Canon

imageRUNNER 1133 Series

Service Manual Rev.1

F-0-1

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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Copyright

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
	Used to show permission.			Remove the screw.
	Used to show prohibition.			Tighten the screw.
	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.			

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The following rules apply throughout this Service Manual:

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

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

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

2. In the digital circuits, '1' is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low". (The voltage value, however, differs from circuit to circuit.)

In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when '0'.

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

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

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

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Safety Precautions

Product Overview

Technical Overview

Adjustment

Trouble Shooting

Error Codes

Service Mode

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Safety Precautions

- CDRH Provisions
- Laser Safety
- Toner Safety
- Notes When Handling A Battery
- Notes On Assembly/ Disassembly

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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.

CAUTION:

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

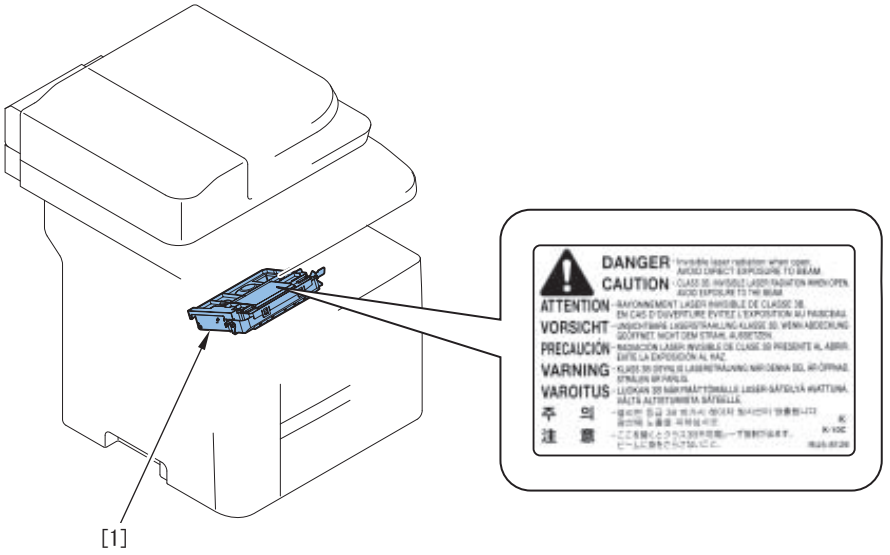
Laser Safety

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.



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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.

CAUTION:

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 When Handling A Battery

CAUTION:

Risk Of Explosion If Battery Is Replaced By An Incorrect Type.

Dispose Of Used Batteries According To The Instructions.

The following warnings are given to comply with Safety Principles (EN60950).

CAUTION:

Wenn mit dem falschen Typ ausgewechselt, besteht Explosionsgefahr.

Gebrauchte Batterien gemäß der Anleitung beseitigen.

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.

CAUTION

DOUBLE POLE/NEUTRAL FUSING

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Product Overview

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

Product Lineups

Main Unit

Function	imageRUNNER		
	1133	1133A	1133iF
Appearance	 F-1-1	 F-1-2	
Copy	O	O	O
Print	O	O	O
Fax	-	-	O
SEND	-	-	O
Scan to USB	O	O	O
Remote UI	O	O	O
DADF	-	O	O
Automatic 2-sided Print (60 to 128g / m2 paper)	O	O	O
MEAP	-	-	-

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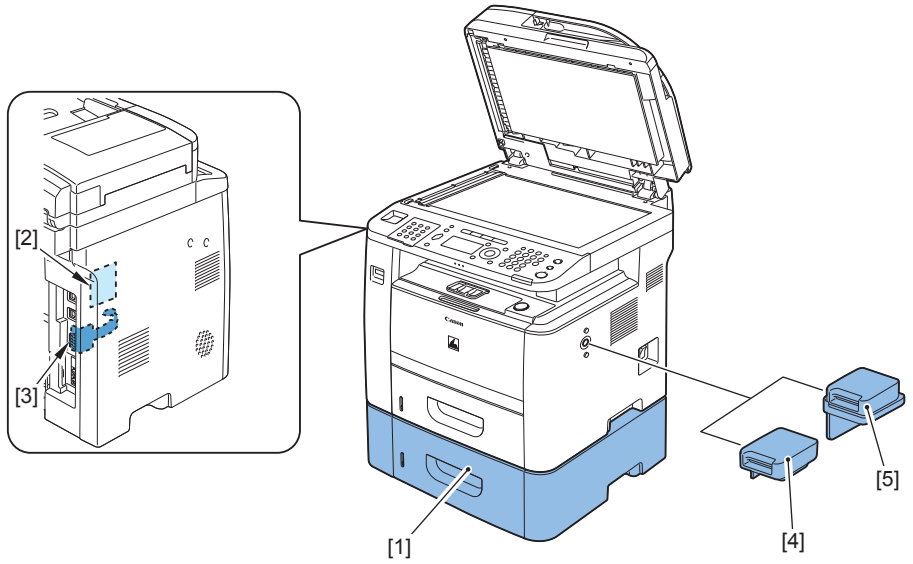
Options



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No.	Name	Description	Remarks
[1]	Canon Cassette Feeding Module-Z1	Approx. 500 Sheets (Plain paper 80g/ m2)	-
[2]	Wireless LAN Board-C1	This is a wireless LAN interface board.	
[3]	Copy Control Interface Kit-C1	Required when the coin vender is connected.	
[4]	Copy Card Reader-F1	This is a card reader used for management of a department ID.	
[5]	MiCARD Attachment Kit-A1	Leader chip card installation use * IC Selling another as for the leader chip card	

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Product Features

Features

The product compactified with lower height.

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LUI (Display): Adoption of 5-line UI

Perception and operability are improved with the adoption of 5-line UI.The screen is easier to operate without a sense of hierarchy and its visibility is improved with graphics and scrolling texts.

Specifications

Main Unit Specifications

Item	Specification/function
Body	Desktop (DADF standard type)
Light Source Type	LED
Photosensitive Medium	OPC drum
Image Reading Method	Contact Image Sensor Reading Method
Reproduction Method	Indirect electrostatic copying method
Exposure Method	Semiconductor laser
Charging Method	Roller contact charging method
Development Method	Dry system - element jumping development method
Transfer Method	Roller transfer method
Separation Method	Electrostatic separation (neutralizing needle) and curvature separation
Cassette Pickup Method	Pad separation method
MP Pickup Method	Pad separation method
Drum Cleaning Method	Rubber blade
Fixing Method	On-demand
Toner Level Sensor	3 levels (OK, Low, Low2) Unable to detect absence of toner.
Toner Type	Magnetic negative toner
Toner Supply Type	By drum style toner cartridge
Toner Save Mode	Yes
Original Type	Sheets, books, solids (up to 2 kg)
Maximum Original Size	216mm x 356mm
Reproduction Ratio	Zoom: 0.50 to 2.00 (specified by the percent)
Warm-up Time	11.0 seconds or less
Reading Resolution	<TEXT/PHOTO>: 300 dpi x 600 dpi <TEXT>, <PHOTO>, <TEXT/PHOTO+>: 600 dpi x 600 dpi
Printing Resolution	600 x 600 dpi
First Print Time	6 seconds or less (A4/LTR)
First Copy Time	Book: 8 seconds or less (A4/LTR) ADF: 12 seconds or less (A4/LTR)
Print Speed	Approximately 35 ppm (LTR) / 33 ppm (A4)
Cassette Paper Size	LTR, LGL, A4, B5, A5, Executive, Oficio, Brazil-Oficio, Mexico-Oficio, FLSP, A-FLS, Government-LTR, Government-LGL

Item	Specification/function
MP Tray Paper Size	LTR, LGL, A4, B5, A5, Executive, Oficio, Brazil-Oficio, Mexico-Oficio, FLSP, A-FLS, Government-LTR, Government-LGL, Transparency, Labels, Envelopes 76 × 127 to 216 × 356 mm
Cassette Paper Type	Plain Paper (60 to 89g / m2), Plain Paper (60 to 89 g/m2) recycled paper (60 to 89 g/m2), Color (64 g/m2), Heavy Paper1 (90 to 128 g/m2),
MP Tray Paper Type	Plain Paper (60 to 89g / m2), Plain Paper (60 to 89 g/m2), recycled paper (60 to 89 g/m2), Color (64 g/m2), Heavy Paper 1 (90 to 128 g/m2), Heavy Paper 2 (129 to 163 g/m2), Transparency, Labels, Envelopes
Cassette Capacity	500 sheets (80g / m2)
MP feeder Tray Capacity	50 sheets (80g / m2)
Delivery Tray Stack	75 sheets (80g / m2)
Continuous Reproduction	1 to 99 sheets
Duplex Method	Yes (60 to 128g / m2 paper LTR, LGL, A4 only)
Hard Disk	Standard:No, option:No
Memory	256MB
Energy Save Mode	Yes. (Manual ON / OFF, automatically OFF after a set period of time, automatically ON when receiving facsimile / print data)
Operating Environment (Temperature Range)	10 to 30 degrees C
Operating Environment (Humidity Range)	20 to 80 %
Operating Environment (Atmospheric Pressure)	0.16 to 1.01 hPa (0. 6 to 1 bar)
Power Supply Rating	220-240V, 50/60Hz
Power Consumption (Maximum)	Maximum consumption: Less than 1200 W
Power Consumption	Average consumption during standby mode Approx. 9W Average consumption during sleep mode Approx. 2.5 W Approx. 3.1 W (by Wireless Connections)
Dimensions	iR 1133A / 1133iF : 464 mm (H) × 472 mm (D) × 450 mm (W) iR 1133 : 413 mm (H) × 472 mm (D) × 450 mm (W)
Weight	iR 1133: Approximately 18.3 kg (including the toner cartridge 19.1 kg) iR 1133A: Approximately 20.5 kg (including the toner cartridge 21.3 kg) iR 1133iF: Approximately 20.7 kg (including the toner cartridge 21.5 kg)

Item	Specification/function
Inter Face	Network (100Base-TX / 10Base-T) USB Port Front(USB1.1) USB Port Rear(USB1.1/2.0)
PDL	BDL-Image, PCL5 / PCLXL

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ADF Specifications

Item	Specification/function
Original position	center reference
Original processing mode	1-sided to 1-sided copy, 2-sided to 2-sided copy, 1-sided to 2-sided copy, 2-sided to 1-sided copy
Original reading	stream reading method
Stack	A4/LTR: 50 sheets, LGL: 30 sheets
Original reading speed	A4/LTR: 300 x 300 dpi Color: 9.3 sheets / minute BW: 28 sheets / minute
Mixed original sizes	Yes
Original AE detection	No
Original size recognition	No
Stamp	No
Operating environment	pursuant to the host machine

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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.8/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	Available
Broadcast Transmission	Maximum number of destinations: 210 One-touch dial: 19 + coded dial: 181 + new destinations: 10 Priority order of destinations to be sent New destination => one-touch destination => coded destination (sent in this order)
Dual Access	Up to 70 schedules
Image Data Backup	Available

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Print Speed.

(Unit: page/minute)

Paper type	Cassette		MP Tray		OP Cassette	
	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided
A4	33	16.8	33	16.8	33	16.8
LTR	35	17	35	17	35	17
LGL	28.7	13.8	28.7	13.8	28.7	13.8
B5	13>12>8>6	-	16>12>8>6	-	10>10>8>6	-
A5	15>12>8>6	-	17>12>8>6	-	11>11>8>6	-
Strip of paper (90 to 297 mm)	-	-	2>1	-	-	-
Postcard	-	-	17>12>8>6	-	-	-
Envelope	-	-	12>8>6	-	-	-

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Paper types

(○: available -: not available)

Paper types		Printer driver setting	Cassette	Multi-purpose Tray
Plain	From 16 to 23 lb (60 to 89 g/m2)	Plain Paper	○	○
	From 16 to 23 lb (60 to 89 g/m2)	Plain Paper L	○	○
Color	17 lb (64 g/m2)	Color	○	○
Recycled*	From 17 to 23 lb (60 to 89 g/m2)	Recycled	○	○
Thick	From 24 to 34 lb (90 to 128 g/m2)	Heavy Paper 1	○	-
	From 35 to 43 lb (129 to 163 g/m2)	Heavy Paper 2	-	○
Transparency		Transparency *1	-	○
Label		Label	-	○
Envelope		Envelope	-	○

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*1: Use only LTR or A4 transparencies made especially for this machine.

Paper size

(○: available -: not available)

Paper size	Cassette	Multi-purpose Tray
A4 (210.0 mm × 297.0 mm)	○	○
B5 (182.0 mm × 257.0 mm)	○	○
A5 (148.0 mm × 210.0 mm)	○	○
Legal (LGL) (215.9 mm × 355.6 mm)	○	○
Letter (LTR) (215.9 mm × 279.4 mm)	○	○
Executive (EXEC) (184.0 mm × 266.7 mm)	○	○
Officio (215.9 mm × 317.5 mm)	○	○
Brazil Officio (215.9 mm × 355.6 mm)	○	○
Mexico Officio (215.9 mm × 341 mm)	○	○
Government Letter (203.2 mm × 266.7 mm)	○	○
Government Legal (203.2 mm × 330.2 mm)	○	○
FOOLSCAP (215.9 mm × 330.2 mm)	○	○
A-FLS (205.7 mm × 337.82mm)	○	○
3"×5" to Legal (76 × 127 to 216 mm× 356 mm)	-	○

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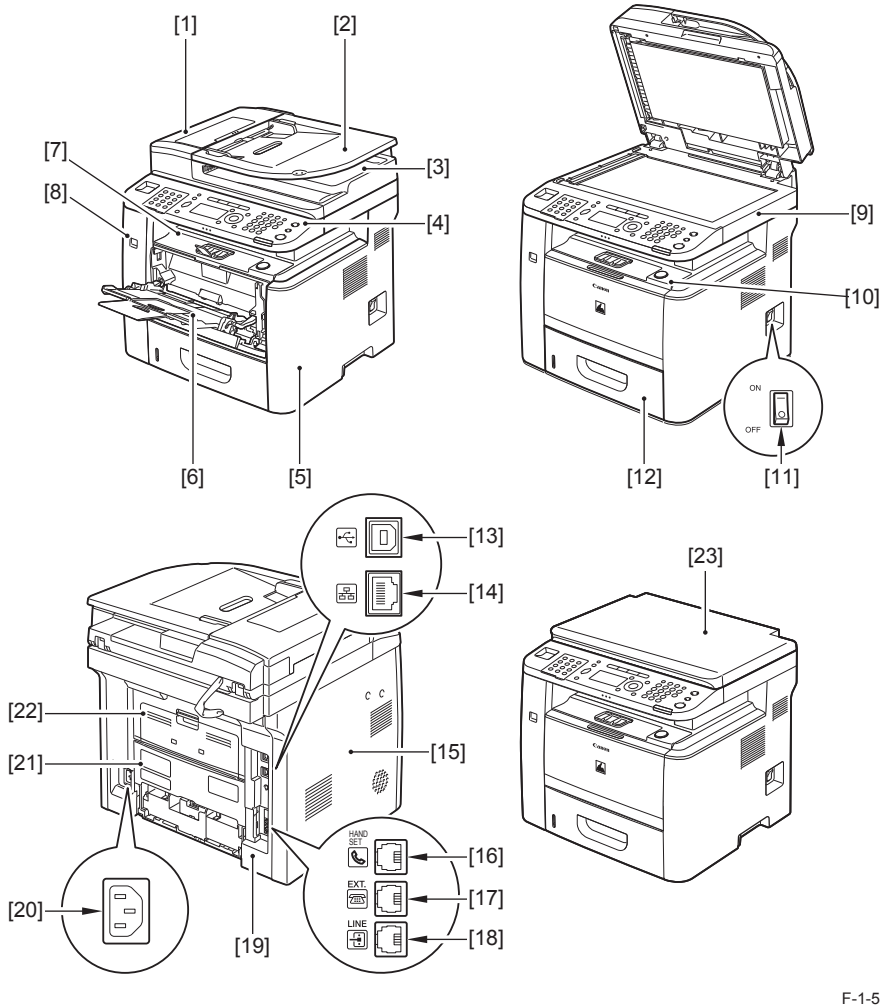
Name of Parts

External View



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Key	Name	Key	Name
[1]	DADF (Duplex Automatic Document Feeder)	[13]	USB Port 2
[2]	Document Feeder Tray	[14]	Ethernet Port
[3]	Document Delivery Tray	[15]	Left Cover Unit
[4]	Control Panel	[16]	Handset Terminal
[5]	Right Cover	[17]	External Telephone Terminal
[6]	MP Pickup Tray	[18]	Telephone Line Terminal
[7]	Upper Cover	[19]	Left Rear Cover
[8]	USB Port	[20]	Power Socket
[9]	Reader Unit	[21]	Rear Lower Cover
[10]	Front Cover	[22]	Rear Upper Cover
[11]	Main Power Switch	[23]	Platen Cover
[12]	Paper Cassette		

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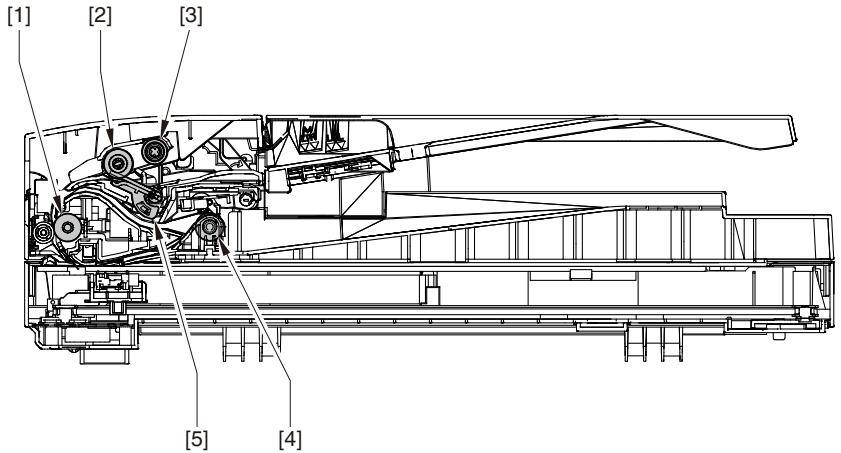
Cross Sectional View

ADF/Reader Unit



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Key	Name	Reference
[1]	ADF Paper Feed Roller	
[2]	ADF Separation Roller	
[3]	ADF Pickup Roller	
[4]	ADF Delivery roller	
[5]	ADF Separation Pad	

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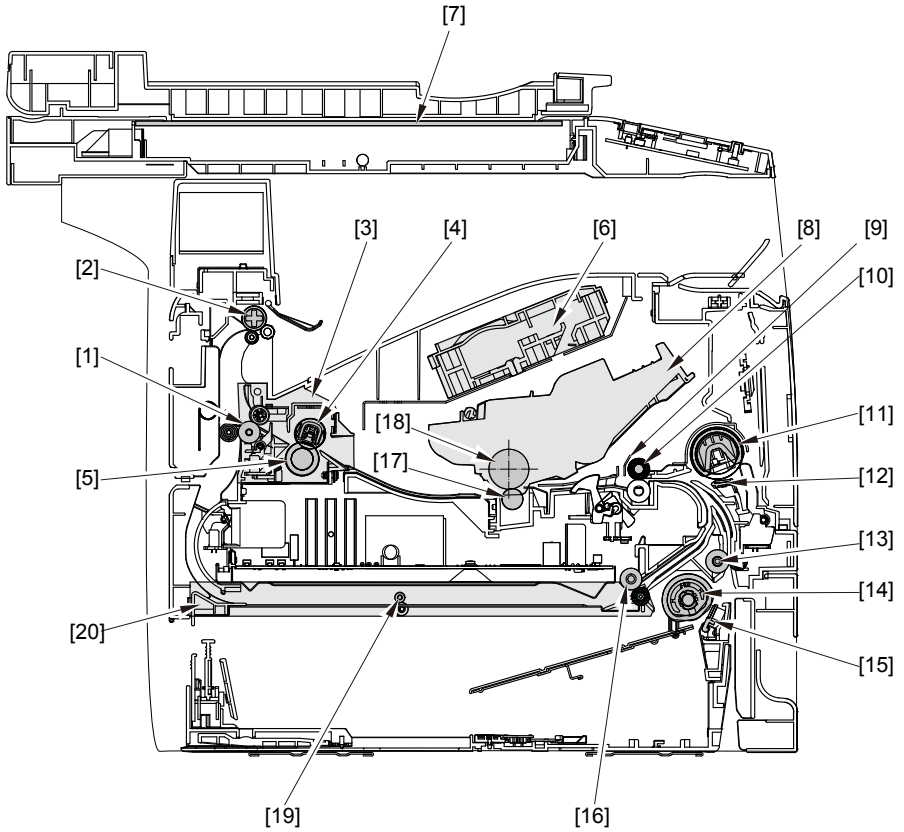
Printer



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Key	Name	Key	Name
[1]	Fixing delivery roller	[11]	MP tray pickup roller
[2]	Face-down delivery roller	[12]	MP tray separation pad
[3]	Fixing Assembly	[13]	Feed roller
[4]	Fixing film unit	[14]	Cassette pickup roller
[5]	Pressure roller	[15]	Cassette separation pad
[6]	Laser scanner unit	[16]	Duplex re-pickup roller
[7]	Reader Upper Cover Unit (scanning glass)	[17]	Transfer roller
[8]	Toner Cartridge	[18]	Photosensitive drum
[9]	Registration shutter	[19]	Duplex feed roller
[10]	Registration roller	[20]	Duplex feed unit

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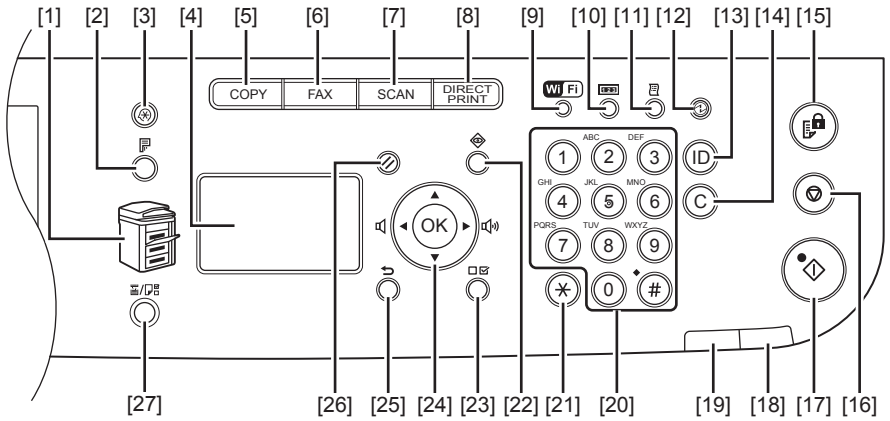
Operation Panel

Main Operation Panel



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Key	Name	Key	Name
[1]	Paper Select indicator	[16]	[Stop/Reset] key
[2]	[2-Sided] key	[17]	[Start] key
[3]	[Menu] key	[18]	Error indicator
[4]	Display	[19]	Processing/Data indicator
[5]	[COPY] key	[20]	[Numeric] key
[6]	[FAX] key *	[21]	[Tone] key
[7]	[SCAN] key	[22]	[Status Monitor/Cancel] key
[8]	[DIRECT PRINT] key	[23]	[View Settings] key
[9]	Wi-Fi LED	[24]	[▲][▼][<][>] key
[10]	[Counter] key	[25]	[Back] key
[11]	[Report] key	[26]	[Reset] key
[12]	[Energy Saver] keys	[27]	[Select Paper/Settings] key
[13]	[Log In/Out] key (ID key)		
[14]	[Clear] key		
[15]	[Secure print] key		

* imageRUNNER 1133iF only

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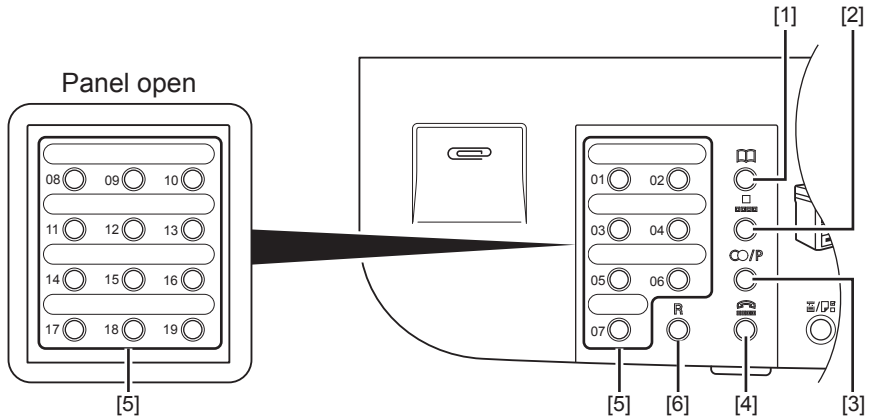
FAX Operation Panel



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Key	Name	Key	Name
[1]	[Address Book] key	[4]	[Hook] key
[2]	[Coded Dial] key	[5]	[One touch] key
[3]	[Redial] key	[6]	[Pause] key

* imageRUNNER 1133iF only

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Technical Overview

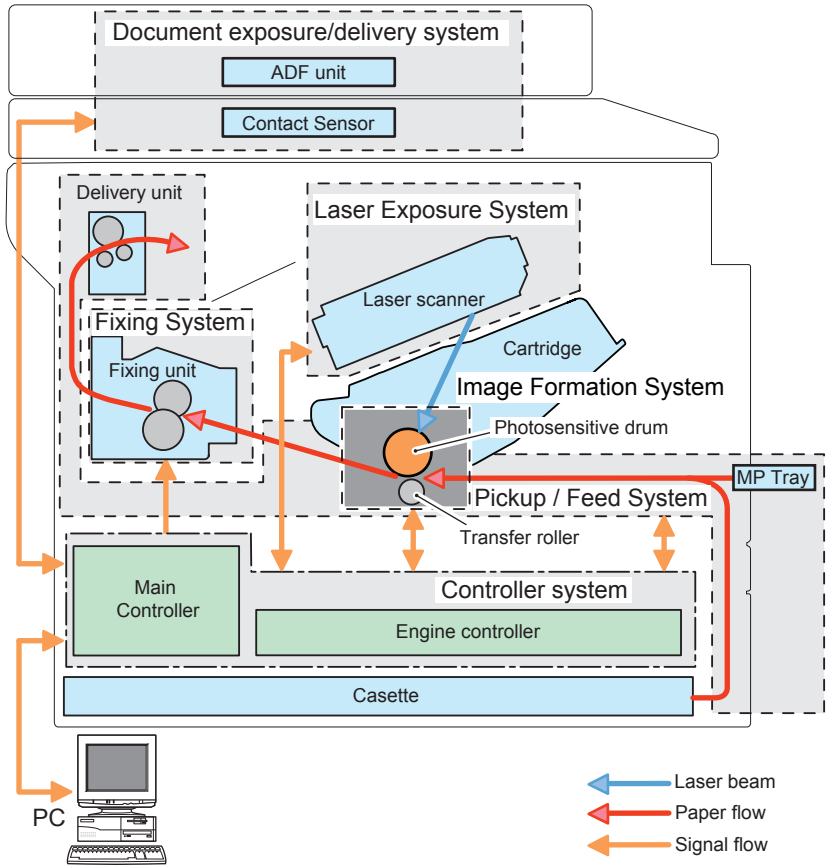
- Basic Configuration
- Document Exposure / Delivery System
- Controller System
- Laser Exposure System
- Image Formation System
- Fixing System
- Pickup / Feed System
- Embedded RDS

Basic Configuration

Configuration Function

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

• Document Exposure/Delivery System	• Image Formation System
• Controller System	• Fixing System
• Laser Exposure System	• Pickup / Feed System



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Basic Sequence

Basic Operational Sequence

The CPU on the Engine 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 Unit; 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 Unit to the target temperature.	To make the printer ready for print jobs, activate high-voltage bias PCBs, the Laser Scanner Unit and the Fixing Unit.
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.

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Print Sequence

Timing chart two consecutive prints on LTR paper

Print Mode

Print modes	Feeding speed	Media type	Print speed	Remarks
Normal speed mode	1/1speed	Speed for plain paper A4/LTR width (60 to 89g) Transparencies	33/35 ppm	
1/2 speed mode	1/2 speed	Plain paper A4/LTR width (60 to 89g) Plain paper less than A4 width (60 to 89g) Heavy paper (90 to 163g) Bond paper (60 to 163g) Label paper Postcard, Tab paper Envelope		

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*1: Normal mode is recommended for Neenah Bond 60g/m2

Document Exposure / Delivery System

Specifications / Control / Function List

item	function / method
Document Exposure	LED
Document Scan	Book mode: scan by the shift of the contact Book mode: scan by the shift of the contact image sensor (CIS)
	ADF: document stream reading by fixed contact image sensor (CIS)
Scanning Resolution	600 dpi (horizontal scanner) X 600 dpi (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
CMOS Sensor	number of lines: 1 line
	number of pixels: 5184 pixels as total pixels (5107 pixels as effective pixels)
	maximum document scanning width: 216 mm
CS Drive Control	drive control by Reader Motor (M701)
CS HP Detection	Yes
Document Size Detection	None
Dirt Sensor Detection	Yes

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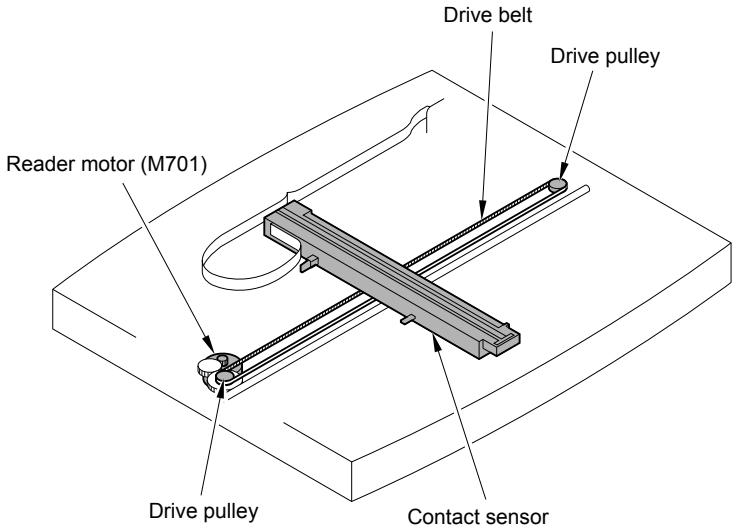
Major Components

Followings are the major components for Document Exposure System.

- The Contact Sensor to scan document
- The Reader Motor (M701), the Drive Pulley, the Drive Belt, to shift the Contact Sensor

In image scanning control, the Contact Image Sensor is shifted by rotating the Reader Motor based on the drive signal from the Engine 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 Image Sensor.



F-2-2

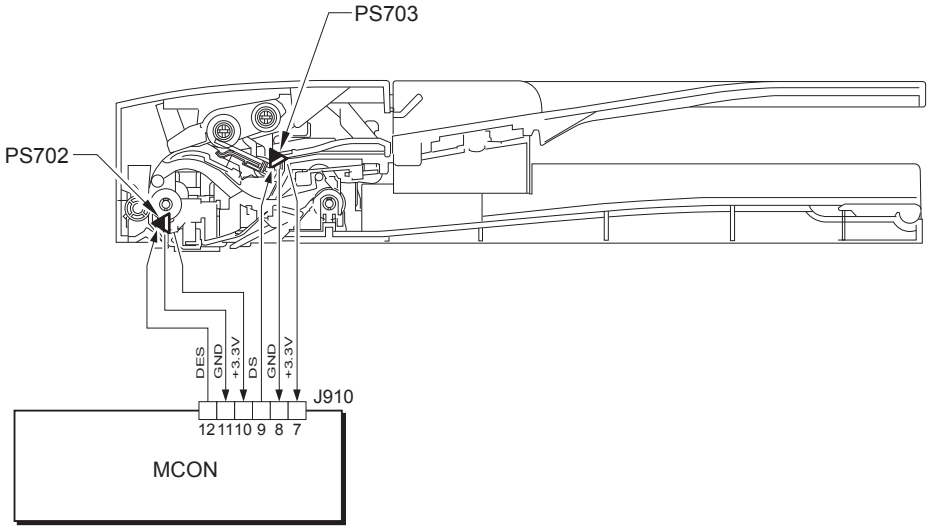
Document Feeder System

Pickup/Feed/Delivery Operation

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

1 Motor (DADF Motor: M702) is engaged in pickup/feeding/delivery.

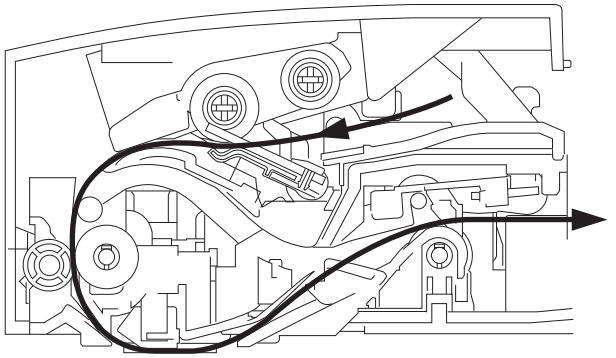
At the start of copy/fax/scan, the DADF Motor (M702) is driven by the drive command from the Main Controller PCB to pickup/feed the originals set face up on the original tray one by one in order from the top. The original is scanned by the Contact Image Sensor when moving through the Copyboard Glass, and then delivered face down to the original delivery assembly.



F-2-3

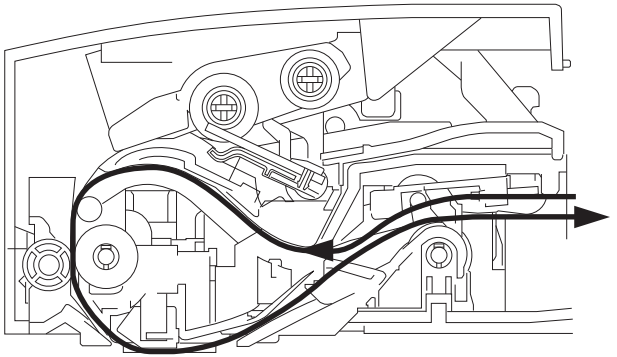
Operation at Duplex Reading

- Pickup to Reading of the 1st side



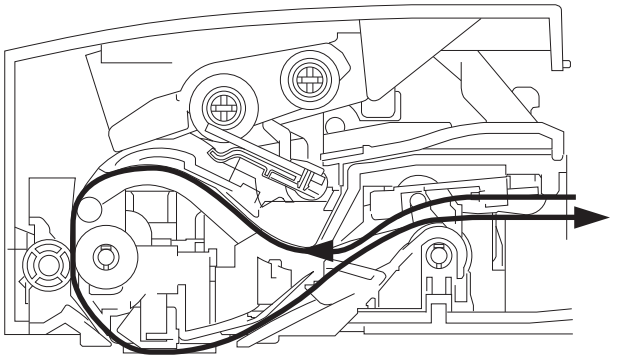
F-2-4

- Reverse to Reading of the 2nd side



F-2-5

- Delivery



F-2-6

Original Detection

There are two types of Original Detection in this Equipment.

1. Original Presence / Absence Detection

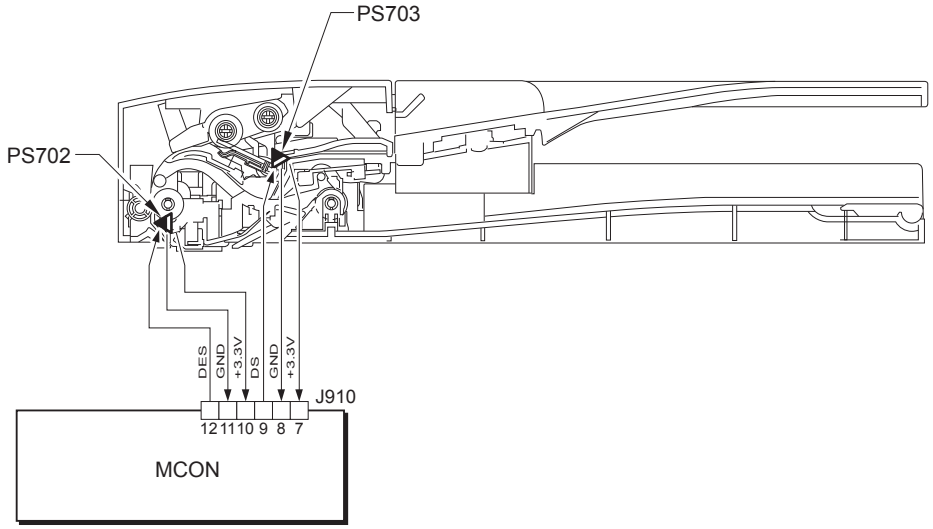
Detected by DS (Document Sensor: PS703)
Setting the original onto the original tray pushes up the actuator, activating (light shielded =>light transmitted) the DS (PS703), and resulting in detection of the presence of original.

2. Detection of the End of the Original

Detected by the DES (Document End Sensor: PS702)
The leading edge of the original that is fed pushes up the actuator, activating the DES (PS702) (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 DES (PS702) (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..

NOTE:

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



F-2-7

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.
  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".

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 Upper Cover Unit (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.

Contact Sensor 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

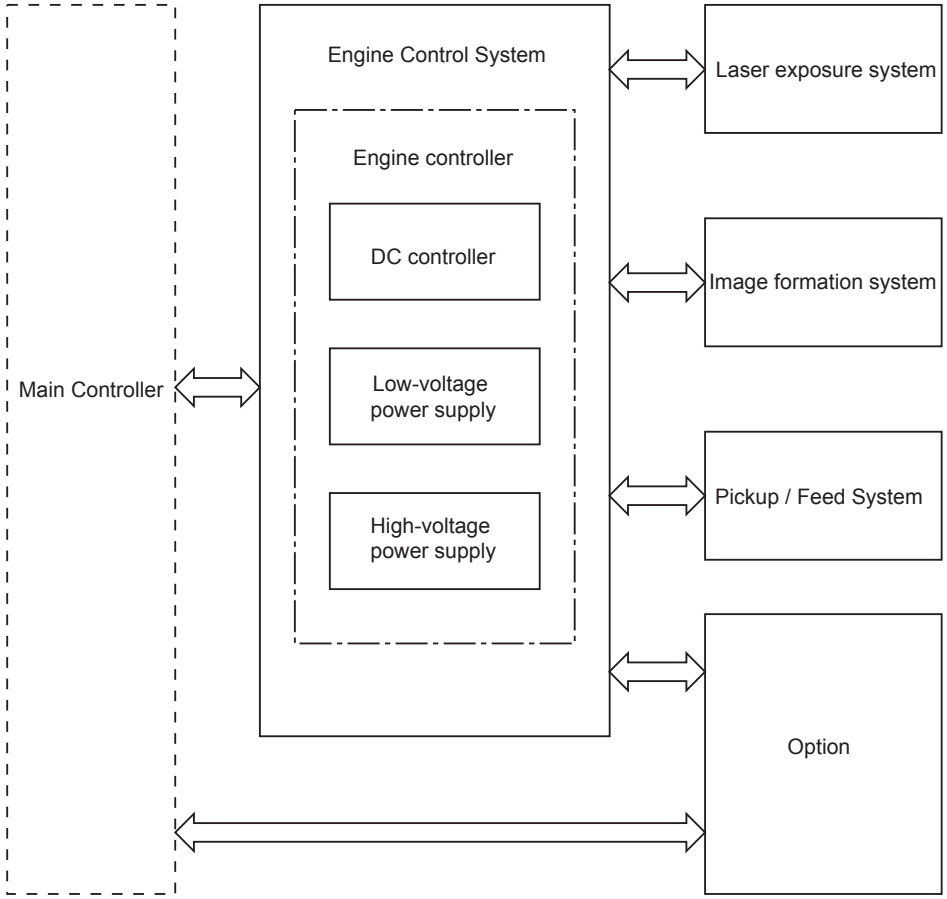
Outline

The Engine Control System controls all the other systems according to commands from the Main Controller.

The Engine Control System contains the following components:

- DC Controller
- Low-voltage Power Supply
- High-voltage Power Supply

Block diagram of the Engine Control System is shown below.



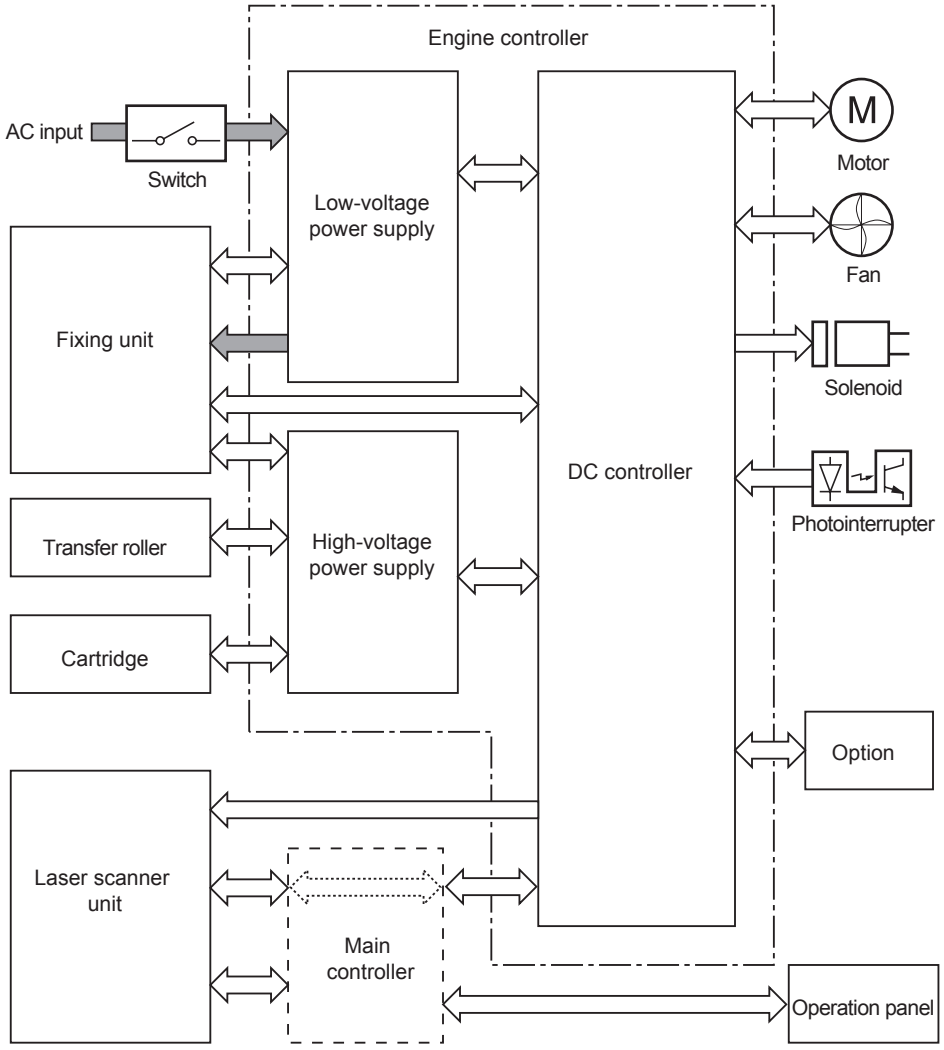
F-2-8

Controls

Outline

The Engine controller controls the operational sequence of the printer.

Block diagram of the Engine controller and table of the electrical components are shown below.



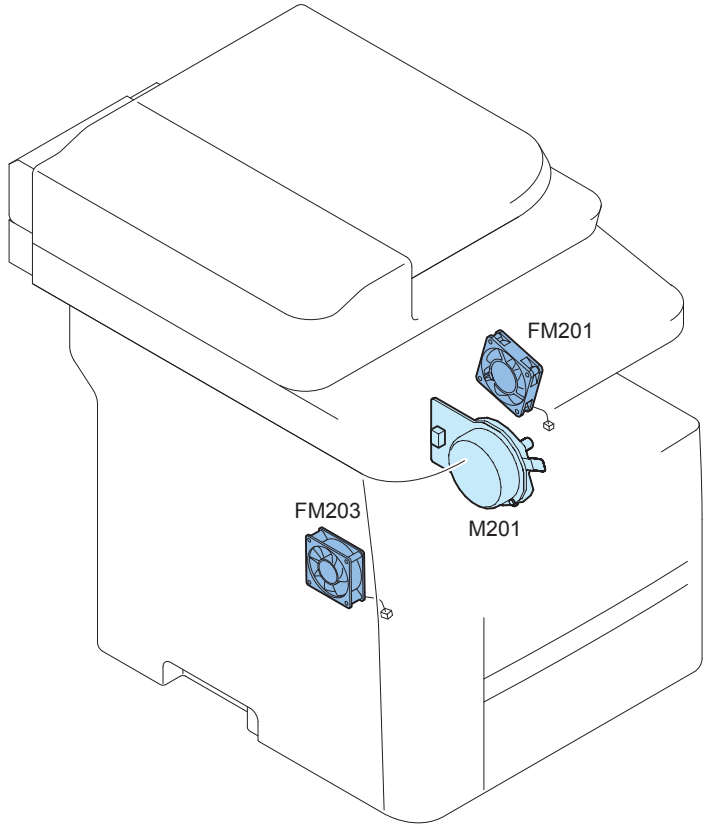
F-2-9

Symbol for component		Component	Remarks
Fan	FM3	Controller Fan	
	FM201	Main Fan	
	FM203	Controller Fan	
Motor	M201	Main Motor	
Solenoid	SL201	Cassette Pickup Solenoid	
	SL202	Duplex Reverse Solenoid	-
	SL203	MP Tray Pickup Solenoid	-
Switch	SW1	Power Switch	-
	SW2	Door Switch	-
Photointerrupter	PS201	Duplex Reverse Sensor	-
	PS202	MP Tray Media Presence Sensor	-
	PS203	Cassette Media Presence Sensor	-
	PS204	TOP Sensor	-
	PS205	Media Width Sensor	-
	PS206	FD Tray Media Full Sensor	-
	PS915	Fixing Delivery Sensor	-

T-2-4

Motor / Fan Control

The printer has one Motor for media feed and image formation.
Arrangement of Motor and the specifications are shown below.



F-2-10

Description		Driving part	Failure detection
M201	Main Motor	Roller in the printer and rollers in the paper feeder	Yes
FM201	Main Fan		
FM203	Controller Fan		

T-2-5

Failure Detection

Failure Point	Cause of Failure
Main Motor	In the case that the speed of Motor does not reach the specified speed after the specified time has passed since the startup of the Main Motor.
Main Fan	In the case that the Fan has been locked continuously for the specified period of time since the startup of the Main Fan Motor.

