connector (MF8080/MF8040/MF8010)



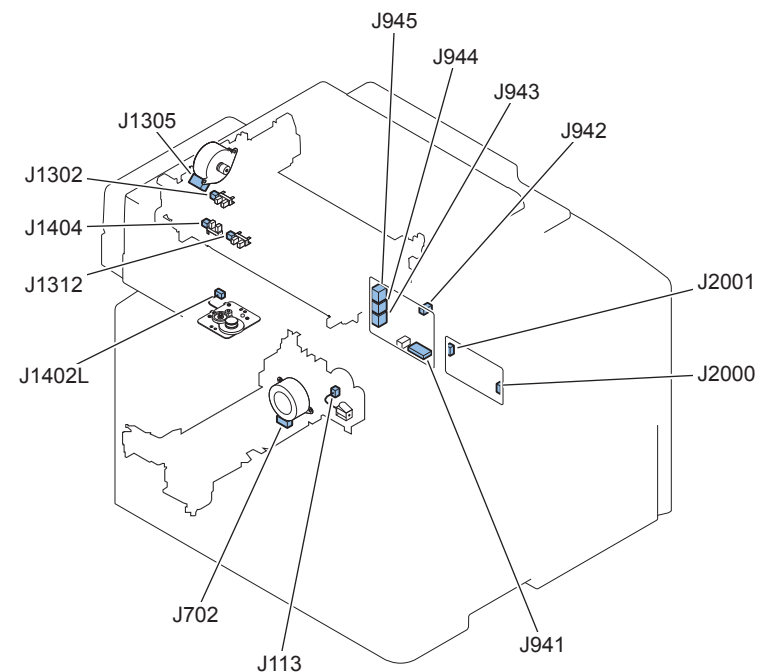
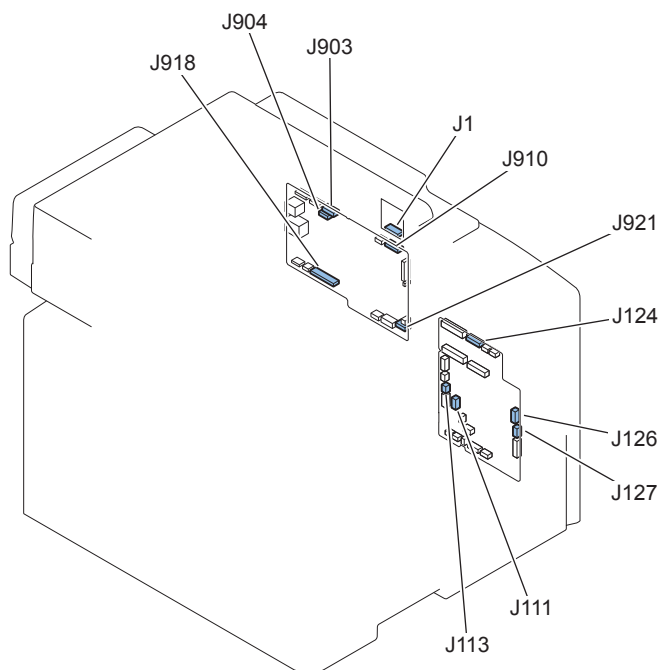
J No.	Electric symbol	Electric parts name	Relay connector	J No.	Electric symbol	Electric parts name	REMARKS
J107	UN2	DC Controller PCB		J912	UN8	Main Controller PCB	
J108	UN2	DC Controller PCB		J501	UN3	Laser Driver PCB	
J109	UN2	DC Controller PCB		J704	M704	Laser Scanner Motor	
J110	UN2	DC Controller PCB		J703	M703	Fixing Motor	
J112	UN2	DC Controller PCB		J112	SL706	Developing Separation Solenoid	
J115	UN2	DC Controller PCB		J1001	UN4	High Voltage PCB	
J118	UN2	DC Controller PCB		J607	SR607	Media Width Sensor (R)	
J119	UN2	DC Controller PCB		J119	UN21	Patch Sensor	
J119	UN2	DC Controller PCB		J119	UN22	Patch Registration Sensor	
J120	UN2	DC Controller PCB		J120	SR606	Developing Homeposition Sensor	
-	UN4	High Voltage PCB		-	UN20	Environment Sensor	
J608	UN4	High Voltage PCB		J608	SR608	Media Width Sensor (L)	
J609	UN4	High Voltage PCB		J609	SR609	Fixing Delivery Sensor	
J922	UN8	Main Controller PCB		J922	SP1	Speaker	
J910	UN13	Main Controller PCB		J1	-	Wireless LAN PCB	MF8080 only



J No.	Electric symbol	Electric parts name	Relay connector		J No.	Electric symbol	Electric parts name	REMARKS
J102	UN2	DC Controller PCB			J102	UN5	Low Voltage Power Spply PCB	
J103	UN2	DC Controller PCB			J373	UN5	Low Voltage Power Spply PCB	
J104	UN2	DC Controller PCB	J802D	J802H	J802L	TH802	Thermistor	
J105	UN2	DC Controller PCB			J374	UN6	Fixing Power Spply PCB	
J117	UN2	DC Controller PCB			J604	SR604	MP Tray Paper Detection Sensor	
J117	UN2	DC Controller PCB			J605	SR605	MP Tray Pre-Registration Detection Sensor	
J301A	UN5	Low Voltage Power Spply PCB			J301A	-	INLET	100V
J301B	UN5	Low Voltage Power Spply PCB			J301B	-	INLET	200V
-	UN5	Low Voltage Power Spply PCB			-	SW1	Main Power Switch	
J311	UN5	Low Voltage Power Spply PCB			J312	UN6	Fixing Power Spply PCB	
J351	UN5	Low Voltage Power Spply PCB			J914	UN8	Main Controller PCB	
J352	UN5	Low Voltage Power Spply PCB			J915	UN8	Main Controller PCB	
J313	UN6	Fixing Power Spply PCB			J801	H801	Fixing Heater	
J908	UN8	Main Controller PCB			J2	UN11	USB Host PCB	
J913	UN8	Main Controller PCB			J952	UN10	Control Panel PCB	



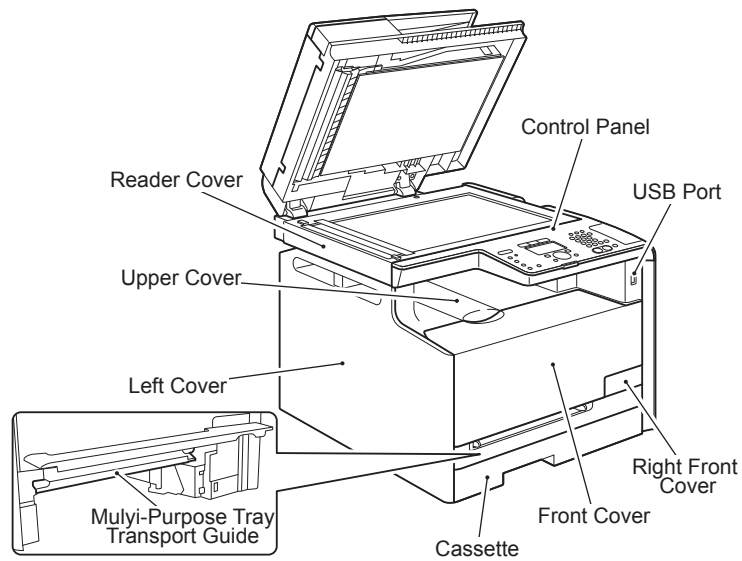
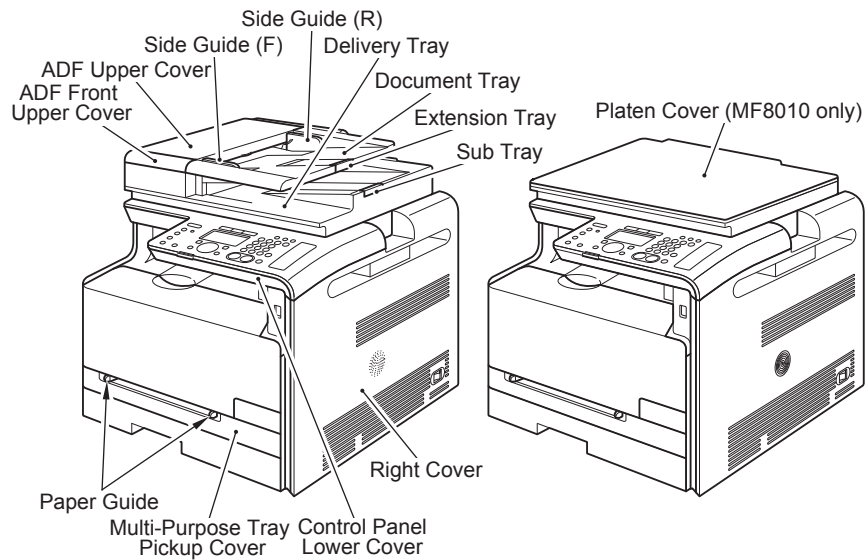
J No.	Electric symbol	Electric parts name	Relay connector	J No.	Electric symbol	Electric parts name	REMARKS
J116	UN2	DC Controller PCB		J116	SR601	Cassette Paper Detection Sensor	
J116	UN2	DC Controller PCB		J602	SR602	Registration Detection Sensor	
J116	UN2	DC Controller PCB		J603	SR603	Fixing Loop Sensor	
J121	UN2	DC Controller PCB		J701	M701	Main Motor	
J901	UN8	Main Controller PCB		J409	-	CIS Unit	
J906	UN8	Main Controller PCB		-	-	-	
J907	UN8	Main Controller PCB		-	-	-	
J909	UN8	Main Controller PCB		-	-	-	
J911	UN8	Main Controller PCB		-	-	-	
J920	UN8	Main Controller PCB		-	-	-	



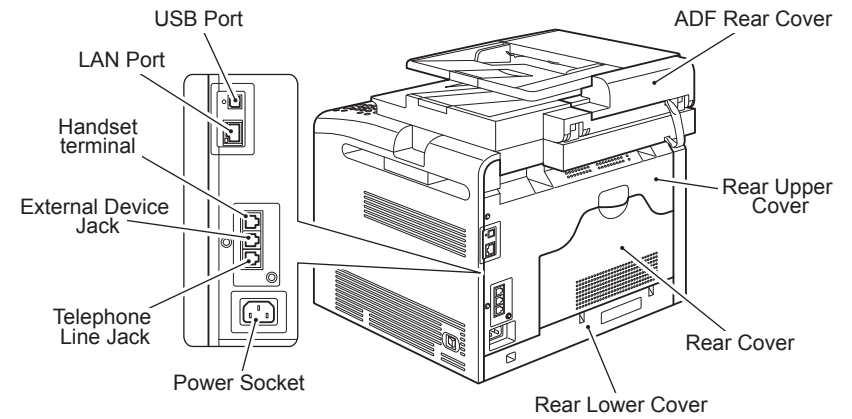
J No.	Electric symbol	Electric parts name	Relay connector			J No.	Electric symbol	Electric parts name	REMARKS ^{F-4-316}
J111	UN2	DC Controller PCB				J702	M702	Pickup Motor	
J113	UN2	DC Controller PCB				J113	SL705	Cassette Pickup Solenoid	
J124	UN2	DC Controller PCB				J124	-	TAG 1,2,3,4	
J126	UN2	DC Controller PCB				J1126	-	IOT	
J127	UN2	DC Controller PCB				J1127	-	FLASH	
J903	UN8	Main Controller PCB				J1302	PS703	Document End Sensor	
J903	UN8	Main Controller PCB				J1305	M721	ADF Motor	
J903	UN8	Main Controller PCB	J1310D	J1310DH	J1310L	J1312	PS702	Document Sensor	
J904	UN8	Main Controller PCB	J1402D	J1402DH		J1402L	M720	Reader Motor	
J904	UN8	Main Controller PCB	J1401D	J1401DH	J1401L	J1404	PS701	CIS Unit Homeposition Sensor	
J918	UN8	Main Controller PCB				J941	UN9	FAX-NCU PCB	
J921	UN8	Main Controller PCB				J2000	UN12	Off Hook PCB	120V/230V
J942	UN9	FAX-NCU PCB				J2001	UN12	Off Hook PCB	120V/230V
J943	UN9	FAX-NCU PCB				-	-	-	
J944	UN9	FAX-NCU PCB				-	-	-	
J945	UN9	FAX-NCU PCB				-	-	-	
J946	UN16	FAX-NCU PCB				-	-	-	

External Cover, Internal Cover

Location



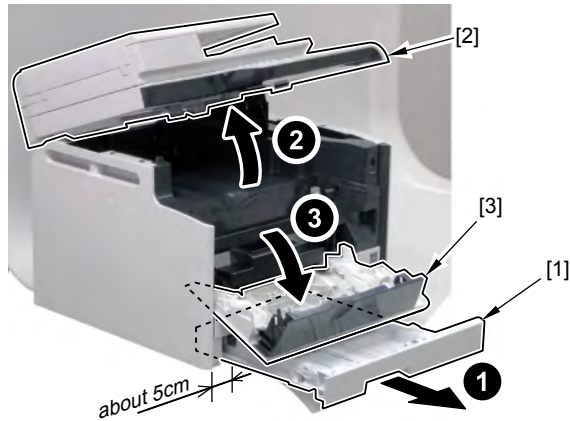
F-4-317



F-4-318

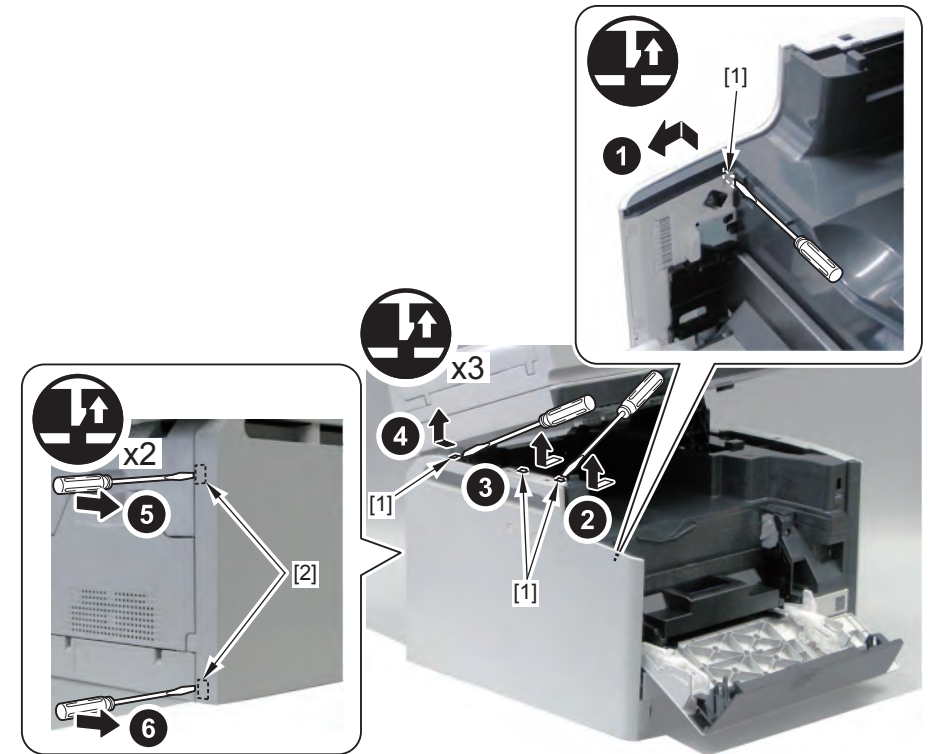
Removing the Left Cover

- 1) Remove the Cassette [1].
- 2) To remove the claw at the lower side of the Left Cover, move the Host Machine for about 5cm from the base.
- 3) Open the ADF Unit + Reader Unit [2].
- 4) Open the Front Cover [3].



F-4-319

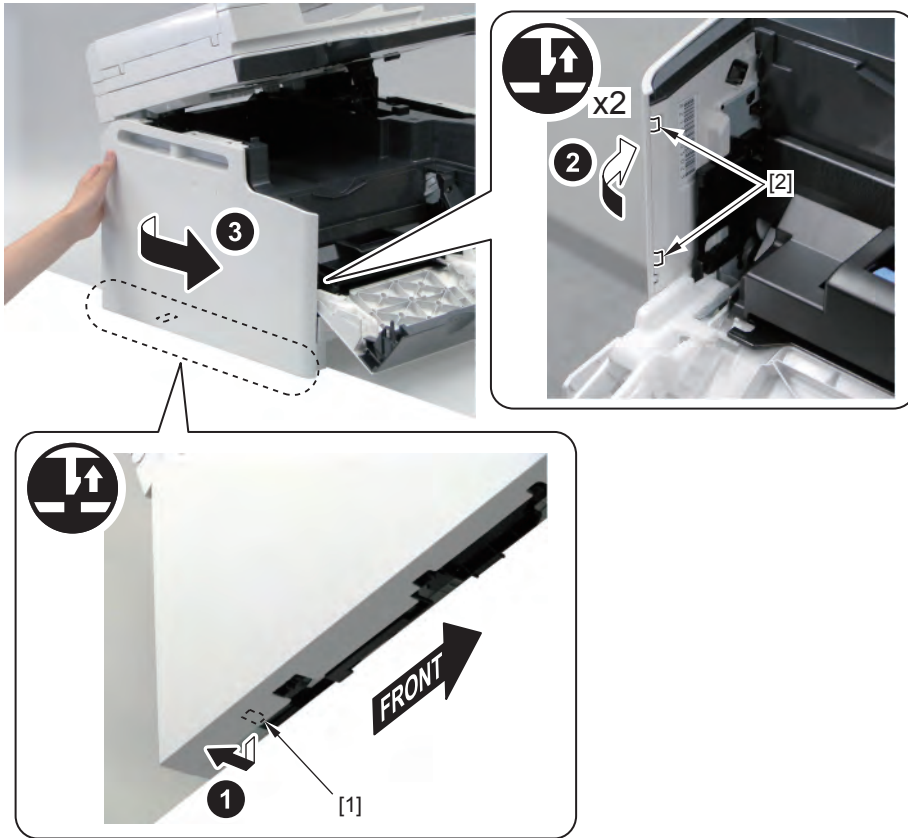
- 5) Remove the 4 claws [1] at the upper side of the Left Cover.
- 6) Remove the 2 claws at the rear side of the Left Cover.



F-4-320

7) Remove the claw [1] at the lower side of the Left Cover.

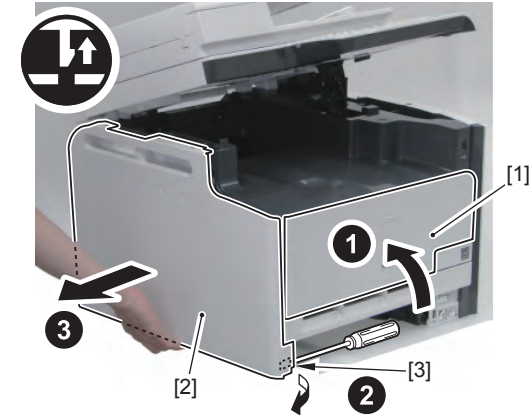
8) While supporting the Left Cover, remove the 2 claws [2] at the upper front side of the Left Cover.



F-4-321

9) Close the Front Cover [1], and then hold the Left Cover [2] to remove.

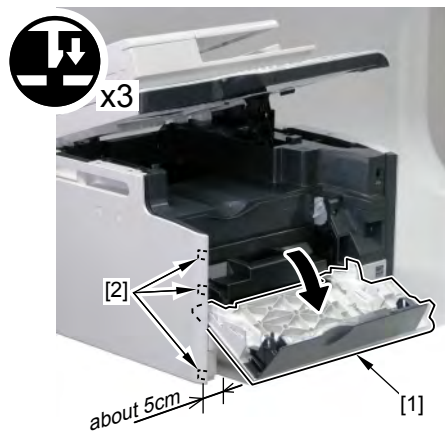
- 1 claw [3]



F-4-322

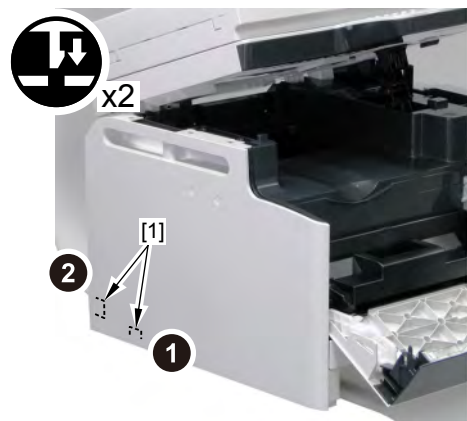
Installing the Left Cover

- 1) To remove the claw at the lower side of the Left Cover, move the Host Machine for about 5cm from the base.
- 2) Open the Front Cover [1].
- 3) Install the 3 claws [2] at the front side of the Left Cover.



F-4-323

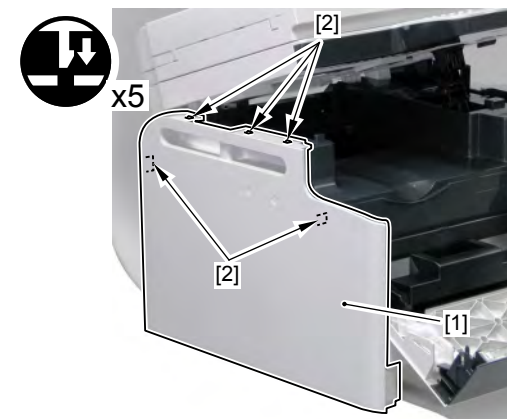
- 4) Fit in the claw [1] at the lower side of the Left Cover.



F-4-324

- 5) Install the Left Cover [1].

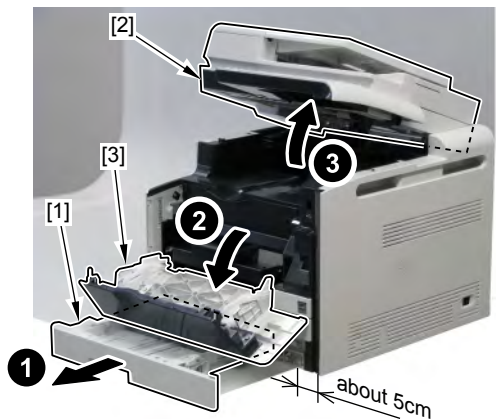
- 5 claws [2]



F-4-325

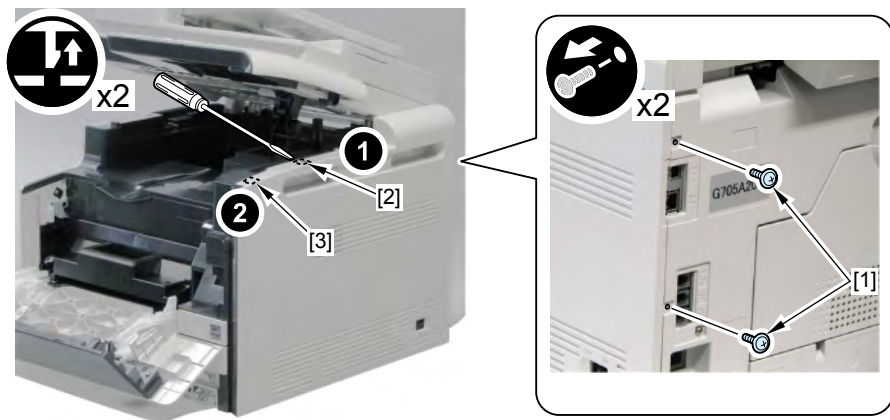
Removing the Right Cover

- 1) Remove the Cassette [1]
- 2) To remove the claw at the lower side of the Right Cover, move the Host Machine for about 5cm from the base.
- 3) Open the ADF Unit + Reader Unit [2].
- 4) Open the Front Cover [3].



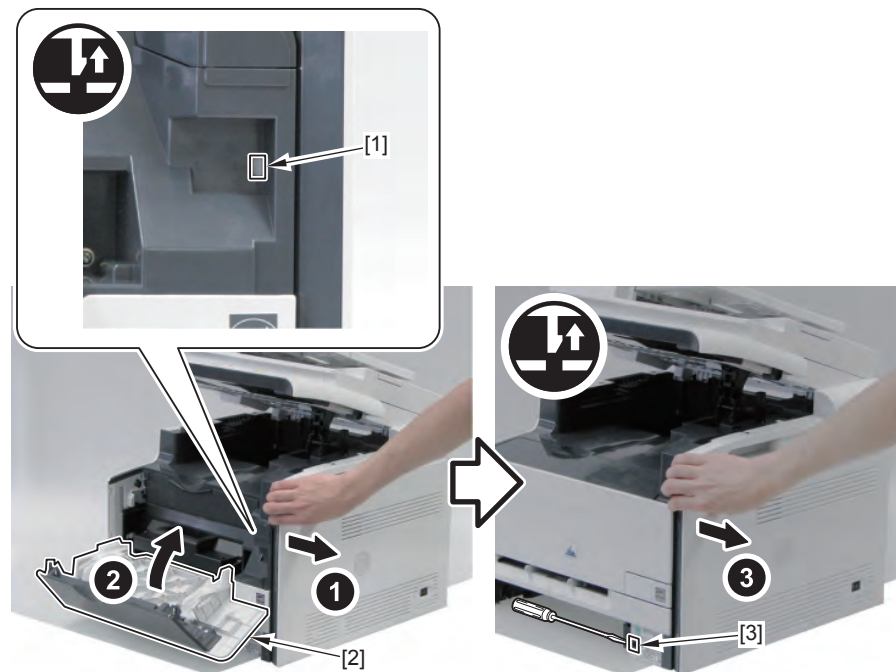
F-4-326

- 5) Remove the 2 screws [1] and release the claw [2] and claw [3].



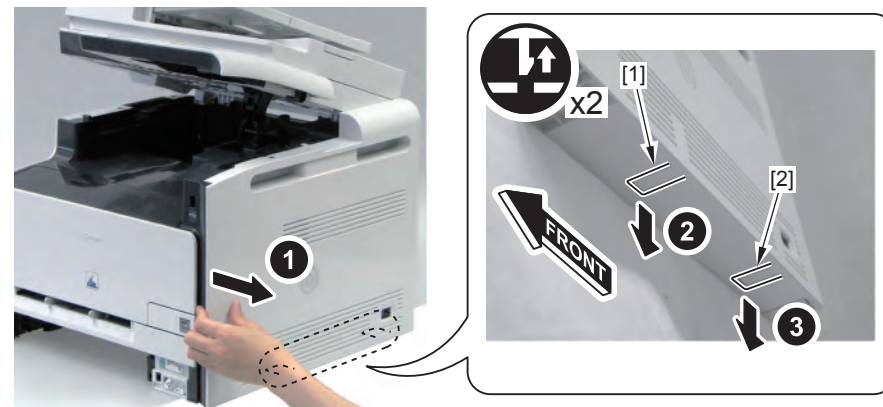
F-4-327

- 6) Release the claw [1] while opening the Right Cover.
- 7) Close the Front Cover [2] and release the claw [3].



F-4-328

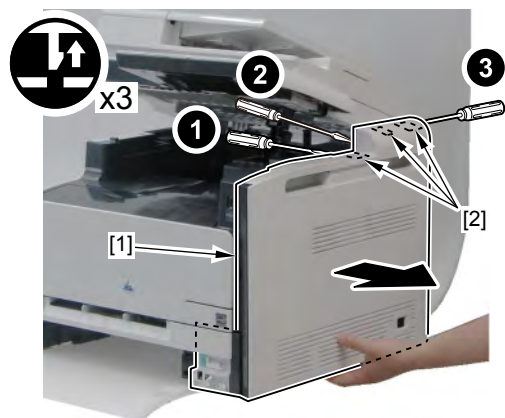
- 8) Release the claw [1] and claw [2] while opening the Right Cover.



F-4-329

9) Hold the Right Cover [1] to remove.

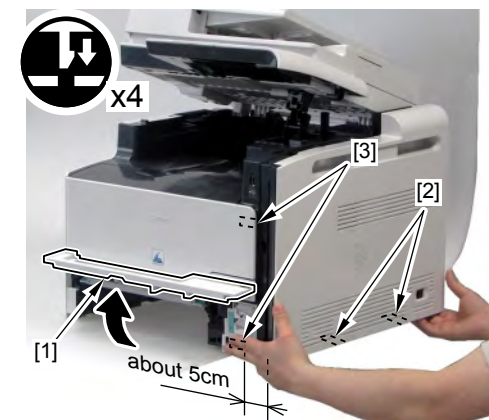
- 3 claws [2]



F-4-330

Installing the Right Cover

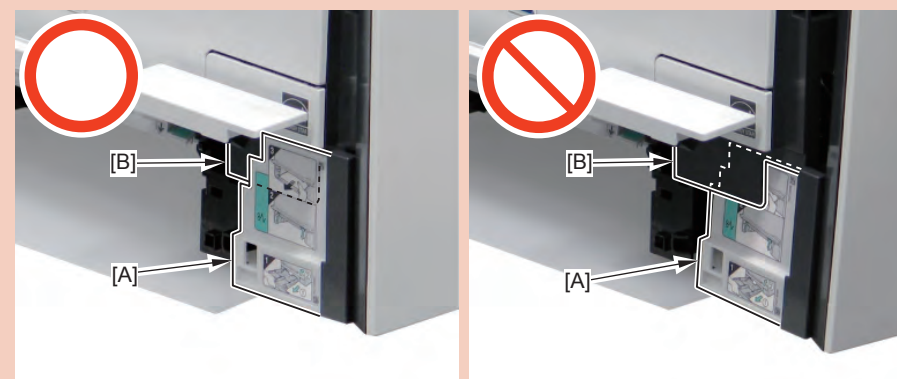
- 1) Open the Multi-purpose Tray Pickup Cover [1] and attach the 2 claws [2] on the lower side and 2 claws [3] on the front side of the Right Cover.



F-4-331

Caution:

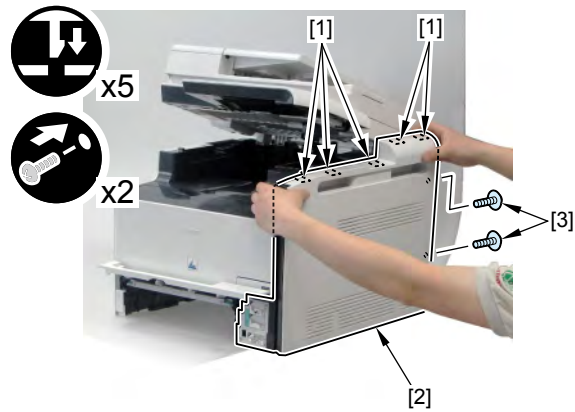
To install the Right Cover to the Host Machine, be sure to install [A] part of the Right Cover to be attached outside of [B] part.



F-4-332

2) Insert the 5 claws [1] on the upper side of the Right Cover and install the Right Cover [2].

- 2 screws [3]



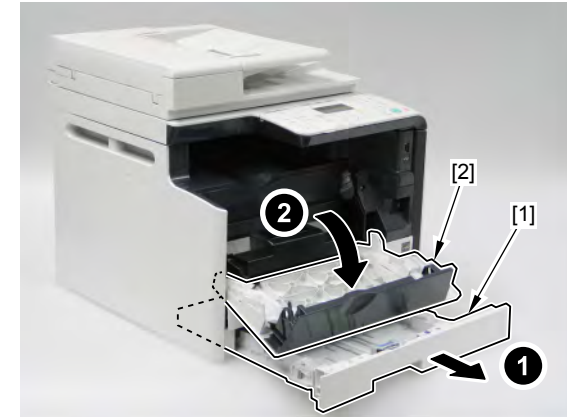
F-4-333

■ Removing the Front Cover (MF8050/8030)

Caution:

Be careful as this unit has the different procedure by the model.

- 1) Remove the Cassette [1].
- 2) Open the Front Cover [2].

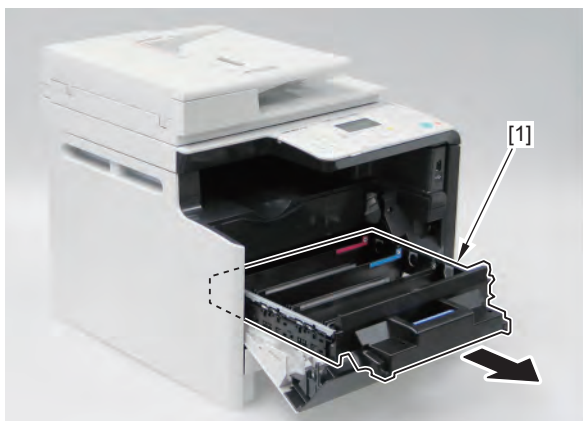


F-4-334

3) Pull the Cartridge Tray [1].

Caution:

Since the Cartridge Tray interferes with the stopper when removing the stopper, do not pull out the Cartridge Tray until it hits the end.



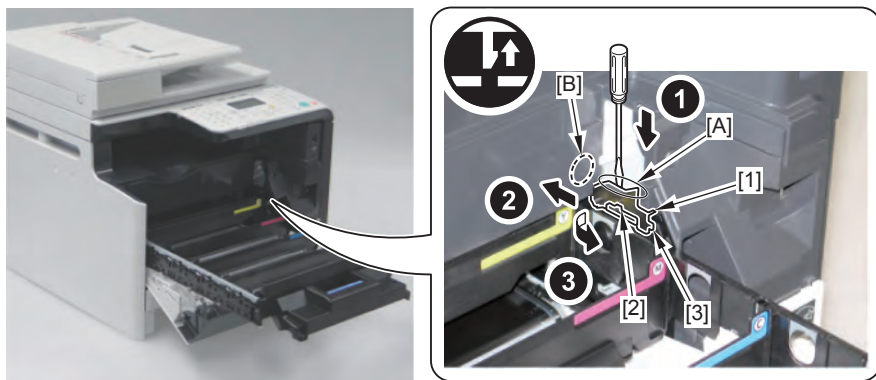
F-4-335

4) Remove the cartridges

5) Insert a flat-blade screwdriver into the clearance [A] between the Right Stopper [1] and rail.

6) Remove the Right Stopper [1] while pushing the [B] part.

- 2 Claws [2]
- 1 Protrusion [3]

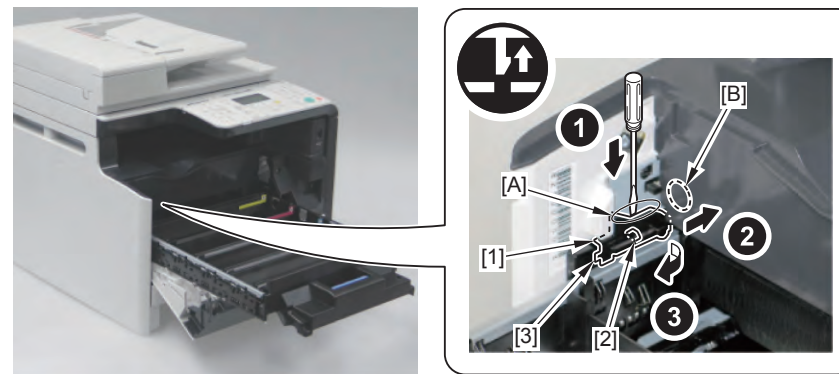


F-4-336

7) Insert a flat-blade screwdriver into the clearance [A] between the Left Stopper [1] and rail.

8) Remove the Left Stopper [1] while pushing the [B] part.

- 2 Claws [2]
- 1 Protrusion [3]



F-4-337

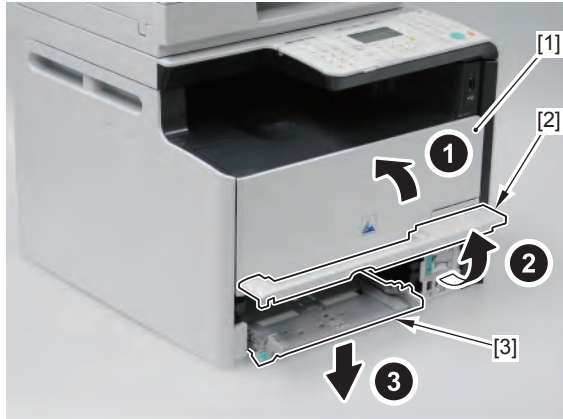
9) Remove the Cartridge Tray [1].



F-4-338

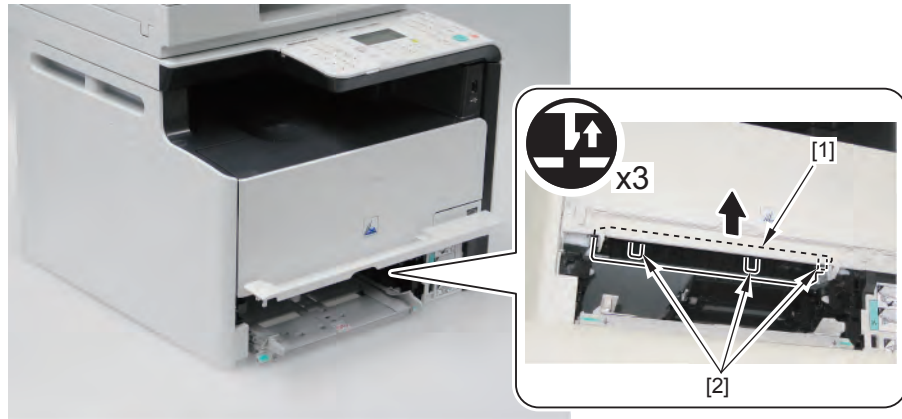
10) Close the Front Cover [1].

11) Open the Multi-purpose Tray Pickup Slot Cover [2] and Multi-purpose Tray Pickup Tray [3].



F-4-339

12) While lifting the Feeding Guide [1], remove the 3 claws [2].



F-4-340

13) Open the Front Cover [1] to remove the Feeding Guide [2].

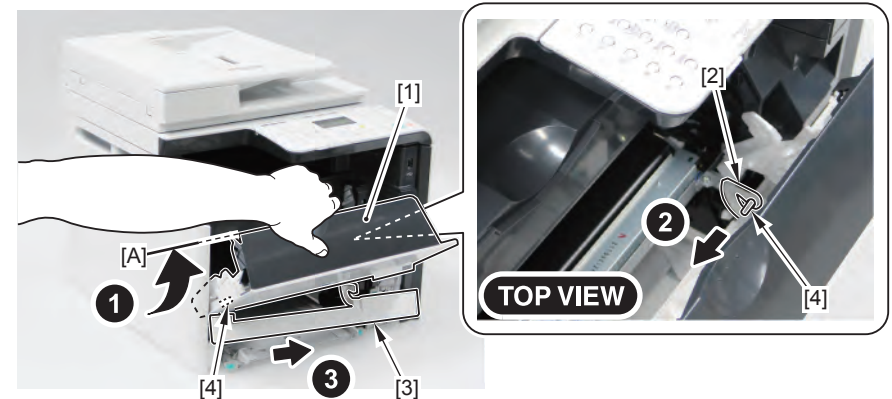


F-4-341

14) Put the Front Cover [1] back to position A.

15) Remove the Right Arm [2] of the Multi-purpose Tray Pickup Slot Cover to remove the Multi-purpose Tray Pickup Slot Cover [3].

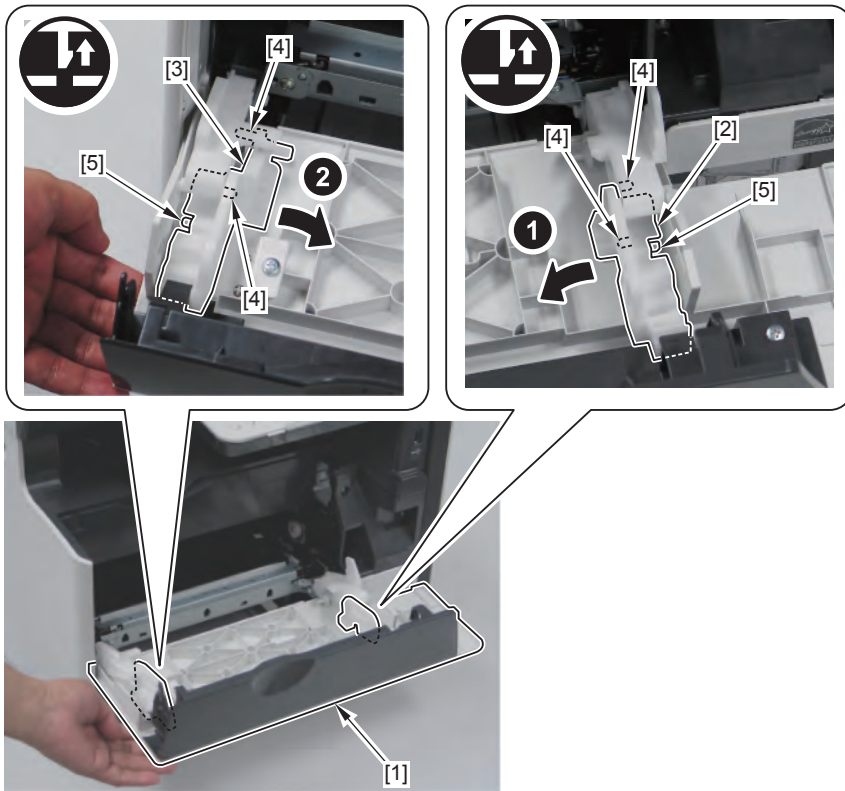
• 2 Shafts [4]



F-4-342

16) Remove the Right Holder [2] and Left Holder [3] while holding the Front Cover [1].

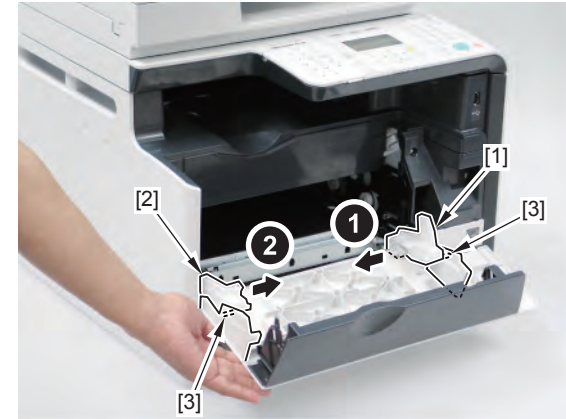
- 4 Shafts [4]
- 2 Claws [5]



F-4-343

17) Push and remove the Right Arm [1] and Left Arm [2].

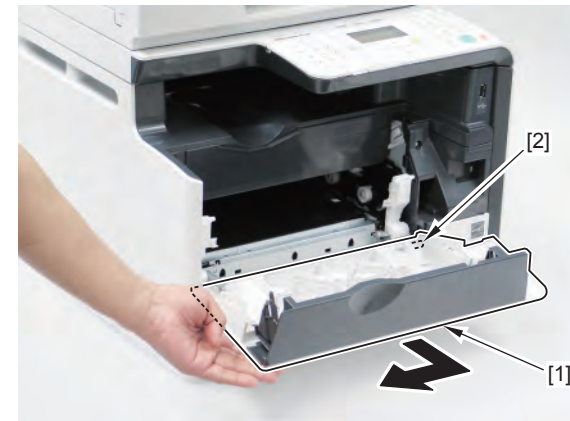
- 2 Shafts [3]



F-4-344

18) Remove the Front Cover [1].

- 1 Shaft [2]



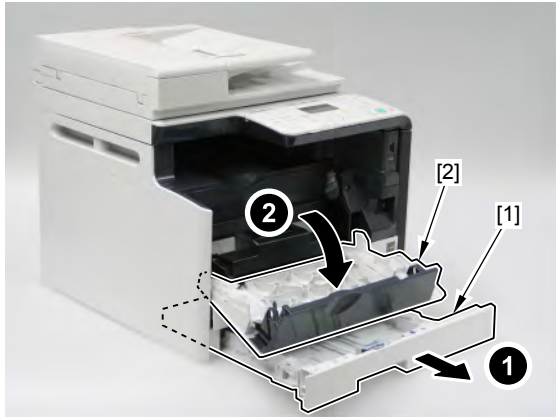
F-4-345

Removing the Front Covent Cover (MF8080/8040/8010)

Caution:

Be careful as this unit has the different procedure by the model.

- 1) Remove the Cassette [1].
- 2) Open the Front Cover [2].

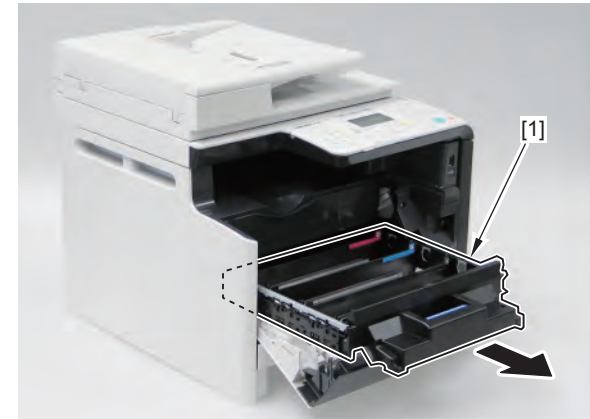


F-4-346

- 3) Pull the Cartridge Tray [1].

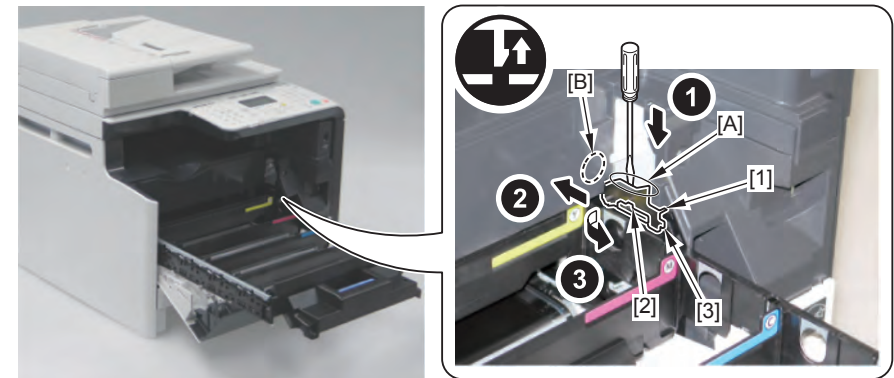
Caution:

Since the Cartridge Tray interferes with the stopper when removing the stopper, do not pull out the Cartridge Tray until it hits the end.



F-4-347

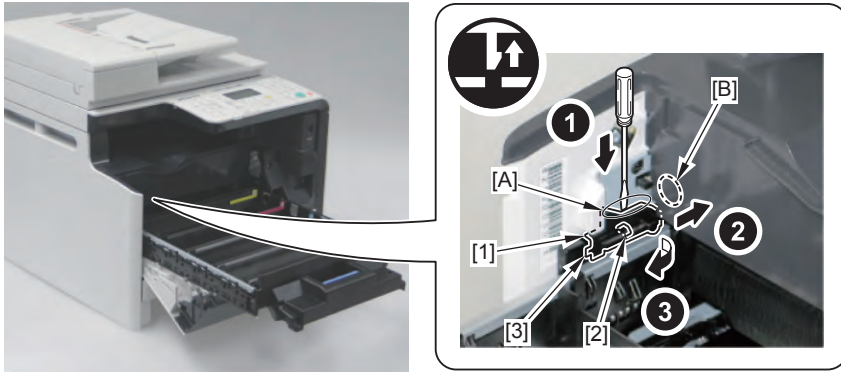
- 4) Remove the cartridges
- 5) Insert a flat-blade screwdriver into the clearance [A] between the Right Stopper [1] and rail.
- 6) Remove the Right Stopper [1] while pushing the [B] part.
 - 2 Claws [2]
 - 1 Protrusion [3]



F-4-348

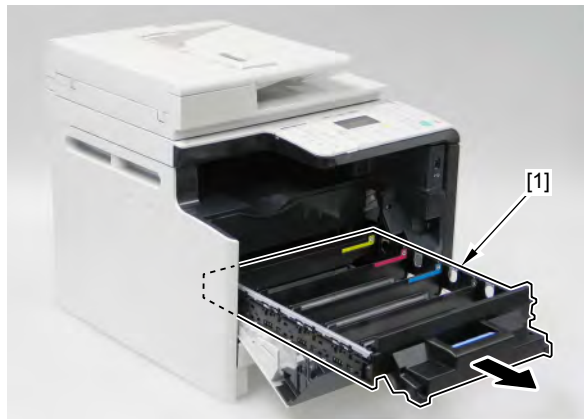
- 7) Insert a flat-blade screwdriver into the clearance [A] between the Left Stopper [1] and rail.
 8) Remove the Left Stopper [1] while pushing the [B] part.

- 2 Claws [2]
- 1 Protrusion [3]



F-4-349

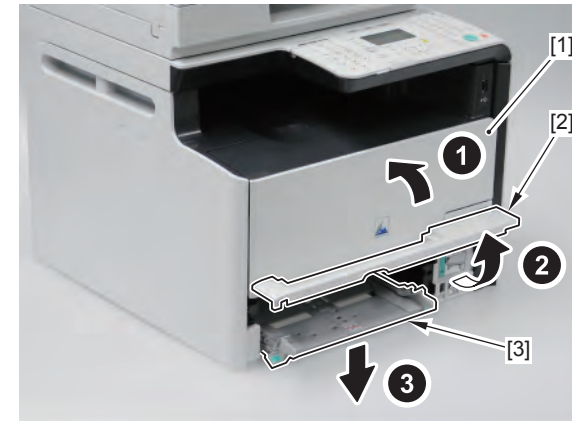
- 9) Remove the Cartridge Tray [1].



F-4-350

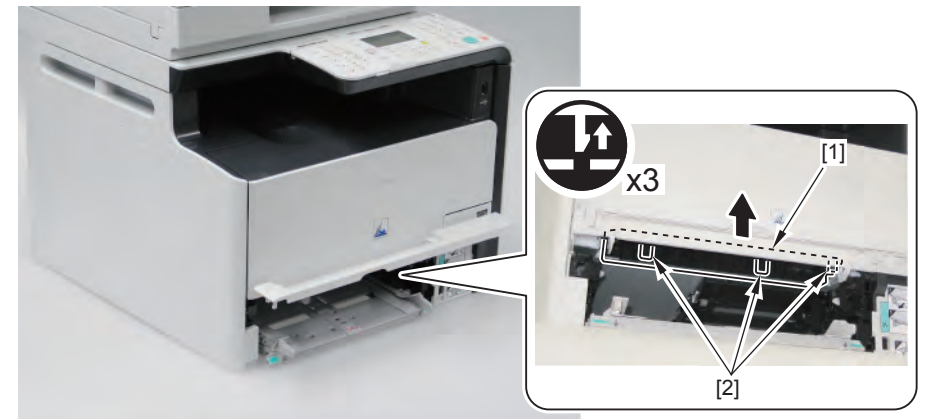
- 10) Close the Front Cover [1].

- 11) Open the Multi-purpose Tray Pickup Slot Cover [2] and Multi-purpose Tray Pickup Tray [3].



F-4-351

- 12) While lifting the Feeding Guide [1], remove the 3 claws [2].



F-4-352

13) Open the Front Cover [1] to remove the Feeding Guide [2].

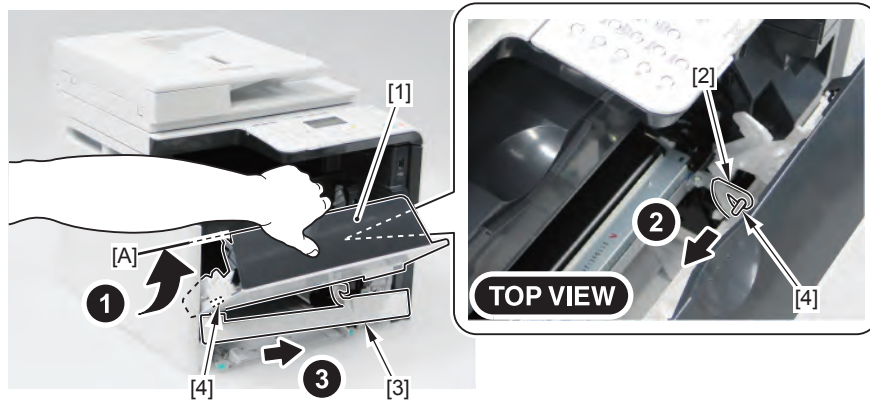


F-4-353

14) Put the Front Cover [1] back to position A.

15) Remove the Right Arm [2] of the Multi-purpose Tray Pickup Slot Cover to remove the Multi-purpose Tray Pickup Slot Cover [3].

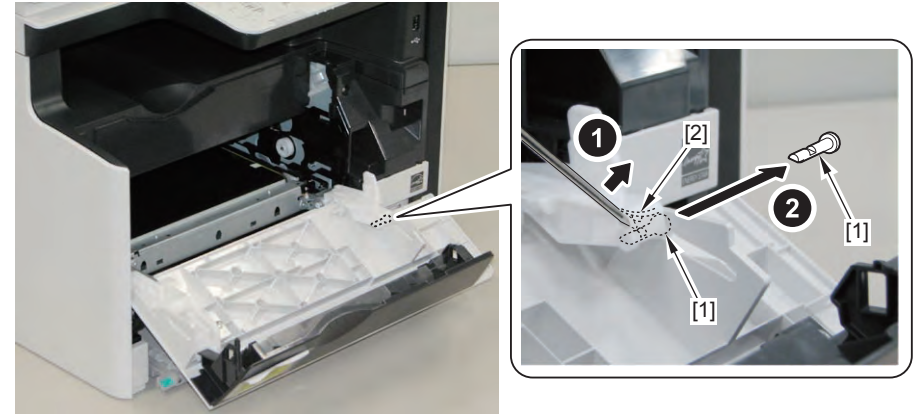
- 2 Shafts [4]



F-4-354

16) Remove the Fixation Pin [1] of the Right Arm.

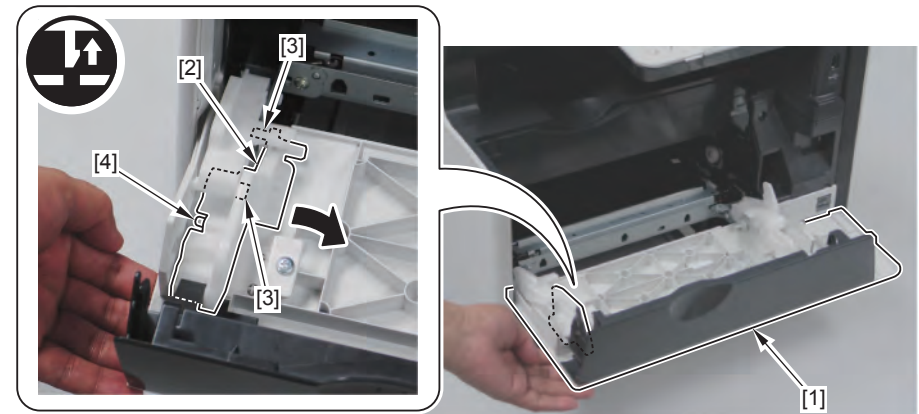
- 1 Claw [2]



F-4-355

17) Remove the Left Holder [2] while holding the Front Cover [1].

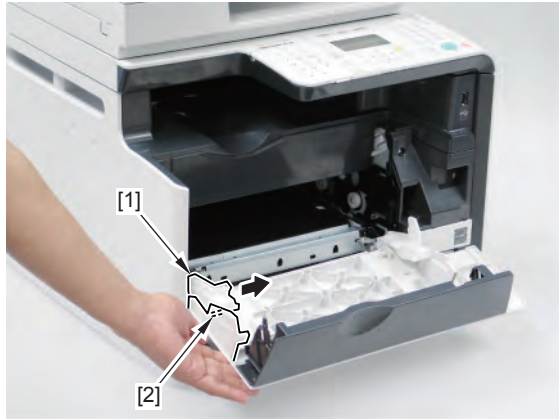
- 2 Shafts [3]
- 1 Claw [4]



F-4-356

18) Push and remove the Left Arm [1].

- 1 Shaft [2]



F-4-357

19) Remove the Front Cover [1].

- 1 Shaft [2]



F-4-358

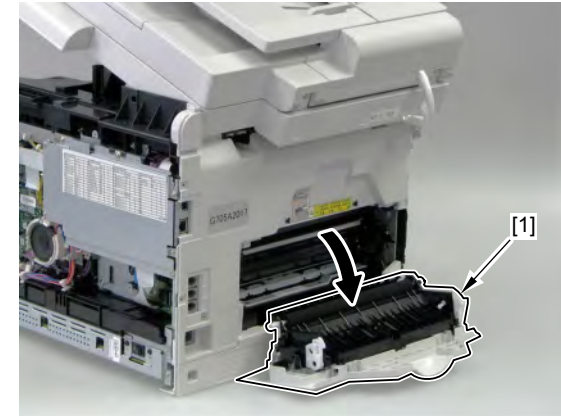
■ Removing the Rear Upper Cover

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.

Procedure

- 1) Open the Rear Cover [1].



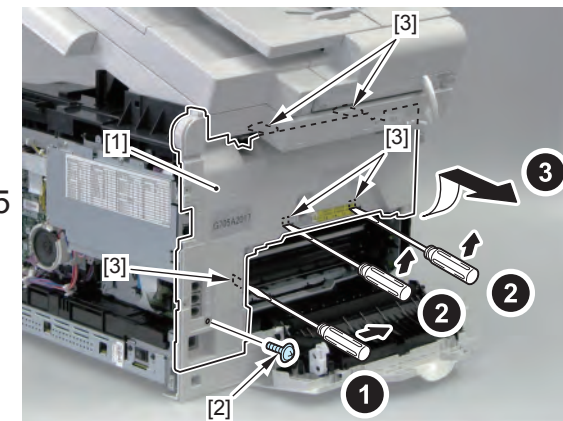
F-4-359

2) Remove the Rear Upper Cover [1].

- 1 screw [2]
- 5 claws [3]



x5



F-4-360

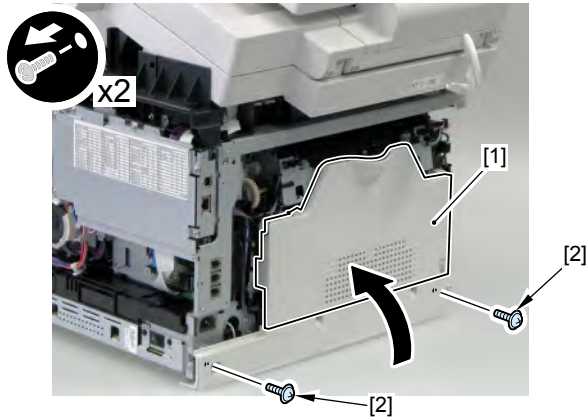
■ Removing the Rear Lower Cover

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.

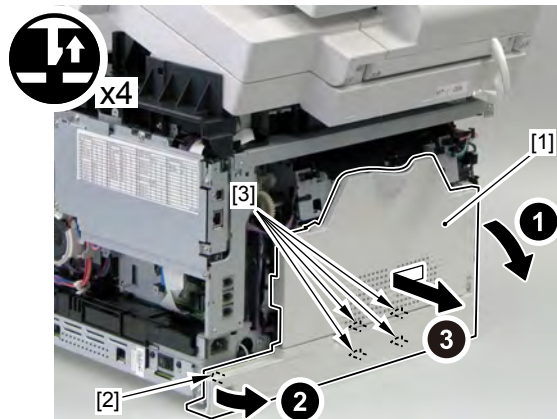
Procedure

- 1) Close the Rear Cover [1] and remove the 2 screws [2].



- 2) Open the Rear Cover and remove the Rear Lower Cover [1] in the direction of the arrow. F-4-361

- 1 boss [2]
- 4 claws [3]



F-4-362

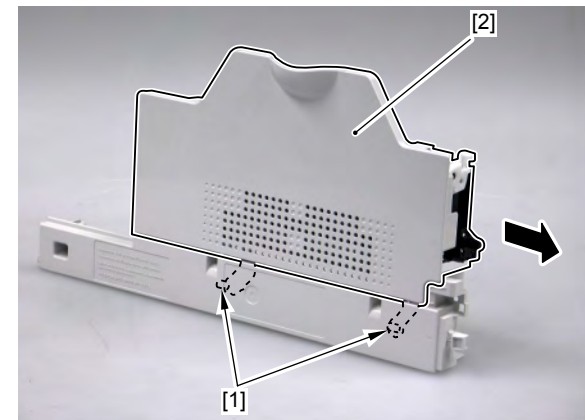
■ Removing the Rear Cover.

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the Rear Lower Cover. Refer to page Refer to page 4-156.

Procedure

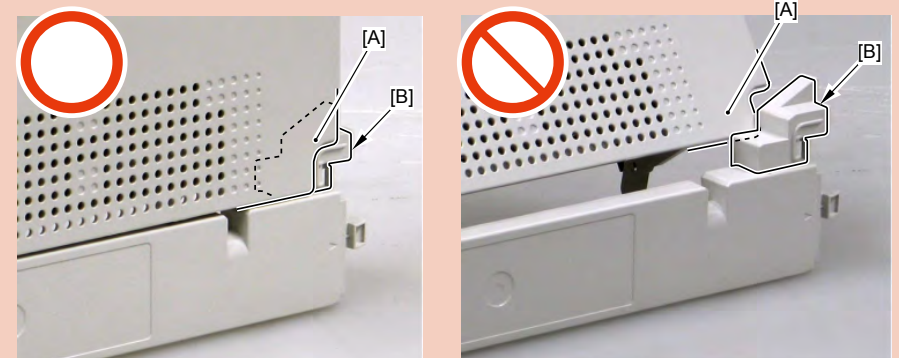
- 1) Remove the Rear Cover [2] from the shafts [1] of the Rear Lower Cover.



F-4-363

Caution:

When installing the Rear Door, be sure to install [A] part to be attached outside of [B] part.



F-4-364

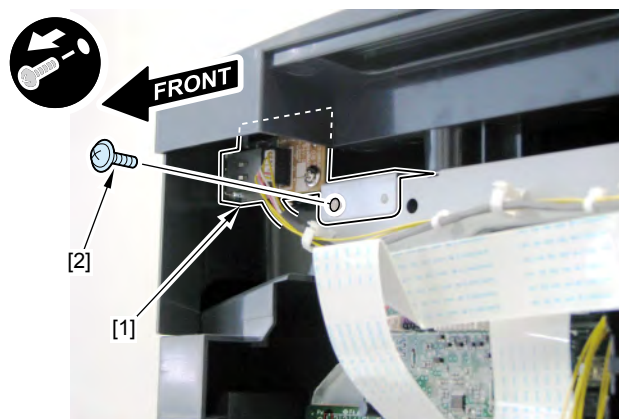
Removing the Upper Cover

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the the ADF Unit + Reader Unit. Refer to page Refer to page 4-159.

Procedure

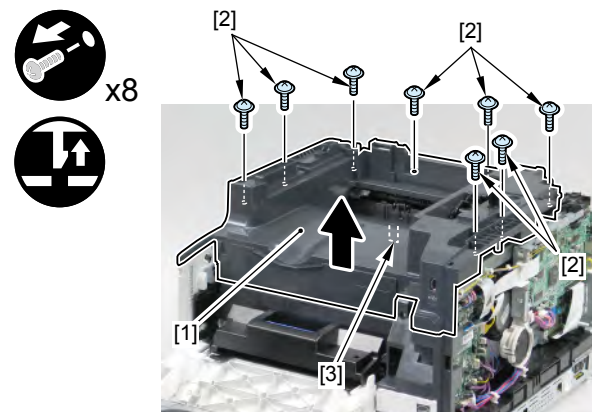
- 1) Open the Front Cover.
- 2) Remove the USB Host PCB [1].
 - 1 screw [2]



F-4-365

- 3) Remove the Upper Cover [1].

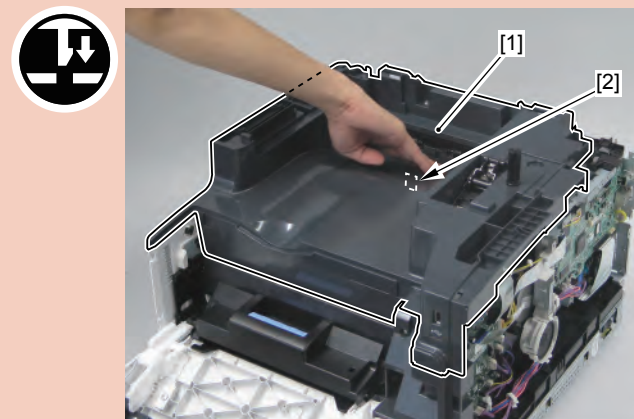
- 8 screws [2]
- 1 claw [3]



F-4-366

Caution:

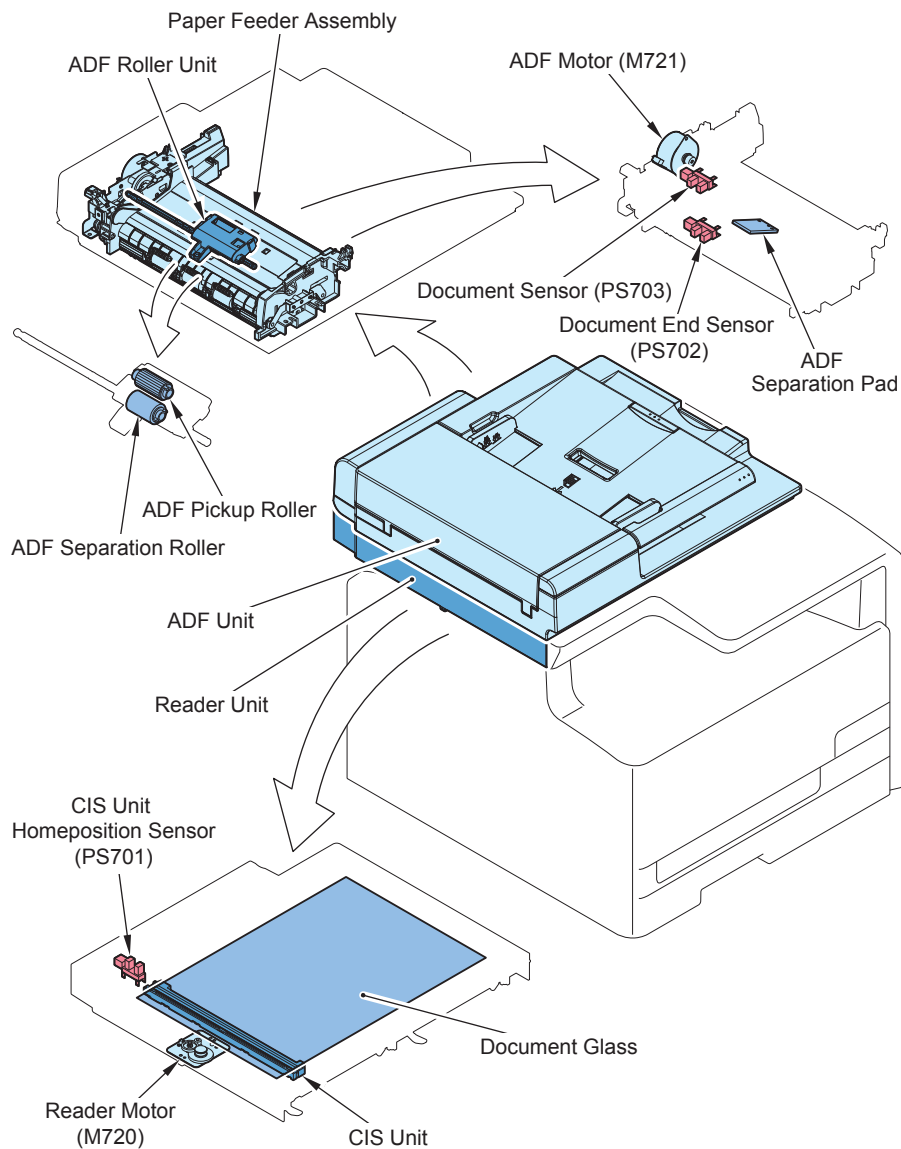
When installing the Upper Cover [1], make sure that the claw [2] is surely fitted.



F-4-367

Document exposure/feeder system

Location



F-4-368

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	ADF Unit	MF8050/8030 /8080/8040	Refer to page 4-159 Refer to page 4-160	refer to page Refer to page 5-3
-	Reader Unit	MF8050/8030 /8080/8040 MF8010	Refer to page 4-159 Refer to page 4-160 -	refer to page Refer to page 5-3
-	ADF Roller Unit	MF8050/8030 /8080/8040	Refer to page 4-164	-
-	ADF Separation Roller	MF8050/8030 /8080/8040	Refer to page 4-166	-
-	ADF Pickup Roller	MF8050/8030 /8080/8040	Refer to page 4-166	-
-	Paper Feeder Assembly	MF8050/8030 /8080/8040	Refer to page 4-169	-
PS702	Document End Sensor	MF8050/8030 /8080/8040	-	-
M721	ADF Motor	MF8050/8030 /8080/8040	Refer to page 4-172	-
PS703	Document Sensor	-	-	-
-	ADF Separation Pad	MF8050/8030 /8080/8040	Refer to page 4-167	-
-	Document Glass	-	Refer to page 4-173	refer to page Refer to page 5-4
-	CIS Unit	-	Refer to page 4-175	refer to page Refer to page 5-5
M720	Reader Motor	-	Refer to page 4-178	-
PS701	CIS Unit Home Position Sensor	-	-	-

T-4-9

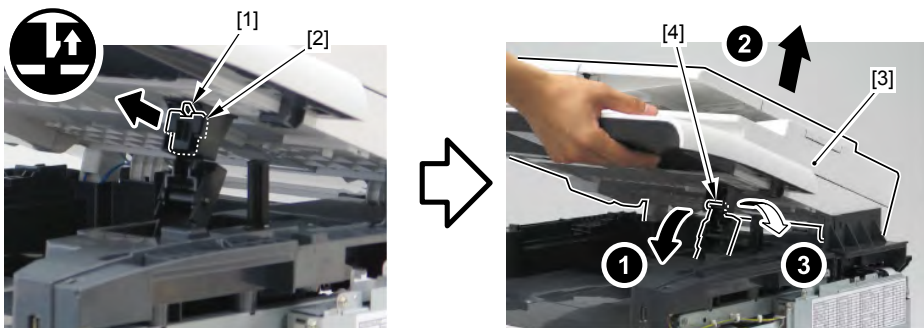
■ Removing the ADF Unit + Reader Unit (MF8050/8030/8080/8040)

Pre-procedure

- 1) Remove the Right Cover. Refer to Page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to Page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page 4-173

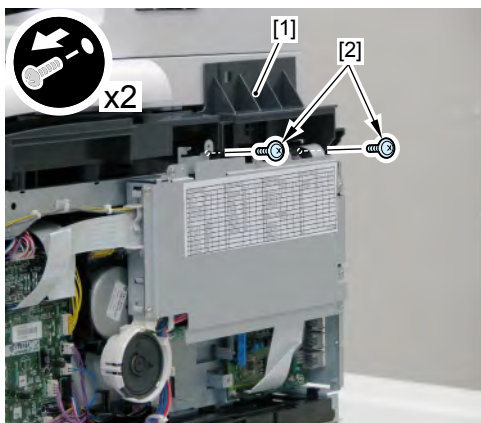
Procedure

- 1) Remove the claw [1] to remove the Reader Shaft Retainer [2].
- 2) While supporting the ADF Unit + Reader Unit [3], remove the Reader Support Shaft [4].
- 3) Bring down the Reader Support Shaft [4] to close the ADF Unit + Reader Unit [3].



F-4-369

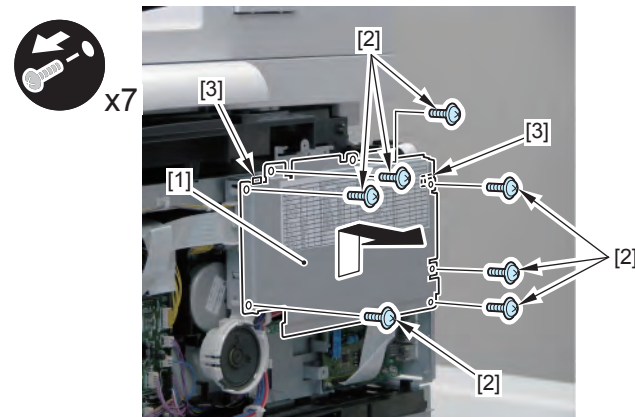
- 4) Remove the handle [1].
- 2 screws [2]



F-4-370

- 5) Remove the Controller Cover [1].

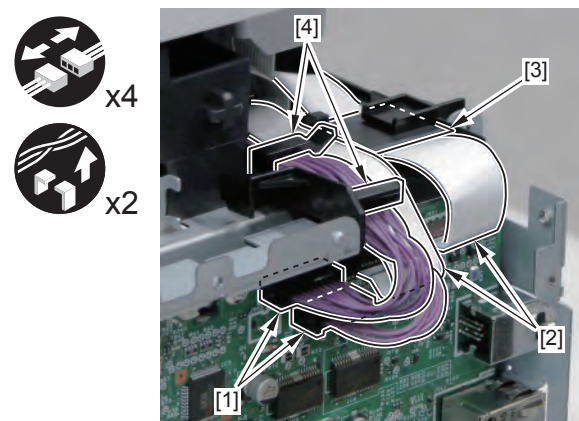
- 7 screws [2]
- 2 hooks [3]



F-4-371

- 6) Disconnect the 2 connectors [1] and the 2 Flat Cables [2].

- 1 Ferrite Core [3]
- 2 Harness Guides [4]



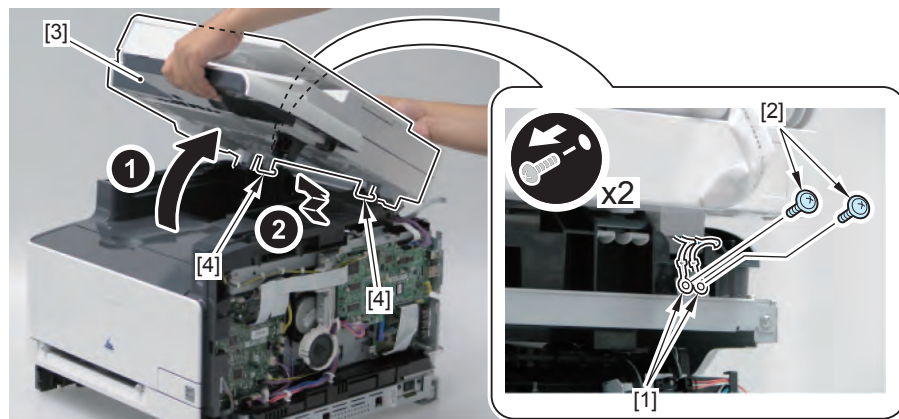
F-4-372

7) Remove the 2 groundings [1].

- 2 Screws [2]

8) Open and remove the ADF Unit + Reader Unit [3].

- 2 Hooks [4]



F-4-373

Caution:

When ADF Unit and Reader Unit are exchanged, the treats after ADF Unit and Reader Unit are exchanged must be done.

■ Separating the ADF Unit + Reader Unit (MF8050/8030/8080/8040)

Pre-procedure

- 1) Remove the Right Cover. Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page 4-155.
- 4) Remove the ADF Unit + Reader Unit. Refer to page 4-159.

Procedure

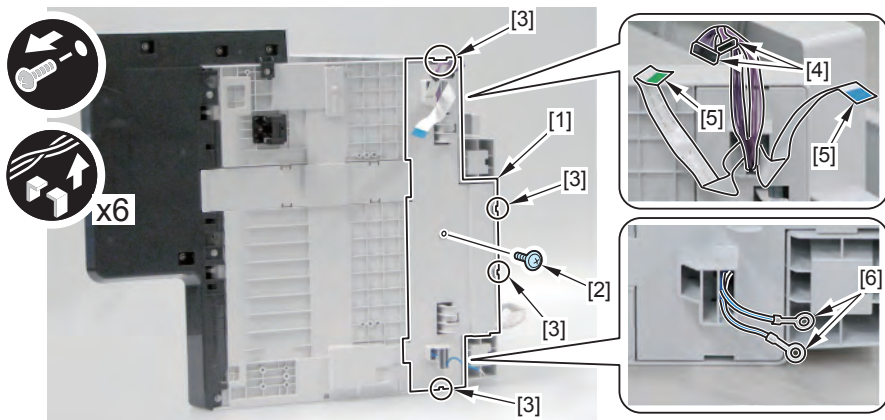
- 1) Place the ADF Unit and Reader Unit in the open status as shown in the figure below.



F-4-374

2) Remove the Reader Unit Lower Cover [1].

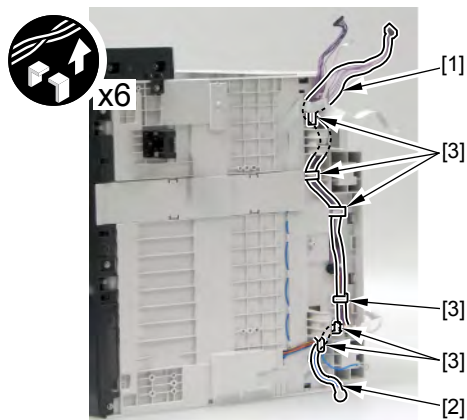
- 1 Screw [2]
- 4 Claws [3]
- 2 Harnesses [4]
- 2 Flat Cables [5]
- 2 Grounding Wires [6]



F-4-375

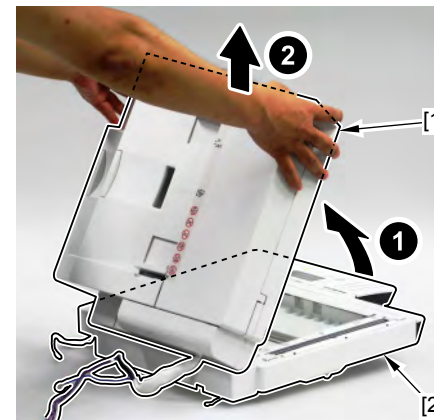
3) Remove the cable [1] and the grounding wire [2].

- 6 wire guides [3]



F-4-376

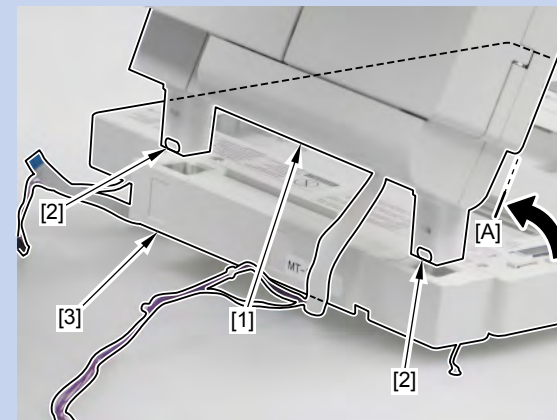
4) Open the ADF Unit and separate it to the direction of the arrow from the Reader Unit [2].



F-4-377

NOTE:

If ADF Unit [1] is not opened to the position [A], it cannot be separated from the Reader Unit, because of the 2 claws [2].



F-4-378

After replacing ADF units

1) After executing the white level adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1. White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

2. Checking the setting value

- COPIER > ADJUST > CCD > DFTAR-R (RED shading target value when using DF)
- COPIER > ADJUST > CCD > DFTAR-G (GREEN shading target value when using DF)
- COPIER > ADJUST > CCD > DFTAR-B (BLUE shading target value when using DF)
- COPIER > ADJUST > CCD > DFTAR-BW (Monochrome shading target value when using DF)

2) Execute the reading position adjustment with the following service mode.

- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning position in FEEDER mode)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)

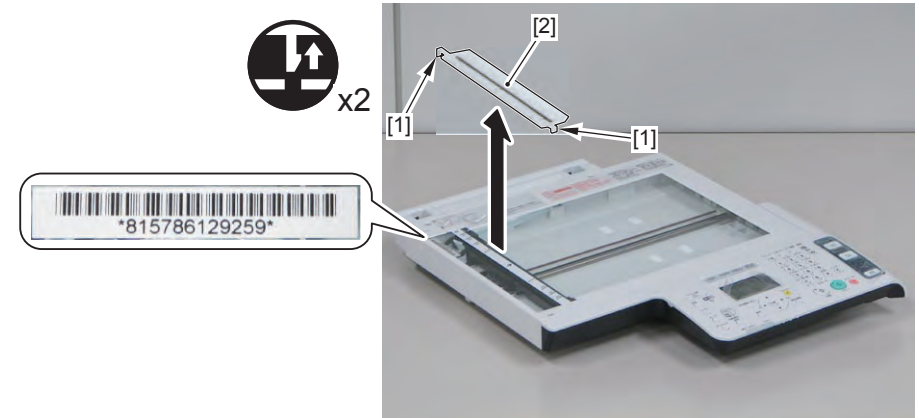
3) Execute the original stop position and feed speed adjustment at stream reading.

- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
- FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

After replacing reader units

1) Release 2 claws [1] and Remove the Scoopup sheet holder [2], Enter the setting value of the Standard White Plate.

- COPIER > ADJUST > CCD > W-PLT-X (X signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Y (Y signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Z (Z signal data for the standard white plate)



F-4-379

2) Execute the white level adjustment.

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

3) After executing the CCD reading position adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1. COPIER > FUNCTION > INSTALL > STRD-POS (CCD reading position adjustment auto execution)
2. COPIER > ADJUST > ADJ-XY > STRD-POS (CCD reading position adjustment value reference)

4) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1. White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2. Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

5) Enter the value on the label packed with the part in the following service mode item.

- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning position in FEEDER mode)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)
- COPIER> ADJUST> CCD> 50-RG (Color displacement correction value between RG in the vertical scanning direction (50%))
- COPIER> ADJUST> CCD>50-GB (Color displacement correction value between GB in the vertical scanning direction (50%))
- COPIER> ADJUST> CCD>100-RG (Color displacement correction value between RG in the vertical scanning direction (100%))
- COPIER> ADJUST> CCD>100-GB (Color displacement correction value between GB in the vertical scanning direction (100%))
- COPIER>ADJUST>PASCAL>OFST-P-Y (Adjustment of test chart reading density)
- COPIER>ADJUST>PASCAL> OFST-P-M (Adjustment of test chart reading density)
- COPIER>ADJUST>PASCAL> OFST-P-C (Adjustment of test chart reading density)
- COPIER>ADJUST>PASCAL> OFST-P-K (Adjustment of test chart reading density)

6) Read the image and execute the adjustment with the following service mode.

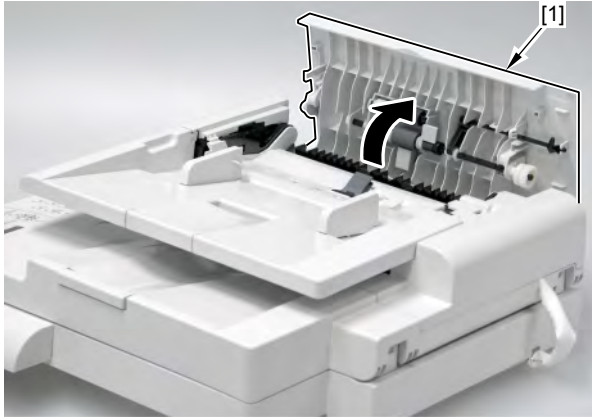
- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
- FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

Removing the ADF Roller Unit (MF8050/8030/8080/8040)

Caution:

Do not touch the surface of the roller.

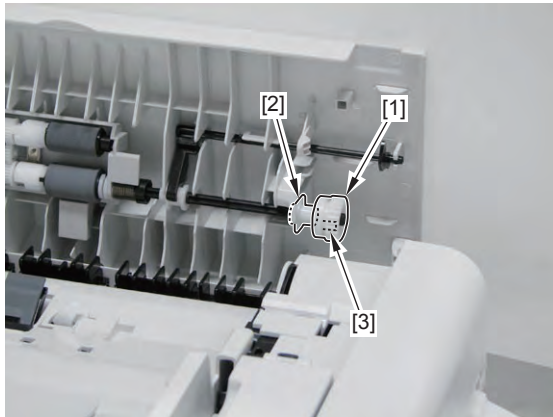
1) Open the ADF Upper Cover [1].



F-4-380

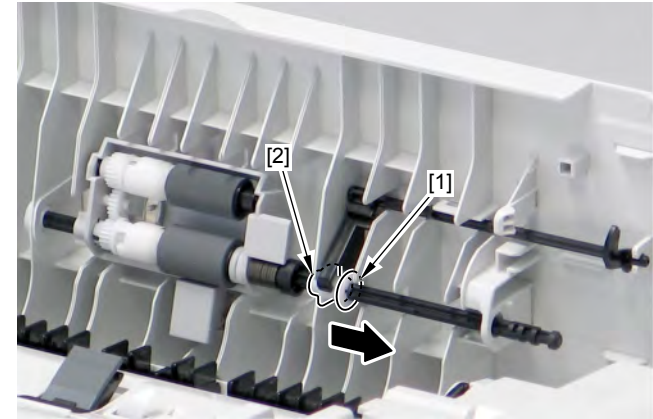
2) Remove the gear [1] and the bushing [2].

- 1 claw [3]



F-4-381

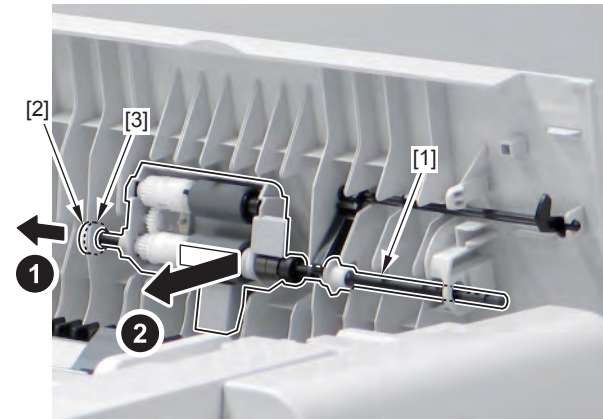
3) Remove the plastic E-ring [1] and slide the bushing [2].



F-4-382

4) Remove the ADF Roller Unit [1].

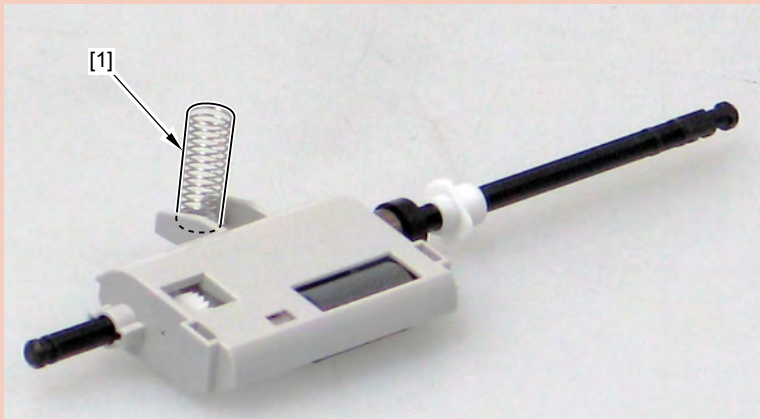
- 1 plastic E-ring [2]
- 1 bushing [3]



F-4-383

Caution:

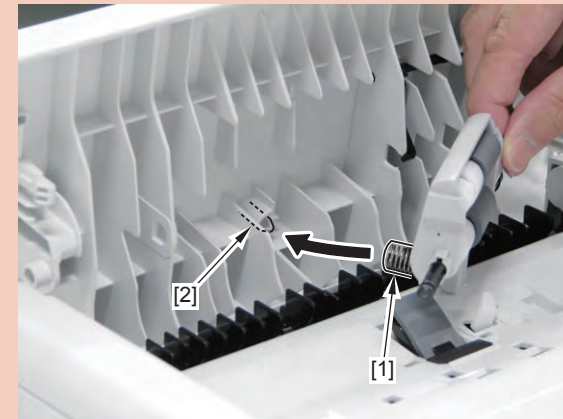
Be careful not to lose the spring [1] attached to the ADF Roller Unit.



F-4-384

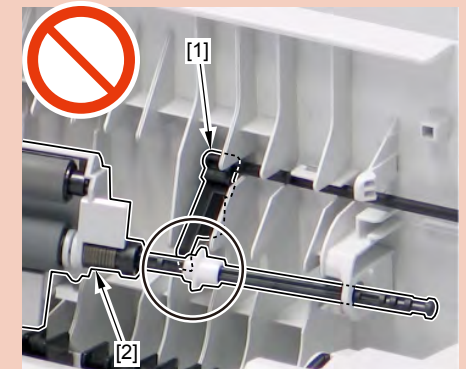
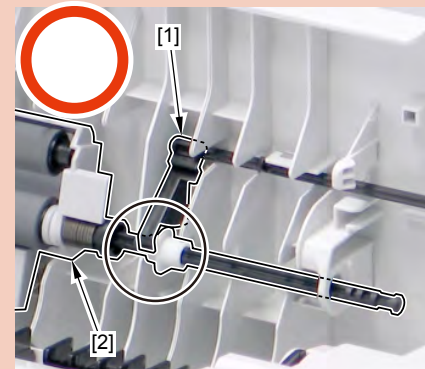
Caution:

- When installing, match the spring [1] of the ADF Roller Unit to the boss [2].



F-4-385

- Be sure to put the Sensor Flag [1] above the ADF Roller Unit [2] at installation work.



F-4-386

■ Removing the ADF Pickup Roller (MF8050/8030/8080/8040)

Pre-procedure

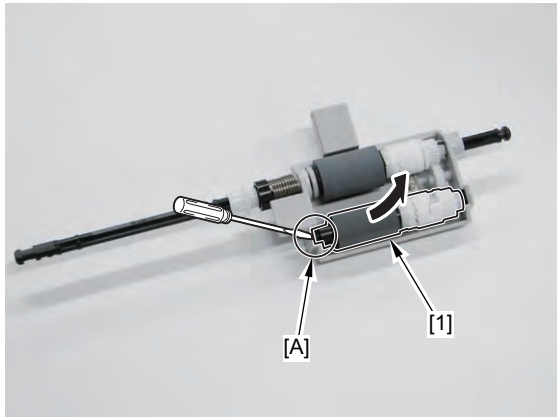
1) Remove the ADF roller unit. Refer to page 4-164.

Procedure

Caution:

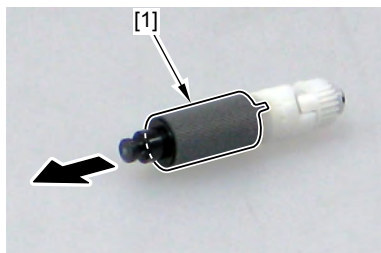
Do not touch the surface of the roller.

1) Insert the end of the flat-blade screwdriver into the [A] part to remove the ADF Pickup Roller Unit [1].



F-4-387

2) Remove the ADF Pickup Roller [1].



F-4-388

■ Removing the ADF separation roller (MF8050/8030/8080/8040)

Pre-procedure

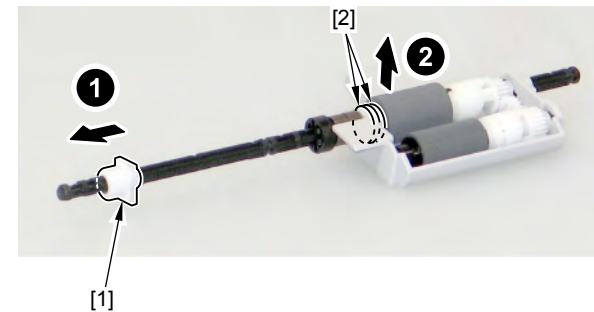
1) Remove the ADF roller unit. Refer to page 4-164.

Procedure

Caution:

Do not touch the surface of the roller.

1) Remove the bushing [1] and 2 plastic e-rings [2].

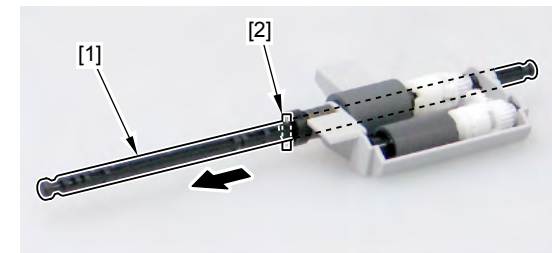


F-4-389

2) Slide the Roller Shaft [1] to remove the parallel pin [2].

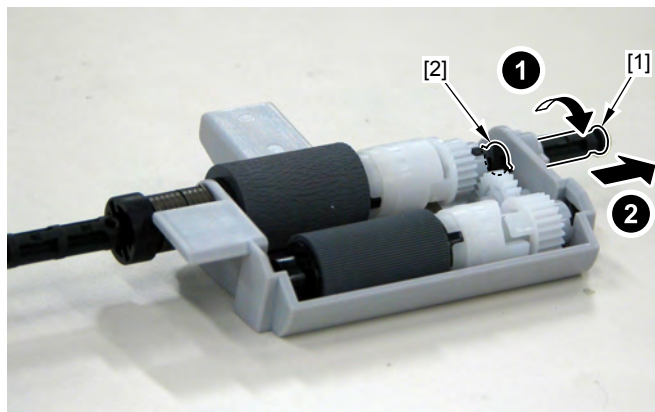
Caution:

Be careful not to lose the parallel pin [2] at assembly/disassembly.



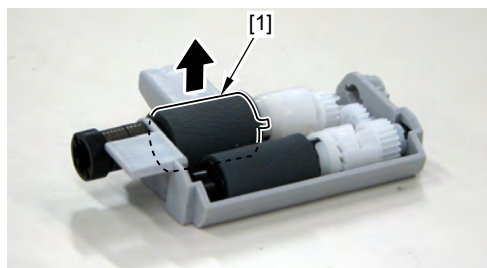
F-4-390

3) Turn the Roller Shaft [1] in the direction of the arrow and fit the projection [2] to the hole of the Roller Holder to remove.



F-4-391

4) Remove the ADF Separation Roller [1].



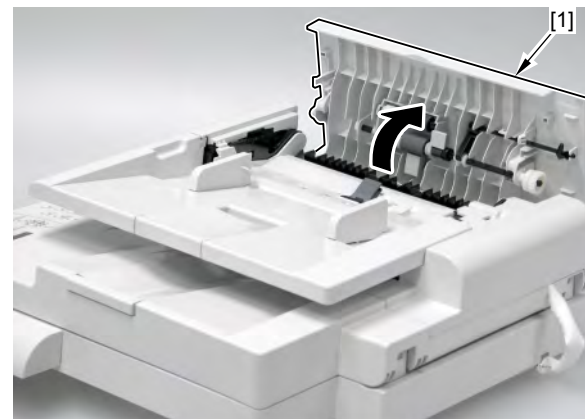
F-4-392

Removing the ADF Separation Pad (MF8050/8030/8080/8040)

Caution:

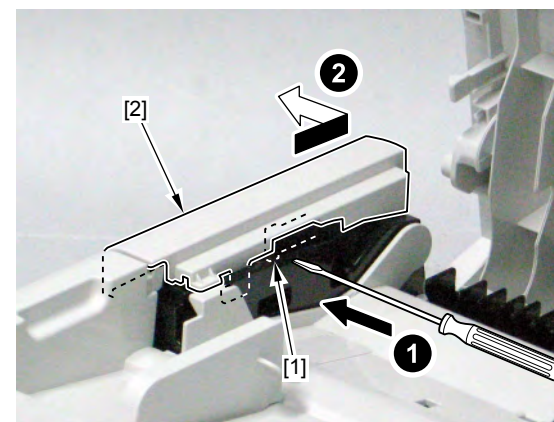
Do not touch the surface of the roller or pad.

1) Open the ADF Upper Cover [1].



F-4-393

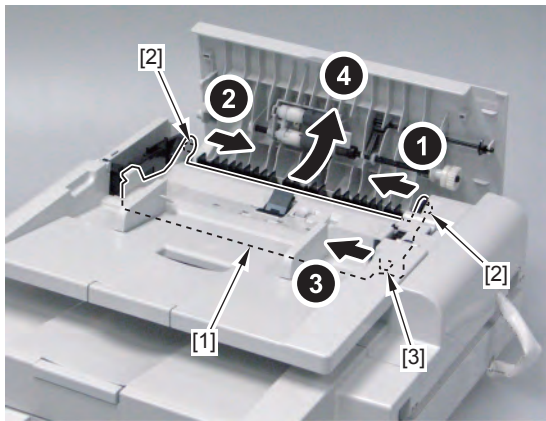
2) Unhook the hook [1] using the flat-head screw driver and remove the ADF Front Cover [1] in the direction of the arrow.



F-4-394

3) Remove the Feed Guide [1] in the direction of the arrow.

- 2 bosses [2]
- 1 claw [3]

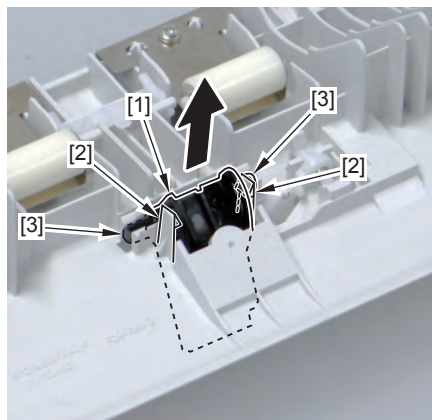


F-4-395

4) Reverse the Feed Guide.

5) Remove the Separation Pad Holder [1].

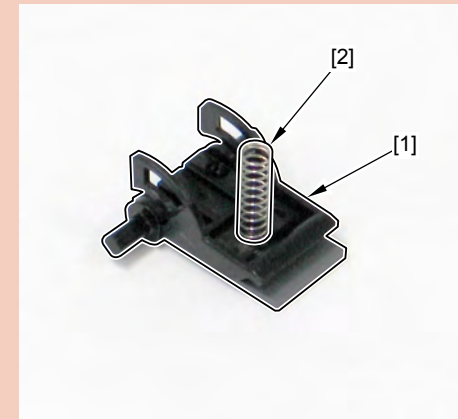
- 2 Claws [2]
- 2 Shafts [3]



F-4-396

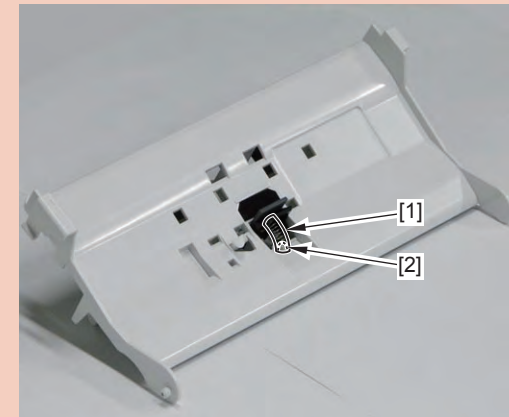
Caution:

- Be careful not to lose the spring [2] attached to the Separation Pad Holder [1].



F-4-397

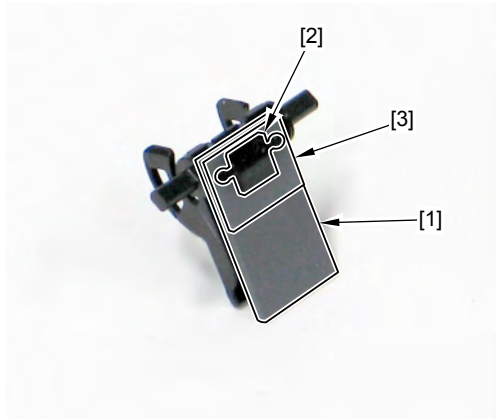
- When installing, match the spring [1] to the boss [2] of the Feed Guide.



F-4-398

6) Remove the Separation Pad [1].

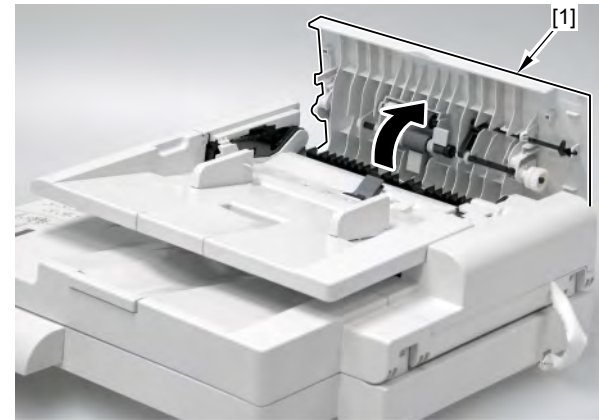
- Pad retainer [2]
- Sheet [3]



F-4-399

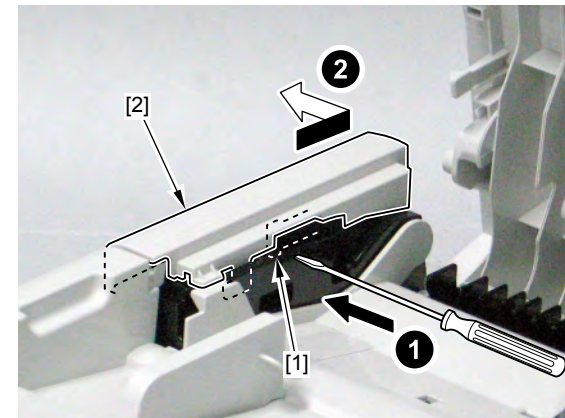
■ Removing the ADF Pickup Feed Unit (MF8050/8030/8080/8040)

1) Open the ADF Upper Cover [1].



F-4-400

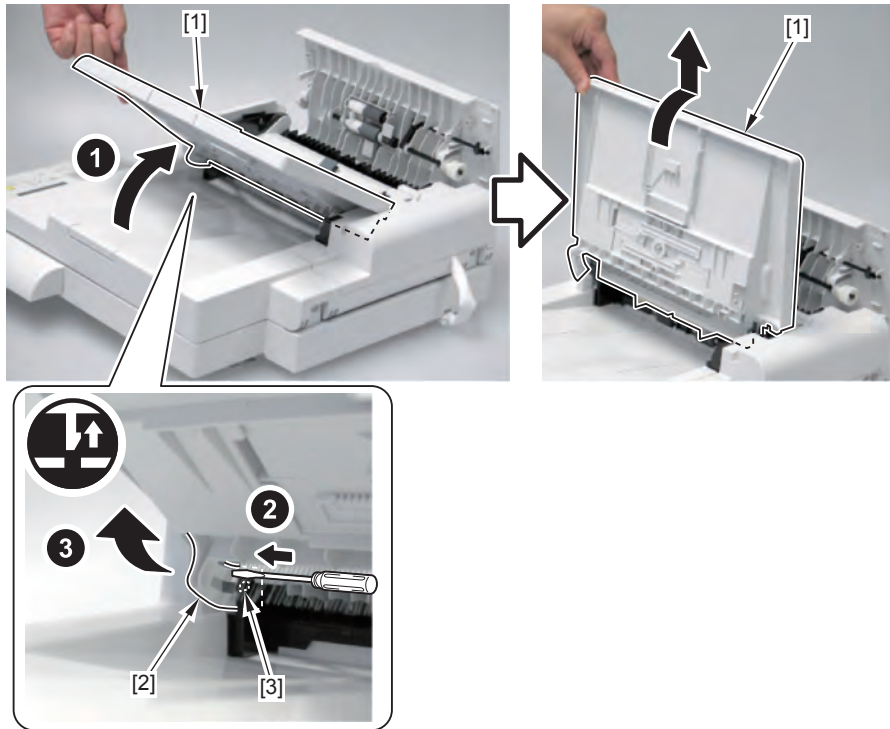
2) Remove the hook [1] using flat-head driver, and remove the ADF Front Cover [2] in the direction of the arrow.



F-4-401

3) Lift the ADF Tray [1] until it stops and release the hook [2] to tip the tray into the perpendicular position and remove by pulling upward.

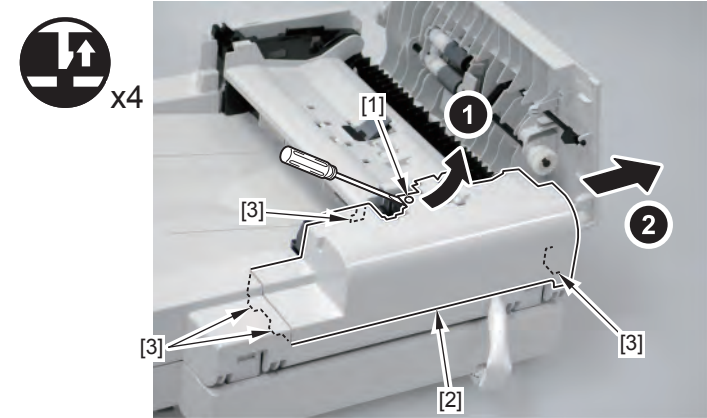
- 1 Claw [3]



F-4-402

4) Remove the boss [1] to remove the ADF Rear Cover [2] in the direction of the arrow.

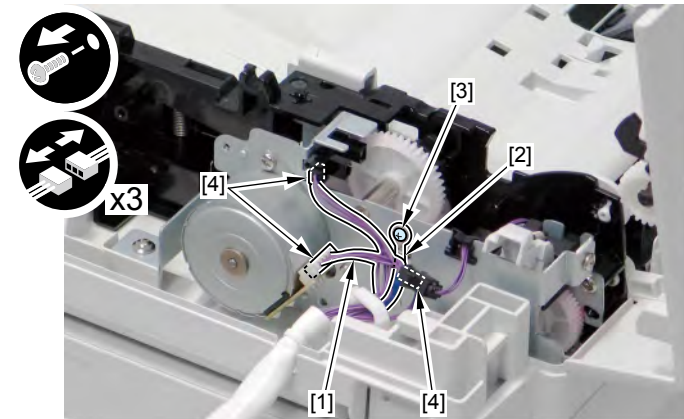
- 4 claws [3]



F-4-403

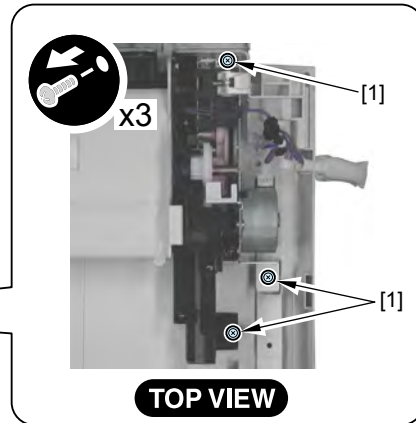
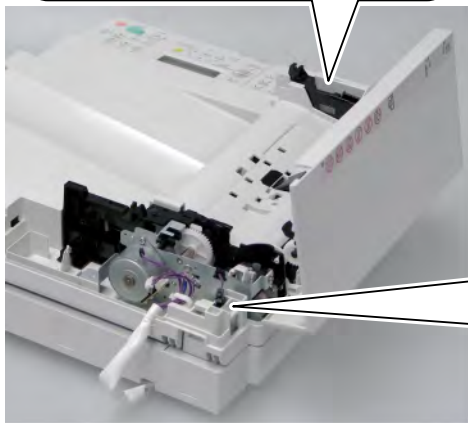
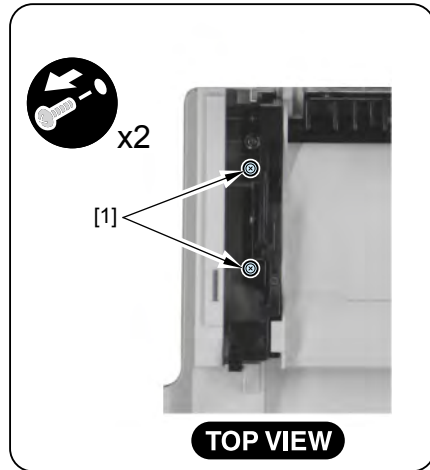
5) Remove the harness [1] and the grounding cord [2].

- 1 screw (binding) [3]
- 3 connectors [4]



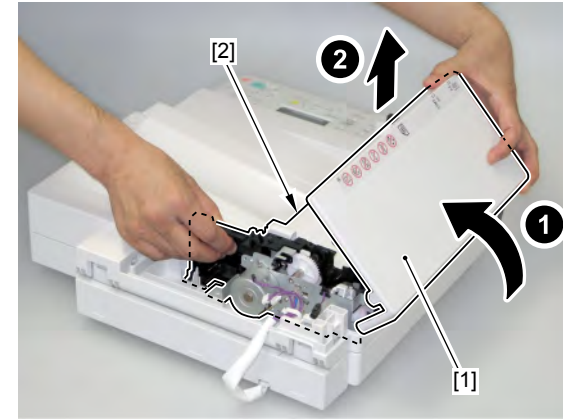
F-4-404

6) Remove the 5 screws [1] of the ADF Pickup Feed Unit.



F-4-405

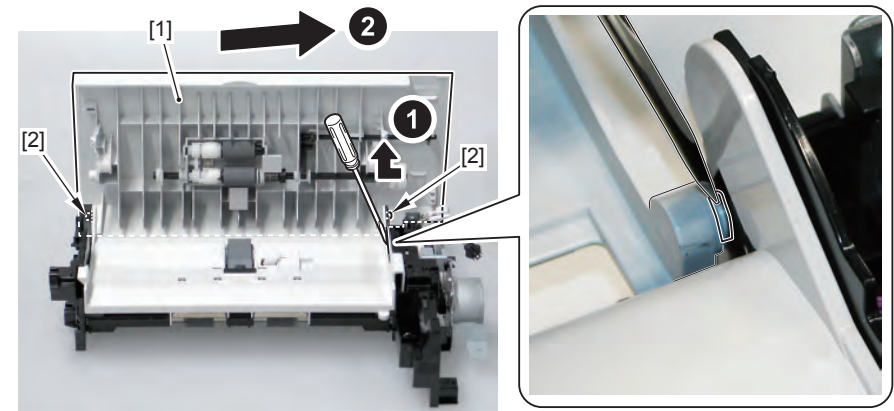
7) Close the ADF Upper Cover [1] to remove the ADF Pickup Feed Unit [2].



F-4-406

8) Remove the ADF Upper Cover Unit [1].

- 2 bosses [2]



F-4-407

Removing the ADF Pickup Motor (MF8050/8030/8080/8040)

Pre-procedure

1) Remove the ADF Pickup Feed Unit. Refer to page 4-169

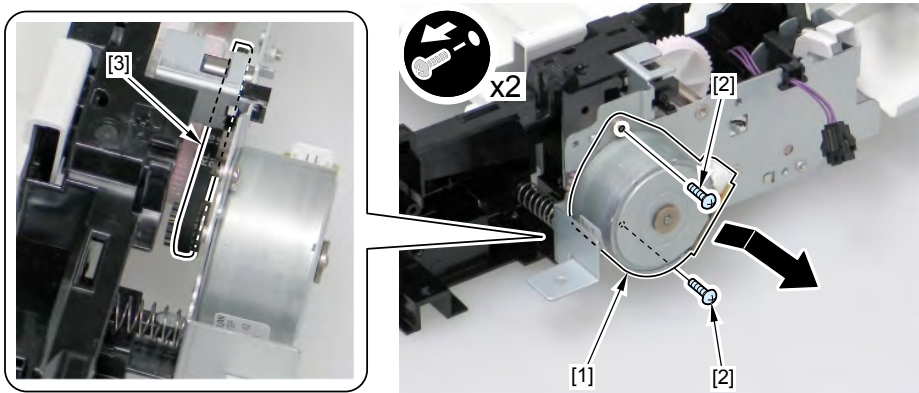
Procedure

NOTE:

When removing the ADF Pickup Motor, it is not necessary to remove the ADF Upper Cover Unit described in the previous step.

1) Remove the ADF Motor [1] in the direction of the arrow.

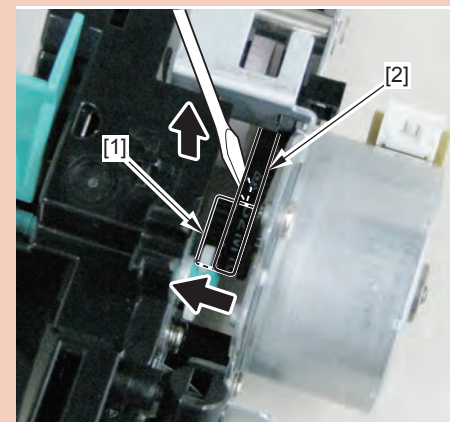
- 2 screws [2]
- 1 belt [3]



F-4-408

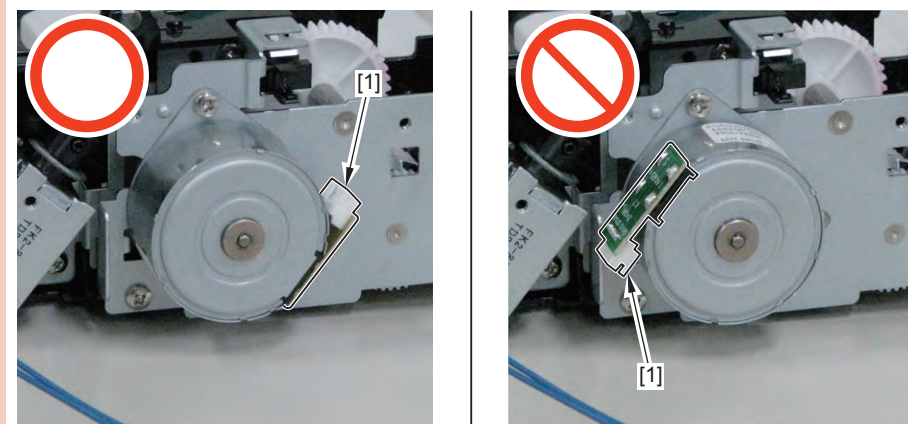
Caution:

- When installing the ADF Pickup Motor, be sure to hook the gear [1] of the motor on the belt [2].