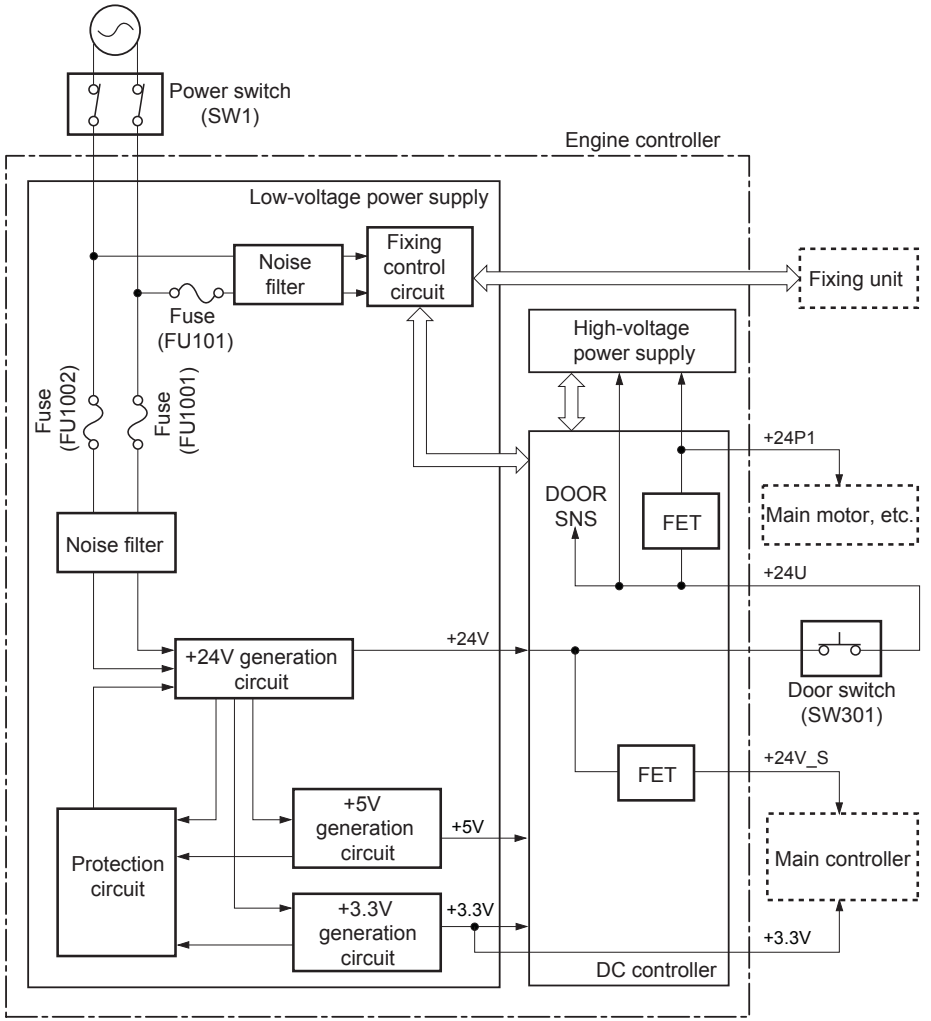
T-2-6

Low-voltage Power Supply

Outline

The Low-voltage power supply converts AC Power from the power receptacle into DC Power to cover the DC loads.

Block diagram of the Low Voltage Power Supply is shown below.



F-2-11

Protective Function

The Low-voltage Power Supply has a protective function against overcurrent and overvoltage to prevent failures in the power supply circuit. If there flows an overcurrent or an overvoltage, the system automatically cuts off the output voltage.
If the DC Power is not being supplied from the Low-voltage Power Supply, the protective function may
be running. In such case, turn off the power switch and unplug the power cord. Do not plug in the power cord or turn the power switch on again until the root cause is found.
In addition, two fuses in the Low-voltage Power Supply protect against overcurrent.
If overcurrent lows into the AC line, the fuse blows and cuts off the power distribution.

Safety

For user and service technician's safety, the printer has a function to interrupt 24V power supply.
The door switch is turned off and 24V power supply to the Fixing Unit and the High-voltage Power Supply Unit stops under the following condition:

- If the cartridge door is opened (SW2 is turned off)

Low-voltage Power Supply Unit Failure Detection

The DC Controller determines a Low-voltage power supply unit failure and stops +24V output.
Once 24V output is stopped, 3.3V of the engine CPU stops, so notification is not made.
Likely, 3.3V of the controller stops, so the machine seems power-off.

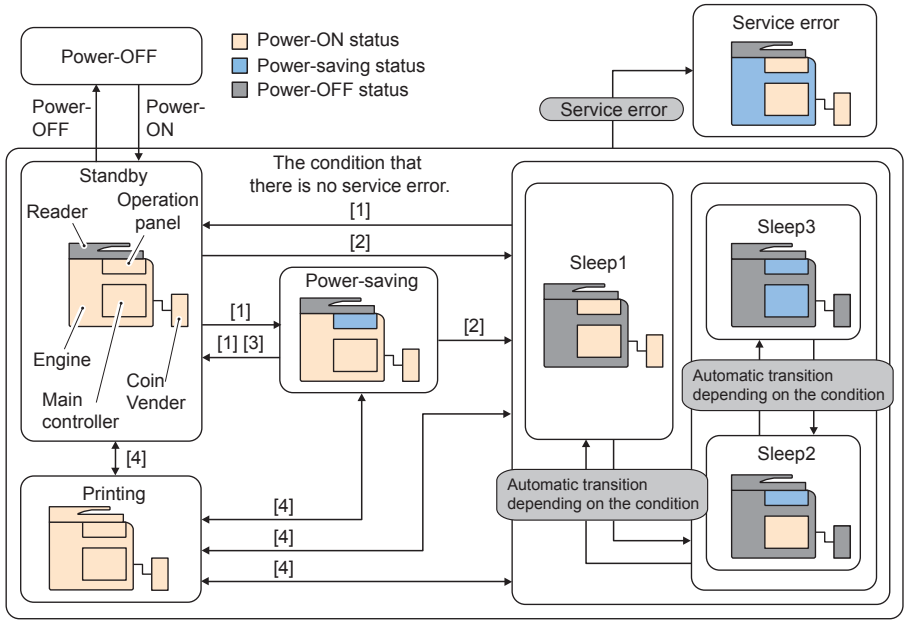
- +24V is higher than a specified voltage
- +3.3V is higher than a specified voltage
- +5V is higher than a specified voltage

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 (3W)	at power-off on the reader, the engine and the display (LCD) The main controller enters the power-saving mode.

T-2-7



F-2-12

[1]	Press [Power-saving] key. (Power-saving release)	[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 ."

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) Enter all items written on the service label.
2) Setting of destination / paper size groups
3) Execute COPIER > FUNCTION > CLEAR > ALL.
4) Import the back up data before replacement.

Maintenance

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

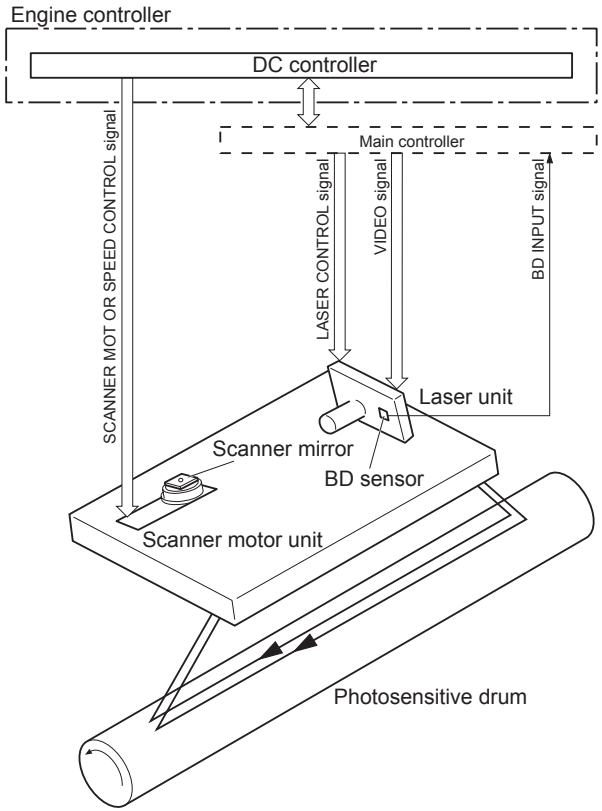
Service Notes

None

Laser Exposure System

Outline

The Laser Exposure System forms a latent image on the photosensitive drum according to the VIDEO signals sent from the Main Controller.
The main components of the Laser Scanner are the Laser Unit and the Scanner Motor Unit, which are controlled by the signals sent from the Engine Controller.
Diagram of the Laser Scanner Unit is shown below.



F-2-13

Optical Unit Failure Detection

The Optical Unit failure detection manages the Laser Scanner failure detection functions.
The Engine Controller determines an Optical Unit failure and notifies the Main Controller if the Laser Scanner encounters the following conditions:

- After the drive of Scanner Motor, BD within a specified period is not detected.
- If the Scanner Motor does not reach a specified rotation within a specified period of start-up.
- If an out of specified BD interval is detected during a print operation.

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 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

Outline

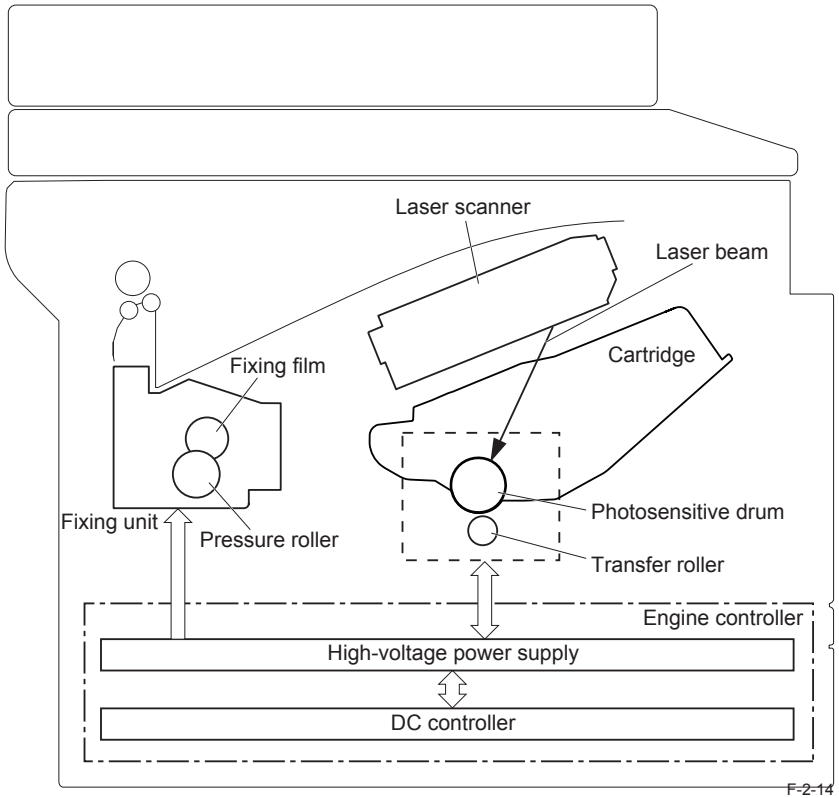
The Image-Formation System forms a toner image on print media.

The following are the main components of the Image-Formation system:

- Cartridge
- Transfer Roller
- Fixing Unit
- Laser Scanner

The Engine Controller controls the Laser Scanner and High-voltage power supply to form the toner image on the photosensitive drum. The image is transferred to the print media and fixed.

Diagram of the image formation system is shown below.



F-2-14

Image Formation Process

Outline

The Image-Formation process consists of the following seven steps divided among five functional blocks:

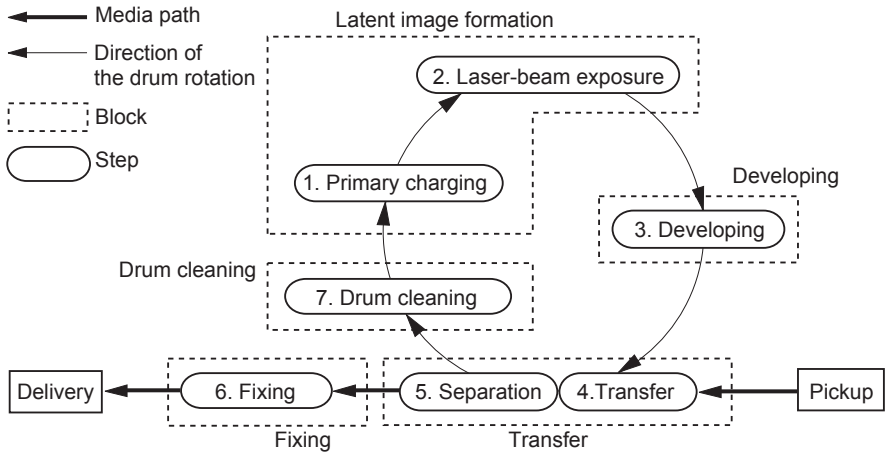
Latent Image Formation Block
- Step 1: Primary charging
- Step 2: Laser-beam exposure

Developing Block
- Step 3: Developing

Transfer Block
- Step 4: Transfer
- Step 5: Separation

Fixing Block
- Step 6: Fixing

Drum Cleaning Block
- Step 7: Drum cleaning



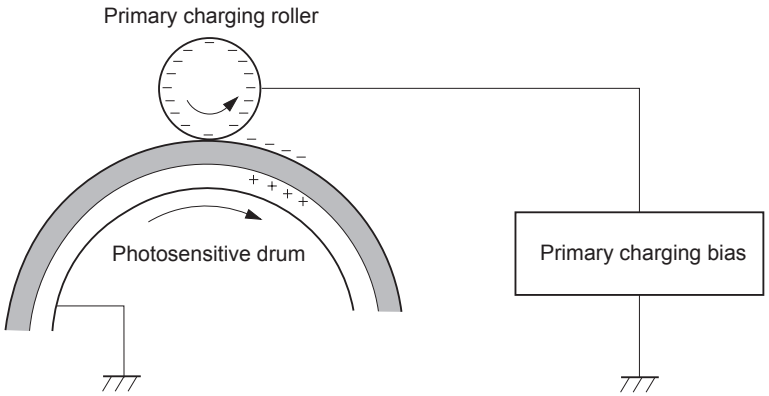
F-2-15

Latent Image Formation Block

During the two steps that comprise this block, an invisible latent image is formed on the photosensitive drum.

Step 1: Primary Charging

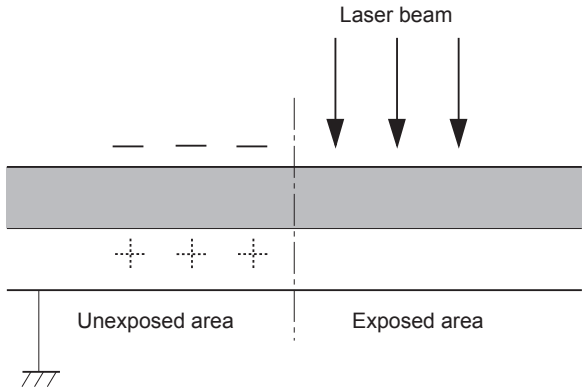
To prepare for latent image formation, the surface of the photosensitive drum is charged with a uniform negative potential. The primary charging bias is applied to the primary charging roller and the roller charges the drum directly.



F-2-16

Step 2: Laser-beam Exposure

The laser beam scans the photosensitive drum to neutralize the negative charge on portions of the drum surface. An electrostatic latent image forms where the negative charge was neutralized.



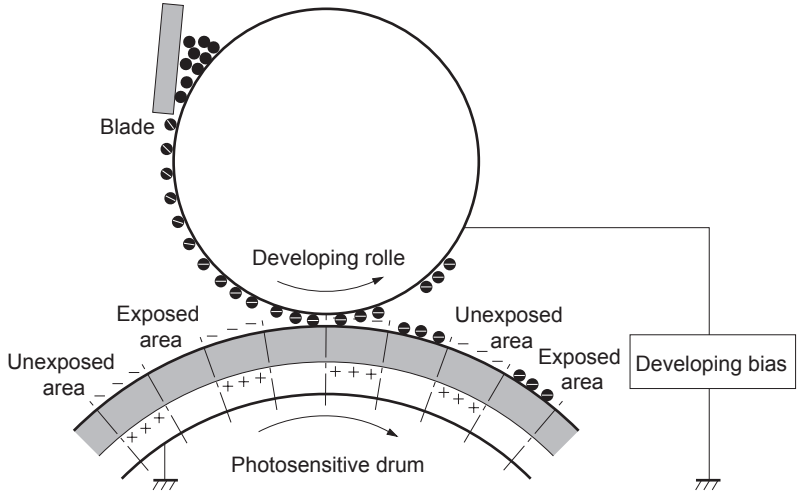
F-2-17

Developing Block

Toner adheres to the electrostatic latent image on the photosensitive drum, which becomes visible.

Step 3: Developing

Toner acquires a negative charge from the friction that occurs when the developing roller rotates against the developing blade. The negatively charged toner is attracted to the latent image on the photosensitive drum surface because the drum surface has a higher potential. The developing bias is applied to the developing roller.



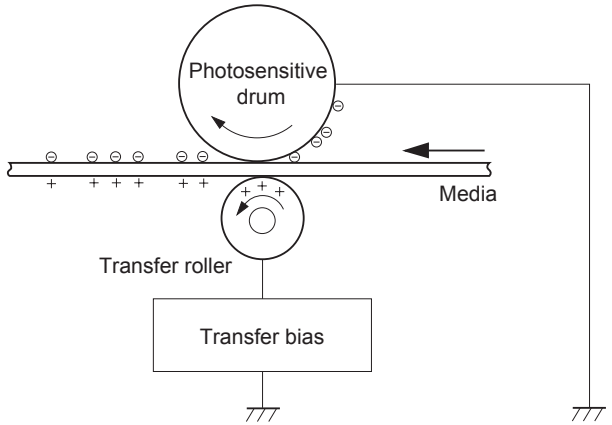
F-2-18

Transfer Block

During the two steps that comprise this block, a toner image on the photosensitive drum is transferred to the print media.

Step 4: Transfer

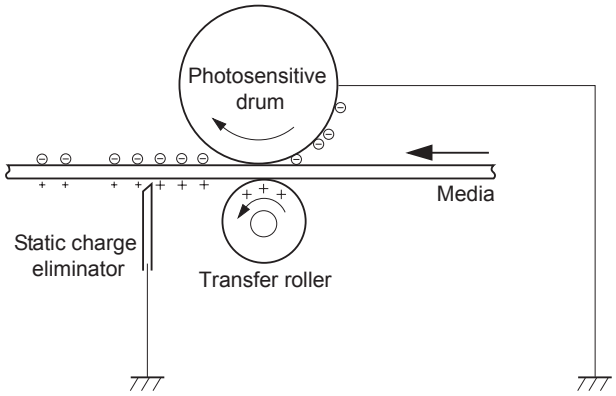
The transfer bias is applied to the transfer roller to charge the print media positive. The positively charged media attracts the negatively charged toner from the photosensitive drum surface.



F-2-19

Step 5: Separation

The elasticity of the print media and the curvature of the photosensitive drum cause the media to separate from the drum surface. The static charge eliminator reduces back side static discharge of the media for stable media feed and image quality.



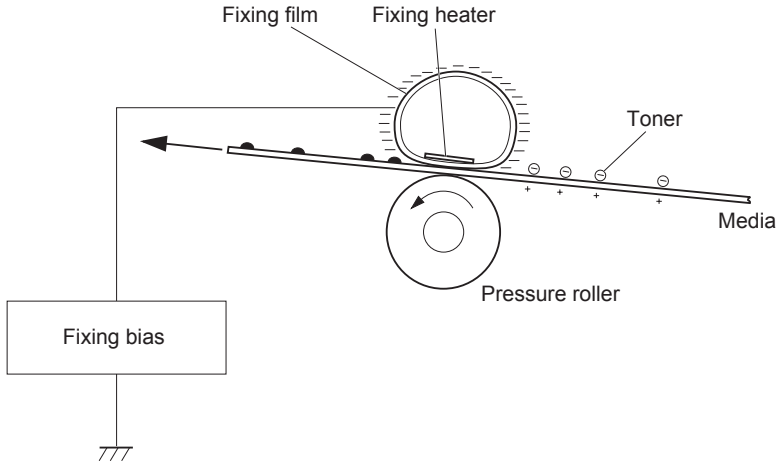
F-2-20

Fixing Block

The toner image is fixed onto the print media.

Step 6: Fixing

The printer uses an on-demand Fixing method. The toner image is permanently affixed to the print media by heat and pressure. The Fixing bias is applied to the Fixing Film to improve image quality.



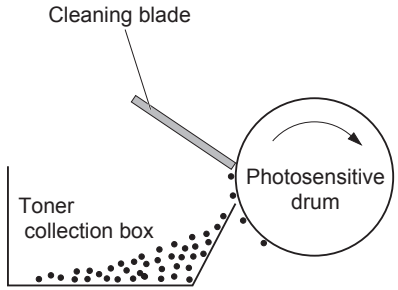
F-2-21

Drum Cleaning Block

The residual toner is cleared from the photosensitive drum surface.

Step 7: Drum Cleaning

The cleaning blade scrapes the residual toner off the surface of the photosensitive drum. The residual toner is deposited in the toner collection box.



F-2-22

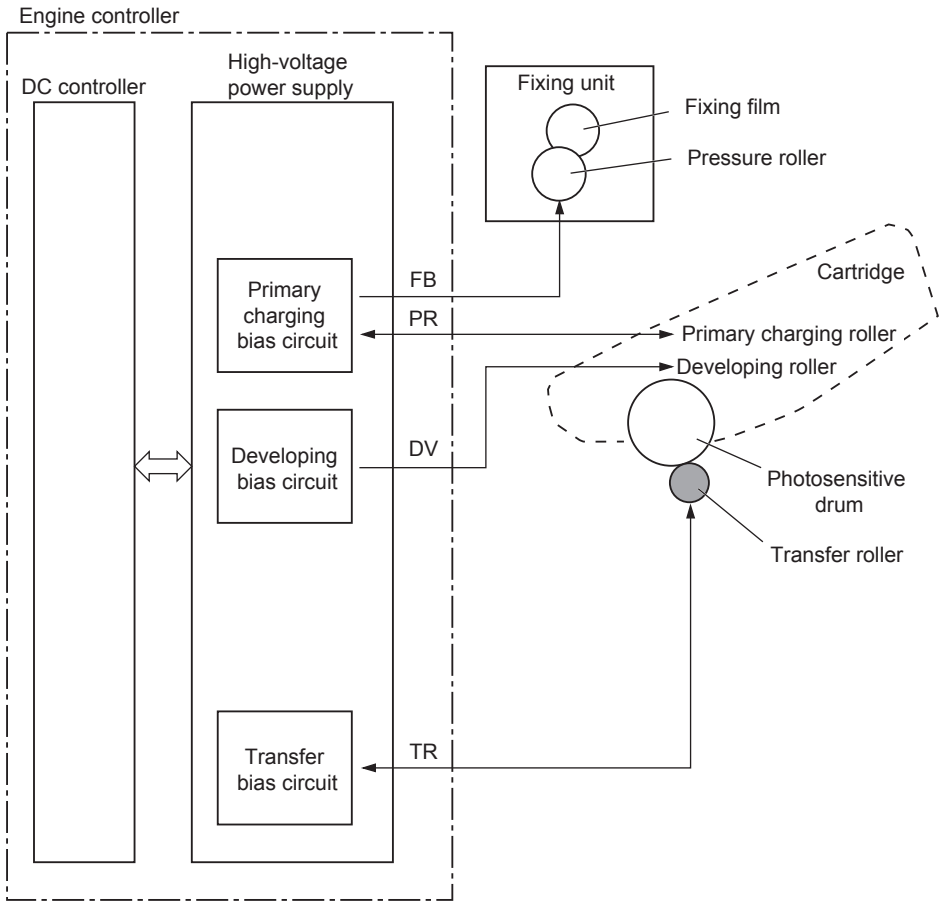
High-voltage Power Supply

Outline

The High-voltage Power Supply applies biases to the following components:

- Primary Charging Roller
- Developing Roller
- Transfer Roller
- Fixing Flm

The Engine controller controls the High-voltage Power Supply to generate biases.



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

None

Fixing System

Outline

The Fixing/Delivery Unit fixes the toner onto a print paper and delivers it to the Delivery Tray.
The operation of the Fixing/Delivery Unit is explained in the following.

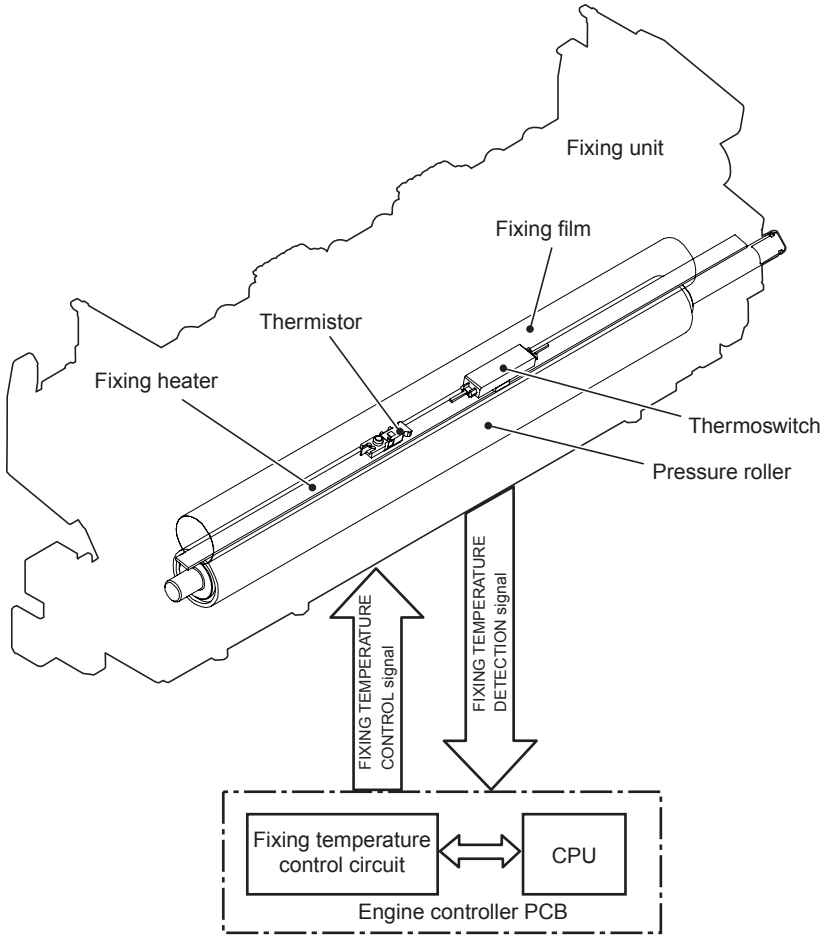
1) The print paper fed from the Pickup/Feed Unit is fused the toner by the Fixing Film and the pressure roller.

2) The print paper delivered from the Fixing Assembly is delivered to the face-down Delivery Tray or the face-up Delivery slot. When the engine controller detects that the heater temperature reaches 50 deg C after the last rotation is completed, it drives the main Motor for 50 msec. and dislocates the nip part. This prevents the toner adhering to the pressure roller.

The Fixing Assembly of this printer utilizes the on-demand Fixing method. It is structured as shown below.

- Heater:
  This Fixing Assembly incorporates one heater.
  Fixing Heater (H201/2010): To heat the Fixing Film (ceramic heater)
- Thermistor:
  This Fixing Assembly incorporates one thermistor.
  Thermistor (TH1/11): Sit almost at the center of the Fixing Film. (contact type)
  To control the temperature of the Fixing Film
- Thermal switch:
  Thermoswitch (TP201/2010): Sit almost at the center of the Fixing Film (contact type)
  If the temperature of the heater rises abnormally high, the contact gets broken and cuts off the AC Voltage Supply to the Fixing Heater to interrupt the power supply to the heater.

The temperature control of the Fixing Assembly incorporated as above is operated by the Fixing temperature control circuit according to the command from the CPU (IC201) on the DC Controller.
The followings describe the each circuit and function of the temperature control of the Fixing Assembly.

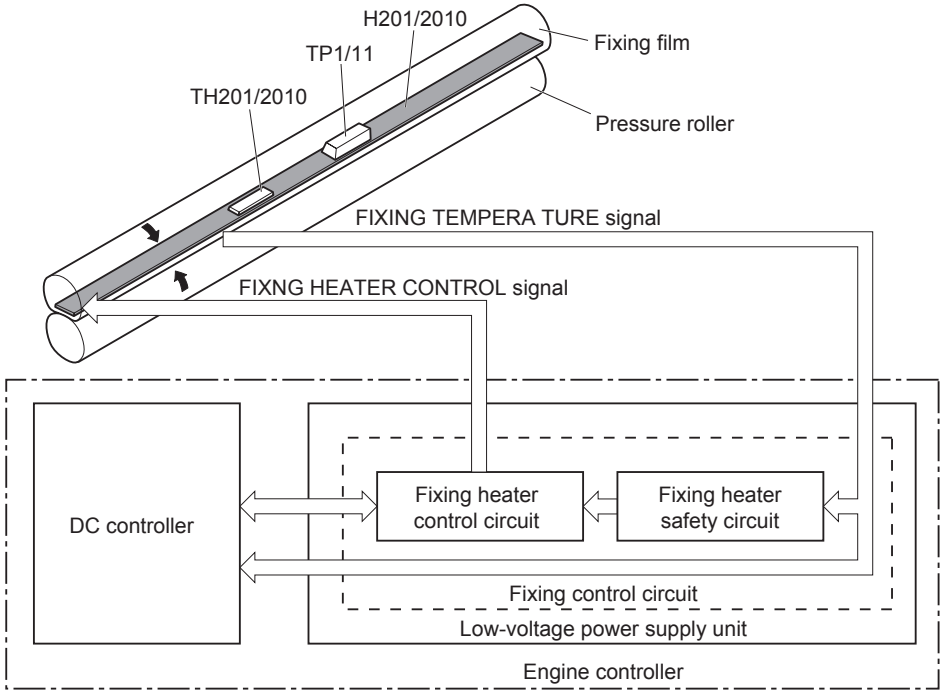


F-2-23

Fixing Control Circuit

The Fixing control circuit controls the temperature in the Fixing Assembly. The printer uses an on-demand Fixing method.

The figure below shows the configuration of the Fixing control circuit.



F-2-24

- Fixing Heater (H201/2010): Heats the Fixing Film
- Thermistor (TH1/11): Detects Fixing temperature (Contact type)
- Thermoswitch (TP201/2010):Prevents an abnormal temperature rise of the Fixing Heater (Contact type)

These temperature controls in the Fixing Assembly are performed by the Fixing Heater control circuit and the Fixing Heater safety circuit according to the commands from the DC Controller.

Throughput Reduction Control

During continuous printing, the throughput is changed to reduce heat buildup on parts not in contact with paper, to improve Fixing characteristics and reduce curling.

The throughput reduction is implemented according to the following conditions.

Small Size Paper Speed Control

Fixing Mode	Throughput			
ENVELOPE	1 - 2 imprints 17 ppm	3 - 4 imprints 12 ppm	5 imprints 8 ppm	6 imprints or more 6 ppm
ENVELOPE2	1 - 3 imprints 17 ppm	4 - 7 imprints 12 ppm	8 - 22 imprints 8 ppm	23 imprints or more 6 ppm
ENVELOPE3	1 - 3 imprints 12 ppm	4 - 5 imprints 8 ppm	6 imprints or more 6 ppm	
Postcard	1 - 3 imprints 12 ppm	4 - 5 imprints 8 ppm	6 imprints or more 6 ppm	
Long Narrow				
Normal/Light/OHT	1 - 280 imprints 2 ppm	281 imprints or more 1 ppm		
Label/Heavy1/Heavy2 Envelope/ Envelope2/ Envelope3	1 imprints or more 3 ppm			

T-2-8

16K Paper Speed Control

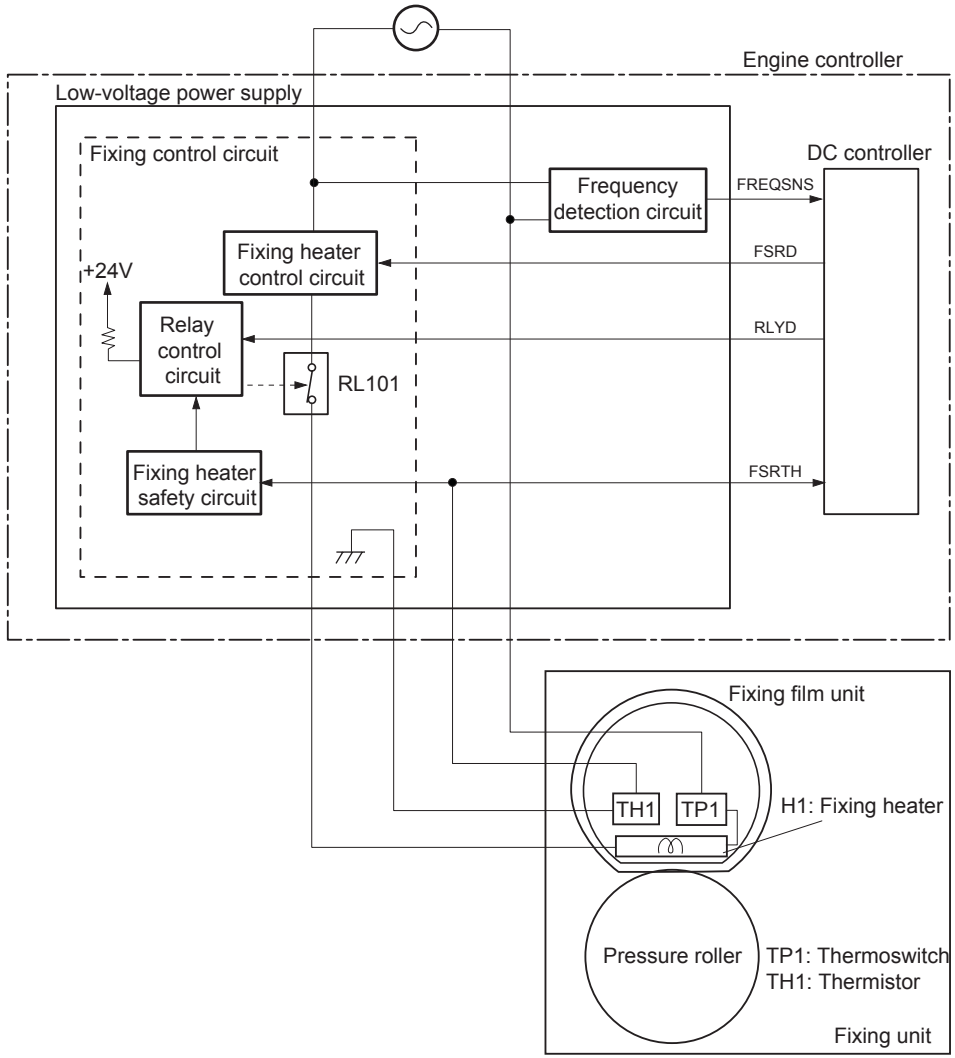
Fixing Mode	Throughput				
Normal/Light/ OHT (Normal mode)	1 - 27 imprints 16 ppm	28 - 39 imprints 14 ppm	40 - 79 imprints 12 ppm	80 - 199 imprints 10 ppm	200 imprints or more 8 ppm
Normal/Light/ OHT	1 imprints or more 6 ppm				
Envelope2/ Quiet	1 - 89 imprints 17 ppm	90 imprints or more 14 ppm			
Label/ Envelope/ Envelope3 Heavy1/ Heavy2/ Postcard	1 - 34 imprints 17 ppm	35 imprints or more 8 ppm			

T-2-9

Fixing Temperature Control

The Fixing temperature control maintains the temperature of the Fixing Heater at its targeted temperature.

Block diagram of this control is shown below.



F-2-25

The DC Controller monitors the FIXING TEMPERATURE (FSRTH) signal and sends the FIXING HEATER CONTROL (FSRD) signal according to the detected temperature. The Fixing Heater control circuit controls the Fixing Heater depending on the signal so that the heater remains at the targeted temperature.

Protective Function

The protective function detects an abnormal temperature rise in the Fixing Assembly and interrupts power supply to the Fixing Heater.

The following three protective components prevent an abnormal temperature rise of the Fixing Heater:

- DC Controller
- Fixing Heater safety circuit
- Thermoswitch

1) DC Controller

The DC Controller monitors the detected temperature of the thermistor. The DC Controller makes the FIXING HEATER CONTROL signal inactive and releases the relay to interrupt power supply to the Fixing Heater under the following condition:

2) Fixing Heater safety circuit

The Fixing Heater safety circuit monitors the detected temperature of the thermistor. The Fixing Heater safety circuit releases the relay control circuit to interrupt power supply to the Fixing Heater under the following condition:

3) Thermoswitch

The contact of the thermoswitch is broken to interrupt power supply to the Fixing Heater under the following condition:

Failure Detection

The DC Controller determines a Fixing Assembly failure, makes the FIXING HEATER CONTROL signal inactive, releases the relay to interrupt power supply to the Fixing Heater and notifies the formatter of a failure state when it encounters the following conditions:

1) Start-up failure
- If the detected temperature of the thermistor is kept a specified degrees or higher for a specified period of heater start-up during the wait period.
- If the detected temperature of the thermistor is kept a specified degrees or lower for a specified period under the heater temperature control during the print period.
- If the detected temperature of the thermistor does not reach its targeted temperature within a specified period under the heater temperature control during the initial rotation period.

2) Abnormal low temperature
- If the detected temperature of the thermistor is kept a specified degrees or lower for a specified period under the heater temperature control.

3) Abnormal high temperature
- If the detected temperature of the main thermistor is kept a specified degrees or higher for a specified period.

4) Drive circuit failure
- If a specified frequency of the FREQUENCY signal is not detected within a specified period after the printer is turned on.

Service Tasks

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

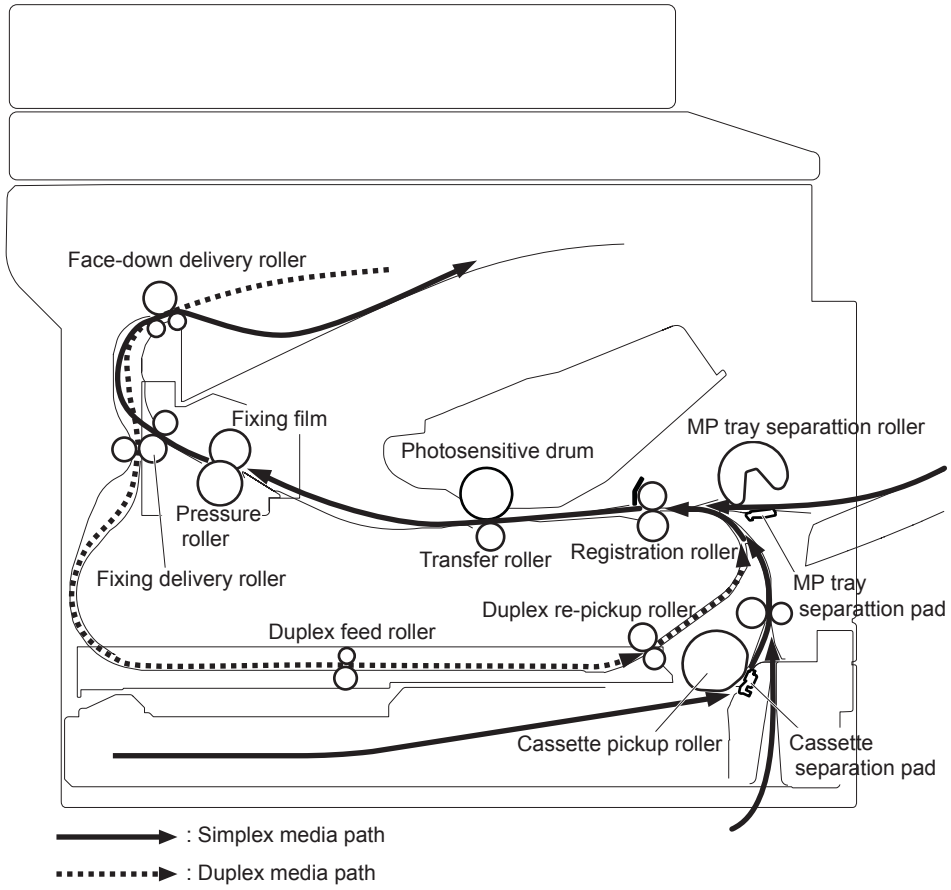
- When removing the Fixing Assembly, perform the operation after the Fixing Assembly is surely cooled. The Fixing Assembly just after printing may cause burn injury.
- Do not disassemble the Fixing Assembly at a field. It may cause a malfunction.

Pickup / Feed System

Outline

The Media Feed System picks up, feeds and delivers the print media. It consists of several types of rollers.
The Duplex Feed Unit in the Duplex model reverses and Refeeds the print media to print on both sides of media.

The media path is shown below.



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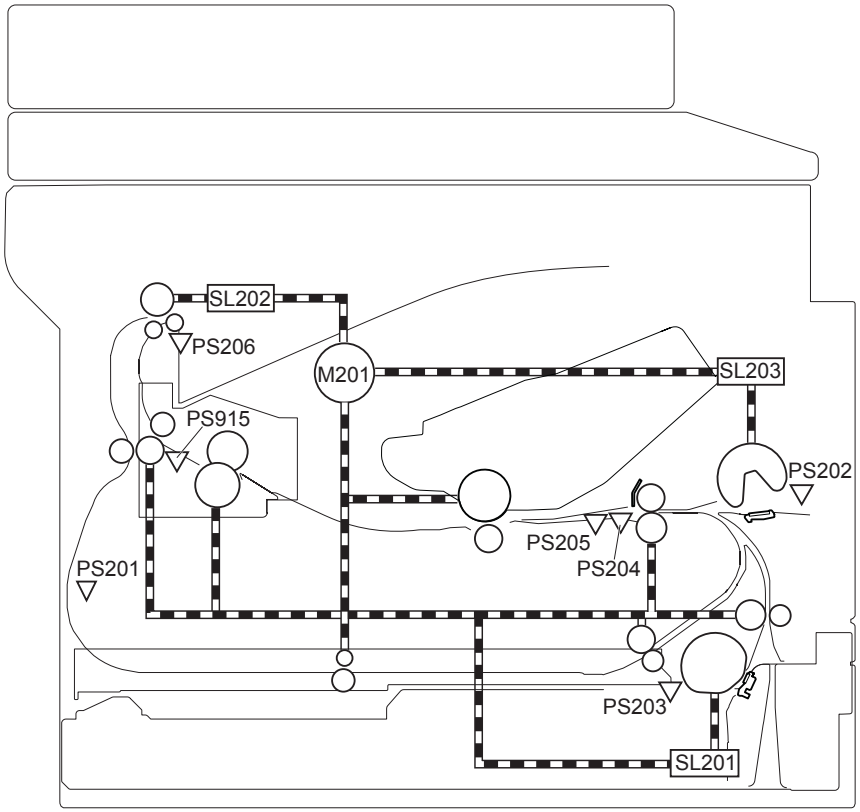
Drive Configuration

Diagram and table of the electrical components are shown below.



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Electrical component	Symbol	Signal
Main Motor	M201	Main Motor Control Signal
Cassette Pickup Solenoid	SL203	Cassette Pickup Solenoid Control Signal
MP Tray Pickup Solenoid	SL201	MP Tray Pickup Solenoid Control Signal
Duplex Reverse Solenoid	SL202	Duplex Reverse Solenoid Control Signal
TOP Sensor	PS204	TOP Signal
Cassette Media Presence Sensor	PS203	Cassette Media Presence Signal
MP Tray Presence Sensor	PS202	MP Tray Media Presence Signal
Fixing Delivery Sensor	PS915	Fixing Delivery Signal (100V)
	PS9150	Fixing Delivery Signal (230V)
Duplex Reverse Sensor	PS201	Duplex Reverse Signal
FD Tray Media Full Sensor	PS206	FD Tray Media Full Signal
Media Width Sensor	PS205	Media Width Signal

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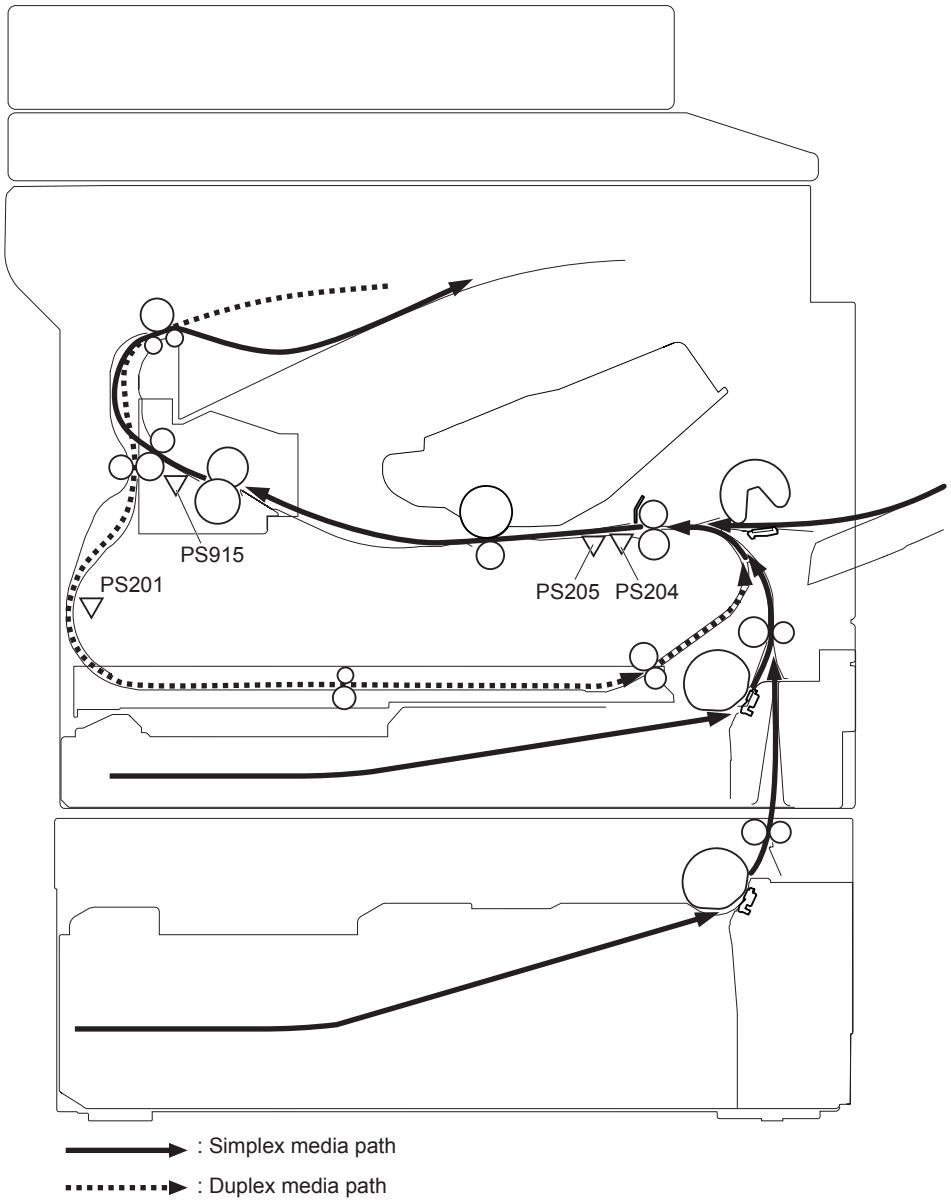
Jam Detection

Outline

The printer uses the following sensors to detect the presence of media and to check whether media is being fed correctly or has jammed:

- TOP Sensor (PS204)
- Fixing Delivery Sensor (PS915)
- Duplex Reverse Sensor (PS201)
- Media Width Sensor (PS205)



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Pickup Delay Jam

When the TOP Sensor (PS204) cannot detect the leading edge of paper within the specified time after starting pickup from a cassette, pickup retry is executed twice. After that, the sensor still cannot detect the leading edge of paper within the specified time, it is judged as a pickup jam.

Pickup Stationary Jam

When the TOP Sensor (PS204) cannot detect the trailing edge of paper after the specified time has passed since it detected the leading edge of paper, it is judged as a pickup stationary jam.

Delivery Delay Jam

When the Fixing Delivery Sensor (100V:PS915, 230V:PS9150) cannot detect the leading edge of paper after the specified time has passed since the TOP Sensor (PS204) detected the leading edge of paper, it is judged as a delivery delay jam.

Delivery Stationary Jam

After judging that it is not a Fixing paper wrap, execute the detection of delivery stationary jam.
When the Fixing Delivery Sensor (100V:PS915, 230V:PS9150) does not detect no paper within the specified time since the TOP Sensor (PS204) detected the trailing edge of paper, it is judged as a delivery stationary jam.

Fixing Paper Wrap Jam

After judging that it is not a delivery delay jam, execute the detection of Fixing paper wrap jam.
It is judged as a Fixing paper wrap jam when all of the following conditions are met: after the specified time had passed since the Fixing Delivery Sensor (100V:PS915, 230V:PS9150) detected the leading edge of paper, after the specified time had passed since the TOP Sensor (PS204) detected the leading edge of paper, and the Fixing Delivery Sensor (100V:PS915, 230V:PS9150) detects no paper.