F-4-409

- When installing the ADF Pickup Motor, be sure to install with the connector [1] on the right side.



F-4-410

■ Removing the Reader Unit Upper Cover

Pre-procedure

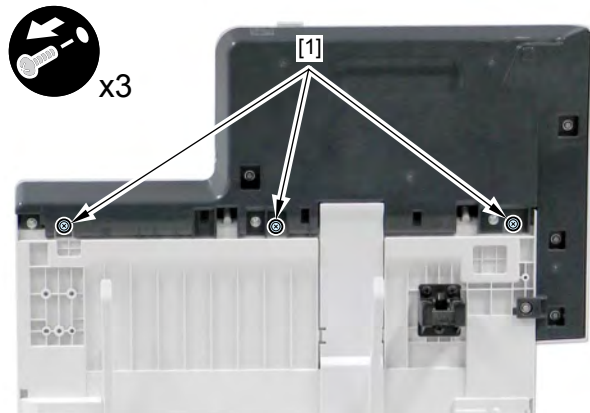
- 1) Remove the Right Cover. Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page 4-155.
- 4) Remove the ADF + Reader Unit. Refer to page 4-159.
- 5) Separate the ADF Unit + Reader Unit. Refer to page 4-160.

Procedure

Caution:

To replace the Copyboard Glass, be sure to replace the Copyboard Glass together with the Reader Unit Upper Cover.

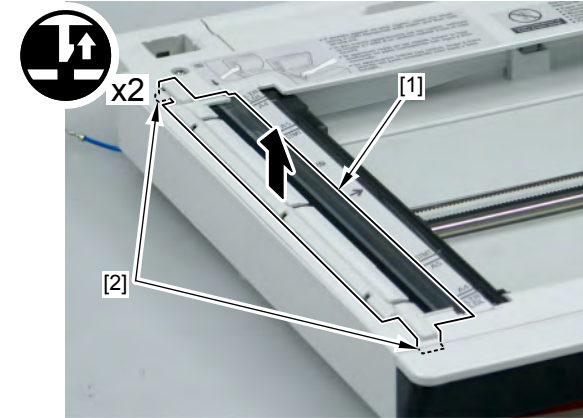
- 1) Remove the 3 screws [1] at the bottom of the Reader Unit.



F-4-411

- 2) Remove the Scoopup sheet holder [1].

- 2 claws [2]



F-4-412

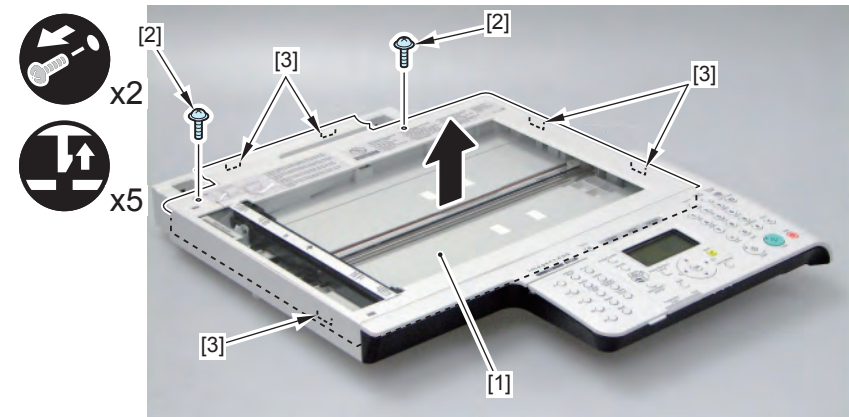
- 3) Remove the Reader Unit Upper Cover [1].

- 2 screw [2]

- 5 claws [3]

Caution:

Because the Copyboard Glass [2] is attached to the Upper Cover [1], be careful not to drop or damage the Upper Cover.



F-4-413

After Replacing the Reader Upper Cover Unit

1) Enter the setting value of the Standard White Plate.

- COPIER > ADJUST > CCD > W-PLT-X (X signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Y (Y signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Z (Z signal data for the standard white plate)



F-4-414

2) After executing the CCD reading position adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1. COPIER > FUNCTION > INSTALL > STRD-POS (CCD reading position adjustment auto execution)
2. COPIER > ADJUST > ADJ-XY > STRD-POS (CCD reading position adjustment value reference)

3) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1. White level adjustment

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2. Checking the setting value

- COPIER > ADJUST > CCD > DFTAR-R (RED shading target value when using DF)
- COPIER > ADJUST > CCD > DFTAR-G (GREEN shading target value when using DF)
- COPIER > ADJUST > CCD > DFTAR-B (BLUE shading target value when using DF)
- COPIER > ADJUST > CCD > DFTAR-BW (Monochrome shading target value when using DF)

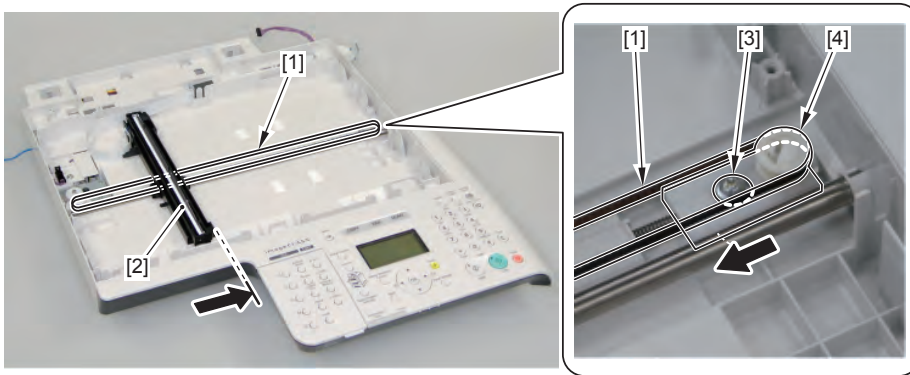
Removing the CIS Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page 4-155.
- 4) Remove the ADF + Reader Unit. Refer to page 4-159.
- 5) Separate the ADF Unit + Reader Unit Refer to page 4-160.
- 6) Remove the Reader Unit Upper Cover. Refer to page 4-173.

Procedure

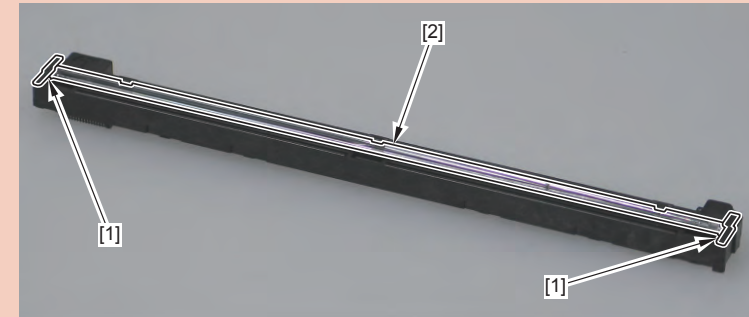
- 1) Loosen the screw [1], move the pulley holder [2] to the direction of the arrow and remove the drive belt [3].



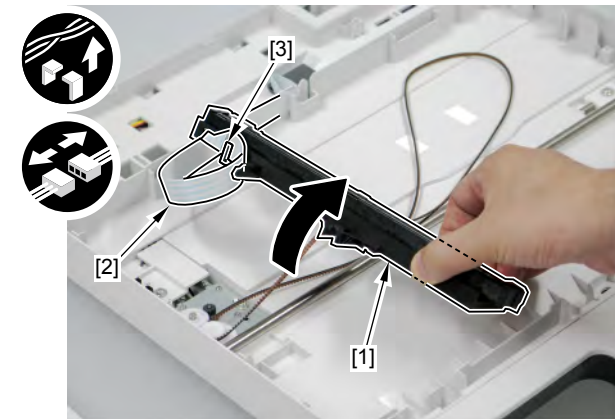
- 2) Remove the CIS Unit Mount [1] and remove the flat cable [2].
 - 1 guide [3]

Caution:

- When assembling/disassembling the copyboard glass, take care not to lose the 2 CIS unit spacers [1].
- When assembling/disassembling the copyboard glass, do not touch the copy reading area [2] of the CIS unit.

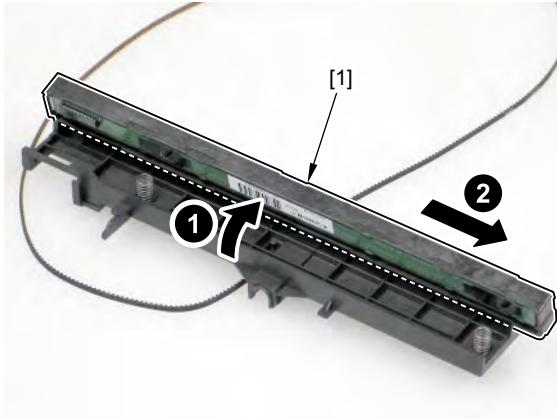


F-4-415



F-4-416

3) Bring up the CIS Unit [1] to remove in the direction of the arrow.

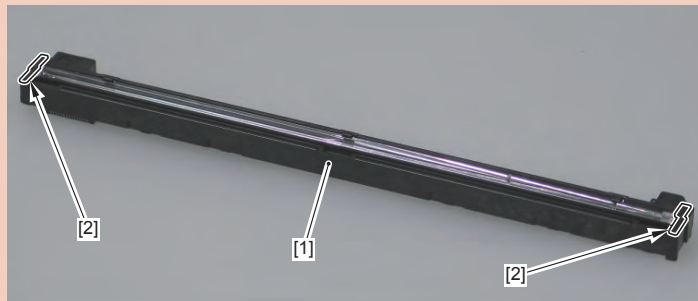


F-4-417

Caution:

When replacing the CIS Unit [1], be sure to replace the CIS Unit [1] and the CIS Spacer [2], which are included in the package of the service part, at the same time.

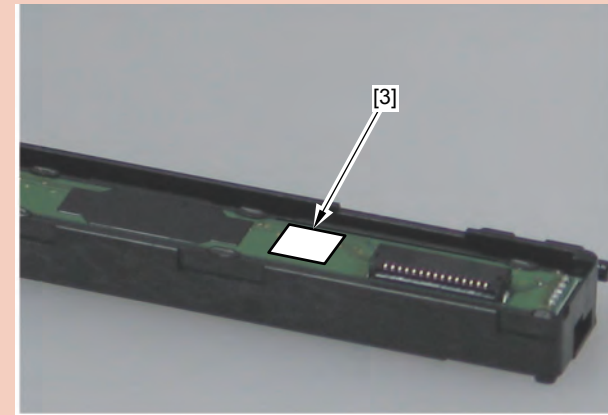
If a different spacer is used, image reading error may occur.



F-4-418

Caution:

- When installing the CIS Unit [1], be sure to replace the CIS Spacer [2] together with the CIS Unit [1] (included in the package of the Service Parts).



F-4-419

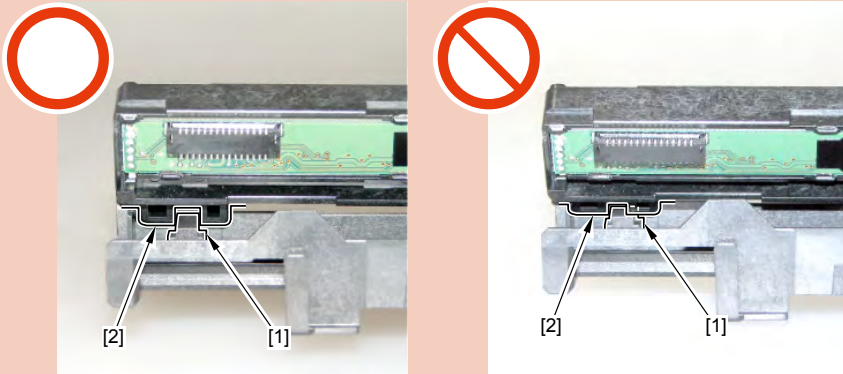
- When the CIS Spacers are mixed up or lost, check the CIS Rank Label [3] to use, and use the appropriate CIS Spacer that fits the rank of the CIS Unit.

Rank	Dimension (Height of spacer)	Part No.	Color of spacer
rank A	1.17 mm	FC9-7573	light gray
rank B	1.27 mm	FC9-7571	dark gray
rank C	1.37 mm	FC9-7574	brown

T-4-10

Caution:

When installing the CIS Unit, be sure to check that the projection [1] is fitted to the dent [2] to install.



F-4-420

After replacing CIS units

1) Execute the white level adjustment. If it fails, turn OFF/ON the power and execute the operation again.

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

2) After executing the CCD reading position adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1. COPIER> FUNCTION> INSTALL> STRD-POS (CCD reading position adjustment auto execution)
2. COPIER> ADJUST> ADJ-XY> STRD-POS (CCD reading position adjustment value reference)

3) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1. White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2. Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

4) Execute the reading position adjustment with the following service mode.

- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning position in FEEDER mode)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)

5) Execute the original stop position and feed speed adjustment at stream reading.

- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
- FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

Removing the Reader Scanner Motor

Pre-procedure

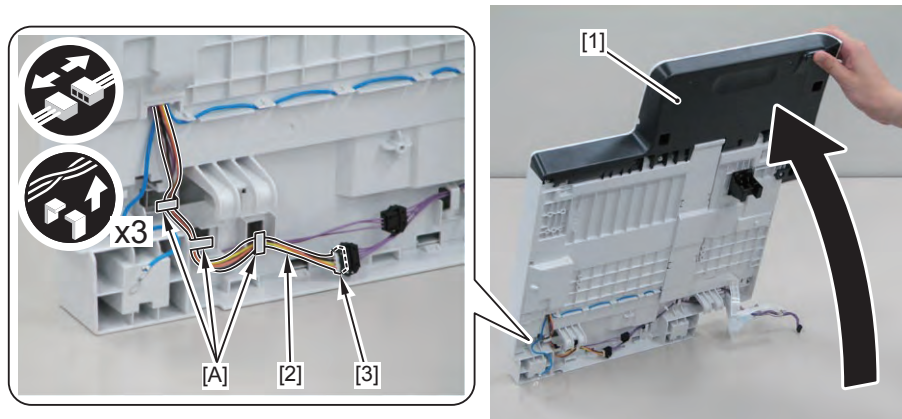
- 1) Remove the Right Cover. Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page 4-155.
- 4) Remove the ADF + Reader Unit. Refer to page 4-159.
- 5) Separate the ADF Unit + Reader Unit Refer to page 4-160.
- 6) Remove the Reader Unit Upper Cover. Refer to page 4-173.

Procedure

- 1) Free the harness [2] while holding the Reader Unit [1].
 - 1 Connector [3]
 - 3 Harness Guides at the [A] location

CAUTION:

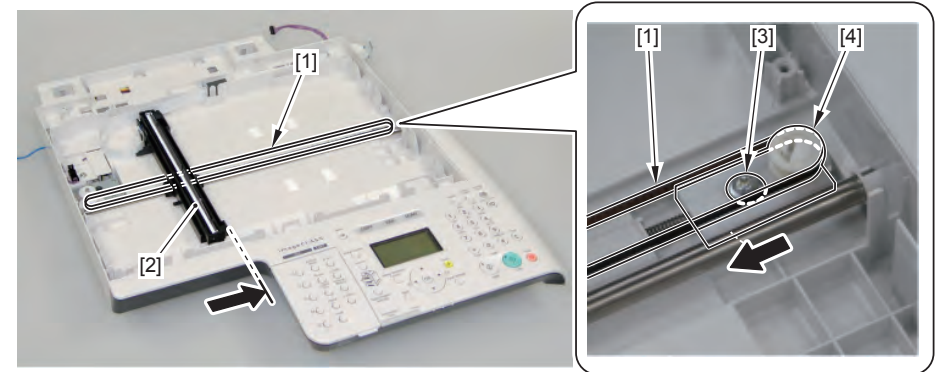
To prevent parts on the top side of the Reader Unit, do not tip the Reader Unit [1] into the perpendicular position.



F-4-421

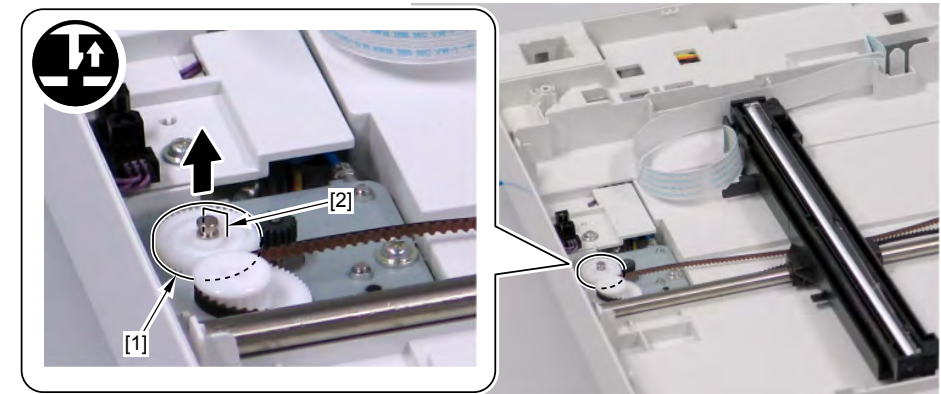
- 2) Pull the Drive Belt [1] to move the CIS Unit [2].

- 3) Loosen the screw [3] and move the Pulley Holder [4] in the direction of the arrow to remove the Drive Belt [1].



- 4) Remove the gear [1].

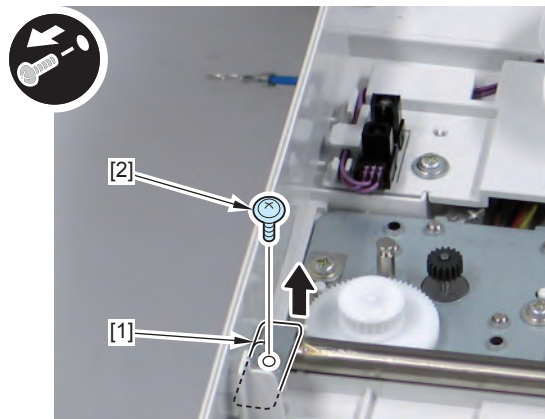
- 1 claw [2]



F-4-422

5) Remove the Shaft Retaining Plate [1].

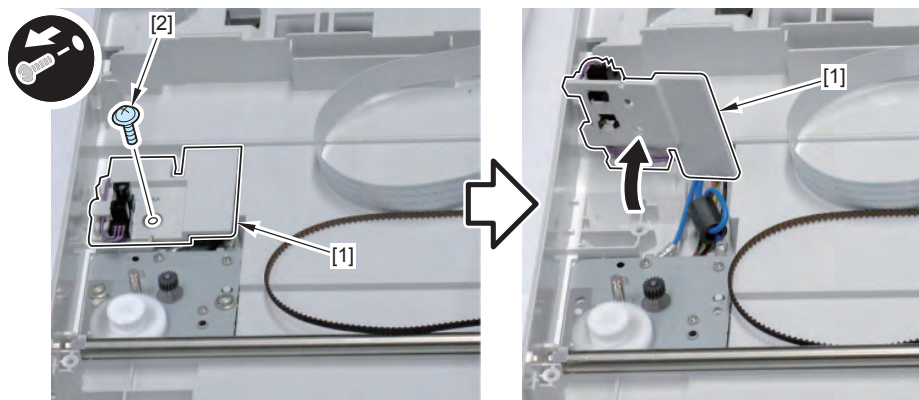
- 1 screw [2]



F-4-423

6) Move the Sensor Mount [1].

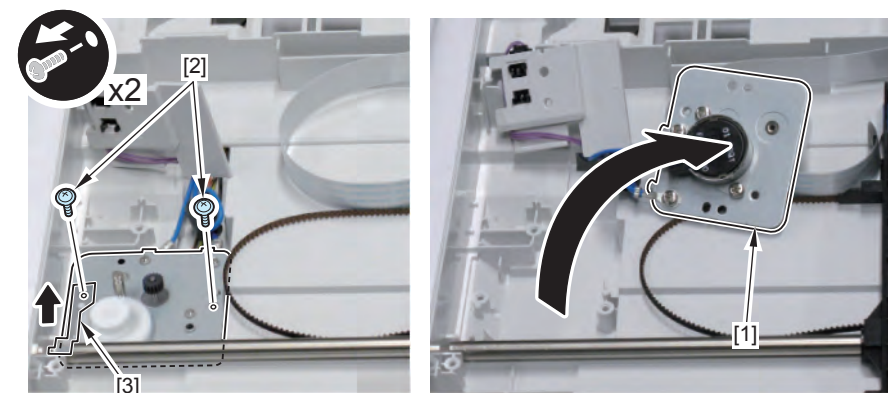
- 1 screw [2]



F-4-424

7) Move the Motor Mounting Plate [1] and turn it over.

- 2 screws [2]
- 1 Grounding Plate [3]

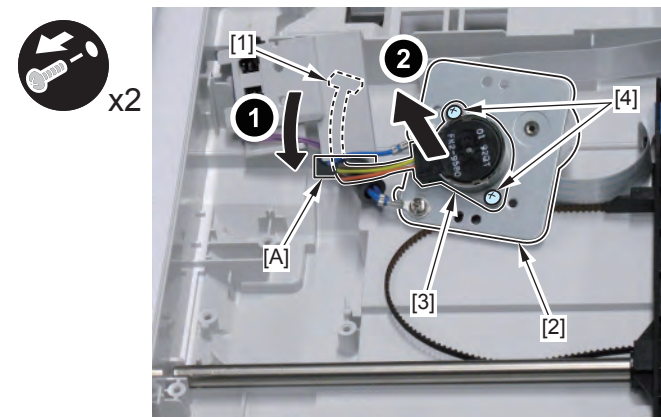


F-4-425

8) Pass the connector [1] through the hole [A].

9) Remove the Reader Scanner Motor [3] from the Motor Mounting Plate [2].

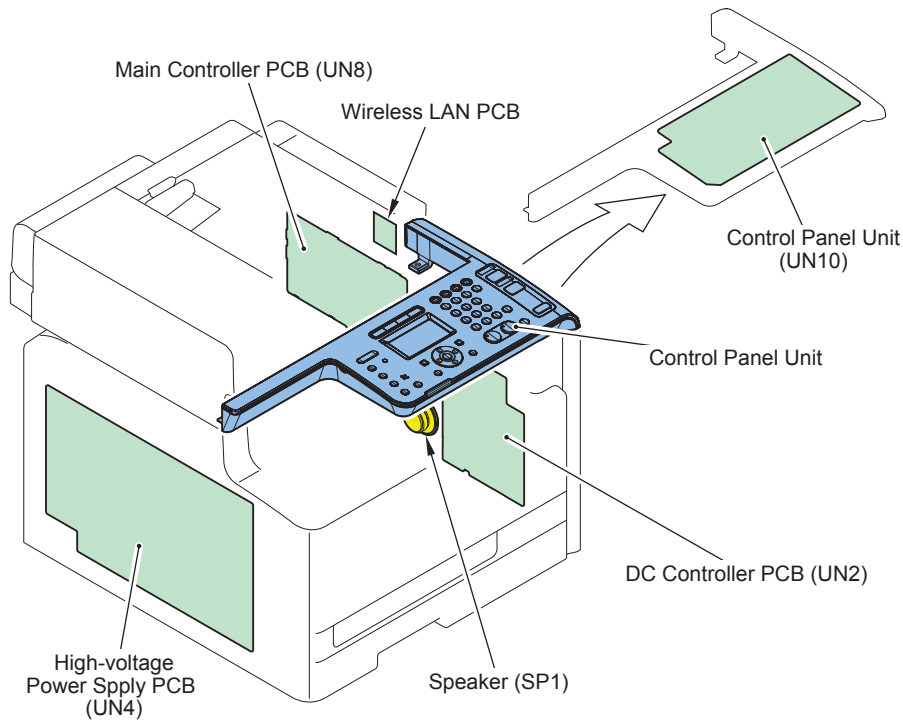
- 2 screws [4]



F-4-426

Controller System

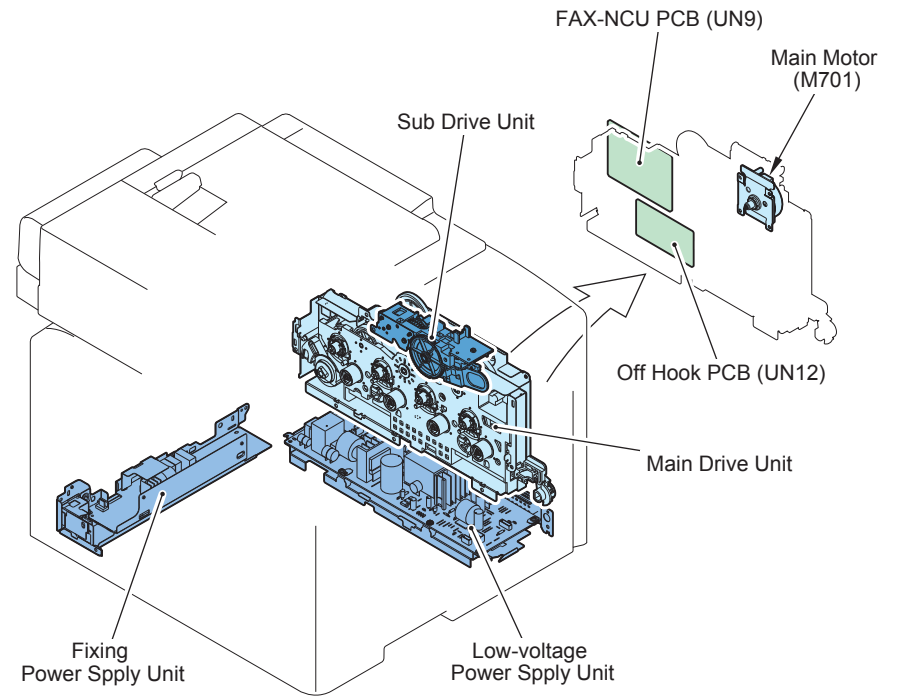
Location



F-4-427

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	Control Panel	(MF8050/8030)	refer to page Refer to page 4-189	-
UN10	Operation Panel PCB	(MF8050/8030)	refer to page Refer to page 4-191	-
UN4	High Voltage Power Sply PCB	-	refer to page Refer to page 4-186	-
UN8	Main Controller PCB	-	refer to page Refer to page 4-182	refer to page Refer to page 5-6
SP1	Speaker	(MF8050/8080)	refer to page Refer to page 4-200	-
UN2	DC Controller PCB	-	refer to page Refer to page 4-184	refer to page Refer to page 5-7
-	Wireless LAN PCB	(MF8080)	-	-

T-4-11



F-4-428

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
UN5	Low Voltage Power Sply UNIT	-	refer to page Refer to page 4-185	-
UN6	Fixing Power Sply Unit	-	refer to page Refer to page 4-188	-
-	Main Drive Unit	-	refer to page Refer to page 4-193	-
M701	Main Motor	-	refer to page Refer to page 4-199	-
-	Sub Drive Unit	-	refer to page Refer to page 4-198	-
UN9	FAX-NCU PCB	(MF8050/8080)	refer to page Refer to page 4-192	-
UN12	Off Hook PCB	(MF8080)	refer to page 4-192	-

T-4-12

■ Removing the Controller Cover

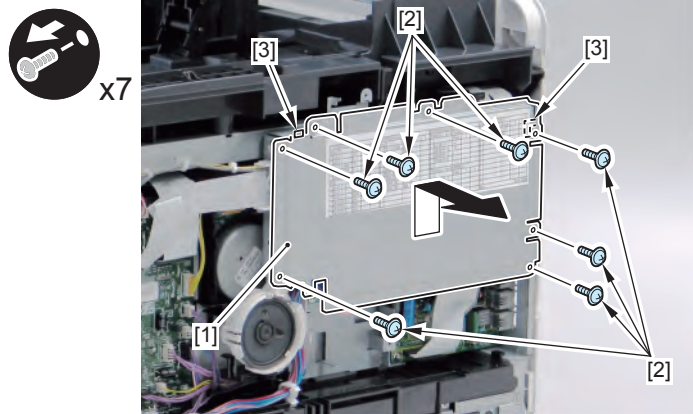
Pre-procedure

1) Remove the Right Cover. Refer to page Refer to page 4-146.

Procedure

1) Remove the Controller Cover [1].

- 7 Screws [2]
- 2 Hooks [3]



F-4-429

■ Removing the Wireless LAN PCB (MF8080)

Pre-procedure

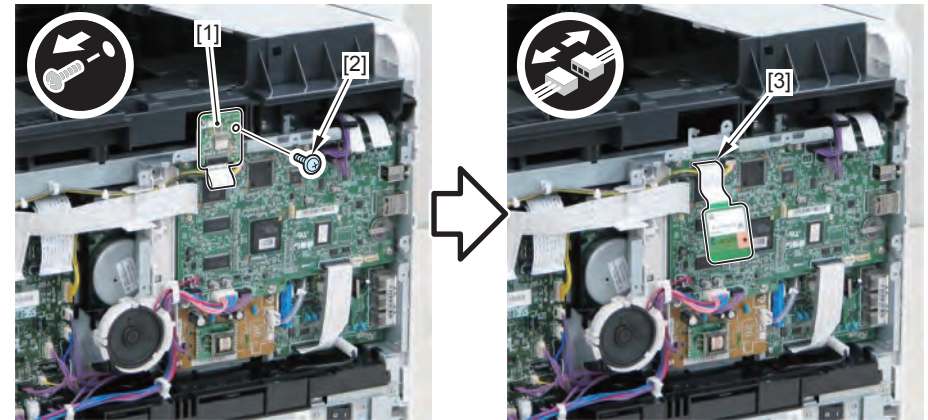
1) Remove the Right Cover. Refer to page Refer to page 4-146.

2) Remove the Controller Cover. Refer to page 4-181

Procedure

1) Remove the Wireless LAN PCB [1].

- 1 Screw [2]
- 1 Flat Cable [3]



F-4-430

Removing the Main Controller PCB

Before replacement

Back up user data (settings, registered data, etc.) and service mode data for setting and registration after PCB replacement. Take notes if data is unable to back up.

- 1) In Remote UI, export user data.
- 2) Record the default settings shown on the service label [1] (these are entered after replacement).



F-4-431

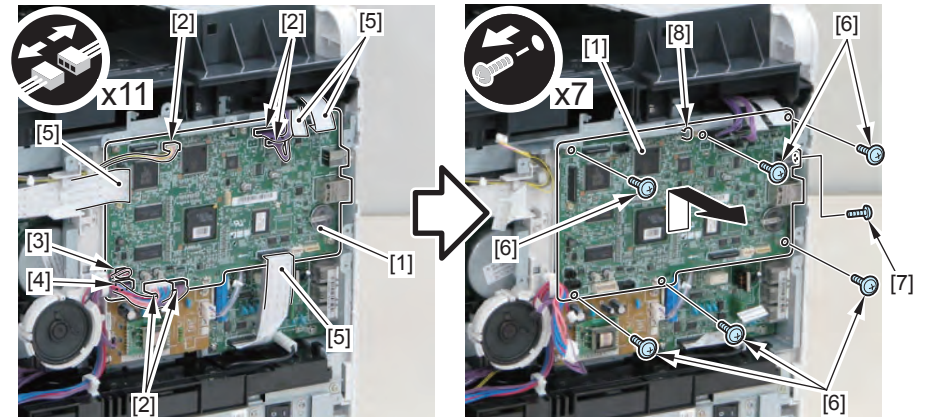
Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Controller Cover. Refer to page 4-181
- 3) Remove the Wireless LAN PCB.(MF8080 only) Refer to page 4-181

Procedure

- 1) Remove the Main Controller PCB [1].

- 5 Connectors [2]
- 1 Connector [3] (Fax model only)
- 1 Connector [4] (MF8080 only)
- 4 Flat Cables [5]
- 6 Screws [6] (TP)
- 1 Screw [7] (Binding)
- 1 Hook [8]



After replacing main controller PCBs\

1. Setting of destination/paper size group

- 1) COPIER > OPTION > BODY > LOCALE (to set destination groups)

[Settings]

1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia,
8: Oceania

- 2) COPIER > OPTION > BODY > SIZE-LC (to set paper size groups)

[Settings]

1: AB series, 2: Inch series, 3: A series, 4: AB/Inch series

2. Clearing Setting/Registration data

- 1) COPIER > FUNCTION > CLEAR > ALL (to clear all data)

Once executed, the following data are cleared according to the values of LOCALE and SIZE-LC set in step 1.

- Setting / Registration data (the default value for each destination is set).
- Service mode data (the default value for each destination is set).
- Job IDs
- Log data
- Dates

- 2) COPIER > FUNCTION > CLEAR > R-CON (to clear default setting values for the reader/DF)

3. Adjustment, input of default setting values

- 1) Close the ADF.

- 2) COPIER> FUNCTION > CCD > CL-AGC, BW-AGC (to adjust white levels)

The white level is adjusted.

- 3) Enter default setting values indicated on the service label in the corresponding service mode items.

- 4) COPIER> FUNCTION > VIFFNC > STOR-DCN (to back up DC controller setting values)

Purpose: to be prepared for replacing DC controller PCBs

- 5) Turn off and on the power.

- 6) Start in the initial installation mode. Follow instructions shown on the screen for setup. (setting of date/time, auto-gradation correction)

- 7) In Remote UI, import user data.

4. Reinstall the drivers.

- 1) Uninstalling Old Drivers.

- Printer Driver
- FAX Driver
- Scanner Driver
- Network Scan Utility. (for machines with network connection)

* As for the procedure, refer to "Uninstalling the Software" in the Starter Guide.

- 2) Install the drivers which have been uninstalled in step 1.

* As for the procedure, refer to the following items in the Starter Guide.

- In case of network connection: "Installing via Network Connection"
- In case of USB connection: "Installing with USB Connection"

Removing the DC Controller PCB

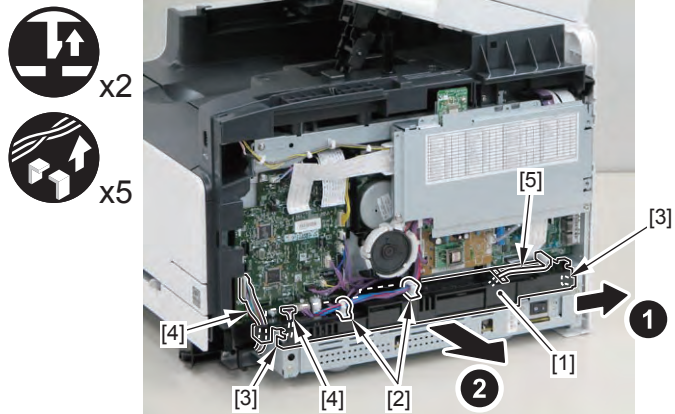
Pre-procedure

1) Remove the Right Cover. Refer to page Refer to page 4-146.

Procedure

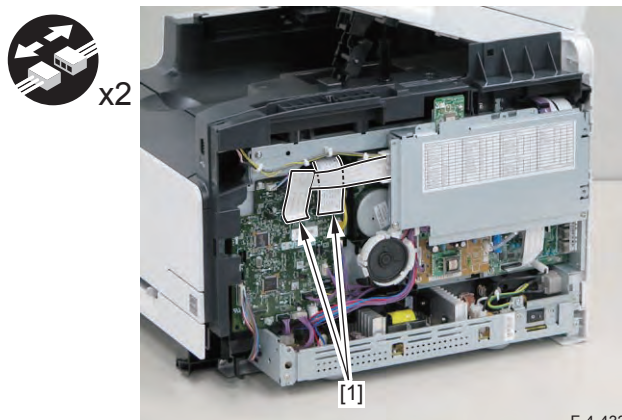
1) Remove the cover [1].

- 2 Wire Saddles [2]
- 2 Claws [3]
- 2 Harnesses [4]
- 1 Harness [5] (Fax model only)



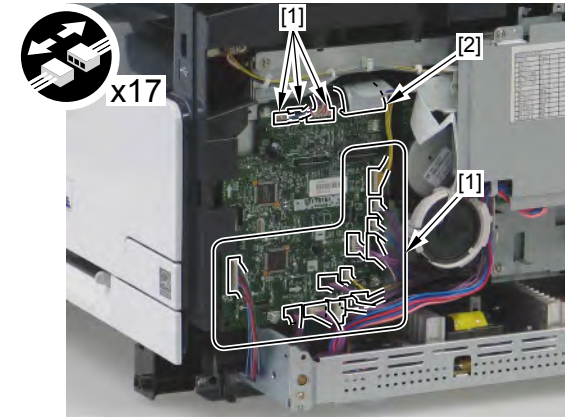
F-4-432

2) Disconnect the 2 flat cables [1].



F-4-433

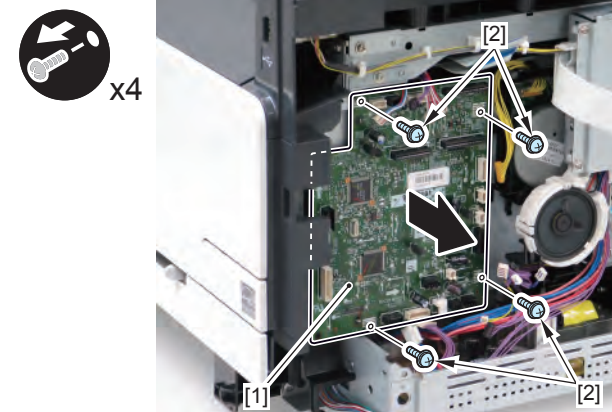
3) Disconnect the 16 connectors [1] and the flat cable [2].



F-4-434

4) Remove the DC Controller PCB [1].

- 4 screws [2]



F-4-435

The Procedure to be Performed after Replacing the DC Controller PCB

- 1) Execute the following in Service Mode
 - COPIER>FUINCTION>VIFFNC>RSTR-DCN

NOTE:

After executing the Printer Recovery Setting, be sure to wait for about 15 seconds because of internal process/operation.

- 2) Turn OFF and then ON the power.
- 3) * > Execute the following: > Adjustment/Cleaning > Print Color Displacement Correction
- 4) * > Execute the following: > Adjustment/Cleaning > Auto Gradation Correction > Quick Correction
- 5) Turn OFF and then ON the power.

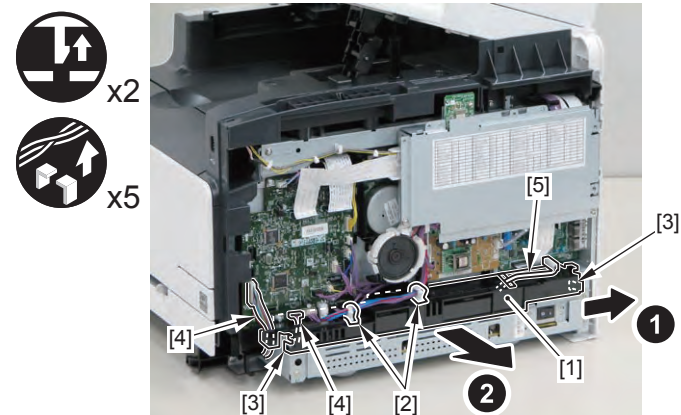
Removing the Low Voltage Power Supply Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.

Procedure

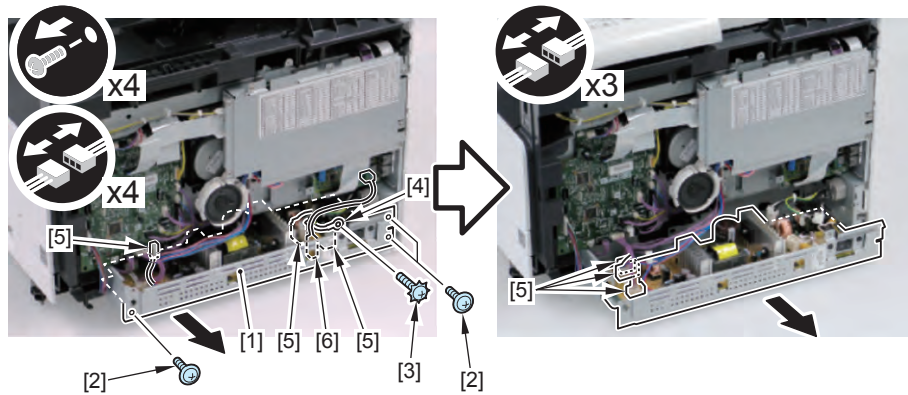
- 1) Remove the Cover [1].
 - 2 wire saddles [2]
 - 2 claws [3]
 - 2 Harnesses [4]
 - 1 Harness [5] (Fax model only)



F-4-436

2) Remove the Low Voltage Power Supply Unit [1].

- 3 screws (D tightening) [2]
- 1 screw (toothed screw) [3]
- 1 grounding [4]
- 6 Connectors [5]
- 1 Connector [6] (Fax model only)



F-4-437

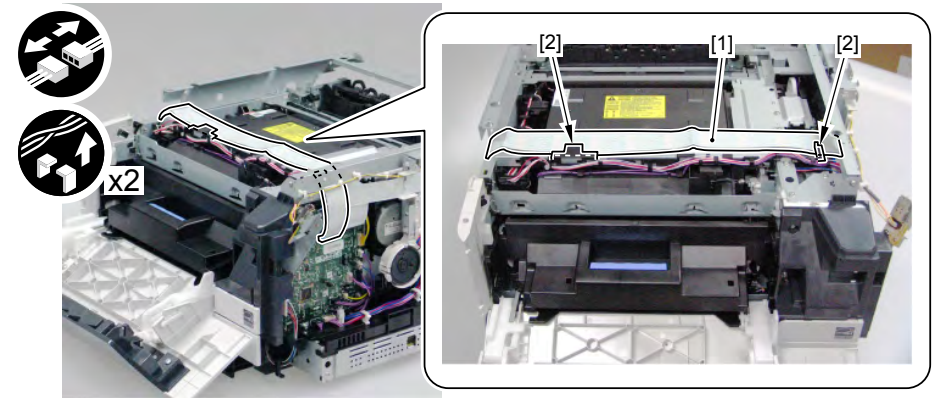
■ Removing the High Voltage Power Supply PCB

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the ADF Unit + the Reader Unit. Refer to page Refer to page 4-159.
- 5) Remove the Reader Upper Cover. Refer to page 4-173

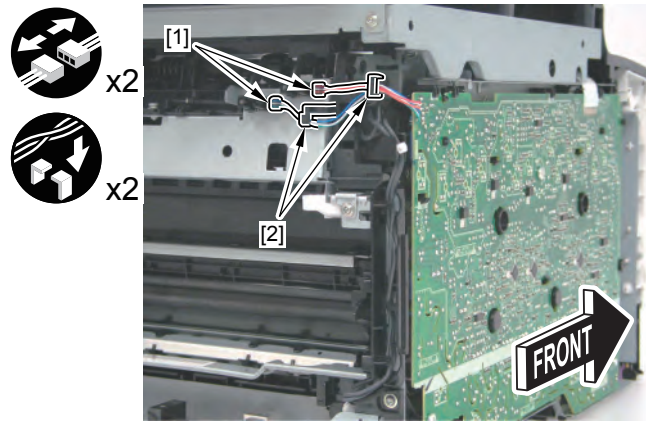
Procedure

- 1) Disconnect the flat cable [1].
 - 1 guide [2]



F-4-438

2) Disconnect the 2 connectors [1] and free the harness [3] from the 2 harness guides [2].

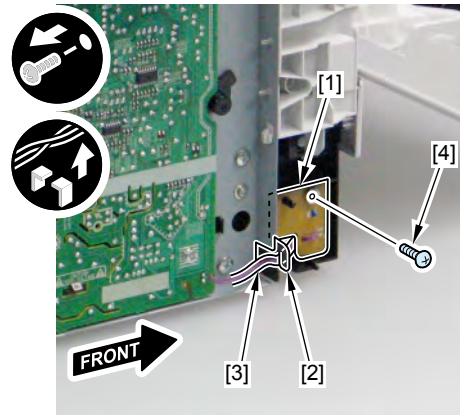


F-4-439

3) Remove the Sub PCB [1].

4) Free the harness [3] from the harness guide [2].

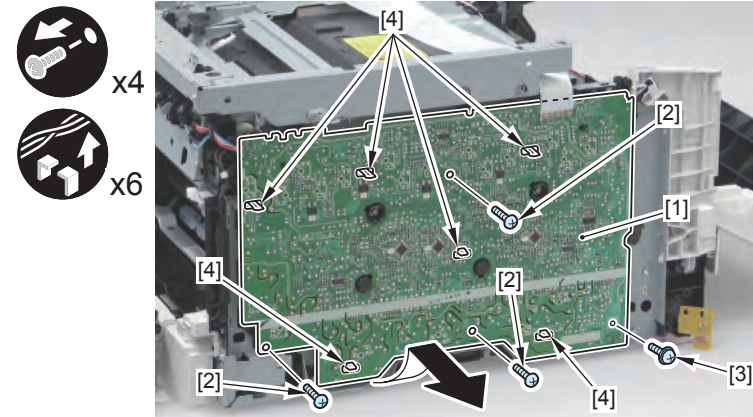
- 1 screw [4]



F-4-440

5) Remove the High Voltage Power Supply PCB [1].

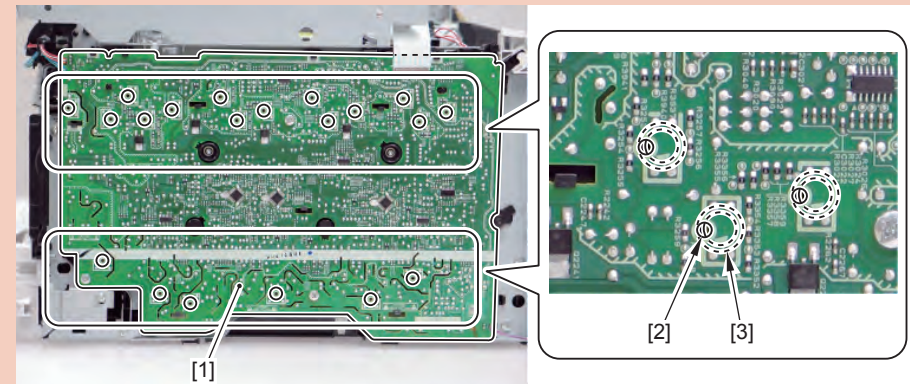
- 3 screws (binding) [2]
- 1 screw (W SEMS) [3]
- 6 claws [4]



F-4-441

Caution:

When installing the High Voltage Power Supply PCB [1], be sure to check that the contact springs [3] are in contact with the 20 round holes.



F-4-442

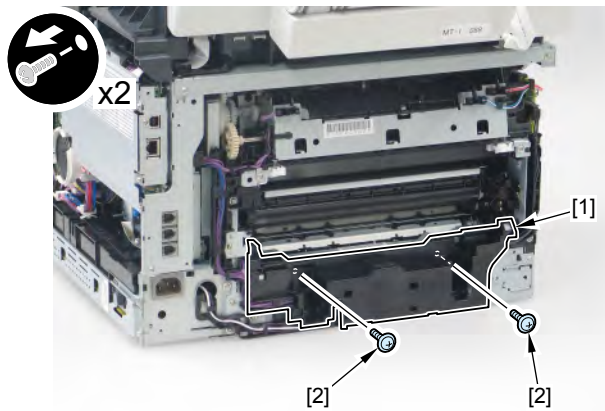
■ Removing the Fixing Power Supply Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the Rear Lower Cover. Refer to page Refer to page 4-156.

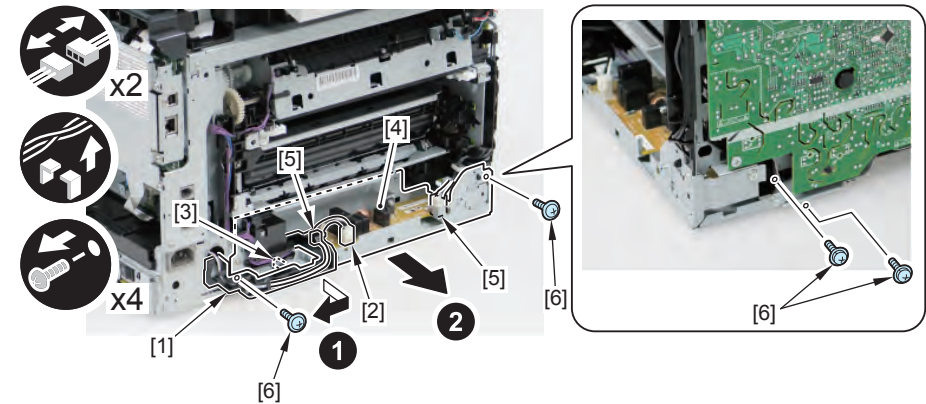
Procedure

- 1) Remove the Fixing Power Supply Cover [1].
 - 2 screws [2]



F-4-443

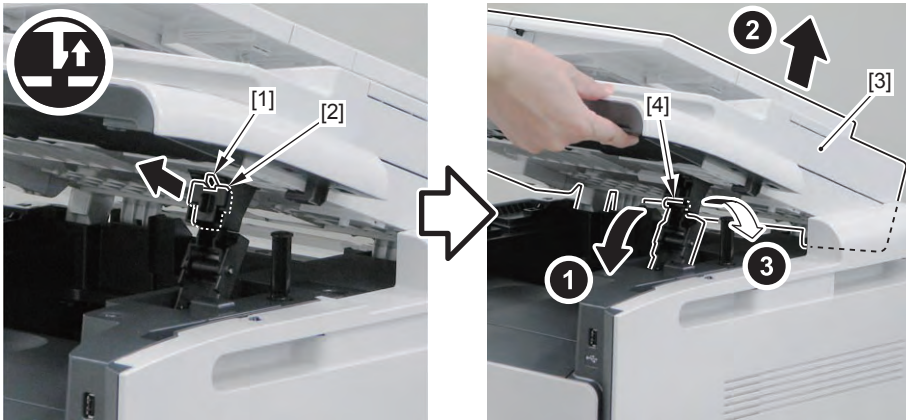
- 2) Remove the Harness Guide [1].
 - 1 Connector [2]
 - 1 Hook [3]
- 3) Remove the Fixing Power Supply Unit [4].
 - 2 Connectors [5]
 - 4 Screws [6]



F-4-444

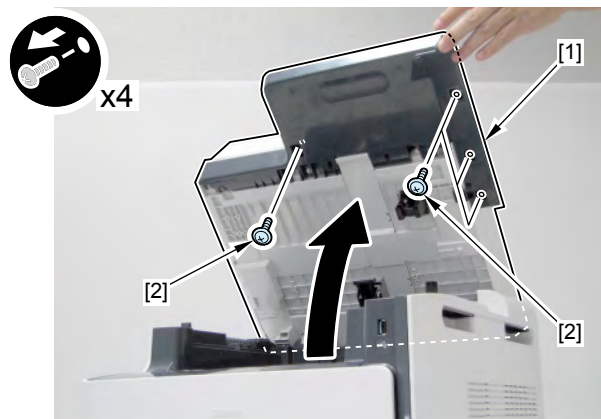
Removing the Control Panel (MF8050/8030)

- 1) Remove the claw [1] to remove the Reader Shaft Retainer [2].
- 2) While supporting the ADF Unit + Reader Unit [3], remove the Reader Support Shaft [4].
- 3) Bring down the Reader Support Shaft [4] to close the ADF Unit + Reader Unit [3].



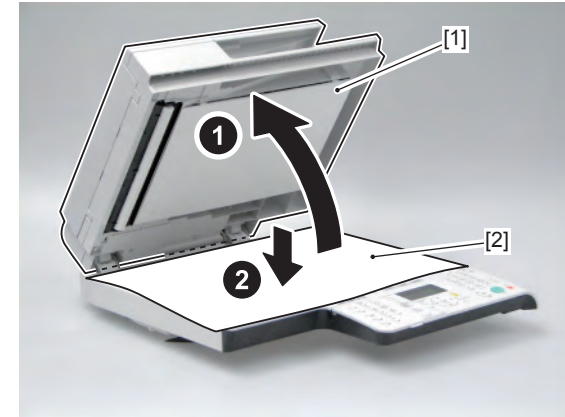
F-4-445

- 4) Open the ADF Unit + Reader Unit [1] to remove the 4 screws (TP) [2] at the bottom of the Reader Unit.



F-4-446

- 5) Open the ADF Unit [1] and place a sheet of paper [2] on the copyboard.



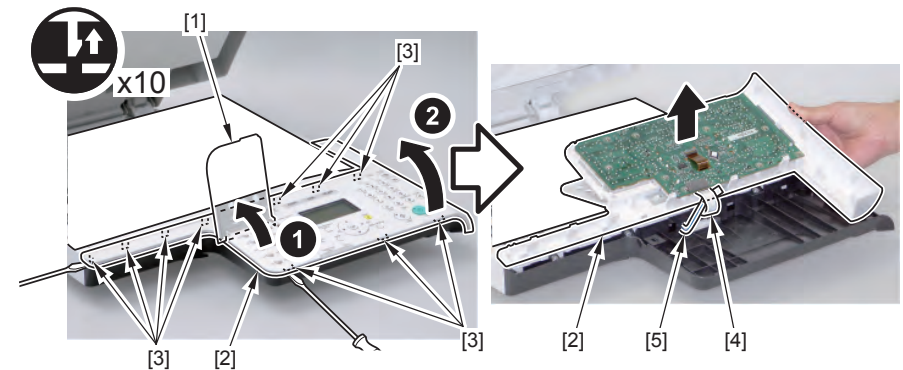
F-4-447

- 6) Open the Control Panel Cover [1] to remove the Control Panel Unit [2].

- 10 claws [3]
- 1 flat cable [4]
- 1 grounding cord [5]

Caution:

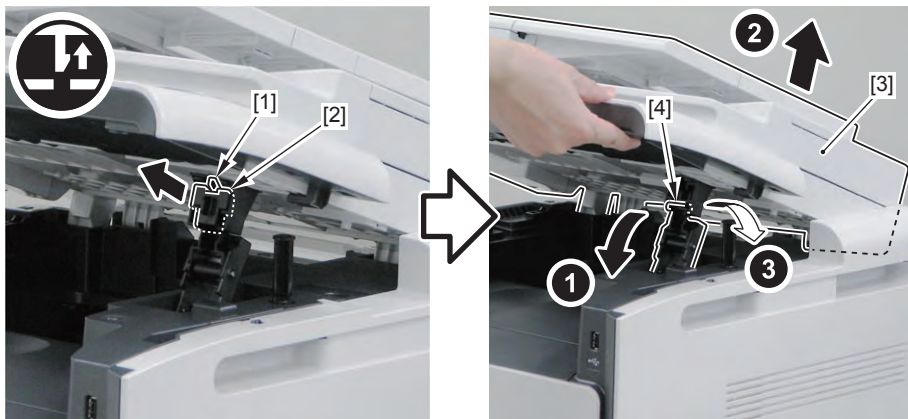
- Do not open circuit the Flat Cable [4] and Grounding Wire [5].
- Do not allow connectors of the Flat Cable [4] and Grounding Wire [5] to disconnect.



F-4-448

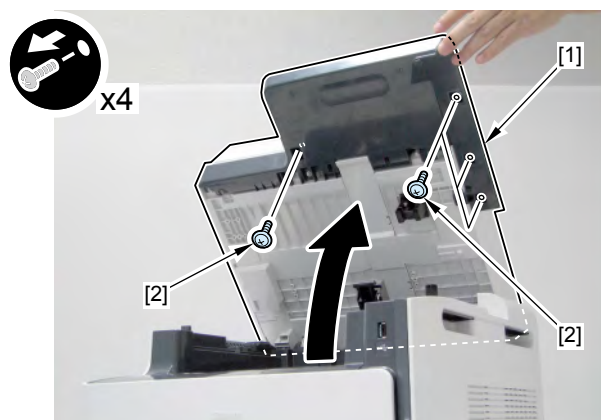
Removing the Control Panel (MF8080/8040/8010)

- 1) Remove the claw [1] to remove the Reader Shaft Retainer [2].
- 2) While supporting the ADF Unit + Reader Unit [3], remove the Reader Support Shaft [4].
- 3) Bring down the Reader Support Shaft [4] to close the ADF Unit + Reader Unit [3].



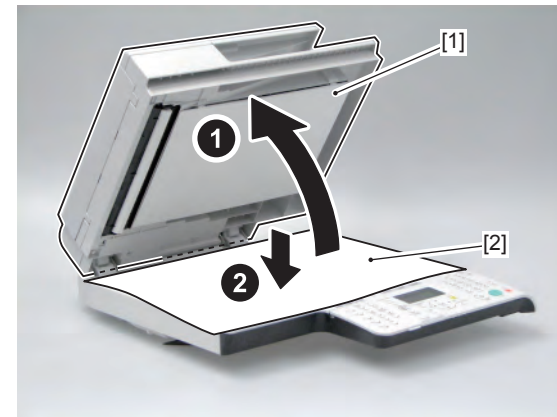
F-4-449

- 4) Open the ADF Unit + Reader Unit [1] to remove the 4 screws (TP) [2] at the bottom of the Reader Unit.



F-4-450

- 5) Open the ADF Unit [1] and place a sheet of paper [2] on the copyboard.



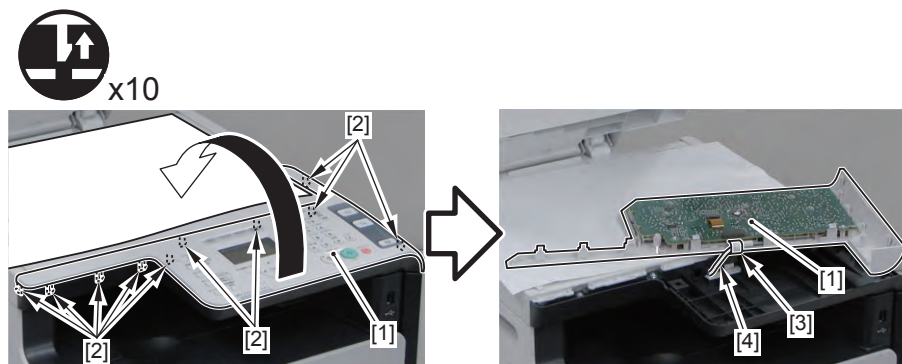
F-4-451

- 6) Remove the Control Panel Unit [1].

- 10 claws [2]
- 1 flat cable [3]
- 1 grounding cord [4]

Caution:

- Do not open circuit the Flat Cable [3] and Grounding Wire [4].
- Do not allow connectors of the Flat Cable [3] and Grounding Wire [4] to disconnect.



F-4-452

■ Removing the Control Panel PCB(MF8050/8030)

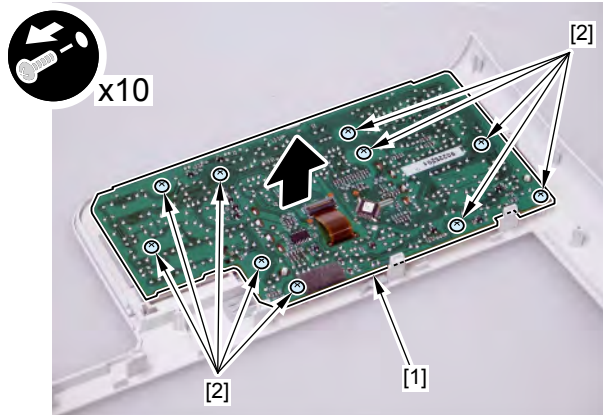
Pre-procedure

1) Remove the Control Panel Unit. (MF8050/8030) Refer to page Refer to page 4-189.

Procedure

1) Remove the Control Panel PCB [1].

- 10 screws [2]



F-4-453

■ Removing the Control Panel PCB(MF8080/8040/8010)

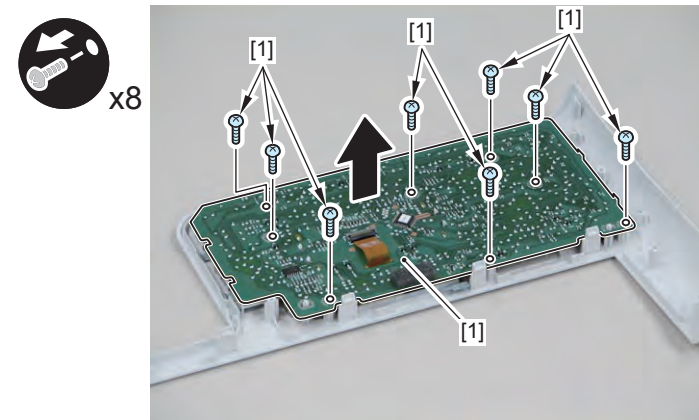
Pre-procedure

1) Remove the Control Panel Unit. (MF8080/8040/8010) Refer to page 4-190.

Procedure

1) Remove the Control Panel PCB [1].

- 8 screws [2]



F-4-454

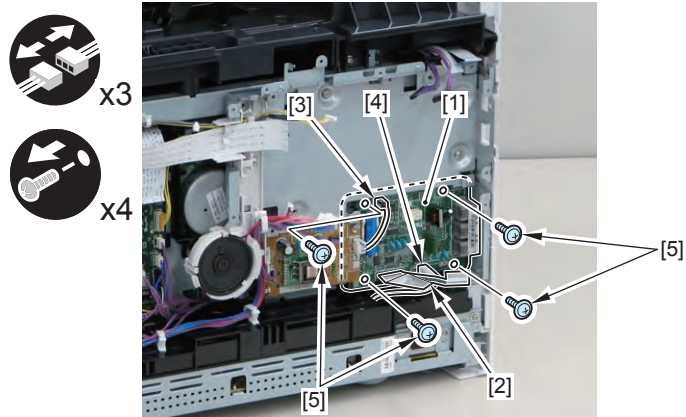
■ Removing the FAX PCB (MF8050/8080)

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Controller Cover. Refer to page 4-181
- 3) Remove the Wireless LAN PCB.(MF8080 only) Refer to page 4-181
- 4) Remove the Main Controller PCB. Refer to page Refer to page 4-182.

Procedure

- 1) Remove the Fax PCB [1].
 - 1 Flat Cable [2]
 - 1 Connector [3] (MF8080 only)
 - 1 Connector [4]
 - 4 Screws [5]



F-4-455

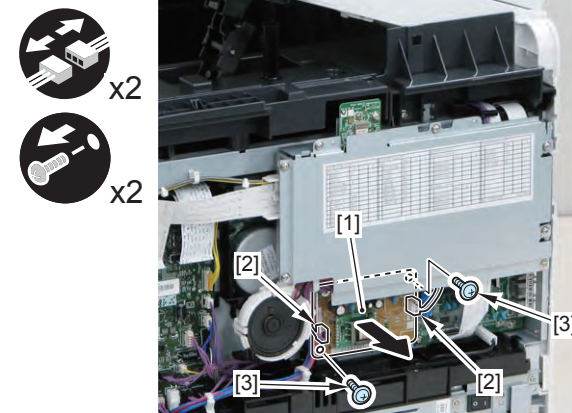
■ Removing the Off Hook PCB (MF8080)

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.

Procedure

- 1) Remove the Off Hook PCB [1].
 - 2 Connector [2]
 - 2 Screws [3]



F-4-456

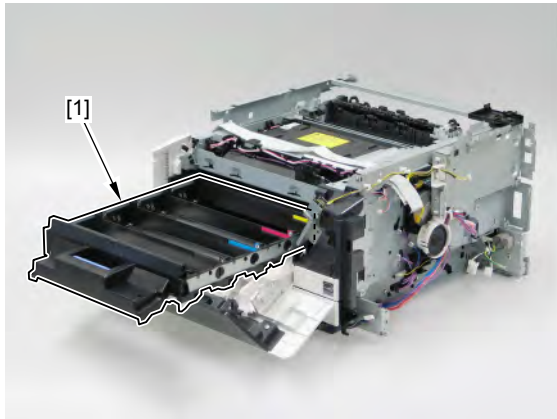
Removing the Main Drive Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the ADF Unit + Reader Unit. Refer to page Refer to page 4-159.
- 5) Remove the Reader Upper Cover. Refer to page Refer to page 4-173
- 6) Remove the DC Controller PCB. Refer to page Refer to page 4-184.
- 7) Remove the Low Voltage Power Supply Unit. Refer to page Refer to page 4-185.
- 8) Remove the Wireless LAN PCB.(MF8080 only) Refer to page 4-181
- 9) Remove the Main Controller PCB. Refer to page Refer to page 4-182.
- 10) Remove the Fax PCB. (Fax model only) Refer to page Refer to page 4-192.

Procedure

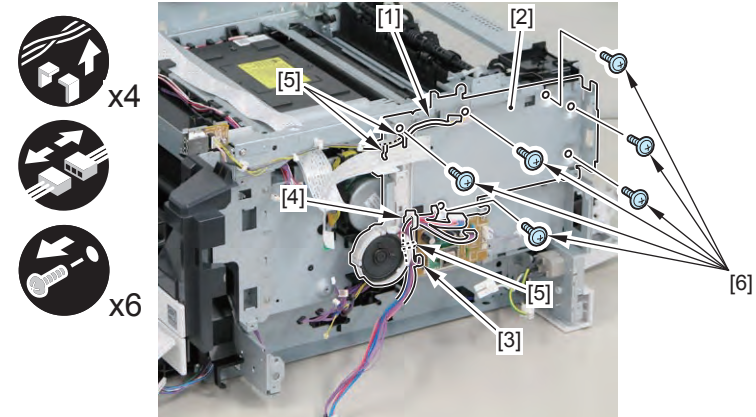
- 1) Pull out the Cartridge Tray [1].



F-4-457

- 2) Free the harness [1] and remove the Main Controller Support Plate [2].

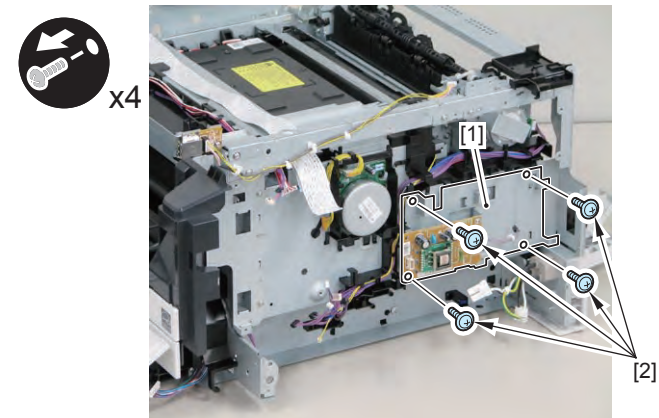
- 1 Connector [3] (MF8080 only)
- 1 Wire Saddle [4]
- 3 Harness Guides [5]
- 6 Screws [6]



F-4-458

- 3) Remove the Plate [1].

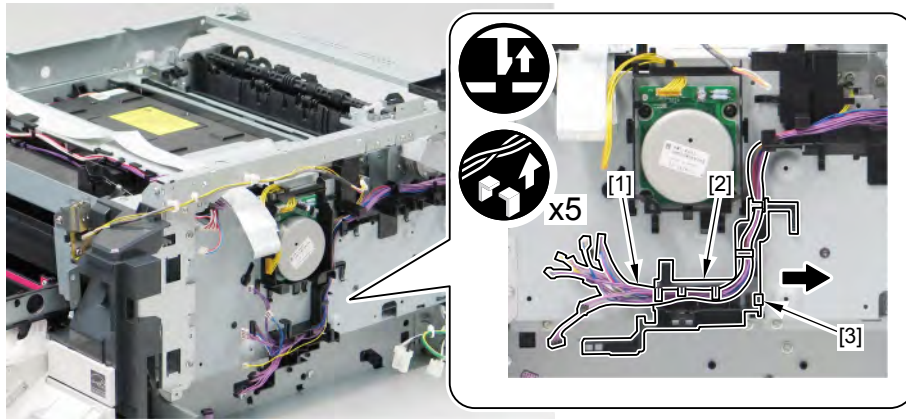
- 4 screws [2]



F-4-459

4) Remove the harness [1] and then remove the harness guide [2] in the direction of the arrow.

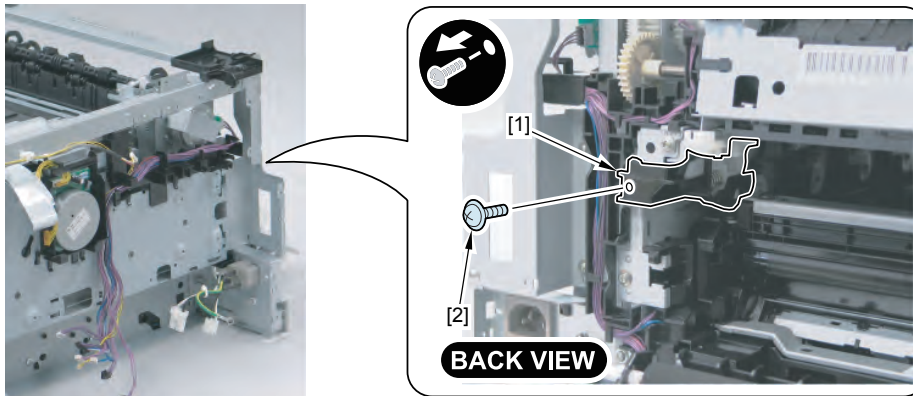
- claws [3]



F-4-460

5) Remove the ITB fixing holder [1].

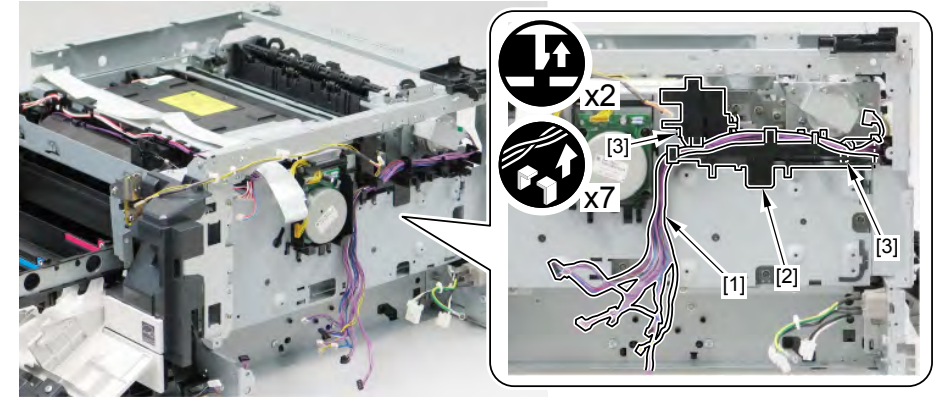
- screw [2]



F-4-461

6) Remove the harness [1] and then remove the harness guide [2].

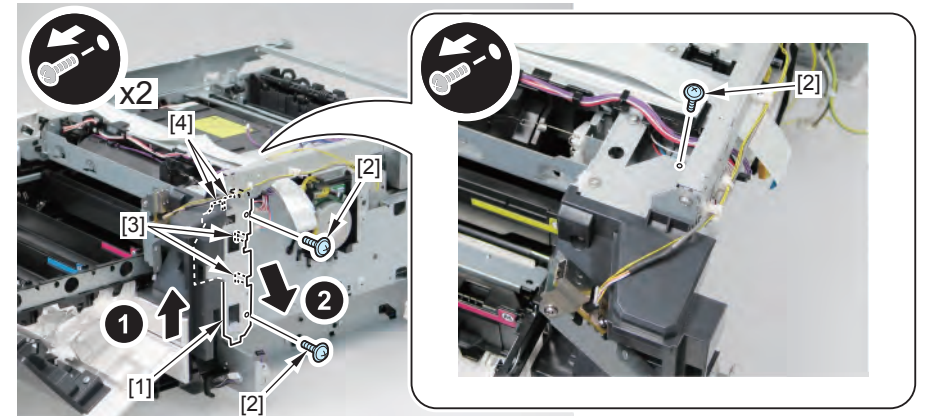
- 2 claws [3]



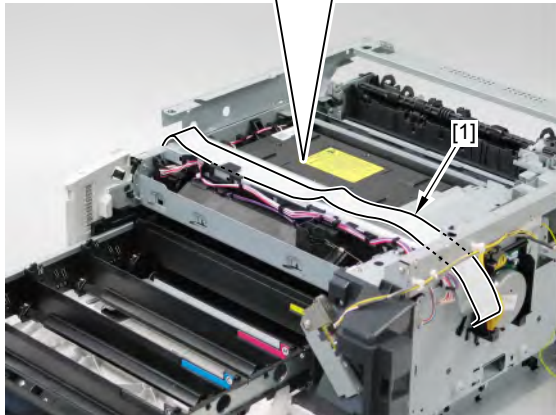
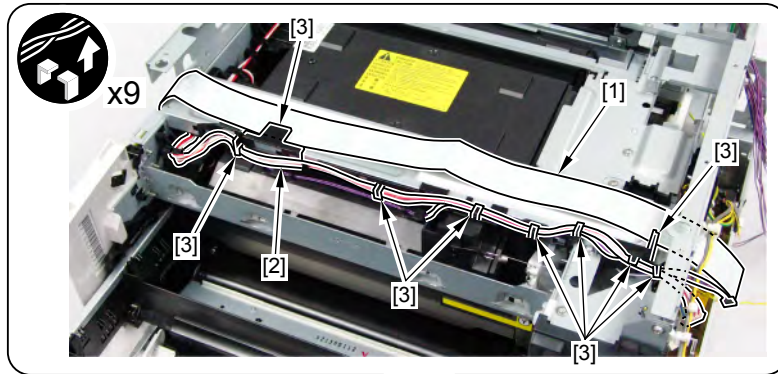
F-4-462

7) Remove the DC Controller Support Plate [1].

- 3 Screws [2]
- 2 Hooks [3]
- 2 Protrusions [4]



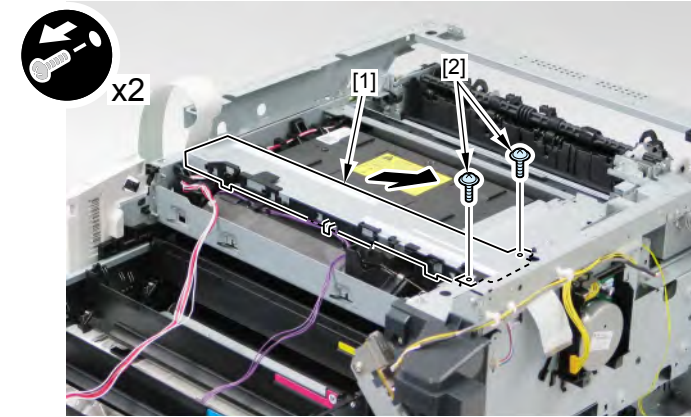
8) Free the flat cable [1] and the 2 harnesses [2] from the 9 guides [3].



F-4-463

9) Remove the Harness Support Plate [1] in the direction of the arrow.

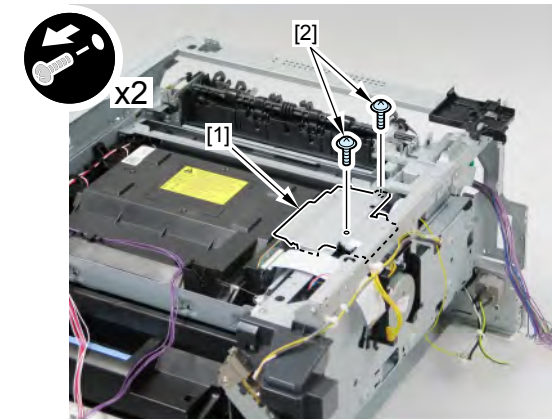
- 2 screws [2]



F-4-464

10) Remove the Sub Drive Cover [1].

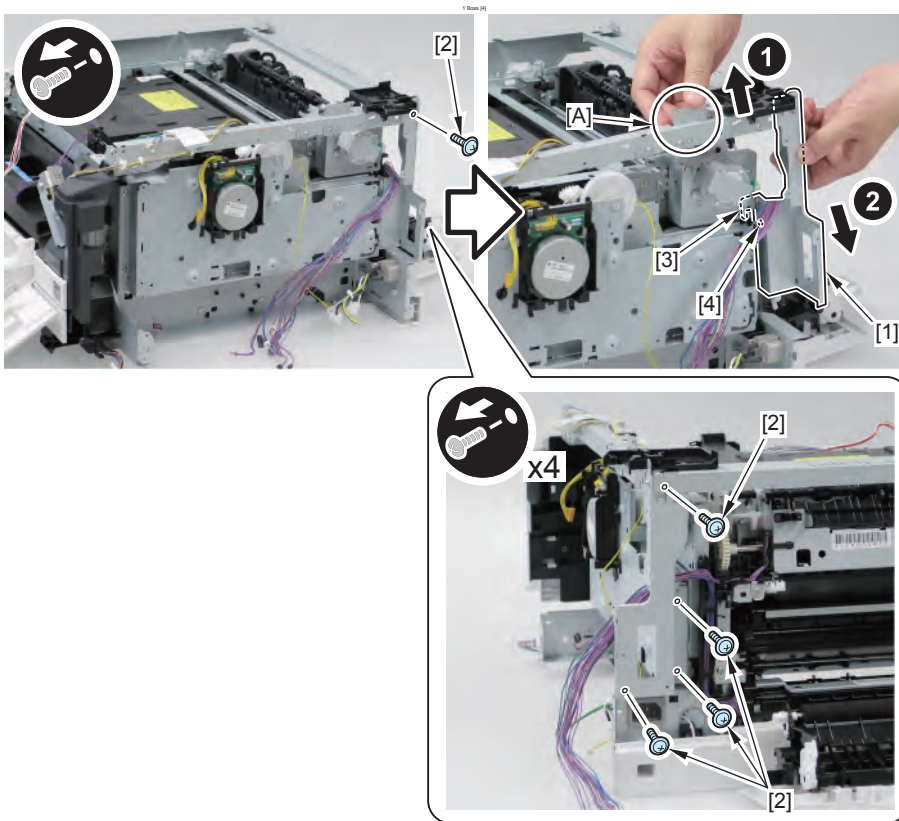
- 2 screws [2]



F-4-465

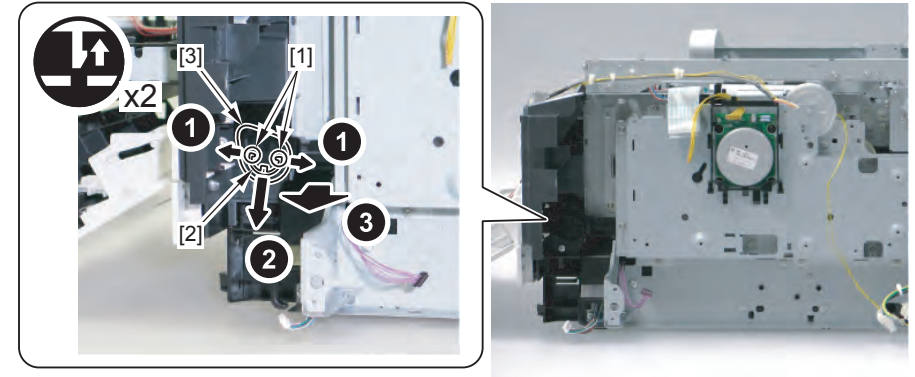
11) Lift the [A] part and the Right Rear Frame [1], remove the Right Rear Frame [1].

- 5 Screws [2]
- 1 Hook [3]
- 1 Boss [4]



F-4-466

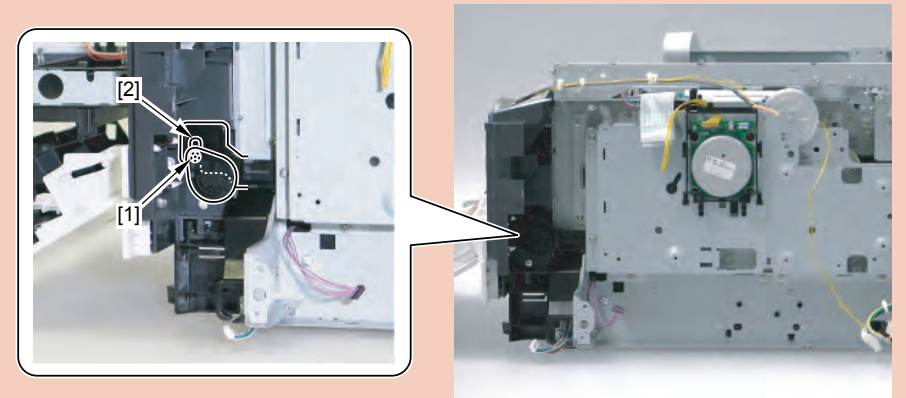
12) Release the 2 claws [1] in the direction of the arrow and remove the Link Shaft Stopper [2] in the direction of the arrow, and then remove the Link Shaft [3].



F-4-467

Caution:

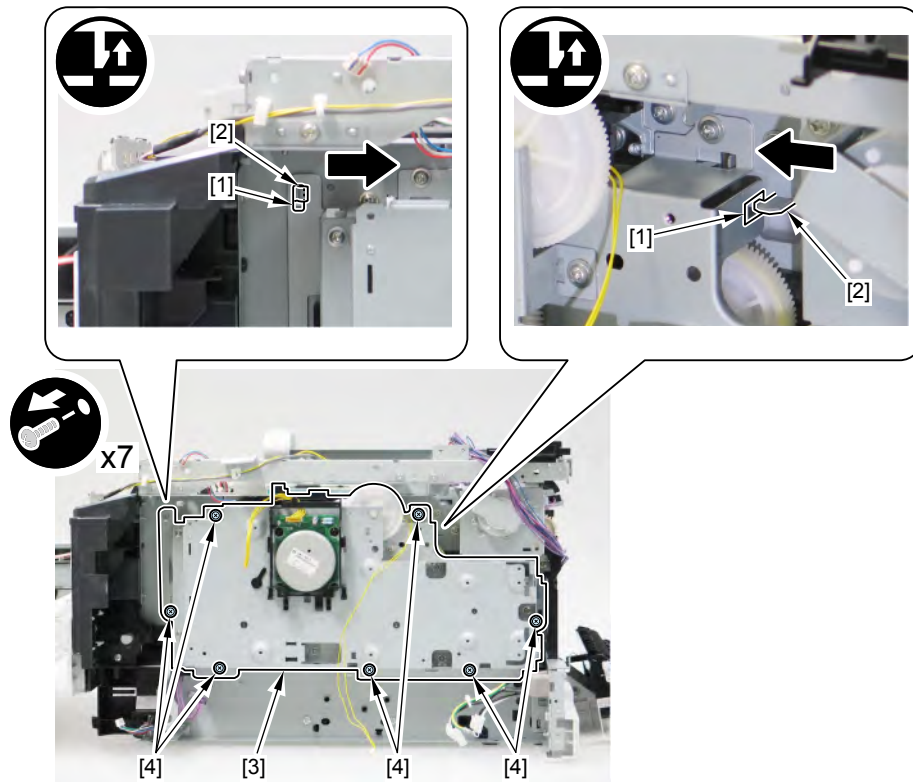
When installing the Link Shaft, be sure to fit the boss [1] of the Link Shaft to the groove [2] of the Main Drive Unit to install.



F-4-468

13) Release the 2 hooks [1] of the Main Drive Unit from the claws [2] in the direction of the arrow to remove the Main Drive Unit [3].

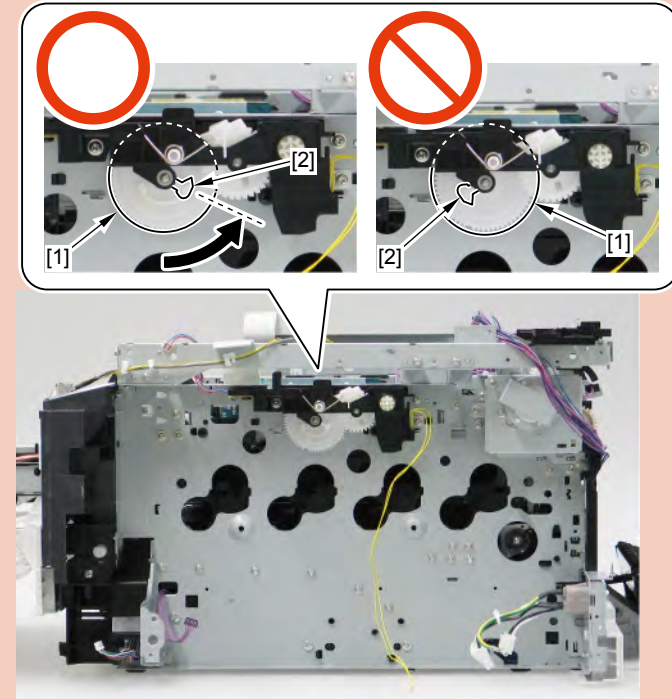
- 7 screws [4]



F-4-469

Caution:

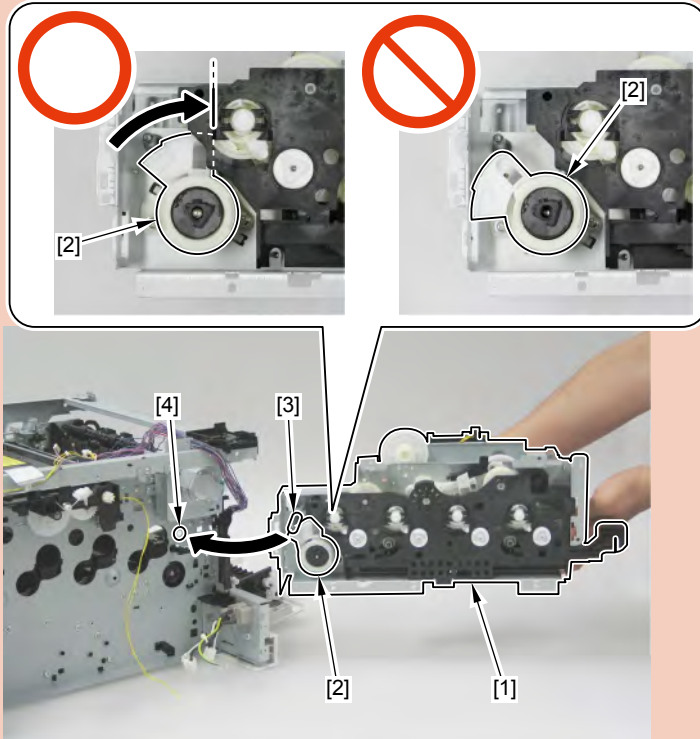
- At installation, make sure that the hook [2] of the Sub Drive Unit Gear [1] is placed in the correct position described below. If the hook fails to be engaged properly, turn the gear [1] in the direction of the arrow to make the hook [2] to be engaged at the correct position.



F-4-470

Caution:

Be sure to check that the ITB Link Unit [2] of the Main Drive Unit [1] is set at the correct position as shown in the figure below. If not, turn the ITB Link Unit [2] in the direction of the arrow to be set at the correct position. Be sure to fit the shaft [3] of the Main Drive Unit to the hole [4] of the Side Plate to install.



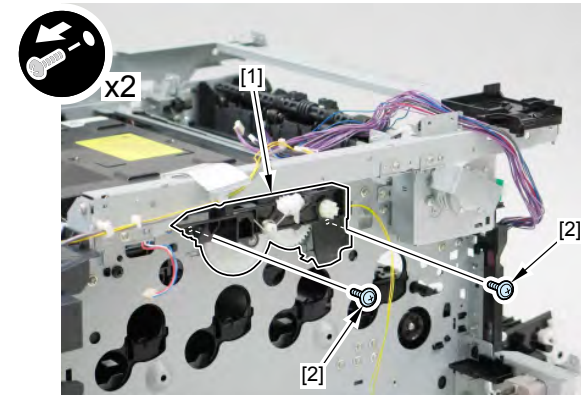
F-4-471

Removing the Sub Drive Unit**Pre-procedure**

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page 4-173
- 4) Remove the ADF Unit + the Reader Unit. Refer to page Refer to page 4-159.
- 5) Remove the Reader Upper Cover. Refer to page 4-50.
- 6) Remove the DC Controller PCB. Refer to page Refer to page 4-184.
- 7) Remove the Low Voltage Power Supply Unit. Refer to page Refer to page 4-185.
- 8) Remove the Wireless LAN PCB.(MF8080 only) Refer to page 4-181
- 9) Remove the Main Controller PCB. Refer to page Refer to page 4-182.
- 10) Remove the FAX PCB. Refer to page Refer to page 4-192.
- 11) Remove the Main Drive Unit . Refer to page Refer to page 4-193.

Procedure

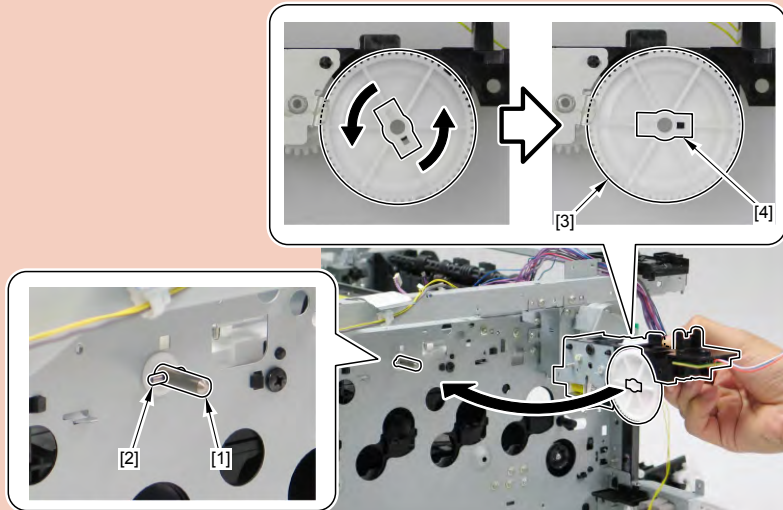
- 1) Remove the Sub Drive Unit [1].
 - 2 screws [2]



F-4-472

Caution:

At installation, since the parallel pin [2] drops depending on the direction of the shaft [1], be careful not to drop or lose it. When installing the Sub Drive Assembly, install the parallel pin [2] to the shaft [1] and make the direction of parallel pin [2] and the pin reception area [4] of gear aligned by rotating the shaft [1] and the gear [3] to install it.



F-4-473

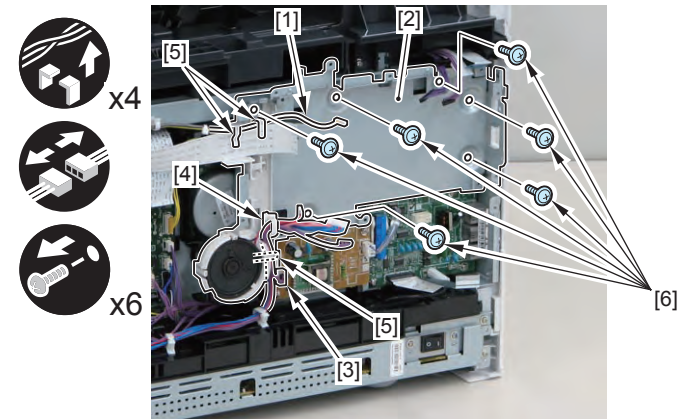
Removing the Main Motor**Pre-procedure**

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Controller Cover. Refer to page 4-181
- 3) Remove the Wireless LAN PCB.(MF8080 only) Refer to page 4-181
- 4) Remove the Main Controller PCB. Refer to page Refer to page 4-182.

Procedure

- 1) Free the harness [1] and remove the Main Controller Support Plate [2].

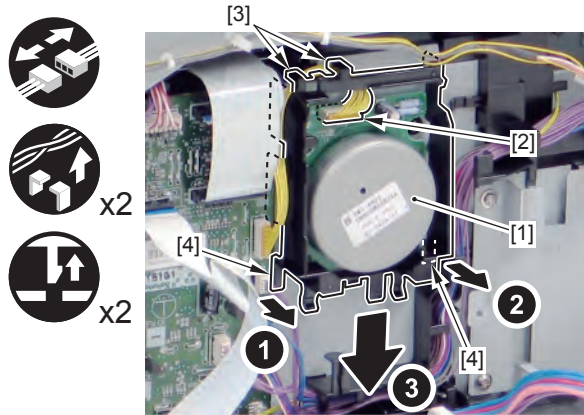
- 1 Connector [3] (MF8080 only)
- 1 Wire Saddle [4]
- 3 Harness Guides [5]
- 6 Screws [6]



F-4-474

2) Remove the Motor Cover [1].

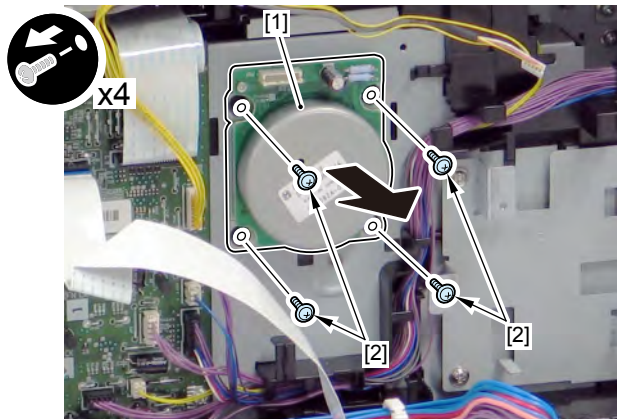
- 1 Connector [2]
- 2 Harness Guides [3]
- 2 Claws [4]



F-4-475

3) Remove the Main Motor [1].

- 4 screws [2]



F-4-476

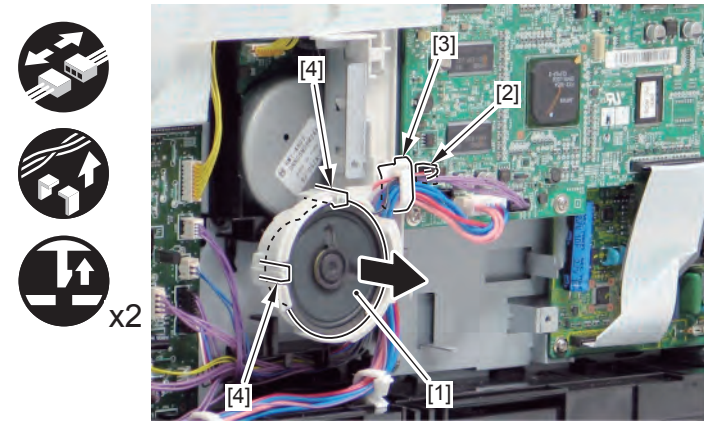
■ Removing the Speaker (MF8050/8080)

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Controller Cover. Refer to page 4-181

Procedure

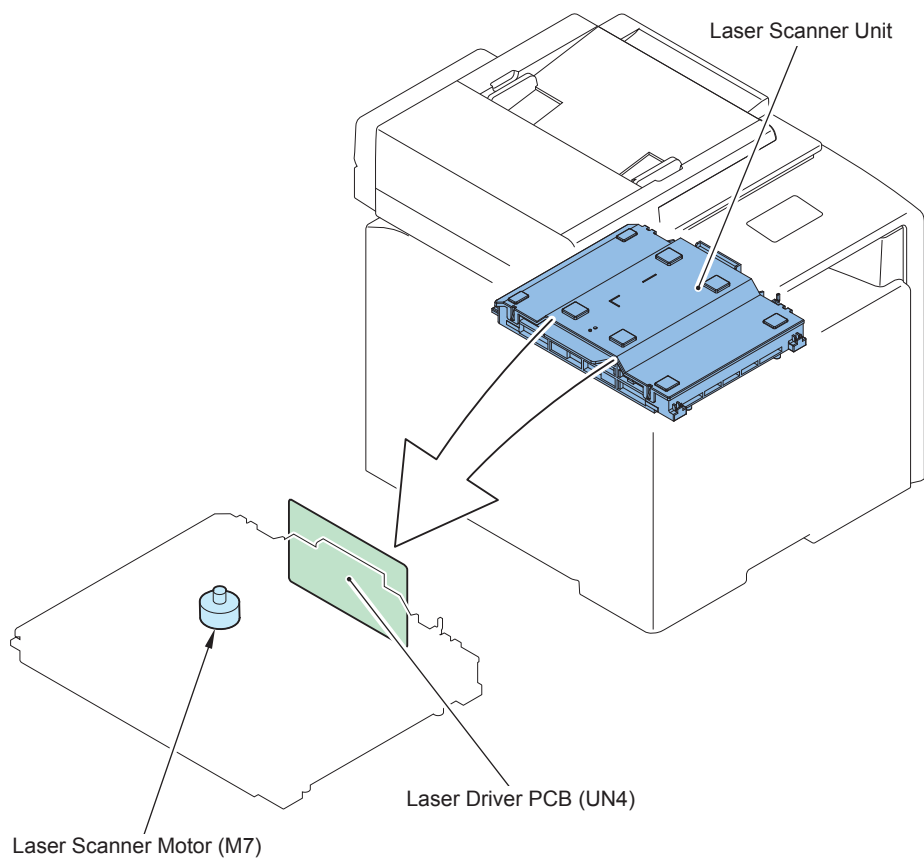
- 1) Remove the Speaker [1].
 - 1 Connector [2]
 - 1 Wire Saddle [3]
 - 2 Claws [4]



F-4-477

Laser Exposure System

Location



F-4-478

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	Laser Scanner Unit	-	refer to page Refer to page 4-201	refer to page Refer to page 5-7
UN3	Laser Driver PCB	-	-	-
M704	Laser Scanner Motor	-	-	-

T-4-13

Removing the Laser Scanner Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the ADF.+ Reader Unit. Refer to page Refer to page 4-159.
- 5) Remove the Reader Upper Cover. Refer to page 4-173

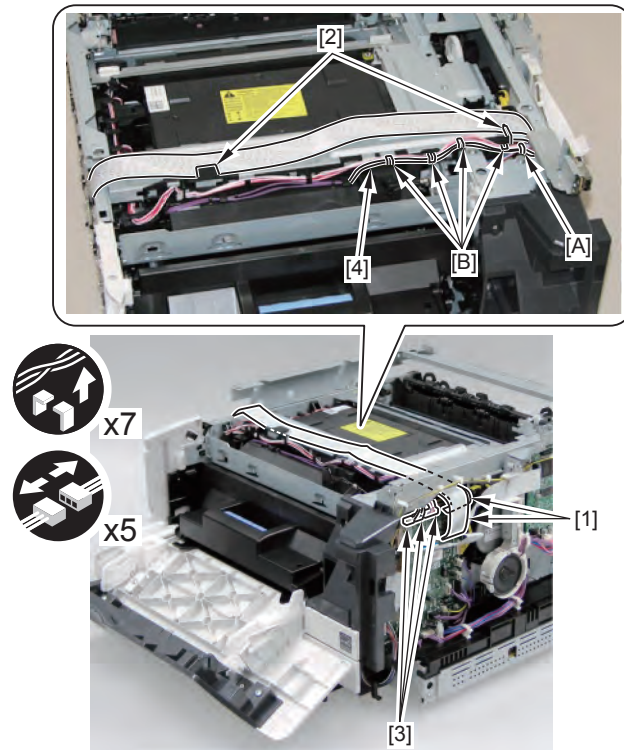
Procedure

Caution:

Close the cartridge tray and operate because there is a possibility that ITB is broken if Laser Scanner Unit is mistakenly dropped when it is removed.

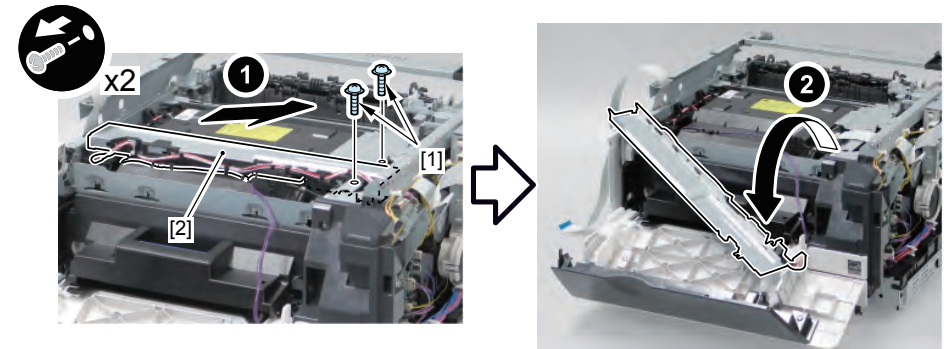
Do not disassemble the Laser Scanner Unit.

- 1) Disconnect the 2 Flat Cables [1] and free from the 2 guides [2].
- 2) Disconnect the 3 connectors [3].
- 3) Free the harness from the guide [A].
- 4) Free the purple harness [4] from 5 locations of the Harness Guide [B].



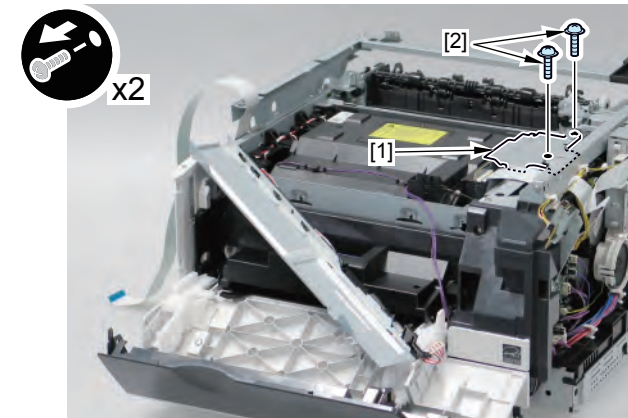
F-4-479

- 5) Remove the 2 screws [1] to remove the Harness Support Plate [2].



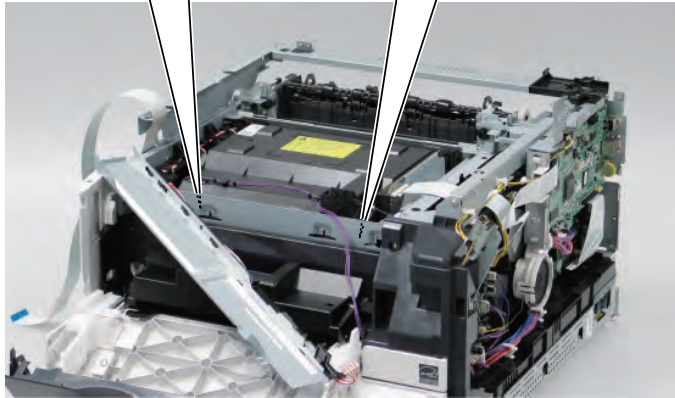
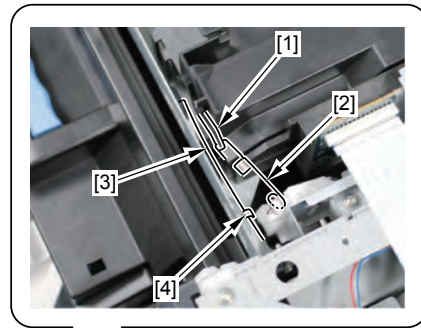
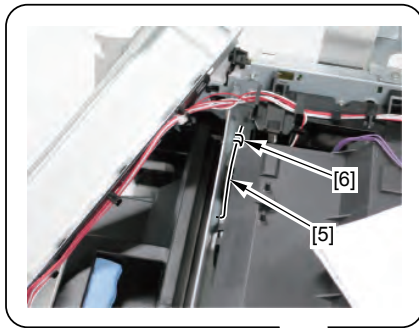
F-4-480

- 6) Remove the Sub Drive Unit Cover [1].
 - 2 screws [2]



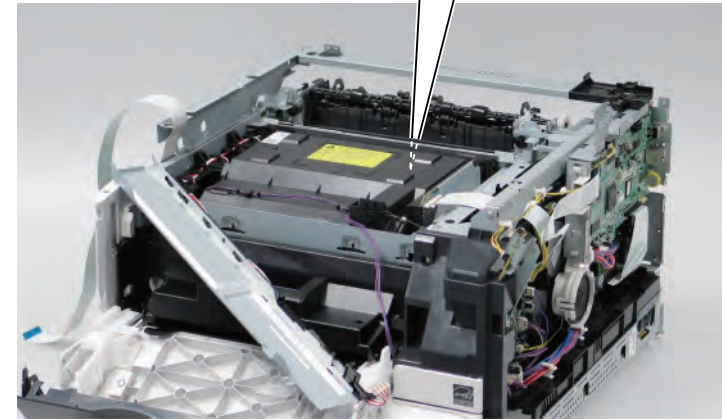
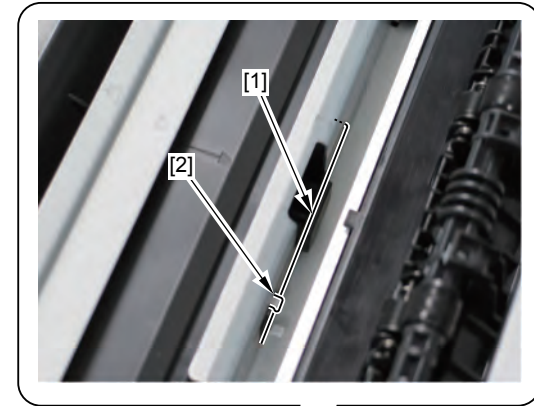
F-4-481

- 7) Remove the spring [2] from the Sensor Arm [1].
 8) Remove the Scanner fixing spring [3] at the right side from the hook [4].
 9) Remove the Scanner fixing spring [5] at the left side from the hook [6].



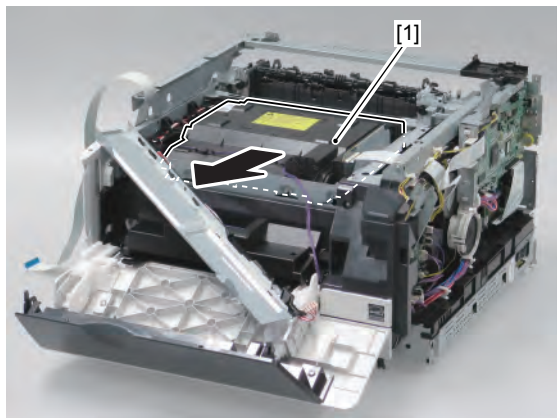
F-4-482

- 10) Remove the Scanner fixing spring [1] at the rear side from the hook [2].



F-4-483

11) Remove the Laser Scanner Unit [1].



F-4-484

After replacing laser exposure units

1) Register values indicated on the label packaged with the laser scanner unit in the following service mode items.

COPIER>ADJUST>SCNR>

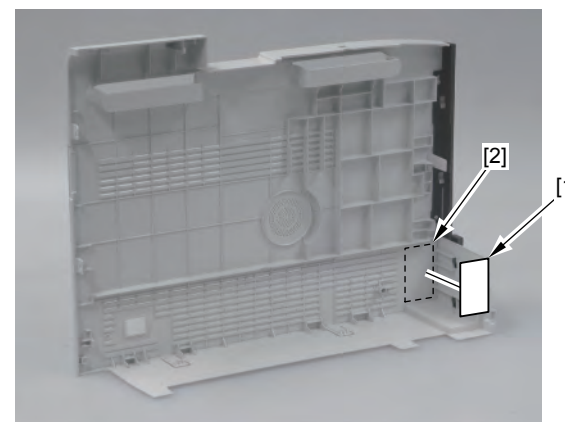
- SUB-S-Y0(Laser output correction value, vertical scanning irradiation position0 Y)
- SUB-S-M0(Laser output correction value, vertical scanning irradiation position0 M)
- SUB-S-C0(Laser output correction value, vertical scanning irradiation position0 C)
- SUB-S-K0(Laser output correction value, vertical scanning irradiation position0 K)
- SUB-S-Y1(Laser output correction value, vertical scanning irradiation position1 Y)
- SUB-S-M1(Laser output correction value, vertical scanning irradiation position1 M)
- SUB-S-C1(Laser output correction value, vertical scanning irradiation position1 C)
- SUB-S-K1(Laser output correction value, vertical scanning irradiation position1 K)
- SUB-S-Y2(Laser output correction value, vertical scanning irradiation position2 Y)
- SUB-S-M2(Laser output correction value, vertical scanning irradiation position2 M)
- SUB-S-C2(Laser output correction value, vertical scanning irradiation position2 C)
- SUB-S-K2(Laser output correction value, vertical scanning irradiation position2 K)
- MAI-S-Y0(Laser output correction value, horizontal scanning irradiation position0 Y)
- MAI-S-M0(Laser output correction value, horizontal scanning irradiation position0 M)
- MAI-S-C0(Laser output correction value, horizontal scanning irradiation position0 C)
- MAI-S-K0(Laser output correction value, horizontal scanning irradiation position0 K)
- MAI-S-Y1(Laser output correction value, horizontal scanning irradiation position1 Y)
- MAI-S-M1(Laser output correction value, horizontal scanning irradiation position1 M)
- MAI-S-C1(Laser output correction value, horizontal scanning irradiation position1 C)
- MAI-S-K1(Laser output correction value, horizontal scanning irradiation position1 K)

- MAI-S-Y2(Laser output correction value, horizontal scanning irradiation position2 Y)
- MAI-S-M2(Laser output correction value, horizontal scanning irradiation position2 M)
- MAI-S-C2(Laser output correction value, horizontal scanning irradiation position2 C)
- MAI-S-K2(Laser output correction value, horizontal scanning irradiation position2 K)

FM2-.....				
Serial No.000000				
Sub Scanning Line				
	0	1	C	
SUB-S-Y0	Y	±±±±	±±±±	±±±±
	M	±±±±	±±±±	±±±±
SUB-S-M0	C	±±±±	±±±±	±±±±
	K	±±±±	±±±±	±±±±
Main Scanning Line				
	0	1	2	
MAI-S-Y0	Y	±±±±	±±±±	±±±±
	M	±±±±	±±±±	±±±±
	C	±±±±	±±±±	±±±±
	K	±±±±	±±±±	±±±±

F-4-485

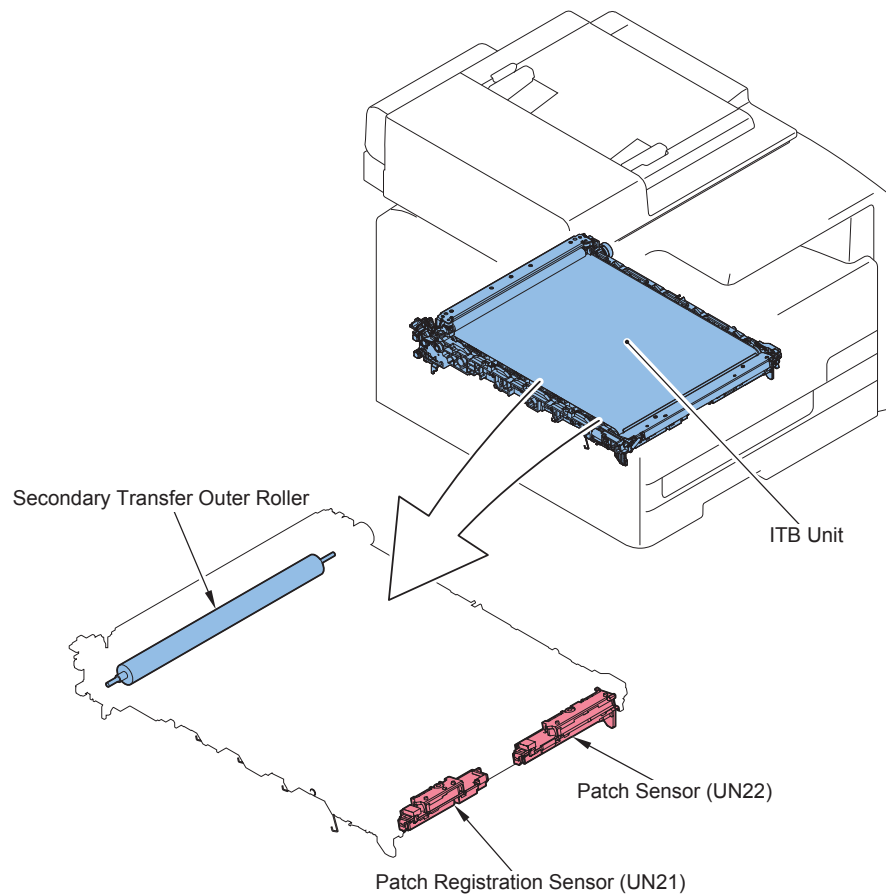
2)After values are registered, affix the label [1] packaged with the unit on the inside [2] of the right cover.



F-4-486

Image Formation System

Location



Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	ITB Unit	-	refer to page Refer to page 4-205	-
-	Secondary Transfer Outer Roller	-	-	-
UN21	Patch Sensor	-	-	-
UN22	Patch Registration Sensor	-	-	-

T-4-14

Removing the ITB Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.

Procedure

Caution:

Do not touch the ITB.

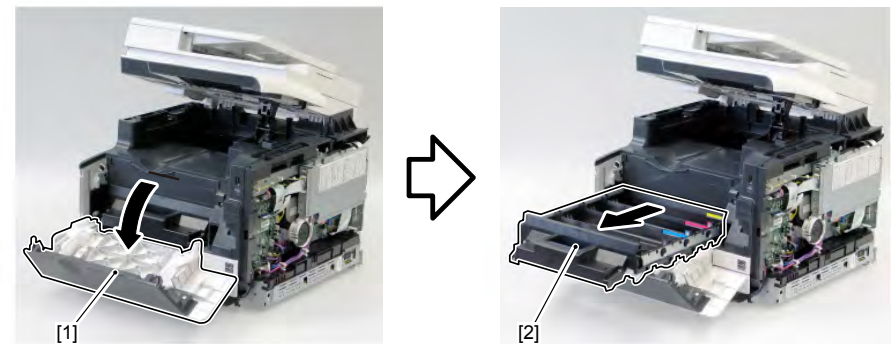
Caution:

While removing the cartridges, be sure not to scratch the drum surface. And cover the drum surface.