Reverse Delay Jam

After judging that it is not a delivery stationary jam, execute the detection of reverse stationary jam.
When the Duplex Reverse Sensor (PS201) does not detect paper after the specified time has passed since the Fixing Delivery Sensor (100V:PS915, 230V:PS9150) detected the trailing edge of paper, it is judged as a reverse delay jam.

Reverse Stationary Jam

When the Duplex Reverse Sensor (PS201) cannot detect the trailing edge of paper after the specified time has passed since the sensor detected the leading edge of paper, it is judged as a reverse stationary jam.

Internal Residual Jam

When a paper is detected by the TOP Sensor (PS204), Fixing Delivery Sensor (100V:PS915, 230V:PS9150), Paper Width Sensor (PS205), or Duplex Reverse Sensor (PS201) at the time of starting initial rotation, it is judged as an internal residual jam.

Door Open Jam

When a door-open is detected while feeding papers, it is judged as a door open jam.

Service Tasks

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

Embedded RDS

Product Overview

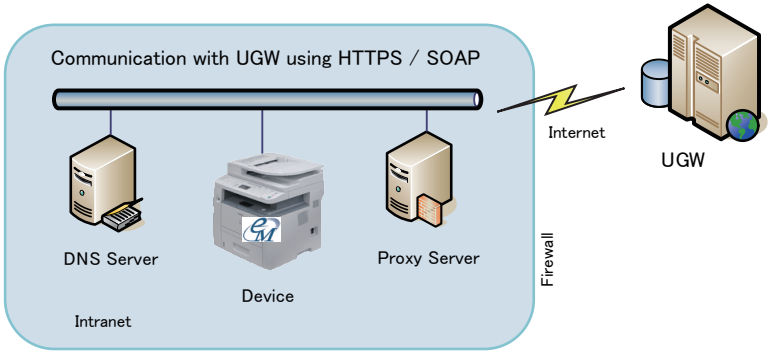
Overview

Embedded RDS (hereafter, referred to as E-RDS, which stands for EMBEDDED-RDS) is a network module embedded with a customer's device and enables e-Maintenance (Remote Diagnosis System), which can collect and transmit status changes, counter values, error logs, and consumable information such as the toner low/ out of the device to a remote maintenance server called UGW (Universal Gateway Server) via Internet.

The following device information/ status can be monitored.

- Service mode counter (Billing counts)
- Global click counter
- Parts counter
- Mode counter
- Firmware info
- Service call error log
- Jam log
- Alarm log
- Status changes (Toner low/ out, etc.)

Since high confidentiality is required for the information shown above, it performs communication between a device and the UGW using HTTPS/ SOAP protocol.



The e-Maintenance system using E-RDS

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Features and benefits

E-RDS embedded with a network module in advance can realize a front-end processing of e-Maintenance system without attaching any extra hardware equipment.

Service cautions

1) After performing the following service actions, it is necessary to perform initializing E-RDS settings (ERDS-DAT) and communication test (COM-TEST).
Failure to do so will result that the counter transmitting value to the UGW may become unusual.
   - System upgrade
   - HDD format and system installation
   - RAM clear of MNCON PCB SRAM Board :

Also, after replacing the main controller board, all settings must be reprogrammed.

2) The following settings in service mode must not be change unless there are specific instructions to do so. Changing these values will cause error in communication with UGW.
   - Set port number of UGW
     [SERVICE MODE] > [COPIER] > [FUNCTION] > [INSTALL] > [RGW-PORT]
     Default : 443

E-RDS Setup

E-RDS-related setting items (service mode)

E-RDS setting items

Item	Description
ERDS (COPIER > FUNCTION > INSTALL)	Set use/ no use of Embedded-RDS function 0: Function not used / 1: Function used e-Maintenance system to send device information, counter data, error statuses to the UGW. Note that the operation (such as global click counter, error information, etc.) can be restricted with the server settings. Default : 0 (Function not used)
RGW-PORT (COPIER > FUNCTION > INSTALL)	Set port number of UGW Validation : 1 to 65535 Default : 443
COM-TEST (COPIER > FUNCTION > INSTALL)	Execution of a communication test with UGW Try connection to UGW, and judge whether or not the connection succeeded.
COM-RSLT (COPIER > FUNCTION > INSTALL)	Display of the result of a communication test with UGW The communication test result is displayed as "OK" or "NG".
COM-LOG (COPIER > FUNCTION > INSTALL)	Display of information about a communication error with UGW Error information of a connection failure with UGW is displayed. The time and date of occurrence of the error and the error code are displayed as error information. Max 5 latest loggings retained
ERDS-DAT (COPIER > FUNCTION > CLEAR)	Initialization of E-RDS SRAM data SRAM data of E-RDS is initialized and returned to the factory setting value at shipment.

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SERVICE CALL BUTTON setting items

Item	Description
SCALL-SW (COPIER > OPTION > USER)	Display/ hide of Service Call button 0: Hide / 1: Display To set whether to display or hide the Service Call button on the Control Panel. Default : 0 (Hide)
SCALLCMP (COPIER > OPTION > USER)	Set of service call completion notice When this item is set, service call completion is notified to UGW and the service call status retained internally is cleared. Default : 0

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Steps to E-RDS settings

1. Start Service Mode.
   1) Press Menu button on the control panel.
   2) Press [2] and [8] buttons at a time on the control panel.
   3) Press Menu button on the control panel.

2. Select [COPIER] > [FUNCTION] > [CLEAR] > [ERDS-DAT] and press [OK] button.

NOTE:
This operation initializes the E-RDS settings to factory setting values.
For the setting values to be initialized, see the section of “Initializing E-RDS settings”.

3. Select [COPIER] > [FUNCTION] > [INSTALL] > [ERDS], and set value "1" then press [OK].

NOTE:
This operation enables the communication function with UGW.

CAUTION:
The following settings i.e. RGW-PORT in Service mode must not be change unless there are specific instructions to do so.
Changing these values will cause error in communication with UGW.

4. Select [COM-TEST] and then press [OK].

NOTE:
This initiates the communication test between the device and the UGW.

5. Select [COM-RSLT] and then press [OK].
   If the communication is successful, “OK” is displayed. If “NG” (failed) appears, refer to the “Troubleshooting“ and repeat until “OK” is displayed.

NOTE:
The communication results with UGW can be distinguished by referring to the COM-LOG. By performing the communication test with UGW, E-RDS acquires schedule information and starts monitoring and meter reads operation.

Steps to Request Service Call button settings

Steps for settings to display the Request Service Call button

In the case of supporting a service by the service call button, follow the instructions described below to display the Request Service Call button.

1. Start Service Mode.
   For the procedures, see “Steps to E-RDS settings - step 1.“.

2. Select [COPIER] > [OPTION] > [USER] > [SCALL-SW], and set value "1" then press [OK].

NOTE:
When the function is enabled, the < Request Service Call > button is displayed on the counter check screen (displayed by pressing the [Counter] button).

Steps for settings of service call completion

When the service technician completes the work for the service call, follow the instruction as described below to execute the service call completion work.

1. Start Service Mode.
   For the procedures, see “Steps to E-RDS settings - step 1.“.

2. Select [COPIER] > [OPTION] > [USER] > [SCALLCMP], and set value "1" then press [OK].

NOTE:
E-RDS generates an alarm of service call completion at this timing, and sends the alarm to UGW.

Steps for service call request

Users should follow the instructions as described below to request a service call.

CAUTION:
When a service call has been already requested, another service call cannot be sent.
The previous service call needs to be canceled, or a service person needs to perform processing for service call completion.

1. Press the [Counter] button on the control panel to display the counter check screen. Select < Request Service Call > button, and then press [OK].

2. Select a service you want to request on the service call request screen, and then press [OK]. The service call request setting screen will appear.

3. Select [Send Request] and then press [OK].

4. Select [Apply] and then press [OK].

NOTE:
E-RDS generates an alarm of service call request at this timing, and sends the alarm to UGW.

5. If the service call request is successful, “Time of Request” is displayed. If the service call request notification ended in failure, refer to "Troubleshooting", and repeat the procedure until the service call request notification is completed successfully.

Steps for service call cancellation

To cancel the service call, follow the instructions as described below.

1. Press the [Counter] button on the control panel to display the counter check screen. Select < Request Service Call > button, and then press [OK].

2. Select < Cancel Request > button and then press [OK]. Select [Yes] and then press [OK] in the check screen.

NOTE:
E-RDS generates an alarm of service call cancellation at this timing, and sends the alarm to UGW.

3. "The request has been canceled." is displayed..

Initializing E-RDS settings

It is possible to return E-RDS Settings to factory-shipments value.

Initialization procedure

1. Start Service Mode.
   For the procedures, see “Steps to E-RDS settings - step 1.“.

2. Select [COPIER] > [FUNCTION] > [CLEAR] > [ERDS-DAT] and then press [OK].

Setting values and data to be initialized

The following E-RDS settings, internal data, and Alarm filtering information are initialized.

- COPIER > FUNCTION > INSTALL > ERDS
- COPIER > FUNCTION > INSTALL > RGW-PORT
- COPIER > FUNCTION > INSTALL > COM-LOG

COM-LOG Report

A report of communication error log information on five affairs can be output.

Report output procedure

1. Start Service Mode.
   For the procedures, see “Steps to E-RDS settings - step 1.“.

2. Select [COPIER] > [FUNCTION] > [MISC-P] > [ERDS-LOG], and press [OK].

Output sample

```
19/05 2011 10:14AM
                                  ****************************
                                  *** E-RDS-COM-LOG ***
                                  ****************************

No.01    DATE 19/05 2011    TIME 03:21 AM    CODE 05000003
  Information    SUSPEND: Communication test is not performed.

No.02    DATE 19/05 2011    TIME 03:21 AM    CODE 00000000
  Information    SUSPEND: mode changed.

No.03    DATE 19/05 2011    TIME 03:18 AM    CODE 05000003
  Information    SUSPEND: Communication test is not performed.

No.04    DATE 19/05 2011    TIME 03:18 AM    CODE 00000000
  Information    SUSPEND: mode changed.

No.05    DATE 19/05 2011    TIME 01:56 AM    CODE 05000003
  Information    SUSPEND: Communication test is not performed.
```

FAQ

No.1

Q: In what case does a communication test with UGW fail?

A: The following cases can be considered in the becoming “NG“ case.

1. Name resolution was failed due to an incorrect host name or DNS server has been halted.
2. Network cable is blocked off.
3. Proxy server settings is not correct.

No.2

Q: I want to know the interval of data transmitting from E-RDS to the UGW, and what data size is sent to the UGW?

A: The schedule of data transmitting, the start time are determined by settings in the UGW side. The timing is once per 16 hours by default, and counter data volume could be maximum 250 bytes.

No.3

Q: Does error-retry carry out at the time of a communication error with the UGW?

A: Retry of SOAP communication is performed as follows.

- In the case of an error in SOAP communication (i.e. a trouble at UGW side) at transmission of the alarm code list and the service mode counter (postAlert) due to change of device status, the data failed in transmission equivalent to 3 retries is to be stored in the RAMDISK. In the case of anther transmission error (the 4th error), the oldest data of the stored data is deleted and the newly-generated retry data is stored in the RAMDISK.
- In the case of SOAP transmission errors as described below, the unsent (and remaining) data is sent again depending on the storage status of CPCA data:
  - At transmission of a jam log and service mode counter (postJamLog) when the jam log was obtained from the device.
  - At transmission of a service call log and service mode counter (postServiceCallLog) when the service log was obtained from the device.
  - At transmission of an alarm log and service mode counter (postAlarmLog) when the alarm log was obtained from the device.

NOTE:
The retry data will be sent at interval of 5*n minutes. (n: retries, 5, 10, 15 minutes…up to 30 minutes)

No.4

Q: How many log-data can be stored?

A: Up to 5 log data can be saved.

No.5

Q: Although Microsoft ISA as a proxy server is introduced, the authentication check is failed. Can E-RDS adopt with Microsoft ISA?

A: E-RDS must comply with “Basic” while “Integrated” authentication is used for Microsoft ISA (as default); therefore, authentication with E-RDS is available if you change the setting to “Basic” authentication on the server.

No.6

Q: Can I turn the device power off during the e-Maintenance system operation?

A: While operating the e-Maintenance system, the power of the device must be ON. If power OFF is needed, do not leave the device power OFF for long time.
It will become “Device is busy, try later” errors if the power supply of network equipment such as HUB is made prolonged OFF.

No.7

Q: How does E-RDS operate while the device is placed in the sleep mode?

A: While being in Real Deep Sleep, and if data to be sent is in E-RDS, the system wakes up asleep, then starts to send the data to the UGW. The system also waits for completion of data transmission and let the device to shift to asleep status again.
However, transition time to the Real Deep Sleep depends on the device, and the transition to sleep won’t be done if the next data transmission will be done within 1 minute.

No.8

Q: Is E-RDS compatible with Department counter?

A: No, E-RDS does not support Department counter.

No.9

Q: Can I make another service call request when I have already requested a service call?

A: No, you cannot make another service call request if you have already made a service call request.
Select < Cancel Request > button and then press [OK] to cancel the service call which you’d made. Or the service technician performs a service call request completion process.

No.10

Q: Is the “Requesting” status cancelled when the device is rebooted?

A: The requesting status is not cancelled even if the device is rebooted. The information of the notified service call request (the time that the request was made, the service call request description) is also retained during the “Requesting” status.

Troubleshooting

No.1

Symptom: A communication test (COM-TEST) results NG.

Cause: Initial settings or network conditions is incomplete.

Remedy 1: Check and take actions mentioned below.

1) Check network connections

Is the status indicator LED for the HUB port to which the main unit is connected ON?

YES: Proceed to Step 2).

NO: Check that the network cable is properly connected.

2) Confirm loop back address

Select [Menu] > [Network Settings] > [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter “127.0.0.1”, and press the [OK] button.

Does the screen display “Response from the host.”?

YES: Proceed to Step 3).

NO: There is a possibility that the main unit’s network settings are wrong. Check the details of the IPv4 settings once more.

3) Confirmation from another PC connected to same network.

Request the user to ping the main unit from a PC connected to same network.

Does the main unit respond?

YES: Proceed to Step 4).

NO: Confirm the details of the main unit’s IP address and subnet mask settings.

4) Confirm DNS connection

(a) Select [Menu] > [Network Settings] > [TCP/IP Settings] > [IPv4 Settings] > [DNS Settings] > [DNS Server Settings], write down the primary and secondary addresses of the DNS server, and press the [Back] button.

(b) Select [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter the primary DNS server noted down in step a) as the IP address, and press the [OK] button.

Does the screen display “Response from the host.”?

YES: Proceed to Remedy 2.

NO: Enter the secondary DNS server noted down in step a) as the IP address, and then press [OK].

Does the screen display “Response from the host.”?

YES: Proceed to Remedy 2.

NO: There is a possibility that the DNS server address is wrong. Reconfirm the address with the user’s system administrator.

Remedy 2: Troubleshooting using communication log (COM-LOG)

1) Start Service Mode.

1) Press Menu button on the control panel.
2) Press [2] and [8] buttons at a time on the control panel.
3) Press Menu button on the control panel.

2) Select [COPIER] > [FUNCTION] > [MISC-P] > [ERDS-LOG], and press the [OK] button to execute report output of the communication error log information.

3) When a message is displayed, take an appropriate action referring to “Error code and strings”.

No.2

Symptom: A communication test results NG even if network setting is set properly.

Causes: The network environment is inappropriate, or RGW-PORT settings for E-RDS have been changed.

Remedy: The following points should be checked.

1) Check network conditions such as proxy server settings and so on.
2) Check the E-RDS setting values.

- Check the communication log from COM-LOG.
- Check whether RGW-PORT settings has changed. If RGW-PORT settings has changed, restore initial values. For initial values, see “E-RDS setting items”.

No.3

Symptom: Registration information of an E-RDS is once deleted from the UGW server, and is re-registered after that. If a communication test is not performed, then device information on the UGW becomes invalid.

Causes: When registration of the E-RDS is deleted from the UGW, the status will be changed to that the communication test has not completed because related information has lost from a database.

So, device information will also become invalid if that condition will be left for seven days without performing the communication test.

Remedy: Perform a communication test before becoming the invalidity state.

No.4

Symptom: There was a log, indicating “Device is not ready, try later” in error details of COM-LOG list.

Cause: A certain problem occurred in networking.

Remedy: Check and take actions mentioned below.

1) Check networking conditions and connections.
2) Turn on the power supply of a device and perform a communication test about 60 seconds later.

No.5

Symptom: “Unknown error” is displayed though a communication test (COM-TEST) has done successfully.

Cause: It could be a problem at the server side or the network load is temporarily faulty.

Remedy: Try again after a period of time. If the same error persists, check the UGW status with a network and UGW administrator.

No.6

Symptom: A service call request is failed.

Cause: A communication test with UGW has not been performed, or a communication test result is NG.

Remedy: Perform a communication test, and check that the test with UGW finishes successfully.

Error code and strings

The following error information is output in the communication error log details display screen. (Here, “a server” means UGW.)

- The error information are displayed in the following form.
  [*] [Error strings] [Method name] [Error details provided by UGW]

NOTE:
“*” is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

No.	Code	Error strings	Cause	Remedy
1	0000 0000	SUSPEND: mode changed.	Unmatched Operation Mode	Clear E-RDS
2	0500 0003	SUSPEND: Communication test is not performed.	Rebooting the device while the communication test had not been performed although E-RDS is enabled.	Perform a communication test (COM-TEST).
3	0xxx 0003	Server schedule is not exist	Blank schedule data have been received from UGW.	Check the device settings status with the UGW administrator.
4	0xxx 0003	Communication test is not performed	Communication test has not completed.	Perform and complete a communication test (COM-TEST).
5	84xx 0003	E-RDS switch is setted OFF	A communication test has been attempted with the E-RDS switch being OFF.	Set E-RDS switch (ERDS) to 1, and then perform a communication test(COM-TEST).
6	8600 0002 8600 0003 8600 0101 8600 0201 8600 0305 8600 0306 8600 0401 8600 0403 8600 0414 8600 0415	Event Registration is Failed	Processing (event processing) within the device has failed.	Turn the device OFF/ ON. If the error persists, replace the device system software. (Upgrade)
7	8700 0306	SRAM version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of E-RDS.	Turn the device OFF/ ON.
8	8xxx 0004	Operation is not supported	Method which E-RDS is not supporting attempted.	Contact help desk
9	8xxx 0101	Server response error (NULL)	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding. When (Null) is displayed at the end of the message, this indicates that there has been an error in the HTTPS communication method.	Try again after a period of time. If the error persists, check the UGW status with the UGW administrator.
10	8xxx 0201 8xxx 0202 8xxx 0203 8xxx 0204 8xxx 0206	Server schedule is invalid	During the communication test, there has been some kind of error in the schedule values passed from UGW.	When the error occurs, report the details to the support section. And then, after the UGW side has responded, try the communication test again.
11	8xxx 0207 8xxx 0208	Internal Schedule is broken	The schedule data in the inside of E-RDS is not right.	Perform a communication test(COM-TEST).
12	8xxx 0221	Server specified list is too big	Alert filtering error: The number of elements of the list specified by the server is over restriction value.	Specify the number of elements of alert filtering correctly. (Alarm filtering is not supported)
13	8xxx 0222	Server specified list is wrong	Alert filtering error: Unjust value is included in the element of the list specified by the server.	Specify the element of alert filtering with the right value. (Alarm filtering is not supported)
14	8xxx 0304	Device is busy, try later	The semaphore consumption error at the time of a communication test.	Try again a communication test after a period of time.
15	8xxx 2000	Unknown error	Some other kind of communication error has occurred.	Try again after a period of time. If the error persists, check the UGW status with the UGW administrator.
16	8xxx 2001	URL Scheme error(not https)	The header of the URL of the registered UGW is not in https format.	Contact help desk
17	8xxx 2002	URL server specified is illegal	A URL different to that specified by the UGW has been set.	Contact help desk
18	8xxx 2003	Network is not ready, try later	Communication attempted without confirming network connection, just after booting up a device in which the network preparations are not ready.	Check the network connection, as per the initial procedures described in the troubleshooting. Perform a communication test (COM-TEST) about 60 seconds later, after turn on the device.

No.	Code	Error strings	Cause	Remedy
19	8xxx 2004	Server response error ([Hexadecimal]) [Error detailed in the UGW] *1)	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding.	Try again after a period of time. Check detailed error code (Hexadecimal) and [Error details in UGW] from UGW displayed after the message.
20	8xxx 200A	Server connection error	- TCP/IP communication fault - The IP address of device is not set.	Check the network connection, as per the initial procedures described in the troubleshooting.
21	8xxx 200B	Server address resolution error	Server address name resolution has failed.	Contact help desk
22	8xxx 2014	Proxy connection error	Could not connect to proxy server due to improper address.	Check proxy server address and re-enter as needed.
23	8xxx 2015	Proxy address resolution error	Could not connect to proxy server due to name resolution error of proxy address.	Check that the proxy server name is correct. If the proxy server name is correct, check the DNS connection, as per the initial procedures described in the troubleshooting.
24	8xxx 201E	Proxy authentication error	Proxy authentication is failed.	Check the user name and password required in order to login to the proxy, and re-enter as needed.
25	8xxx 2028	Server certificate error	- No route certificate installed in device. - Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device.	Install the latest device system software. (Upgrade)
26	8xxx 2029	Server certificate verify error	The server certificate verification error occurred.	Contact help desk
27	8xxx 2046	Server certificate expired	- The route certificate registered with the device has expired. - Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device. - The device time and date is outside of the certificated period.	Check that the device time and date are correctly set. If the device time and date are correct, upgrade to the latest system software.
28	8xxx 2047	Server response time out	Due to network congestion, etc., the response from UGW does not come within the specified time. (HTTPS level time out)	If this error occurs when the communication test is being run, try again after a period of time.
29	8xxx 2048	Service not found	There is a mistake in the UGW URL, and UGW cannot be accessed. (Path is wrong)	Contact help desk
30	8xxx 2052	URL error	The data which is not URL is inputted into URL field.	Contact help desk
31	8xxx 2058	Unknown error	SOAP Client fails to obtain SOAP Response. Possibility of a problem in the server or of a temporary problem in the network load.	Try again after a period of time. If the error persists, check the UGW status with the UGW administrator.
32	8xxx 2063	SOAP Fault	SOAP communication error has occurred.	Check that the value of port number of UGW (RGW-PORT) is 443.
33	xxxx xxxx	Device internal error	An internal error, such as memory unavailable, etc., has occurred during a device internal error phase.	Turn the device OFF/ ON. Or replace the device system software. (Upgrade)
34	xxxx xxxx	SUSPEND: Initialize Failure!	Internal error occurred at the initiating E-RDS.	Turn the device OFF/ ON.

T-2-13

*1) [Hexadecimal]: indicates an error code returned from UGW.
[Error details in UGW]: indicates error details returned from UGW.

Periodical Services

- Periodically Replaced Parts
- Consumable Parts
- Periodical Service
- Cleaning

Periodically Replaced Parts

No periodically replaced parts is set for this product.

Consumable Parts

Parts name	Product No.	Q'ty	Interval	Remarks
ADF Separation Pad	FC7-6297	1	50,000 sheets	
ADF Separation Roller	FL2-6637	1	50,000 sheets	

T-3-1

Periodical Service

No periodically replaced parts is set for this product.

Cleaning

Component	Cleaning method
Scanning Area	Clean with Oil Glass Cleaner (FY9-6020) and lint-free paper.
Copy board glass	Wipe With a Lint-free Cloth.
Cassette Pickup Roller	
Transfer Guide Unit	
Media Feed Belt And Media Feed Guide Unit	
Fixing Inlet Guide	

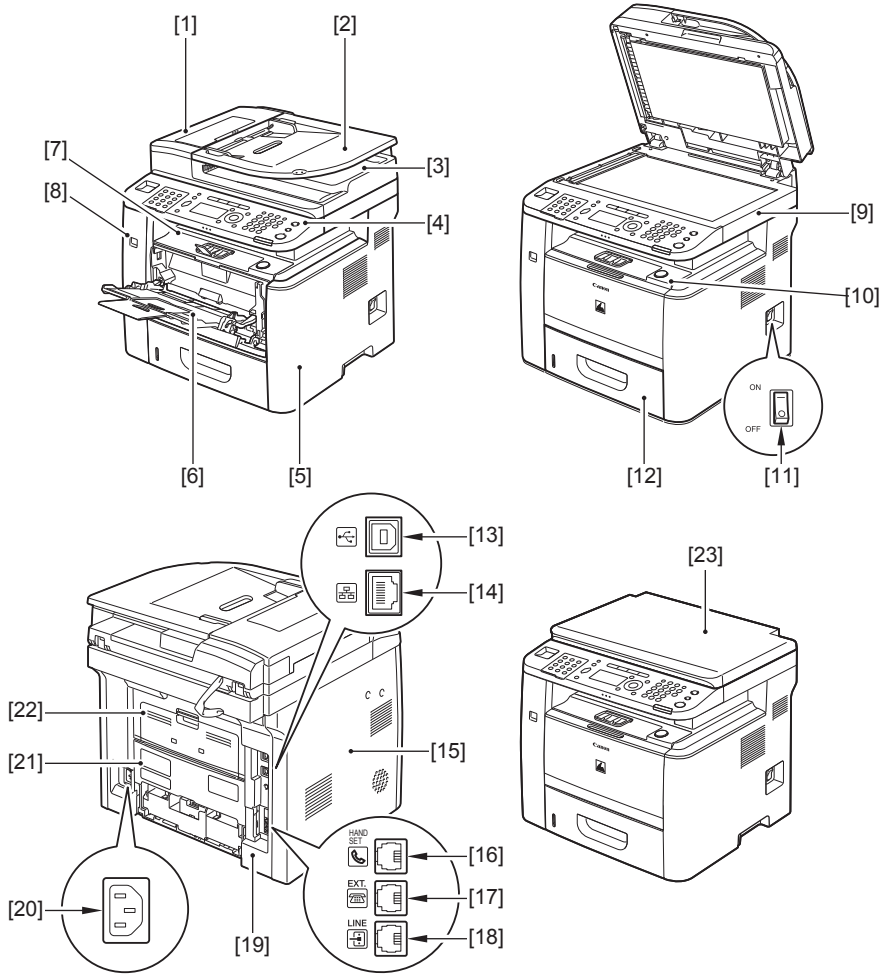
T-3-2

4 Disassembly/ Assembly

- List of Parts
- External Cover
- Document Exposure / Delivery System
- Controller System
- Laser Scanner System
- Image Forming System
- Fixing System
- Pickup / Feed System

List of Parts

External View

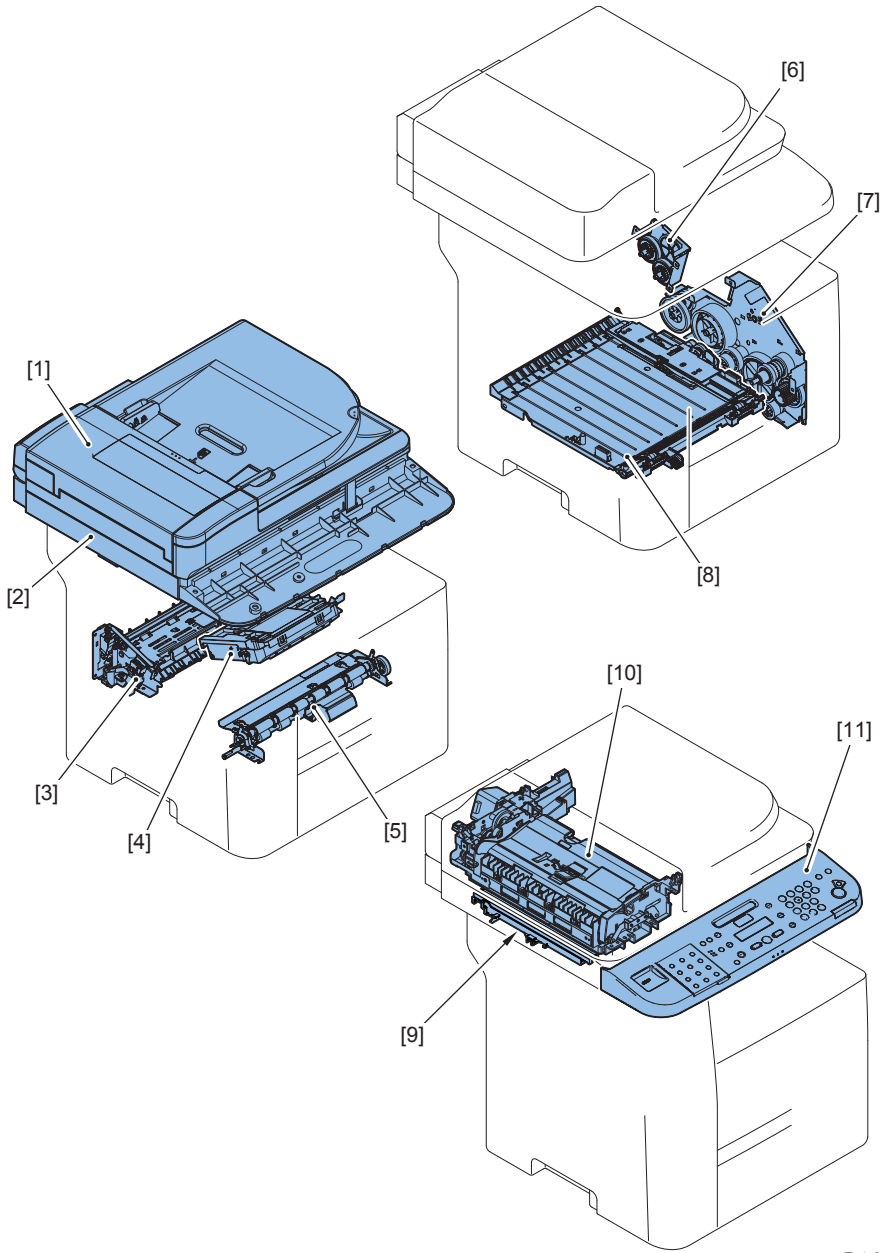


F-4-1

Key	Name	Key	Name
[1]	DADF (Duplex Automatic Document Feeder)	[13]	USB Port 2
[2]	Document Feeder Tray	[14]	Ethernet Port
[3]	Document Delivery Tray	[15]	Left Cover Unit
[4]	Control Panel	[16]	Handset Terminal
[5]	Right Cover Unit	[17]	External Telephone Terminal
[6]	MP Pickup Tray	[18]	Telephone Line Terminal
[7]	Upper Cover	[19]	Left Rear Cover
[8]	USB Port	[20]	Power Socket
[9]	Reader Unit	[21]	Rear Lower Cover
[10]	Front Cover	[22]	Rear Upper Cover
[11]	Main Power Switch	[23]	Platen Cover
[12]	Paper Cassette		

T-4-1

Main Unit

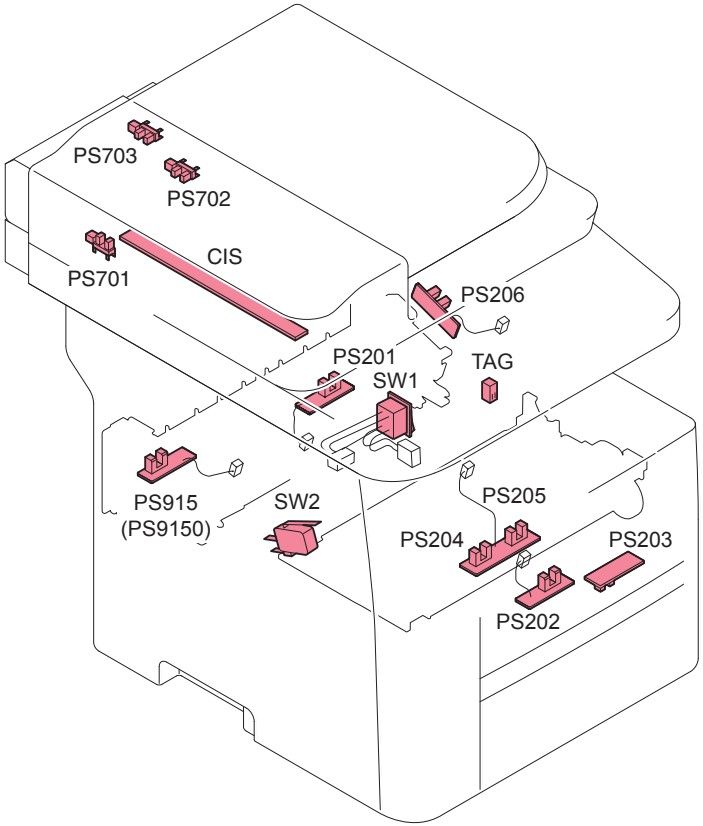


F-4-2

Key	Name	Remarks
[1]	DADF (Duplex Automatic Document Feeder)	-
[2]	Reader Unit	-
[3]	Fixing Unit	
[4]	Laser Scanner Unit	-
[5]	Registration Unit	-
[6]	Duplex Drive Unit	
[7]	Main Drive Unit	
[8]	Duplex Feed Unit	
[9]	Contact Sensor	
[10]	ADF Pickup Feed Unit	
[11]	Control Panel	

T-4-2

Sensor / Switch

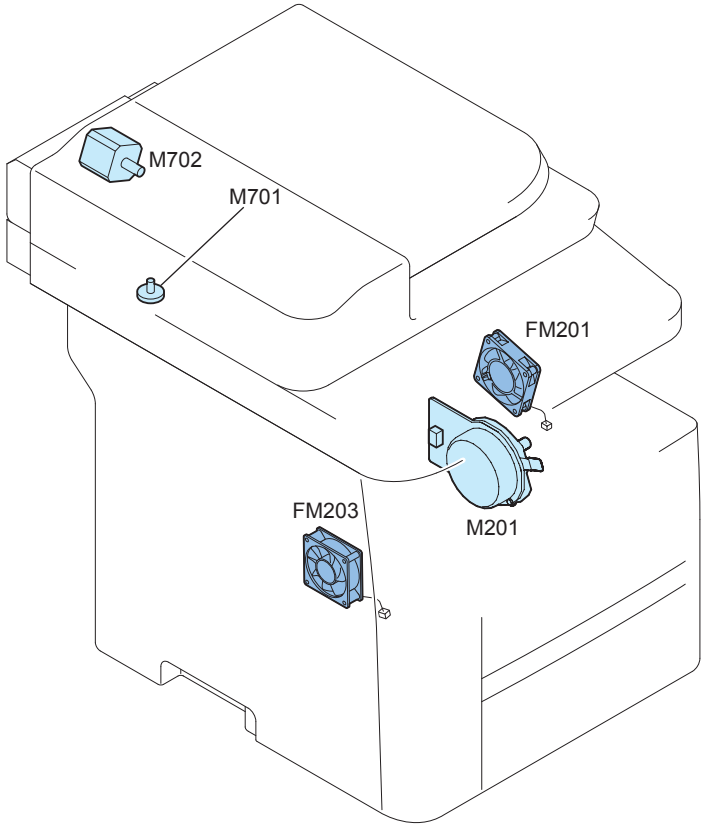


F-4-3

Symbol	Name	Remarks
CIS	CIS Unit	-
PS201	Duplex Reverse Sensor	-
PS202	MP Tray Media Presence Sensor	-
PS203	Cassette Media Presence Sensor	-
PS204	Top Sensor	-
PS205	Media Width Sensor	-
PS206	FD Tray Media Full Sensor	-
PS701	Scanner Home Position Sensor	-
PS702	Document End Sensor	-
PS703	Document Sensor	-
PS9150	Fixing Delivery Sensor	-
SW1	Main Switch	-
SW2	Door Switch	-
TAG	Cartridge Sensor	-

T-4-3

Motor / Fan

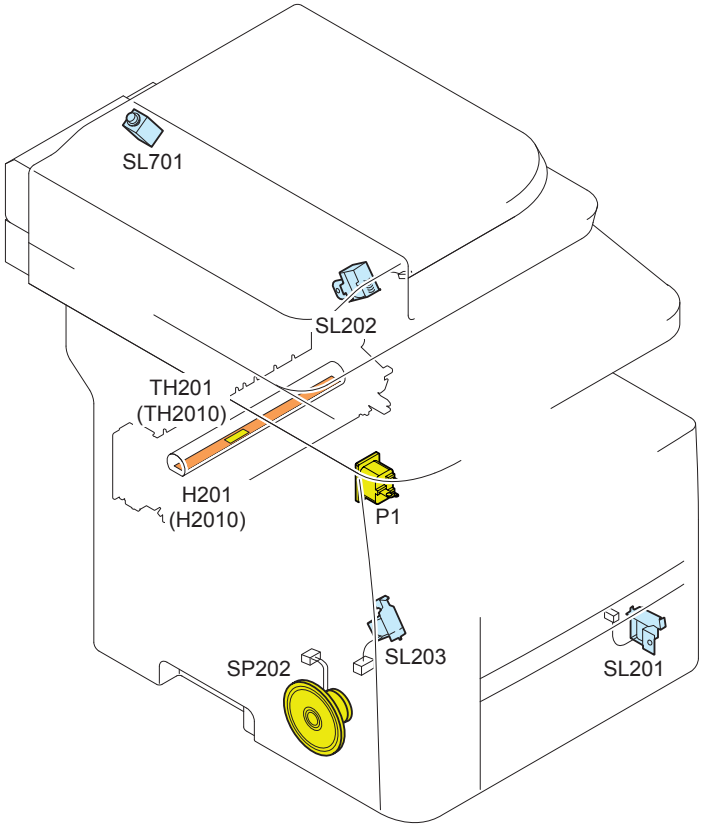


F-4-4

Symbol	Name	Remarks
FM201	Main Fan	-
FM203	Controller Fan	-
M201	Main Motor	-
M701	Scanner Motor	-
M702	ADF Motor	-

T-4-4

Other

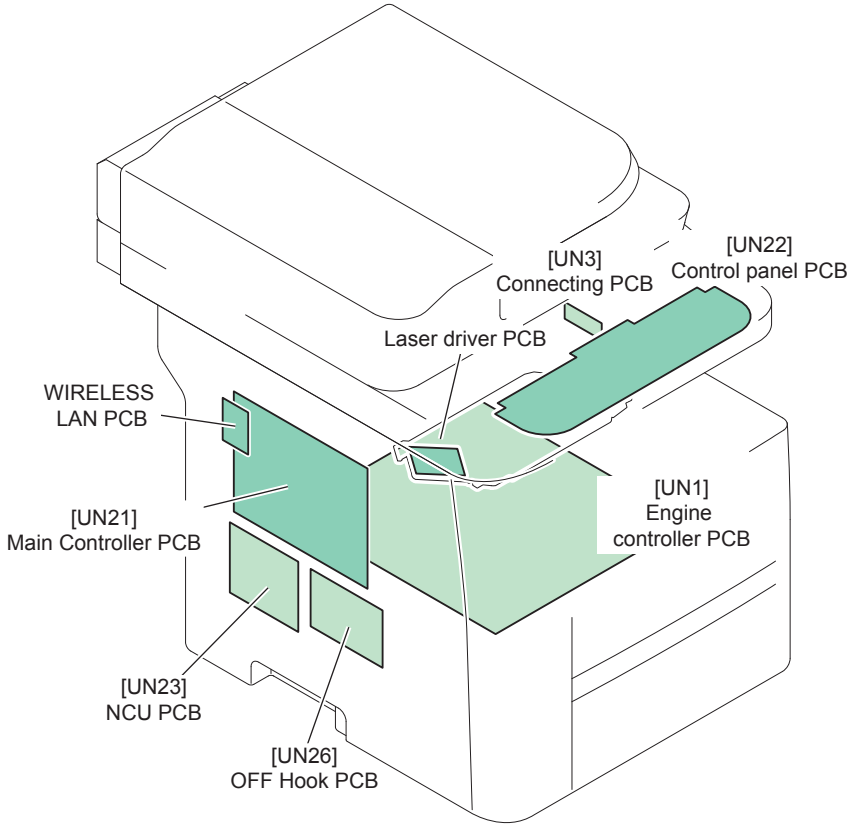


F-4-5

Symbol	Name	Remarks
H201	Heater	-
H2010		-
P1	Power Cord Outlet	-
SL201	Cassette Pickup Sorenoid	-
SL202	Duplex Reverse Sorenoid	-
SL203	MP Tray Pickup Sorenoid	-
SL701	ADF Delivery Sorenoid	-
SP202	Speaker	-
TH201	Thermistor	-
TH2010		-

T-4-5

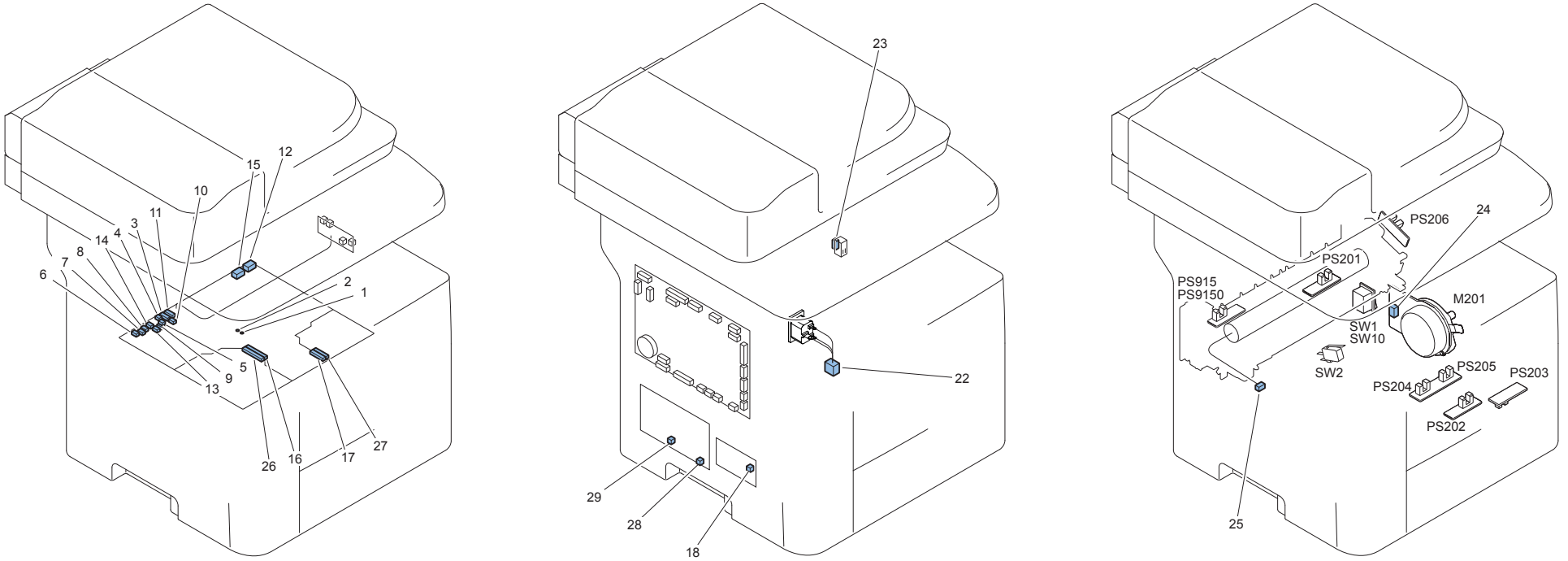
PCB



Symbol	Name	Remarks
UN1	Engine Controller PCB	
UN3	Connecting PCB	
UN21	Main Controller PCB	
UN22	Control Panel PCB	
UN23	NCU PCB	iR 1133iF only
UN25	OFF Hook PCB	iR 1133iF only
-	Laser driver PCB	
-	Wireless LAN PCB	Option

T-4-6

Connector Layout Drawing

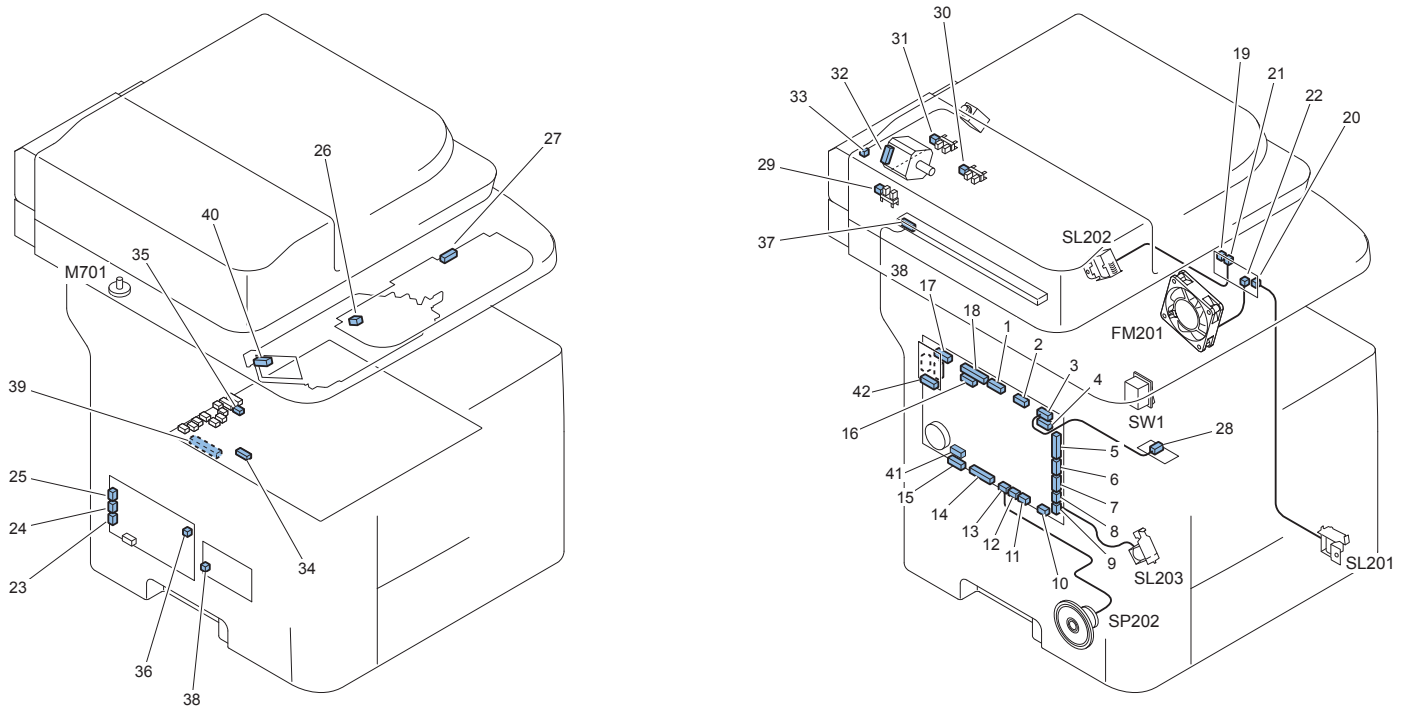


F-4-6

KeyNo.	Symbol	J No.	Parts Name	Intermediate Connector			KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	UN1	J251	Engine controller PCB	-				-	SW2	Door switch	
2	UN1	J252	Engine controller PCB	-				-	SW2	Door switch	
3	UN1	J211	Engine controller PCB	-			22	J1205	-	Option Drawer Connecter	
4	UN1	J214	Engine controller PCB	-			23	J2100	TAG	Cartridge sensor	
5	UN1	J208	Engine controller PCB	-				-	PS201	Duplex Reverse Sensor	
6	UN1	J205	Engine controller PCB	-				-	PS202	MP Tray Presence Sensor	
7	UN1	J204	Engine controller PCB	-				-	PS203	Cassette Media Presence Sensor	
8	UN1	J203	Engine controller PCB	-				-	PS204	Top Sensor	
8	UN1	J203	Engine controller PCB	-				-	PS205	Media Full Sensor	
9	UN1	J213	Engine controller PCB	-				-	PS206	FD Tray Media Full Sensor	
10	UN1	J202	Engine controller PCB	-			24	J1202	M201	Main motor	
11	UN1	J207	Engine controller PCB	-				-	UN3	Connecting PCB	
12	UN1	J2120	Engine controller PCB	-			26	J5	H2010	Heater (230V)	
13	UN1	J2200	Engine controller PCB	-				-	TH2010	Thermistor (230V)	
14	UN1	J2060	Engine controller PCB	-				-	PS9150	Fixing delivery sensor (230V)	
15	UN1	J215	Engine controller PCB	-					SW1	Main Switch	
	SW1	-	Main switch	-				-	P1	Power Cord Outlet	

KeyNo.	Symbol	J No.	Parts Name	Intermediate Connector			KeyNo.	J No.	Symbol	Parts Name	REMARKS
16	UN1	J271	Engine controller PCB	-				J257	-	HV DV PCB	
17	UN1	J270	Engine controller PCB	-			27	J256	-	HV TR PCB	
18	-	J2001	OFF Hook PCB	-			28	J9320	-	NCU PCB	
19	UN5	J11	-	-				-	P10	-	
20	UN5	J12	-	-				-	SW10	-	
21	UN5	J13	-	-			29	J936	-	-	

T-4-7



F-4-7

KeyNo.	Symbol	J No.	Parts Name	Intermediate Connector			KeyNo.	J No.	Symbol	Parts Name	REMARKS
1	UN21	J904	Main Controller PCB	-			27	J801	-	Laser Driver PCB	
2	UN21	J902	Main Controller PCB	-			28	J401	-	Operation LCD PCB	
3	UN21	J907	Main Controller PCB	-			29	J2	-	USB Reray PCB	
4	UN21	J9090	Main Controller PCB	J9502				-	M701	Scanner Motor	
4	UN21	J9090	Main Controller PCB	-			32	J1401	PS701	Scanner home position sensor	
5	UN21	J910	Main Controller PCB	J1755			30	J1301	PS702	Document end sensor	
5	UN21	J910	Main Controller PCB	-			31	J1302	PS703	Document sensor	
5	UN21	J910	Main Controller PCB	-			32	J1300	M702	ADF motor	
5	UN21	J910	Main Controller PCB	-			33	J1304	SL701	ADF delivery solenoid	
6	UN21	J912	Main Controller PCB	-				-	-	-	
7	UN21	J914	Main Controller PCB	-				-	-	-	
8	UN21	J915	Main Controller PCB	J1501				-	FM203	Controller fan	
9	UN21	J918	Main Controller PCB	-				-	SL203	MP tray pickup solenoid	
10	UN21	J921	Main Controller PCB	-			34	J255	UN1	Engine controller PCB	
11	UN21	J922	Main Controller PCB	-			35	J2000	-	OFF Hook PCB	120V/230V
12	UN21	J920	Main Controller PCB	-							
13	UN21	J923	Main Controller PCB	-				-	SP202	Speaker	
14	UN21	J925	Main Controller PCB	-			36	J931	-	NCU PCB	

KeyNo.	Symbol	J No.	Parts Name	Intermediate Connector			KeyNo.	J No.	Symbol	Parts Name	REMARKS
41	UN21	J924	Main Controller PCB	-				-	-	-	
15	UN21	J919	Main Controller PCB	J1003	J1007			-	-	-	
16	UN21	J908	Main Controller PCB	-				-	-	-	
17	UN21	J916	Main Controller PCB	-				-	-	-	
18	UN21	J905	Main Controller PCB	-			37	J1	-	Wireless LAN PCB	
19	UN21	J903	Main Controller PCB	-			38	J201	UN1	Engine controller PCB	
20	UN3	J1103	Connecting PCB	-			39	J802	M202	Scanner motor	
21	UN3	J1104	Connecting PCB	-				-	SL201	Cassette pickup solenoid	
22	UN3	J1101	Connecting PCB	-				-	SL202	Duplex reverse solenoid	
23	UN3	J1105	Connecting PCB	J904				-	FM201	Main fan	
24	-	J933	NCU PCB	-				-	-	-	
25	-	J934	NCU PCB	-				-	-	-	
26	-	J935	NCU PCB	-				-	-	-	
41	UN21	J924	Main Controller PCB	-				J1924	-	Control Interface kit	

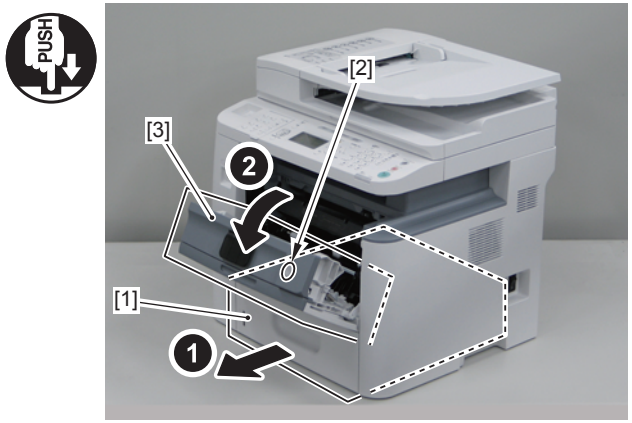
T-4-8

External Cover

Removing the Left Cover Unit

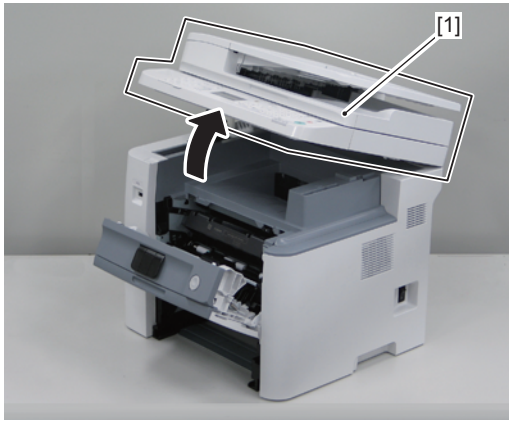
Procedure

1) Remove the cassette [1].
2) Press the Open button [2], and open the Front Cover [3].