- 1) Open the Front Cover [1].
- 2) Pull out the Cartridge Tray [1].

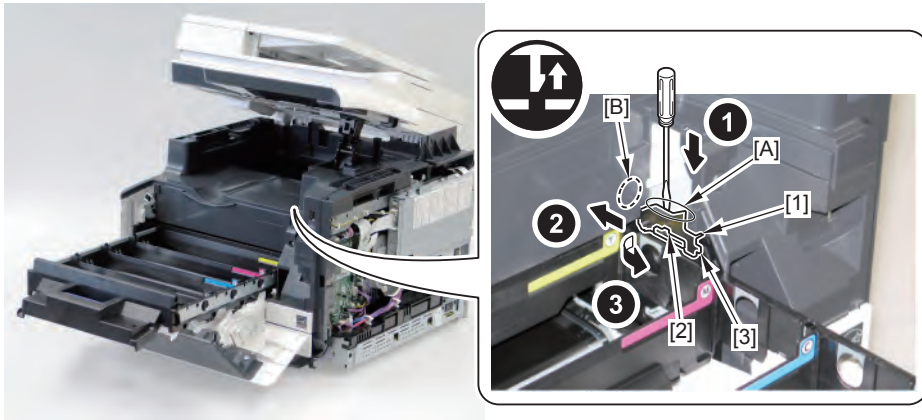
Caution:

Since the Cartridge Tray interferes with the stopper when removing the stopper, do not pull out the Cartridge Tray until it hits the end.



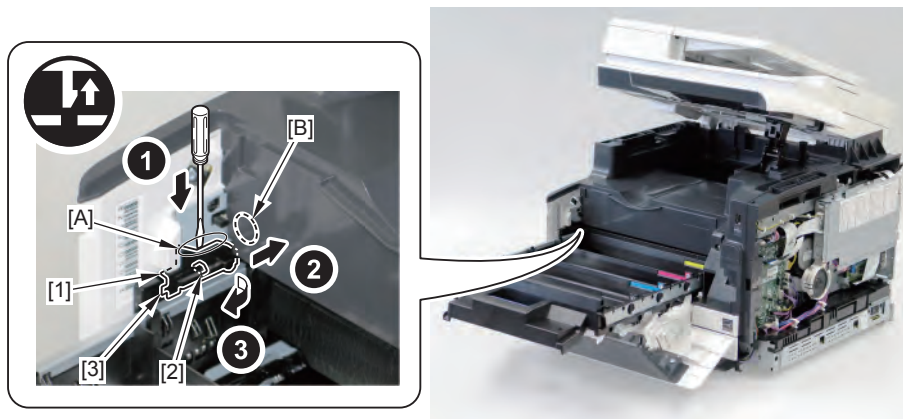
F-4-488

- 3) Remove the cartridges
- 4) Insert a flat-blade screwdriver into the clearance [A] between the Right Stopper [1] and rail.
- 5) Remove the Right Stopper [1] while pushing the [B] part.
 - 2 Claws [2]
 - 1 Protrusion [3]



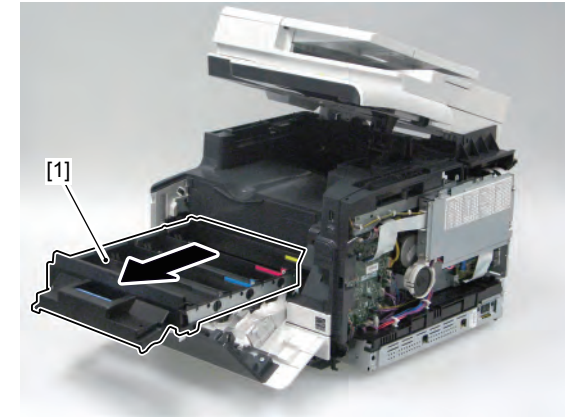
F-4-489

- 6) Insert a flat-blade screwdriver into the clearance [A] between the Left Stopper [1] and rail.
- 7) Remove the Left Stopper [1] while pushing the [B] part.
 - 2 Claws [2]
 - 1 Protrusion [3]



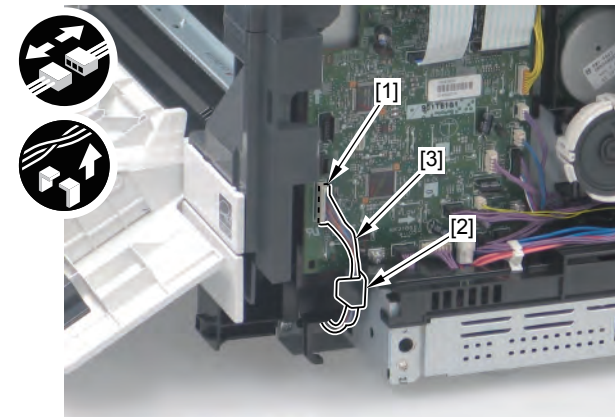
F-4-490

- 8) Remove the Cartridge Tray [1].



F-4-491

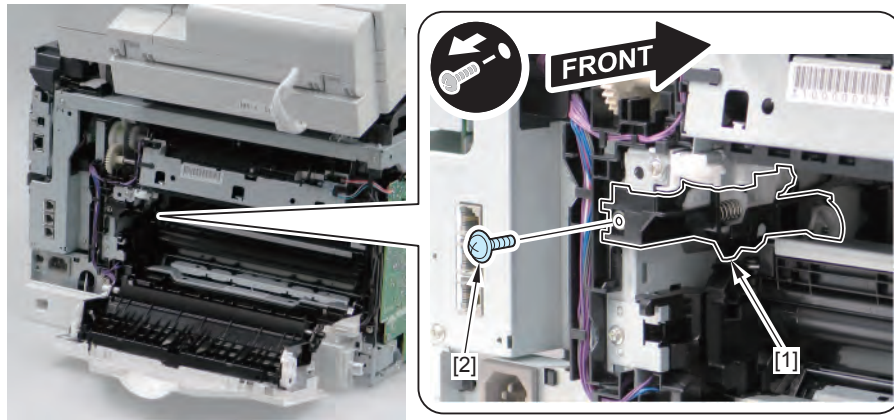
- 9) Disconnect the connector [1] and free the harness [3] from the harness guide [2].



F-4-492

10) Remove the ITB Fixing Holder [1].

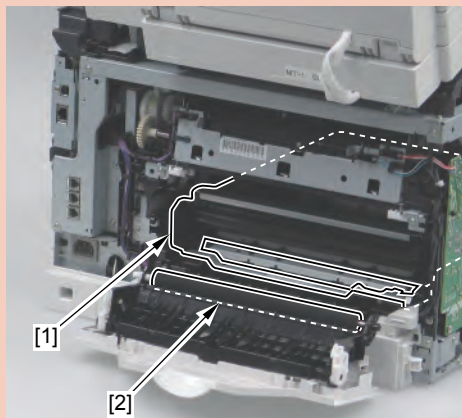
- 1 screw [2]



F-4-493

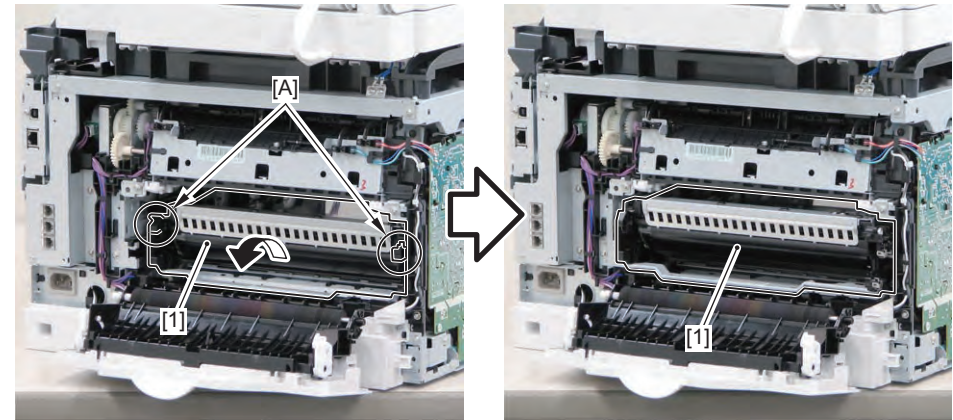
Caution:

When removing the ITB Unit [1], do not touch the Secondary Transfer Outer Roller [2].



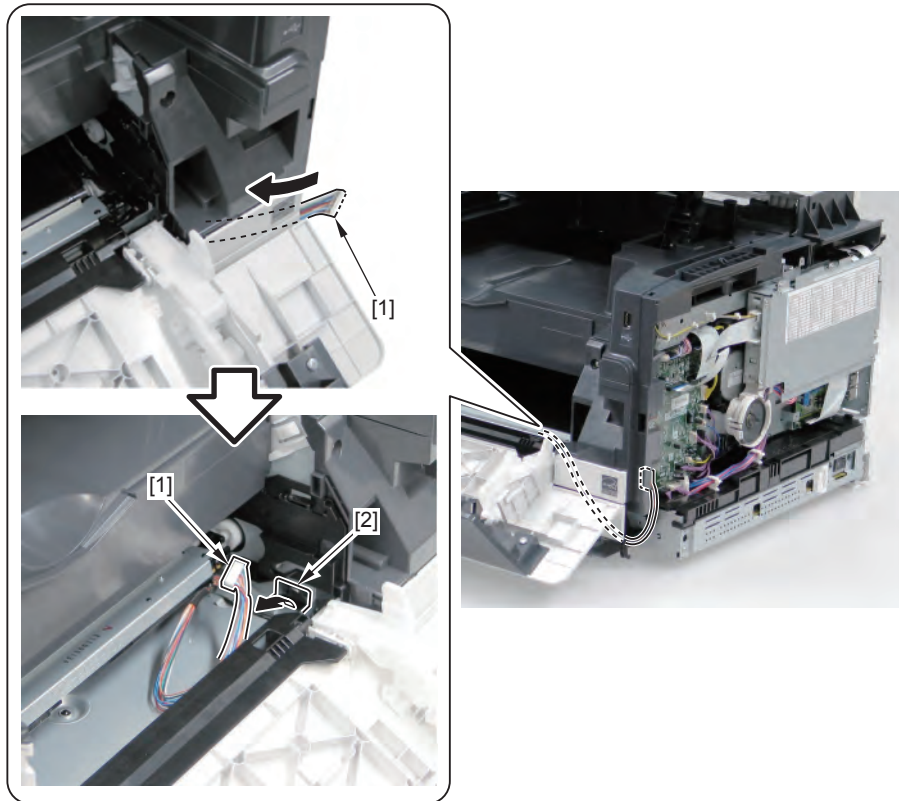
F-4-494

11) Hold the 2 parts [A] at the rear side of the ITB Unit to pull out and temporarily place the ITB Unit [1].



F-4-495

12) Put the connector [1] through the hole [2] on the guide and place it inside.

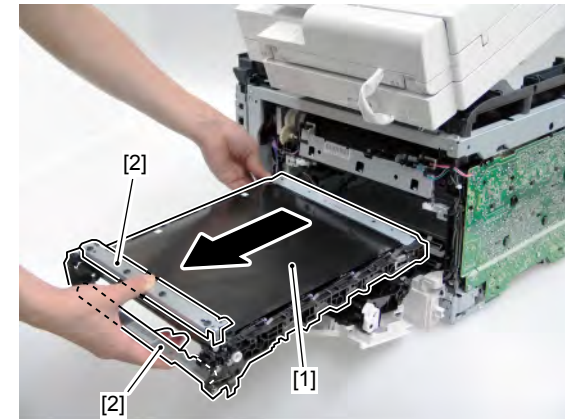


F-4-496

13) Remove the ITB Unit in the direction of the arrow.

Caution:

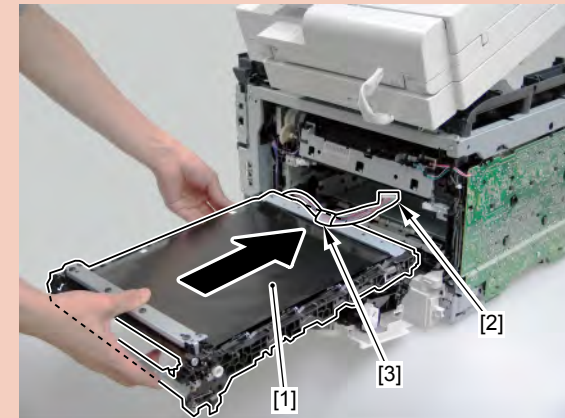
Do not make the Plate [2] deformed.



F-4-497

Caution:

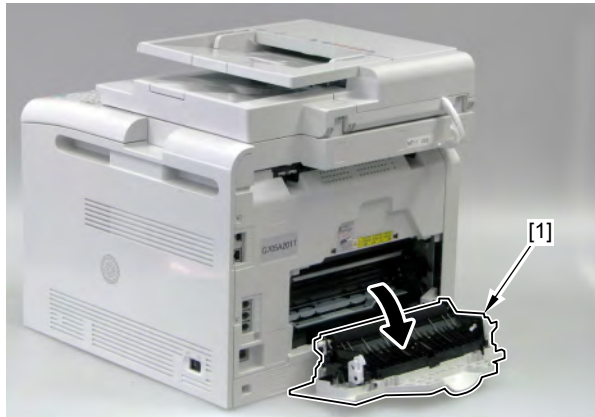
When installing the ITB Unit [1], be sure to secure the ITB harness [2] with the tape [3] as shown in the figure below because the ITB harness [2] can be caught inside the Host Machine.



F-4-498

■ Removing the Secondary Transfer Outer Roller

1) Open the Rear Cover [1].

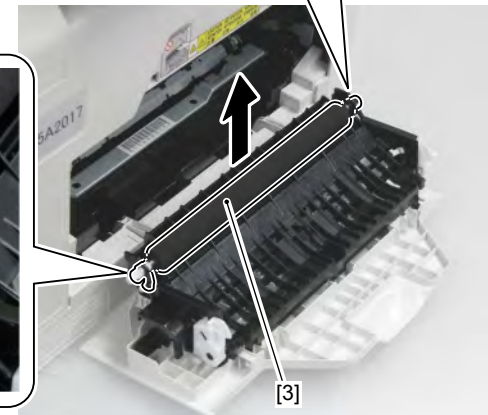
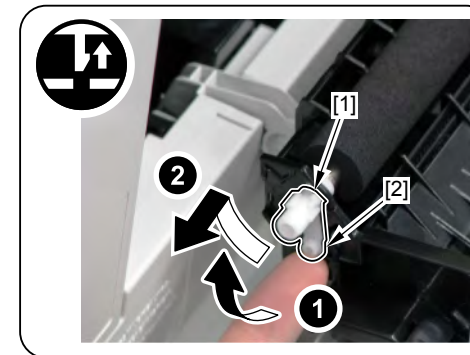
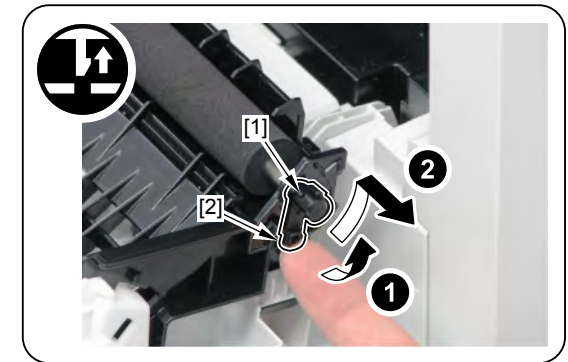


F-4-499

2) Remove the 2 stoppers [1].

- 2 claws [2]

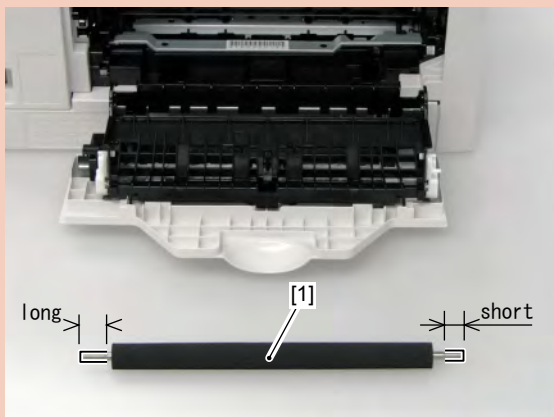
3) Remove the Secondary Transfer Outer Roller [3].



F-4-500

Caution:

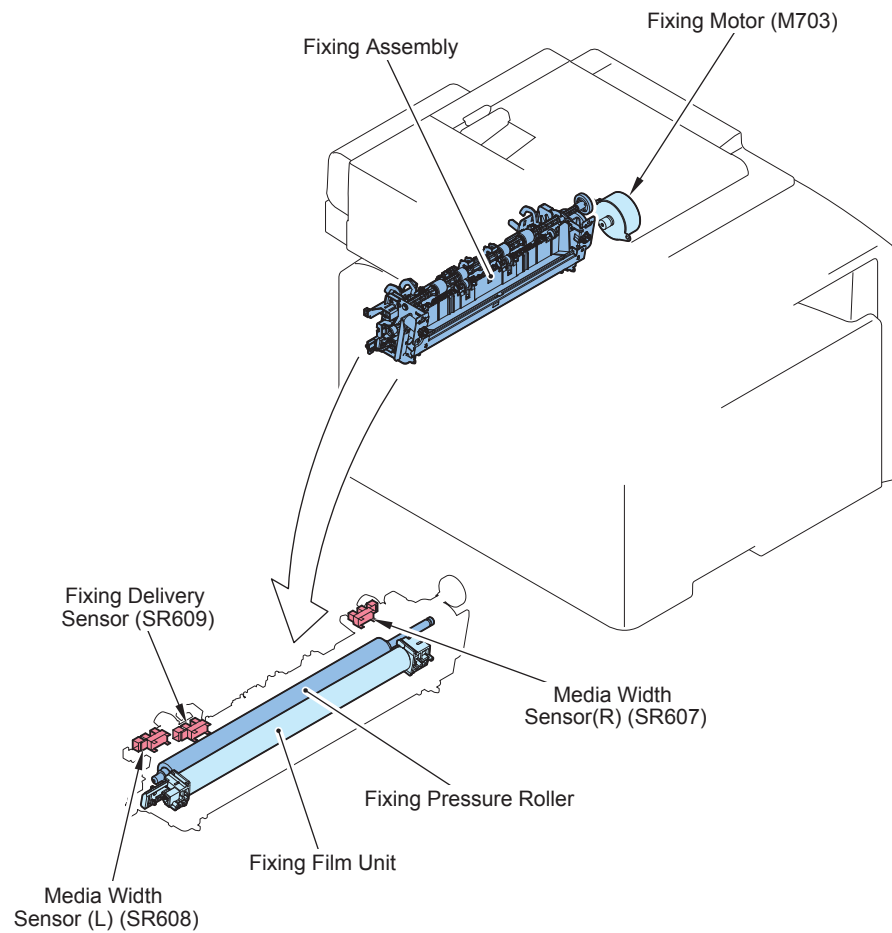
When installing the Secondary Transfer External Roller, take note of the direction of the Secondary Transfer Roller [1].



F-4-501

Fixing System

Location



F-4-502

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	Fixing Assembly	-	Refer to page 4-211	-
M703	Fixing Motor	-	Refer to page 4-215	-
-	Fixing Film Unit	-	Refer to page 4-212	-
-	Fixing Pressure Roller	-	Refer to page 4-214	-
SR607	Media Width Sensor R	-	-	-
SR608	Media Width Sensor L	-	-	-
SR609	Fixing Delivery Sensor	-	-	-

T-4-15

Removing the Fixing Assembly

Pre-procedure

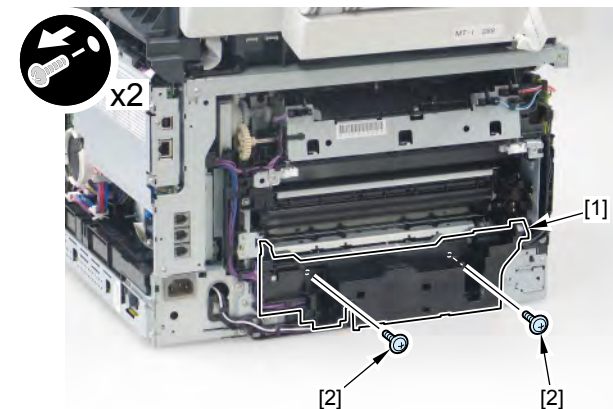
- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the Rear Lower Cover. Refer to page 4-156.

Procedure

Caution:

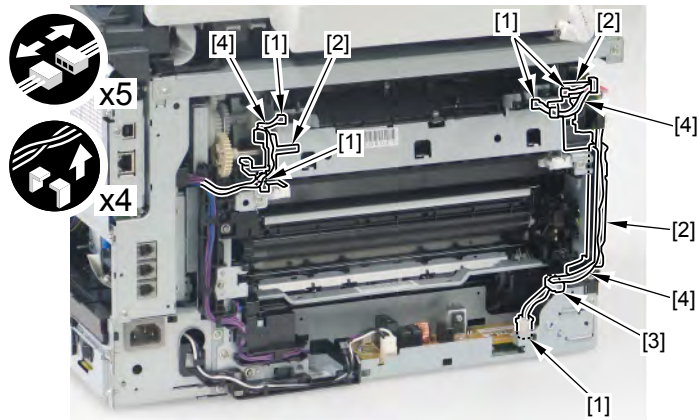
Take some time until the fixing assembly gets cooler and then remove it because the fixing assembly right after the power supply is turned off is at high heat

- 1) Remove the Fixing Power Supply Cover [1].
 - 2 screws [2]



F-4-503

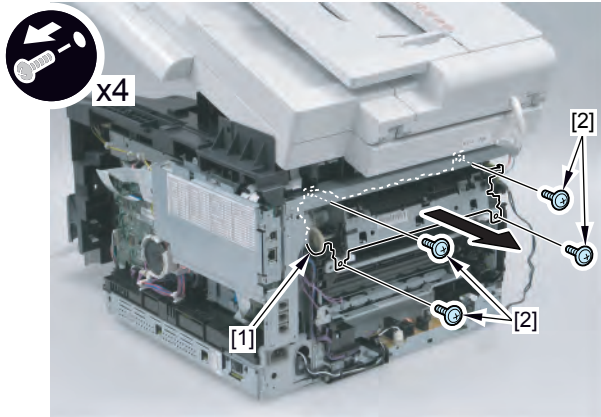
- 2) Disconnect the 5 connectors [1] and free the harness [4] from the 3 harness guides [2] and the wire saddle [3].



F-4-504

- 3) Remove the Fixing Assembly [1].

- 4 screws [2]



F-4-505

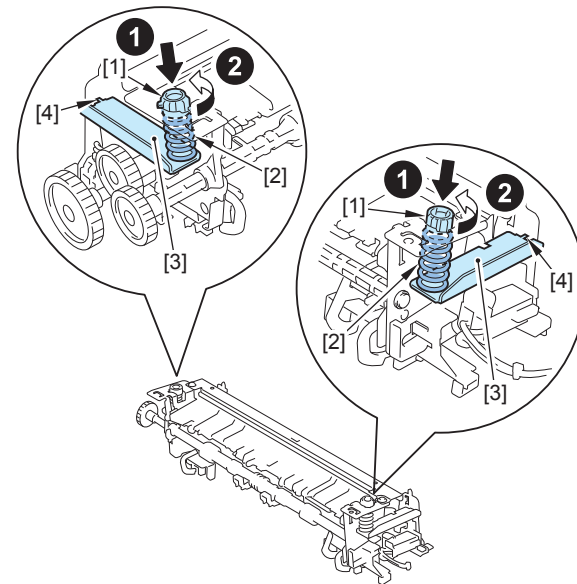
Replacing the Fixing Film Unit

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the Rear Lower Cover. Refer to page 4-156.
- 5) Remove the Fixing Assembly. Refer to page Refer to page 4-211.

Procedure

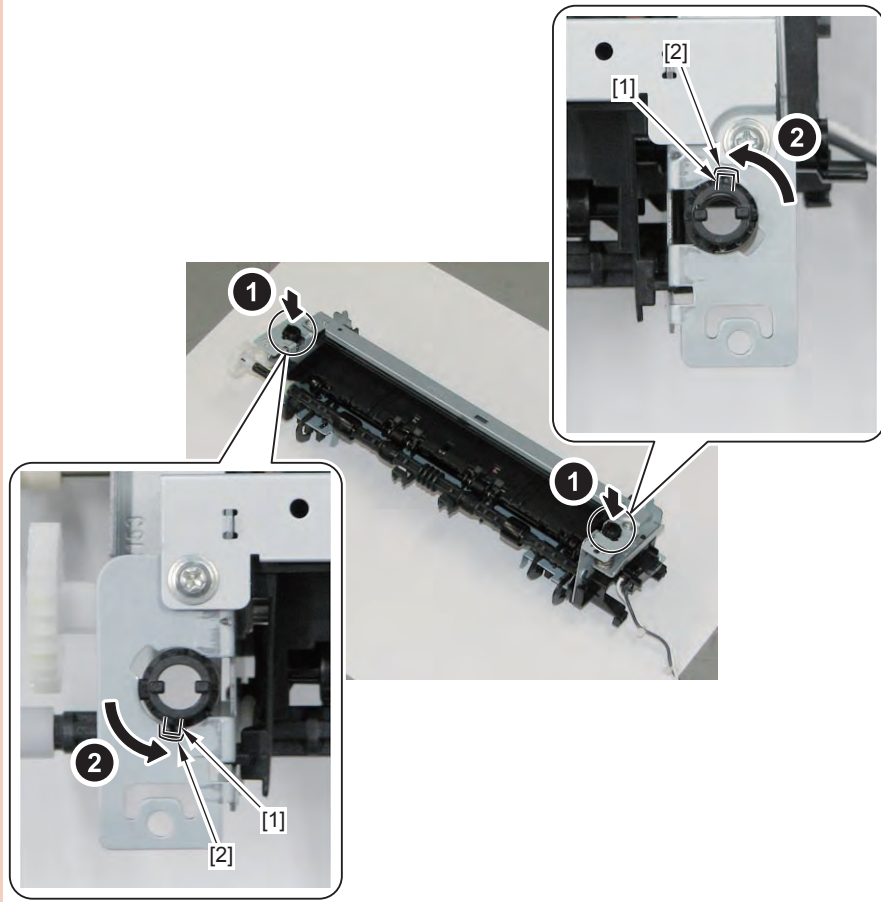
- 1) Remove the 2 Spring Retainer Holders [1] (right and left) and the 2 springs [2].
- 2) Remove the 2 Pressure Plates [3] (right and left).
 - 2 Protrusions [4]



F-4-506

Caution:

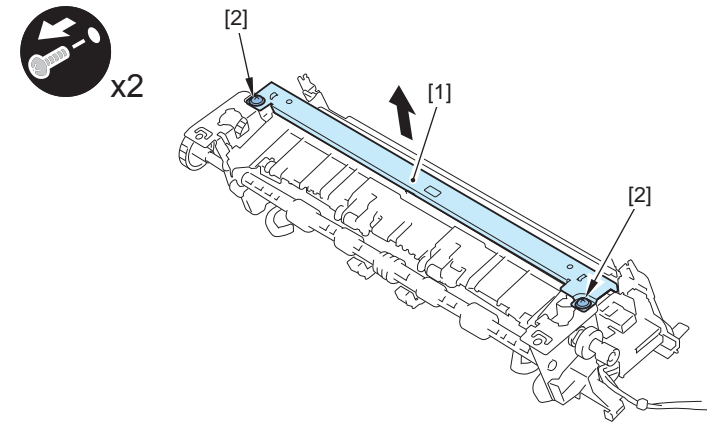
At installation, be sure to match the protrusion [1] of the Spring Retainer Holder with the cut-off parts [2] of the Fixing Frame.



F-4-507

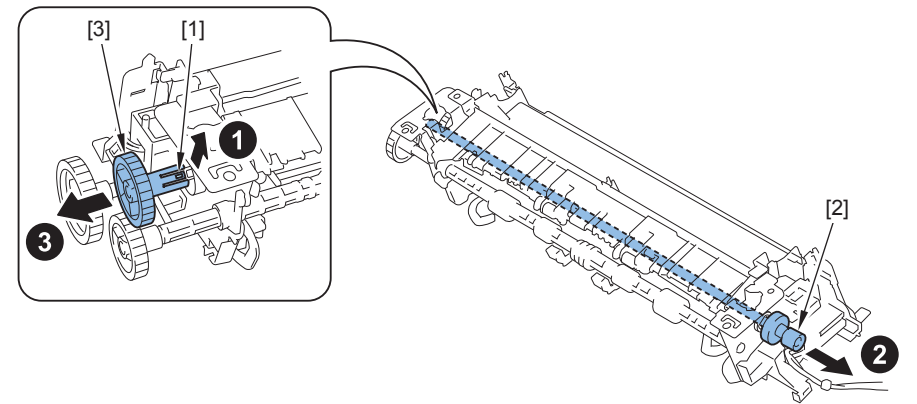
3) Remove the Guide Retaining Plate [1].

- 2 screws [2]



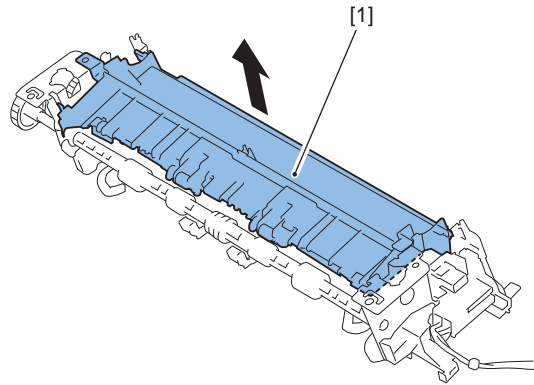
F-4-508

4) Remove the claw [1] of the gear and pull out the Shaft Unit [2] in the direction of the arrow to remove the gear [3].



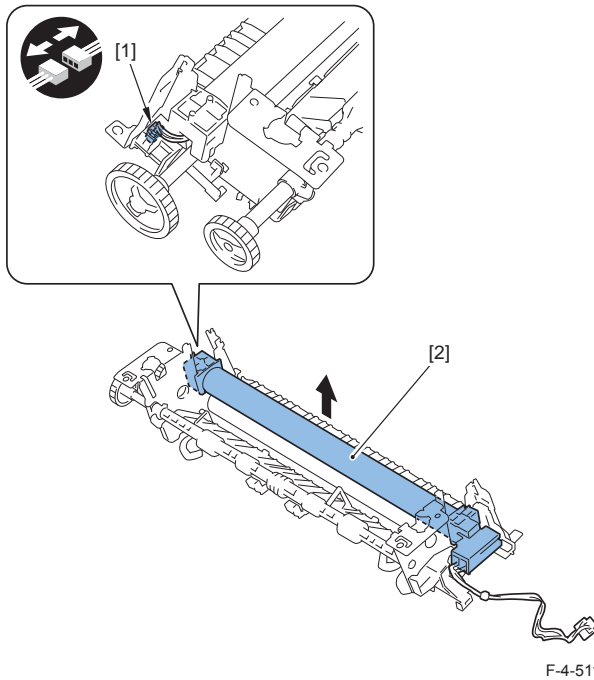
F-4-509

5) Remove the Upper Fixing Guide [1].



F-4-510

6) Disconnect the connector [1] and remove the Fixing Film Unit [2] in the direction of the arrow.



F-4-511

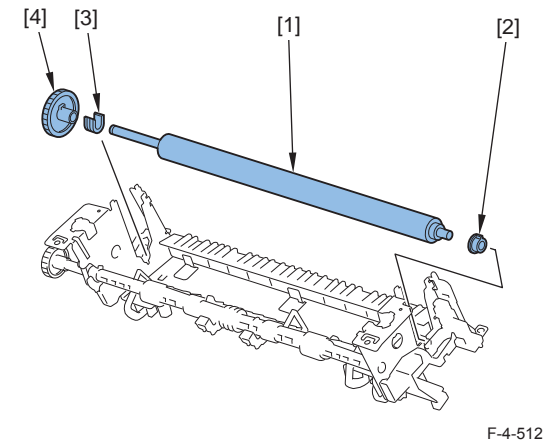
■ Removing the Fixing Pressure Roller

Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Left Cover. Refer to page Refer to page 4-143.
- 3) Remove the Rear Upper Cover. Refer to page Refer to page 4-155.
- 4) Remove the Rear Lower Cover. Refer to page 4-156.
- 5) Remove the Fixing Assembly. Refer to page Refer to page 4-211.
- 6) Remove the Fixing Film Unit. Refer to page Refer to page 4-212.

Procedure

- 1) Remove the Fixing Pressure Roller [1].
 - 1 bushing [2]
 - 1 bushing [3]
 - 1 gear [4]



F-4-512

Removing the Fixing Motor

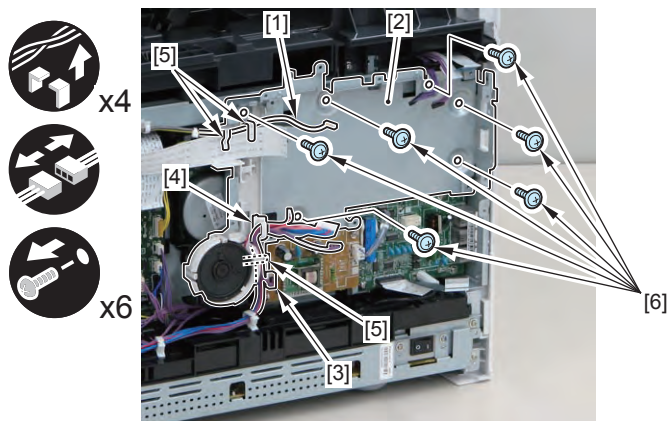
Pre-procedure

- 1) Remove the Right Cover. Refer to page Refer to page 4-146.
- 2) Remove the Controller Cover. Refer to page 4-181
- 3) Remove the Wireless LAN PCB. (MF8080 only) Refer to page 4-181
- 4) Remove the Main Controller PCB. Refer to page Refer to page 4-182.

Procedure

- 1) Free the harness [1] and remove the Main Controller Support Plate [2].

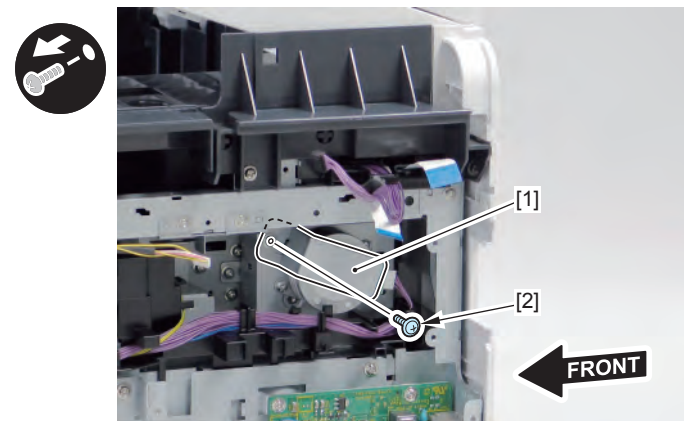
- 1 Connector [3] (MF8080 only)
- 1 Wire Saddle [4]
- 3 Harness Guides [5]
- 6 Screws [6]



F-4-513

- 2) Remove the Motor Cover [1].

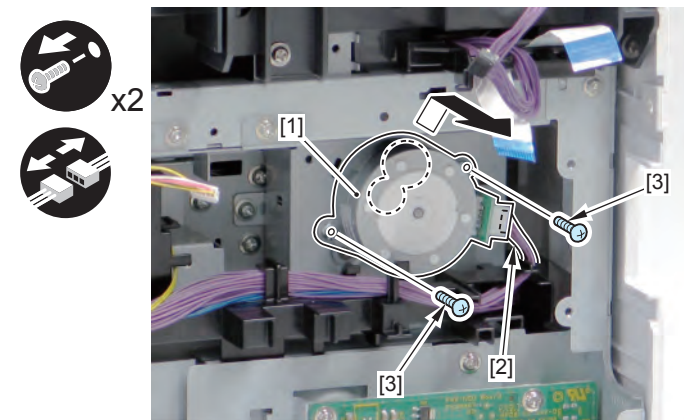
- 1 screw [2]



F-4-514

- 3) Slide the Fixing Motor [1] in the upper right direction to remove.

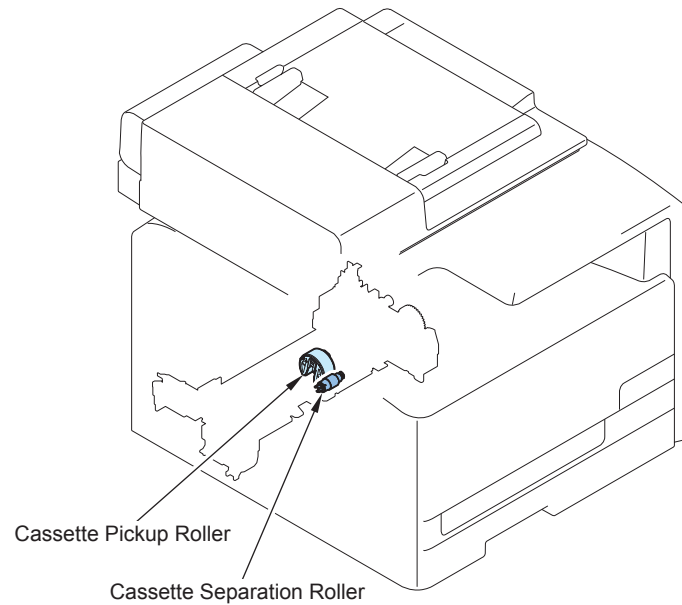
- 2 screws [2]
- 1 connector [3]



F-4-515

Pickup Feeder System

Location



F-4-516

Electric symbol	Name	Remarks	Reference	Adjustment during parts replacement
-	Cassette Pickup Roller	-	refer to page Refer to page 4-216	-
-	Cassette Separation Roller	-	refer to page Refer to page 4-217	-

T-4-16

Removing the Cassette Pickup Roller

Caution:

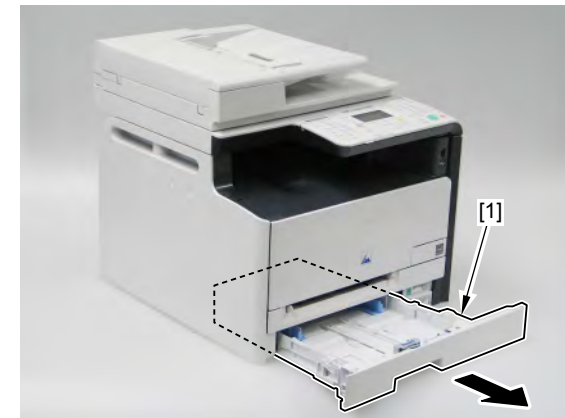
Do not touch the surface of the roller.

- 1) Turn ON the power switch.
- 2) Execute the following items in Service mode.
COPIER > FUNCTION > VIFFNC > FD-R-CHG
- 3) The Pickup Roller rotates and stops at the replacement position.
- 4) Turn OFF the power.

Caution:

Before tilting a host machine, remove toner cartridges (Y, M, C, Bk).

- 5) Remove the cassette [1].



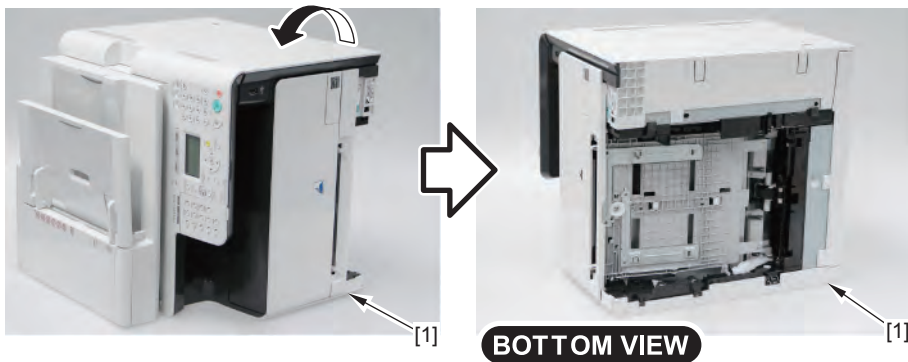
F-4-517

6) Place a host machine [1] as the Left Cover faces to the bottom.

Caution:

When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.

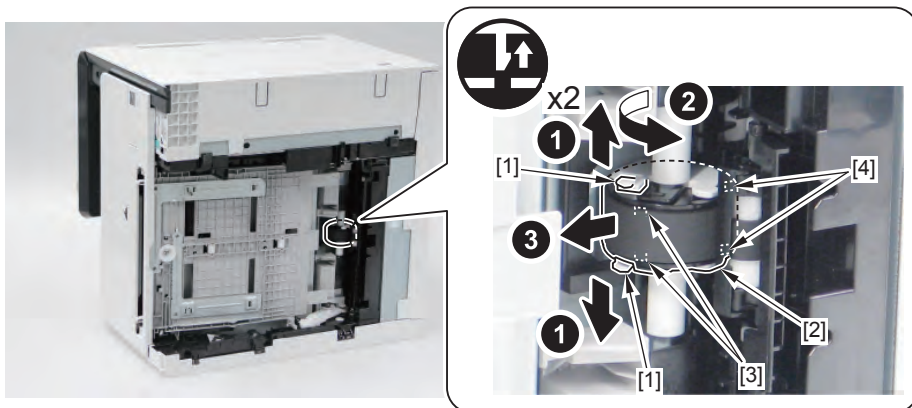
In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.



F-4-518

7) Open 2 projections [1] of the holder in the arrow direction, and remove the cassette Pickup Roller [2].

- 2 Claws [3]
- 2 Hooks [4]



F-4-519

■ Removing the Cassette Separation Roller

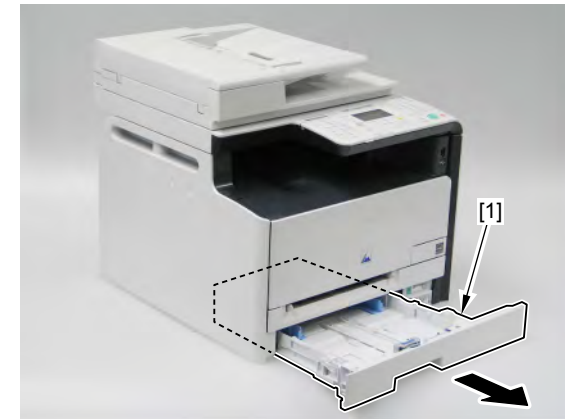
Caution:

Do not touch the Cassette Separation Roller surface.

Caution:

Before tilting a host machine, remove toner cartridges (Y, M, C, Bk).

1) Remove the cassette [1].



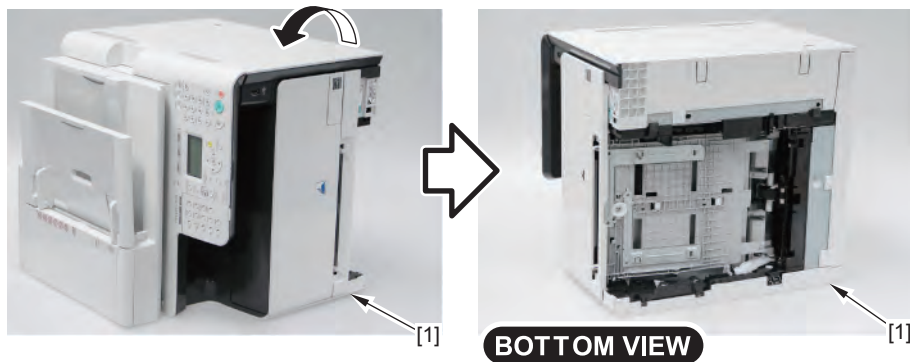
F-4-520

2) Make the Left Cover face down and place the host machine [1].

Caution:

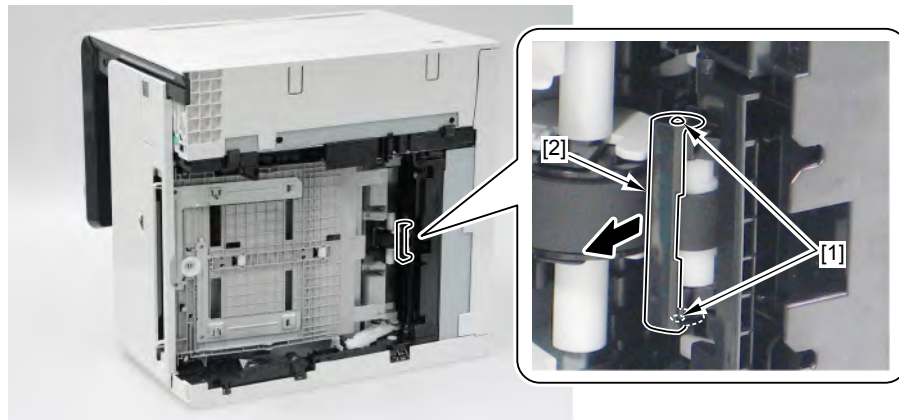
When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.

In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.



F-4-521

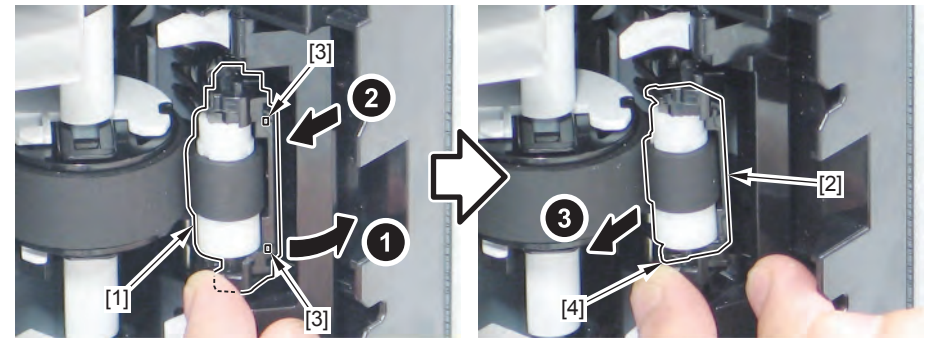
3) Remove the 2 projections [1] to remove the Cover [2].



F-4-522

4) Open the holder [1] in the direction of the arrow and remove the Cassette Separation Roller [2].

- 2 Claws [3]
- 1 Protrusion [4]



F-4-523



Adjustment

- Adjustment at Parts Replacement

Overview

分類	Parts replacement	参照先
Controller System	Main Controller PCB	
Laser Exposure System	Laser Scanner Unit	
Image Formation System	Developing Assembly、Developing Sleeve Unit	
	Drum Unit	
	ITB	
	Patch Sensor	

T-5-1

Adjustment at Parts Replacement

Document Exposure / Feed System

After replacing ADF units

1) After executing the white level adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1.White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

2.Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

2) Execute the reading position adjustment with the following service mode.

- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning position in FEEDER mode)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)

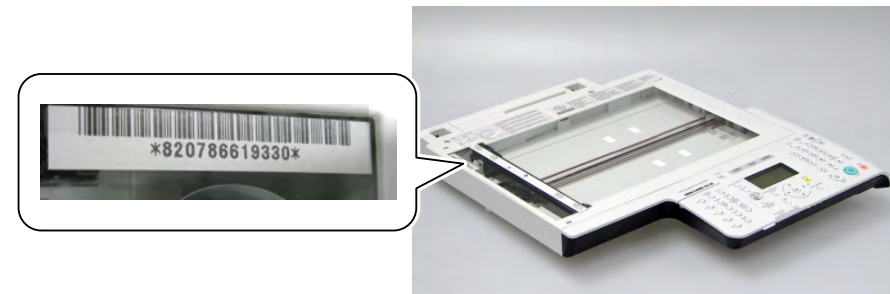
3) Execute the original stop position and feed speed adjustment at stream reading.

- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
- FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

After replacing reader units

1) Enter the setting value of the Standard White Plate.

- COPIER > ADJUST > CCD > W-PLT-X (X signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Y (Y signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Z (Z signal data for the standard white plate)



2) Execute the white level adjustment.

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

3) After executing the reading position adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

- 1.COPIER> FUNCTION> INSTALL> STRD-POS (reading position adjustment auto execution)
- 2.COPIER> ADJUST> ADJ-XY> STRD-POS (reading position adjustment value reference)

4) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1.White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2.Checking the setting value

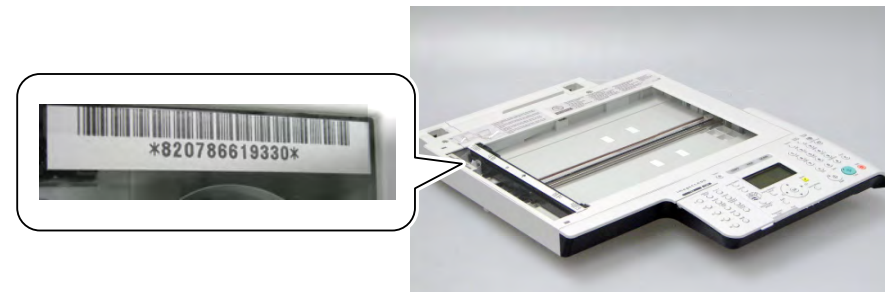
- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)

- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
 - COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
 - COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)
- 5) Enter the value on the label packed with the part in the following service mode item.
- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
 - COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning position in FEEDER mode)
 - COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)
 - COPIER> ADJUST> CCD> 50-RG (Color displacement correction value between RG in the vertical scanning direction (50%))
 - COPIER> ADJUST> CCD>50-GB (Color displacement correction value between GB in the vertical scanning direction (50%))
 - COPIER> ADJUST> CCD>100-RG (Color displacement correction value between RG in the vertical scanning direction (100%))
 - COPIER> ADJUST> CCD>100-GB (Color displacement correction value between GB in the vertical scanning direction (100%))
 - COPIER>ADJUST>PASCAL>OFST-P-Y (Adjustment of test chart reading density)
 - COPIER>ADJUST>PASCAL> OFST-P-M (Adjustment of test chart reading density)
 - COPIER>ADJUST>PASCAL> OFST-P-C (Adjustment of test chart reading density)
 - COPIER>ADJUST>PASCAL> OFST-P-K (Adjustment of test chart reading density)
- 6) Read the image and execute the adjustment with the following service mode.
- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
 - FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

■ After Replacing the Reader Upper Cover Unit

1) Enter the setting value of the Standard White Plate.

- COPIER > ADJUST > CCD > W-PLT-X (X signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Y (Y signal data for the standard white plate)
- COPIER > ADJUST > CCD > W-PLT-Z (Z signal data for the standard white plate)



2) After executing the CCD reading position adjustment with the following service mode 1,2 check the auto setting value with the following service mode 2 and write the value in the service label.

- 1.COPIER> FUNCTION> INSTALL> STRD-POS (reading position adjustment auto execution)
- 2.COPIER> ADJUST> ADJ-XY> STRD-POS (reading position adjustment value reference)

3) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1.White level adjustment

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2.Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

■ After replacing CIS units

1) Execute the white level adjustment. If it fails, turn OFF/ON the power and execute the operation again.

- COPIER > FUNCTION > CCD > CL-AGC (Color AGC adjustment)
- COPIER > FUNCTION > CCD > BW-AGC (B&W AGC adjustment)

2) After executing the reading position adjustment with the following service mode 1, check the auto setting value with the following service mode 2 and write the value in the service label.

1. COPIER> FUNCTION> INSTALL> STRD-POS (reading position adjustment auto execution)
2. COPIER> ADJUST> ADJ-XY> STRD-POS (reading position adjustment value reference)

3) Set a blank paper on the Copyboard Glass, and execute the white level adjustment with the following service mode 1. Then, check the auto setting value with the following service mode 2 and write the value in the service label.

1.White level adjustment

- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adjustment [copyboard scanning])
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adjustment BW [copyboard scanning])

Then, set a blank paper on the DF, and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adjustment [DF scanning])
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adjustment BW [DF scanning])

If it fails, turn OFF/ON the power and execute the operation again.

2.Checking the setting value

- COPIER> ADJUST> CCD> DFTAR-R (RED shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-G (GREEN shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-B (BLUE shading target value when using DF)
- COPIER> ADJUST> CCD> DFTAR-BW (Monochrome shading target value when using DF)

4) Execute the reading position adjustment with the following service mode.

- COPIER > ADJUST > ADJ-XY > ADJ-Y (Value adjustment for image reading start position [vertical scanning direction] <X-axis direction>)
- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adjustment of surface horizontal scanning

position in FEEDER mode)

- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine-adjustment of optical motor speed)
- 5) Execute the original stop position and feed speed adjustment at stream reading.
- FEEDER > ADJUST > DOCST (Image reading start position adjustment at ADF reading)
 - FEEDER > ADJUST > LA-SPEED (Original feed speed adjustment)

Controller System

After replacing main controller PCBs

Before replacement

Back up user data (settings, registered data, etc.) and service mode data for setting and registration after PCB replacement. Take notes if data is unable to back up.

- 1) In Remote UI, export user data.
- 2) Record the default settings shown on the service label [1] (these are entered after replacement).



F-5-3

After replacement

1. Setting of destination/paper size group

- 1) COPIER > OPTION > BODY > LOCALE (to set destination groups)

[Settings]

1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia,
8: Oceania

- 2) COPIER > OPTION > BODY > SIZE-LC (to set paper size groups)

[Settings]

1: AB series, 2: Inch series, 3: A series, 4: AB/Inch series

2. Clearing Setting/Registration data

- 1) COPIER > FUNCTION > CLEAR > ALL (to clear all data)

Once executed, the following data are cleared according to the values of LOCALE and SIZE-LC set in step 1.

- Setting / Registration data (the default value for each destination is set).
- Service mode data (the default value for each destination is set).
- Job IDs
- Log data

- Dates
- 2) COPIER > FUNCTION > CLEAR > R-CON (to clear default setting values for the reader/DF)

3. Adjustment, input of default setting values

- 1) Close the ADF.
- 2) COPIER > FUNCTION > CCD > CL-AGC, BW-AGC (to adjust white levels)
The white level is adjusted.
- 3) Enter default setting values indicated on the service label in the corresponding service mode items.
- 4) COPIER > FUNCTION > VIFFNC > STOR-DCN (to back up DC controller setting values)

Purpose: to be prepared for replacing DC controller PCBs

- 5) Turn off and on the power.
- 6) Start in the initial installation mode. Follow instructions shown on the screen for setup. (setting of date/time, auto-gradation correction)
- 7) In Remote UI, import user data.

4. Reinstall the drivers.

- 1) Uninstalling Old Drivers.
 - Printer Driver
 - FAX Driver
 - Scanner Driver
 - Network Scan Utility. (for machines with network connection)

* As for the procedure, refer to "Uninstalling the Software" in the Starter Guide.

- 2) Install the drivers which have been uninstalled in step 1.

* As for the procedure, refer to the following items in the Starter Guide.

- In case of network connection: "Installing via Network Connection"
- In case of USB connection: "Installing with USB Connection"

■ The Procedure to be Performed after Replacing the DC Controller PCB

- 1) Execute the following in Service Mode
 - COPIER>FUINCTION>VIFFNC>RSTR-DCN

MEMO

After executing the Printer Recovery Setting, be sure to wait for about 15 seconds because of internal process/operation.

- 2) Turn OFF and then ON the power.
- 3) *Execute the following: > Adjustment/Cleaning > Print Color Displacement Correction
- 4) * Execute the following: > Adjustment/Cleaning > Auto Gradation Correction > Quick Correction
- 5) Turn OFF and then ON the power.