F-4-8

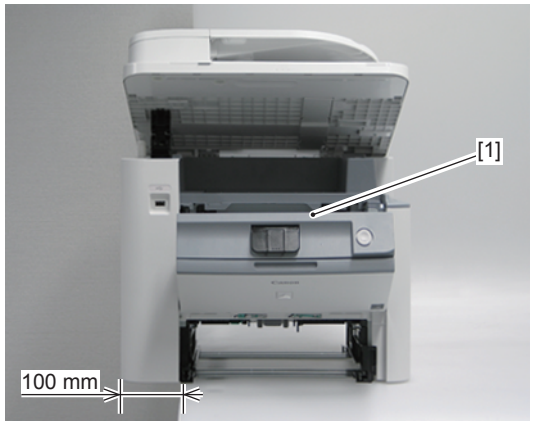
3) Open the ADF Unit + Reader Unit [1].



F-4-9

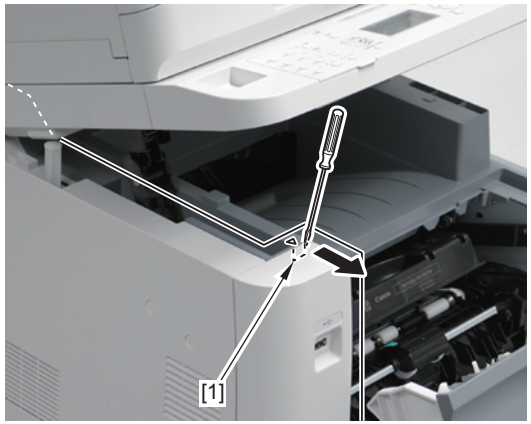
4) Place the host machine [1] while shifting the left side of it approx. 100mm from the working table to release the claw at the lower side of the Left Cover Unit.

CAUTION:
Be careful not to drop the host machine when shifting it.



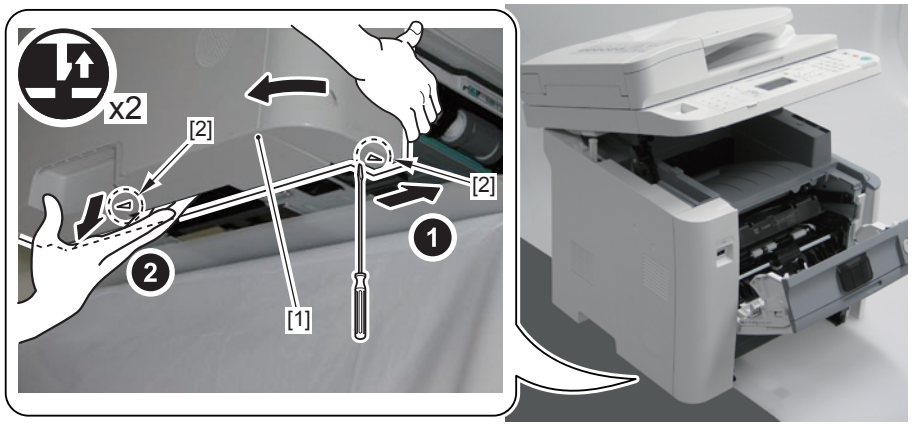
F-4-10

5) Release the claw [1].



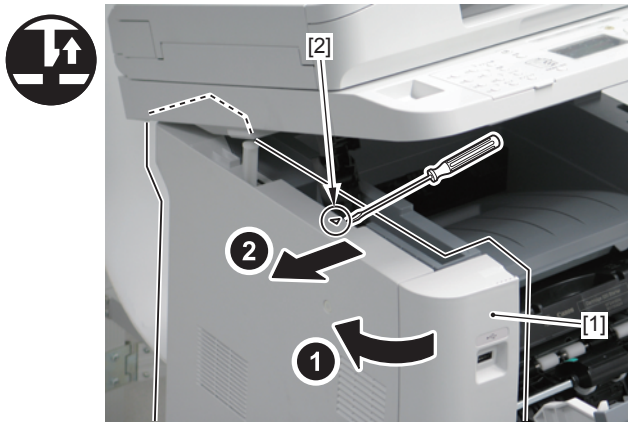
F-4-11

6) While opening the Left Cover Unit [1] in the direction of the arrow, release the 2 Claws [2] at lower side.



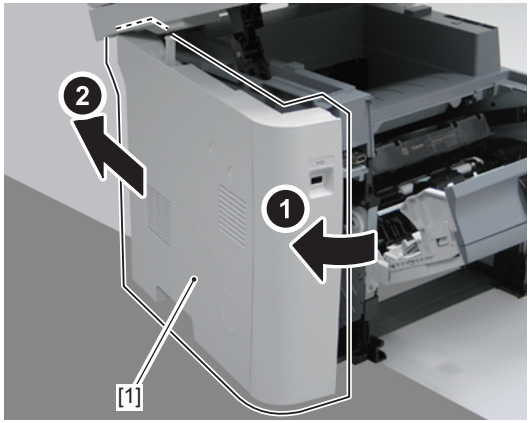
F-4-12

7) Release the claw [2] while pulling the Left Cover Unit [1] in the direction of the arrow.



F-4-13

8) Remove the Left Cover Unit [1] in the direction of the arrow.



F-4-14

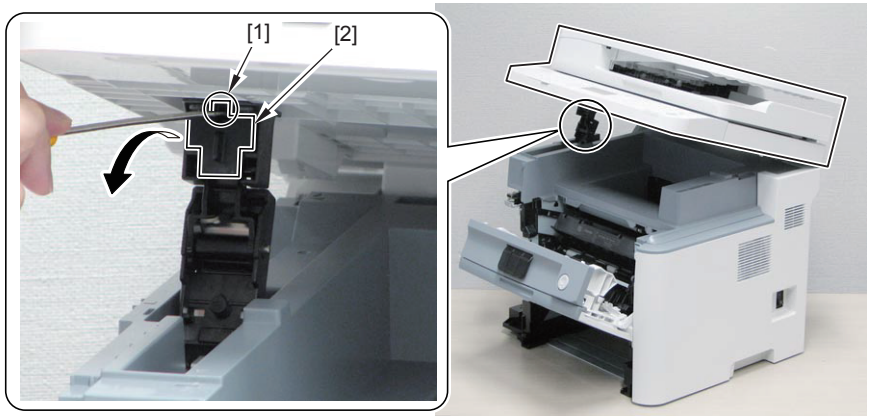
Removing the Left Rear Cover

Preparations

1) Removing the Left Cover Unit.

Procedure

1) Release the claw [1], and remove the Arm Cover [2].

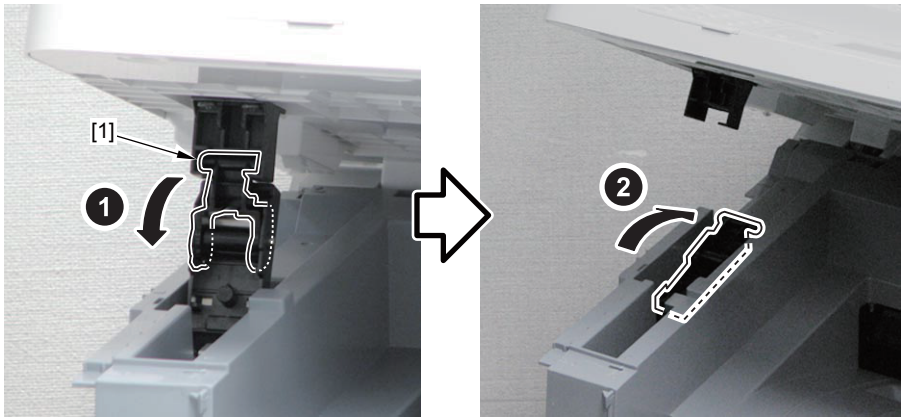


F-4-15

2) Release the Connection of Arm [1] and turn it toward the rear.

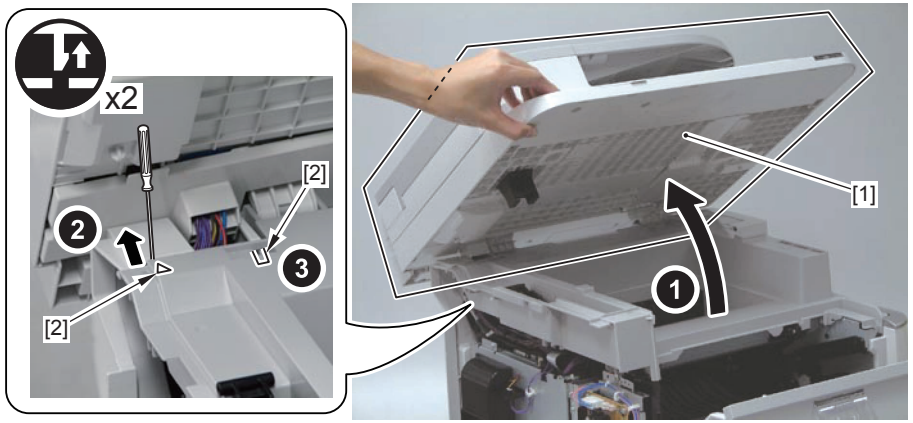
CAUTION:

When opening/closing the ADF+Reader Unit after releasing the arm, be sure perform the work while supporting the ADF+Reader Unit. Be careful not to get your hand caught.



F-4-16

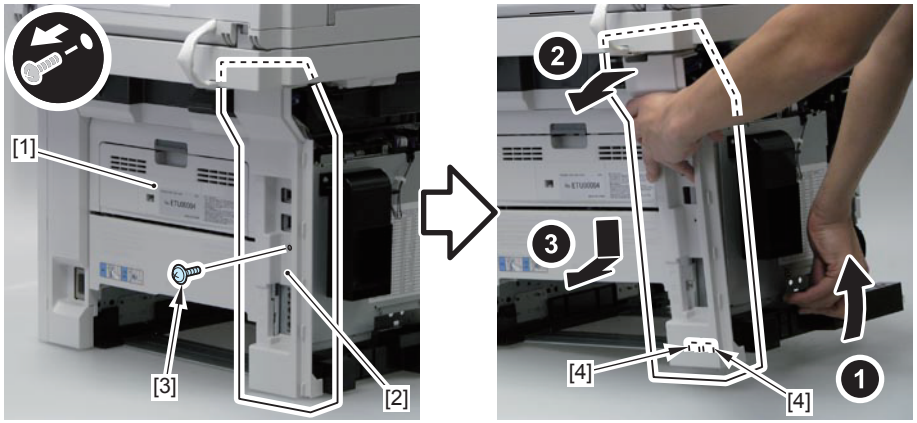
3) Open the ADF Unit + Reader Unit [1], and release the 2 Claws [2].



F-4-17

4) While lifting left side of the host machine [1], remove the Left Rear Cover [2].

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

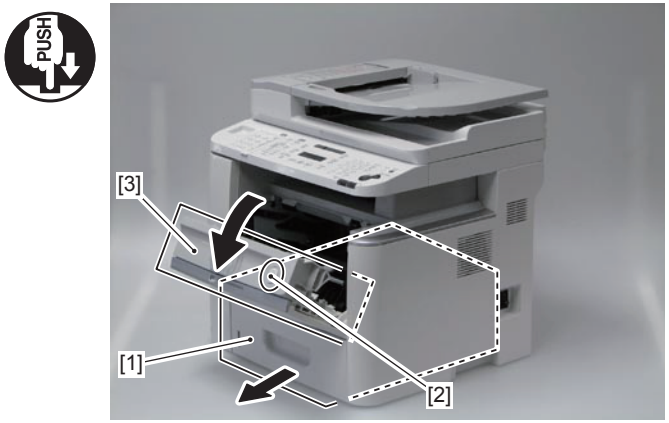


F-4-18

Removing the Right Cover Unit

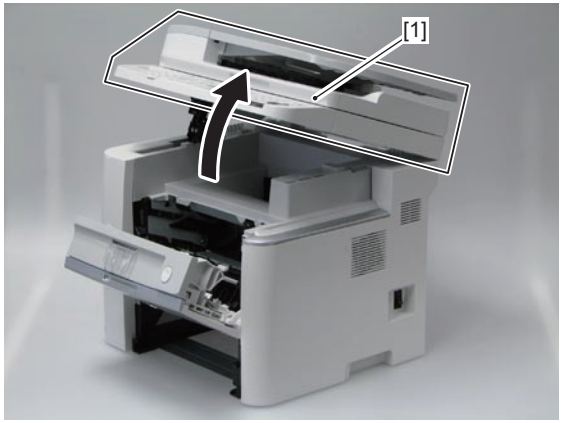
Procedure

1) Remove the cassette [1].
2) Press the Open button [2], and open the Front Cover[3].



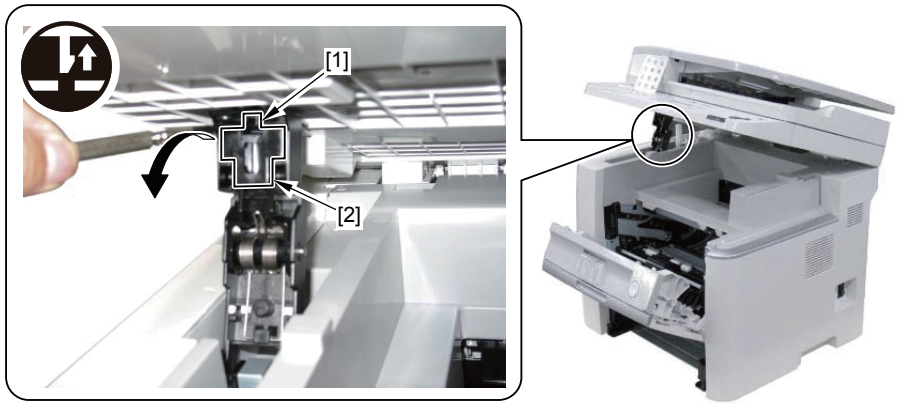
F-4-19

3) Open the ADF Unit + Reader Unit [1].



F-4-20

4) Release the claw [1], and remove the Arm Cover [2].

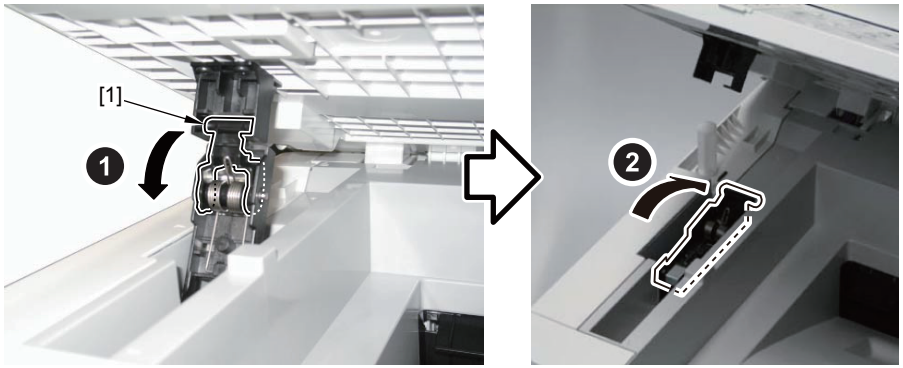


F-4-21

5) Release the Connection of Arm [1] and turn it toward the rear.

CAUTION:

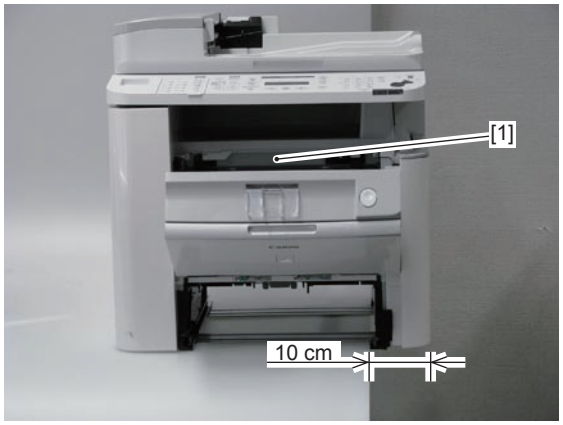
When opening/closing the ADF+Reader Unit after releasing the arm, be sure perform the work while supporting the ADF+Reader Unit. Be careful not to get your hand caught.



F-4-22

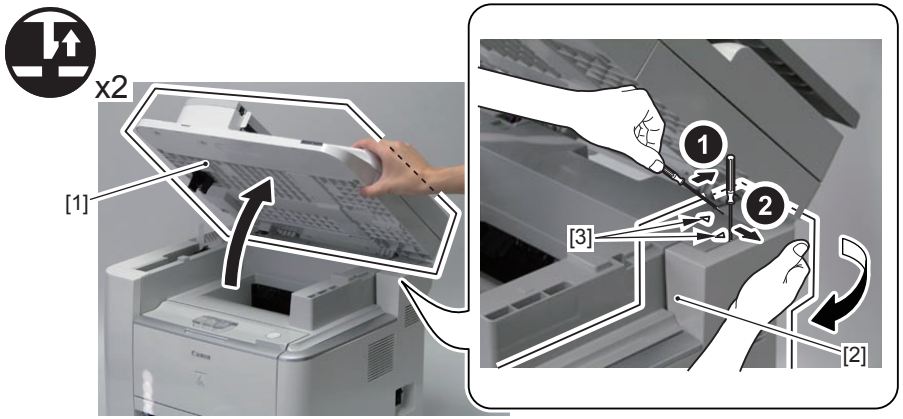
6) Place the host machine [1] while shifting the left side of it approx. 100mm from the working table to release the claw at the lower side of the Right Cover Unit.

CAUTION:
Be careful not to drop the host machine when shifting it.



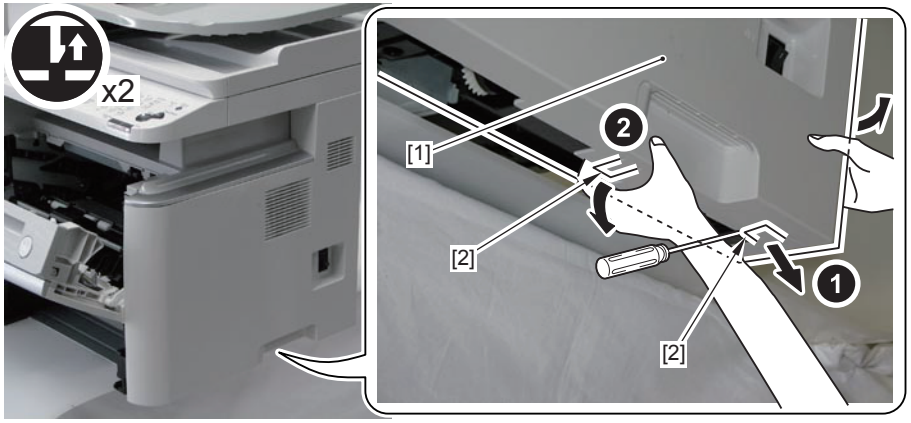
F-4-23

7) Open the ADF Unit + Reader Unit [1], and release the 2 Claws [3] while pulling the Right Cover Unit [2] in the direction of the arrow.



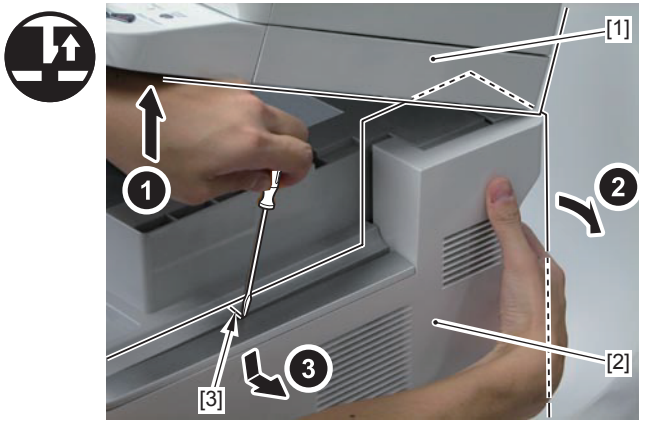
F-4-24

8) Close the ADF Unit + Reader Unit, and release the 2 Claws [2] at lower side while pulling the Right Cover Unit [1] in the direction of the arrow.



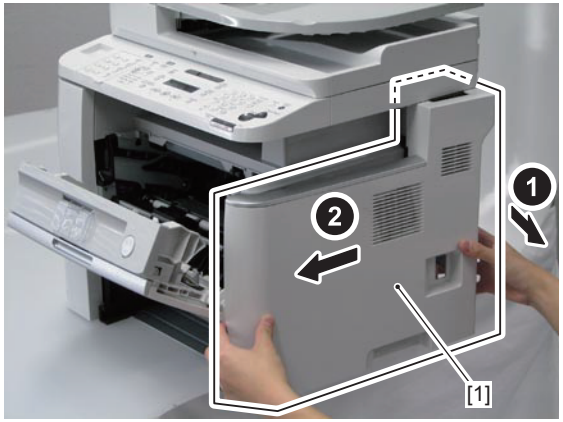
F-4-25

9) Open the ADF Unit + Reader Unit [1], and release the claw [3] while pulling the Right Cover Unit [2] in the direction of the arrow.



F-4-26

10) Remove the Right Cover Unit [1].



F-4-27

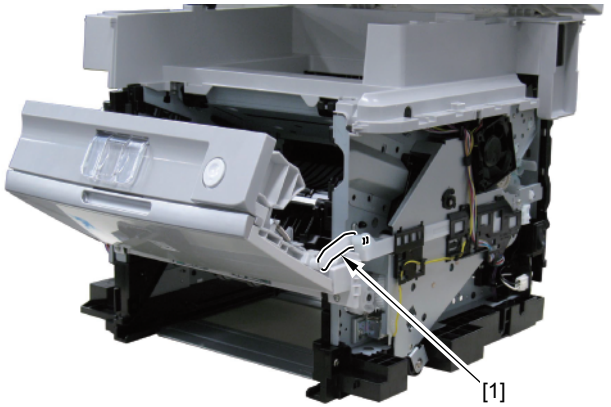
Removing the Front Cover Unit

Preparations

1) Removing the Left Cover Unit.
2) Removing the Right Cover Unit.

Procedure

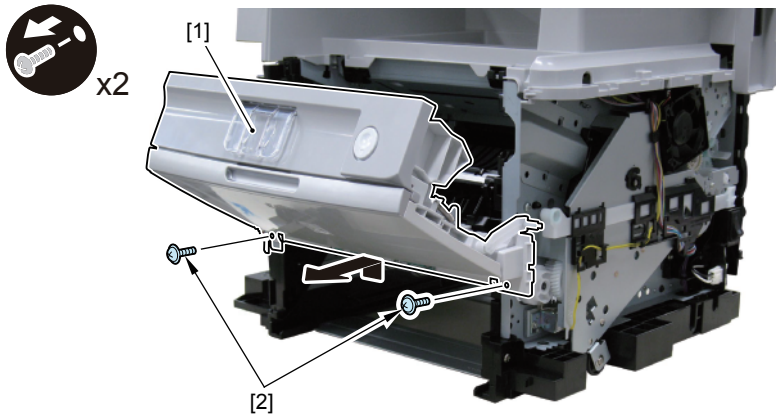
1) Remove the Link [1].



F-4-28

2) Remove the Front Cover Unit [1].

- 2 Screws [2]



F-4-29

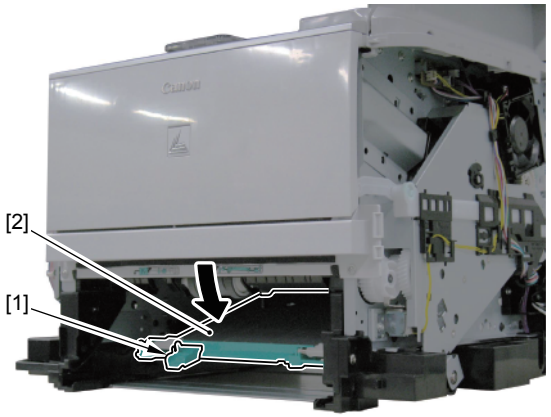
Removing the Rear Cover Unit

Preparations

1) Removing the Left Cover Unit.
2) Removing the Left Rear Cover.
3) Removing the Right Cover Unit.

Procedure

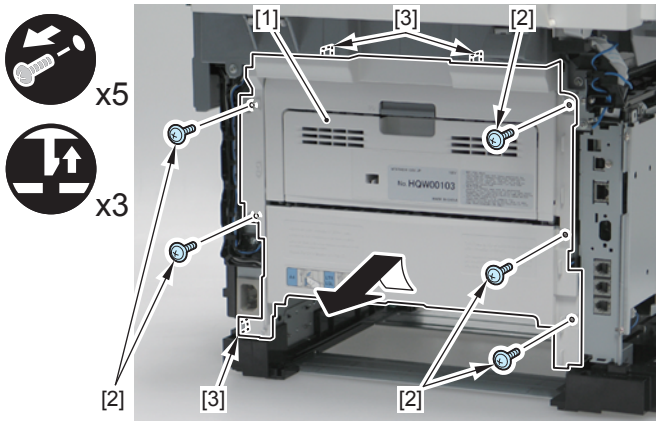
1) Push the Grip [1] Downward and Open the Duplex Feed Unit [2].



F-4-30

2) Remove the Rear Cover Unit [1].

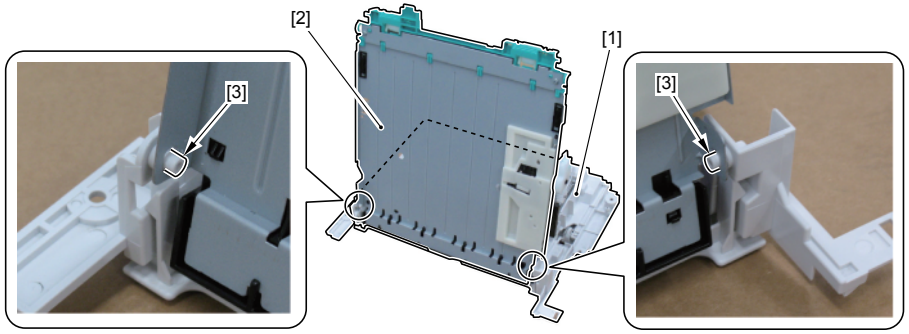
- 5 Screws [2]
- 3 Claws [3]



F-4-31

3) Remove the Duplex Feed Unit [2] from the Rear Cover Unit [1].

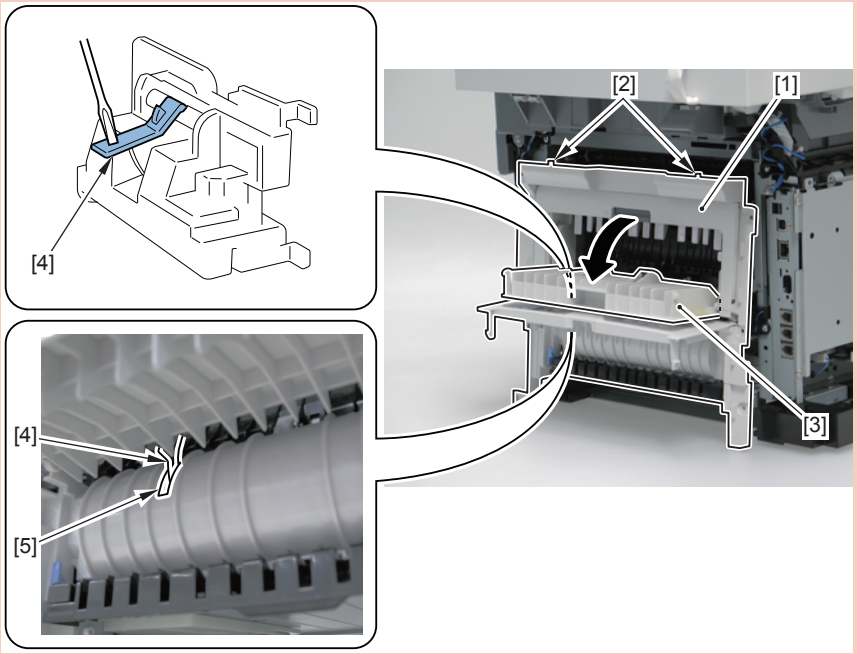
- 2 Bosses [3]



F-4-32

Procedure at installation:

1) Fit the 2 Upper Claw [2] of the Rear Cover Unit [1] With the Upper Cover.
2) Open the Rear Uppe Cover [3] and While Pushing the Duplex Reverse Sensor Flag [4] Downward, Install the Rear Cover Unit.



F-4-33

3) Check That the Sensor Flag [4] Through the Hole [5] of the Back of the Duplex Unit Cover.

Removing the Upper Cover

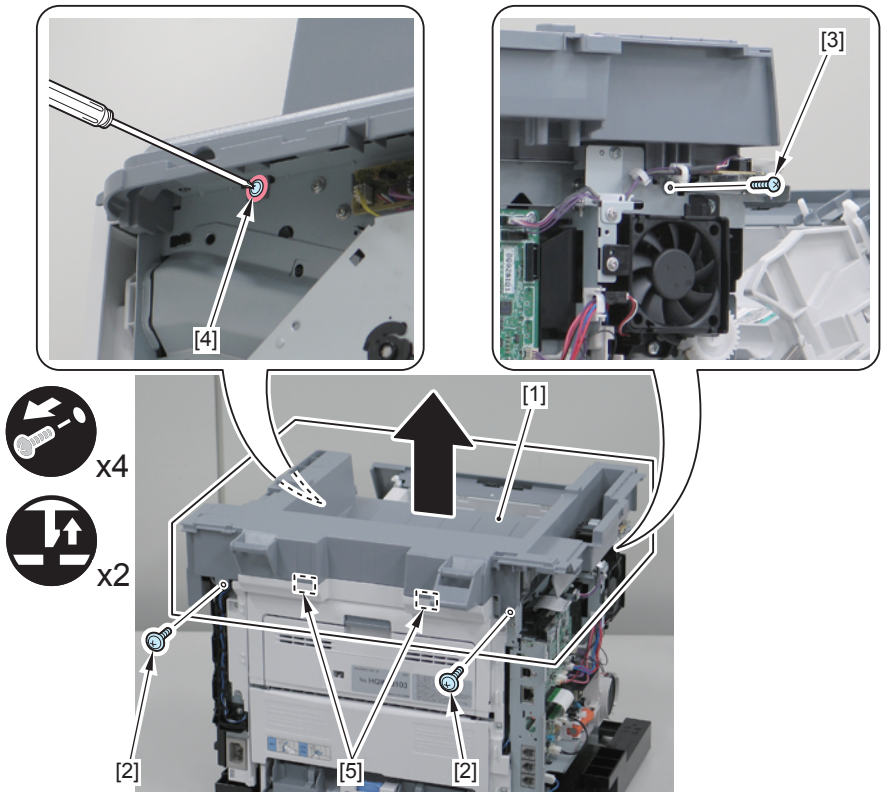
Preparations

1) Removing the Right Cover Unit.
2) Removing the Left Cover Unit.
3) Removing the Controller Cover.
4) Removing the Left Rear Cover.
5) Removing the ADF Unit + the Reader Unit.

Procedure

1) Remove the Upper Cover [1].

- 3 Screws [2]
- 1 Screw [3] (Loosen)
- 2 Claws [4]



F-4-34

Document Exposure / Delivery System

Removing the ADF Unit + Reader Unit

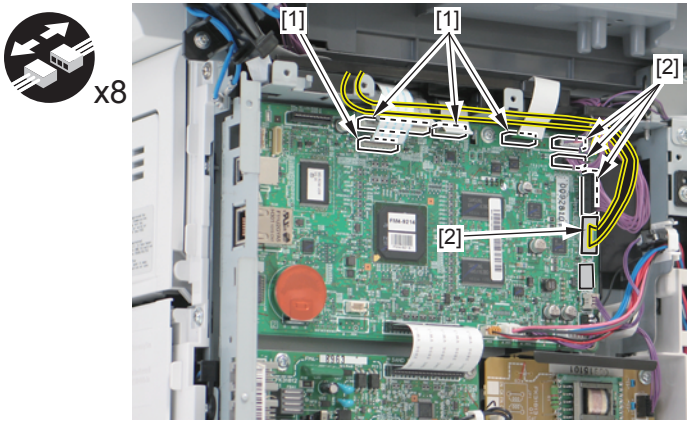
Preparations

1) Removing the Left Cover Unit.
2) Removing the Controller Cover.
3) Removing the Left Rear Cover.

Procedure

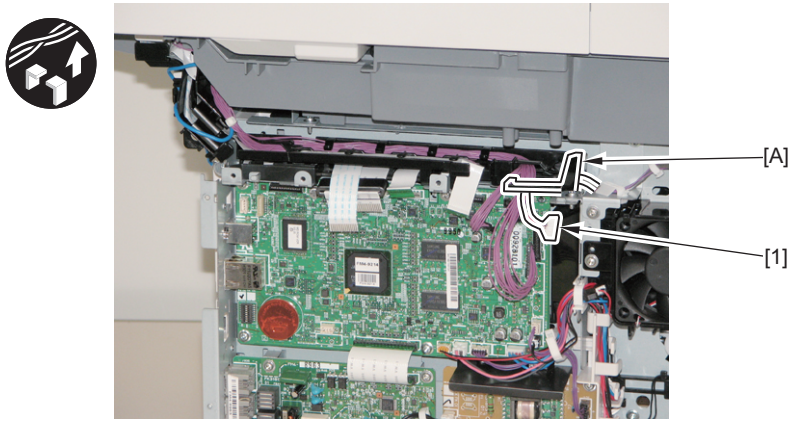
1) Remove the Flat Cables and Connectors [2].

- 4 Flat cable [1].
- 4 Connectors [2].



F-4-35

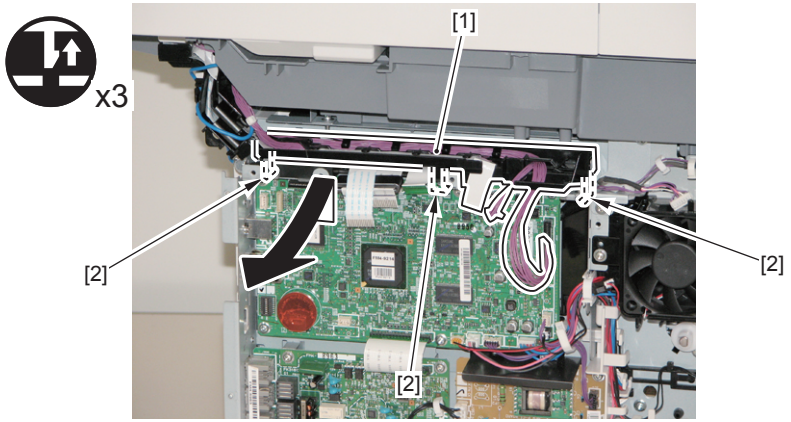
2) Remove the Harness [1] from the [A].



F-4-36

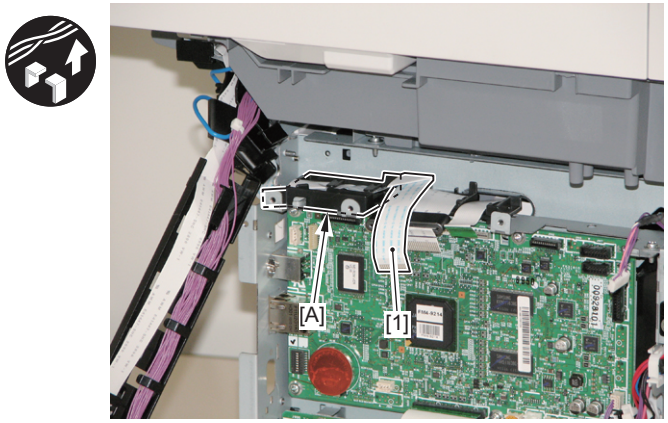
3) Remove the Harness Guide [1].

- 3 Claws [2]



F-4-37

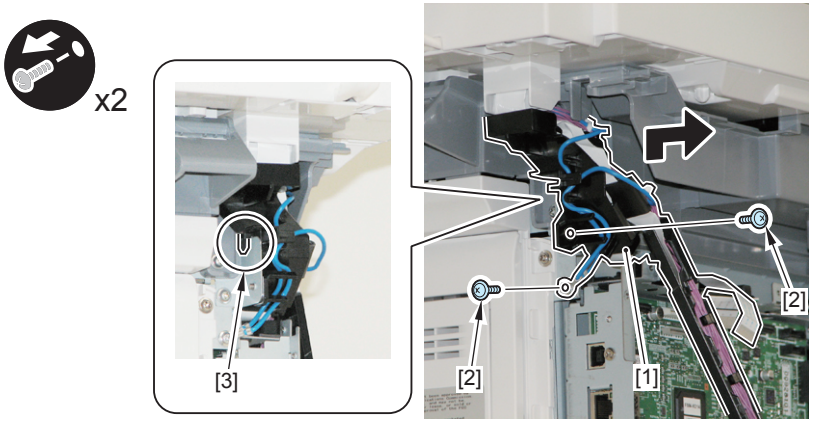
4) Remove the Flat Cable [1] from the [A].



F-4-38

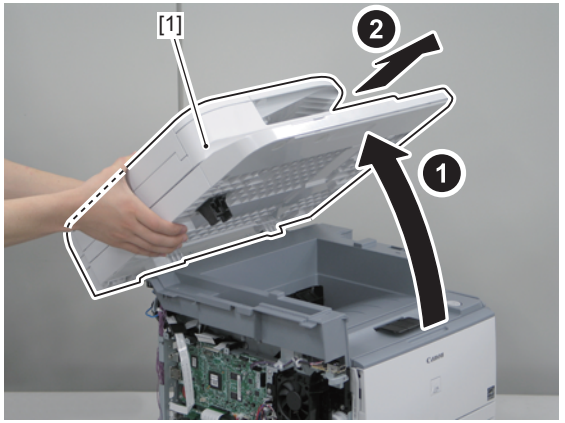
5) Remove the ADF Harness Guide [1].

- 2 Screws [2]
- 1 Hook [3]



F-4-39

6) Remove the ADF Unit + the Reader Unit [1] In the Direction of the Arrow.

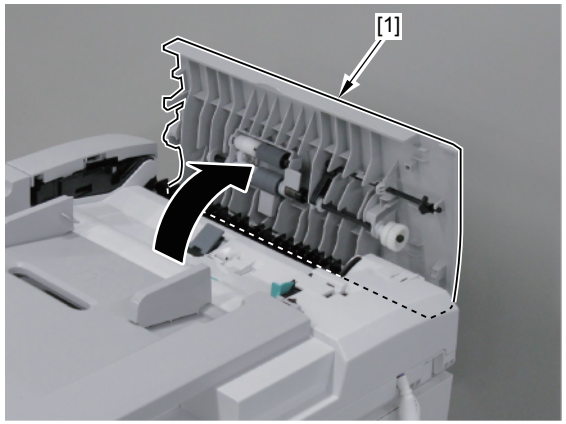


F-4-40

Removing the ADF Roller Unit

Procedure

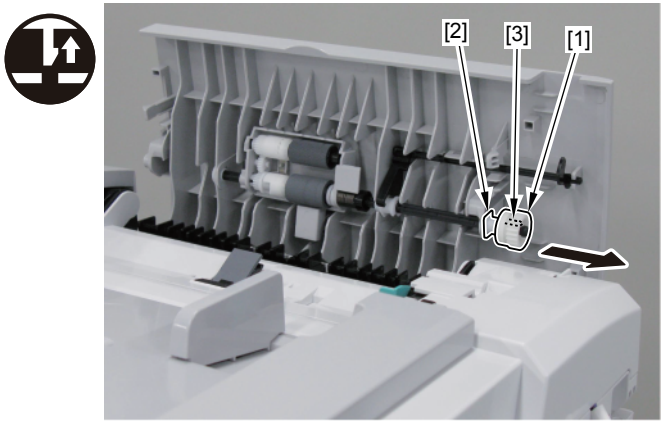
1) Open the ADF Upper Cover [1].



F-4-41

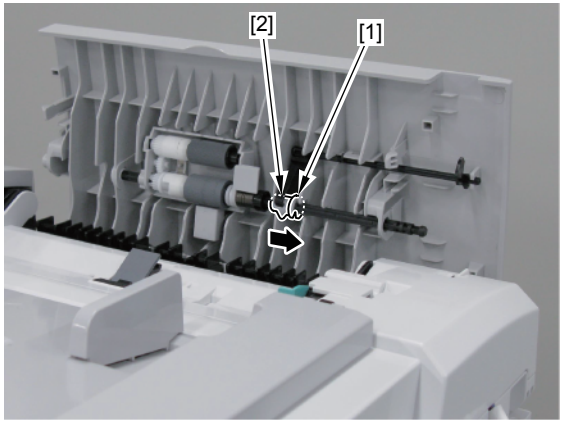
2) Remove the Gear [1] and the Bushing [2].

- 1 Claw [3]



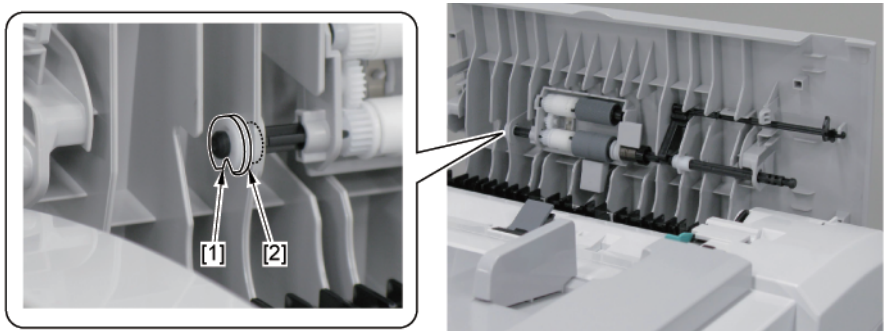
F-4-42

3) Remove the Resin E-ring [1] and Displace the Bushing [2].



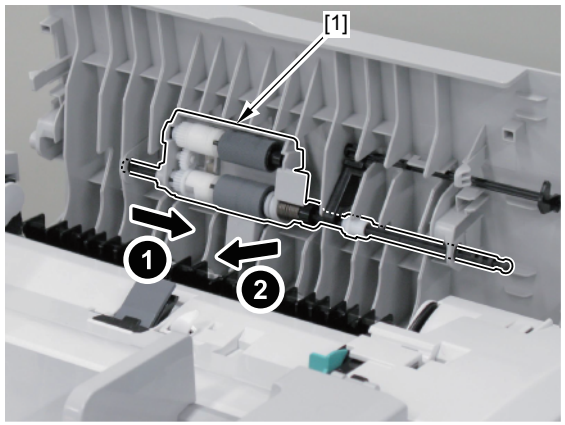
F-4-43

4) Remove the Resin E-ring [1] and the Bushing [2].