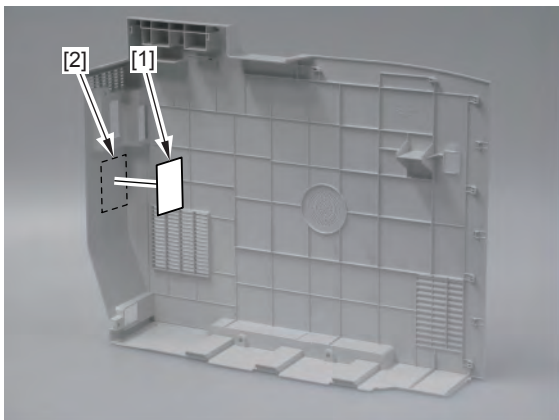
● Laser Exposure System

■ After replacing Laser Scanner Unit

- 1) Register values indicated on the label packaged with the Laser Scanner Unit in the following service mode items.
 - COPIER>ADJUST>SCNR>
 - SUB-S-Y0(Laser output correction value, vertical scanning irradiation position0 Y)
 - SUB-S-M0(Laser output correction value, vertical scanning irradiation position0 M)
 - SUB-S-C0(Laser output correction value, vertical scanning irradiation position0 C)
 - SUB-S-K0(Laser output correction value, vertical scanning irradiation position0 K)
 - SUB-S-Y1(Laser output correction value, vertical scanning irradiation position1 Y)
 - SUB-S-M1(Laser output correction value, vertical scanning irradiation position1 M)
 - SUB-S-C1(Laser output correction value, vertical scanning irradiation position1 C)
 - SUB-S-K1(Laser output correction value, vertical scanning irradiation position1 K)
 - SUB-S-Y2(Laser output correction value, vertical scanning irradiation position2 Y)
 - SUB-S-M2(Laser output correction value, vertical scanning irradiation position2 M)
 - SUB-S-C2(Laser output correction value, vertical scanning irradiation position2 C)
 - SUB-S-K2(Laser output correction value, vertical scanning irradiation position2 K)
 - MAI-S-Y0(Laser output correction value, horizontal scanning irradiation position0 Y)
 - MAI-S-M0(Laser output correction value, horizontal scanning irradiation position0 M)
 - MAI-S-C0(Laser output correction value, horizontal scanning irradiation position0 C)
 - MAI-S-K0(Laser output correction value, horizontal scanning irradiation position0 K)
 - MAI-S-Y1(Laser output correction value, horizontal scanning irradiation position1 Y)
 - MAI-S-M1(Laser output correction value, horizontal scanning irradiation position1 M)
 - MAI-S-C1(Laser output correction value, horizontal scanning irradiation position1 C)
 - MAI-S-K1(Laser output correction value, horizontal scanning irradiation position1 K)
 - MAI-S-Y2(Laser output correction value, horizontal scanning irradiation position2 Y)
 - MAI-S-M2(Laser output correction value, horizontal scanning irradiation position2 M)
 - MAI-S-C2(Laser output correction value, horizontal scanning irradiation position2 C)
 - MAI-S-K2(Laser output correction value, horizontal scanning irradiation position2 K)

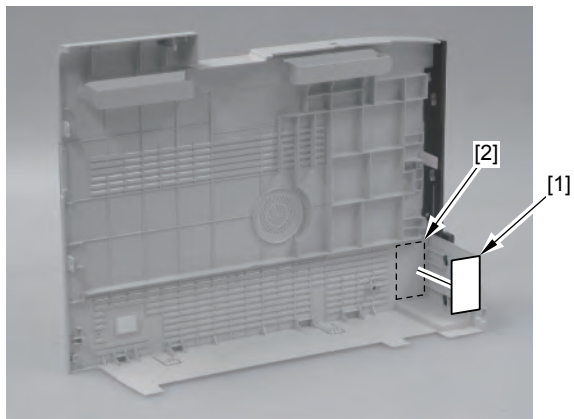
2) After values are registered, affix the label [1] packaged with the unit on the inside [2] of the right cover.

- MF8300 series



F-5-4

- MF8000 series



F-5-5

6

Trouble Shooting

- Test Print
- Trouble shooting items
- Version Upgrade
- Special Management Mode

Test Print

Engine test print

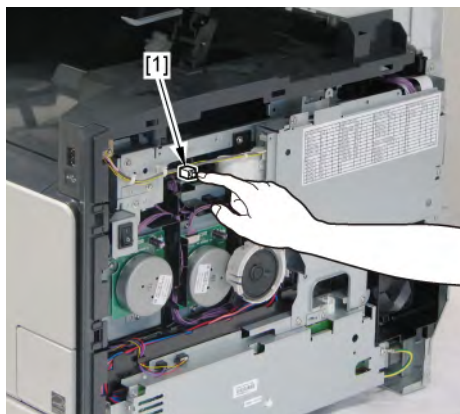
The engine test print is to check normal operation of the device.

Print the engine test chart in the following steps.

- MF8300 series

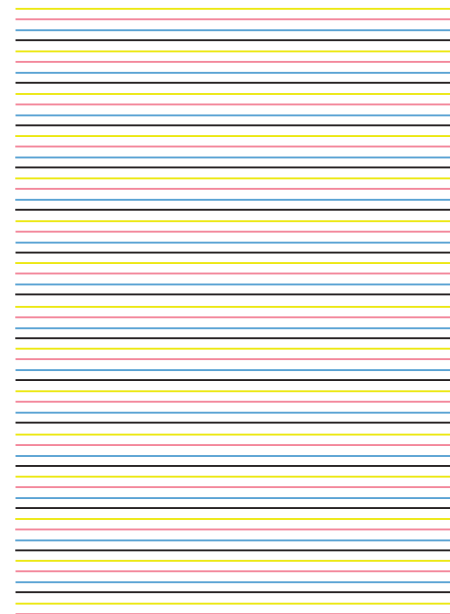
1) Detach the right cover. Refer to page 4-23

2) Turn on the device on standby to press the test print switch [1] on the right side of the device.



F-6-1

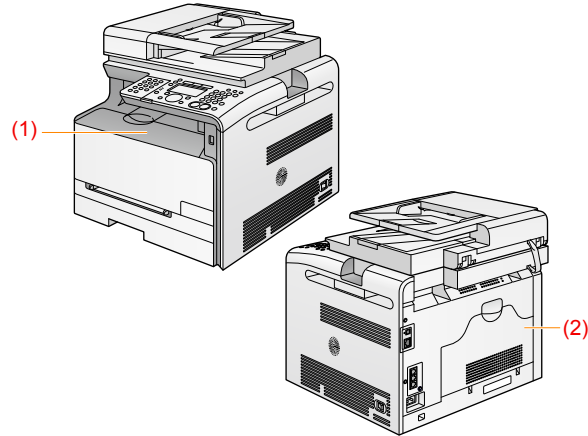
3) The engine test chart is printed in the horizontal line patterns on a sheet as shown below.



F-6-2

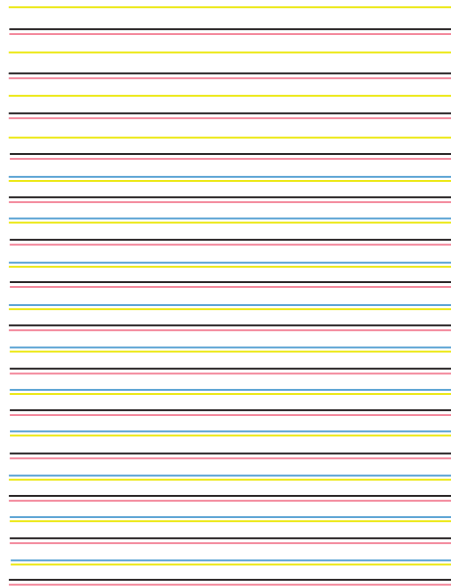
- MF8000 series

1) Leave the front cover(1) and the rear cover(2) open to turn on the power.



2) Close the Front Cover (1) and the Rear Cover (2) within 5 seconds since the Control Panel lights up white.

3) The engine test chart is printed in the horizontal line patterns on a sheet as shown below.



F-6-4

Controller test print

Overview

This product provides the following 6 test chart types to determine causes of faulty images. The data for test charts are created in the main controller. If no problem is found on the output test charts, the cause may lie in the PDL input or the reader.

TYPE NO.	Test chart type	Purpose
0	Pascal correction chart 1	For checking density characteristic (Error diffusion)
1	Pascal correction chart 2	For checking density characteristic (Screen)
2	Color chart	For checking color reproduction characteristic
3	Color displacement correction chart	For checking color displacement correction
4	Rainbow chart (vertical scanning direction)	For checking color displacement (Vertical scanning)
5	Rainbow chart (horizontal scanning direction)	For checking color displacement (Horizontal scanning)

Selecting test chart

- 1) Select TESTMODE>PRINT>PG-TYPE in Service mode.
- 2) Enter TYPE NO from the numeric keypad and press [OK] key.
- 3) Go to the following Service mode to set up for test print. If no setting is made in Service mode, the test chart is output based on the default value of each Service mode item.

TESTMODE>PRINT		
Item	Description	Default value
COUNT	Enter the number of sheets to output. Settings: 1-99	1
PHASE [MF8300 series only]	Select [1-side] or [2-side]. [2-side] selected for 1-side devices is invalid. Settings: 0=1-side, 1=2-side	0
MODE	Specify how to form the image to be output. Regardless of PG-TYPE settings (0 or 1), the image is processed in the fixed method. Settings: 0: T-MIC 1: High LPI screen 2: Low LPI screen 3: T-BIC	0

TESTMODE>PRINT		
Item	Description	Default value
THRU	Select ON or OFF for gamma correction. Setting: 0: Normal gamma 1: Through (linear) gamma	0
NRKE	Flag to switch the color displacement correction processing 1 0: Adopt without processing 1: Adopt with processing	0
BLND	Flag to switch the color displacement correction processing 2 0: Adopt without processing 1: Adopt with processing	0
FEED	Select the paper source and press [Start] key to output in the specified settings as set in above steps. When the multi-purpose tray is selected, the sheet is fed only when paper in the specified size is set in the tray. When Cassette 2 is selected but the device has only a cassette, paper is fed from Cassette 1. *Any paper source with color paper is invalid for printing. Setting: 0: MPTray 1: Cassette 1 2: Cassette 2	1

4)Select TESTMODE>PRINT>PG-TYPE>START.

T-6-1

Trouble shooting items

Recurring faulty image

Foreign matters or lines on rollers along the paper feed path may cause faulty images in the vertical scanning direction.

Field action

See the roller pitches listed in the tables below to clean and/or replace the corresponding parts.

- MF8300 series

Roller pitch	Parts
about 44 mm	Registration roller
about 58 mm	Secondary transfer external roller
about 75 mm	Photosensitive drum
about 22 mm	Developing cylinder
about 58 mm	Fixing film
about 63 mm	Pressure roller
about 78 mm	ITB (drive roller, secondary transfer internal roller)

T-6-2

- MF8000 series

Roller pitch	Parts
about 44 mm	Registration roller
about 57 mm	Secondary transfer external roller
about 27 mm	Primary transfer roller
about 76 mm	Photosensitive drum
about 22 mm	Developing cylinder
about 57 mm	Fixing film
about 57 mm	Pressure roller
about 634 mm	ITB

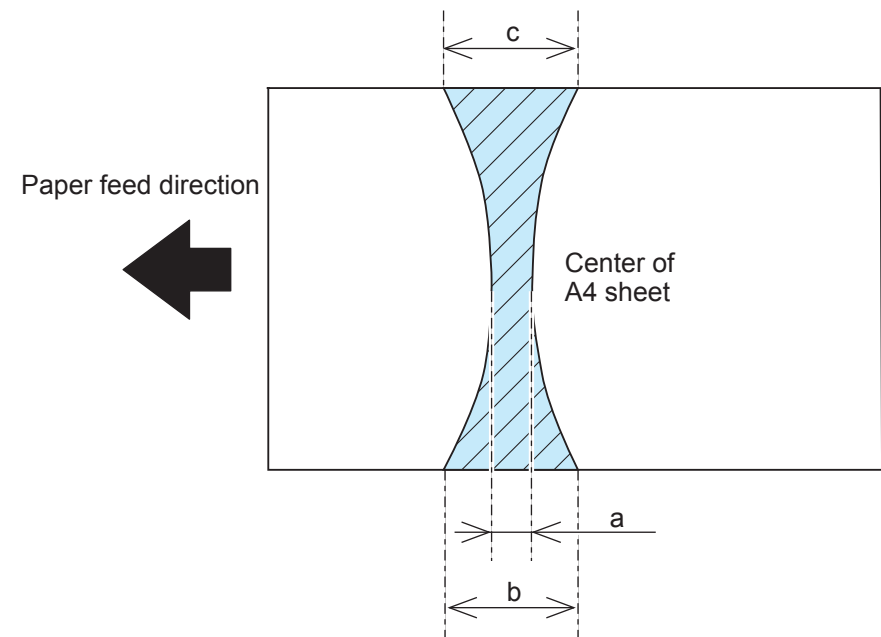
T-6-3

Confirming nip width

This product does not provide the function to adjust nip width. Improper nip width, however, may cause faulty fixing.

To avoid potential faults, confirm the nip width of the fixing assembly in the following steps.

- 1) Output a A4 sheet printed in solid black using the cartridges for this product and bring it to the customer site.
- 2) Set the solid black sheet face-down to the cassette of this product.
- 3) Use an external device to print out a solid white image on the sheet.
- 4) Open the front door after about 25 seconds from the step above and leave it for 10 seconds or more in the device to take out the printed sheet.
- 5) Measure the glossy part on the printed sheet as shown in the figure below to confirm if the width is in the tolerable ranges.
 - Center (a): 6.0+-1mm
 - Sides (b), (c): 5.0-7.5mm
 - Difference (b-c): 1.0mm or less



F-6-5

Special Management Mode

Overview

The Special Management Mode is the mode for taking a measure and solving the occurred problem by a user. However, information about this mode is not disclosed to users. Basically, if a problem is not solved when using the target item or when printing with a condition differs from the target item, be sure to return the setting to its original value. Otherwise, errors such as image error may occur.

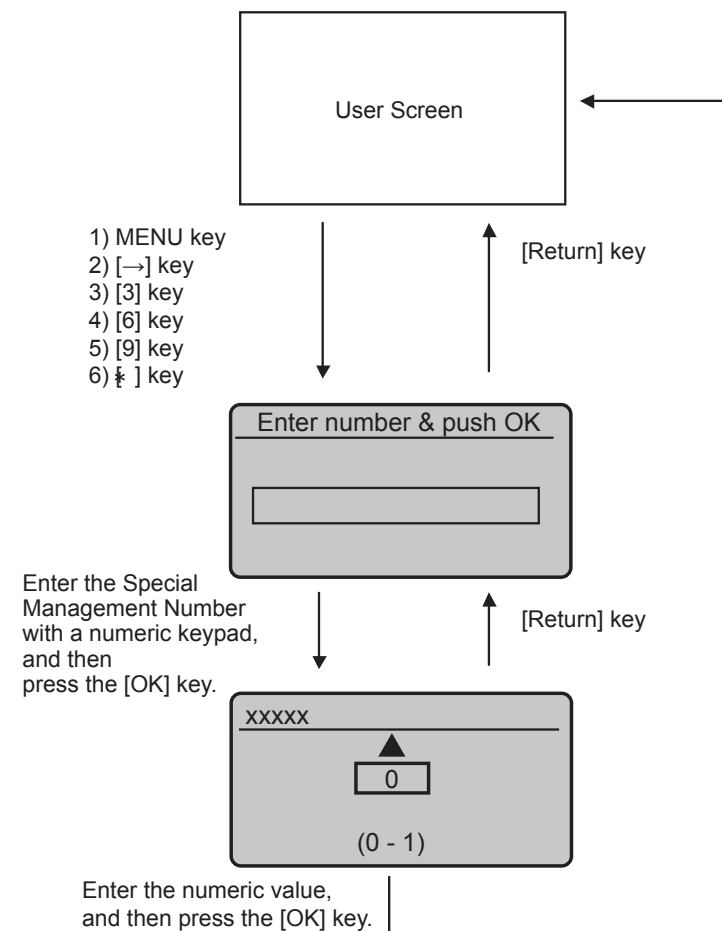
MEMO:

Items of the Special Management Mode can be set in service mode.

COPIER > FUNCTION > SPLMAN

Operational Description

Operational procedure of this mode is indicated below.



F-6-6


Menu List

Item No.	Item Name	M83	M80	Description	Setting Value
14159	Serial Number Fixation	•	•	When establishing USB connection to more than one MFP with a PC, drivers for the number of connected MFPs are installed. Fixing the USB serial number prevents to install more than one driver. However, by fixing the ID, MFP cannot be specified in an environment where HUB is used; thus, printing may not be performed correctly.	0-1 (0 by default)
27767	Highly-resistive Paper Specification (Soiled Trailing Edge Margin)	•	•	Use the item when stray toner-like traces appear around the texts or patterns depending on paper type and usage environment (especially in a low humidity environment).	0-1 (0 by default)
26535	Highly-resistive Paper Specification 2	•	-	Use the item when image error with transparency occurred.	0-1 (0 by default)
89793	Green Re-transfer Prevention Specification	-	•	Use the item when re-transfer occurred due to strong primary transfer bias.	0-1 (0 by default)
23846	Moist Paper Specification	•	-	Use the item when color text that more than 2 color toners are overlapped or patterns are paled out depending on paper type and usage environment (especially in a high humidity environment).	0-1 (0 by default)
26433	Banding Alleviation Specification	•	•	Use the item when thin and sharp horizontal lines appear on a halftone image after a long recess.	0-1 (0 by default)
14682	Image Fogging Prevention Specification 1	•	•	Use the item when toner is transferred on the non-colored area thinly at printing an image with large non-colored area using a gloss paper.	0-1 (0 by default)
83279	Chinese Paper Specification	•	•	Use the item when stray toner-like traces appear around the texts or patterns at the time of using Chinese paper.	0-1 (0 by default)
50288	Measure against ICL Error 1	•	•	Use the item when image of the n-2 print lightly appears on the nth print at the time of continuous n prints output depending on paper type and printing pattern (especially high print ratio)	0-1 (0 by default)
41971	Measure against Curl Specification 2	•	•	Use the item when a printed paper curls toward the printed side depending on paper type, usage environment (especially in a low humidity environment), and printing pattern (especially high print ratio).	0-1 (0 by default)
69399	Measure against Curl Specification 3	•	•	Use the item when a printed thin paper curls toward the printed side. Lower the fixing temperature only for thin papers.	0-1 (0 by default)
35607	Measure against Hot Offset Specification	-	•	Use the item when hot offset occurs. Decrease the control temperatures of the Fixing Assembly uniformly.	0-1 (0 by default)
37510	Any-any Mode 0	•	•	Use the item when an image error due to toner stain on the ITB caused by paper size mismatch (an image is bigger than the paper size). When paper size mismatch (an image is larger than a paper (length, width)) occurs, execute the ITB cleaning.	0-1 (0 by default)
65677	Change of the leading edge margin (increase margin)	•	•	Increase the leading edge margin. The standard margin is set when this setting causes a conflict with the setting to reduce margin.	0-20 (0.1mm unit) (0 by default)
68676	Change of the leading edge margin (reduce margin)	•	•	Reduce the leading edge margin. The standard margin is set when this setting causes a conflict with the setting to increase margin.	0-20 (0.1mm unit) (0 by default)
68677	Change of the side margin (increase margin)	•	•	Increase the side margin. The standard margin is set when this setting causes a conflict with the setting to reduce margin.	0-20 (0.1mm unit) (0 by default)
25607	Change of the side margin (reduce margin)	•	•	Reduce the side margin. The standard margin is set when this setting causes a conflict with the setting to increase margin.	0-20 (0.1mm unit) (0 by default)
80925	Maximum Host numbers available for pseudo-PushScan	•	•	Use the item to change the max. Host number to be retained at the pseudo PushScan. (MF8350/MF8330/MF8050/MF8030 only)	1-10 (10 by default)
93822	Setting of department ID count all clear	•	•	To set whether to disable clearing of all department ID counts.	0-1 (0 by default)

Item No.	Item Name	M83	M80	Description	Setting Value
78788	Setting of department ID count clear	•	•	To set whether to disable clearing of department ID count.	0-1 (0 by default)
41250	Reset of calibration	•	•	When the user allows printing at absence of toner, calibration using toner is disabled. As a remedy, calibration reset is executed by this switch.	0-1 (0 by default)
15176	Extension of detection on absence of toner	•	-	Error occurs when the drum running distance reaches a certain point in the case of toner absence. Turning this switch ON delays the occurrence of error (threshold value is changed).	0-1 (0 by default)

* For the item which has only 2 setting values "0, 1", each value means as follow: 0= OFF, 1= ON.

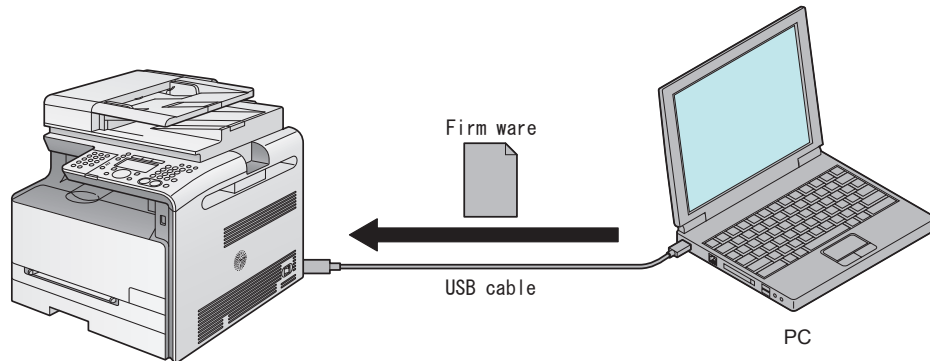
T-6-4

* M83=MF8300 series M80=MF8000 series

Version Upgrade

Overview

To upgrade versions, use the user support tool (hereinafter UST) and download firmware from a personal computer (hereinafter PC) to this product.



F-6-7

Firmware configuration

Firmware	Function	Stored in
BOOTROM	Start the main controller.	Main controller PCB
BOOTABLE	Control overall performance.	Main controller PCB
LANGUAGE	Manage languages used in panel / Remote UI and font data.	Main controller PCB
DEMO PRINT	Manage data for demo printing.	Main controller PCB
DCON	Control the printer unit.	DC controller PCB

T-6-5

Some UST versions meet less numbers of firmware than those listed above.

Preparation

System Requirements

- OS (one of the following)
 - Microsoft Windows 2000 Server/Professional
 - Microsoft Windows XP Professional/Home Edition
 - Microsoft Windows Server 2003
 - Microsoft Windows Vista
 - Microsoft Windows Server 2008
 - Microsoft Windows 7
 - Mac OS X 10.3 or later
- PC
 - Compatible to the selected OS
 - Memory (RAM): 32MB or more free space
 - Hard Disk: 100MB or more free space
 - Display: 640x480 pixels or more in resolution, 256 tones or more
 - With USB ports
- UST file for this product*
 - *: Download the corresponding file from the system CD or the service site (ask the service technician in charge for details)
- USB cable (USB1.1/2.0)

Preparation

- 1) Start the PC.
- 2) Connect the device to the PC with the USB cable.
- 3) Turn on the device on standby.
- 4) Press [Menu] key to upgrade firmware in User mode.
 - System Settings > Update Firmware
 - The message, "Will you restart the device to upgrade firmware?", is shown on the display. Select Yes.
- 5) Press OK to automatically restart the device. "****DOWNLOAD MODE****" is shown on the display.
- 6) Wait for the motor of the host machine to stop.

MEMO :
Press STOP key to cancel Download mode and return to the normal operation.

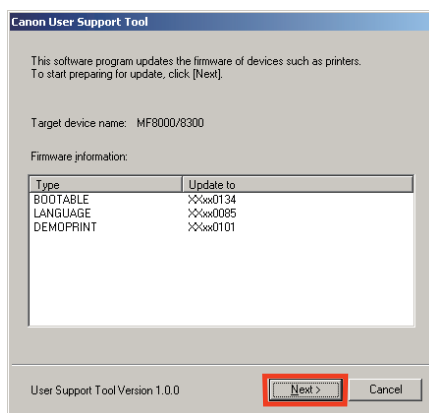
Downloading System Software

1) Open UST.



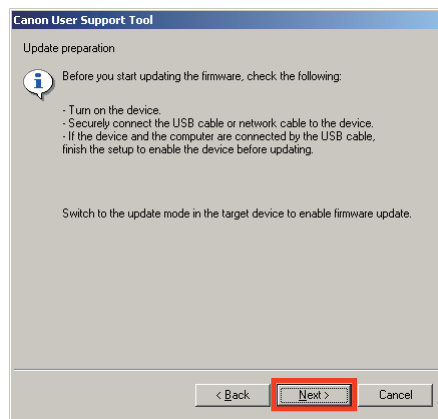
USTUPD.exe

2) Take a note of the firmware version to upgrade and click [Next] button. ^{F-6-8}



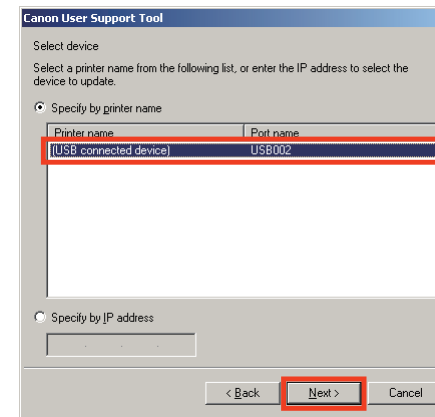
F-6-9

3) Click [Next] button.



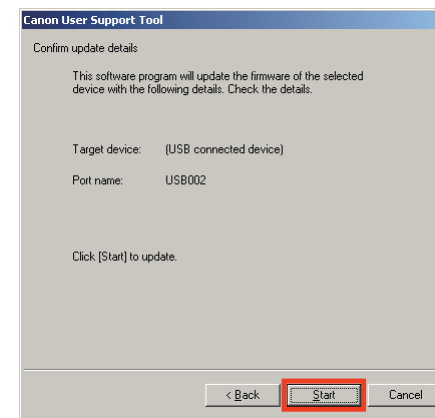
F-6-10

4) Select [USB Device] and click [Next] button.



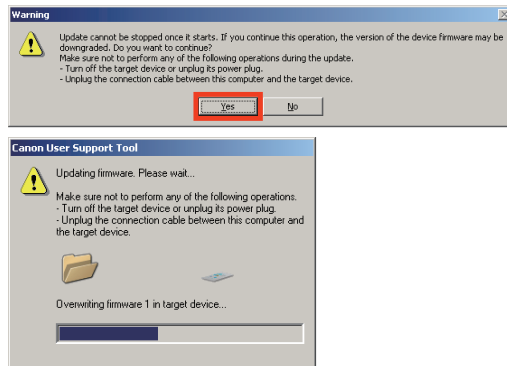
F-6-11

5) Click [Start] button.



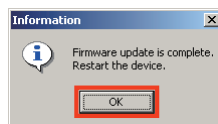
F-6-12

6) Click [Yes] button for the warning message to start download.



F-6-13

7) Click [OK] button when download is completed.



F-6-14

8) Turn off and on the power to restart the device.

9) Output the spec report from Service mode to confirm if the firmware version is the same as that on the note taken in Step 2).

COPIER> FUNCTION> MISC-P> SPEC



Error codes

- Overview
- Error Codes
- Jam Code

Overview

Outline

Outline

This section describes codes shown in case any problem is occurred.

Since this product does not collect logs for jams and alarms, no alarm code is shown.

Code type	Description	Reference
Error code	Shown for any problem occurred in the device.	List of error codes
Jam code	This code is displayed when a jam occurs inside the machine. (MF8380/MF8360/MF8340/MF8080/MF8040/MF8010 only)	List of jam codes
Alarm code	N/A	-

T-7-1

Location code

Location information is displayed as 1-digit number as follows.

Device	Location code
Host machine	3
ADF	4

T-7-2

Position code

When jam occurs, pickup location is indicated with the following pickup position code.

Device	Location code
ADF	-
MP Tray	0
Cassette 1	1
Option Cassette (Cassette Feeding Module-V1 MF8380/MF8360/MF8340 only)	2
Duplex (MF8380/MF8360/MF8340 only)	7

T-7-3

Error Codes

Whenever an error occurs, firstly turn off and on the power to check if the error is persistent.
(Controller-related errors tend to recover by power-OFF/ON.)

- M83=MF8300 series
- M80=MF8000 series

Code	M83	M80	Symptom	Actions
E000			Error in the fixing assembly start-up	
0000	•	•	Insufficient temperature rise detected by thermistor even after applying bias to the heater Cause: disconnected main thermistor / fixing heater, problem in DC controller PCB	<ul style="list-style-type: none"> • Check connectors of fixing assembly, DC controller PCB, fixing power supply unit, etc. • Replace fixing film units • Replace fixing power supply units • Replace DC controller PCBs
E001			Abnormally high temperature detected in fixing assembly	
0000	•	•	Abnormally high temperature detected by main thermistor Cause: problem in main thermistor / DC controller	<ul style="list-style-type: none"> • Check connectors of fixing assembly / DC controller PCB • Replace fixing film units • Replace fixing power supply units • Replace DC controller PCB
0001	•	-	Abnormally high temperature detected by sub thermistor (sub thermistor triggered) Cause: problem in sub thermistor / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of fixing assembly / DC controller PCB • Replace fixing film units • Replace fixing power supply units • Replace DC controller PCBs
E003			Abnormally low temperature detected in fixing assembly	
0000	•	•	Temperature drop detected by main thermistor after attaining the target temperature Cause: problem in fixing power supply unit, disconnection of main thermistor, problem in DC controller PCB	<ul style="list-style-type: none"> • Check connectors of fixing assembly / DC controller PCB • Replace fixing film/fixing power supply units • Replace DC controller PCBs
0001	•	-	Temperature drop detected by sub thermistor after attaining the target temperature (sub thermistor triggered) Cause: problem in fixing power supply unit, disconnection of sub thermistor, problem in DC controller PCB	<ul style="list-style-type: none"> • Check connectors of fixing assembly / DC controller PCB • Replace fixing film units • Replace fixing power supply units • Replace DC controller PCBs
E004			Error in fixing power supply drive circuit	
0000	•	•	Error in zero-cross signal detection for the pre-defined duration Cause: problem in fixing control circuit	<ul style="list-style-type: none"> • Check connectors of fixing assembly / DC controller PCB • Replace fixing power supply units

Code	M83	M80	Symptom	Actions
E012			Error in ITB motor startup	
0000	•	•	Error in attaining the target ITB motor rotation detected based on ITB motor speed detection signal after ITB motor is actuated. Cause: problem in ITB motor / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of ITB motor / DC controller PCB • Replace ITB motors • Replace DC controller PCBs
0001	•	•	Error in ITB motor rotation after attaining the target rotation detected based on ITB motor speed detection signal. Cause: problem in ITB motor / DC controller PCB	
E014			Error in fixing motor startup	
0000	•	-	Error in attaining the target fixing motor rotation detected based on fixing motor speed detection signal after fixing motor is actuated. Cause: problem in fixing motor / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of ITB motor / DC controller PCB • Replace ITB motors • Replace DC controller PCBs
0001	•	-	Error in fixing motor rotation after attaining the target rotation detected based on fixing motor speed detection signal. Cause: problem in fixing motor / DC controller PCB	
E015			Error in developing roller contact	
0001	•	•	Failed to detect changes in developing home position sensor signals within the pre-defined time after actuating main motor to control the developing roller contact. Cause: problem in developing home position sensor / main motor / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of developing home position sensor, main motor and DC controller PCB. • Replace developing home position sensors • Replace main motors • Replace DC controller PCBs
E020			Error in density sensor	
0000	•	•	Failed to receive sufficient light to detect image density Cause: Dirt on density sensor, problem of density sensor / DC controller PCB / toner cartridge	<ul style="list-style-type: none"> • Check DC controller PCB connectors. • Replace ITB units • Replace DC controller PCBs • Replace toner cartridges

Code	M83	M80	Symptom	Actions
E021			Error in developing motor	
1003	•	-	Cause of developing motor rotation error: problem in developing motor / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of developing motor and DC controller PCB. • Replace developing motor • Replace DC controller PCB
2003	•	•	Error in attaining the target developing motor rotation detected based on developing motor speed detection signal after developing motor is actuated. Cause: problem in developing motor / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of developing motor and DC controller PCB. • Replace developing motor • Replace DC controller PCBs
E024			Error in toner level sensor	
0000	-	•	Abnormal output of toner level sensor (Yellow) Cause: problem in toner cartridge / high-voltage power supply PCB / DC controller PCB	<ul style="list-style-type: none"> • Replace toner cartridges • Replace high-voltage power supply PCBs • Replace DC controller PCBs
0001	-	•	Abnormal output of toner level sensor (Magenta) Cause: problem in toner cartridge / high-voltage power supply PCB / DC controller PCB	
0002	-	•	Abnormal output of toner level sensor (Cyan) Cause: problem in toner cartridge / high-voltage power supply PCB / DC controller PCB	
0003	-	•	Abnormal output of toner level sensor (Black) Cause: problem in toner cartridge / high-voltage power supply PCB / DC controller PCB	
E052			Error in 2-sided unit detection	
0000	•	-	Failed to detect 2-sided unit Cause: improper 2-sided unit connection	<ul style="list-style-type: none"> • Check connectors of 2-sided unit and DC controller PCB • Replace DC controller PCBs
E066			Error in environment sensor	
0000	•	•	Error in environment sensor Cause: Problem in environment sensor / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of environment sensor and DC controller PCB. • Replace environment sensor • Replace DC controller PCBs
E070			Error in ITB / TOP sensor	
0000	•	•	Error in ITB / TOP sensor Cause: Problem in ITB / TOP sensor / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of ITB unit and DC controller PCB. • Replace ITB units • Replace DC controller PCBs

Code	M83	M80	Symptom	Actions
E078			Error in primary transfer roller contact	
0000	•	-	Primary transfer roller contact mechanism does not normally function Cause: problem in contact mechanism / ITB tension sensor / pickup motor / DC controller PCB	<ul style="list-style-type: none"> • Check contact mechanism • Check connectors of ITB tension sensor, pickup motor and DC controller PCB. • Replace ITB tension sensors • Replace pickup motors / DC controller PCBs
E100			Error in scanner motor/laser unit/BD	
0000	•	•	Failure in Yellow optical unit Cause: Problem in laser scanner unit / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of laser scanner unit and DC controller PCB • Replace laser scanner units • Replace DC controller PCBs
0001	•	•	Failure in Magenta optical unit Cause: Problem in laser scanner unit / DC controller PCB	
0002	•	•	Failure in Cyan optical unit Cause: Problem in laser scanner unit / DC controller PCB	
0003	•	•	Failure in Black optical unit Cause: Problem in laser scanner unit / DC controller PCB	
E110			Error in primary pseudo-BD correction	
0000	•	•	Scanner failed to be ready after starting up pseudo-BD control Cause: Problem in laser scanner unit / DC controller PCB	<ul style="list-style-type: none"> • Replace laser scanner units • Replace DC controller PCBs
E194			Error in Patch Sensor	
0000	•	-	Patch Sensor does not function normally Cause: Dirt on density sensor, problem in density sensor / DC controller PCB / toner cartridge	<ul style="list-style-type: none"> • Check DC controller PCB connectors • Replace ITB units • Replace DC controller PCBs • Replace toner cartridges

Code	M83	M80	Symptom	Actions
E196			Error in DCON ROM	
	0000	• •	Failed to update ROM of DC controller PCB Cause: Problem in DC controller PCB	<ul style="list-style-type: none"> Update the set of main controller firmware Replace DC controller PCB
	1000	• •	Error in writing in / reading from ROM (main) Cause: Problem in main controller PCB	<ul style="list-style-type: none"> Update the set of main controller firmware Replace DC controller PCBs
	2000	• •	Error in writing in/reading from ROM (storing settings) Cause: Problem in main controller PCB	
E198			Failure in DC controller memory	
	0000	• •	Failure in DC controller memory Cause: Problem in DC controller PC	<ul style="list-style-type: none"> Replace DC controller PCBs
E202			Error in reader HP sensor	
	0001	• •	Error in reader HP outward Failed to move to HP even when CIS unit moves backward.	<ul style="list-style-type: none"> Replace reader HP sensors Replace reader motors Replace reader units
	0002	• •	Error in reader HP homeward Failed to move to HP even when CIS unit moves forward.	
E351			System error	
	0000	• •	System error Cause: Problem in main controller PCB	<ul style="list-style-type: none"> Turn OFF and then ON the main power. Replace main controller PCBs
E733			Error in printer communication	
	0000	• •	Failure between DC controller PCB and controller PCB Cause: Poor connection between PCBs, problem in DC controller PCB / main controller PCB	<ul style="list-style-type: none"> Check connectors of DC controller PCB and main controller PCB Replace DC controller PCBs Replace main controller PCBs
E736			Error in CCU communication	
	0000	• •	Error in CCU-modem communication Cause: Problem in FAX-NCU PCB / main controller PCB	<ul style="list-style-type: none"> Update the set of main controller firmware Replace FAX-NCU PCBs Replace main controller PCBs

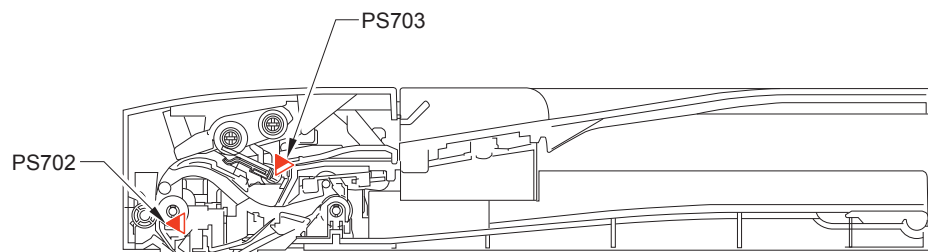
Code	M83	M80	Symptom	Actions
E744			Error in language file/BootRom/USB memory	
	0001	• •	Error in language file version The version of language file does not match to Bootable	<ul style="list-style-type: none"> Update the set of main controller firmware
	0002	• •	Error in language file size Language file exceeds allowable size	
	1001	• •	Versions of Bootable and BootRom do not match	
	4000	• •	Error in engine ID Detected illegal engine connection	<ul style="list-style-type: none"> Check DC controller Update DC controller firmware Update the set of main controller firmware
	5000	• •	Error in panel microcomputer	<ul style="list-style-type: none"> Check panel microcomputer to upgrade the version Update the set of main controller firmware Replace main controller PCBs
E746			Error in main controller PCBs	
	0000	• •	Communication error occurred in main controller PCB (other than scanner-related) Cause: Problem in main controller PCB	<ul style="list-style-type: none"> Replace main controller PCBs
E766			Error in firmware	
	xxxx	• •	Error in connection occurred due to main controller software *: xxxx Task number related to Exception is shown in decimal Cause: Problem in firmware	<ul style="list-style-type: none"> Power off/on Update firmware
	8000	• •	Incorrect digital registration 3 point information Cause: Problem in firmware	<ul style="list-style-type: none"> Power off/on Update firmware
	9000	• •	Error in laser scanner unit power supply Cause: Problem in firmware	<ul style="list-style-type: none"> Power off/on Update firmware
E804			Error in power supply cooling fan	
	0004	• -	Power supply cooling fan does not rotate in the specified rotation speed. Cause: Problem in power supply cooling fan / DC controller PCB	<ul style="list-style-type: none"> Check connectors of power supply cooling fan / DC controller PCB Replace power supply cooling fans Replace DC controller PCBs

Code	M83	M80	Symptom	Actions
E805			Error in 2-sided cooling fan	
	0005	• -	2-sided cooling fan does not rotate in the specified rotation speed. Cause: Problem in 2-sided cooling fan / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of 2-sided cooling fan / DC controller PCB • Replace 2-sided cooling fans • Replace DC controller PCBs
E806			Error in fixing / fixing power supply cooling fan	
	0000	• -	Fixing / fixing power supply cooling fan does not rotate in the specified rotation speed. Cause: Problem in fixing / fixing power supply cooling fan / DC controller PCB	<ul style="list-style-type: none"> • Check connectors of fixing/fixing power supply cooling fan and DC controller PCB • Replace fixing / fixing power supply cooling fans • Replace DC controller PCBs
E808			Error in low-voltage power supply	
	0000	• -	Printer detected failure in low-voltage power supply Cause: Failure in low-voltage power supply, problem in DC controller PCB	<ul style="list-style-type: none"> • Check connectors of power supply unit and DC controller PCB • Replace power supply units • Replace DC controller PCBs
E840			Error in pressure release mechanism	
	0000	• •	Failed to control in home position (under pressure) after starting home position control Cause: Problem in fixing drive unit / fixing pressure release cam	<ul style="list-style-type: none"> • Replace fixing drive units • Replace fixing pressure release cams

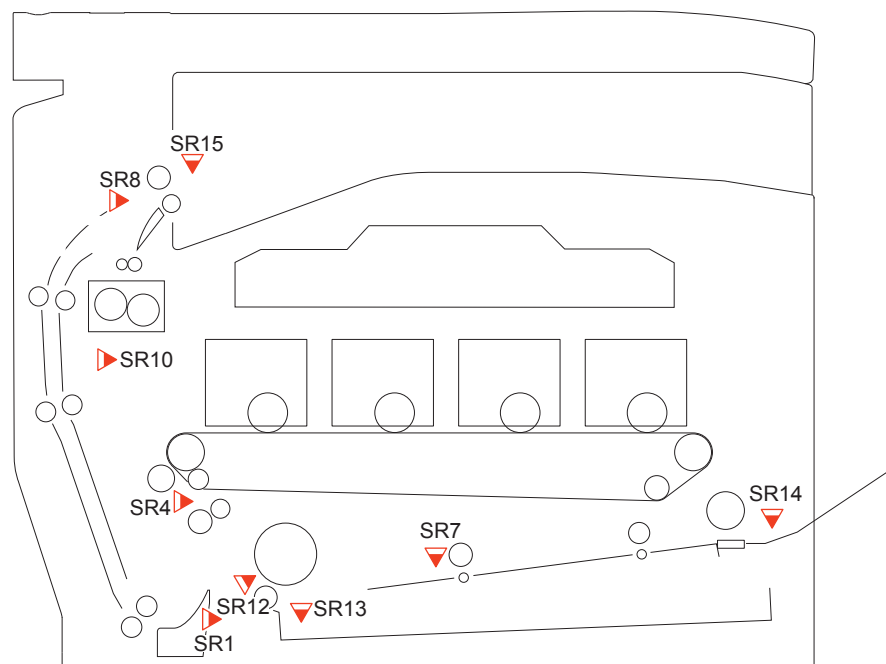
T-7-4

Jam Code

MF8380/8360/8340 Series



F-7-1

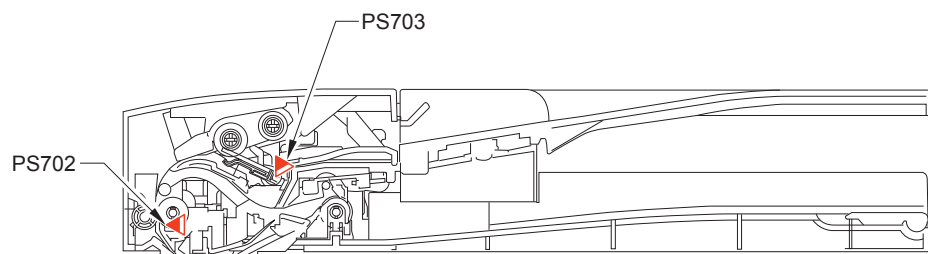


F-7-2

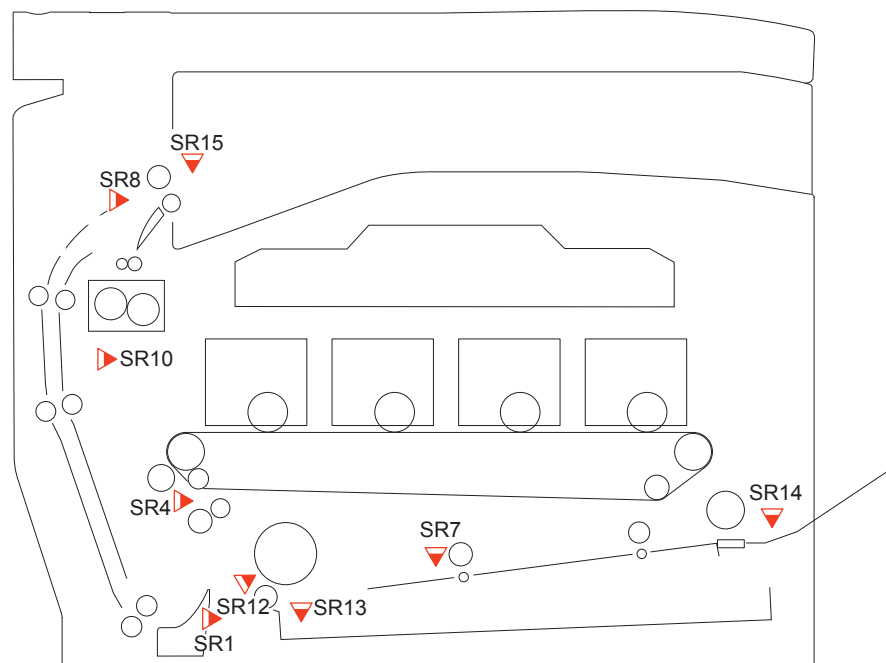
ACC ID	Jam Code	Type	Sensor Name/Detection Contents	Sensor ID	
04	0001	Delay	Document End Sensor Delay	PS703	
04	0002	Stationary	Document End Sensor	PS703	
04	0004	Delay	Document End Sensor Delay (2nd side)	PS703	
04	0005	Stationary	Document End Sensor (2nd side)	PS703	
03	0040	Size error	Size error	-	
03	0060	Size error	Size error	-	
04	0071	Sequence	Sequence Error	-	
04	0094	Power ON	Document Sensor/Document End Sensor	PS702/PS703	
03	0104	Delay	Registration Detection Sensor	SR4	
03	0105		MP Tray Pre-Registration Detection Sensor	SR7	
03	010C		Fixing Delivery Sensor	SR8	
03	014C		Delivery Full Sensor	SR15	
03	0184		Registration Detection Sensor	SR4	
03	0208	Stationary	Registration Detection Sensor	SR4	
03	0210		Fixing Delivery Sensor	SR8	
03	0217	Wrap	Registration Detection Sensor Fixing Delivery Sensor Fixing Loop Sensor MP Tray Pre-Registration Detection Sensor Paper Feeder Pre-Registration Detection Sensor	SR1/SR4/SR7/ SR8/SR10	
03	021C		Fixing Delivery Sensor	SR8	
03	0248		Stationary	Registration Detection Sensor	SR4
03	0250			Fixing Delivery Sensor	SR8
03	0257		Registration Detection Sensor Fixing Delivery Sensor Fixing Loop Sensor MP Tray Pre-Registration Detection Sensor Paper Feeder Pre-Registration Detection Sensor	SR1/SR4/SR7/ SR8/SR10	
03	025C	Wrap	Fixing Delivery Sensor	SR8	
03	02A4	Duplex revers	Registration Detection Sensor	SR4	
03	1014	Power ON	Registration Detection Sensor	SR1/SR4/SR7/ SR8/SR10	
03	1054		Fixing Delivery Sensor		
03	1094		Fixing Loop Sensor		
03	10D4		MP Tray Pre-Registration Detection Sensor Paper Feeder Pre-Registration Detection Sensor		
03	1118	Door Open	Front Cover Sensor	SR2/SR4/SR8/ SR12	
03	1158		Registration Detection Sensor		
03	1198		Pre-registration Detection Sensor		
03	11D8		Fixing Delivery Sensor		

T-7-5

MF8080/8040/8010 Series



F-7-3



F-7-4

ACC ID	Jam Code	Type	Sensor Name/Detection Contents	Sensor ID
04	0001	Delay	Document End Sensor Delay	PS703
04	0002	Stationary	Document End Sensor	PS703
04	0004	Delay	Document End Sensor Delay (2nd side)	PS703
04	0005	Stationary	Document End Sensor (2nd side)	PS703
03	0040	Size error	Size error	-
03	0060	Size error	Size error	-
04	0071	Power ON	Sequence Error	-
04	0094	Power ON	Document Sensor/Document End Sensor	PS702/PS703
03	0104	Delay	Registration Detection Sensor	SR602
03	010C		Fixing Delivery Sensor	SR609
03	014C			
03	0184		Registration Detection Sensor	SR602
03	0208	Stationary	Registration Detection Sensor	SR602
03	0210		Fixing Delivery Sensor	SR609
03	0217		Registration Detection Sensor Fixing Delivery Sensor MP Tray Pre-Registration Detection Sensor	SR602/SR605/ SR609
03	021C	Wrap	Fixing Delivery Sensor	SR609
03	0248	Stationary	Registration Detection Sensor	SR602
03	0250		Fixing Delivery Sensor	SR609
03	0257		Registration Detection Sensor Fixing Delivery Sensor MP Tray Pre-Registration Detection Sensor	SR602/SR605/ SR609
03	025C	Wrap	Fixing Delivery Sensor	SR602
03	1014	Power ON	Registration Detection Sensor	SR602/SR603/ SR609
03	1054		Fixing Delivery Sensor	
03	1094		Fixing Loop Sensor	
03	10D4			
03	1118	Door Open	Registration Detection Sensor	SR602/SR609/ SR612/SR613
03	1158		Fixing Delivery Sensor	
03	1198		Front Cover Sensor	
03	11D8		Rear Cover Sensor	

T-7-6

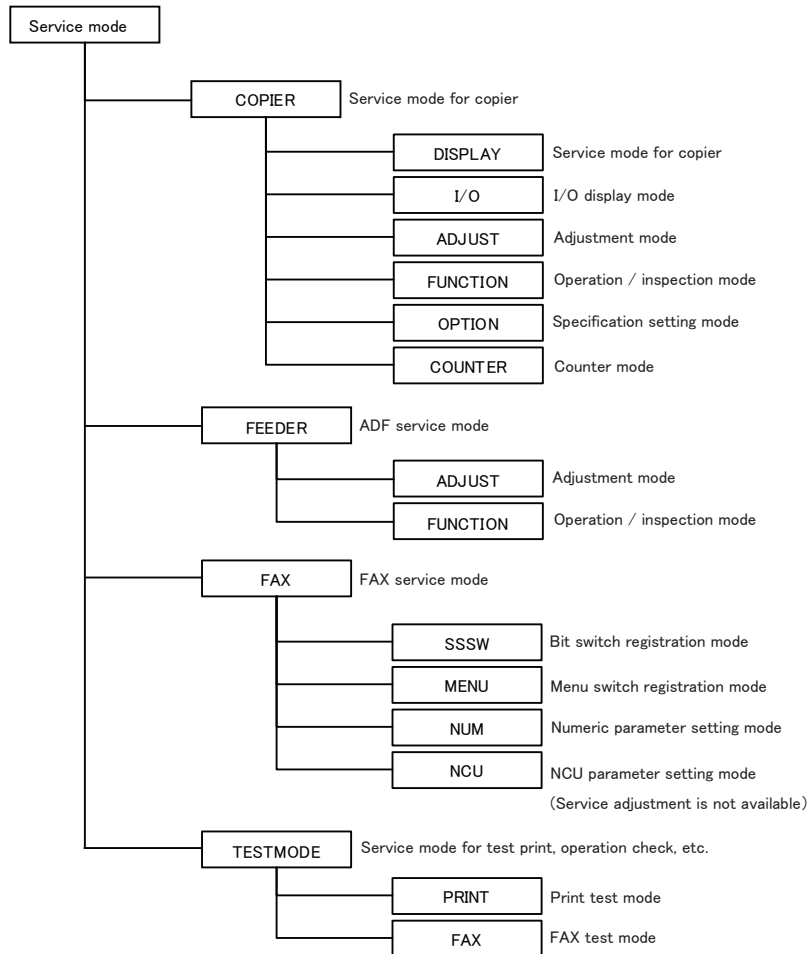


Service Mode

- Overview
- COPIER (MF8350/8330/8050/8030)
- FEEDER (MF8350/8330/8050/8030)
- FAX (MF8350/8330/8050/8030)
- TESTMODE (MF8350/8330/8050/8030)
- COPIER
- FEEDER
- FAX
- TESTMODE

Overview

Service Mode Menu



F-8-1

Backing up Service Mode

Each device is tuned at the time of shipment and the tuned values are written on the service label.

However, when replacing the main controller PCBs / DC controller PCBs or clearing RAM, tuned ADJUST and OPTION values are reset to defaults. Each service technician should adjust these values in field and ensure to write values after changes in the service label. If the corresponding item is not found on the service label, enter the value in the blank space.

- Service label position (MF8350/8330 series)



F-8-2

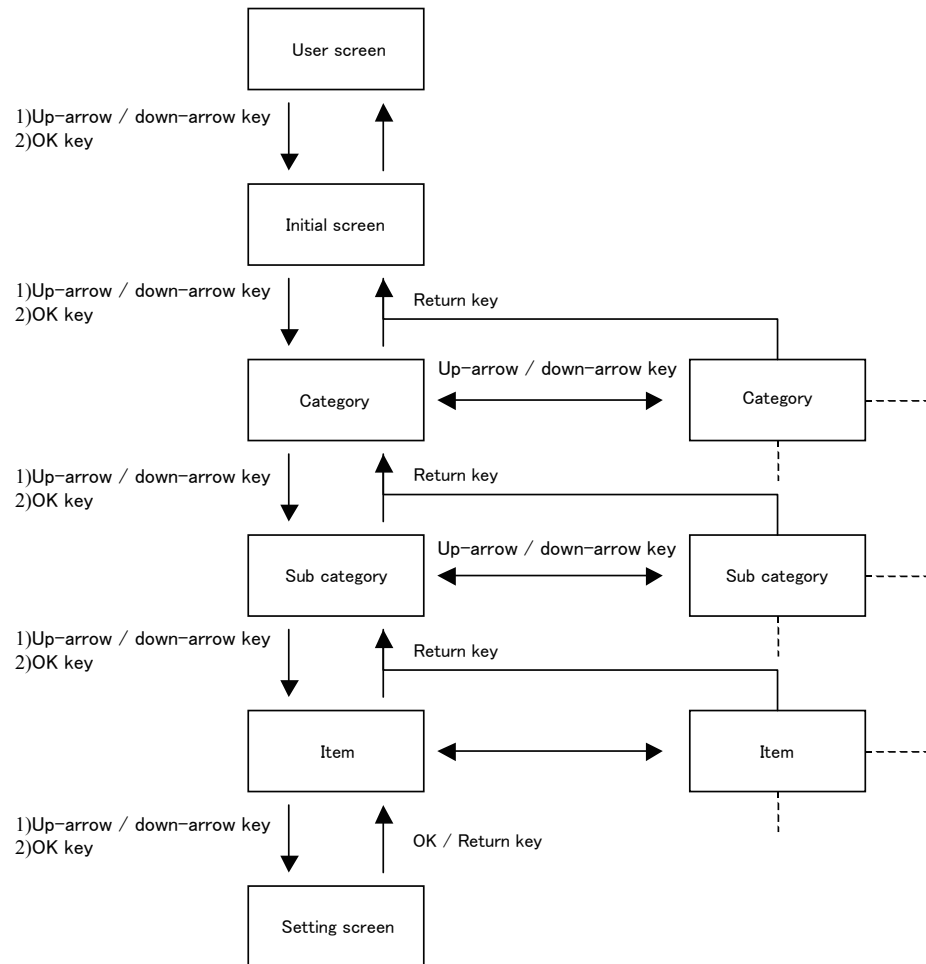
- Service label position (MF8050/8030 series)



F-8-3

Screen flow of Service Mode

Service mode structure

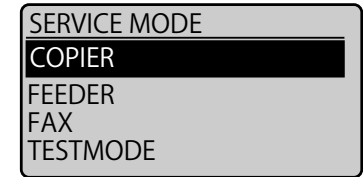


F-8-4

Screen flow of Service mode

- Initial / Category / Sub category screen

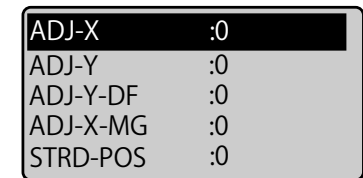
Select the item : Up-arrow / down-arrow key
 Go to Sub category screen : OK key
 Go to Initial screen : Return key



F-8-5

- Item selection screen

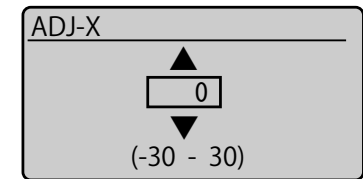
Select the item : Up-arrow / down-arrow key
 Go to Setting screen : OK key
 Go to Sub category screen : Return key



F-8-6

- Input value screen

Enter the setting value : numeric keypad
 Increment the setting value one by one : Up-arrow key
 Decrease the setting value one by one : Down-arrow key
 Nullify the setting value : Clear key
 Change the setting : OK key
 Maintain the setting : Return key



F-8-7

- How to input the switch setting value

[Enter the decimal value converted from binary 8 bit value.]

See the table below to obtain the total decimal value by summing respective digits with 1.

Bit	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Decimal value for "1"	128	64	32	16	8	4	2	1

T-8-1

(Ex.)

When converting "00100010", enter "34" as the sum of 32 (Bit 5) + 2 (Bit 2).