F-4-44

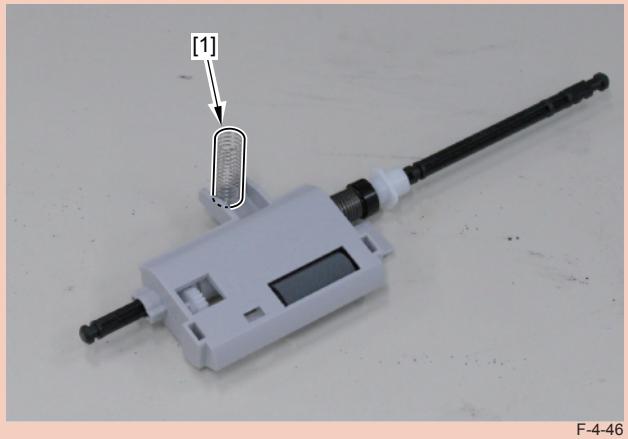
5) Remove the ADF Roller Unit [1].



F-4-45

CAUTION :

When Removing It, be Careful Not to Lose the Spring [1] Attached to the ADF Roller Unit.



F-4-46

Removing the ADF Pickup Roller

Preparations

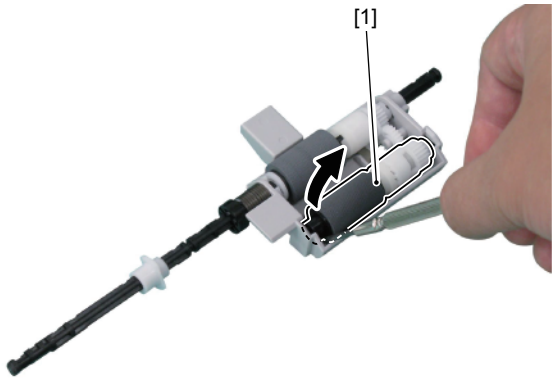
1) Removing the ADF Roller Unit.

Procedure

CAUTION:

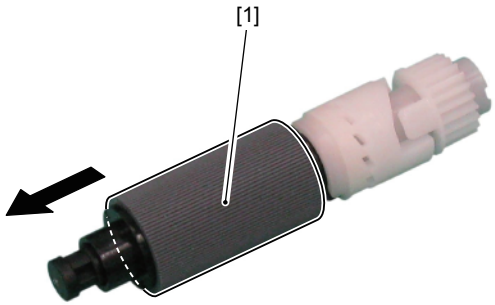
Do Not Touch the Surface of the ADF Pickup Roller When Removing or Mounting it.

1) Insert the Precision Flat-screwdriver and Remove the Pickup Roller [1] Together With the Shaft.



F-4-47

2) Remove the Pickup Roller [1].



F-4-48

Removing the ADF Separation Roller

Preparations

1) Removing the ADF Roller Unit.

Procedure

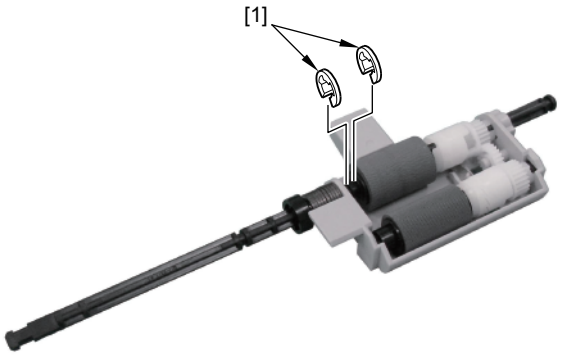
CAUTION:

Do Not Touch the Surface of the ADF Separation Rolle When Removing or Mounting it.

1) Remove the Bushing [1].

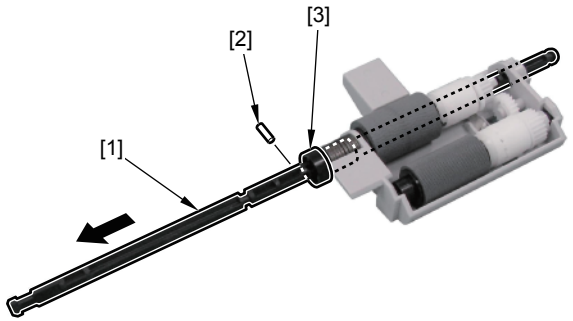
F-4-49

2) Remove the 2 Resin E-rings [1].



F-4-50

3) Displace the Roller Shaft [1] and Remove the Parallel Pin [2] and the Bushing [3].

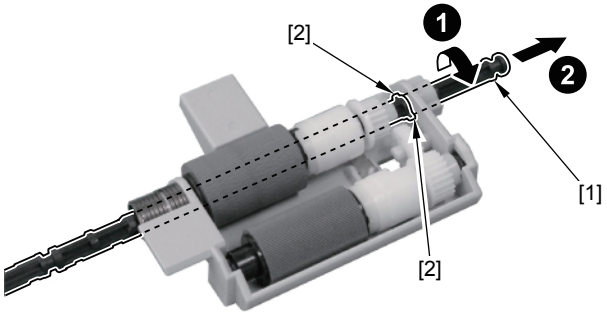


F-4-51

CAUTION :

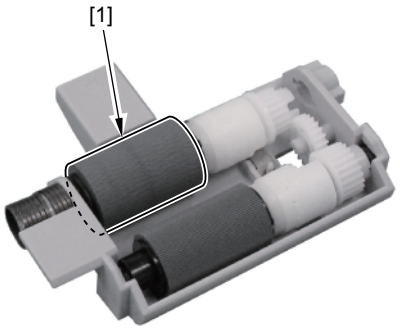
Since the Parallel Pin is very tiny, be Careful not to Lose it.

4) Turn the Shaft [1] In the Direction of the Arrow, Fit the Protrusion [2] With the Hole of the Roller Holder and Pull It Out.



F-4-52

5) Remove the ADF Separation Roller [1].



F-4-53

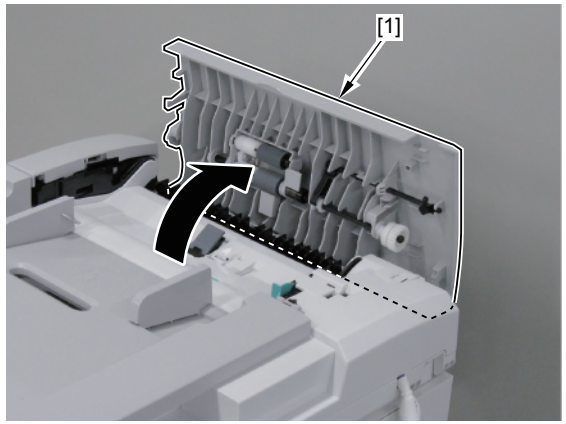
Removing the ADF Separation Pad

Procedure

CAUTION:

Do Not Touch the Surface of the ADF Separation Pad When Removing or Mounting it.

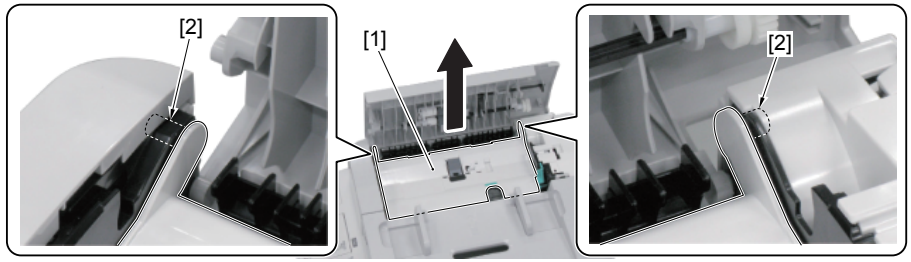
1) Open the ADF Upper Cover [1].



F-4-54

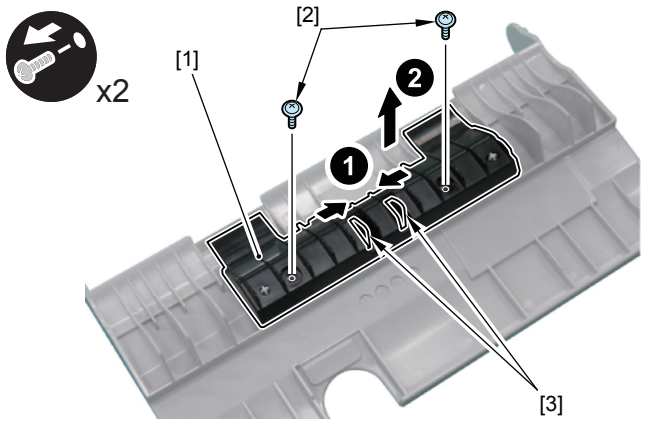
2) Remove the Feed Guide [1].

- 2 Bosses [2]



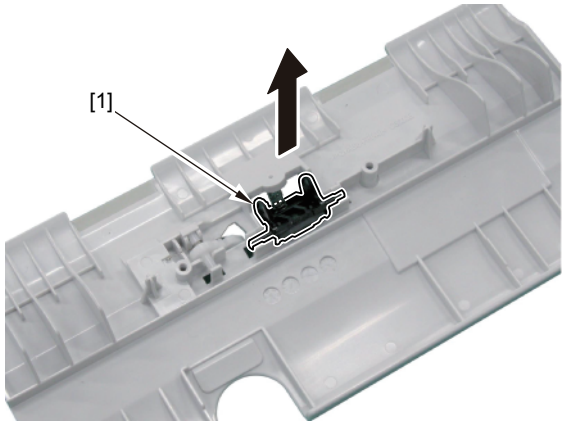
F-4-55

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-4-56

4) Remove the Separation Pad Holder [1].

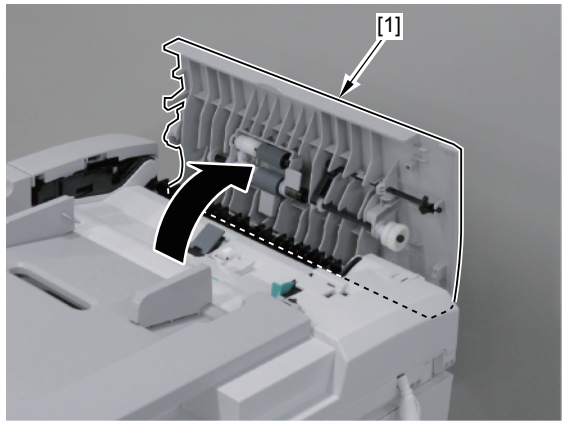


F-4-57

Removing the ADF Pickup Feed Unit

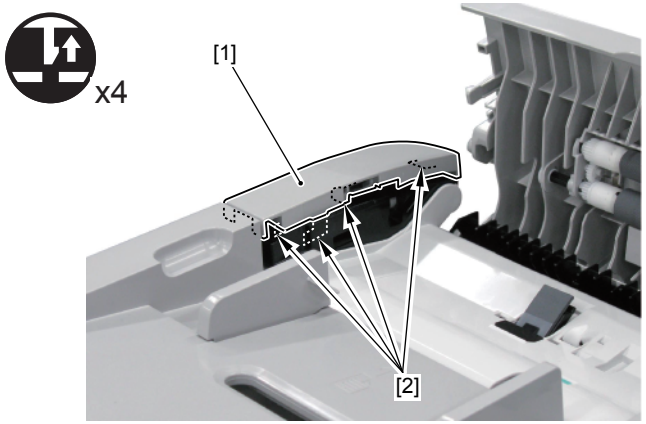
Procedure

1) Open the ADF Upper Cover [1].



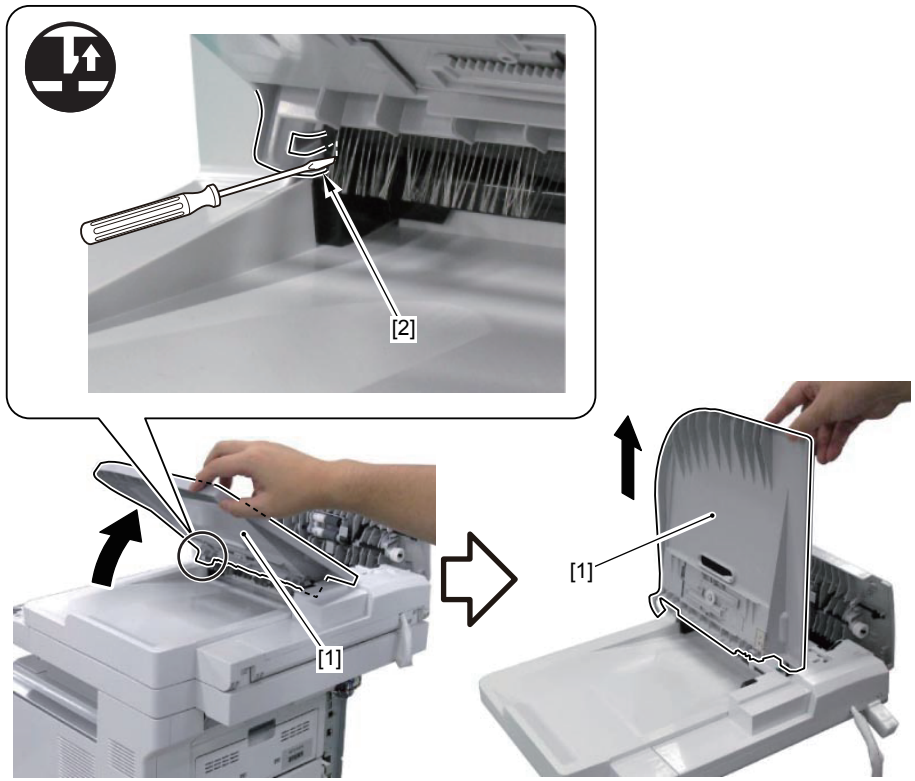
F-4-58

2) Remove the ADF Front Cover [1].
- 4 Claws [2]



F-4-59

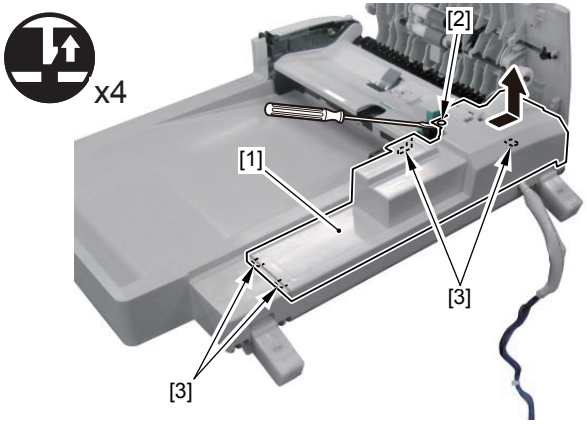
3) Slightly Lift the ADF Tray [1] and After Removing the Claw [2], Lift It By 90 Degree and Remove It Upward.



F-4-60

4) Remove the ADF Rear Cover [1].

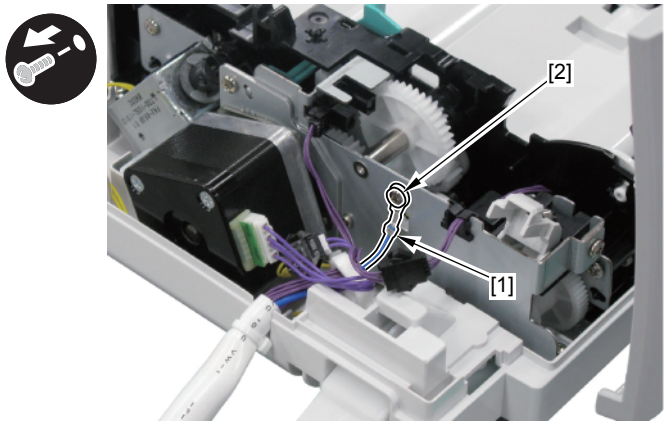
- 1 Boss [2]
- 4 Claws [3]



F-4-61

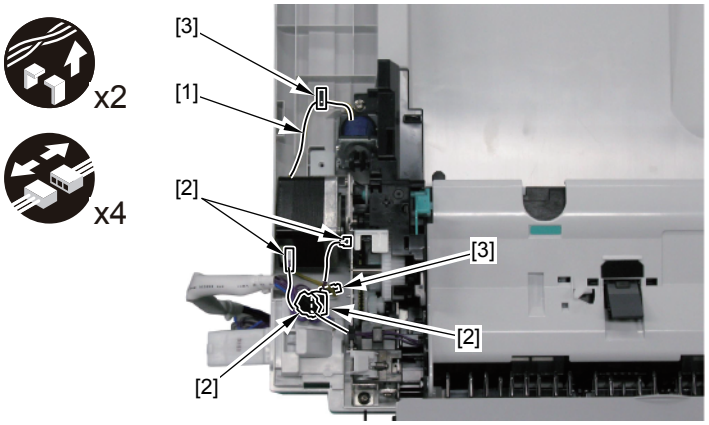
5) Remove the Grounding Wire [1].

- 1 Screw [2]



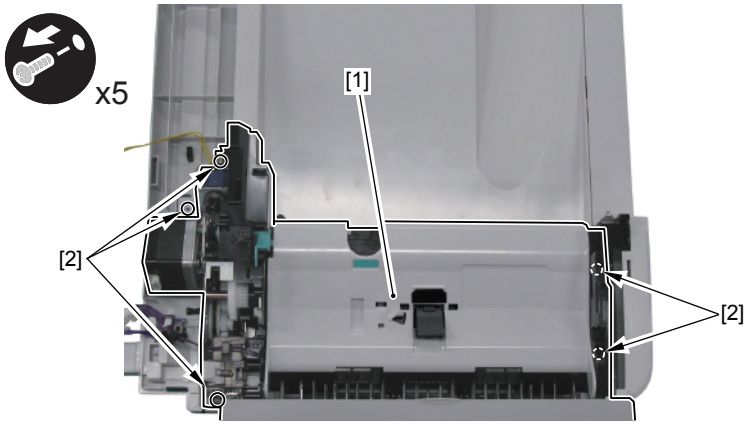
F-4-62

6) Remove the Harness [1].
- 4 Connectors [2]
- 2 Wire Saddles [3]



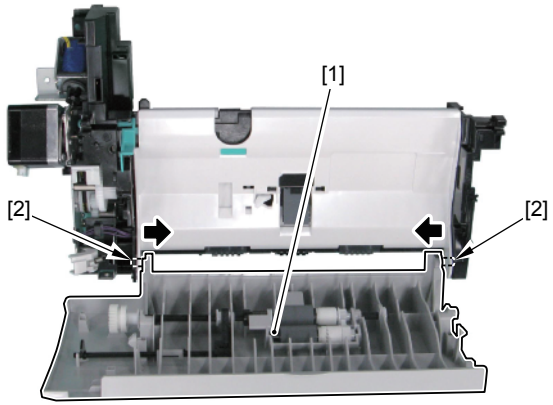
F-4-63

7) Remove the ADF Pickup Feed Unit [1].
- 5 Screws [2]



F-4-64

8) Remove the ADF Upper Cover Unit [1].
- 2 Bosses [2]



F-4-65

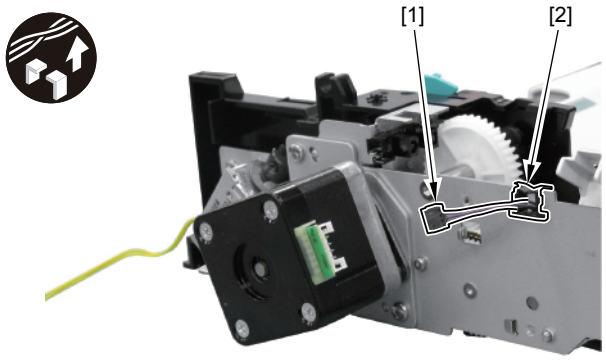
Removing the ADF Pickup Motor Unit

Preparations

1) Removing the ADF Pickup Feed Unit.

Procedure

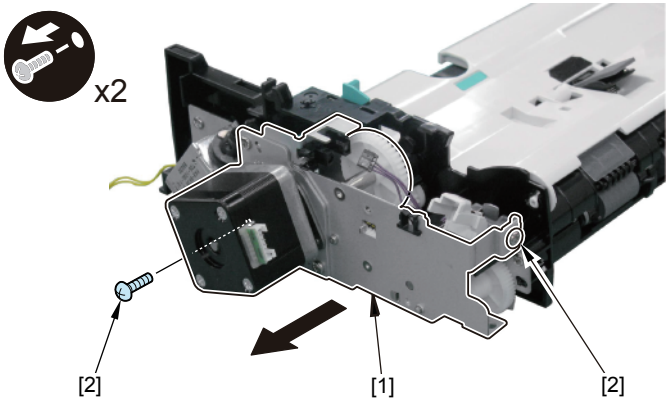
1) Remove the Harness [1] from the Edge Saddle [2].



F-4-66

2) Remove the ADF Motor Unit [1].

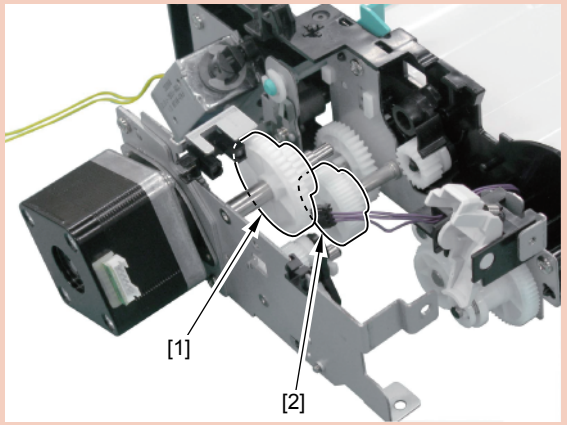
- 2 Screws [2]



F-4-67

CAUTION :

Since the Gear [1] of the ADF Motor Unit and the Gear [2] on the Frame Side of the Pickup Feed Unit are not Fixed, be Careful not to Drop or Lose Them.



F-4-68

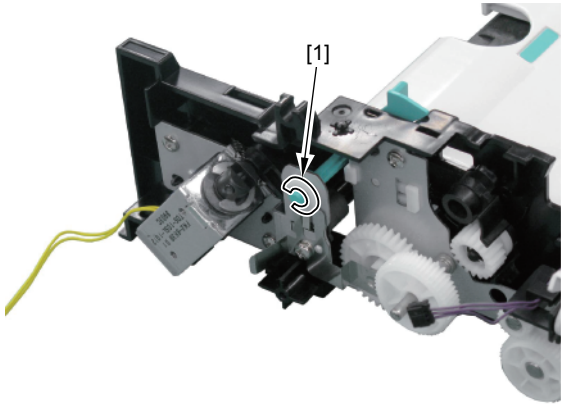
Removing the ADF Delivery Solenoid Unit

Preparations

1) Removing the ADF Pickup Feed Unit.

Procedure

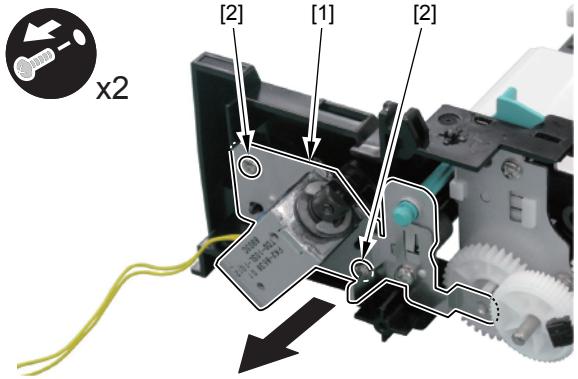
1) Remove the Resin E-ring [1].



F-4-69

2) Remove the Solenoid Unit [1].

- 2 Screws [2]



F-4-70

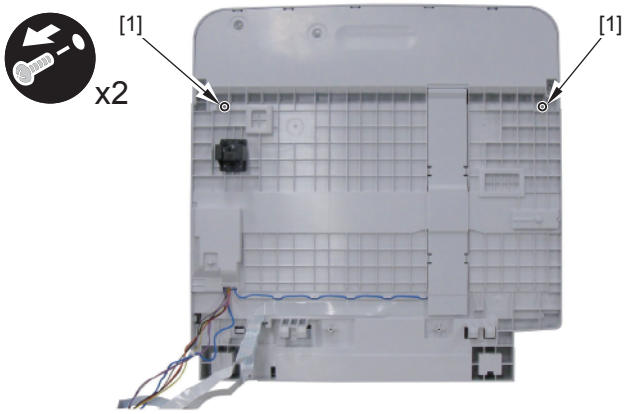
Removing the Reader Unit Upper Cover

Preparations

1) Removing the Left Cover Unit.
2) Removing the Controller Cover.
3) Removing the Left Rear Cover.
4) Removing the ADF Unit + Reader Unit.
5) Separate the ADF Unit + Reader Unit.

Procedure

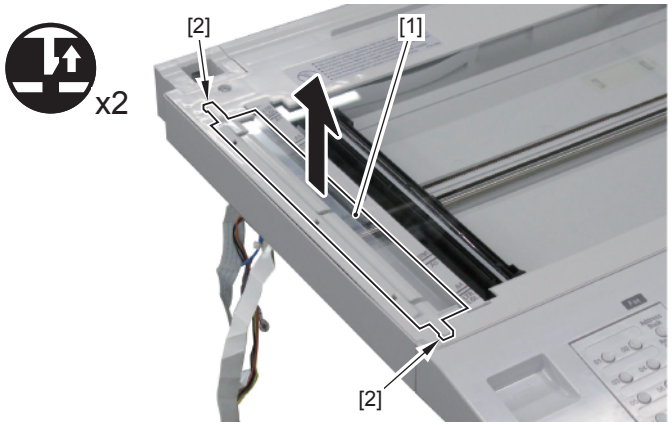
1) Remove the 2 Screws [1] On the Bottom of the Reader Unit.



F-4-71

2) Remove the Standard White Plate [1]. (Expect iR 1133)

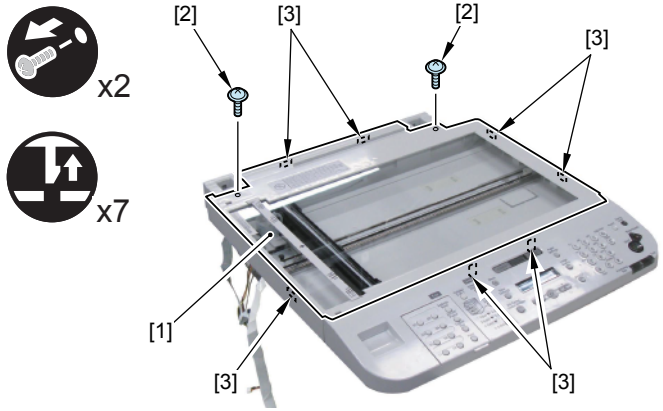
- 2 Claws [2]



F-4-72

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

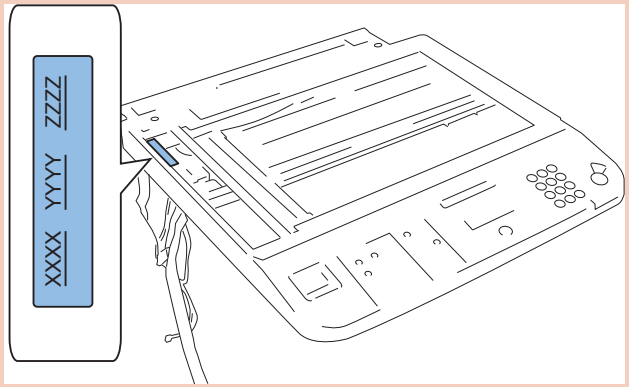
- 2 Screws [2]
- 7 Claws [3]



F-4-73

Procedure After Replacing the Reader Upper Cover Unit:

1) Enter the values of the label affixed at the upper left of the glass in the following service mode item, and write the values in the service label.



- COPIER > ADJUST > CCD > W-PLT-X (standard White Plate X signal data)
- COPIER > ADJUST > CCD > W-PLT-Y (standard White Plate Y signal data)
- COPIER > ADJUST > CCD > W-PLT-Z (standard White Plate Z signal data)

2) Place a blank paper on the Copyboard Glass, and execute white level adjustment in the following service mode.

COPIER > FUNCTION > CCD > DF-WLVL1 (white level adjustment [copyboard scan])

COPIER > FUNCTION > CCD > DF-WLVL3 (white level adjustment B&W [copyboard scan])

Next, place the same blank paper on the DF and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (white level adjustment [DF scan])
- COPIER > FUNCTION > CCD > DF-WLVL4 (white level adjustment B&W [DF scan])

If it results in NG, execute it again after turning OFF and then ON the power.

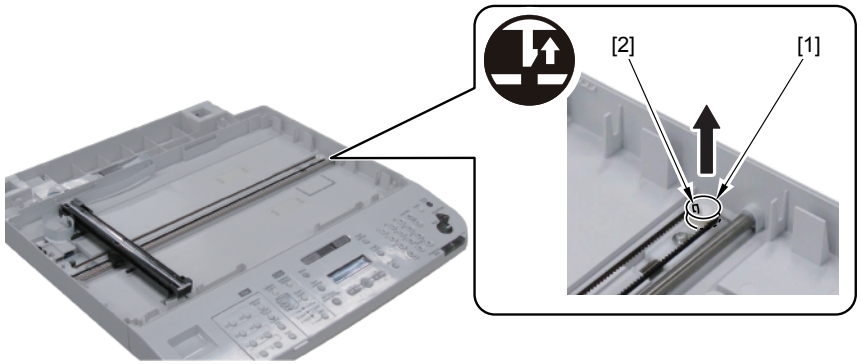
Removing the CIS Unit

Preparations

1) Removing the Left Cover Unit.
2) Removing the Controller Cover.
3) Removing the Left Rear Cover.
4) Removing the ADF Unit + Reader Unit.
5) Separate the ADF Unit + Reader Unit.
6) Removing the Reader Unit Upper Cover .

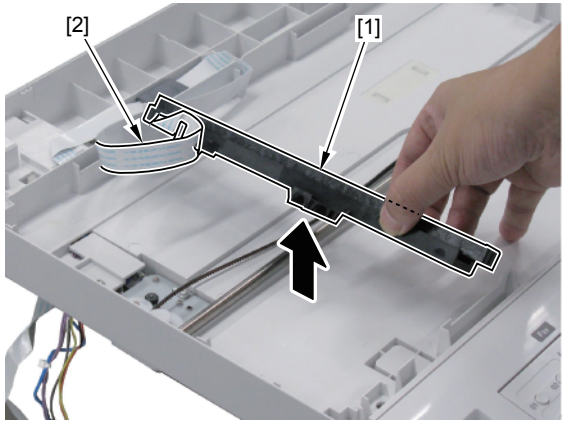
Procedure

1) Remove the Belt Pulley [1].
- 1 Claw [2]



F-4-75

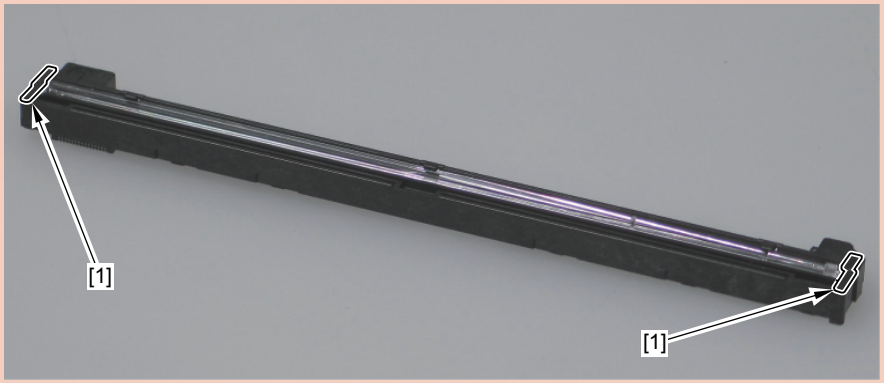
2) Remove the CIS Mount [1] Upward and Remove the Flat Cable [2].



F-4-76

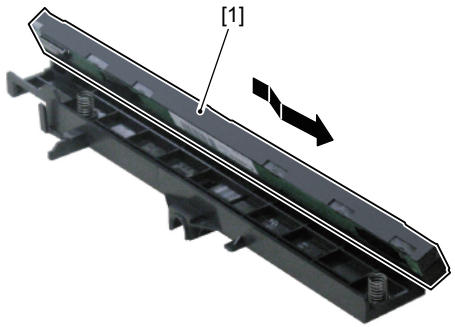
CAUTION:

When CIS Unit Mount is tilt, CIS spacers[1] are removed. Do not lost the CIS spacers.



F-4-77

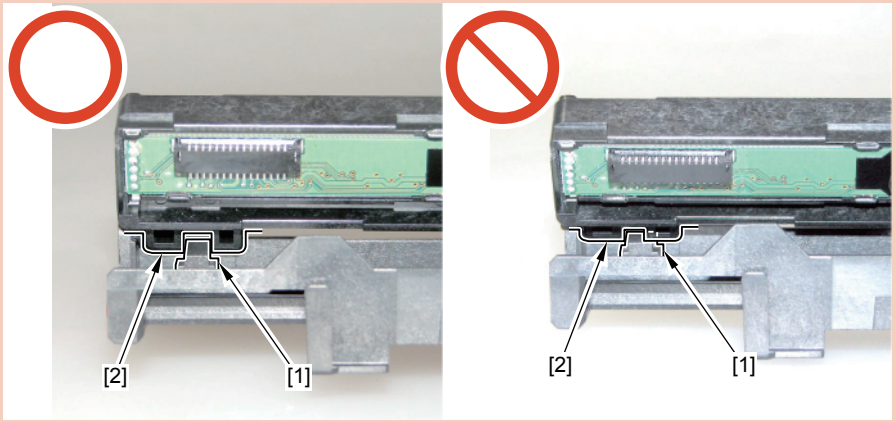
3) Lift the CIS [1] and Remove It In the Direction of the Arrow.



F-4-78

CAUTION:

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



F-4-79

After replacing CIS units:

1) Check that there is no problem with the setting values written on the service label.

2) Close the ADF, and execute the following service mode. If it results in NG, execute it again after turning OFF and then ON the power.

- COPIER > FUNCTION > CCD > CL-AGC (CIS light intensity adjustment (color))
- COPIER > FUNCTION > CCD > BW-AGC (CIS light intensity adjustment (B&W))

3) After executing the following service mode (a), check the value automatically set with the following service mode (b), and write it in the service label.

(a) COPIER > FUNCTION > INSTALL > STRD-POS (executing automatic detection of the reading position at DF stream reading)

(b) COPIER > ADJUST > ADJ-XY > STRD-POS (adjusting the reading position at DF stream reading)

4) Place a blank paper on the Copyboard Glass, and execute white level adjustment in the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL1 (white level adjustment [copyboard scan])
- COPIER > FUNCTION > CCD > DF-WLVL3 (white level adjustment B&W [copyboard scan])

Next, place the same blank paper on the DF and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2 (white level adjustment [DF scan])
- COPIER > FUNCTION > CCD > DF-WLVL4 (white level adjustment B&W [DF scan])

If it results in NG, execute it again after turning OFF and then ON the power.

Controller System

Removing the Controller Cover

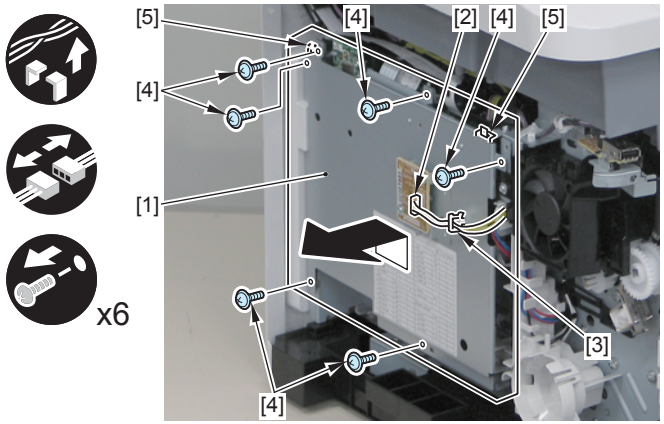
Preparations

1) Removing the Left Cover Unit.

Procedure

1) Remove the Controller Cover [1].

- 1 Connector [2]
- 1 Wire Saddle [3]
- 6 Screws [4]
- 2 Hooks [5]



F-4-80

Removing the Main Controller PCB

Actions before Replacement

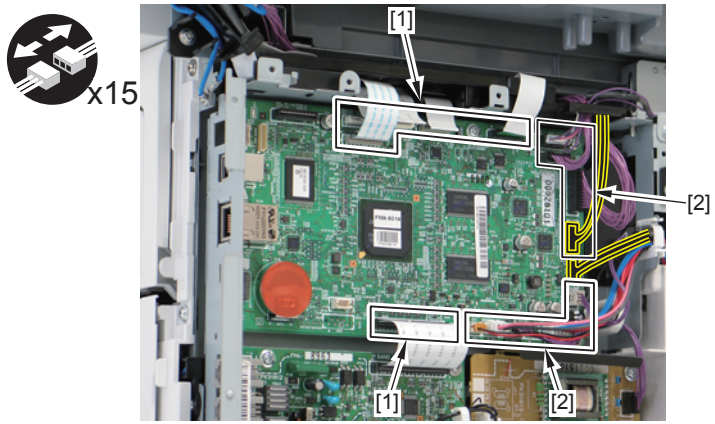
- Export user data using remote UI.
- Insert the USB memory into the host machine, and execute COPIER > FUNCTION > SYSTEM > EXPORT to write the setting values of the service mode (excluding those related to the Reader/DADF) to the USB memory.
- Write down the serial number of the host machine and each factory adjustment value written on the service label. (Enter them after replacement.)

Preparations

1) Removing the Left Cover Unit.
2) Removing the Controller Cover.
3) Removing the Wireless LAN PCB. (iR1133iF Only)

Procedure

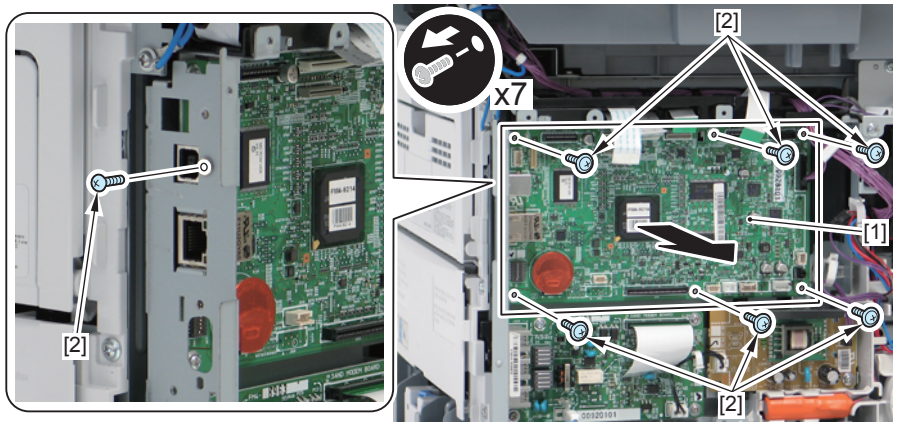
1) Remove the Flat Cables [1] and the Connectors [2].



F-4-81

3) Remove the Main Controller PCB [1].

- 7 Screws [2]



F-4-82

Actions after Replacement

1) Error code "E248-0001" lights up when turning ON the power.
2) Execute COPIER > FUNCTION > CLEAR > R-CON.
3) Enter all items written on the service label.
4) Set the location group and paper size group.
   - COPIER > OPTION > BODY > LOCALE (setting the location group)
     [Setting value]
     1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia, 8: Oceania
   - COPIER > OPTION > BODY > SIZE-LC (setting the paper size group)
     [Setting value]
     1: AB configuration, 2: Inch configuration, 3: A configuration, 4: AB/Inch configuration
5) Clearing the Settings/Registration data
   Execute COPIER > FUNCTION > CLEAR > ALL.
   When executing this item, the following data is cleared according to the values of LOCALE and SIZE-LC set in step 4.
   - Settings/Registration data (the initial value according to the location is set.)
   - Service mode data (the initial value according to the location is set.)
   - Job ID
   - Each log data
   - Date data

   Note that the following data is not cleared.
   - Service counter
   - Adjustment value of Reader/DADF
6) Execute COPIER > FUNCTION > VIFFNC > STOR-DCN (the setting value of DC Controller is backed up.)
7) Turn OFF and then ON the power.
8) Operate according to the instruction on the screen since the initial installation mode is activated. (Setting the date/time, executing the auto gradation adjustment)
9) Turn OFF and then ON the main power.
10) Import the service mode data backed up before replacement.
    Insert the USB memory storage device to the slot of the machine, and execute COPIER > FUNCTION > SYSTEM > IMPORT.
11) Import user data using remote UI.

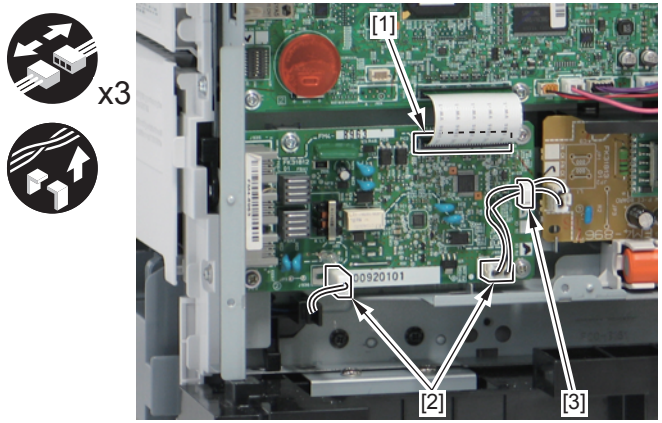
Removing the NCU PCB (iR 1133iF Only)

Preparations

1) Removing the Left Cover Unit.
2) Removing the Controller Cover.

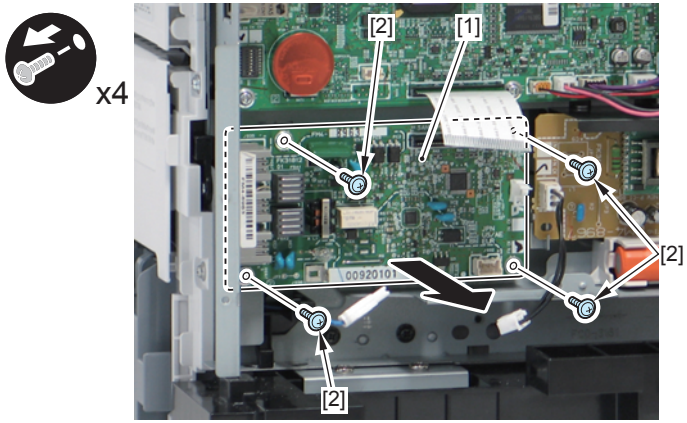
Procedure

1) Remove the Flat Cable [1] and the 2 Connectors [2].
- 1 Wire Saddle [3]



F-4-83

2) Remove the NCU PCB [1].
- 4 Screws [2]



F-4-84

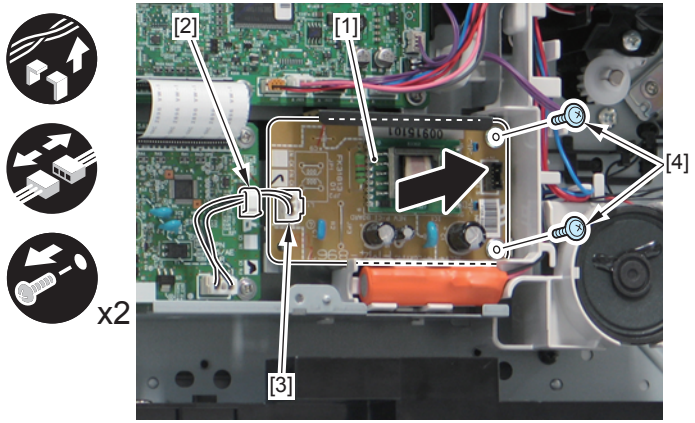
Removing the OFF Hook PCB (iR 1133iF Only)

Preparations

1) Removing the Left Cover Unit.
2) Removing the Controller Cover.

Procedure

1) Remove the OFF Hook PCB [1].
- 1 Wire Saddle [2]
- 1 Connector [3]
- 2 Screws [4]



F-4-85

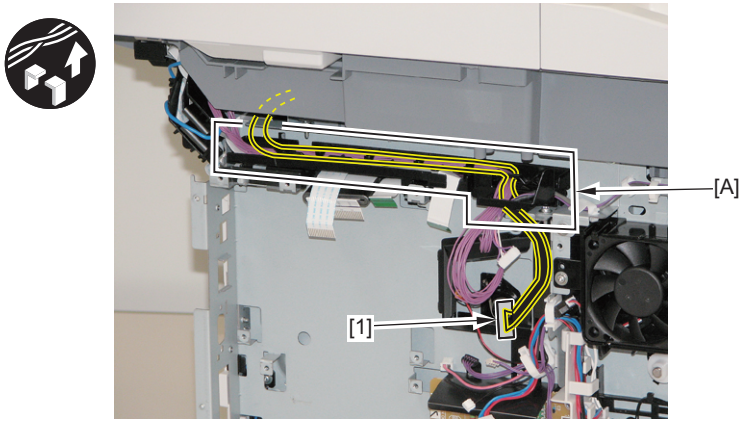
Removing the Controller Box

Preparations

1) Removing the Right Cover Unit.
2) Removing the Left Cover Unit.
3) Removing the Left Rear Cover.
4) Removing the Controller Cover.
5) Removing the NCU PCB.(iR 1133iF Only)
6) Removing the Main Controller PCB.

Procedure

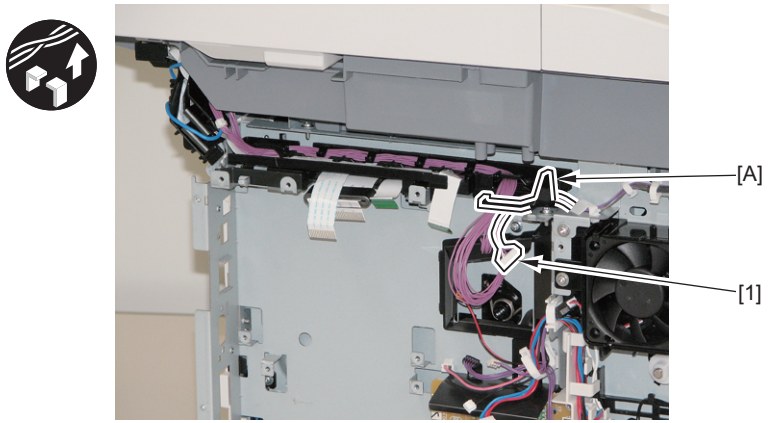
1) Remove the Harness [1] from the Harness Guide [A].



F-4-86

2) Remove the 2 Harnesses [1] from the Harness Guide [2].