COPIER

DISPLAY

VERSION

COPIER > DISPLAY > VERSION	
MAIN	Display of MAIN (main program) version
Details	To display the firmware version of Main Controller PCB.
Use case	When upgrading the firmware
Adj/set/operate method	N/A (Display only)
Display/adj/set range	00.00 to 99.99
Default value	0
BOOT	Boot ROM version
Details	To display the version of Boot ROM (BOOT program).
Use case	When upgrading the firmware
Adj/set/operate method	N/A (Display only)
Display/adj/set range	00.01 to 99.99
Default value	0
LANG	Language pack version
Details	To display the version of language pack.
Use case	When upgrading the firmware
Adj/set/operate method	N/A (Display only)
Display/adj/set range	00.00 to 99.99
Default value	0
DEMODATA	Demo print data version
Details	To display the version of demo print data. Since this machine does not have demo print function, "FF.FF" is displayed.
Use case	When upgrading the firmware
Adj/set/operate method	N/A (Display only)
Display/adj/set range	00.00 to 99.99
Default value	0
ECONT	ECONT version
Details	To display the version of Engine Controller PCB.
Use case	When upgrading the firmware
Adj/set/operate method	N/A (Display only)
Display/adj/set range	00.00 to 99.99
Default value	0
PANEL	PANEL version
Details	To display the version of PANEL.
Use case	When upgrading the firmware
Adj/set/operate method	N/A (Display only)
Display/adj/set range	00.00 to 99.99
Default value	0
Related service mode	COPIER> FUNCTION> SYSTEM> PANEL-UP

COPIER > DISPLAY > VERSION	
ECO	ECO version
Details	To display the version of ECO.
Use case	When upgrading the firmware
Adj/set/operate method	N/A (Display only)
Display/adj/set range	00.00 to 99.99
Default value	0

T-8-2

ERR

Error code display screen

Up to 10 E codes and detailed codes for system errors can be shown.

110508	2310	E100-0000
110507	1024	E001-0000
110506	2310	E196-2000
110503	2310	E001-0000
110501	0913	E001-0000

F-8-8

JAM

Jam code display screen

Up to 10 Jam codes and detailed codes for system errors can be shown.

110406	1310	3-0104-1...
110406	1310	3-0040-1...
110406	1307	3-0250-1...
110404	1613	3-1118-1...

F-8-9

■ CCD

COPIER > DISPLAY > CCD	
TARGET-B Shading target value (B)	
Details	To display the shading target value of Blue. Continuous display of 128 (minimum) or 384 (maximum) is considered a failure of the CIS Unit.
Use case	At scanned image failure
Adj/set/operate method	N/A (Display only)
Display/adj/set range	128 to 384
Default value	269
Related service mode	COPIER> ADJUST> CCD> DFTAR-B
TARGET-G Shading target value (G)	
Details	To display the shading target value of Green. Continuous display of 128 (minimum) or 384 (maximum) is considered a failure of the CIS Unit.
Use case	At scanned image failure
Adj/set/operate method	N/A (Display only)
Display/adj/set range	128 to 384
Default value	270
Related service mode	COPIER> ADJUST> CCD> DFTAR-G
TARGET-R Shading target value (R)	
Details	To display the shading target value of Red. Continuous display of 128 (minimum) or 384 (maximum) is considered a failure of the CIS Unit.
Use case	At scanned image failure
Adj/set/operate method	N/A (Display only)
Display/adj/set range	128 to 384
Default value	263
Related service mode	COPIER> ADJUST> CCD> DFTAR-R
TARGETBW Shading target value (B&W)	
Details	To display the shading target value at B&W jobs. Continuous display of 128 (minimum) or 384 (maximum) is considered a failure of the Main Controller PCB.
Use case	At scanned image failure
Adj/set/operate method	N/A (Display only)
Display/adj/set range	128 to 384
Default value	276
Related service mode	COPIER> ADJUST> CCD> DFTAR-BW

T-8-3



■ R-CON

COPIER>IO>R-CON			
Address	BIT	Description	Remarks
P001	0	Display sensor status (Document end sensor)	1:Paper
	1	Display sensor status (Document sensor)	1:Paper
	2	Display sensor status (CIS home position sensor)	0: HP
	3 - 7	No sensor allocated; 0 is always shown	-
P002	-	No sensor allocated; 0 is always shown	-

T-8-4



ADJ-XY

COPIER > ADJUST > ADJ-XY	
ADJ-X	Adj of img pstn in book mode: vert scan
Details	To adjust the image reading start position (image leading edge position) in the vertical scanning direction at copyboard reading. When replacing the Engine Controller PCB/clearing the RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the trailing edge side by 0.1 mm.
Use case	<ul style="list-style-type: none"> When replacing the Reader Unit When replacing the CIS Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-30 to 30
Unit	0.1 mm
Default value	0
ADJ-Y	Adj of img pstn in book mode: horz scan
Details	To adjust the image reading start position in the horizontal scanning direction at copyboard reading. When replacing the Engine Controller PCB/clearing the RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the rear side by 0.1 mm.
Use case	<ul style="list-style-type: none"> When replacing the Reader Unit When replacing the CIS Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-10 to 10
Unit	0.1 mm
Default value	0

COPIER > ADJUST > ADJ-XY	
ADJ-Y-DF	Adj img pstn in ADF mode:horz scan
Details	To adjust the image reading start position in the horizontal scanning direction at ADF reading. When replacing the Engine Controller PCB/clearing the RAM data, enter the value of service label. As the value is incremented by 1, the image position moves to the trailing edge side by 0.1 mm.
Use case	<ul style="list-style-type: none"> When replacing the Reader Unit When replacing the CIS Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-10 to 10
Unit	0.1 mm
Default value	0
ADJ-X-MG	Fine adjustment of image magnification ratio (vertical scanning direction)
Details	To make a fine adjustment of image magnification ratio in the vertical scanning direction by changing the reading cycle of CIS. When replacing the Engine Controller PCB/clearing the RAM data, enter the value of service label. As the value is incremented by 1, the image magnification changes by 0.01 %. +: Reduce -: Enlarge
Use case	When replacing the Engine Controller PCB/clearing RAM data
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-200 to 200
Unit	0.01 %
Default value	0
STRD-POS	Adjustment of reading position at ADF stream reading
Details	To adjust the reading position at ADF stream reading. When replacing the Engine Controller PCB/clearing the RAM data, enter the value of service label.
Use case	When replacing the Engine Controller PCB/clearing RAM data
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-20 to 20
Unit	0.1 mm
Default value	0
Related service mode	COPIER> FUNCTION> INSTALL> STRD-POS

■ CCD

COPIER > ADJUST > CCD	
W-PLT-X	White level data(X) entry of white plate
Details	To enter the white level data (X) for the Standard White Plate. When replacing the ADF/Reader Unit, enter the value of service label. When replacing the Reader Upper Cover Unit, enter the value of barcode label which is affixed on the glass. When replacing the Main Controller PCB, enter the value of service label.
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the Reader Upper Cover Unit When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	7000 to 9999
Default value	8273
Related service mode	COPIER.> ADJUST> CCD> W-PLT-Y, W-PLT-Z
W-PLT-Y	White level data(Y) entry of white plate
Details	To enter the white level data (Y) for the Standard White Plate. When replacing the ADF/Reader Unit, enter the value of service label. When replacing the Reader Upper Cover Unit, enter the value of barcode label which is affixed on the glass. When replacing the Main Controller PCB, enter the value of service label.
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the Reader Upper Cover Unit When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	7000 to 9999
Default value	8737
Related service mode	COPIER.> ADJUST> CCD> W-PLT-X, W-PLT-Z

COPIER > ADJUST > CCD	
W-PLT-Z	White level data(Z) entry of white plate
Details	To enter the white level data (Z) for the Standard White Plate. When replacing the ADF/Reader Unit, enter the value of service label. When replacing the Reader Upper Cover Unit, enter the value of barcode label which is affixed on the glass. When replacing the Main Controller PCB, enter the value of service label.
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the Reader Upper Cover Unit When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	7000 to 9999
Default value	9427
Related service mode	COPIER.> ADJUST> CCD> W-PLT-X, W-PLT-Y
DFTAR-R	Adjustment of shading target value (R) at ADF reading
Details	To adjust the shading target value of Red at ADF reading. When replacing the Main Controller PCB, enter the value of service label. After executing COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2, write the value which is automatically set in the service label.
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the CIS Unit When replacing the Reader Upper Cover Unit When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	128 to 384
Default value	299
Related service mode	COPIER> DISPLAY> CCD> TARGET-R COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
DFTAR-G	Adjustment of shading target value (G) at ADF reading
Details	To adjust the shading target value of Green at ADF reading. When replacing the Main Controller PCB, enter the value of service label. After executing COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2, write the value which is automatically set in the service label.
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the CIS Unit When replacing the Reader Upper Cover Unit When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	128 to 384
Default value	309
Related service mode	COPIER> DISPLAY> CCD> TARGET-G COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2

COPIER > ADJUST > CCD	
DFTAR-B	Adjustment of shading target value (B) at ADF reading
Details	To adjust the shading target value of Blue at ADF reading. When replacing the Main Controller PCB, enter the value of service label. After executing COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2, write the value which is automatically set in the service label.
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the CIS Unit When replacing the Reader Upper Cover Unit When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	128 to 384
Default value	307
Related service mode	COPIER> DISPLAY> CCD> TARGET-B COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2
DFTAR-BW	Adjustment of shading target value (B&W) at ADF reading
Details	When replacing the Main Controller PCB, enter the value of service label. After executing COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4, write the value which is automatically set in the service label.
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the CIS Unit When replacing the Reader Upper Cover Unit When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	128 to 384
Default value	315
Related service mode	COPIER> DISPLAY> CCD> TARGETBW COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4
50-RG	Color displacement (R and G lines) correction value in the vertical scanning direction (50%)
Details	To correct the color displacement (R and G lines) in the vertical scanning direction at 50% copyboard reading. When replacing the Main Controller PCB, enter the value of service label.
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-512 to 512
Unit	0.001 line
Default value	-333
Supplement/memo	50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction reading mode.

COPIER > ADJUST > CCD	
50-GB	Color displacement (G and B lines) correction value in the vertical scanning direction (50%)
Details	To correct the color displacement (G and B lines) in the vertical scanning direction at 50% copyboard reading. When replacing the Main Controller PCB, enter the value of service label.
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-512 to 512
Unit	0.001 line
Default value	333
Supplement/memo	50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction reading mode.
100-RG	Color displacement (R and G lines) correction value in the vertical scanning direction (100%)
Details	To correct the color displacement (R and G lines) in the vertical scanning direction at 100% copyboard reading. When replacing the Main Controller PCB, enter the value of service label.
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-512 to 512
Unit	0.001 line
Default value	-333
Supplement/memo	100% reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction reading mode.

COPIER > ADJUST > CCD	
100-GB	Color displacement (G and B lines) correction value in the vertical scanning direction (100%)
Details	To correct the color displacement (G and B lines) in the vertical scanning direction at 100% copyboard reading. When replacing the Main Controller PCB, enter the value of service label.
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-512 to 512
Unit	0.001 line
Default value	333
Supplement/memo	100% reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction reading mode.
50DF-RG	Color displacement (R and G lines) correction value in the vertical scanning direction at ADF reading (50%)
Details	To correct the color displacement (R and G lines) in the vertical scanning direction at 50% ADF reading. When replacing the Main Controller PCB, enter the value of service label.
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-512 to 512
Unit	0.001 line
Default value	-333
Supplement/memo	50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction reading mode.

COPIER > ADJUST > CCD	
50DF-GB	Color displacement (G and B lines) correction value in the vertical scanning direction at ADF reading (50%)
Details	To correct the color displacement (G and B lines) in the vertical scanning direction at 50% ADF reading. When replacing the Main Controller PCB, enter the value of service label.
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-512 to 512
Unit	0.001 line
Default value	333
Supplement/memo	50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction reading mode.
100DF-RG	Color displacement (R and G lines) correction value in the vertical scanning direction at ADF reading (100%)
Details	To correct the color displacement (R and G lines) in the vertical scanning direction at 100% ADF reading. When replacing the Main Controller PCB, enter the value of service label.
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-512 to 512
Unit	0.001 line
Default value	-333
Supplement/memo	100% reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction reading mode.

COPIER > ADJUST > CCD	
100DF-GB	Color displacement (G and B lines) correction value in the vertical scanning direction at ADF reading (100%)
Details	To correct the color displacement (G and B lines) in the vertical scanning direction at 100% ADF reading. When replacing the Main Controller PCB, enter the value of service label.
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-512 to 512
Unit	0.001 line
Default value	333
Supplement/memo	100% reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction reading mode.
OFST-BW0	Adjustment of CIS (Rear) at B&W reading
Details	To adjust the offset of the CIS (Rear) when reading B&W original.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 255
Default value	138
Related service mode	COPIER>FUNCTION>CCD>BW-AGC
OFST-BW1	Adjustment of CIS (Center) at B&W reading
Details	To adjust the offset of the CIS (Center) when reading B&W original.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 255
Default value	138
Related service mode	COPIER>FUNCTION>CCD>BW-AGC
OFST-BW2	Adjustment of CIS (Front) at B&W reading
Details	To adjust the offset of the CIS (Front) when reading B&W original.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 255
Default value	138
Related service mode	COPIER>FUNCTION>CCD>BW-AGC
OFST-CL0	Adjustment of CIS (Rear) at color reading
Details	To adjust the offset of the CIS (Rear) when reading color original.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 255
Default value	138
Related service mode	COPIER>FUNCTION>CCD>CL-AGC

COPIER > ADJUST > CCD	
OFST-CL1	Adjustment of CIS (Center) at color reading
Details	To adjust the offset of the CIS (Center) when reading color original.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 255
Default value	138
Related service mode	COPIER>FUNCTION>CCD>CL-AGC
OFST-CL2	Adjustment of CIS (Front) at color reading
Details	To adjust the offset of the CIS (Front) when reading color original.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 255
Default value	138
Related service mode	COPIER>FUNCTION>CCD>CL-AGC
GAIN-BW0	Adjustment of gain at B&W reading
Details	To adjust the gain when reading B&W original.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 255
Default value	54
Related service mode	COPIER>FUNCTION>CCD>BW-AGC
GAIN-CL0	Adjustment of gain at color reading
Details	To adjust the gain when reading color original.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 255
Default value	84
Related service mode	COPIER>FUNCTION>CCD>CL-AGC
LED-BW-R	Adjustment of LED light-up time (R) at B&W reading
Details	To adjust the red color LED light-up time when reading B&W original.
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 2168
Default value	1000
Related service mode	COPIER>FUNCTION>CCD>CL-AGC
LED-BW-G	Adjustment of LED light-up time (G) at B&W reading
Details	To adjust the green color LED light-up time when reading B&W original.
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 2168
Default value	1000
Related service mode	COPIER>FUNCTION>CCD>BW-AGC

COPIER > ADJUST > CCD		
LED-BW-B	Adjustment of LED light-up time (B) at B&W reading	
Details	To adjust the blue color LED light-up time when reading B&W original.	
Adj/set/operate method	Enter the setting value, and then press OK key.	
Display/adj/set range	0 to 2168	
Default value	1000	
Related service mode	COPIER>FUNCTION>CCD>BW-AGC	
LED-CL-R	Adjustment of LED light-up time (R) at color reading	
Details	To adjust the red color LED light-up time when reading color original.	
Adj/set/operate method	Enter the setting value, and then press OK key.	
Display/adj/set range	0 to 2168	
Default value	1100	
Related service mode	COPIER>FUNCTION>CCD>BW-AGC	
LED-CL-G	Adjustment of LED light-up time (G) at color reading	
Details	To adjust the green color LED light-up time when reading color original.	
Adj/set/operate method	Enter the setting value, and then press OK key.	
Display/adj/set range	0 to 2168	
Default value	1100	
Related service mode	COPIER>FUNCTION>CCD>BW-AGC	
LED-CL-B	Adjustment of LED light-up time (B) at color reading	
Details	To adjust the blue color LED light-up time when reading color original.	
Adj/set/operate method	Enter the setting value, and then press OK key.	
Display/adj/set range	0 to 2168	
Default value	1100	
Related service mode	COPIER>FUNCTION>CCD>BW-AGC	

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COPIER > ADJUST > PASCAL		
OFST-P-M	M density adj at test print reading	
Details	To adjust the offset of M color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the Main Controller PCB, enter the value of service label. As the greater value is set, the image after adjustment gets darker.	
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the Main Controller PCB 	
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.	
Caution	After the setting value is changed, write the changed value in the service label.	
Display/adj/set range	-32 to 32	
Default value	0	
OFST-P-C	C density adj at test print reading	
Details	To adjust the offset of C color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the Main Controller PCB, enter the value of service label. As the greater value is set, the image after adjustment gets darker.	
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the Main Controller PCB 	
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.	
Caution	After the setting value is changed, write the changed value in the service label.	
Display/adj/set range	-32 to 32	
Default value	0	
OFST-P-K	Bk density adj at test print reading	
Details	To adjust the offset of Bk color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the Main Controller PCB, enter the value of service label. As the greater value is set, the image after adjustment gets darker.	
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the Main Controller PCB 	
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.	
Caution	After the setting value is changed, write the changed value in the service label.	
Display/adj/set range	-32 to 32	
Default value	0	

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PASCAL

COPIER > ADJUST > PASCAL		
OFST-P-Y	Y density adj at test print reading	
Details	To adjust the offset of Y color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the Main Controller PCB, enter the value of service label. As the greater value is set, the image after adjustment gets darker.	
Use case	<ul style="list-style-type: none"> When replacing the ADF/Reader Unit When replacing the Main Controller PCB 	
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.	
Caution	After the setting value is changed, write the changed value in the service label.	
Display/adj/set range	-32 to 32	
Default value	0	

VIFADJ

COPIER > ADJUST > VIFADJ	
DEV-HV-Y	Adjustment of developing bias setting value (Y)
Details	To adjust the setting value of Y-color developing bias.
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> DEV-HV-M, DEV-HV-C, DEV-HV-K
DEV-HV-M	Adjustment of developing bias setting value (M)
Details	To adjust the setting value of M-color developing bias.
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> DEV-HV-Y, DEV-HV-C, DEV-HV-K
DEV-HV-C	Adjustment of developing bias setting value (C)
Details	To adjust the setting value of C-color developing bias.
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> DEV-HV-Y, DEV-HV-M, DEV-HV-K
DEV-HV-K	Adjustment of developing bias setting value (Bk)
Details	To adjust the setting value of Bk-color developing bias.
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> DEV-HV-Y, DEV-HV-M, DEV-HV-C
TR1-HV-Y	Adjustment of primary transfer bias setting value (Y)
Details	To adjust the setting value of Y-color primary transfer bias.
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> TR1-HV-M, TR1-HV-C, TR1-HV-K

COPIER > ADJUST > VIFADJ	
TR1-HV-M	Adjustment of primary transfer bias setting value (M)
Details	To adjust the setting value of M-color primary transfer bias.
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> TR1-HV-Y, TR1-HV-C, TR1-HV-K
TR1-HV-C	Adjustment of primary transfer bias setting value (C)
Details	To adjust the setting value of C-color primary transfer bias.
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> TR1-HV-Y, TR1-HV-M, TR1-HV-K
TR1-HV-K	Adjustment of primary transfer bias setting value (Bk)
Details	To adjust the setting value of Bk-color primary transfer bias.
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> TR1-HV-Y, TR1-HV-M, TR1-HV-C
TR2SF-HV	Adjustment of secondary transfer bias setting value (front side)
Details	To adjust the setting value of secondary transfer bias (front side).
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> TR2BK-HV
TR2BK-HV	Adjustment of secondary transfer bias setting value (back side)
Details	To adjust the setting value of secondary transfer bias (back side).
Use case	When an image failure occurs
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-5 to 5
Default value	0
Related service mode	COPIER> ADJUST> VIFADJ> TR2SF-HV

COPIER > ADJUST > VIFADJ		
ICL-HV	Adjustment of bias setting value for ITB cleaning	
	Details	To adjust the bias setting value to be used for ITB cleaning.
	Use case	When an image failure occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-5 to 5
	Default value	0
FU-TMP	Adjustment of setting value of Fixing Roller surface temperature	
	Details	To adjust the setting value of the surface temperature of the Fixing Roller.
	Use case	When an image failure occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-2 to 2
	Default value	0

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SCNR

COPIER > ADJUST > SCNR		
SUB-S-Y0	Adjustment of emitting position 1 (Y) in the vertical scanning direction	
	Details	To adjust the Y-color emitting position 1 in the vertical scanning position.
	Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-1023 to 1023
	Default value	0
SUB-S-M0	Adjustment of emitting position 1 (M) in the vertical scanning direction	
	Details	To adjust the M-color emitting position 1 in the vertical scanning position.
	Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-1023 to 1023
	Default value	0

COPIER > ADJUST > SCNR		
SUB-S-C0	Adjustment of emitting position 1 (C) in the vertical scanning direction	
	Details	To adjust the C-color emitting position 1 in the vertical scanning position.
	Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-1023 to 1023
	Default value	0
SUB-S-K0	Adjustment of emitting position 1 (Bk) in the vertical scanning direction	
	Details	To adjust the Bk-color emitting position 1 in the vertical scanning position.
	Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-1023 to 1023
	Default value	0
SUB-S-Y1	Adjustment of emitting position 2 (Y) in the vertical scanning direction	
	Details	To adjust the Y-color emitting position 2 in the vertical scanning position.
	Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-1023 to 1023
	Default value	0
SUB-S-M1	Adjustment of emitting position 2 (M) in the vertical scanning direction	
	Details	To adjust the M-color emitting position 2 in the vertical scanning position.
	Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-1023 to 1023
	Default value	0

COPIER > ADJUST > SCNR	
SUB-S-C1	Adjustment of emitting position 2 (C) in the vertical scanning direction
Details	To adjust the C-color emitting position 2 in the vertical scanning position.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-1023 to 1023
Default value	0
SUB-S-K1	Adjustment of emitting position 2 (Bk) in the vertical scanning direction
Details	To adjust the Bk-color emitting position 2 in the vertical scanning position.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-1023 to 1023
Default value	0
SUB-S-Y2	Adjustment of emitting position 3 (Y) in the vertical scanning direction
Details	To adjust the Y-color emitting position 3 in the vertical scanning position.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-1023 to 1023
Default value	0
SUB-S-M2	Adjustment of emitting position 3 (M) in the vertical scanning direction
Details	To adjust the M-color emitting position 3 in the vertical scanning position.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-1023 to 1023
Default value	0

COPIER > ADJUST > SCNR	
SUB-S-C2	Adjustment of emitting position 3 (C) in the vertical scanning direction
Details	To adjust the C-color emitting position 3 in the vertical scanning position.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-1023 to 1023
Default value	0
SUB-S-K2	Adjustment of emitting position 3 (Bk) in the vertical scanning direction
Details	To adjust the Bk-color emitting position 3 in the vertical scanning position.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-1023 to 1023
Default value	0
MAI-S-Y0	Adjustment of scan time 1 (Y) in the horizontal scanning direction
Details	To adjust the Y-color scan time 1 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-511 to 511
Default value	0
MAI-S-M0	Adjustment of scan time 1 (M) in the horizontal scanning direction
Details	To adjust the M-color scan time 1 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-511 to 511
Default value	0
MAI-S-C0	Adjustment of scan time 1 (C) in the horizontal scanning direction
Details	To adjust the C-color scan time 1 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-511 to 511
Default value	0

COPIER > ADJUST > SCNR	
MAI-S-K0	Adjustment of scan time 1 (Bk) in the horizontal scanning direction
Details	To adjust the Bk-color scan time 1 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-511 to 511
Default value	0
MAI-S-Y1	Adjustment of scan time 2 (Y) in the horizontal scanning direction
Details	To adjust the Y-color scan time 2 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-511 to 511
Default value	0
MAI-S-M1	Adjustment of scan time 2 (M) in the horizontal scanning direction
Details	To adjust the M-color scan time 2 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-511 to 511
Default value	0
MAI-S-C1	Adjustment of scan time 2 (C) in the horizontal scanning direction
Details	To adjust the C-color scan time 2 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-511 to 511
Default value	0
MAI-S-K1	Adjustment of scan time 2 (Bk) in the horizontal scanning direction
Details	To adjust the Bk-color scan time 2 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-511 to 511
Default value	0

COPIER > ADJUST > SCNR	
MAI-S-Y2	Adjustment of scan time 3 (Y) in the horizontal scanning direction
Details	To adjust the Y-color scan time 3 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-127 to 127
Default value	0
MAI-S-M2	Adjustment of scan time 3 (M) in the horizontal scanning direction
Details	To adjust the M-color scan time 3 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-127 to 127
Default value	0
MAI-S-C2	Adjustment of scan time 3 (C) in the horizontal scanning direction
Details	To adjust the C-color scan time 3 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-127 to 127
Default value	0
MAI-S-K2	Adjustment of scan time 3 (Bk) in the horizontal scanning direction
Details	To adjust the Bk-color scan time 3 in the horizontal scanning direction.
Use case	When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-127 to 127
Default value	0

T-8-9




COPIER > FUNCTION > CCD	
DF-WLVL1	White level adj in book mode: color
Details	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass.
Use case	<ul style="list-style-type: none"> When replacing the Reader Upper Cover Unit When replacing the CIS Unit When replacing the ADF/Reader Unit
Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
Caution	Be sure to execute DF-WLVL2 in a row.
Related service mode	COPIER> ADJUST> CCD> DFTAR-R, DFTAR-G, DFTAR-B COPIER> FUNCTION> CCD> DF-WLVL2
DF-WLVL2	White level adj in ADF mode: color
Details	To adjust the white level for ADF scanning automatically by setting the paper which is usually used by the user on the ADF.
Use case	<ul style="list-style-type: none"> When replacing the Reader Upper Cover Unit When replacing the CIS Unit When replacing the ADF/Reader Unit
Adj/set/operate method	1) Set paper on the ADF. 2) Select the item, and then press OK key.
Caution	Be sure to execute this item after DF-WLVL1.
Related service mode	COPIER> ADJUST> CCD> DFTAR-R, DFTAR-G, DFTAR-B COPIER> FUNCTION> CCD> DF-WLVL1
DF-WLVL3	White level adj in book mode (B&W)
Details	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass.
Use case	<ul style="list-style-type: none"> When replacing the Reader Upper Cover Unit When replacing the CIS Unit When replacing the ADF/Reader Unit
Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
Caution	Be sure to execute DF-WLVL4 in a row.
Related service mode	COPIER> ADJUST> CCD> DFTAR-BW COPIER> FUNCTION> CCD> DF-WLVL4

COPIER > FUNCTION > CCD	
DF-WLVL4	White level adj in ADF mode (B&W)
Details	To adjust the white level for ADF scanning automatically by setting the paper which is usually used by the user on the DADF.
Use case	<ul style="list-style-type: none"> When replacing the Reader Upper Cover Unit When replacing the CIS Unit When replacing the ADF/Reader Unit
Adj/set/operate method	1) Set paper on the ADF. 2) Select the item, and then press OK key.
Caution	Be sure to execute this item after DF-WLVL3.
Related service mode	COPIER> ADJUST> CCD> DFTAR-BW COPIER> FUNCTION> CCD> DF-WLVL3
CL-AGC	CIS light intensity adj in ADF (color)
Details	To adjust the black/white level of the CIS for ADF scanning automatically by setting the paper which is usually used by the user on the ADF. (For color scanning)
Use case	<ul style="list-style-type: none"> When replacing the Reader Unit When replacing the CIS Unit
Adj/set/operate method	1) Set paper on the ADF. 2) Select the item, and then press OK key.
Related service mode	COPIER> FUNCTION> CCD> BW-AGC
BW-AGC	CIS light intensity adj in ADF (B&W)
Details	To adjust the black/white level of the CIS for ADF scanning automatically by setting the paper which is usually used by the user on the ADF. (For B&W scanning) Setting values of the following service modes are automatically calculated: COPIER > ADJUST > CCD > OFST-BW0/1/2, GAIN-BW0, LED-BW-R/G/B.
Use case	<ul style="list-style-type: none"> When replacing the Reader Unit When replacing the CIS Unit
Adj/set/operate method	1) Set paper on the ADF. 2) Select the item, and then press OK key.
Related service mode	COPIER> FUNCTION> CCD> CL-AGC COPIER > ADJUST > CCD > OFST-BW0 COPIER > ADJUST > CCD > OFST-BW1 COPIER > ADJUST > CCD > OFST-BW2 COPIER > ADJUST > CCD > GAIN-BW0 COPIER > ADJUST > CCD > LED-BW-R COPIER > ADJUST > CCD > LED-BW-G COPIER > ADJUST > CCD > LED-BW-B

T-8-10

CLEAR

COPIER > FUNCTION > CLEAR	
R-CON	Initialization of Reader/ADF
Details	To initialize the factory adjustment values of the Reader/ADF.
Use case	When clearing RAM data of the Main Controller PCB
Adj/set/operate method	Select the item, and then press OK key.
SRVC-DAT	Clearing service mode setting value
Details	To clear the service mode setting values. The user mode setting values are not cleared. The factory adjustment values of the Reader/ADF are not initialized.
Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
COUNTER	Clearing service counter
Details	To clear the counter by maintenance/part/mode. The numerator printed on a system dump list becomes 0.
Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
HIST	Clear of logs
Details	To clear the communication management/print/jam/error log.
Use case	When clearing logs
Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
ALL	Clearing setting information
Details	<ul style="list-style-type: none"> User mode setting values Service mode setting values (excluding the service counter) ID and password of the system administrator Communication management/print/jam/error log E719 error (counter meter-installed models only) The following items are not cleared/initialized. <ul style="list-style-type: none"> Service counter Factory adjustment values of the Reader/ADF
Use case	At installation
Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
Related service mode	COPIER> OPTION> BODY> LOCALE, SIZE-LC

T-8-11

MISC-R

COPIER > FUNCTION > MISC-R	
SCANLAMP	Light-up check of CIS Unit LED
Details	To light up CIS Unit LED for 3 seconds. Light up in the following order: R->G->B->R->G-B.
Use case	When replacing the CIS Unit LED
Adj/set/operate method	Select the item, and then press OK key.
Required time	3 seconds

COPIER > FUNCTION > MISC-R	
SCAN-ON	Execution of copyboard reading
Details	To execute reading of the original on the Copyboard Glass.
Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.

T-8-12

MISC-R

COPIER > FUNCTION > MISC-P	
SRVC-DAT	Output of system data list/system dump list
Details	To execute report output of the system data list and the system dump list. System data list: The service software switches and parameters used in FAX function System dump list: The number of sends/receives, the number of pages sent/received, the number of sheets printed/read, the number of errors, etc.
Adj/set/operate method	Select the item, and then press OK key.
SYS-DAT	Output of system data list
Details	To execute report output of the system data list. The service software switches and parameters used in FAX function are output.
Adj/set/operate method	Select the item, and then press OK key.
SYS-DMP	Output of system dump list
Details	To execute report output of the system dump list. The number of sends/receives, the number of pages sent/received, the number of sheets printed/read, the number of errors, etc. are output.
Adj/set/operate method	Select the item, and then press OK key.
CNTR	Output of counter report
Details	To output the counter report. The usage of functions (reading, recording, communication and copy) is output.
Adj/set/operate method	Select the item, and then press OK key.
ERR-LOG	Output of error log report
Details	To output the error log report.
Adj/set/operate method	Select the item, and then press OK key.
SPEC	Output of spec report
Details	To output the spec report. The current device specifications such as the location, model information, and ROM version are output.
Adj/set/operate method	Select the item, and then press OK key.

T-8-13

SYSTEM

COPIER > FUNCTION > SYSTEM	
DOWNLOAD	Download from USB memory (except PANEL)
Details	To perform downloading when a specified file exists in the USB memory (except PANEL). Reboot occurs twice before completion of download.
Use case	At upgrade
Adj/set/operate method	1) Install the USB memory. 2) Select the item, and then press OK key.
Caution	Do not turn OFF the power before reboot occurs twice.
Related service mode	COPIER> FUNCTION> SYSTEM> PANEL-UP
PANEL-UP	Download from USB memory (PANEL)
Details	To perform downloading when PANEL exists in the root directory of the USB memory.
Use case	At upgrade
Adj/set/operate method	1) Install the USB memory. 2) Select the item, and then press OK key. 3) Turn OFF/ON the main power switch.
Caution	Do not turn OFF/ON the power before "Executing..." disappears.
Related service mode	COPIER> FUNCTION> SYSTEM> DOWNLOAD, BKUP-UP
LOGWRITE	Writing sublog to USB memory
Details	To write sublog that includes the following information to the USB memory. <ul style="list-style-type: none"> • Job list (job names, user names, and destinations) • Communications log (destinations and user names) • Job log (user names and job names)
Use case	When analyzing the cause of a problem
Adj/set/operate method	1) Install the USB memory. 2) Select the item, and then press OK key. 3) Turn OFF/ON the main power switch.
Caution	Do not turn OFF/ON the power before "Executing..." disappears.
IMPORT	Reading of service mode setting value from USB memory
Details	To write the service mode setting values (excluding those related to Reader/ADF) to the USB memory.
Use case	When replacing the Main Controller PCB as a measure against failures
Adj/set/operate method	1) Install the USB memory. 2) Select the item, and then press OK key. 3) Turn OFF/ON the main power switch.
Caution	Do not turn OFF/ON the power before "Executing..." disappears.

COPIER > FUNCTION > SYSTEM	
EXPORT	Writing service mode setting value to USB memory
Details	To write the service mode setting values (excluding those related to Reader/ADF) to the USB memory.
Use case	When replacing the Main Controller PCB as a measure against failures
Adj/set/operate method	1) Install the USB memory. 2) Select the item, and then press OK key.
Caution	"Executing..." disappears when writing is completed.

T-8-14

VIFFNC

COPIER > FUNCTION > VIFFNC	
SMEAR-PV Execution of image smear prevention mode	
Details	To execute the image smear prevention mode. Depending on the paper type or environment (especially in a high humidity environment), thin line or fine halftone may become lighter. In this case, execute the image smear prevention mode (rotate the drum for 60 seconds after toner ejection of all colors).
Use case	When thin line or fine halftone becomes lighter
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	0: OFF, 1: ON
Default value	0
FEED-IMP Execution of pickup jam prevention mode	
Details	When using paper with which double feed is more likely to occur, pickup operation cannot be performed at the appropriate timing because of double feed. As a result of that, pickup delay jam may occur. In this case, extend the pickup interval. Jam occurrence can be prevented, but productivity decreases.
Use case	When pickup jam occurs with paper with which double feed is more likely to occur
Adj/set/operate method	Enter the value, and then press OK key.
Caution	Be sure to get approval from the user by telling that the productivity decreases to prevent jam occurrence.
Display/adj/set range	0: OFF, 1: ON
Default value	0
FOG-PV Execution of image fogging prevention mode 2	
Details	To execute the image fogging prevention mode 2 (the following 4 processing) when fogging which looks like fine vertical lines occurs on the image. <ul style="list-style-type: none"> • Toner ejection of all colors • Rotation of the drum for 60 seconds • Offset of charging • Cleaning sequence for talc paper
Use case	When fogging which looks like fine vertical lines occurs
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	0: OFF, 1: ON
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL14682

COPIER > FUNCTION > VIFFNC	
ICL-IMP Execution of ITB cleaning failure prevention 1	
Details	E352 To alleviate cleaning failure by increasing the current (bias) applied to the Cleaning Blade and Primary Transfer Roller. E353 To execute cleaning for one round of the ITB after printing 2 sheets. (It becomes 2 sheets intermittent mode.)
Use case	When an image that was on 2 sheets before appears lightly depending on paper type and print pattern (especially high printing ratio)
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	0: OFF, 1: ON
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL50288
FD-R-CHG Execution of Pickup Roller replacement mode	
Details	To move the Pickup Roller to the replacement position by executing this mode.
Use case	When replacing the Pickup Roller
Adj/set/operate method	Select the item, and then press OK key.
STOR-DCN Backup of Engine Controller PCB NVRAM	
Details	To back up the setting data in NVRAM of the Engine Controller PCB to NVRAM of the Main Controller PCB.
Use case	Before replacing the Engine Controller PCB
Adj/set/operate method	Select the item, and then press OK key.
Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
Related service mode	COPIER> FUNCTION> SYSTEM> RSTR-DCN
RSTR-DCN Restoration of Engine Controller PCB NVRAM	
Details	To restore backup information of the Engine Controller PCB NVRAM stored in the Main Controller PCB NVRAM to the Engine Controller PCB NVRAM.
Use case	After replacing the Engine Controller PCB
Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
Related service mode	COPIER> FUNCTION> SYSTEM> STOR-DCN

T-8-15

SPLMAN

COPIER > FUNCTION > SPLMAN	
SPL14159 Fixing of USB device ID	
Details	To fix the USB device ID to "000000000000". Driver for each machine is installed to a PC. However, by fixing the serial number, the PC considers that any connected machine to be the same machine; thus, there will be no need to install the drivers many times.
Adj/set/operate method	1) Enter the value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
SPL27767 Setting of highly-resistive paper	
Details	To increase the secondary transfer bias.
Use case	When a trace which looks like toner scattering occurs around the text or print pattern depending on the paper type or environment (especially in a low humidity environment)
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Related service mode	COPIER> FUNCTION> SPL26535
SPL26535 Execution of transparency image failure prevention mode	
Details	To increase the secondary transfer bias.
Use case	When any image failure occurs in case of using transparency
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Related service mode	COPIER> FUNCTION> SPL27767
SPL89793 Execution of re-transfer prevention mode	
Details	To lower the primary transfer bias.
Use case	When re-transfer occurs due to strong primary transfer bias
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0

COPIER > FUNCTION > SPLMAN	
SPL23846 Setting of moist paper	
Details	To increase the secondary transfer bias.
Use case	When color text or pattern using 2 or more colors of toner becomes lighter depending on the paper type or environment (especially in a high humidity environment)
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
SPL26433 Execution of drum idle rotation mode	
Details	To execute idle rotation of the drum.
Use case	When thin, sharp horizontal lines appear in halftone images after a long downtime
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
SPL14682 Execution of image fogging prevention mode 1	
Details	To change the developing bias.
Use case	When toner is lightly transferred to the white area in case of printing an image with large white area using glossy paper
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Related service mode	COPIER> FUNCTION> VIFFNC> FOG-PV
SPL83279 Setting of Chinese paper	
Details	To change the transfer bias.
Use case	When a trace which looks like toner scattering occurs around the text or print pattern in case of using Chinese paper
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0

COPIER > FUNCTION > SPLMAN	
SPL50288	Execution of ITB cleaning failure prevention 2
Details	E352 To alleviate cleaning failure by increasing the current (bias) applied to the Cleaning Blade and Primary Transfer Roller. E353 To execute cleaning for one round of the ITB after printing 2 sheets. (It becomes 2 sheets intermittent mode.) It is more effective than ICL-IMP.
Use case	When an image that was on 2 sheets before appears lightly depending on paper type and print pattern (especially high printing ratio) When the trailing edge of paper is soiled
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
SPL41971	Execution of curl prevention mode 1
Details	To extend the initial rotation time and paper interval, and lower the control temperature.
Use case	When paper which has been printed is curled toward the printed side depending on the paper type, environment (especially in a low humidity environment) or print pattern (especially high printing ratio)
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL69399
SPL69399	Execution of curl prevention mode 2
Details	To lower the fixing temperature when printing thin paper.
Use case	When thin paper which has been printed is curled toward the printed side
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL41971

COPIER > FUNCTION > SPLMAN	
SPL35607	Execution of down sequence prevention mode
Details	To lower the control temperature of the Fixing Assembly without exception.
Use case	When down sequence occurs
Adj/set/operate method	Select the item, and then press OK key.
Caution	Be sure to get approval from the user in advance by explaining that there is a possibility that fixing failure may occur depending on the paper type by lowering the fixing control temperature.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
SPL37510	ON/OFF of ITB cleaning at paper size mismatch
Details	Normally, when paper other than that of the specified size is fed, ITB cleaning is executed to remove toner. When 1 is set, ITB cleaning is not executed even if paper size is mismatched. Productivity improves, but toner soiling may occur.
Use case	When paper size is mismatched
Adj/set/operate method	Enter the value, and then press OK key.
Caution	Be sure to get approval from the user by telling that toner soiling may occur to improve productivity.
Display/adj/set range	0 to 1 0: ON, 1: OFF
Default value	0
SPL65677	Increase of paper leading edge margin
Details	To increase the margin on the leading edge of paper. As the value is incremented by 1, the margin is increased by 0.1 mm. If the setting is incompatible with SPL68676 (decrease of margin), the setting is disabled (the margin will be standard).
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 20
Unit	0.1 mm
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL68676

COPIER > FUNCTION > SPLMAN	
SPL68676	Decrease of paper leading edge margin
Details	To decrease the margin on the leading edge of paper. As the value is incremented by 1, the margin is decreased by 0.1 mm. If the setting is incompatible with SPL65677 (increase of margin), the setting is disabled (the margin will be standard).
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 20
Unit	0.1 mm
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL65677
SPL68677	Increase of paper right and left margins
Details	To increase the margins on the right and left edges of paper. As the value is incremented by 1, the margin is increased by 0.1 mm. If the setting is incompatible with SPL25607 (decrease of margins), the setting is disabled (the margins will be standard).
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 20
Unit	0.1 mm
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL25607
SPL25607	Decrease of paper right and left margins
Details	To decrease the margins on the right and left edges of paper. As the value is incremented by 1, the margin is decreased by 0.1 mm. If the setting is incompatible with SPL68677 (increase of margins), the setting is disabled (the margins will be standard).
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 20
Unit	0.1 mm
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL68677
SPL93822	Setting of department ID count all clear
Details	To set whether to disable clearing of all department ID counts.
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to perform this mode after consulting with the system administrator at user's site.
Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL78788

COPIER > FUNCTION > SPLMAN	
SPL78788	Setting of department ID count clear
Details	To set whether to disable clearing of department ID count.
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to perform this mode after consulting with the system administrator at user's site.
Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
Default value	0
Related service mode	COPIER> FUNCTION> SPLMAN> SPL93822
SPL41250	Reset of calibration
Details	When the user allows printing at absence of toner, calibration using toner is disabled. As a remedy, calibration reset is executed by this switch.
Use case	When the user allows printing after absence of toner is displayed.
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
SPL15176	Extension of detection on absence of toner
Details	Error occurs when the drum running distance reaches a certain point in the case of toner absence. Turning this switch ON delays the occurrence of error (threshold value is changed).
Use case	When delaying the display of "absence of toner" message
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0

T-8-16

■ INSTALL

COPIER > FUNCTION > INSTALL	
STRD-POS	Scan position auto adj in ADF mode
Details	To adjust the ADF scanning position automatically.
Use case	At ADF installation/uninstallation
Adj/set/operate method	1) Set a paper for stream reading position adjustment, and then close the ADF. 2) Select the item, and then press OK key. The operation automatically stops after the adjustment. 3) Write the value displayed by COPIER>ADJUST>ADJ-XY>STRD-POS in the service label.
Caution	Write the adjusted value in the service label.
Related service mode	COPIER> ADJUST> ADJ-XY> STRD-POS

T-8-17

OPTION

BODY

COPIER > OPTION > BODY	
TMIC-BK	ON/OFF of TMIC Bk PASCAL gamma LUT trailing edge correction
Details	To set ON/OFF of the trailing edge correction of Bk color PASCAL gamma LUT used by TMIC. When 1 is set, the density of the high density area is high. Therefore, while text and thin lines are clear, gradation of photos may become unnatural. When 0 is set, the density of the high density area becomes low. Therefore, while the gradation is improved, thin lines may be partly missing or characters may be faded.
Use case	<ul style="list-style-type: none"> When gradation of photos become unnatural When thin lines are partly missing or characters are faded
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	1
Supplement/memo	TMIC: Error diffusion correction of photo/high image quality.
TMIC-CMY	ON/OFF of TMIC Y/M/C PASCAL gamma LUT trailing edge correction
Details	To set ON/OFF of the trailing edge correction of Y/M/C color PASCAL gamma LUT used by TMIC. When 1 is set, the density of the high density area is high. Therefore, while text and thin lines are clear, the hue of gradation area of photos may change. When 0 is set, the density of the high density area becomes low. Therefore, while the gradation is improved, thin lines may be partly missing or characters may be faded.
Use case	<ul style="list-style-type: none"> When gradation of photos become unnatural When thin lines are partly missing or characters are faded
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	1
Supplement/memo	TMIC: Error diffusion correction of photo/high image quality.

COPIER > OPTION > BODY	
LOCALE	Setting of location
Details	To set the location. At installation in areas other than Japan, perform the following procedure to match the setting information with that of the location.
Use case	<ul style="list-style-type: none"> At installation When changing the location information
Adj/set/operate method	1) Enter the setting value under LOCALE, and then press OK key. 2) Set the paper size configuration under SIZE-LC. 3) Execute COPIER> FUNCTION> CLEAR> ALL. 4) Turn OFF/ON the main power switch.
Caution	Since COPIER> FUNCTION> CLEAR> ALL is executed when changing the location, the setting information of user mode, service mode, etc. is initialized. The setting information of this item is not initialized.
Display/adj/set range	1 to 8 1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia, 8: Oceania
Default value	1
Related service mode	COPIER> FUNCTION> CLEAR> ALL COPIER> OPTION> BODY> SIZE-LC
SIZE-LC	Setting of paper size configuration
Details	To set the paper size configuration. At installation in areas other than Japan, perform the following procedure to match the setting information with that of the location.
Use case	<ul style="list-style-type: none"> At installation Upon user's request
Adj/set/operate method	1) Set the location under LOCALE. 2) Enter the setting value under SIZE-LC, and then press OK key. 3) Execute COPIER> FUNCTION> CLEAR> ALL. 4) Turn OFF/ON the main power switch.
Caution	Since COPIER> FUNCTION> CLEAR> ALL is executed when changing the location, the setting information of user mode, service mode, etc. is initialized. The setting information of this item is not initialized.
Display/adj/set range	1 to 4 1: AB configuration, 2: Inch configuration, 3: A configuration, 4: AB/Inch configuration
Related service mode	COPIER> FUNCTION> CLEAR> ALL COPIER> OPTION> BODY> LOCALE

COPIER > OPTION > BODY	
NS-CMD5	Setting of CRAM-MD5 authentication method at SMTP authentication
Details	To restrict use of CRAM-MD5 authentication method at the time of SMTP authentication. When 1 is set, CRAM-MD5 authentication method is not used.
Use case	Upon user's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Used (SMTP server-dependent), 1: Not used
Default value	0
Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-PLN	Setting of plaintext authentication at SMTP authentication
Details	To restrict use of PLAIN/LOGIN authentication, which is plaintext authentication, at the time of SMTP authentication under the environment where the communication packet is not encrypted. When 1 is set, plaintext authentication is not used.
Use case	Upon user's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Used (SMTP server-dependent), 1: Not used
Default value	0
Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER > OPTION > BODY	
NS-LGN	Setting of LOGIN authentication at SMTP authentication
Details	To restrict use of LOGIN authentication at the time of SMTP authentication. When 1 is set, LOGIN authentication is not used.
Use case	Upon user's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Used (SMTP server-dependent), 1: Not used
Default value	0
Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
SLPMODE	Setting of shift to sleep mode
Details	To restrict shift to sleep mode 1/sleep mode 3. When 1 is set, the machine does not shift to sleep mode.
Use case	When sleep failure occurs
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Shift is available., 1: Shift is not available.
Default value	0

T-8-18

ACC

COPIER > OPTION > ACC	
WLANMODE	Setting of IEEE802.11n
Details	To set whether to enable IEEE802.11n which is the wireless LAN standard.
Use case	Upon user's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
Default value	0 (Europe, Middle East, Africa), 1 (Others)

T-8-19

SERIAL

COPIER > OPTION > SERIAL	
SN-MAIN	Entry of serial number
Details	To write the serial number of this machine in the Main Controller PCB. When this item is executed, the 8-digit alphanumeric entered in System Settings > Device Information > Location in user mode is written in the Main Controller PCB. When replacing the Main Controller PCB, be sure to write the serial number in the new PBC to prepare for trouble since the serial number of the device is not succeeded.
Use case	- When replacing the Main Controller PCB
Adj/set/operate method	1) Write down the current data in System Settings > Device Information > Location in user mode. 2) Replace the Main Controller PCB after turning OFF the main power switch. 3) Enter the serial number (8-digit alphanumeric) in "Location" of step 1. 4) Select SN-MAIN, and then press OK key to write in the Main Controller PCB. After writing, the serial number entered in step 3 is deleted. 5) Turn OFF/ON the main power switch. 6) Output the spec report from COPIER> FUNCTION> MISC-P> SPEC to check the serial number (Body No.). 7) Enter the data backed up in step 1 in "Location".
Caution	Since the above "Location" is only temporarily used to store data, back up the data before input and enter it again after writing is completed.
Related service mode	COPIER> FUNCTION> MISC-P> DHALF
Related user mode	System Settings > Device Information> Location

T-8-20

COUNTER

TOTAL

COPIER > COUNTER > TOTAL	
SERVICE1	Service-purposed total counter 1
Details	To count up when the paper is delivered outside the machine. The counter is advanced regardless of the original size. The counter is not advanced by delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
SERVICE2	Service-purposed total counter 2
Details	To count up when the paper is delivered outside the machine. The counter is advanced regardless of the original size. The counter is not advanced by delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
TTL	Total counter
Details	To display the total of counters of copy, PDL print, FAX, report print and media print. (Total of COPY, PDL-PRT, FAX-PRT, RPT-PRT and MD-PRT in service mode described below)
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
Related service mode	COPIER> COUNTER> TOTAL> COPY, PDL-PRT, FAX-PRT, RPT-PRT, MD-PRT
COPY	Total copy counter
Details	To count up when the copy is delivered outside the machine. The counter is advanced regardless of the original size. The counter is not advanced by delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
Related service mode	COPIER> COUNTER> TOTAL> TTL
PDL-PRT	PDL print counter
Details	To count up when the PDL print is delivered outside the machine/2-sided printout is stacked. The counter is advanced regardless of the original size. The counter is not advanced by blank paper or delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
Related service mode	COPIER> COUNTER> TOTAL> TTL

COPIER > COUNTER > TOTAL	
FAX-PRT	FAX reception print counter
Details	To count up when the FAX reception print is delivered outside the machine/2-sided printout is stacked. The counter is advanced regardless of the original size. The counter is not advanced by blank paper or delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
Related service mode	COPIER> COUNTER> TOTAL> TTL
RPT-PRT	Report print counter
Details	To count up when the report print is delivered outside the machine/2-sided printout is stacked. The counter is advanced regardless of the original size. The counter is not advanced by blank paper or delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Related service mode	COPIER> COUNTER> TOTAL> TTL
MD-PRT	Media print counter
Details	To count up when the media print is delivered outside the machine. The counter is advanced regardless of the original size. The counter is not advanced by blank paper or delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
Related service mode	COPIER> COUNTER> TOTAL> TTL
2-SIDE	2-sided copy/print counter
Details	To count up the number of 2-sided copies/prints when the copy/printout is delivered outside the machine/2-sided copy/printout is stacked. The counter is advanced regardless of the original size. The counter is not advanced by blank paper or delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of times
Default value	0
SCAN	Scan counter
Details	To count up the number of scan operations when the scanning operation is complete. The counter is advanced regardless of the original size. The counter is not advanced by delivery in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of times
Default value	0

T-8-21

PICK-UP

COPIER > COUNTER > PICK-UP	
C1	Cassette 1 pickup total counter
Details	To count up the number of sheets picked up from the Cassette 1 (standard Pickup Cassette). The counter is advanced regardless of the original size. The counter is advanced by printout in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
C2	Cassette 2 pickup total counter
Details	To count up the number of sheets picked up from the Cassette 2 (option Pickup Cassette). The counter is advanced regardless of the original size. The counter is advanced by printout in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
MF	Multi-purpose Tray pickup total counter
Details	To count up the number of sheets picked up from the Multi-purpose Tray Pickup Unit. The counter is advanced regardless of the original size. The counter is advanced by printout in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
2-SIDE	2-sided pickup total counter
Details	To count up the number of sheets picked up in duplex mode. The counter is advanced regardless of the original size. The counter is advanced by printout in service mode.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0

T-8-22

FEEDER

COPIER > COUNTER > FEEDER	
FEED	ADF original pickup total counter
Details	To count up the number of originals picked up from the ADF. The counter is advanced regardless of the original size.
Use case	When checking the total counter of original pickup by ADF
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0

T-8-23

■ JAM

COPIER > COUNTER > JAM	
TOTAL	Printer total jam counter
Details	To count up the number of total jam occurrences.
Use case	When checking the total jam counter of printer
Display/adj/set range	0 to 99999999
Unit	Number of times
Default value	0
FEEDER	ADF total jam counter
Details	When checking the total jam counter of ADF
Display/adj/set range	0 to 99999999
Unit	Number of times
Default value	0
2-SIDE	Duplex Unit jam counter
Details	To count up the number of jam occurrences in the Duplex Unit.
Use case	When checking the jam counter of Duplex Unit
Display/adj/set range	0 to 99999999
Unit	Number of times
Default value	0
MF	Multi-purpose Pickup Tray jam counter
Details	To count up the number of jam occurrences in the Multi-purpose Tray Pickup Unit. The counter is advanced by paper size mismatch or misprint.
Use case	When checking the jam counter of Multi-purpose Pickup Tray
Display/adj/set range	0 to 99999999
Unit	Number of times
Default value	0
C1	Cassette 1 pickup jam counter
Details	To count up the number of jam occurrences in the Cassette 1 (standard Pickup Cassette). The counter is advanced by paper size mismatch or misprint.
Display/adj/set range	0 to 99999999
Unit	Number of times
Default value	0
C2	Cassette 2 pickup jam counter
Details	To count up the number of jam occurrences in the Cassette 2 (option Pickup Cassette). The counter is advanced by paper size mismatch or misprint.
Display/adj/set range	0 to 99999999
Unit	Number of times
Default value	0

T-8-24

■ DRBL-2

COPIER > COUNTER > DRBL-2	
DF-SP-PD	Separation Pad parts counter: ADF
Details	To count up the number of sheets to be fed regardless of 1-sided/2-sided mode. Accumulated counter value
Use case	When checking the consumption level of parts/replacing the parts
Adj/set/operate method	To clear the counter value: Select the item, and then enter 0.
Caution	Clear the counter value after replacement.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0
DF-SP-RL	ADF Pickup Roller parts counter
Details	To count up the number of sheets to be fed regardless of 1-sided/2-sided mode. Accumulated counter value
Use case	When checking the consumption level of parts/replacing the parts
Adj/set/operate method	To clear the counter value: Select the item, and then enter 0.
Caution	Clear the counter value after replacement.
Display/adj/set range	0 to 99999999
Unit	Number of sheets
Default value	0

T-8-25

FEEDER

ADJUST

FEEDER > ADJUST	
DOCST	Fine adjustment of VSYNC timing at ADF reading [front side]
Details	To make a fine adjustment of VSYNC timing when reading the front side of original with ADF. Execute when the output image after ADF installation is displaced. When replacing the Main Controller PCB, enter the value of service label. As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1mm. (The image moves in the direction of the leading edge of the sheet.)
Use case	<ul style="list-style-type: none"> When installing ADF When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-30 to 30
Unit	0.1 mm
Default value	0
LA-SPD	Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [front side]
Details	To make a fine adjustment of the image magnification ratio in vertical scanning direction when stream reading the front side of original with ADF. As the value is incremented by 1, the image is reduced by 0.01% in vertical scanning direction. (The feeding speed increases, and the image is reduced.)
Use case	<ul style="list-style-type: none"> When installing ADF When replacing the Main Controller PCB
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	-200 to 200
Unit	0.01%
Default value	0

FEEDER > ADJUST	
DOCST2	Fine adjustment of VSYNC timing at ADF reading [back side]
Details	To make a fine adjustment of VSYNC timing when reading the back side of original with ADF. Execute when the output image after ADF installation is displaced. When replacing the Main Controller PCB, enter the value of service label. As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1mm. (The image moves in the direction of the leading edge of the sheet.)
Use case	<ul style="list-style-type: none"> When installing ADF When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-30 to 30
Unit	0.1 mm
Default value	0
DOCST-R	Fine adjustment of trailing edge at ADF reading
Details	To make a fine adjustment of trailing edge when reading original with ADF. Execute when the output image after ADF installation is displaced. When replacing the Main Controller PCB, enter the value of service label. As the value is incremented by 1, the margin at the trailing edge of the image is decreased by 0.1mm. (The image moves in the direction of the trailing edge of the sheet.)
Use case	<ul style="list-style-type: none"> When installing ADF When replacing the Main Controller PCB
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Display/adj/set range	-30 to 30
Unit	0.1 mm
Default value	0
LA-SPD2	Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [back side]
Details	To make a fine adjustment of the image magnification ratio in vertical scanning direction when stream reading the back side of original with ADF. As the value is incremented by 1, the image is reduced by 0.01% in vertical scanning direction. (The feeding speed increases, and the image is reduced.)
Use case	When replacing the Main Controller PCB
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	-200 to 200
Unit	0.01%
Default value	0