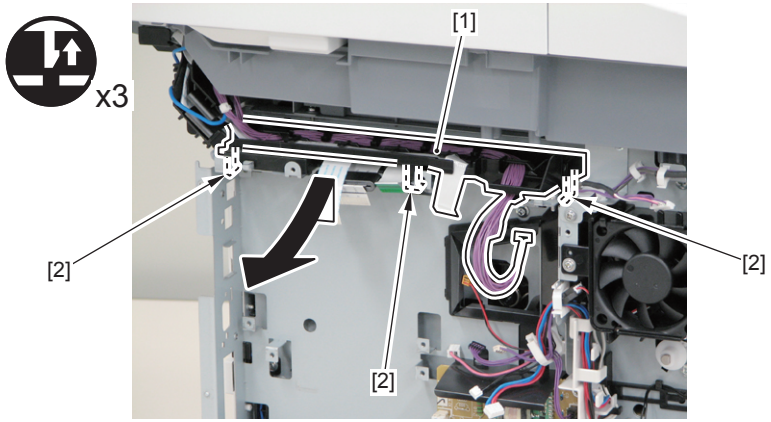
- 1 Edge Saddle [3]



F-4-87

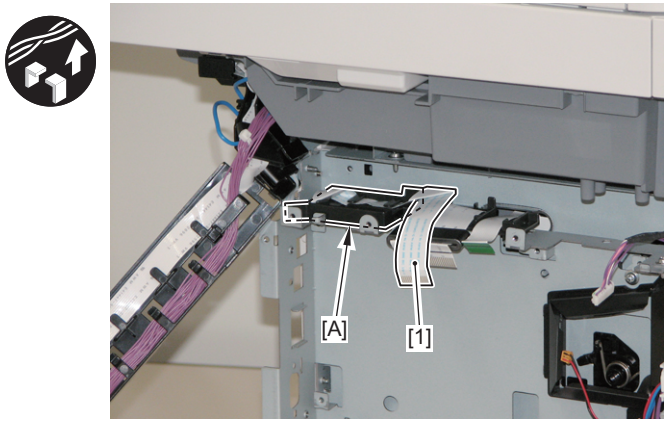
3) Remove the Harness Guide [1].

- 3 Claws [2]



F-4-88

4) Remove the Flat Cable [1] from the Harness Guide [2].

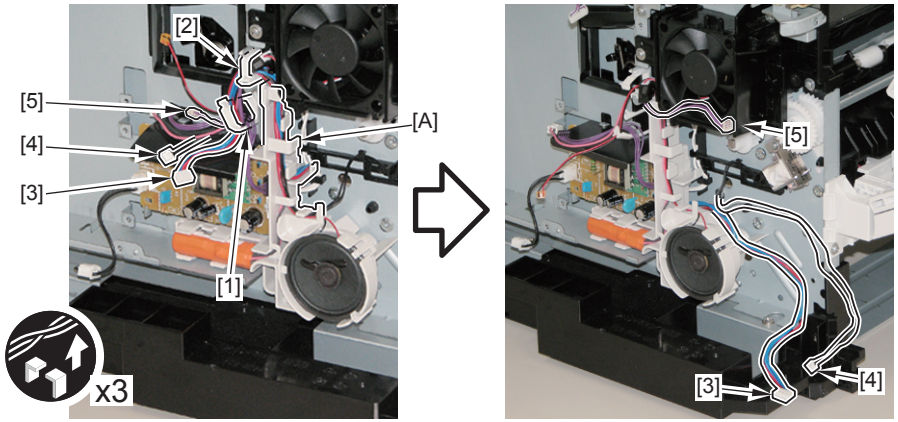


F-4-89

5) Remove the Harness of Controller Fan [5].

6) Remove the 2 Harnesses [3] [4] from the [A].

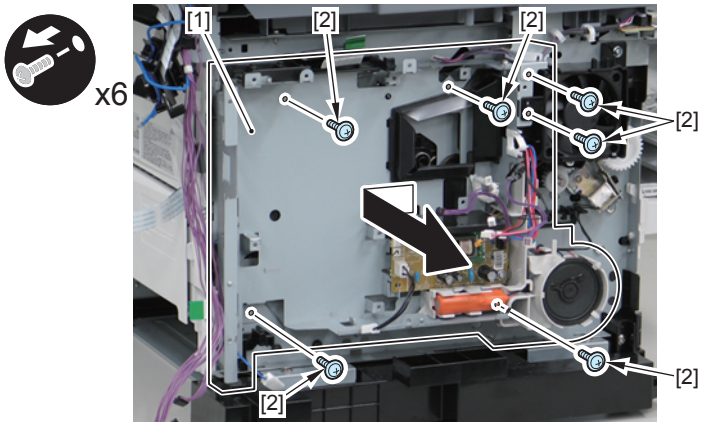
- 1 Wire saddle [1]
- 1 Edge saddle [2]



F-4-90

7) Remove the Controller Box [1].

- 6 Screws [2]



F-4-91

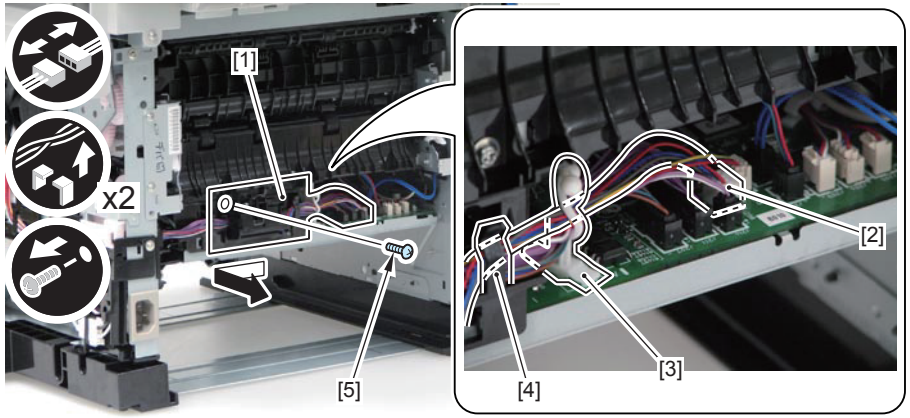
Removing the Engine Controller Unit

Preparations

1) Removing the Right Cover Unit.
2) Removing the Left Cover Unit.
3) Removing the Left Rear Cover.
4) Removing the Controller Cover.
5) Removing the NCU PCB. (iR 1133iF Only)
6) Removing the Main Controller PCB.
7) Removing the Controller Box.
8) Removing the Rear Cover Unit.

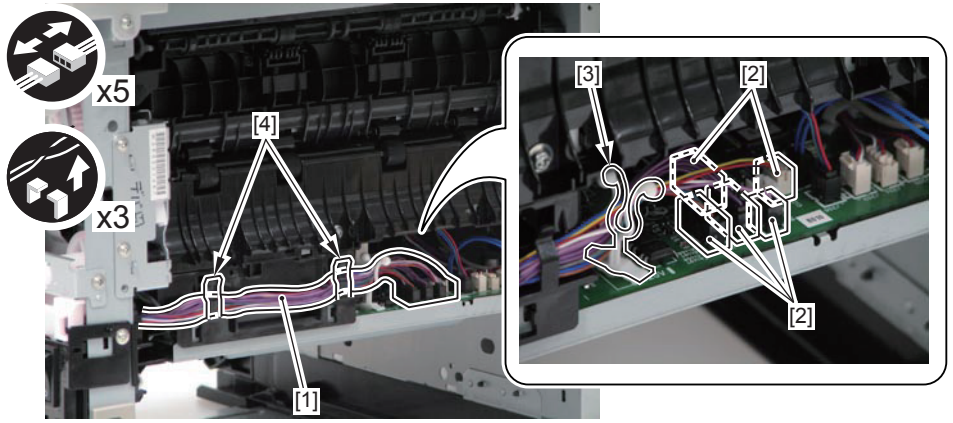
Procedure

1) Remove the Duplex Feed Sensor Unit [1].
- 1 Connector [2]
- 1 Wire Saddle [3]
- 1 Guide [4]
- 1 Screw [5]



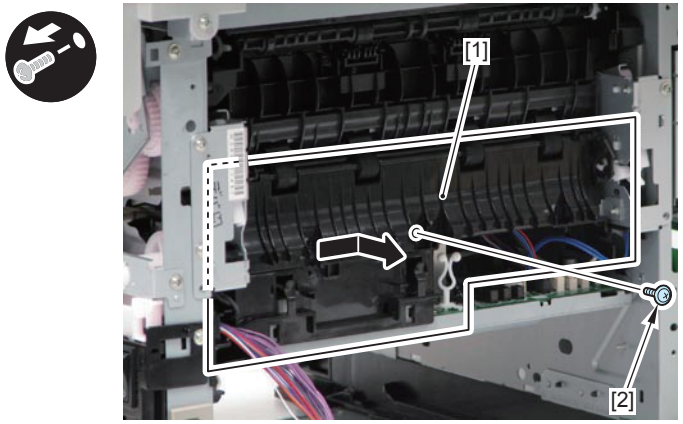
F-4-92

2) Remove the Harness [1] from the Harness Guide [4].
- 5 Connectors [2]



F-4-93

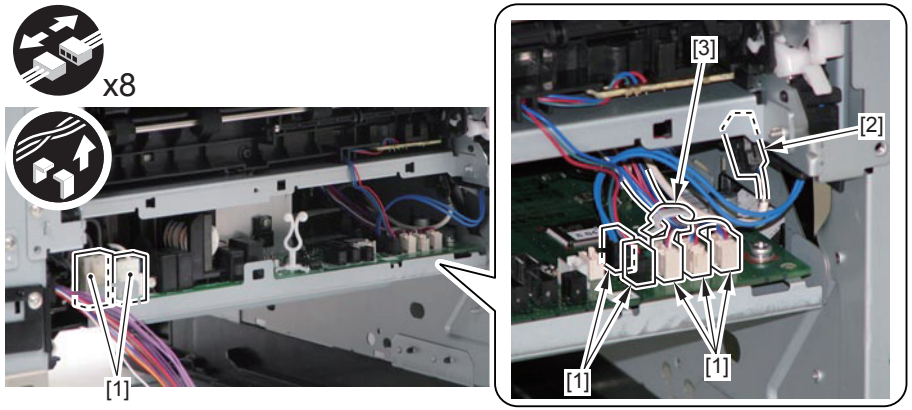
3) Remove the Feed Guide [1].
- 1 Screw [2]



F-4-94

4) Remove the 7 Connectors [1] and the Terminal [2].

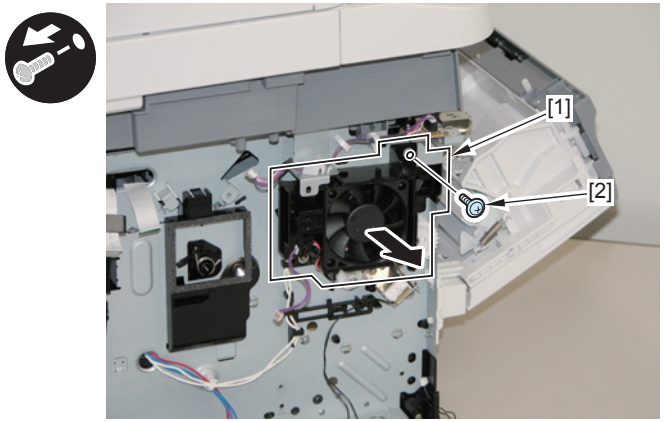
- 1 Wire saddle [3]



F-4-95

5) Remove the Controller Fan Unit [1].

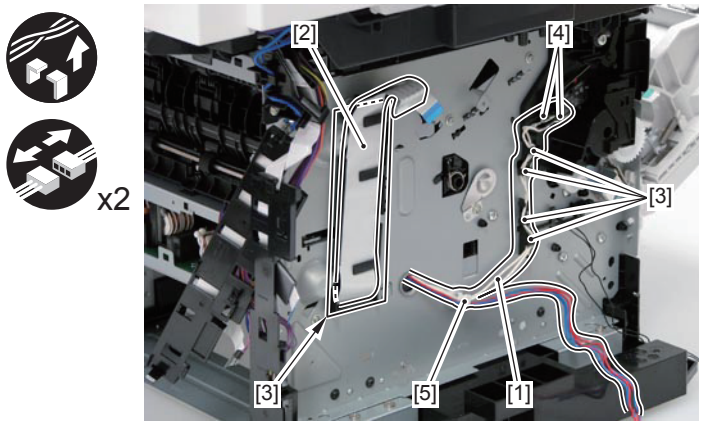
- 1 Scew [2]



F-4-96

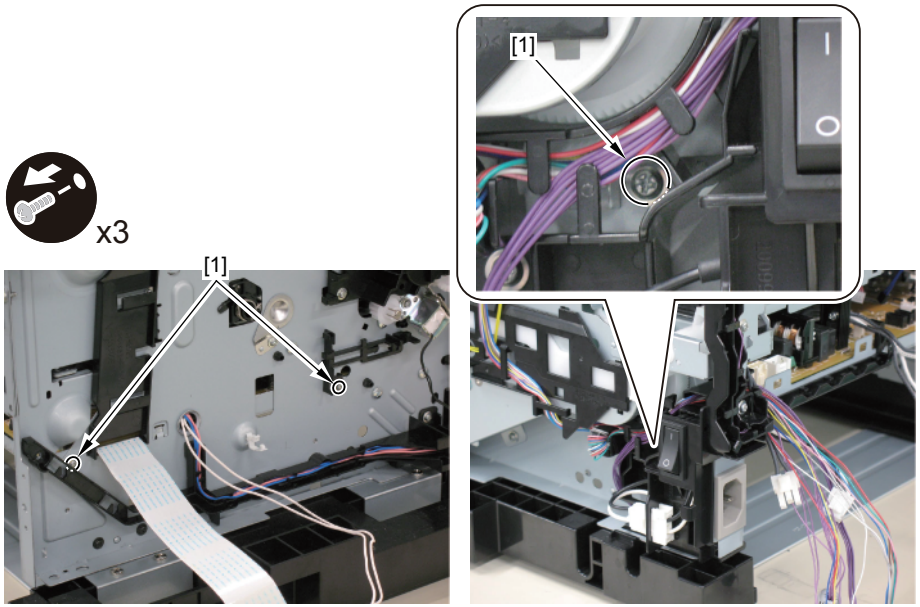
6) Remove the Harness [1] and the Flat Cable [2] from the Harness Guide [3].

- 2 Terminals [4]
- 1 Wire Saddle [5]



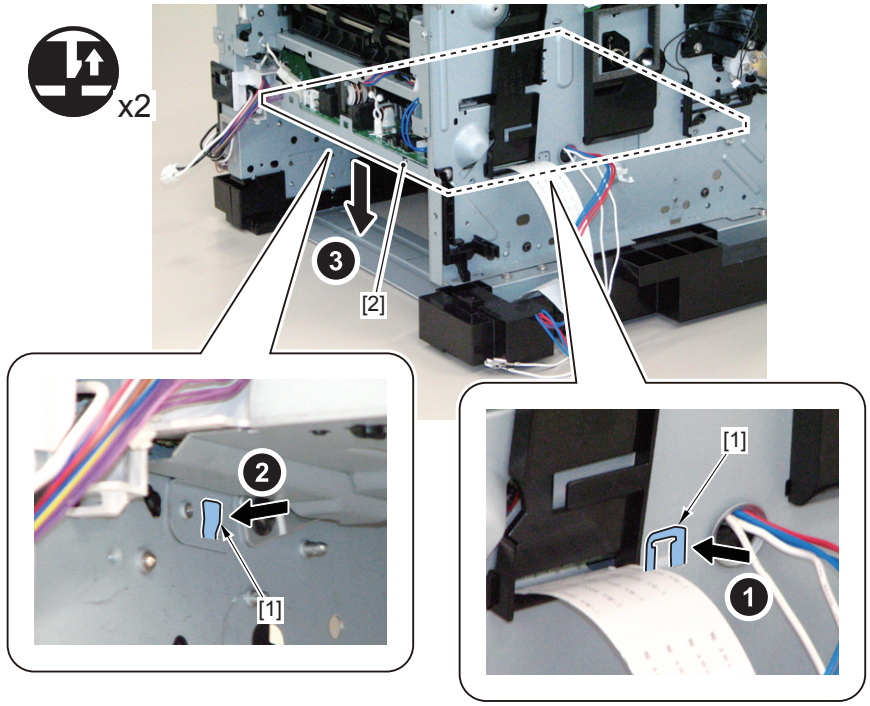
F-4-97

7) Remove the 3 Screws [1] Of the Engine Controller Unit.



F-4-98

8) Push the 2 Claws [1] and Displace the Engine Controller Unit [2] In the Direction Of the Arrow.



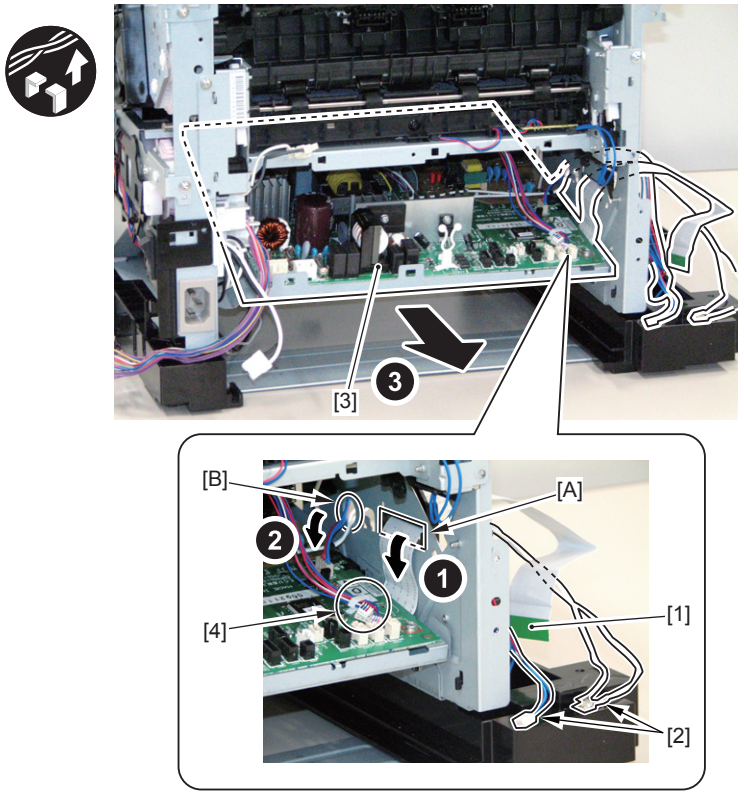
F-4-99

CAUTION:

Be sure to support the Engine Controller Unit during the work in order avoid load on the harness.

9) Pulling Out the Flat Cable [1] and the Harness [2] from the Hole Of the Host Machine Flame.

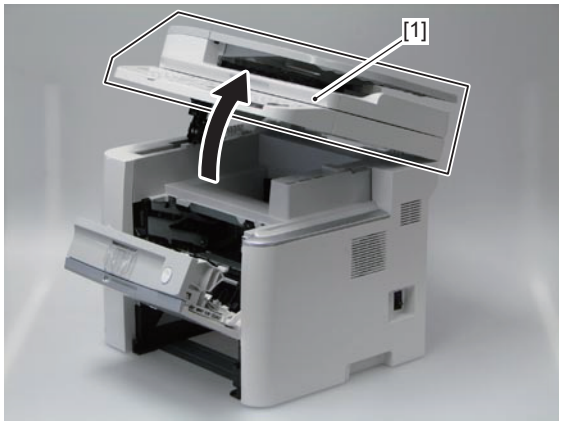
- 1 Wire saddle [4]



F-4-100

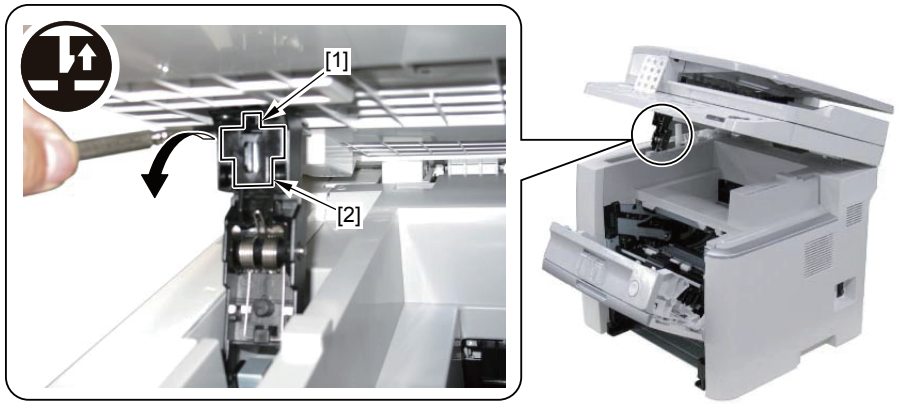
Removing the Control Panel

1) Open the ADF Unit + Reader Unit [1].



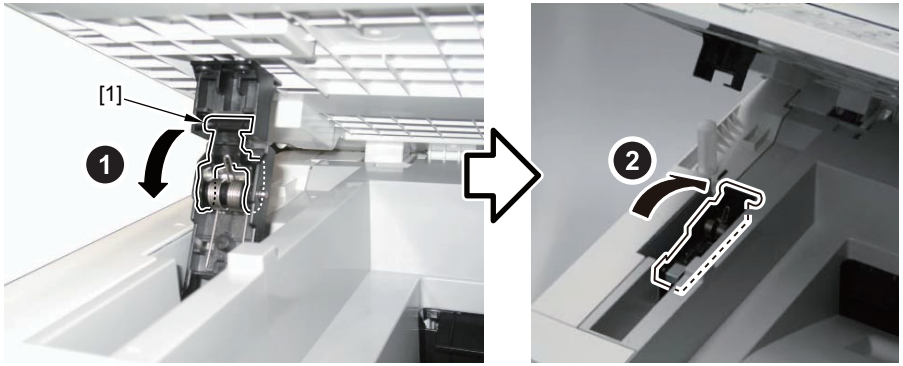
F-4-101

2) Release the claw [1], and remove the Arm Cover [2].



F-4-102

3) Release the Connection of Arm [1] and turn it toward the rear.

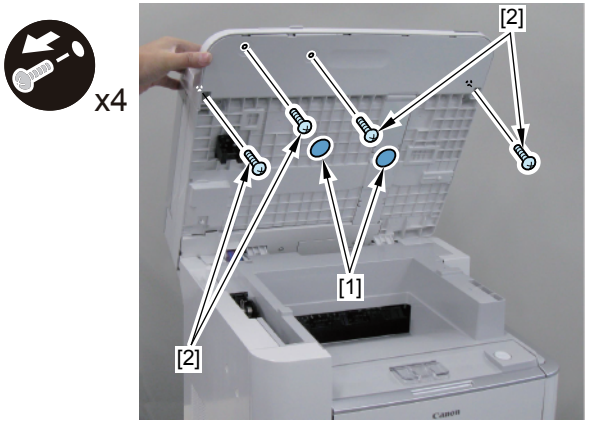


F-4-103

4) Remove the 2 Blanking Sheets [1] and 4 Screws [2] On the Bottom Of the Reader Unit.

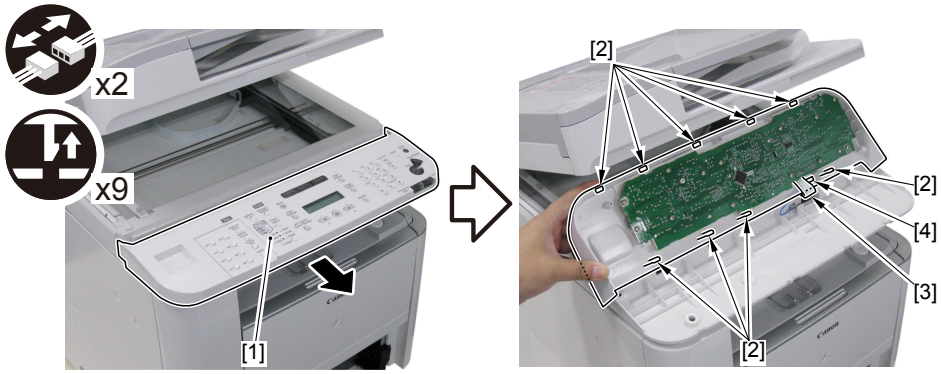
CAUTION:

Since the Blanking Sheet [1] Needs to be Purchased Separately, be Careful Not to Lose it After Removing It.



F-4-104

5) Remove the Control Panel [1].
- 9 Claws [2]
- 1 Flat Cable [3]
- 1 Terminal [4]



F-4-105

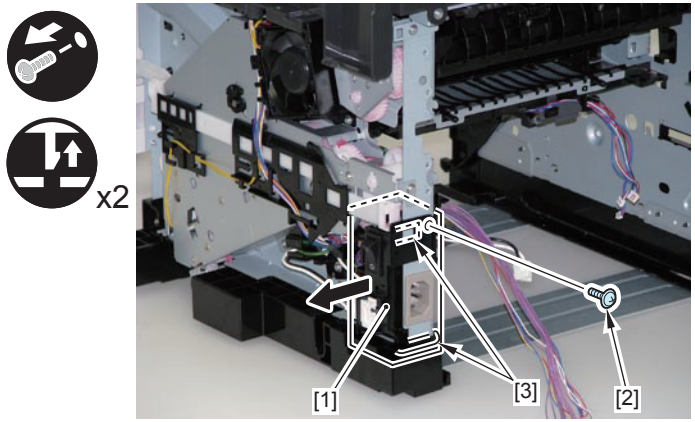
Removing the Main Motor

Preparations

1) Removing the Right Cover Unit.
2) Removing the Left Cover Unit.
3) Removing the Controller Cover.
4) Removing the Left Rear Cover.
5) Removing the NCU PCB. (iR 1133iF only))
6) Removing the Main Controller PCB.
7) Removing the Controller Box.
8) Removing the Fixing Assembly.
9) Removing the Engine Controller Unit.

Procedure

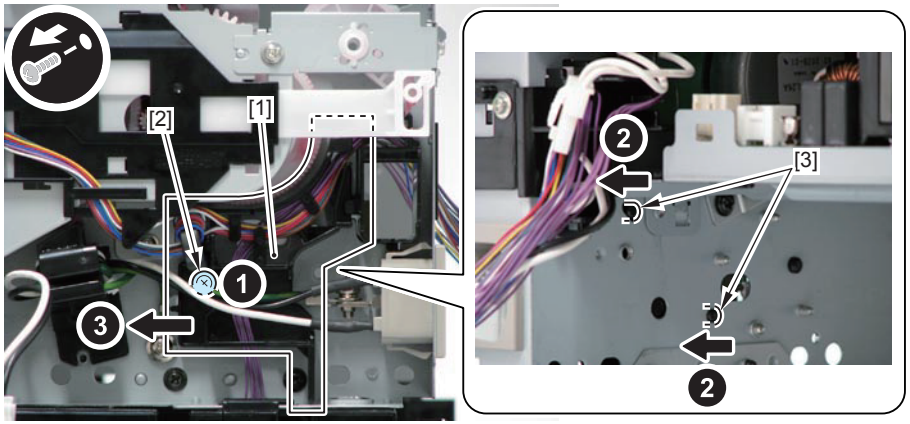
1) Remove the Main Switch Mount [1].
- 1 Screw [2]
- 2 Claws [3]



F-4-106

2) Shift the Harness Guide [1] to the left.

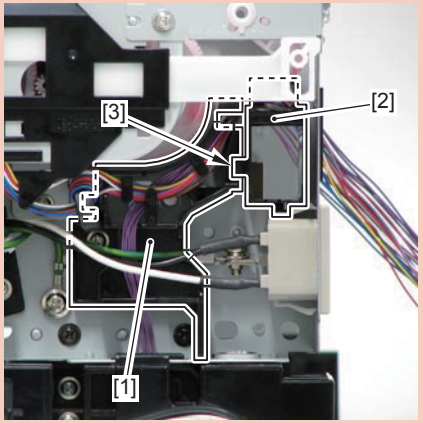
- 1 Screw [2]
- 2 Bosses [3]



F-4-107

CAUTION:

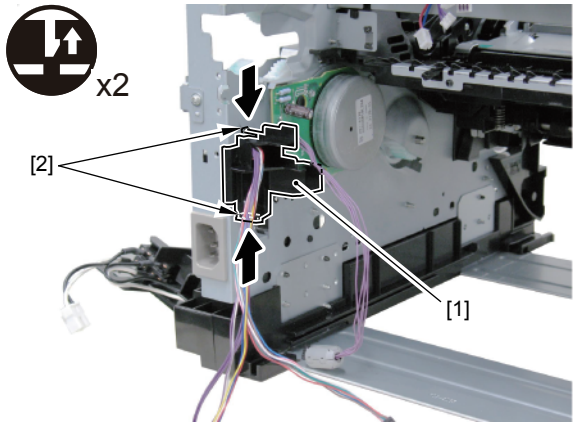
When installing the Harness Guide [1], be sure to place it at rear side of the hook [3] of the Harness Guide [2].



F-4-108

3) Displace the Harness Guide [1].

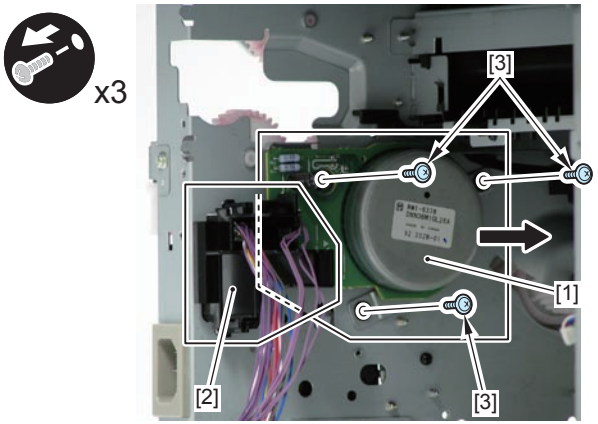
- 2 Claws [2]



F-4-109

4) Remove the Main Motor [1] Together With the Harness Guide [2].

- 3 Screws [3]



F-4-110

Removing the Main Fan

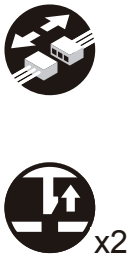
Preparations

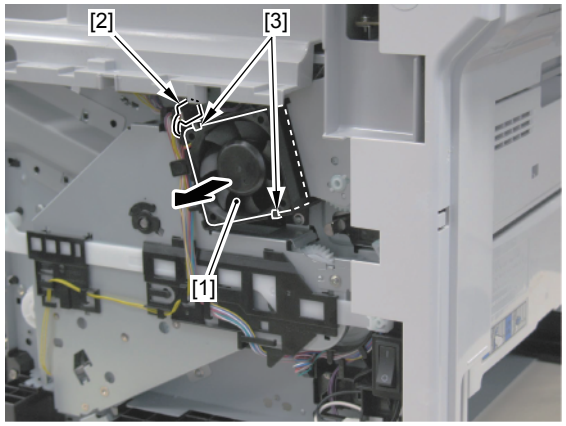
1) Removing the Right Cover Unit.

Procedure

1) Remove the Main Fan [1].

- 1 Connector [2]
- 2 Claws [3]





F-4-111

Removing the Main Drive Unit

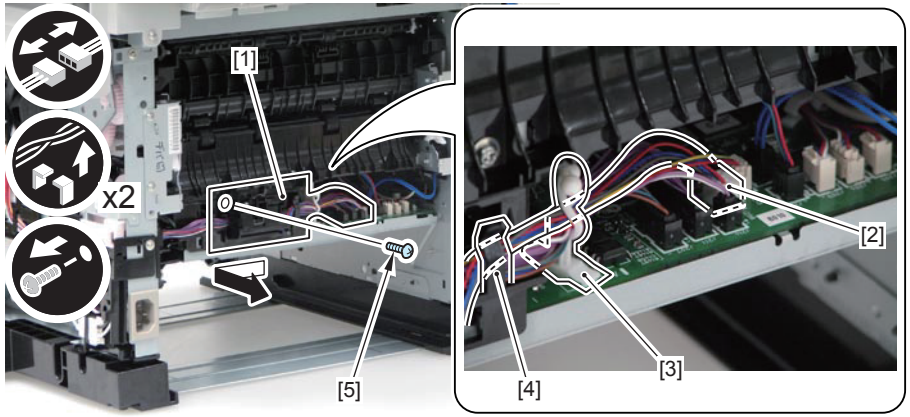
Preparations

1) Removing the Right Cover Unit.
2) Removing the Left Cover Unit.
3) Removing the Controller Cover.
4) Removing the Left Rear Cover.
5) Removing the ADF + Reader Unit.
6) Removing the Upper Cover.
7) Removing the Rear Cover Unit.

Procedure

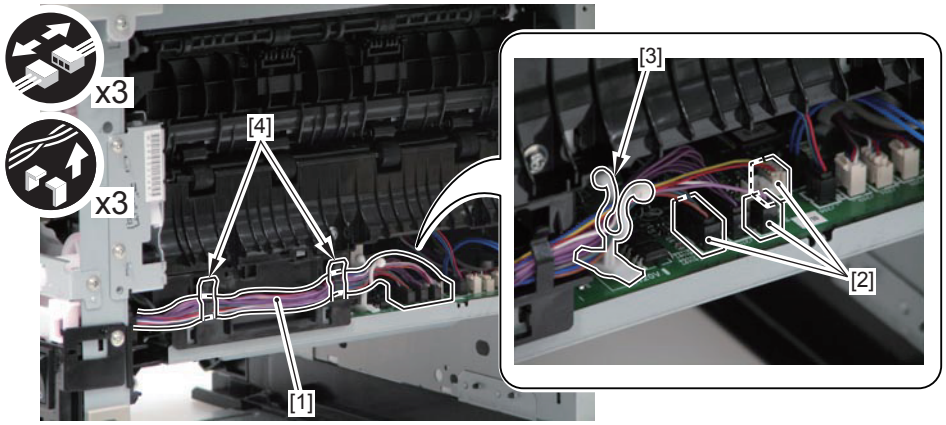
1) Remove the Duplex Reverse Sensor Unit [1].

- 1 Connector [2]
- 1 Wire Saddles [3]
- 1 Harness Guide [4]
- 1 Screw [5]



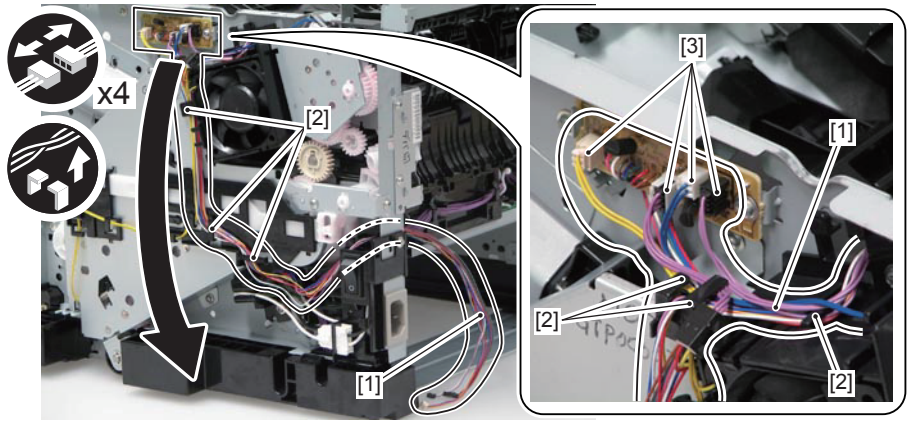
F-4-112

2) Remove the Harness [1] from the 2 Harness Guide [4].
- 3 Connectors [2]
- 1 Cable Clip [3]



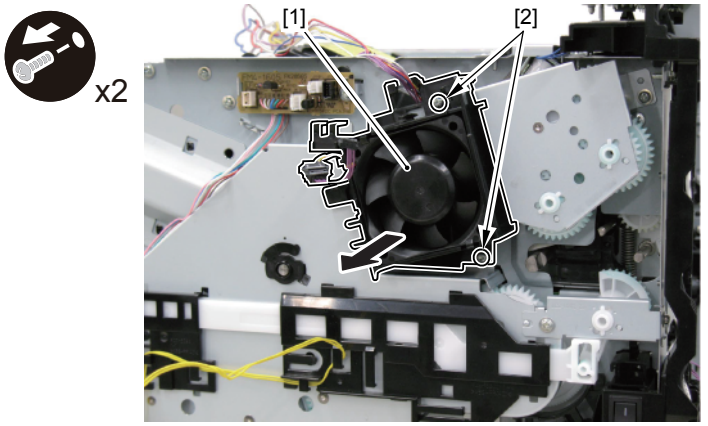
F-4-113

3) Remove the Harness [1] from the Harness Guide [2].
- 4 Connectors [3]



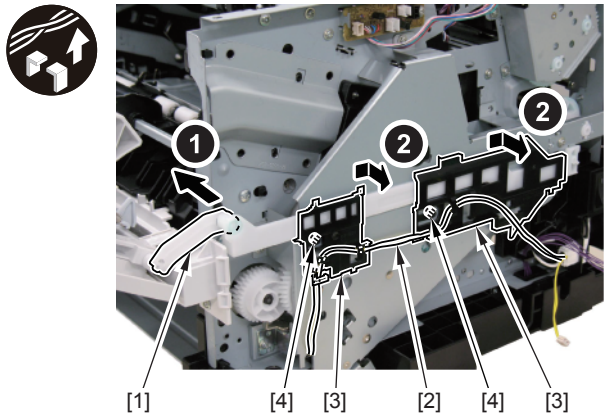
F-4-114

4) Remove the Main Fan Holder [1].
- 2 Screws [2]



F-4-115

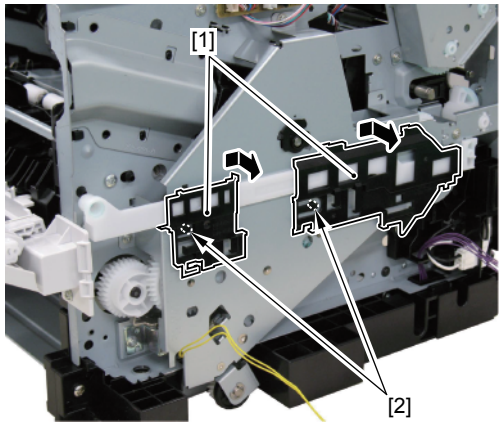
5) Remove the Link [1] and Remove the Harness [2] from the Harness Guide [3].
- 2 Bosses [2]



F-4-116

6) Remove the 2 Harness Guides [1].

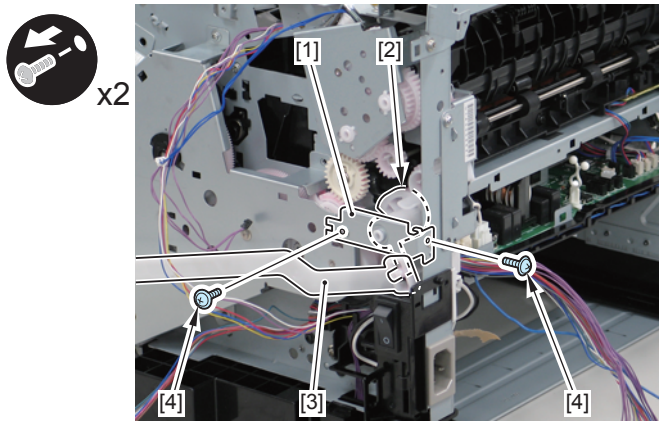
- 2 Bosses [2]



F-4-117

7) Remove the Plate [1], the Fixing Gear [2] and the Link Arm [3].

- 2 Screws [4]



F-4-118

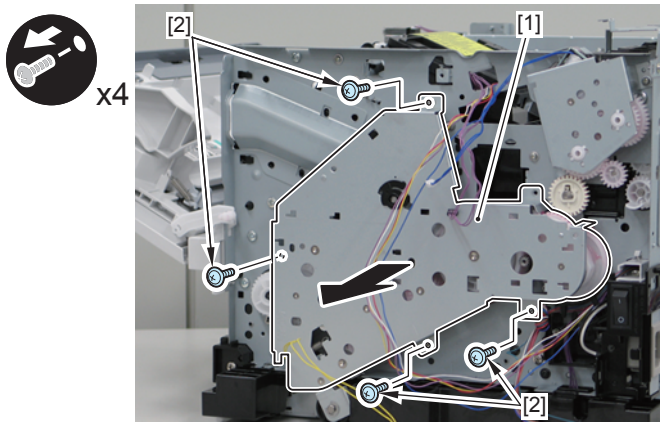
CAUTION:

Points to Note When Removing the Main Drive Unit.

Since the Gear of the Main Drive Unit is not Fixed, be Careful Not to Drop it When Removing it..

8) Remove the Main Drive Unit [1].

- 4 Screws [2]



F-4-119

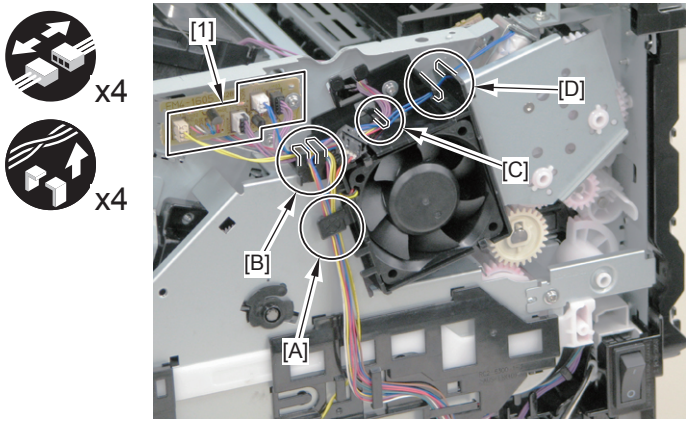
Removing the Duplex Drive Unit

Preparations

1) Removing the Right Cover Unit.
2) Removing the Left Cover Unit.
3) Removing the Controller Cover.
4) Removing the Left Rear Cover.
5) Removing the ADF Unit + Reader Unit.
6) Removing the Upper Cover.
7) Removing the Rear Cover Unit.

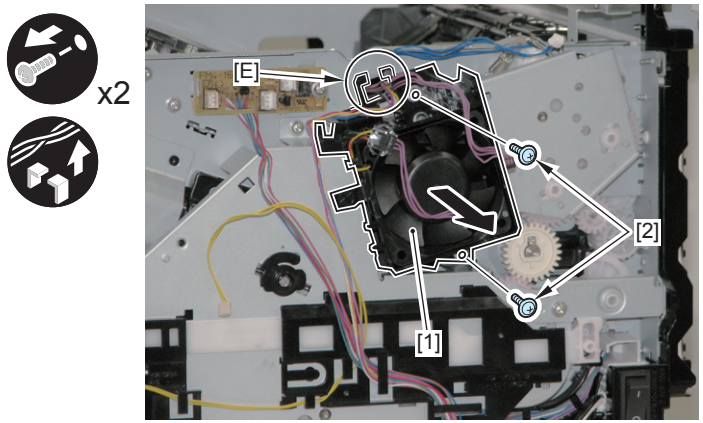
Procedure

1) Remove the Harnesses from the [A], [B], [C], [D].
- 4 Connector [1]



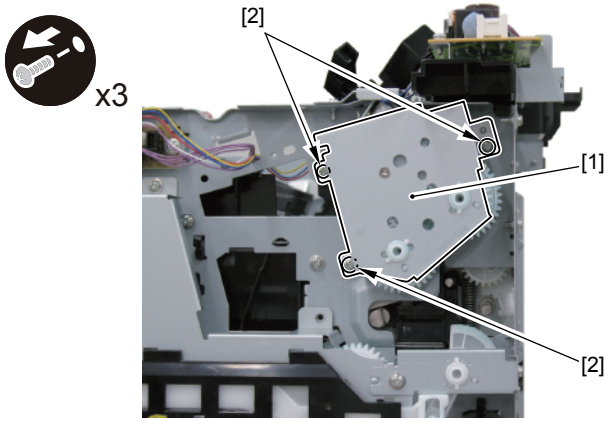
F-4-120

2) Remove the Harness from the [E], and Remove the Main Fan [1].
- 2 Screws [2]



F-4-121

3) Remove the Duplex Drive Unit [1].
- 3 Screws [2]



F-4-122

CAUTION :

Since the Gear of the Duplex Drive Unit is Not Fixed, be Careful Not to Drop or Lose it When Removing it.

Removing the Duplex Reverse Solenoid

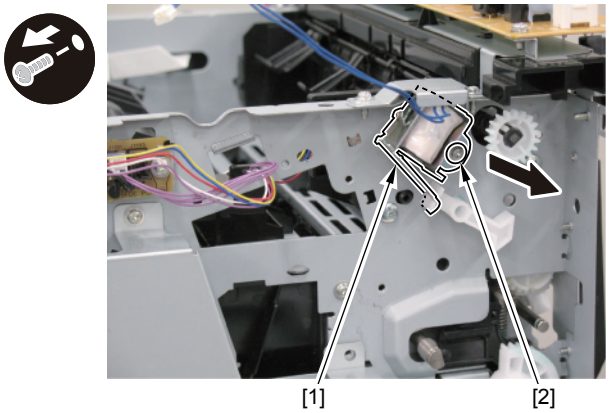
Preparations

1) Removing the Right Cover Unit.
2) Removing the Right Rear Cover.
3) Removing the Left Cover Unit.
4) Removing the Controller Cover.
5) Removing the Left Rear Cover.
6) Removing the Upper Cover.
7) Removing the Duplex Drive Unit.

Procedure

1) Remove the Duplex Reverse Solenoid [1].

- 1 Screw [2]



F-4-123

Removing the Cassette Pickup Solenoid

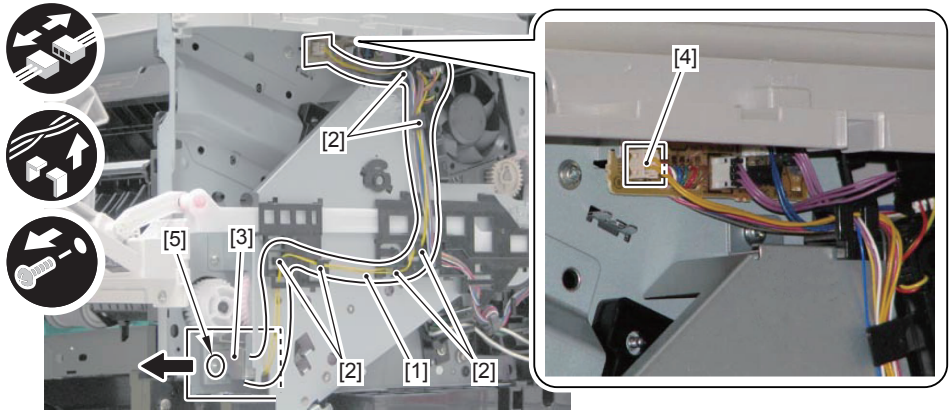
Preparations

1) Removing the Right Cover Unit.

Procedure

1) Free the harness [1] from the Harness Guides [2], and remove the Cassette Pickup Solenoid [3].

- 1 Connector [4]
- 1 Screw [5]



F-4-124

Laser Scanner System

Removing the Laser Scanner Unit

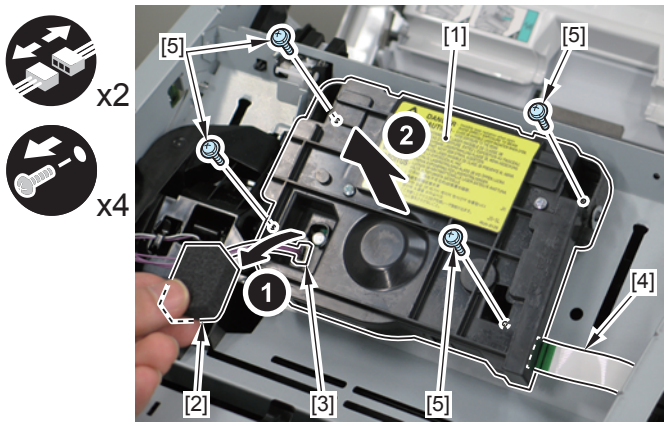
Preparations

1) Removing the Right Cover Unit.
2) Removing the Left Cover Unit.
3) Removing the Controller Cover.
4) Removing the Left Rear Cover.
5) Removing the ADF + the Reader Unit.
6) Removing the Upper Cover.

Procedure

1) Remove the Laser Scanner Unit [1].

- 1 Flat Cable [2]
- 1 Sponge [3]
- 1 Connector [4]
- 4 Screw [5]



F-4-125

CAUTION:

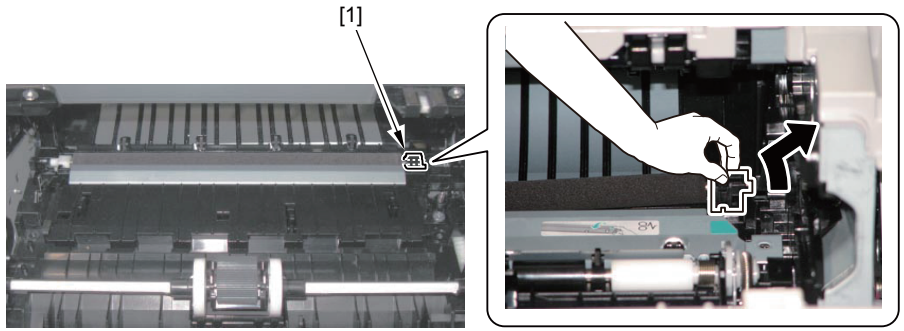
Do Not Disassemble the Laser Scanner Unit at a Field.

It May Cause a Malfunction.

Image Forming System

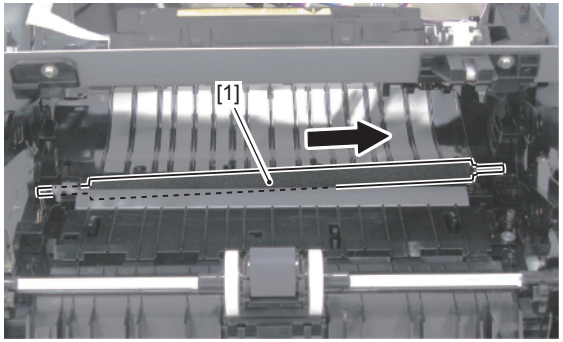
Removing the Transfer Roller

1) Open the Front Cover.
2) Pinch the Holder [1] and Remove It In the Direction Of the Arrow.



F-4-126

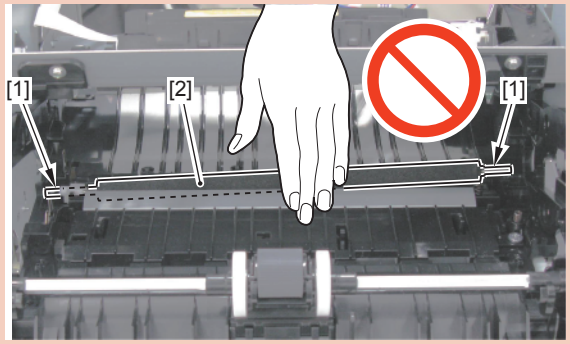
3) Remove the Transfer Roller [1] In the Direction Of the Arrow.



F-4-127

CAUTION :

At Installation, Make Sure to Hold the Shaft [1] of the Transfer Roller and be Careful Not to Touch the Sponge Part [2] of the Roller.



F-4-128

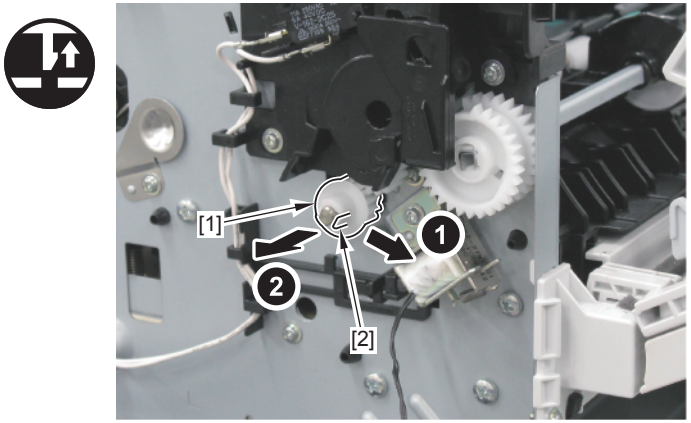
Removing the Registration Unit

Preparations

1) Removing the Right Cover.
2) Removing the Left Cover.
3) Removing the Controller Cover.
4) Removing the Left Rear Cover.
5) Removing the ADF + Reader Unit.
6) Removing the Upper Cover.

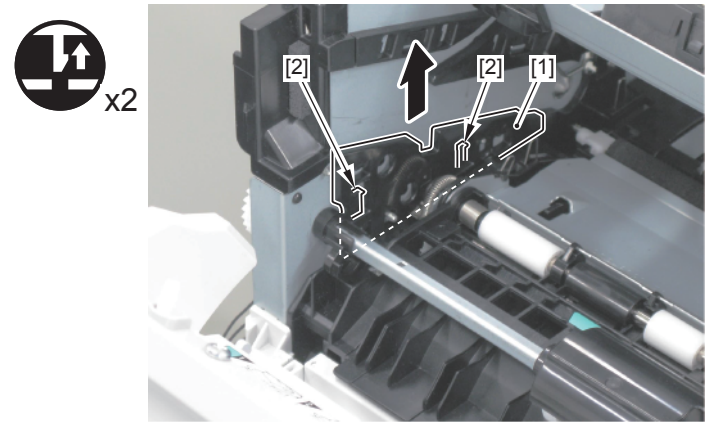
Procedure

1) Remove the Gear [1].
- 1 Claw [2]



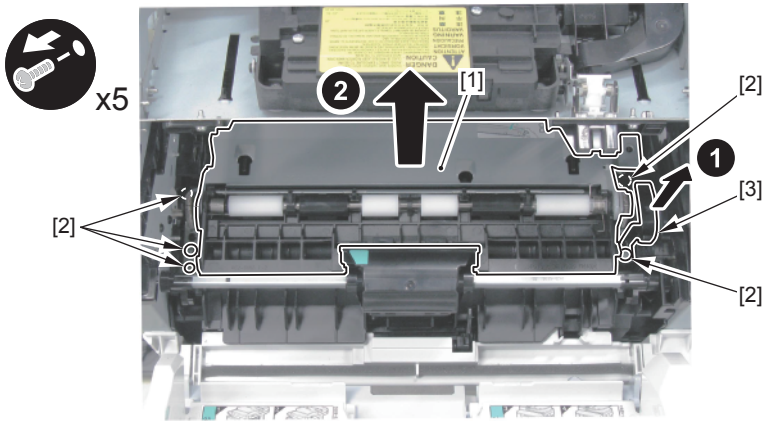
F-4-129

2) Remove the Guide [1].
- 2 Claws [2]



F-4-130

3) Remove the Registration Unit [1].
- 5 Screws [2]
- 1 Gear Cover [3]



F-4-131

Fixing System

Removing the Fixing Assembly

Preparations

1) Removing the Left Cover Unit.
2) Removing the Left Rear Cover.
3) Removing the Right Cover Unit.
4) Removing the Rear Cover Unit.

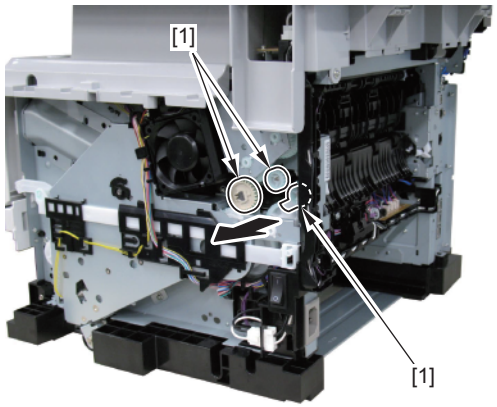
Procedure

CAUTION:

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.

1) Close the Front Cover and Move the Gear In the Position Where It Can Be Removed.
2) Remove the 3 Gears [1].

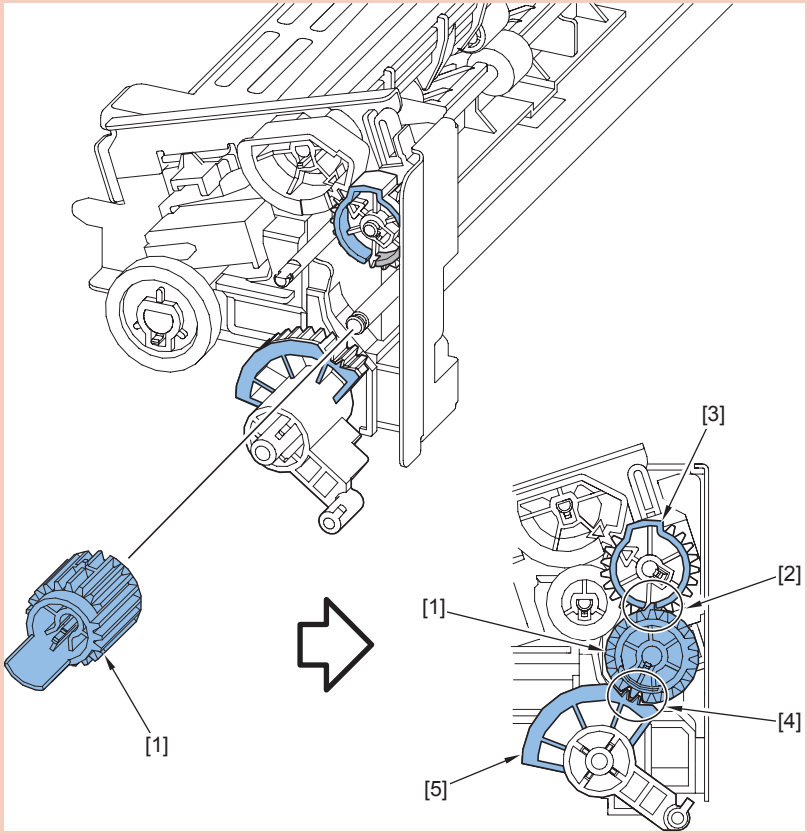


F-4-132

CAUTION:

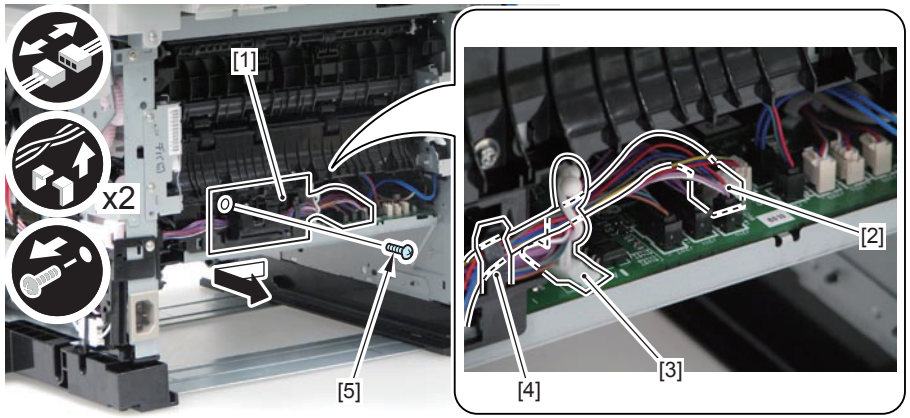
Points to Note at Installation

- Fit the Protrusion [2] of the Gear [1] With the Cut-off of the Gear [3] and Install it.
- Fit the Cut-off [4] of the Gear [1] With the Teeth of the Fan Gear [5] and Install it.



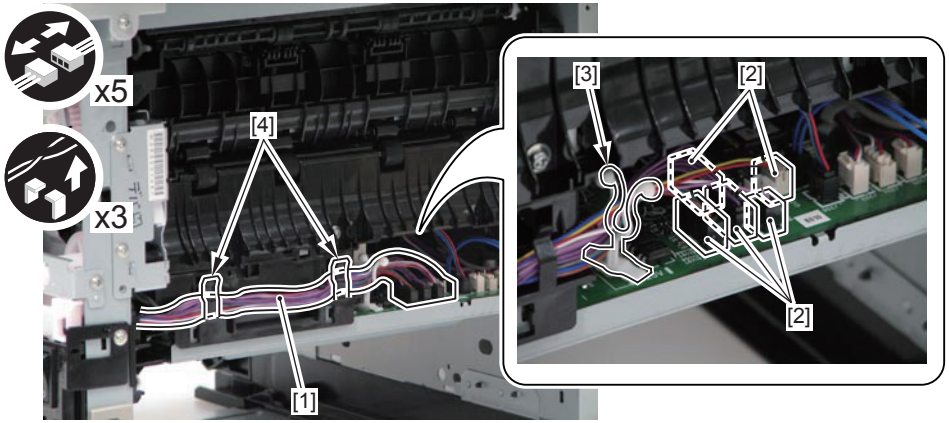
F-4-133

3) Remove the Duplex Feed Sensor Unit [1].
- 1 Connector [2]
- 1 Wire saddle [3]
- 1 Harness guide [4]
- 1 Screw [5]



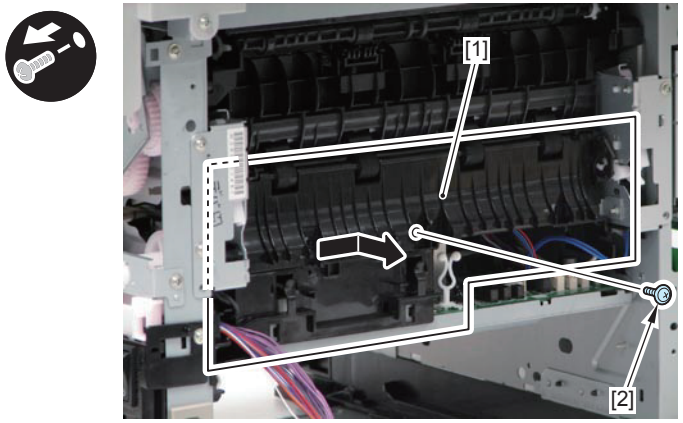
F-4-134

4) Remove the Harness [1] from the Wire saddle [3].
- 5 Connectors [2]
- 3 Harness guide [4]



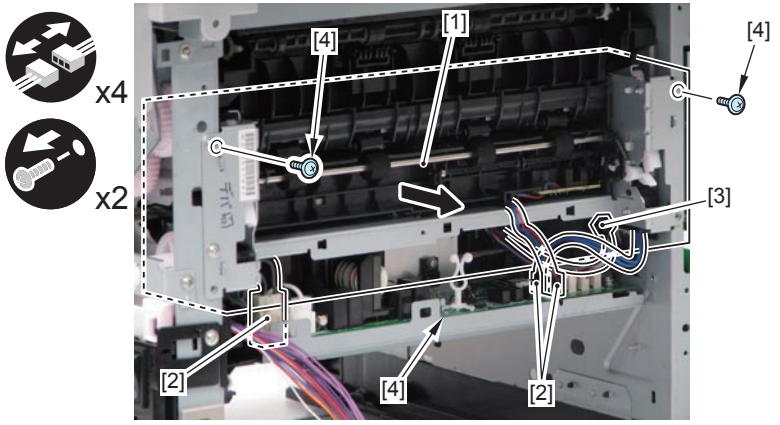
F-4-135

5) Remove the Feed Guide [1].
- 1 Screw [2]



F-4-136

6) Remove the Fixing Assembly [1].
- 3 Connectors [2]
- 1 Terminal [3]
- 2 Screws [4]



F-4-137

CAUTION:

Do Not Disassemble the Fixing Assembly at a Field.

It May Cause a Malfunction.

Pickup / Feed System

Removing the Duplex Feed Unit

Preparations

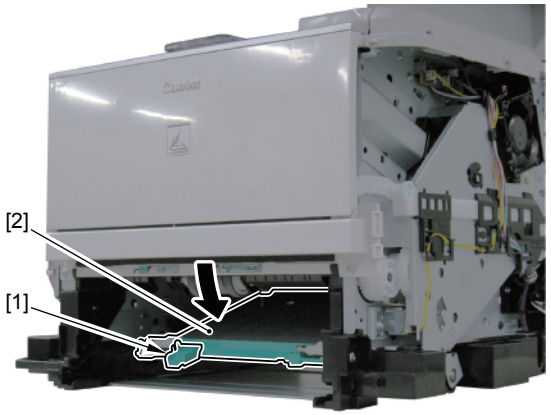
1) Removing the Left Cover Unit.
2) Removing the Left Rear Cover.
3) Removing the Right Cover Unit.

Procedure

CAUTION:

Do Not Touch the Surface of the Cassette Feed Roller When Removing or Mounting it.

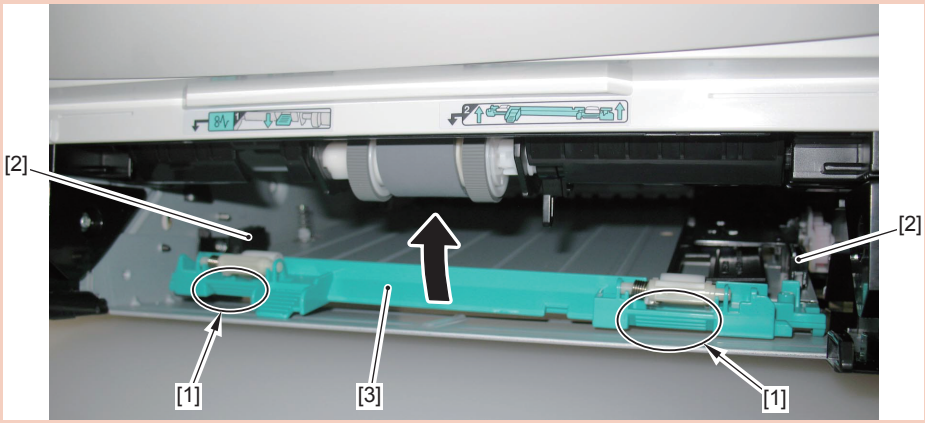
1) Push the Grip [1] Downward and Open the Rear Cover Unit [2].



F-4-138

CAUTION:

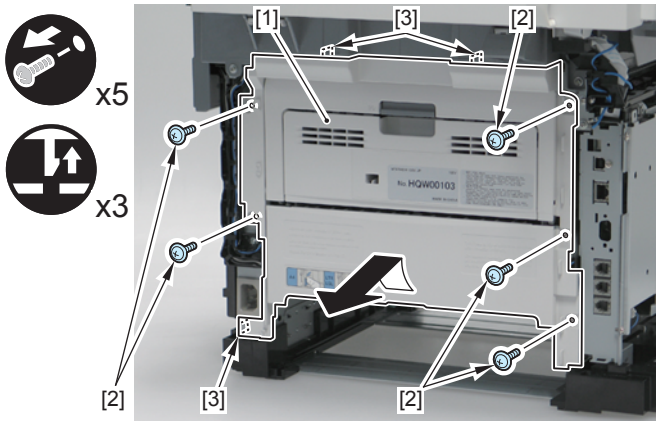
During Reassembly, 2 Raise Lever [1] of Duplex Transport Unit and Attach Duplex Transport Unit [3] to Main Unit by Using 2 Magnet [2] on Each Side.



F-4-139

2) Remove the Duplex Feed Unit Cover [1].

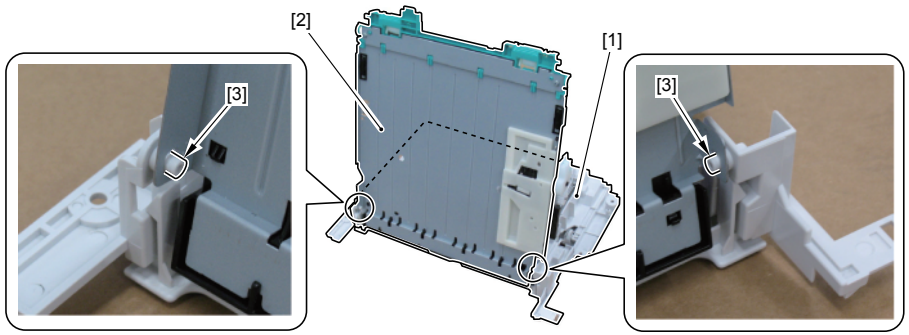
- 5 Screws [2]
- 3 Claws [3]



F-4-140

3) Remove the Rear Cover Unit [1] from the Duplex Feed Unit [2].

- 2 Bosses [3]

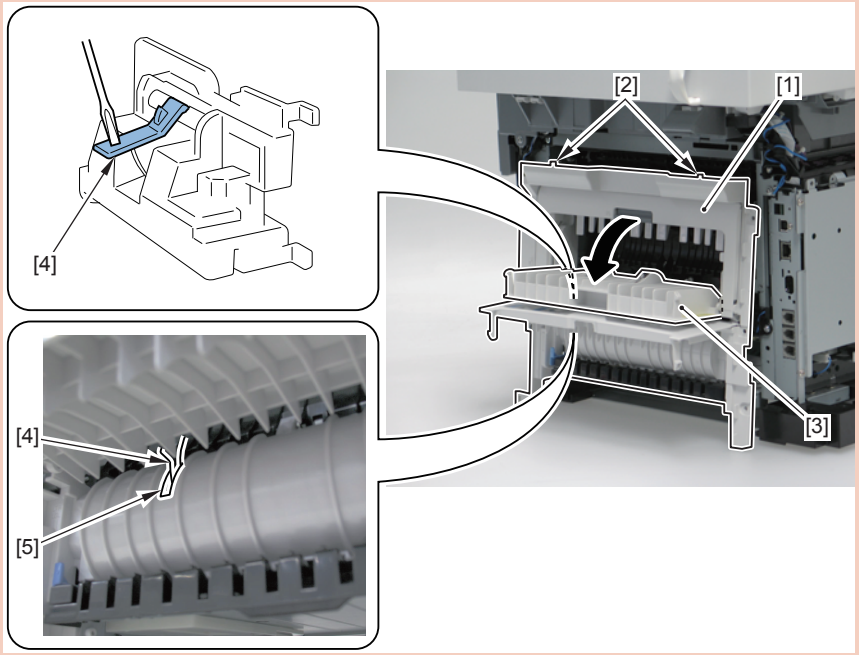


F-4-141

CAUTION :

Procedure at installation

1) Fit the 2 Upper Claw [2] of the Rear Cover Unit [1] With the Upper Cover.
2) Open the Sub Output Tray [3] and While Pushing the Duplex Reverse Sensor Flag [4] Downward, Install the Rear Cover Unit.
3) Check That the Sensor Flag [4] Protrudes Through the Hole [5] of the Guide Unit On the Back of the Duplex Unit Cover.



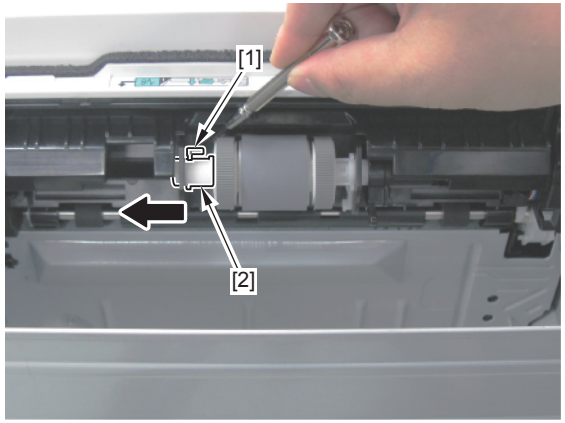
F-4-142

Removing the Cassette Pickup Roller

CAUTION:

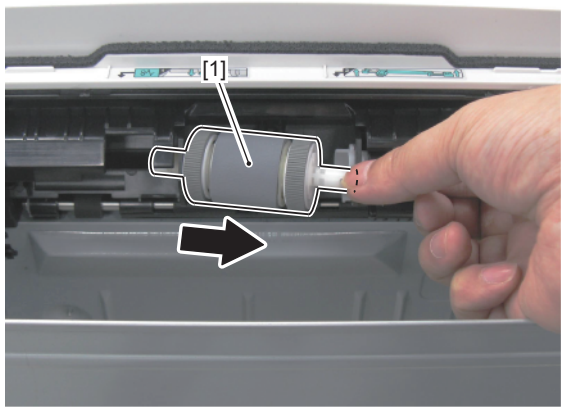
Do Not Touch the Surface of the Cassette Pickup Roller When Removing or Mounting it.Cassette

1) Remove the Cassette.
2) Release the Stopper [1] and Displace the Shaft Support [2].



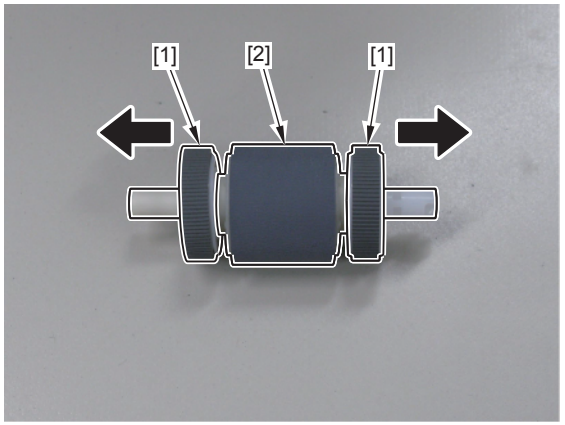
F-4-143

3) Remove the Cassette Pickup Roller Unit [1].



F-4-144

4) Remove the 2 Rubber Roller [1] On Both Edges from the Shaft and Remove the Pickup Roller [2].



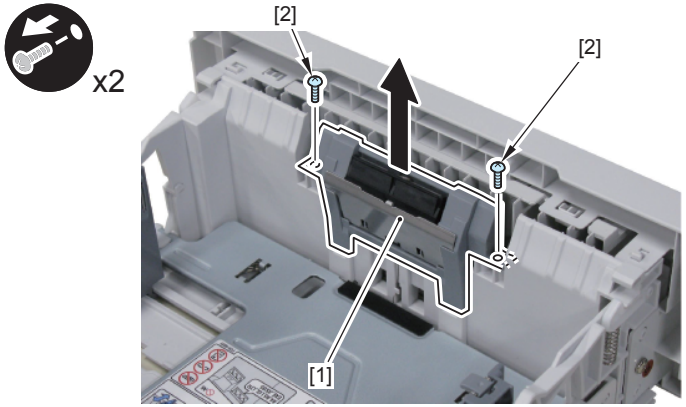
F-4-145

Removing the Cassette Separation Pad

CAUTION:

Do Not Touch the Surface of the Cassette Separator Pad When Removing or Mounting it.

1) Remove the Cassette.
2) Remove the Cassette Separation Pad Unit [1].
- 2 Screws [2]



F-4-146

Removing the MP Pickup Roller

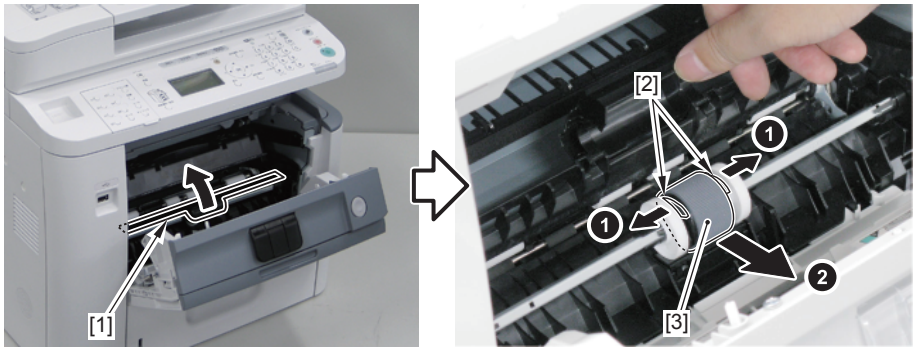
CAUTION:

Do Not Touch the Surface of the MP Pickup Roller When Removing or Mounting it.

1) Open the Front Cover [1].

F-4-147

2) Open the Pickup Roller Cover [1], Move the Roller Holder [2] In the Direction Of the Arrow and Remove the MP Pickup Roller [3].



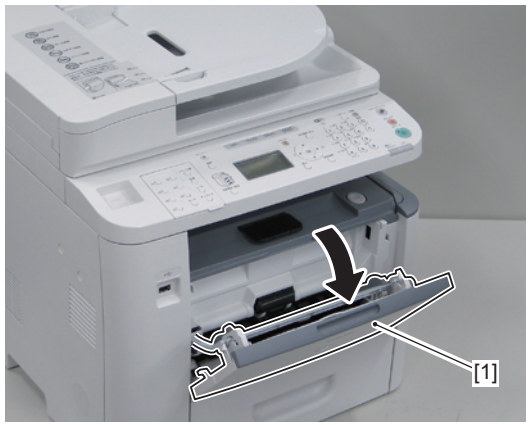
F-4-148

Removing the MP Separation Pad

CAUTION:

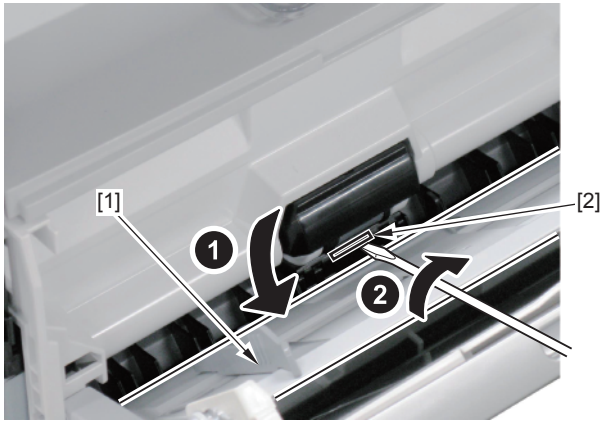
Do Not Touch the Surface of the MP Separation Pad When Removing or Mounting it.

1) Open the MP Tray Pickup Cover [1].



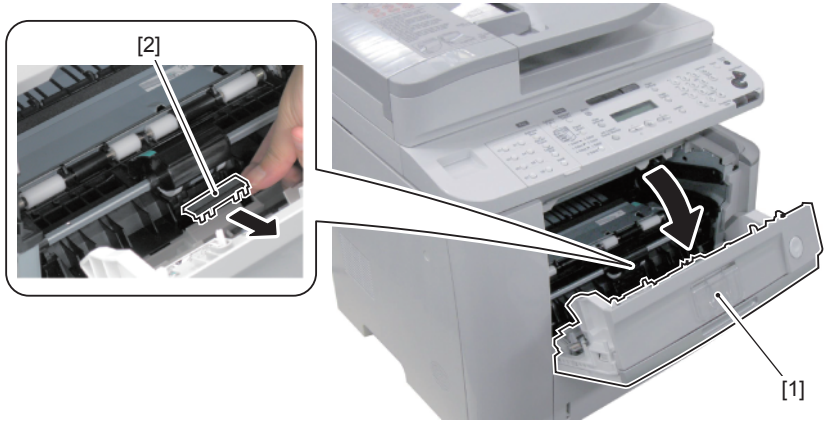
F-4-149

2) Lower the MP Guide [1], Insert the Precision Flat-screwdriver Into the Clearance [2] Of the Separation Pad and Displace It In the Direction Of the Arrow.



F-4-150

3) Open the Front Cover [1] and Remove the MP Separation Pad [2].



F-4-151

5 Adjustment

- Overview
- Document Exposure / Delivery System
- Controller System

Overview

In this chapter, measures of adjustment when replacing parts in servicing operation are mentioned. Parts to be replaced are categorized into 2 blocks based on their related technology as shown below.

Category	Parts replacement	Reference
Document Exposure / Delivery System	CIS Unit	
	ADF Unit	
	Reader Unit	
	Reader Upper Cover Unit	
Controller System	Main Controller PCB	

T-5-1

Actions after Replacement Parts

Document Exposure / Delivery System

After Replacing the CIS Unit

1) Check that there is no problem with the setting values written on the service label.
2) Close the ADF, and execute the following service mode. If it results in NG, execute it again after turning OFF and then ON the power.
   - COPIER > FUNCTION > CCD > CL-AGC (CIS light intensity adjustment (color))
   - COPIER > FUNCTION > CCD > BW-AGC (CIS light intensity adjustment (B&W))
3) After executing the following service mode (a), check the value automatically set with the following service mode (b), and write it in the service label.
   (a) COPIER > FUNCTION > INSTALL > STRD-POS (executing automatic detection of the reading position at DF stream reading)
   (b) COPIER > ADJUST > ADJ-XY > STRD-POS (adjusting the reading position at DF stream reading)
4) Place a blank paper on the Copyboard Glass, and execute white level adjustment in the following service mode.
   - COPIER > FUNCTION > CCD > DF-WLVL1 (white level adjustment [copyboard scan])
   - COPIER > FUNCTION > CCD > DF-WLVL3 (white level adjustment B&W [copyboard scan])

   Next, place the same blank paper on the DF and execute the following service mode.
   - COPIER > FUNCTION > CCD > DF-WLVL2 (white level adjustment [DF scan])
   - COPIER > FUNCTION > CCD > DF-WLVL4 (white level adjustment B&W [DF scan])

   If it results in NG, execute it again after turning OFF and then ON the power.

After Replacing the ADF Unit

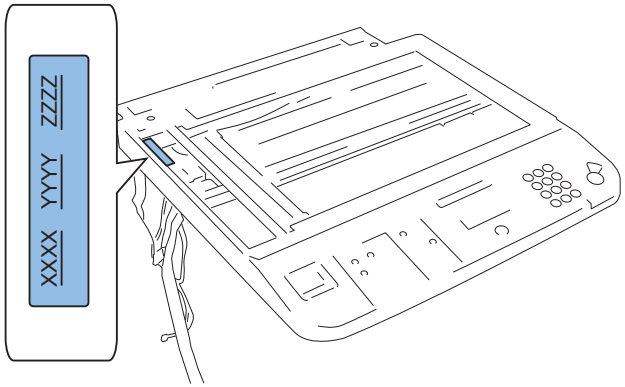
1) Place a blank paper on the Copyboard Glass, and execute white level adjustment in the following service mode.
   White level adjustment
   - COPIER > FUNCTION > CCD > DF-WLVL1 (white level adjustment [copyboard scan])
   - COPIER > FUNCTION > CCD > DF-WLVL3 (white level adjustment B&W [copyboard scan])

   Next, place the same blank paper on the DF and execute the following service mode.
   - COPIER > FUNCTION > CCD > DF-WLVL2 (white level adjustment [DF scan])
   - COPIER > FUNCTION > CCD > DF-WLVL4 (white level adjustment B&W [DF scan])

   If it results in NG, execute it again after turning OFF and then ON the power.

After Replacing the Reader Unit

1) Enter the values of the label affixed at the upper left of the glass in the following service mode item, and write the values in the service label.



F-5-1

- COPIER > ADJUST > CCD > W-PLT-X (standard White Plate X signal data)
- COPIER > ADJUST > CCD > W-PLT-Y (standard White Plate Y signal data)
- COPIER > ADJUST > CCD > W-PLT-Z (standard White Plate Z signal data)

2) Check that there is no problem with the setting values written on the service label.

3) Close the ADF, and execute the following service mode. If it results in NG, execute it again after turning OFF and then ON the power.
   - COPIER > FUNCTION > CCD > CL-AGC (CIS light intensity adjustment (color))
   - COPIER > FUNCTION > CCD > BW-AGC (CIS light intensity adjustment (B&W))

4) After executing the following service mode (a), check the value automatically set with the following service mode (b), and write it in the service label.
   (a) COPIER > FUNCTION > INSTALL > STRD-POS (executing automatic detection of the reading position at DF stream reading)
   (b) COPIER > ADJUST > ADJ-XY > STRD-POS (adjusting the reading position at DF stream reading)

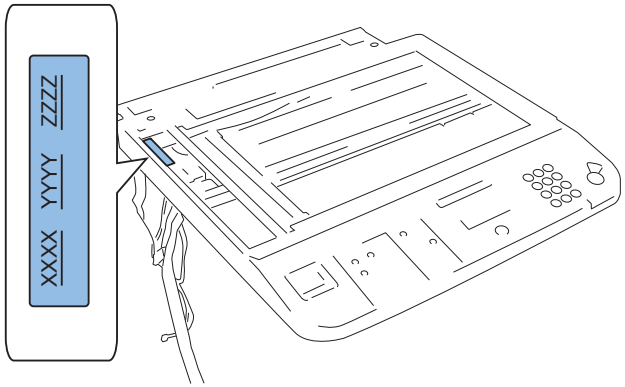
5) Place a blank paper on the Copyboard Glass, and execute white level adjustment in the following service mode.
   - COPIER > FUNCTION > CCD > DF-WLVL1 (white level adjustment [copyboard scan])
   - COPIER > FUNCTION > CCD > DF-WLVL3 (white level adjustment B&W [copyboard scan])

   Next, place the same blank paper on the DF and execute the following service mode.
   - COPIER > FUNCTION > CCD > DF-WLVL2 (white level adjustment [DF scan])
   - COPIER > FUNCTION > CCD > DF-WLVL4 (white level adjustment B&W [DF scan])

   If it results in NG, execute it again after turning OFF and then ON the power.

After Replacing the Reader Upper Cover Unit

1) Enter the values of the label affixed at the upper left of the glass in the following service mode item, and write the values in the service label.



F-5-2

- COPIER > ADJUST > CCD > W-PLT-X (standard White Plate X signal data)
- COPIER > ADJUST > CCD > W-PLT-Y (standard White Plate Y signal data)
- COPIER > ADJUST > CCD > W-PLT-Z (standard White Plate Z signal data)

2) Place a blank paper on the Copyboard Glass, and execute white level adjustment in the following service mode.
   - COPIER > FUNCTION > CCD > DF-WLVL1 (white level adjustment [copyboard scan])
   - COPIER > FUNCTION > CCD > DF-WLVL3 (white level adjustment B&W [copyboard scan])

   Next, place the same blank paper on the DF and execute the following service mode.
   - COPIER > FUNCTION > CCD > DF-WLVL2 (white level adjustment [DF scan])
   - COPIER > FUNCTION > CCD > DF-WLVL4 (white level adjustment B&W [DF scan])

   If it results in NG, execute it again after turning OFF and then ON the power.

Controller System

■ After Replacing the Main Controller PCB

Actions before Replacement

Perform backup of user data (such as Settings/Registration data) and service mode data to set/register them again after replacing the PCB. Write down the data which cannot be backed up.

1) Export user data using remote UI.
2) Insert the USB memory into the host machine, and execute COPIER > FUNCTION > SYSTEM > EXPORT to write the setting values of the service mode (excluding those related to the Reader/DADF) to the USB memory.
3) Write down each factory adjustment value written on the service label. (Enter them after replacement.)

Actions after Replacement

1) Error code "E248-0001" lights up when turning ON the power.
2) Execute COPIER > FUNCTION > CLEAR > R-CON.
3) Enter all items written on the service label.
4) Set the location group and paper size group.
   - COPIER > OPTION > BODY > LOCALE (setting the location group)
     [Setting value]
     1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia, 8: Oceania
   - COPIER > OPTION > BODY > SIZE-LC (setting the paper size group)
     [Setting value]
     1: AB configuration, 2: Inch configuration, 3: A configuration, 4: AB/Inch configuration
5) Clearing the Settings/Registration data
   Execute COPIER > FUNCTION > CLEAR > ALL.
   When executing this item, the following data is cleared according to the values of LOCALE and SIZE-LC set in step 4.
   - Settings/Registration data (the initial value according to the location is set.)
   - Service mode data (the initial value according to the location is set.)
   - Job ID
   - Each log data
   - Date data

   Note that the following data is not cleared.
   - Service counter
   - Adjustment value of Reader/DADF
6) Execute COPIER > FUNCTION > VIFFNC > STOR-DCN (the setting value of DC Controller is backed up.)
7) Turn OFF and then ON the power.
8) Operate according to the instruction on the screen since the initial installation mode is activated. (Setting the date/time, executing the auto gradation adjustment)
9) Turn OFF and then ON the main power.
10) Import the service mode data backed up before replacement.
    Insert the USB memory storage device to the slot of the machine, and execute COPIER > FUNCTION > SYSTEM > IMPORT.
11) Import user data using remote UI.
12) Uninstall the drivers on the user's PC.
    - Printer driver
    - Fax driverr
    - Scanner driver
    - Network Scan Utility (in case of network connection)

    * For the procedure, refer to "When Deleting the Installed Software" in the Startup Guide.
13) Install the drivers again which were uninstalled in step 12.
    * For the procedure, refer to the following items in the Startup Guide.
    In case of network connection: "Installing the Network Connection"
    In case of USB connection: "Installing the USB Connection"

6 Trouble Shooting

- Test Print
- Trouble Shooting Items
- Version Up

Test Print

Test Pages

Printing test pages helps determine if the printer is functioning.

CAUTION:

There are two types of test pages: engine-test page and formatter-test page. Print a test page to make sure the printer engine and the formatter are functioning.

Engine-test Page

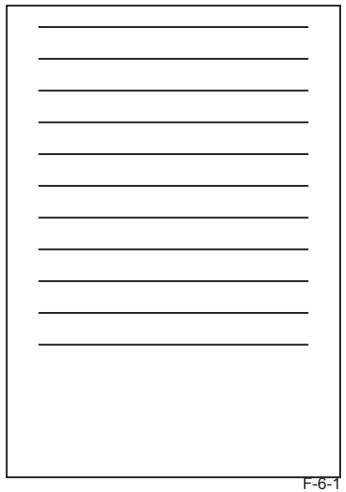
There are two types of engine-test pages simplex print and duplex print.

a. Simplex print

Open and close the cartridge door three times continuously within 2 seconds during the standby period. The engine-test page should have a test print pattern on one side of media as shown below.

b. Duplex print

Open and close the cartridge door five times continuously within 2 seconds during the standby period. The engine-test page should have a test print pattern on both sides of media as shown below.



F-6-1

Controller Test Print

This product provides the following 8 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. can be selected in TESTMODE > PRINT > PG-TYPE.

TYPE No.	pattern	image check item
0	Grid chart	Right angle accuracy Straight line accuracy
1	Halftone	Transfer failure, Black line, White line, Margin
2	Solid black	Transfer failure, White line, Margin
3	Solid white	Fogging
4	17 gradations	Gradation, Black line, White line
5	Thin horizontal line	Black line, White line, Parallelism
6	PASCAL correction chart	-
7	Chart 128	-

T-6-1

Trouble Shooting Items

Special Mode

This product has settings called Special Mode to solve print quality troubles. This function can be executed in the following user mode.

・ Menu> Adjust / Maintenance > Special mode

Special mode	Options	Details
Special Mode U	OFF ON	Due to the paper type (for example, heavy paper) or usage conditions (for example, dry conditions), toner smudges and spatters appear on the output. When this occurs, set this setting to <On>. • The print quality may become lower when this setting is enabled, depending on the paper type used (for example, thin paper) or usage conditions (humid conditions).
Special Mode V	OFF Mode 1 Mode 2	If damp paper is used to print, the ejected paper may curl up (the printed side may curl up). In this case, change this setting. the improvement effect is increased in the following order. <Off> -> <Mode 1> -> <Mode 2> (low) (high) • Paper curls and creases can be minimized by changing the paper type and usage conditions, without needing to change the setting. • The more effective the setting becomes, the slower the print speed.
Special Mode X (only for media printing and printing from PS/PCL printer driver) (D1370 only)	OFF Mode 1 Mode 2 Mode 3	Depending on the paper type or the printing environment, liner ink stains may appear on the printed document. If it happens, change the setting of this item. The improvement effect is increased in the following order. <Off> -> <Mode 1> -> <Mode 2> -> <Mode 3> (Effect: Weak) (Effect: Strong) • If you change the paper type or the printing environment, liner stains may not appear on the printed paper without any setting. • The stronger you make the improvement effect, the lower the print density is. It may cause to blur the outlines or enhance the roughness. • If you cannot solve the problem even setting this item, try to set the <Special Mode D> to <On>.
Special Mode Z (only for copying)	OFF Mode 1 Mode 2 Mode 3	Due to the paper type or usage conditions, vertical streaks appear on the output. When this occurs, change this setting. <Off> -> <Mode 1> -> <Mode 2> -> <Mode 3> (low) (high) • Streaks can be minimized by changing the paper type or usage conditions, without needing to change the setting. • The more effective the setting, the lower the density becomes. Additionally, the outline of text and images may be reproduced less clearly, and images may appear slightly jagged. • If you cannot solve the problem even setting this item, try to set the <Special Mode D> to <On>.
Special Mode B	OFF Mode 1 Mode 2 Mode 3	Vertical streaks appear on the output after the toner cartridge was replaced recently, or the machine has not printed anything for an extended period of time. When this occurs, change this setting. The effect becomes greater as the number goes up. <Off> -> <Mode 1> -> <Mode 2> -> <Mode 3> (low) (high) • If you change the paper type or the printing environment, liner stains may not appear on the printed paper without any setting. • If you turn <On> this item, the printing speed will be reduced.
Special Mode C (only for printing received fax and report printing)	OFF ON	Due to the paper type or usage conditions, vertical streaks appear on the output. When this occurs, set one of the following settings to <On>. Noise can also be minimized. • Streaks can be minimized by changing the paper type or usage conditions, without needing to change the setting. • If you turn <On> this item, the printing speed will be reduced.
Special Mode D	OFF ON	
Special Mode G	OFF ON	Depending on the paper type (rough-textured paper, especially 16K size), the output capacity may deteriorate. When this occurs, change the setting to <On>. • When <On> is set, the printing speed may decrease during continuous printing. • The paper transfer is carried out in the maximum speed, therefore the operation noise will be louder. • If you set <On> to any of <Special Mode V>, <Special Mode C>, or <Special Mode D>, this option setting will be invalid.

T-6-2

Trailing edge image soiling

[Cause]
The image is extended when the paper feed speed is increased due to the temperature rising in the machine.
This causes the trailing edge margin to become narrow, resulting in the occurrence of image soiling (transfer toner scattering).

NOTE :
Because paper slightly shrinks due to its passing through the Fixing Assembly once when printing the 1st side, this symptom is likely to occur on the 2nd side.

[Field Remedy]
Remedy (1): Set the Special Mode U to ON.
Effect: Image soiling is controlled by changing the settings of transfer high voltage current.

Remedy (2): Change the paper type mode from "Plain" to "Plain L".
Effect: Fixing control temperature is reduced => Temperature rising in the machine is controlled => Reduction of trailing edge margin is controlled.

When the effect is not enough with remedy (1), perform the remedies (1) + (2).

Repetitive Image Defects Ruler

Component	Distance between defects (mm)
Registration roller	About 43
Primary charging roller	About 38
Photosensitive drum	About 75
Developing roller	About 42
Transfer roller	About 39
Fixing film unit	About 57
Pressure roller	About 63

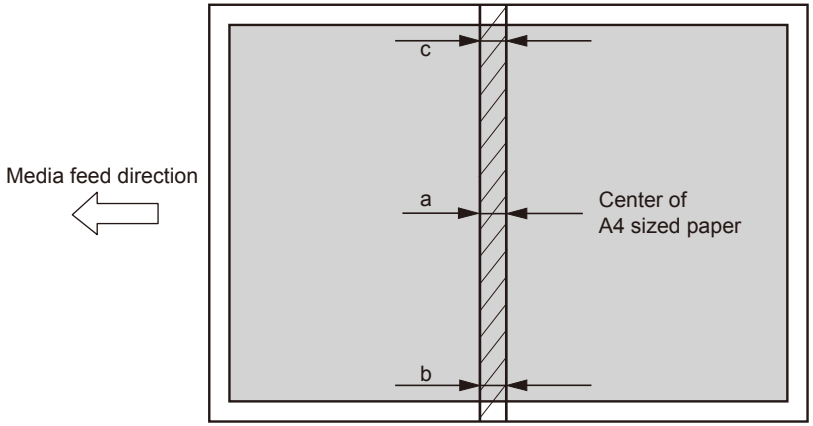
T-6-3

Nip-width Specifications

The nip-width of the fixing unit is not adjustable in this printer, however the improper nip-width may cause the poor fixing.
Nip width of the Fixing Assembly can be checked by the following procedure.

1) Select TESTMODE > PRINT > PG-TYPE, and set the value to "2". (Solid black is printed.)
2) Select TESTMODE > PRINT > START, and press the OK key.
3) Turn the printed side of the solid black printed paper down, and place it in the cassette of the machine.
4) Select TESTMODE > PRINT > PG-TYPE, and set the value to "3". (Blank image is printed.)
5) Select TESTMODE > PRINT > START, and press the OK key.
6) Open the Front Door immediately before the paper is delivered (when the paper is fed through the Fixing Assembly), and take out the printed paper after leaving it for 10 seconds or longer.