T-8-26



FEEDER > FUNCTION	
MTR-ON	Operation check of ADF Motor
Details	To start operation check of ADF Motor (M702).
Use case	At operation check
Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
Caution	Be sure to press the OK key again after execution. The operation automatically stops after approximately 5 seconds, but is not completed unless the OK key is pressed (STOP is not displayed).
Required time	Approx. 5 seconds
FEED-ON	Operation check of ADF individual feed
Details	To start operation check of the ADF individual feed in the mode specified by FEED-CHK.
Use case	At operation check
Adj/set/operate method	Select the item, and then press OK key.
Related service mode	FEEDER> FUNCTION> FEED-CHK
FEED-CHK	Setting of ADF individual feed mode
Details	To set the ADF feed mode. Feed operation is activated in the specified feed mode by executing FEED-ON.
Use case	At operation check
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
Default value	0
Related service mode	FEEDER> FUNCTION> FEED-ON

T-8-27

FAX

 List of SSSW

FAX > SSSW		
SSSW No.	Bit No.	Function
SW 01		(Errors, Copy functions)
	Bit 0	Output error codes for service technicians
	Bit 1-7	Not in use
SW 02		(Setting for network connection criteria)
	Bit 0	-
	Bit 1	-
	Bit 2	-
	Bit 3	-
	Bit 4	V34 CCR TN OFF
	Bit 5	-
	Bit 6	-
SW 03		(Echo measures)
	Bit 0	Check EQM of TCF
	Bit 1	Apply echo protect tone to V.29
	Bit 2	-
	Bit 3	-
	Bit 4	-
	Bit 5	-
	Bit 6	-
SW 04		(Measures against communication troubles)
	Bit 0	-
	Bit 1	Check CI signal frequency
	Bit 2	V21 end flag
	Bit 3	Prohibit T.30 node F kept by both parties
	Bit 4	T.30 node F echo timer
	Bit 5	Check CI signal frequency when setting PBX
	Bit 6	Do not send CNG for manual outgoing transmission
SW 05		(Standard functions, DIS signal setting)
	Bit 0	-
	Bit 1	-
	Bit 2	mm/inch conversion (text and picture / picture mode)
	Bit 3	Prohibit DIS from transmitting bit33 and the followings.
	Bit 4	Declare cut sheets
	Bit 5	-
	Bit 6	-
Bit 7	-	

FAX > SSSW		
SSSW No.	Bit No.	Function
SW 06		(Setting of reading criteria)
	Bit 0	-
	Bit 1	-
	Bit 2	-
	Bit 3	-
	Bit 4	Reading Width 0:A4 1:LTR
	Bit 5	-
	Bit 6	-
Bit 7	-	
SW 07 - SW 11		Not in use
SW 12		(Page timer setting)
	Bit 0	1 page timeout (outgoing transmission)
	Bit 1	1 page timeout (outgoing transmission)
	Bit 2	1 page timeout (HT transmission)
	Bit 3	1 page timeout (HT transmission)
	Bit 4	1 page timeout (incoming transmission)
	Bit 5	1 page timeout (incoming transmission)
	Bit 6	-
Bit 7	1 page timeout	
SW 13		-
	Bit 0	-
	Bit 1	-
	Bit 2	Convert mm/inch when transmitting received image
	Bit 3	-
	Bit 4	-
	Bit 5	-
	Bit 6	-
Bit 7	-	
SW 14		-
	Bit 0	-
	Bit 1	-
	Bit 2	Convert inch to mm in both main/vertical scanning directions or only in vertical scanning direction
	Bit 3	-
	Bit 4	Declare resolution for inch series
	Bit 5	-
	Bit 6	-
Bit 7	-	
SW 15 - SW 17		Not in use

FAX > SSSW		
SSSW No.	Bit No.	Function
SW 18		-
	Bit 0	Detect carrier disconnection between DCS and TCF
	Bit 1	Waiting time for carrier disconnection between DCS and TCF
	Bit 2	Prohibit communication control for IP network
	Bit 3	-
	Bit 4	-
	Bit 5	-
	Bit 6	-
SW 19 - SW 21	Not in use	
SW 22		-
	Bit 0	-
	Bit 1	-
	Bit 2	-
	Bit 3	Prohibit manual polling actions
	Bit 4	-
	Bit 5	-
	Bit 6	-
SW 23 - SW 24	Not in use	
SW 25		(Setting for report display function)
	Bit 0	Prioritize the received abbreviated name to the dialed abbreviated name
	Bit 1-7	Not in use
SW 26 - SW 27	Not in use	
SW 28		-
	Bit 0	Prohibit calling party for V8 procedure
	Bit 1	Prohibit called party from V8 procedure
	Bit 2	Prohibit calling party from V8 late-start
	Bit 3	Prohibit called party from V8 late-start
	Bit 4	Prohibit V.34 called party from starting fallback
	Bit 5	Prohibit V.34 calling party from starting fallback
	Bit 6	-
Bit 7	-	
SW 29	Not in use	
SW 30		-
	Bit 0	-
	Bit 1	-
	Bit 2	-
	Bit 3	-
	Bit 4	-
	Bit 5	New duak tibe detection
	Bit 6	-
Bit 7	-	
SW 31 - SW 35	Not in use	

T-8-28

List of MENU

Menu switch registration mode		
No.	Parameter	Selection
01 - 04	Not in use	
05	ON/OFF of NL equalizer	0: OFF, 1: ON
06	Telephone line monitor	0 - 3 0: DIAL, 1: SERVICEMAN1, 2: SERVICEMAN2, 3: OFF
07	Transmission level (ATT)	0 - 15
08	Upper limit of V.34 modulation speed	0 - 5 0: 3429 BAUD, 1: 3200 BAUD, 2: 3000 BAUD, 3: 2800 BAUD, 4: 2743 BAUD, 5: 2400 BAUD
09	Upper limit of V.34 data speed	0-13 0: 33.6 kbps, 1: 31.2 kbps, 2: 28.8 kbps, 3: 26.4 kbps, 4: 24.0 kbps, 5: 21.6 kbps, 6: 19.2 kbps, 7: 16.8 kbps, 8: 14.4 kbps, 9: 12.0 kbps, 10: 9.6 kbps, 11: 7.2 kbps, 12: 4.8 kbps, 13: 2.4 kbps
10	OFF Hook signal frequency	0-2 0: 50 Hz, 1: 25 Hz, 2: 17 Hz
11 - 20	Not in use	

T-8-29

List of NUM

Numeric parameter setting mode		
No.	Parameter	Allowable setting range
01	Not in use	
02	RTN transmission criteria X	1 to 99 %
03	RTN transmission criteria n	2 to 99 times
04	RTN transmission criteria m	1 to 99 lines
05	NCC pause (before ID code)	1 to 60 sec
06	NCC pause (after ID code)	1 to 60 sec
07	Spare	
08	STORED_DIAL_MODE wait timer	0 to 65 sec
09	Not in use	
10	T.30 T0 timer	55 sec principally
11	T.30 T1 timer (for incoming transmission)	0 to 9999 (France: 3500, Others: 3000)
12	Maximum incoming lines	0 to 65535 (line) 0: without limitation
13	T.30 EOL timer	500 to 3000 (set to 55 sec by default)
14	Not in use	
15	Threshold between hokking nad on-hook	0 to 999

Numeric parameter setting mode		
No.	Parameter	Allowable setting range
16	Lead time to the first response when switching between FAX and TEL	0 to 9
17	Duration to activate pseudo-RBT cadence	0 to 999
18	Duration to deactivate pseudo-RBT cadence (short)	0 to 999
19	Duration to deactivate pseudo-RBT cadence (long)	0 to 999
20	Duration to activate pseudo-ring cadence	0 to 999
21	Duration to deactivate OFF Hook cadence (short)	0 to 999
22	Duration to deactivate OFF Hook cadence (long)	0 to 999
23	CNG detection level when switching between FAX and TEL	0 to 7
24	Pseudo-RBT outgoing level when switching between FAX and TEL	10 to 20 (100 V) 0 to 20 (120, 230 V)
25	CNG monitor duration while the answering device is activated	0 to 999
26	No signal detection level while the answering device is activated	0 to 7
27 - 48	Not in use	
49	NSX MODEL ID	0 to 4095
50	Not in use	
51	Threshold to detect hook	10 to 9999
52	Not in use	
53	Set DTMF calling counts when receiving FAX remotely	10 to 9999 (default 25)
54	Set Busy Tone outgoing duration when using handset	
55 - 80	Not in use	

T-8-30

Setting of NCU Parameters

TONE/PULSE

Operation Method

1) Setting of Tone Parameters

While "#NCU" is displayed, press "OK" key -> Select "#TONE" and press "OK" key so that it becomes tone parameter setting mode.

2) Setting of Pulse Parameters

While "#NCU" is displayed, press "OK" key -> Select "#PULSE" and press "OK" key so that it becomes pulse parameter setting mode.

Item		Function	Setting range
TONE	01;	Tone signal sending time (PSTN)	10 to 9999 (msec)
	02;	Minimum pause time (PSTN)	10 to 9999 (msec)
PULSE	PULSE FORM	Pulse digit format	0 -> DP (N)
			1 -> DP (N+1)
			2 -> DP (10-N)
	PULSE NUM	01;	-
02;		-	-
03;		Pulse dial make ratio	10 to 90 (%)
04;		Minimum pause time	10 to 9999 (msec)

T-8-31

■ DIAL TONE

● Bit Switch

Bit No.	Function	1	0
Bit 0	-	-	-
Bit 1	-	-	-
Bit 2	Signal frequency	Changed	Not changed
Bit 3	-	-	-
Bit 4	Judgment of intermittent signal	start from valid ON signal	start from either valid ON signal or OFF signal
Bit 5	-	-	-
Bit 6	Signal form	Continuous	Intermittent
Bit 7	Signal detection	Detected	Not detected

T-8-32

● Numeric value parameter

Parameter No.	Function	Setting range
01;	T0 timer	0 to 9999 (x 10 msec)
02;	T1 timer	0 to 9999 (x 10 msec)
03;	T2 timer	0 to 9999 (x 10 msec)
04;	T3 timer	0 to 9999 (x 10 msec)
05;	T4 timer	0 to 9999 (x 10 msec)
06;	Signal detection table	0 to 16
07;	Signal detection level	0 to 7
08;	Number of signal frequency	0 to 9999

T-8-33

■ 2nd DIAL TONE

● Bit Switch

Bit No.	Function	1	0
Bit 0	-	-	-
Bit 1	-	-	-
Bit 2	Signal frequency	Changed	Not changed
Bit 3	-	-	-
Bit 4	Judgment of intermittent signal	start from valid ON signal	start from either valid ON signal or OFF signal
Bit 5	-	-	-
Bit 6	Signal form	Continuous	Intermittent
Bit 7	Signal detection	Detected	Not detected

T-8-34

● Numeric value parameter

Parameter No.	Function	Setting range
01;	T0 timer	0 to 9999 (x 10 msec)
02;	T1 timer	0 to 9999 (x 10 msec)
03;	T2 timer	0 to 9999 (x 10 msec)
04;	T3 timer	0 to 9999 (x 10 msec)
05;	T4 timer	0 to 9999 (x 10 msec)
06;	Signal detection table	0 to 16
07;	Signal detection level	0 to 7
08;	Number of signal frequency	0 to 9999

T-8-35

BUSY TONE 0

Bit Switch

Bit No.	Function	1	0
Bit 0	-	-	-
Bit 1	-	-	-
Bit 2	-	-	-
Bit 3	-	-	-
Bit 4	-	-	-
Bit 5	-	-	-
Bit 6	-	-	-
Bit 7	Signal detection	Detected	Not detected

T-8-36

Numeric value parameter

Parameter No.	Function	Setting range
01;	-	-
02;	T1 timer	0 to 9999 (x 10 msec)
03;	T2 timer	0 to 9999 (x 10 msec)
04;	T3 timer	0 to 9999 (x 10 msec)
05;	T4 timer	0 to 9999 (x 10 msec)
06;	-	-
07;	-	-
08;	Number of signal frequency	0 to 9999

T-8-37

BUSY TONE 1

Bit Switch

Bit No.	Function	1	0
Bit 0	-	-	-
Bit 1	-	-	-
Bit 2	Signal frequency	Changed	Not changed
Bit 3	RBT signal detection	Detected	Not detected
Bit 4	Judgment of intermittent signal	start from valid ON signal	start from either valid ON signal or OFF signal
Bit 5	RBT signal check cycle	1cycle	1/2 cycle
Bit 6	Signal form	Continuous	Intermittent
Bit 7	Signal detection	Detected	Not detected

T-8-38

Numeric value parameter

Parameter No.	Function	Setting range
01;	-	-
02;	T1 timer	0 to 9999 (x 10 msec)
03;	T2 timer	0 to 9999 (x 10 msec)
04;	T3 timer	0 to 9999 (x 10 msec)
05;	T4 timer	0 to 9999 (x 10 msec)
06;	Signal detection table	0 to 16
07;	Signal detection level	0 to 7
08;	Number of signal frequency	0 to 9999

T-8-39

REORDER TONE

Bit Switch

Bit No.	Function	1	0
Bit 0	-	-	-
Bit 1	-	-	-
Bit 2	Signal frequency	Changed	Not changed
Bit 3	-	-	-
Bit 4	Judgment of intermittent signal	start from valid ON signal	start from either valid ON signal or OFF signal
Bit 5	-	-	-
Bit 6	Signal form	Continuous	Intermittent
Bit 7	Signal detection	Detected	Not detected

T-8-40

Numeric value parameter

Parameter No.	Function	Setting range
01;	-	-
02;	T1 timer	0 to 9999 (x 10 msec)
03;	T2 timer	0 to 9999 (x 10 msec)
04;	T3 timer	0 to 9999 (x 10 msec)
05;	T4 timer	0 to 9999 (x 10 msec)
06;	Signal detection table	0 to 16
07;	Signal detection level	0 to 7
08;	Number of signal frequency	0 to 9999

T-8-41

AUTO RX

Numeric value parameter

Parameter No.	Function	Setting range
01;	CI ON time	0 to 9999 (x 10 msec)
02;	CI LONG ON time	0 to 9999 (x 10 msec)
03;	CI OFF time	0 to 9999 (x 10 msec)
04;	CI LONG OFF time	0 to 9999 (x 10 msec)
05;	CI MAX OFF time	0 to 9999 (x 10 msec)
06;	CI WAIT time	0 to 9999 (x 10 msec)
07;	CI frequency	0 to 9999 (cycle)
08;	CI frequency lower limit	0 to 9999 (Hz)
09;	CI frequency upper limit	0 to 9999 (Hz)

T-8-42

CNG DETECT

Numeric value parameter

Parameter No.	Description	Setting range
01;	At F/T switching	CNG mIN ON time 0 to 9999 (x 10 msec)
02;		CNG mAX ON time 0 to 9999 (x 10 msec)
06;		Hit ratio 0 to 9999 (%)
07;	At direct connecting to answering phone	CNG mIN ON time 0 to 9999 (x 10 msec)
08;		CNG mAX ON time 0 to 9999 (x 10 msec)
09;		Tolerable time of instantaneous interruption 0 to 9999 (x 10 msec)
11;		Number of detection 0 to 9999 (times)
12;		Hit ratio 0 to 9999 (%)

T-8-43

RKEY

Numeric value parameter

Parameter No.	Function	Setting range
01;	Connection time of flash	0 to 9999 (x 10 msec)
02;	Connection time of grounding wire	0 to 9999 (x 10 msec)

T-8-44

■ PBX DIAL TONE 1

● Bit Switch

Bit No.	Function	1	0
Bit 0	-	-	-
Bit 1	-	-	-
Bit 2	Signal frequency	Changed	Not changed
Bit 3	-	-	-
Bit 4	Judgment of intermittent signal	start from valid ON signal	start from either valid ON signal or OFF signal
Bit 5	-	-	-
Bit 6	Signal form	Continuous	Intermittent
Bit 7	Signal detection	Detected	Not detected

T-8-45

● Numeric value parameter

Parameter No.	Function	Setting range
01;	T0 timer	0 to 9999 (x 10 msec)
02;	T1 timer	0 to 9999 (x 10 msec)
03;	T2 timer	0 to 9999 (x 10 msec)
04;	T3 timer	0 to 9999 (x 10 msec)
05;	T4 timer	0 to 9999 (x 10 msec)
06;	Signal detection table	0 to 16
07;	Signal detection level	0 to 9
08;	Number of signal frequency	0 to 9999

T-8-46

■ PBX BUSY TONE

● Bit Switch

Bit No.	Function	1	0
Bit 0	-	-	-
Bit 1	-	-	-
Bit 2	-	-	-
Bit 3	-	-	-
Bit 4	-	-	-
Bit 5	-	-	-
Bit 6	-	-	-
Bit 7	Signal detection	Detected	Not detected

T-8-47

● Numeric value parameter

Parameter No.	Function	Setting range
01;	-	-
02;	T1 timer	0 to 9999 (x 10 msec)
03;	T2 timer	0 to 9999 (x 10 msec)
04;	T3 timer	0 to 9999 (x 10 msec)
05;	T4 timer	0 to 9999 (x 10 msec)
06;	-	-
07;	-	-
08;	Number of signal frequency	0 to 9999

T-8-48

TESTMODE

PRINT

TESTMODE > PRINT	
PG-TYPE	Setting of PG number
Details	To set the PG number of the test print.
Use case	At trouble analysis
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 5 0: PASCAL correction chart 1 1: PASCAL correction chart 2 2: Color chart 3: Skew correction chart 4: Rainbow chart (vertical scanning direction) 5: Rainbow chart (horizontal scanning direction)
Default value	0
COUNT	Setting of PG output quantity
Details	To set the number of sheets for PG output.
Use case	At trouble analysis
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	1 to 99
Unit	1 sheet
Default value	1
PHASE	Setting of PG 2-sided mode
Details	To set 1-sided/2-sided print for PG output. Even if 2-sided print is set for a machine that only supports 1-sided print, the setting is disabled.
Use case	At trouble analysis
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
Default value	0
MODE	Setting of test print image formation method
Details	To set the image formation method for the test print. If PG-TYPE is 0/1, this setting is disabled because a specific image formation method is applied.
Use case	At trouble analysis
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 3 0: T-MIC (T-MIC), 1: High screen ruling (SCA), 2: Low screen ruling (SCB), 3: TBIC
Default value	0

TESTMODE > PRINT	
THRU	Setting of image correction table at test print
Details	It is possible to check the density characteristics due to the density correction process when normal gamma LUT is used, and the density characteristics of the engine when the linear gamma LUT is used.
Use case	At trouble analysis
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 1 0: Normal gamma LUT, 1: Through (linear) gamma LUT
Default value	0
Supplement/memo	Gamma LUT: Density gradation characteristic table
NRKE	ON/OFF of laser scanning transfer process of test print
Details	To perform line transfer process for skew correction of test print engine's laser scanning.
Use case	At trouble analysis
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Supplement/memo	Transfer process: A process to correct skew of laser scanning in vertical scanning direction
BLND	ON/OFF of interpolation process at test print
Details	To set ON/OFF of interpolation process at test print (linked with NSC). When 1 is set, interpolation process is performed (no phase shift).
Use case	At trouble analysis
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Supplement/memo	Interpolation process: A process to predict, for pixels holding no color information, color based on the surrounding pixels, and then set up the color information.
FEED	Setting of paper source at test print
Details	To set the paper sources at the time of test print output. If this mode is set when there is no Cassette 2 (option Pickup Cassette), output is from Cassette 1 (standard Pickup Cassette). If color paper is loaded in the specified paper source, there is no output because the setting is disabled.
Use case	When outputting a test print
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 2 0: Multi-purpose Tray, 1: Cassette 1, 2: Cassette 2
Default value	1

TESTMODE > PRINT	
START	Output of test print
Details	To output a test print with the PG pattern set in PG-TYPE, MODE, etc.
Use case	At trouble analysis
Adj/set/operate method	Press OK key.

T-8-49

FAX

MODEM

TESTMODE > FAX > MODEM	
RELAY-1	NCU relay test 1
Details	To test ON/OFF of relay and port switch of NCU. This mode is disabled for an NCU with no relay and port switch.
Use case	When analyzing the cause of a problem
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 6 0: All OFF, 1: CML ON/OFF, 2: P ON/OFF, 3: S ON/OFF, 4: H ON/OFF, 5: HD ON/OFF, 6: R ON/OFF
Default value	0
Related service mode	TESTMODE> FAX> MODEM> RELAY-2
RELAY-2	NCU relay test 2
Details	To test ON/OFF of relay and port switch of NCU. This mode is disabled for an NCU with no relay and port switch.
Use case	When analyzing the cause of a problem
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 7 0: All OFF, 1: CIST2 ON/OFF, 2: C1 ON/OFF, 3: NORG ON/OFF, 4: DCSEL ON/OFF, 5: DCLIM ON/OFF, 6: IPSEL1 ON/OFF, 7: IPSEL2 ON/OFF
Default value	0
Related service mode	TESTMODE> FAX> MODEM> RELAY-1

TESTMODE > FAX > MODEM	
FREQ	Frequency test
Details	To test whether the specified frequency is oscillated. By closing or opening the DC circuit in accordance with the setting value, the specified frequency is oscillated by the tone transmission function of the modem. Check this with the speaker.
Use case	When analyzing the cause of a problem
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 7 0: OFF, 1: 462 Hz, 2: 1100 Hz, 3: 1300 Hz, 4: 1500 Hz, 5: 1650 Hz, 6: 1850 Hz, 7: 2100 Hz
Default value	0
G3TX	G3 signal transmission test
Details	To test whether the specified G3 signal is transmitted. By closing or opening the DC circuit in accordance with the setting value, the specific G3 signal pattern is transmitted at the specified transmission speed by the G3 signal transmission function of the modem. Check this with the speaker.
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 9 0: OFF, 1: 300 bps, 2: 2400 bps, 3: 4800 bps, 4: 7200 bps, 5: 9600 bps, 6: TC7200 bps, 7: TC9600 bps, 8: 12000 bps, 9: 14400 bps
Default value	0
DTMFTX	DTMF transmission test
Details	To test whether the specified DTMF signal is transmitted. By closing or opening the DC circuit in accordance with the setting value, the specified DTMF signal is transmitted by the DTMF transmission function of the modem. Check this with the speaker.
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 12 0: OFF, 1: 1, 2: 2, 3: 3, 4: 4, 5: 5, 6: 6, 7: 7, 8: 8, 9: 9, 10: 0, 11: *, 12: #
Default value	0
Supplement/memo	DTMF (Dual Tone Multi Frequency): Signal method combining two specific frequencies like a push-tone phone.

TESTMODE > FAX > MODEM	
V34G3TX	V.34 G3 signal transmission test
Details	To test whether the specified V.34 G3 signal is transmitted. By closing or opening the DC circuit in accordance with the setting value, the specific G3 signal pattern is transmitted at the specified transmission speed and modulation speed by the G3 signal transmission function (V.34) of the modem. Check this with the speaker. A setting value other than 0 is indicated as a 3-digit integer (1st digit: modulation speed, last 2 digits: transmission speed). A value other than the specified numerical value is invalid.
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 614 0: OFF <ul style="list-style-type: none"> First digit (Modulation speed/baud rate) 1: 2400 baud, 2: 2743 baud, 3: 2800 baud, 4: 3000 baud, 5: 3200 baud, 6: 3429 baud Last 2 digits (Transmission speed) 01: 2400 bps, 02: 4800 bps, 03: 7200 bps, 04: 9600 bps, 05: 12000 bps, 06: 14400 bps, 07: 16800 bps, 08: 19200 bps, 09: 21600 bps, 10: 24000 bps, 11: 26400 bps, 12: 28800 bps, 13: 31200 bps, 14: 33600 bps
Default value	0

T-8-50

TESTMODE > PRINT	
DETECT2	Calling tone detection test 1
Details	To check calling tone signal and FED. Set the CML relay to ON and detect the calling tone. The detection results are displayed on the console (UART).
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Supplement/memo	CML (Connect Modem to Line) relay: Relay installed at the NCU (Network Control Unit) Board to switch between the telephone and fax.
DETECT3	Calling tone detection test 2
Details	To check calling tone signal and FED. Set the CML relay to OFF and detect the calling tone. The detection results are displayed on the console (UART).
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Supplement/memo	CML (Connect Modem to Line) relay: Relay installed at the NCU (Network Control Unit) Board to switch between the telephone and fax.

T-8-51

FACULTY

TESTMODE > PRINT	
G34800TX	G3 4800 bps signal transmission test
Details	To test whether the G3 signal is transmitted at 4800 bps. By closing or opening the DC circuit, the specific G3 signal pattern is transmitted at 4800 bps by the G3 signal transmission function. Check this with the speaker.
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
DETECT1	Ring detection
Details	To check the ON/OFF state of CI, FC, and hook from the line. The detection results are displayed on the console (UART).
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Be sure to set the value back to 0 after the test.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Supplement/memo	CI (Calling Identification): Ring signal UART (Universal Asynchronous Receiver Transmitter): Console

Appendex

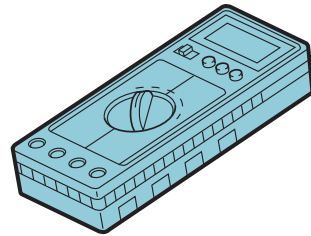
- Special Tools
- Solvents and Oils
- General Circuit Diagram
- General Timing Chart

Service Tools

Special Tools

In addition to the standard tools set, the following special tools are required when servicing the machine:

Name of Tool	Parts.No	Use
Digital Multimeter	FY9-2002	Used as a probe extension when making electrical checks.



F-9-1

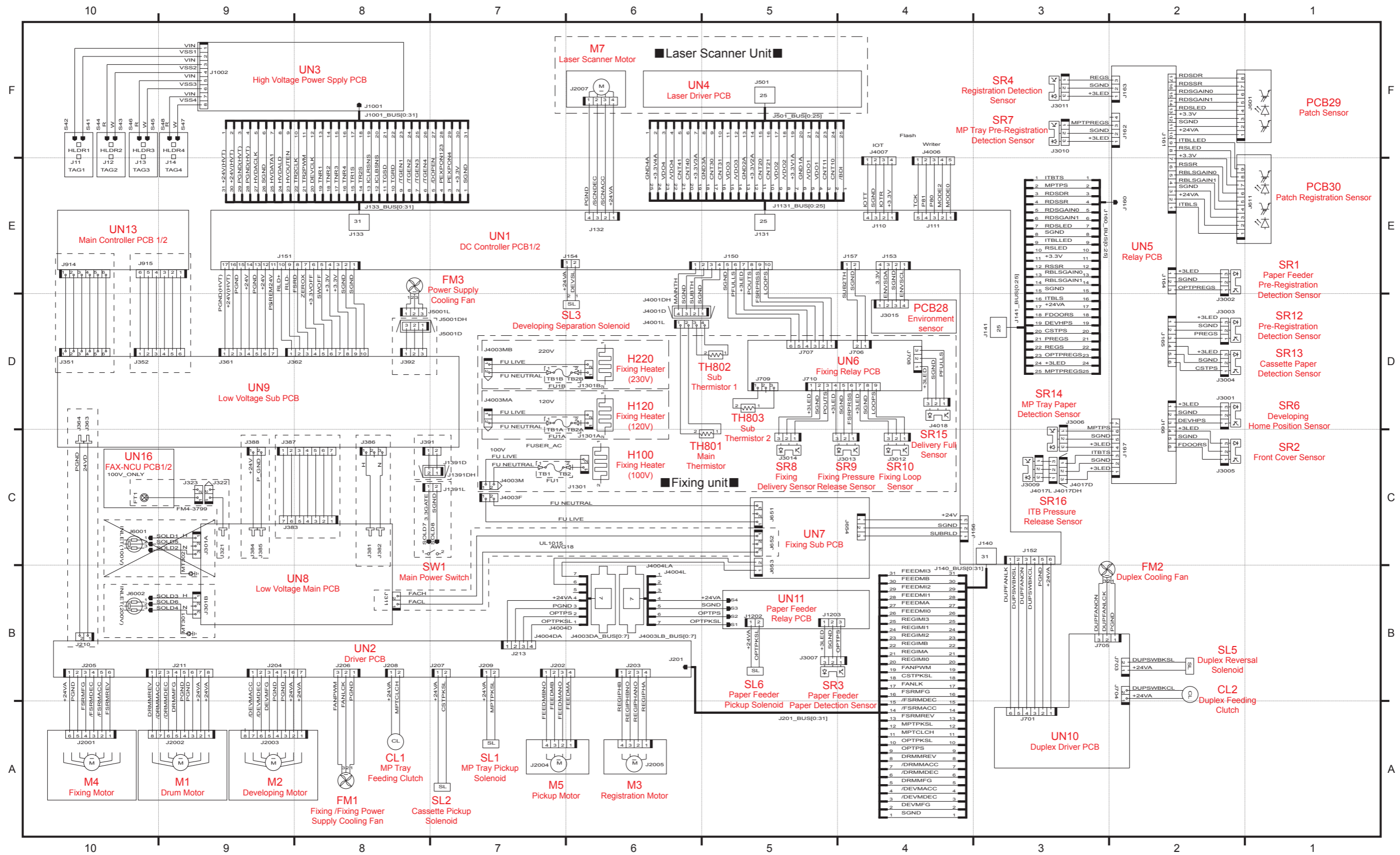
T-9-1

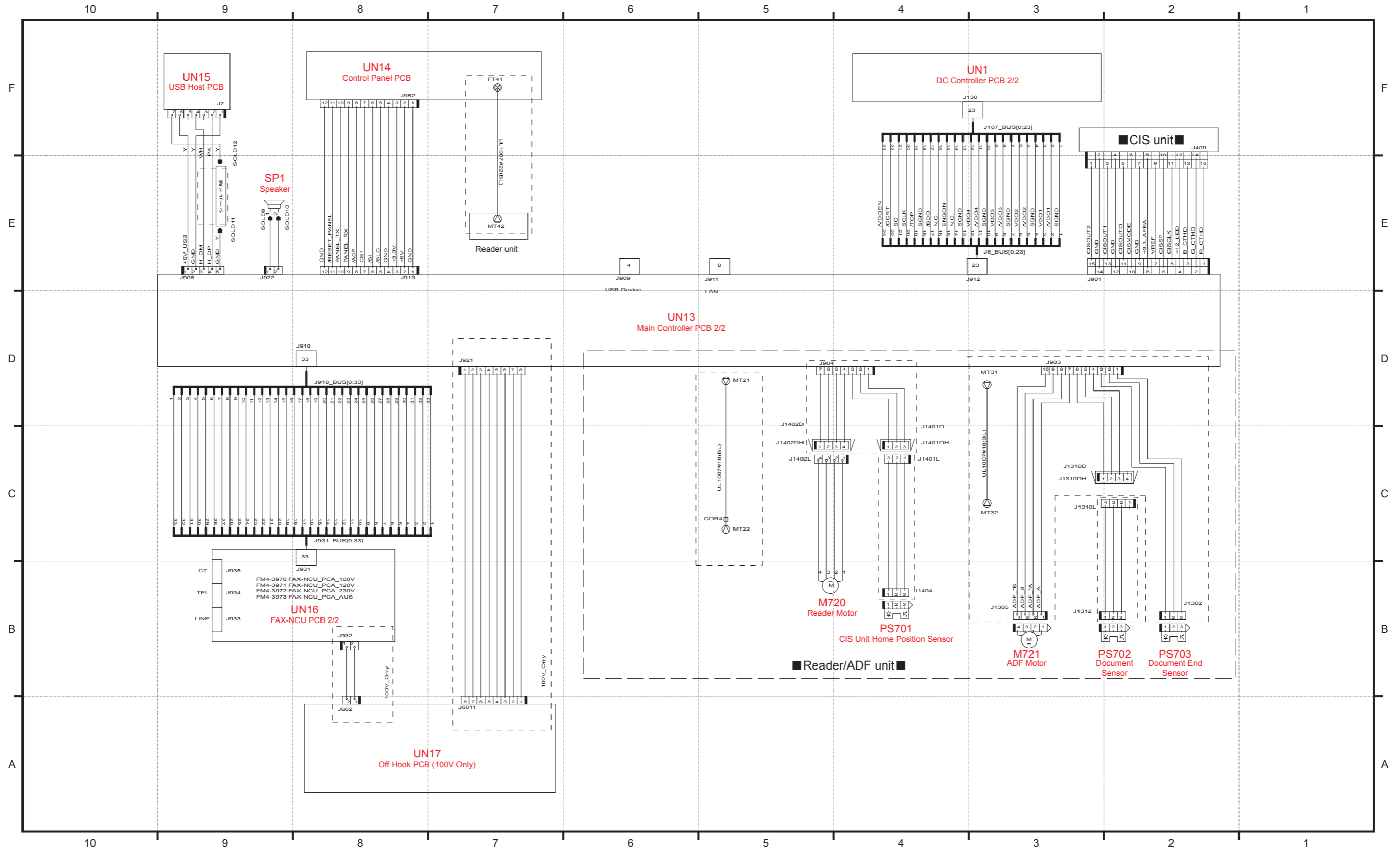
Solvents and Oils

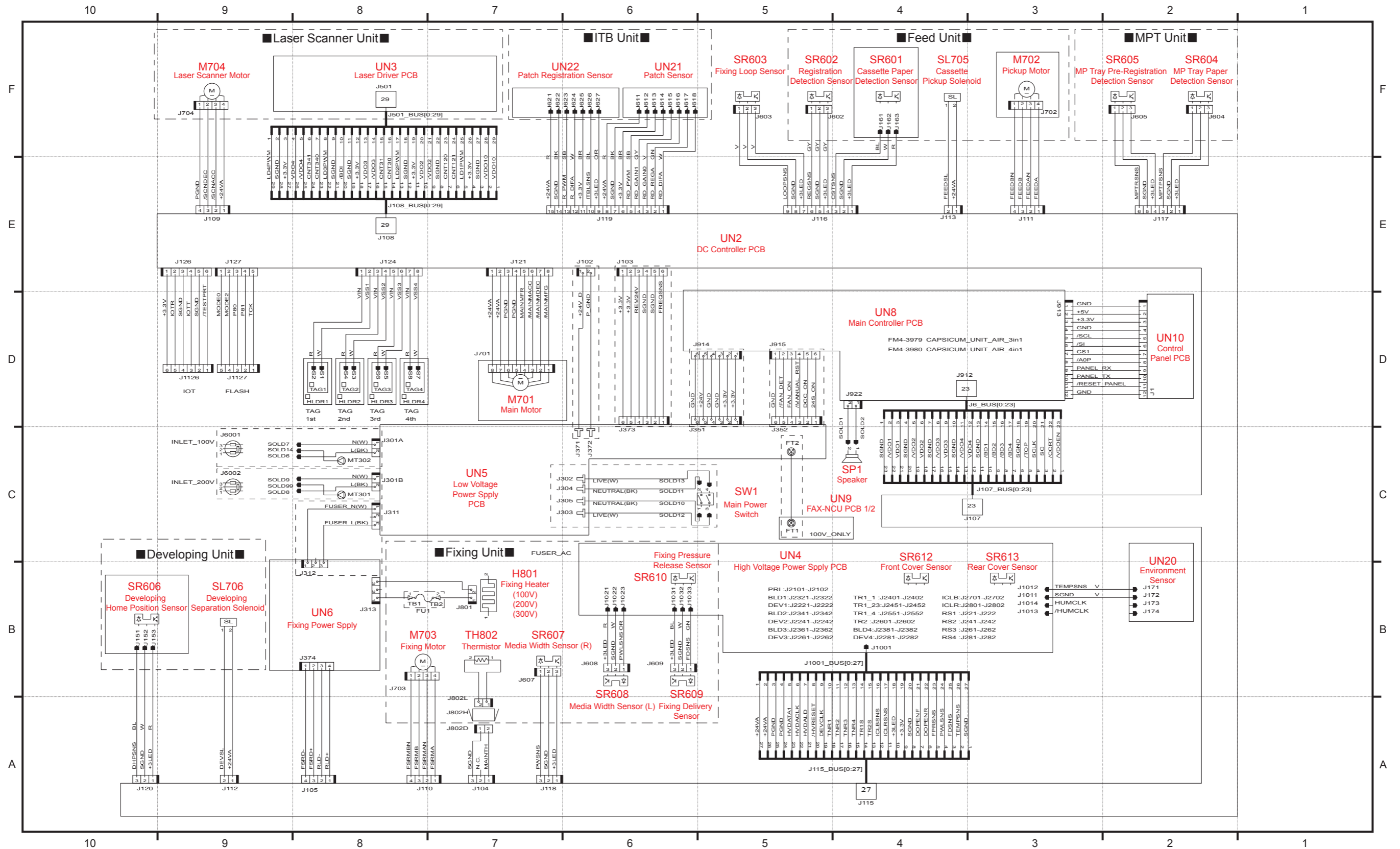
The table below lists the standard tools required in service works for this product.

No.	Name of Tool	Use	Remarks
1	Alcohol	Cleaning: Plastic Rubber Metal part Oil stain Toner stain	<ul style="list-style-type: none"> Keep away from flame Purchase locally
2	Lubricant	Apply to gear	<ul style="list-style-type: none"> HY9-0007 (MOLYCOTE EM-50L)
3	Lubricant	Apply to ADF scanning area	<ul style="list-style-type: none"> FY9-6020(Oil glass cleaner)

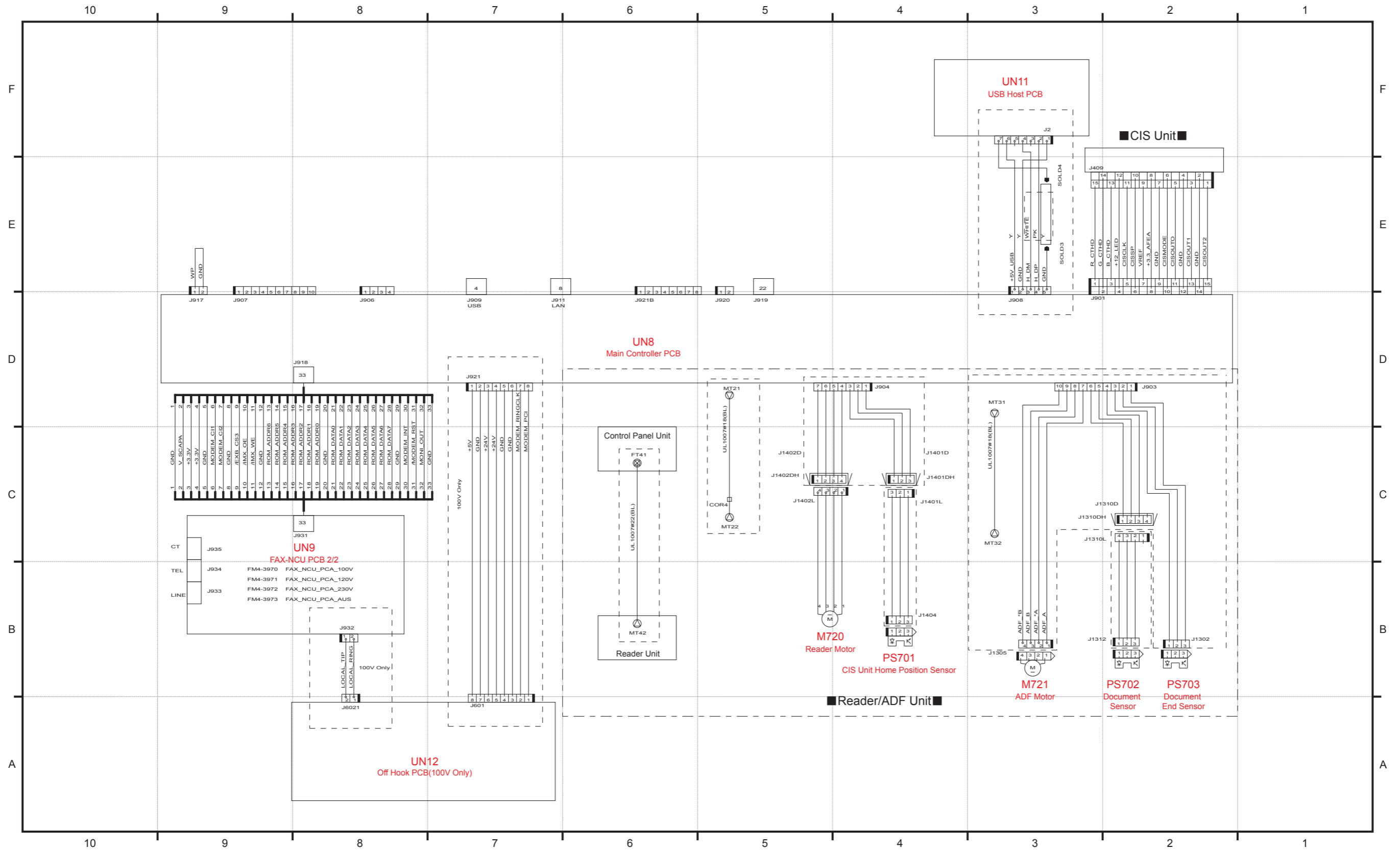
T-9-2

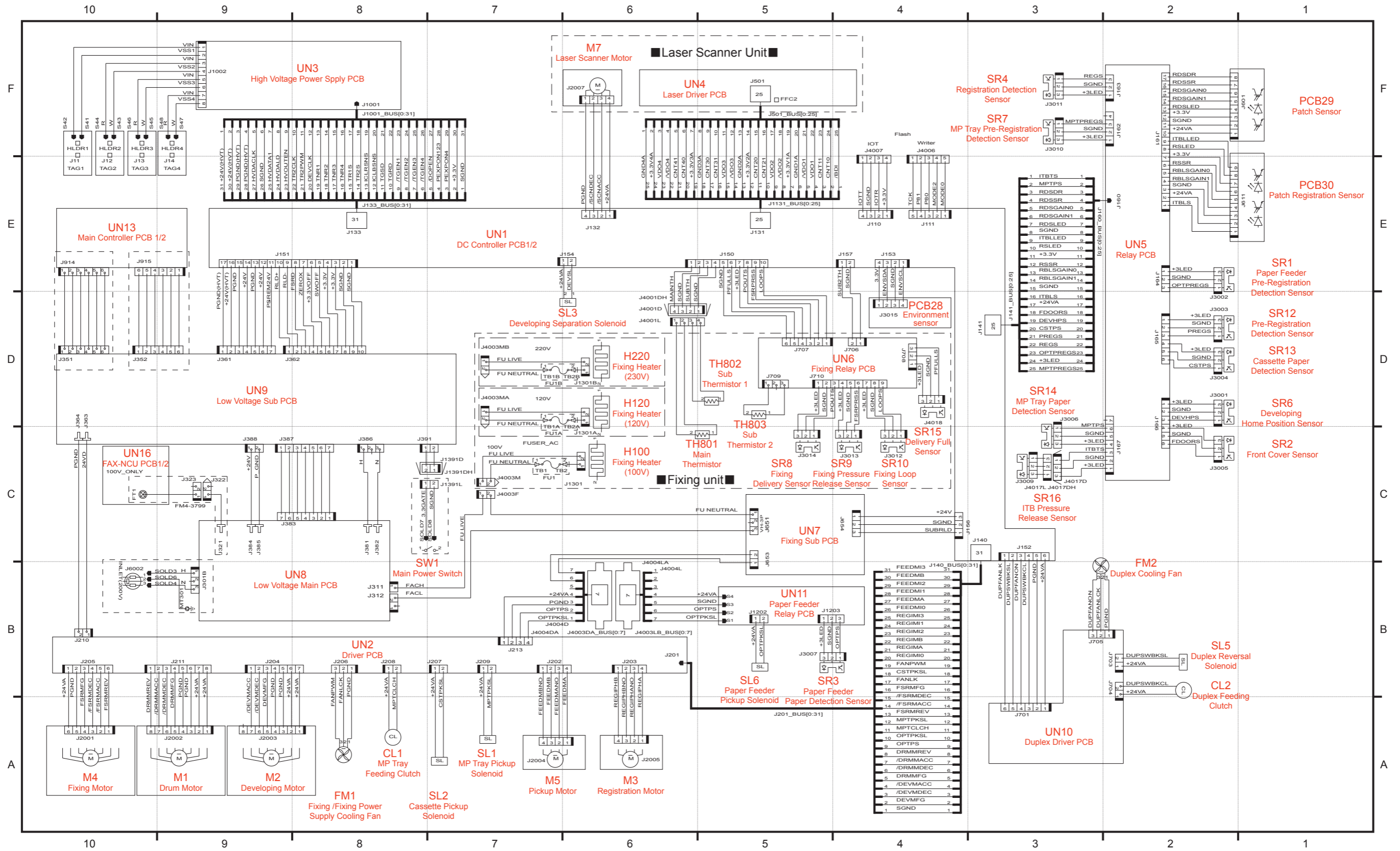




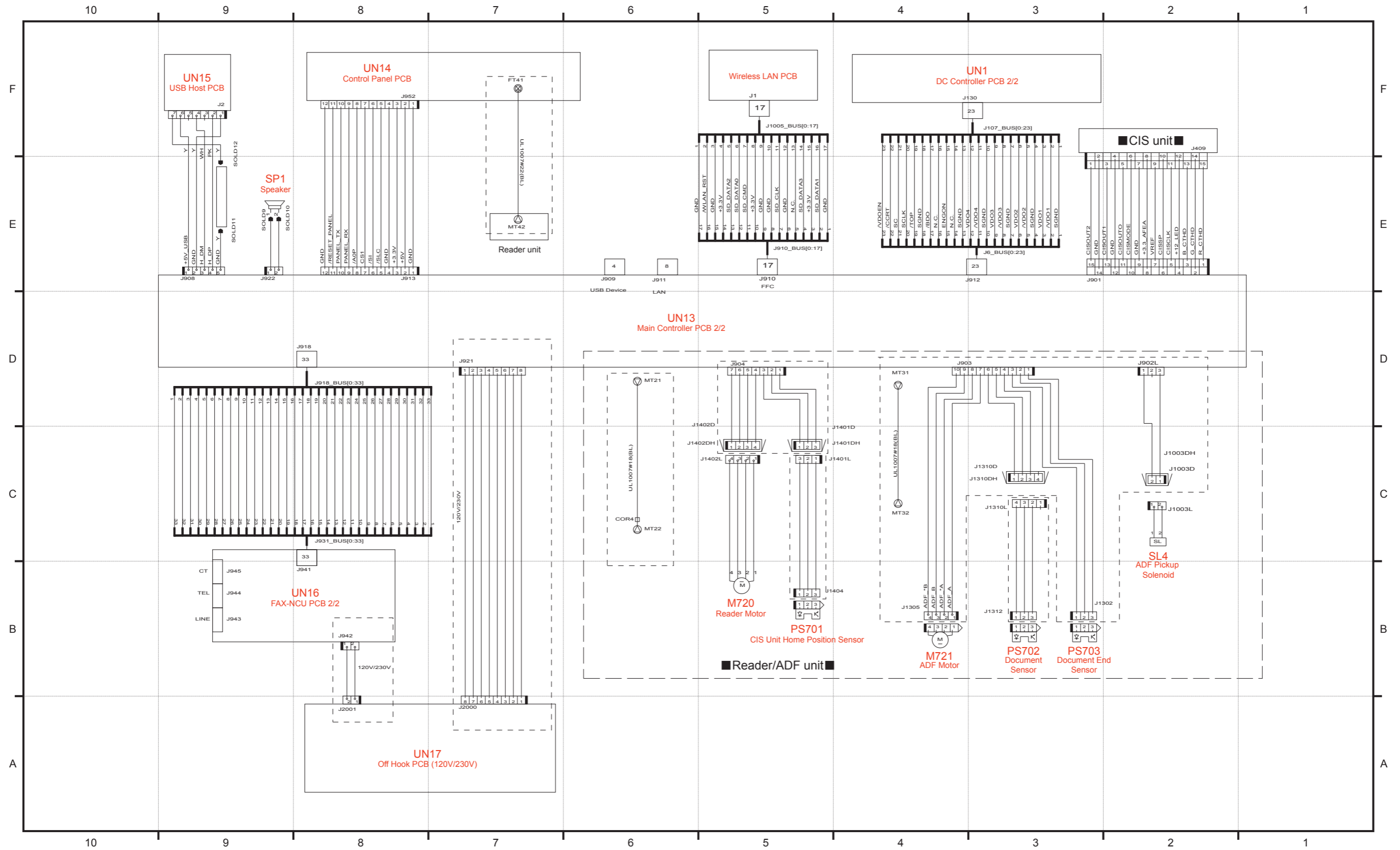


P.1



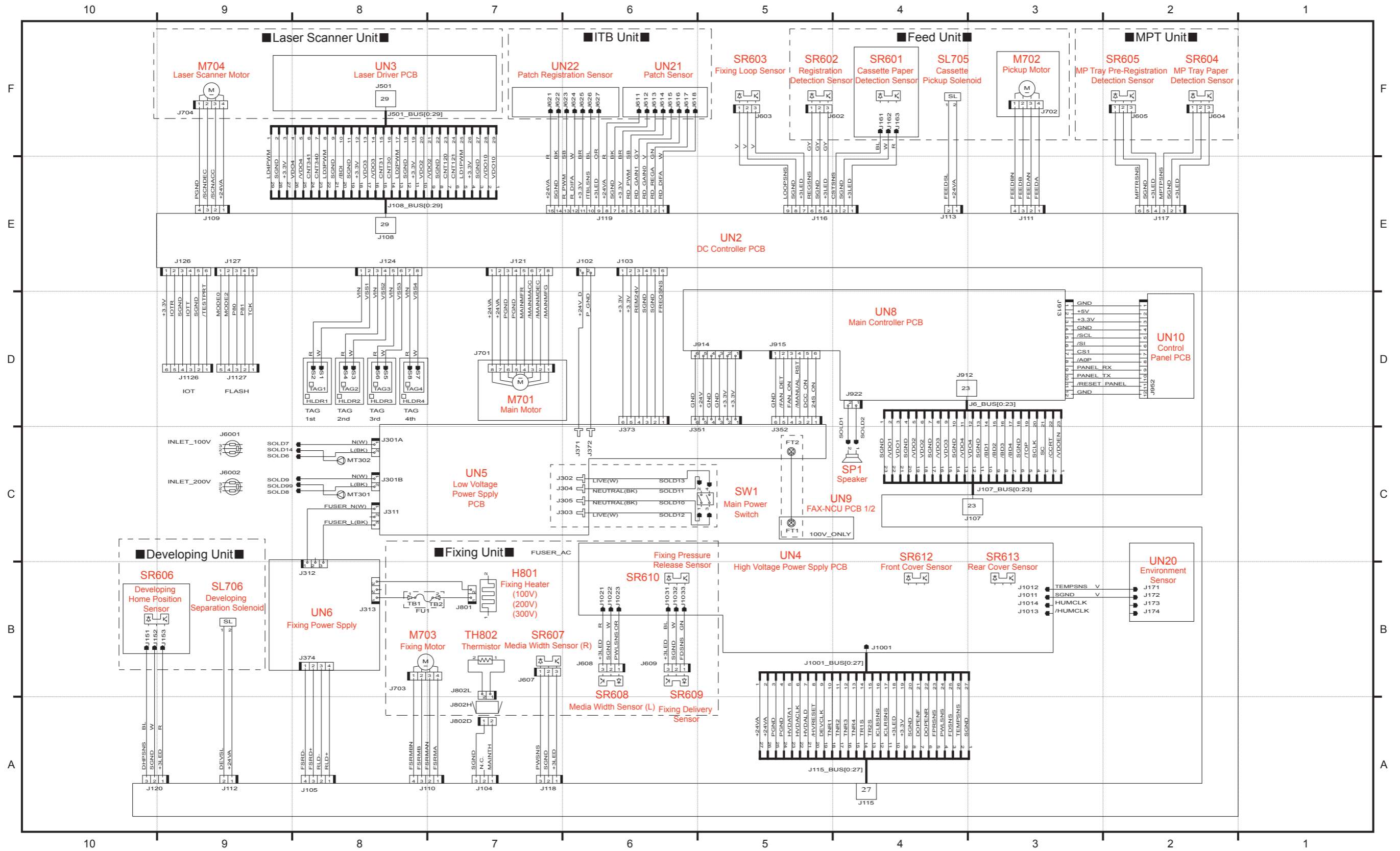


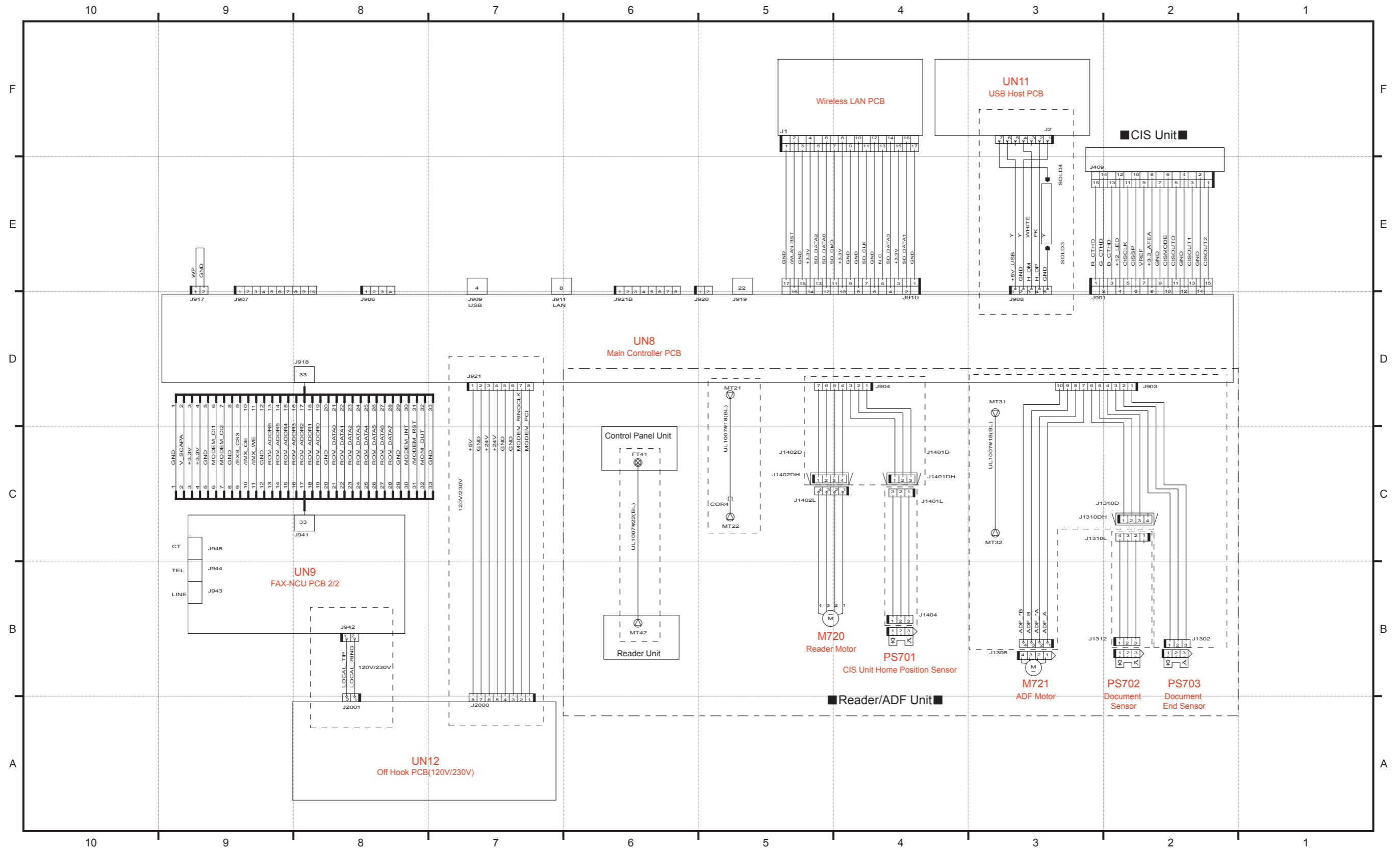
P.1



Appendix > General Circuit Diagram > MF8380 / MF8360 / MF8340 (2/2)

Appendix > General Circuit Diagram > MF8380 / MF8360 / MF8340 (2/2)





General Timing Chart

MF8300 Series

Full-color print on A4 plain paper (3 pages) (Unit: second)