- Center (a): 6.1mm to 8.1 mm
- Edge (b) , (c): 6.1mm to 8.1 mm



F-6-2

Version Up

Overview of Upgrading

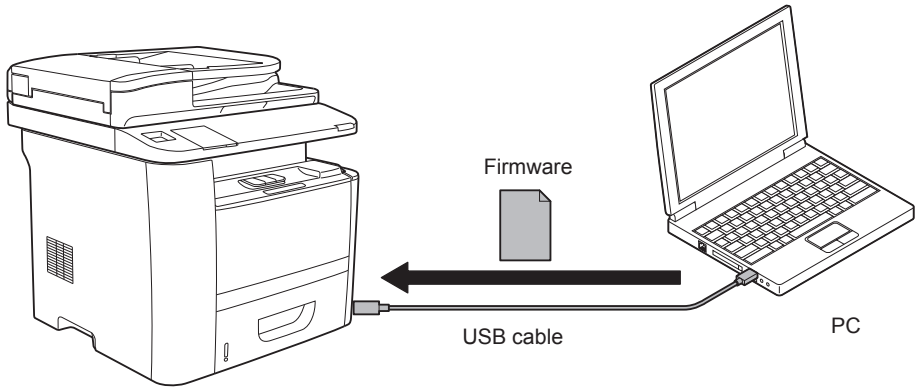
There are two kinds of following version up methods in this machine

- Change it for the PCB of a new version
- Upgrading is performed by downloading firmware from a personal computer (hereinafter called PC) to this machine using a user support tool (hereinafter called UST).

PCB	Upgrading method
Main controller PCB	• PCB replacing • UST
Engin controller PCB	

T-6-4

Firmware Configuration



F-6-3

Firmware	Function	Storage area
BOOTABLE (Main)	Overall control	Main controller PCB
LANGUAGE	Manage languages used in panel / Remote UI and font data	Main controller PCB
DCON (ECONT)	Control the printer unit.	Engine controller PCB

T-6-5

A number of firmware may be less than the above depending on the UST version.

Preparation

Necessary System Environment

- OS (Any of the following)
  - Microsoft Windows 2000 Server/Professional
  - Microsoft Windows XP Professional/Home Edition
  - Microsoft Windows Server 2003
  - Microsoft Windows Vista
  - Microsoft Windows 7
  - Microsoft Windows Server 2008
  - Mac OS X 10.3 or later

- PC
  - Compatible to the selected OS
  - Memory (RAM): 32MB or greater
  - Hard disk: 100MB or greater
  - Display: Resolution 640 x 480 pixel or greater, 256-color or greater
  - With USB port

- UST file* of this machine
  * : Download the file from a system CD or website. (It differs depending on the sales company.)

- USB cable (USB1.1/2.0)

Before Downloading the System Software

1) Start up the PC.
2) Connect the host machine and the PC with a USB cable.
3) Turn on the host machine, and place it in the standby status.
4) Place the machine in the off-line status by pressing the Off-line key, and select Firmware Upgrading in the user mode.
   MENU > SYSTEM SETTINGS > UPDATE FIRMWARE > YES
5) When pressing the OK key, the host machine automatically restarts up, and "WAITING" > "CONNECTED TO PC" is displayed in the display.

NOTE :

Once the machine enters the upgrading mode, normal operation cannot be performed until upgrading is completed. To discontinue upgrading, turn the power OFF/ON.

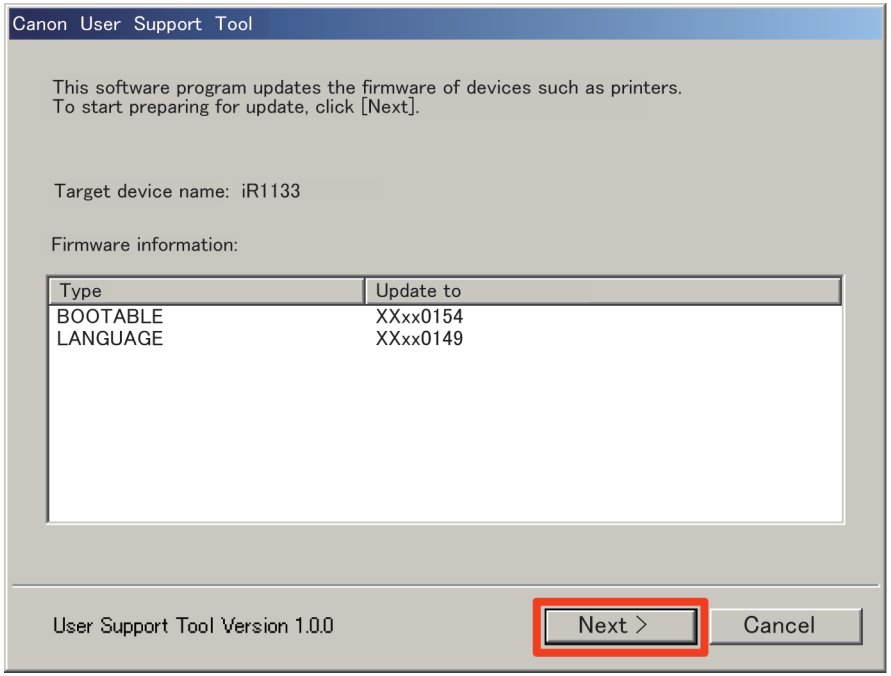
Downloading the System Software

Procedure of Downloading

1) Open UST (XXXX.exe).
XXXX: Firmware version

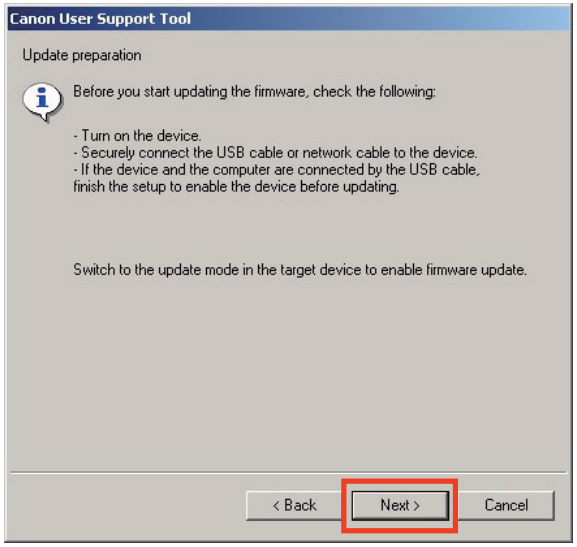
F-6-4

2) Write down the firmware version to upgrade, and click the "Next" button.



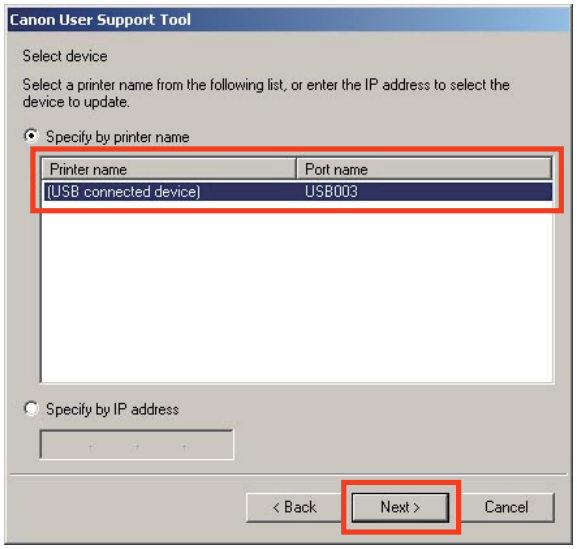
F-6-5

3) Click the "Next" button.



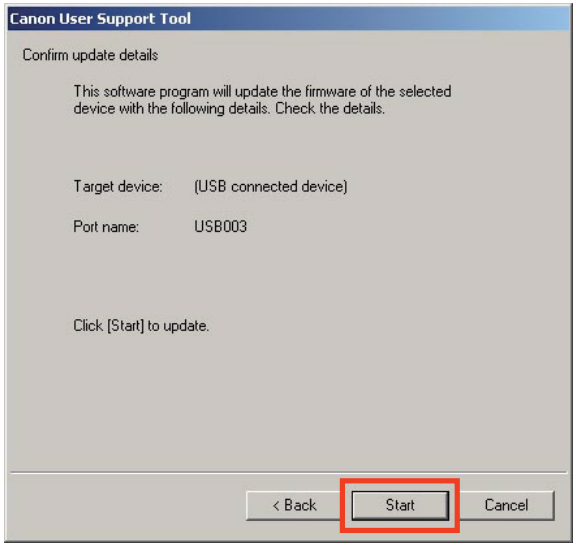
F-6-6

4) Select the USB connection device, and click the "Next" button.



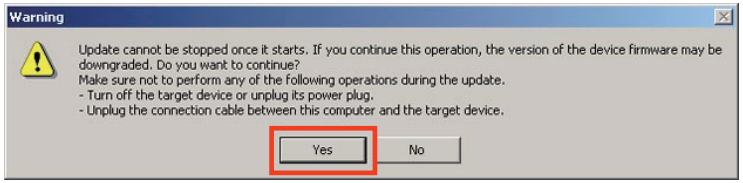
F-6-7

5) Click the "Start" button.



F-6-8

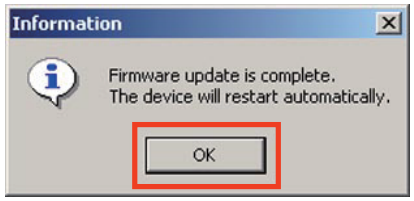
6) When the warning screen is displayed, click the "Yes" button.



F-6-9

F-6-10

7) When downloading is completed, click the "OK" button.
The host machine automatically restarts up.



F-6-11

8) Perform common status print via the user mode, and make sure that the firmware version matches the information written down in Procedure 2).
"COPIER > FUNCTION > MISC-P > SPEC
"

7 Error Codes

- Overview
- Alarm Code
- Error Code
- 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	Explanation
Alarm code	This code is displayed to notify the internal operation caused by the machine.
Error code	This code is displayed when an error occurs on the machine.
Jam code	This code is displayed when a jam occurs inside the machine.

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 (Canon Cassette Feeding Module-Z1)	2
Duplex	7

T-7-3

Alarm Code

Location of Trouble	Alarm Code	Cause of occurrence
85	0001	System error
	0002	System error
	0003	System error
	0004	Auto recovery due to replacement with a new Main Controller PCB, which is a service part.
	0005	Auto recovery due to replacement with a used Main Controller PCB.

T-7-4

Error Code

E Code	Detail Code	Item	Description
E000	0000	Title	Error in temperature rising of Fixing Assembly
		Detection description	Temperature of the Fixing Assembly did not reach a certain temperature within the specified period of time.
		Remedy	1. Check the connector between the Fixing Assembly and the DC Controller PCB. 2. Replace the Fixing Assembly. 3. Replace the Engine Controller PCB.
E001	0000	Title	Abnormal high temperature of Fixing Assembly
		Detection description	It was detected that the temperature of the Fixing Assembly was abnormally high.
		Remedy	1. Check the connector between the Fixing Assembly and the DC Controller PCB. 2. Replace the Fixing Assembly. 3. Replace the Engine Controller PCB.
E003	0000	Title	Abnormal low temperature of Fixing Assembly
		Detection description	It was detected that the temperature of the Fixing Assembly was abnormally low.
		Remedy	1. Check the connector between the Fixing Assembly and the DC Controller PCB. 2. Replace the Fixing Assembly. 3. Replace the DC Controller PCB.
E004	0000	Title	Error in fixing power supply drive circuit
		Detection description	Failed to detect the zero cross signal for the specified period of time or more.
		Remedy	1. Check the connection of connector between the Fixing Assembly and the Engine Controller PCB. 2. Replace the Fixing Assembly. 3. Replace the Engine Controller PCB.
E014	0000	Title	Error in startup of the Main Motor
		Detection description	Revolution of the Main Motor did not reach the specified value.
		Remedy	1. Check the connection of connector between the Main Motor and the Engine Controller PCB. 2. Replace the Main Motor. 3. Replace the Engine Controller PCB.
E100	0000	Title	Laser Scanner Assembly error
		Detection description	At the Laser Scanner Unit, BD cycle was not within the specified range.
		Remedy	1. Check the connection of connector between the Main Controller PCB and the Laser Scanner Unit. 2. Check the connection of connector between the Relay PCB and the Laser Scanner Unit. 3. Replace the Laser Scanner Unit.
E196	1000	Title	Main Controller PCB reading/writing error
		Detection description	Error in reading/writing of main program in the Main Controller PCB
		Remedy	1. Install the set of the controller firmware. 2. Replace the Main Controller PCB.
E196	2000	Title	Main Controller PCB reading/writing error
		Detection description	Error in reading/writing of setting values storage area in the Main Controller PCB
		Remedy	1. Install the set of the controller firmware. 2. Replace the Main Controller PCB.
E202	0001	Title	CIS Unit HP error (outward)
		Detection description	CIS Unit did not move to HP even it moved backward. Reader HP Sensor error, Reader Motor error, CIS Unit error
		Remedy	1. Replace the Reader HP Sensor. 2. Replace the Reader Motor. 3. Replace the CIS Unit. 4. Replace the Reader Unit.
E202	0002	Title	CIS Unit HP error (homeward)
		Detection description	CIS Unit did not move to HP even it moved forward. Reader HP Sensor error, Reader Motor error, CIS Unit error
		Remedy	1. Replace the Reader HP Sensor. 2. Replace the Reader Motor. 3. Replace the CIS Unit. 4. Replace the Reader Unit.
E246	0000	Title	System error
		Detection description	System error.
		Remedy	Contact to the sales companies.
E247	0000	Title	System error
		Detection description	System error.
		Remedy	Contact to the sales companies.
E248	0001	Title	Error in access to backup data for Reader (reading error at power-on)
		Detection description	The Reader-related adjustment values could not be read.
		Remedy	1. Clear the backup RAM of RCON. Execute COPIER>FUNCTION>CLEAR>RCON. 2. Enter all the values written on the service label in service mode again. 3. Turn OFF and then ON the main power.
E350	0000	Title	System error
		Detection description	System error.
		Remedy	Contact to the sales companies.

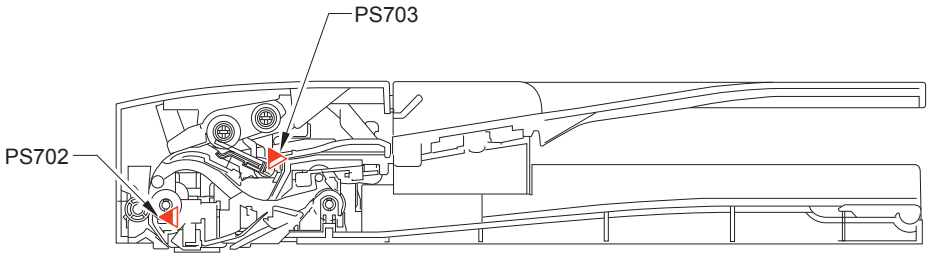
E Code	Detail Code	Item	Description
E351	0000	Title	System error
		Detection description	System error.
		Remedy	1. Install the set of the controller firmware. 2. Replace the Main Controller PCB.
E354	0000	Title	System error
		Detection description	System error.
		Remedy	Contact to the sales companies.
E355	0000	Title	System error
		Detection description	System error.
		Remedy	Contact to the sales companies.
E355	0004	Title	System error
		Detection description	System error.
		Remedy	Contact to the sales companies.
E355	0005	Title	System error
		Detection description	System error
		Remedy	Contact to the sales companies.
E719	0000	Title	Card Reader communication error (serial communication)
		Detection description	Communication with the Card Reader could not be started at startup.
		Remedy	1. Check the connection of the Card Reader-F1, and turn OFF and then ON the main power switch. 2. Remove the Card Reader-F1. NOTE: After performing the remedy work above, go through the following to clear the error: COPIER> FUNCTION> CLEAR> E719-CLR.
E733	0000	Title	Printer communication error
		Detection description	Communication error between the Engine Controller PCB and the Main Controller PCB occurred.
		Remedy	1. Check the connection of connector between the Engine Controller PCB and the Main Controller PCB. 2. Install the set of the controller firmware. 3. Replace the Main Controller PCB. 4. Replace the Engine Controller PCB.
E736	0000	Title	Communication error with CCU/modem
		Detection description	Communication error with CCU/modem. NCU PCB type error.
		Remedy	1. Install the set of the controller firmware. 2. Replace the NCU PCB. 3. Replace the Main Controller PCB.

E Code	Detail Code	Item	Description
E744	0001	Title	Language file version error
		Detection description	Language file version was not matched with the main program.
		Remedy	Install the set of the controller firmware.
E744	0002	Title	Language file size error
		Detection description	The size of the language file exceeded the upper limit.
		Remedy	Install the set of the controller firmware.
E744	1001	Title	Firmware version error
		Detection description	Version of the main program and the version of the start-up program was not matched.
		Remedy	Install the set of the controller firmware.
E744	4000	Title	Engine ID error
		Detection description	Invalid engine connection was detected.
		Remedy	1. Turn OFF and then ON the main power. 2. Check the Engine Controller PCB. 3. Install the Engine Controller PCB. 4. Install the set of the controller firmware. 5. Check the model code. (When the model code and the engine code are mismatched, E744-4000 occurs.)
E744	5000	Title	Error in the Control Panel PCB
		Detection description	Error in the Control Panel PCB (microcomputer).
		Remedy	1. Check the Control Panel PCB, and install the firmware (PANEL). 2. Install the set of the controller firmware. 3. Replace the Main Controller PCB.
E744	6000	Title	Communication error with the Wireless LAN PCB
		Detection description	Unable to communicate with the Wireless LAN.
		Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Wireless LAN. 3. Install the set of the controller firmware. 4. Replace the Main Controller PCB.
E744	7000	Title	Main Controller PCB error
		Detection description	An error in the microcomputer which retains fax job information of the Main Controller PCB.
		Remedy	1. Install the firmware of BKUP. 2. Install the set of the controller firmware. 3. Replace the Main Controller PCB.
E746	0000	Title	Main Controller PCB error
		Detection description	Main Controller communication error occurred (other than scan).
		Remedy	1. Install the set of the controller firmware. 2. Replace the Main Controller PCB.

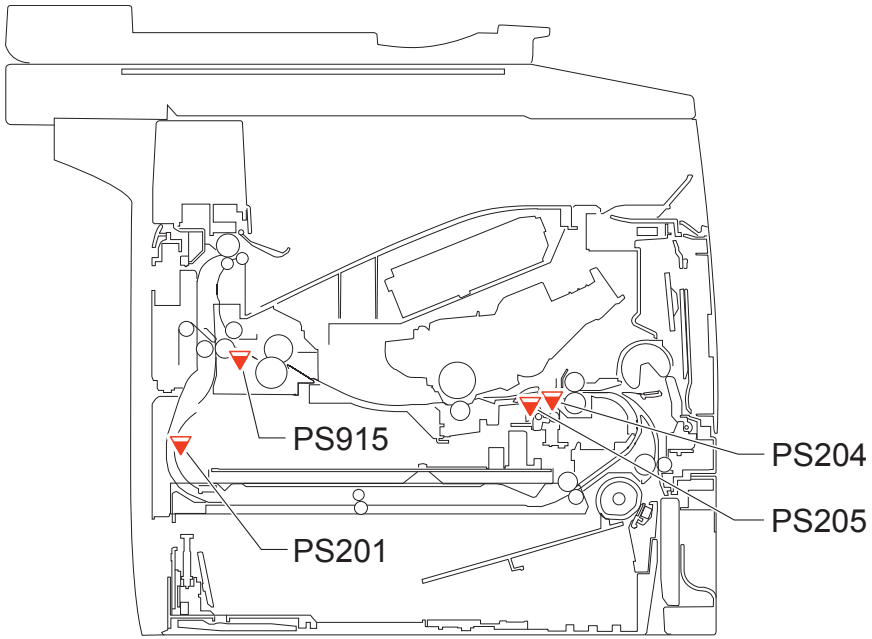
E Code	Detail Code	Item	Description
E766	xxxx*1	Title	Firmware error
		Detection description	An error due to the controller software occurred so that print could not be proceeded. *1 Task number related to Exception is shown in decimal
		Remedy	Due to firmware error, the possibility of solving the error by replacing the Main Controller PCB is low. Check the installed engine again.
E766	8000	Title	Digital registration error
		Detection description	Information at digital registration could not be obtained.
		Remedy	1. Install the Engine Controller firmware. 2. Install the set of the controller firmware. 3. Replace the Engine Controller PCB.
E766	9000	Title	Scanner power state error
		Detection description	An error was detected in power state of the Laser Scanner Unit.
		Remedy	1. Install the set of the controller firmware. 2. Replace the Laser Scanner Unit
E804	0004	Title	Controller Fan error
		Detection description	Since the startup of the Controller Fan, the Fan was locked for a specified consecutive period of time.
		Remedy	1. Check power supply to the Controller Fan. 2. Replace the Controller Fan.
E805	0000	Title	Main Fan error
		Detection description	The Main Fan was locked for a specified consecutive period of time.
		Remedy	1. Check the connection of the Main Fan. 2. Replace the Main Fan.
E808	0000	Title	Failure detection of Low Voltage Power Supply PCB
		Detection description	Printer detected failure of the Low Voltage Power Supply PCB.
		Remedy	Replace the Engine Controller PCB.

T-7-5

Jam Code



F-7-1



F-7-2

ACC ID	Jam Code	Type	Sensor Name/Detection Contents	Sensor ID
04	0001	Delay	Document End Sensor Delay	-
04	0002	Stationary	Document End Sensor	PS702
04	0004	Delay	Document End Sensor Delay (2nd side)	-
04	0005	Stationary	Document End Sensor (2nd side)	PS702
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	PS702/703
03	0104	Delay	Top Sensor Delay	-
03	010C		Fixing Delivery Sensor Delay	PS204/205
03	014C		Media Full Sensor Delay	PS204
03	0184		Duplex Feed Sensor Delay	-
03	0208	Stationary	Top Sensor	PS204
03	0210		Fixing Delivery Sensor	PS915
03	021C	Wrap	-	-
03	0248	Stationary	Top Sensor/Media full sensor/Fixing Delivery Sensor	PS204/205/915
03	0250		Top Sensor/Media full sensor/Fixing Delivery Sensor	PS204/205/915
03	025C	Wrap	Top Sensor/Media Full Sensor	PS204/205
03	0260	Delay	Duplex Feed Sensor Delay	-
03	0261	Stationary	Duplex Feed Sensor	P201
03	02A0	Delay	Duplex Feed Sensor Delay	-
03	02A1	Stationary	Duplex Feed Sensor	P201
03	02E0	Delay	Duplex Feed Sensor Delay	-
03	02E1	Stationalr	Duplex Feed Sensor	P201
03	1014	Power ON	Top Sensor/Media Full Sensor	PS204/205
03	1054		Top Sensor/Media full sensor/Fixing Delivery Sensor	PS204/205/915
03	1094		Top Sensor/Media full sensor/Fixing Delivery Sensor	PS204/205/915
03	10D4		Duplex Feed Sensor	PS201
03	1118	Door Open	Duaring a Pickup	-
03	1158		Top Sensor/Media full sensor/Fixing Delivery Sensor	PS204/205/915
03	1198		Top Sensor/Media full sensor/Fixing Delivery Sensor	PS204/205/915
03	11D8		Duplex Feed Sensor	PS201

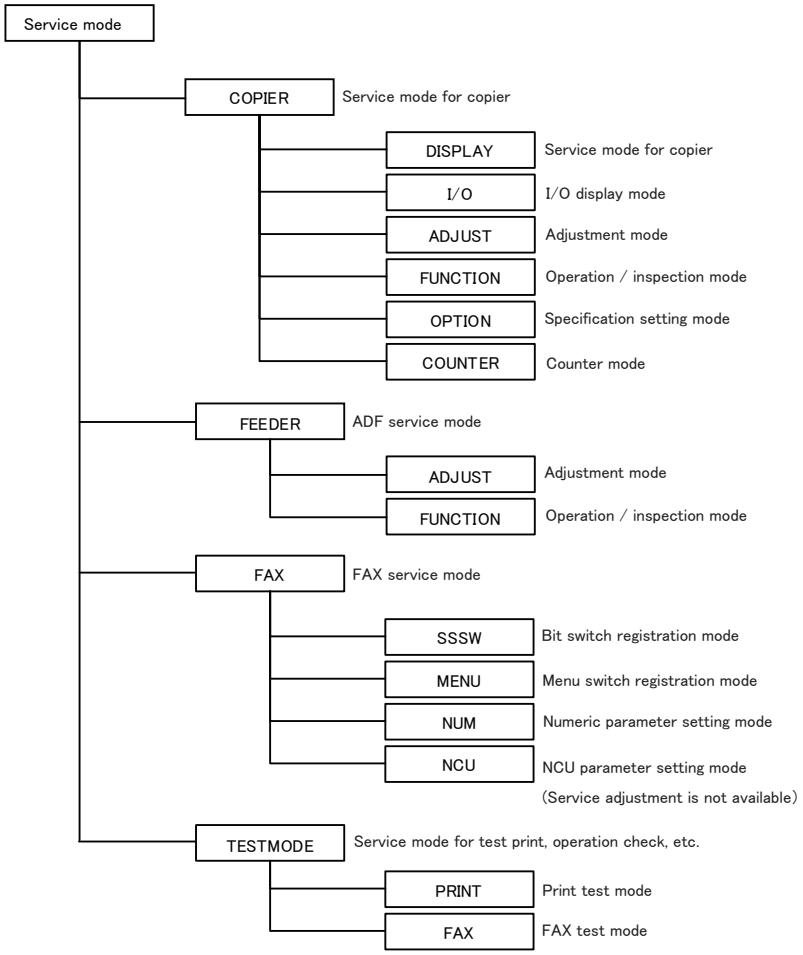
T-7-6

8 Service Mode

- Overview
- COPIER
- FEEDER
- FAX
- TESTMODE

Overview

Service Mode Menu



F-8-1

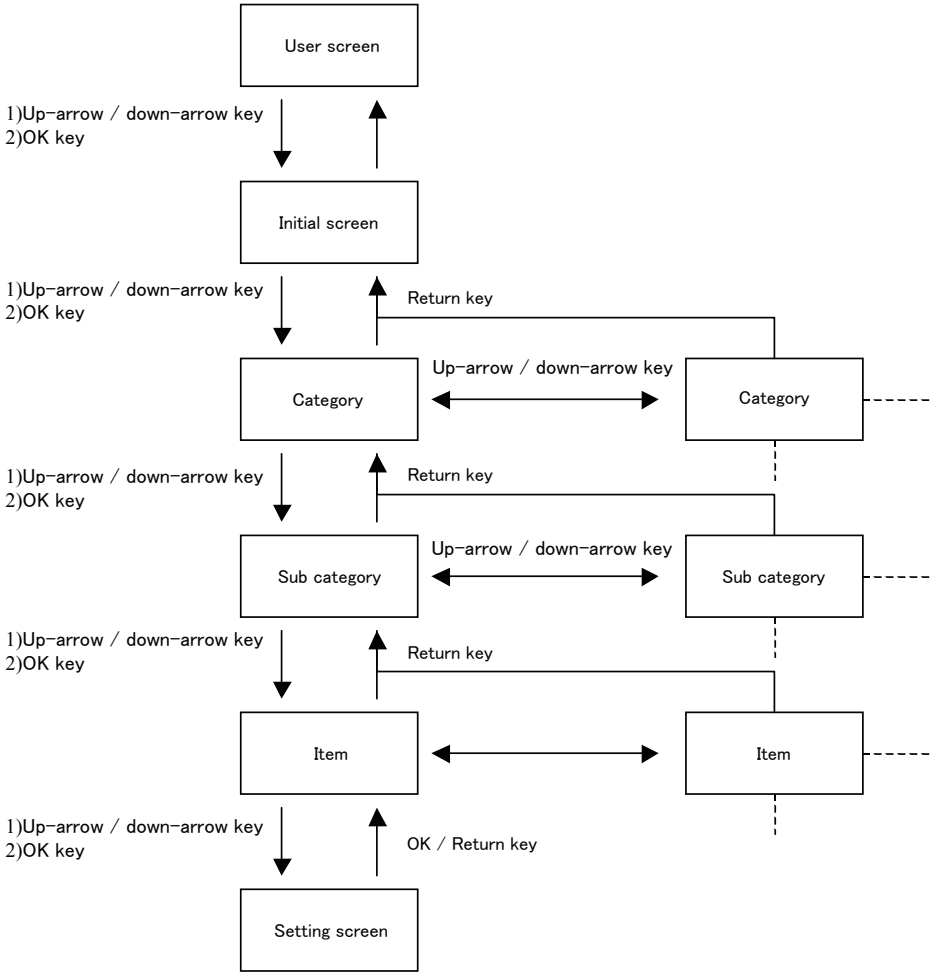
Backing up Service Mode

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.

Screen flow of Service Mode

■ Service mode structure

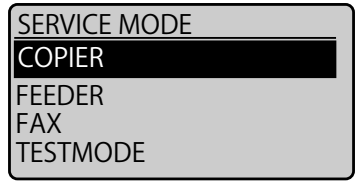


F-8-2

■ Screen flow of Service mode

- Initial / Category / Sub category screen

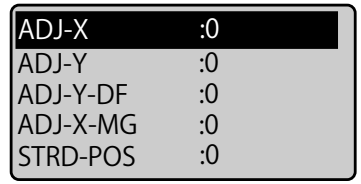
Select the item	: Up-arrow / down-arrow key
Go to Sub category screen	: OK key
Go to Initial screen	: Return key



F-8-3

- Item selection screen

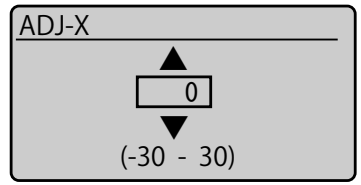
Select the item	: Up-arrow / down-arrow key
Go to Setting screen	: OK key
Go to Sub category screen	: Return key



F-8-4

- 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-8-5

- 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 summating 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 2) + 2 (Bit 6).

COPIER

DISPLAY

■ VERSION

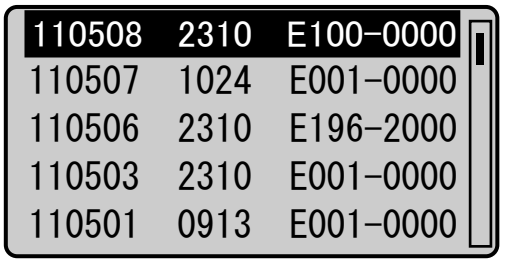
COPIER > DISPLAY > VERSION		
MAIN		Display of MAIN (main program) version
	Details	To display the firmware version of Main Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.00 to 99.99
	Default value	0
BOOT		Boot ROM version
	Details	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
BKUP		BKUP version
	Details	To display the version of BKUP.
	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> BKUP-UP

T-8-2

■ ERR

Error code display screen

Up to 10 E codes and detailed codes for system errors can be shown.



F-8-6

■ JAM

Jam code display screen

Up to 10 Jam codes and detailed codes for system errors can be shown.

F-8-7

■ 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

I/O

■ 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

ADJUST

■ 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 Main 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	• When replacing the Reader Unit • When replacing the CIS 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	-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	• When replacing the Reader Unit • When replacing the CIS 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	-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 Main 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	• When replacing the Reader Unit • When replacing the CIS 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	-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 Main 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 Reader Unit • When replacing the CIS 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	-200 to 200
	Unit	0.01 %
	Default value	0

COPIER > ADJUST > ADJ-XY		
STRD-POS		Adjustment of reading position at ADF stream reading
	Details	To adjust the reading position at ADF stream reading. When replacing the Main Controller PCB/clearing the RAM data, enter the value of service label.
	Use case	When replacing the Main 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

T-8-5

■ 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	• 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	• 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	• 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	• 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	• 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	• 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	• 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

T-8-6

■ PASCAL

COPIER > ADJUST > PASCAL	
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	• 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

T-8-7

■ FEED-ADJ

COPIER > ADJUST > FEED-ADJ		
ADJ-C1		Cassette1 write start pstn in horz scan
	Details	To adjust the image write start position in the horizontal scanning direction when picking up paper from the Cassette 1 (standard Pickup Cassette). As the value is incremented by 1, the margin on the left edge of paper is increased by 0.25 mm. +: Left margin becomes larger (An image moves to the right.) -: Left margin becomes smaller (An image moves to the left.) When replacing the Main Controller PCB, enter the value of service label.
	Use case	When replacing the Main Controller PCB
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-9 to 9 (-2.22 to +2.22 mm)
	Unit	Approx. 0.25 mm
	Default value	-2
ADJ-C2		Cassette2 write start pstn in horz scan
	Details	To adjust the image write start position in the horizontal scanning direction when picking up paper from the Cassette 2 (option Pickup Cassette). As the value is incremented by 1, the margin on the left edge of paper is increased by 0.25 mm. +: Left margin becomes larger (An image moves to the right.) -: Left margin becomes smaller (An image moves to the left.) When replacing the Main Controller PCB, enter the value of service label.
	Use case	When replacing the Main Controller PCB
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-9 to 9 (-2.22 to +2.22 mm)
	Unit	Approx. 0.25 mm
	Default value	-4

COPIER > ADJUST > FEED-ADJ		
ADJ-MF		Write start position in the horizontal scanning direction at pickup from the Multi-purpose Tray
	Details	To adjust the image write start position in the horizontal scanning direction when picking up paper from the Multi-purpose Tray. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.25 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the Main Controller PCB, enter the value of service label.
	Use case	When replacing the Main Controller PCB
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-9 to 9 (-2.22 to +2.22 mm)
	Unit	Approx. 0.25 mm
	Default value	-2
ADJ-REFE		Write start position in the horizontal scanning direction at 2-sided pickup
	Details	To adjust the image write start position in the horizontal scanning direction at 2-sided pickup. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.25 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the Main Controller PCB, enter the value of service label.
	Use case	When replacing the Main Controller PCB
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-9 to 9 (-2.22 to +2.22 mm)
	Unit	Approx. 0.25 mm
	Default value	0

T-8-8

FUNCTION

■ CCD

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	• When replacing the Upper Cover Unit • When replacing the CIS Unit • When replacing the Main Controller PCB
	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	• When replacing the Upper Cover Unit • When replacing the CIS Unit • When replacing the Main Controller PCB
	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	• When replacing the Upper Cover Unit • When replacing the CIS Unit • When replacing the Main Controller PCB
	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
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	• When replacing the Upper Cover Unit • When replacing the CIS Unit • When replacing the Main Controller PCB
	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	• When replacing the Upper Cover Unit • When replacing the CIS Unit • When replacing the Main Controller PCB
	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)
	Use case	• When replacing the Upper Cover Unit • When replacing the CIS Unit • When replacing the Main Controller PCB
	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

T-8-9

■ 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.
CARD		Clearing Card Reader connection information
	Details	To clear the information on connection of the Copy Card Reader-F1. The data related to the card ID (department) is cleared, and the ID and password of the system administrator are initialized.
	Use case	When removing the Card Reader-F1
	Adj/set/operate method	When removing the Card Reader-F1 1) Disable the department ID management. 2) Select the item, and then press OK key. 3) Execute E719-CLR. 4) Turn OFF the main power switch. 5) Remove the Card Reader-F1. 6) Turn ON the main power switch.
	Caution	• Execute this item after disabling the department ID management via LUI or RUI. • Then, execute E719-CLR (clearing of E719).
	Related service mode	COPIER> FUNCTION> CLEAR> E719-CLR
E719-CLR		Clearing E719 error
	Details	To clear E719 error (communication error with the Card Reader).
	Use case	When removing the Card Reader-F1
	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> FUNCTION> CLEAR> CARD

COPIER > FUNCTION > CLEAR		
ALL		Clearing setting information
	Details	• 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. • Service counter • Factory adjustment values of the Reader/ADF
	Use case	When replacing the Main Controller PCB
	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
ERDS-DAT		Initialization of Embedded-RDS setting value
	Details	To initialize the Embedded-RDS setting values. ON/OFF of Embedded-RDS, UGW (remote monitoring service system) port number, and communication error log set in service mode are initialized.
	Use case	When upgrading the Bootable in the Embedded-RDS environment
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The method of using the SRAM in Embedded-RDS differs depending on the Bootable version. Therefore, unless initialization is executed at the time of version upgrade, data inconsistency occurs.
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-LOG
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol UGW (Universal Gate Way): Remote monitoring service system

T-8-10

■ 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
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-8-11

■ MISC-P

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.
ERDS-LOG		Output of Embedded-RDS log
	Details	To execute report output of the log relating to Embedded-RDS. The date, time, code, and details (up to 130 characters) of each error that occurred are output.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> FUNCTION> INSTALL> COM-LOG
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol UGW (Universal Gate Way): Remote monitoring service system

T-8-12

■ 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
BKUP-UP		Download from USB memory (BKUP)
	Details	To perform downloading when BKUP 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> PANEL-UP
LOGWRITE		Writing sublog to USB memory
	Details	To write sublog that includes the following information to the USB memory. • 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.

COPIER > FUNCTION > SYSTEM		
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.
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-8-13

■ 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
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

T-8-14

■ 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
CARD-NUM	Card first number setting
Details	To set the card first number to be used for Copy Card Reader-F1.
Use case	At installation of the Card Reader-F1
Adj/set/operate method	Enter the value, and then press OK key.
Display/adj/set range	1 to 2701
Default value	1
Related service mode	COPIER> FUNCTION> INSTALL> CARD
CARD	Setting of Card Reader management information
Details	To set the following management information at installation of the Card Reader-F1. • Register numbers of 300 cards from the number set in CARD-NUM to the department ID. • Initialize ID and password of the system administrator.
Use case	At installation of the Card Reader-F1
Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
Default value	0
Related service mode	COPIER> FUNCTION> INSTALL> CARD-NUM

COPIER > FUNCTION > INSTALL	
E-RDS	ON/OFF of Embedded-RDS
Details	To set ON/OFF of Embedded-RDS function.
Use case	When using Embedded-RDS
Adj/set/operate method	1) Enter the value, and then press OK key. 2) Turn OFF/ON the main power switch.
Caution	Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0
Related service mode	COPIER> FUNCTION> INSTALL> RGW-PORT, COM-TEST, COM-RSLT, COM-LOG
Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol UGW (Universal Gate Way): Remote monitoring service system
RGW-PORT	Setting of UGW port number when using E-RDS
Details	To set the port number of UGW to be used for Embedded-RDS.
Use case	When using Embedded-RDS
Adj/set/operate method	1) Enter the value, and then press OK key. 2) Turn OFF/ON the main power switch.
Caution	Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.
Display/adj/set range	1 to 65535
Default value	443
Related service mode	COPIER> FUNCTION> INSTALL> ERDS, COM-TEST, COM-RSLT, COM-LOG
Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol UGW (Universal Gate Way): Remote monitoring service system
COM-TEST	Execution of Embedded-RDS communication test
Details	To execute Embedded-RDS communication test. If the connection fails, the information is added to the communication error log.
Use case	When using Embedded-RDS
Adj/set/operate method	Select the item, and then press OK key.
Caution	Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.
Related service mode	COPIER> FUNCTION> INSTALL> ERDS, RGW-PORT, COM-RSLT, COM-LOG
Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol UGW (Universal Gate Way): Remote monitoring service system

COPIER > FUNCTION > INSTALL		
COM-RSLT		Embedded-RDS communication test result
	Details	To display the Embedded-RDS communication test result.
	Use case	When using Embedded-RDS
	Adj/set/operate method	N/A (Display only)
	Caution	Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.
	Display/adj/set range	When not in execution: Unknown, When connection is completed: OK, When connection is failed: NG
	Default value	Unknown
	Related service mode	COPIER> FUNCTION> INSTALL> ERDS, RGW-PORT, COM-TEST, COM-LOG
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol UGW (Universal Gate Way): Remote monitoring service system
COM-LOG		Embedded-RDS communication error log
	Details	To display the Embedded-RDS communication error log. The dates, times, and error codes of the latest 5 errors that occurred are displayed. As for the error detail information, the report can be output by executing COPIER> FUNCTION> MISC-P> ERDS-LOG.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.
	Display/adj/set range	No.: 2 digits, Date: 8 digits, Time: 4 digits, Error code: 8 digits
	Related service mode	COPIER> FUNCTION> INSTALL> ERDS, RGW-PORT, COM-TEST, COM-RSLT COPIER> FUNCTION> MISC-P> ERDS-LOG
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol UGW (Universal Gate Way): Remote monitoring service system

T-8-15

OPTION

■ BODY

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	• 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	• 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		
MIBCOUNT		Setting of MIB collection charge counter
	Details	To set the range of charge counter information that can obtain MIB (Management Information Base).
	Use case	When preventing the Charge Counter MIB from being used by a third party
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: All charge counters are obtained, 1: Only the displayed counter* is obtained, 2: All charge counters are not obtained * : Counter specified by the following: COPIER > OPTION > USER > COUNTER 1 to 6
	Default value	0
	Related service mode	COPIER> OPTION> USER> COUNTER1 to 6
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-8-16

■ USER

COPIER > OPTION > USER	
COUNTER1	Display of counter 1 type
Details	To display counter type for counter 1 on the Counter Check screen.
Use case	Upon user/dealer's request
Adj/set/operate method	N/A (Display only)
Caution	No change is available.
Display/adj/set range	0 to 999 0: No registration
Default value	The value differs according to the location.
COUNTER2	Display of counter 2 type
Details	To display counter type for counter 2 on the Counter Check screen.
Use case	Upon user/dealer's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 999 0: No registration
Default value	The value differs according to the location.

COPIER > OPTION > USER	
COUNTER3	Display of counter 3 type
Details	To display counter type for counter 3 on the Counter Check screen.
Use case	Upon user/dealer's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 999 0: No registration
Default value	The value differs according to the location.
COUNTER4	Display of counter 4 type
Details	To display counter type for counter 4 on the Counter Check screen.
Use case	Upon user/dealer's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 999 0: No registration
Default value	0
COUNTER5	Display of counter 5 type
Details	To display counter type for counter 5 on the Counter Check screen.
Use case	Upon user/dealer's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 999 0: No registration
Default value	0
COUNTER6	Display of counter 6 type
Details	To display counter type for counter 6 on the Counter Check screen.
Use case	Upon user/dealer's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 999 0: No registration
Default value	0
CNT-SW	Setting of charge counter display method
Details	To set display method of the charge counter on the Counter Check screen. Set 1 to 3 to select a new method.
Use case	Upon user's request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 3 0: Conventional method (type 1), 1: New method (type 2), 2: New method (type 3), 3: New method (type 4)
Default value	0

COPIER > OPTION > USER		
CONTROL		Setting of PDL job charge method by CC-VI
	Details	To set charge method for PDL job by the control card interface “CC-VI” When outputting at insertion of the control card, set 1 (not counted)/2 (counted)
	Use case	Upon user’s request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 2 0: Output is available without control card. Not counted. 1: Output is available at insertion of the card. Not counted. 2: Output is available at insertion of the card. Counted.
	Default value	0
CTCHKDSP		ON/OFF of charge counter print
	Details	To set whether to print the charge counter on the Counter Check screen in the System Manager Data List. When 1 is set, the charge counter is printed.
	Use case	Upon user’s request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
TNRB-SW		ON/OFF of toner replacement counter display
	Details	To set whether to display the toner replacement counter on the Counter Check screen. When 1 is set, the user can check the toner replacement counter.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
SCALL-SW		ON/OFF of Service Call button display
	Details	To set whether to display or hide the Service Call button on the Touch Panel. When 1 is set, the button is displayed.
	Use case	When the sales company supports service initiated by the Service Call button
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

COPIER > OPTION > USER		
SCALLCMP		Setting of Service Call complete notice
	Details	To set whether to notify the completion of Service Call. With this setting enabled, a notification of repair completion is sent to UGW to clear the Service Call status that is retained internally.
	Use case	When service technician uses this mode after completing repair
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	After executing “1: Notified”, the setting value becomes 0 immediately.
	Display/adj/set range	0 to 1 0: Not notified, 1: Notified
	Default value	0
PS-MODE		Compatible mode setting at PS usage
	Details	To set for compatibility with existing machine regarding image process or print specification with PS print. Depending on a setting value, it means that multiple settings are combined. (Example: 44 = 4 + 8 + 32)
	Use case	At replacement
	Adj/set/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 63 1: not use 2: not use 4: PS duplex feed 8: Change default value of Stroke Adjust 16: Change default value of Extra long paper 32: Change horizontal line printing precision of small text
	Default value	0

T-8-17

■ ACC

COPIER > OPTION > ACC		
COIN		Setting of insertion message
	Details	To set the control card or coin that the user is urged to insert on the Control Panel. “You must insert a control card.” is displayed when 0 is set, and “Please insert coins.” is displayed when 1 is set.
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Control card, 1: Coin
	Default value	0
CC-SPSW		Setting of Control Interface Kit-C1
	Details	To set whether to support the Control Interface Kit-C1.
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Parallel use with Card Reader-F1 is not available.
	Display/adj/set range	0 to 1 0: Not supported, 1: Supported
	Default value	0
WLAN		Presence/absence of wireless LAN option
	Details	To set whether the wireless LAN option is installed or not. Set 1 when the wireless LAN option is installed.
	Adj/set/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: Absent, 1: Present
	Default value	0
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)
	Caution	In Russia and Ukraine, do not change the setting value because setting it to 1 conflicts with the regulation.

T-8-18

■ LCNS-TR

COPIER > OPTION > LCNS-TR		
ST-BRDIM		Disabling of license transfer of BarDIMM function
	Details	To disable license transfer of barcode reading (BarDIMM) function. The function is turned OFF when changing the setting value from 1 to 0. The license key of this machine is disabled, but the transfer license key for transferring the license to another device is displayed under TR-BRDIM. Once 0 is set, the function is not turned ON even if returning the setting value to 1. The license key needs to be reissued from LMS to use the function again.
	Use case	• When transferring the license to another device • When checking the installation status
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The function is turned OFF after changing the setting value from 1 to 0 and turning OFF/ON the power.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	LMS (License Management Server): Server which issues licenses
TR-BRDIM		Transfer license key display of BarDIMM function
	Details	To display the transfer license key issued when disabling the transfer of BarDIMM function. The transfer license key is used to transfer the license from this machine to another device to use the function in the device.
	Use case	When replacing the device
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	24 digits
	Default value	0

COPIER > OPTION > LCNS-TR		
ST-PCL		Disabling of license transfer of PCL function
	Details	To disable license transfer of PCL function. The function is turned OFF when changing the setting value from 1 to 0. The license key of this machine is disabled, but the transfer license key for transferring the license to another device is displayed under TR-BRDIM. Once 0 is set, the function is not turned ON even if returning the setting value to 1. The license key needs to be reissued from LMS to use the function again.
	Use case	• When transferring the license to another device • When checking the installation status
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The function is turned OFF after changing the setting value from 1 to 0 and turning OFF/ON the power.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	LMS (License Management Server): Server which issues licenses
TR-PCL		Transfer license key display of PCL function
	Details	To display the transfer license key issued when disabling the transfer of PCL function. The transfer license key is used to transfer the license from this machine to another device to use the function in the device.
	Use case	When replacing the device
	Adj/set/operate method	1) Select ST-PCL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PCL.
	Display/adj/set range	24 digits
	Default value	0

COPIER > OPTION > LCNS-TR		
ST-PS		Disabling of license transfer of PS function
	Details	To disable license transfer of PS function. The function is turned OFF when changing the setting value from 1 to 0. The license key of this machine is disabled, but the transfer license key for transferring the license to another device is displayed under TR-PS. Once 0 is set, the function is not turned ON even if returning the setting value to 1. License key needs to be reissued from LMS to use the function again.
	Use case	• When transferring the license to another device • When checking the installation status
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The function is turned OFF after changing the setting value from 1 to 0 and turning OFF/ON the power.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	LMS (License Management Server): Server which issues licenses
TR-PS		Transfer license key display of PS function
	Details	To display the transfer license key issued when disabling the transfer of PS function. The transfer license key is used to transfer the license from this machine to another device to use the function in the device.
	Use case	When replacing the device
	Adj/set/operate method	1) Select ST-PS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PS.
	Display/adj/set range	24 digits
	Default value	0

T-8-19

■ LCNS-OF

COPIER > OPTION > LCNS-OF		
ST-BRDIM		Disabling of license no-transfer of BarDIMM function
	Details	To disable license no-transfer of barcode reading (BarDIMM) function. The function is turned OFF when changing the setting value from 1 to 0, but the transfer license key is not issued. (The license is not transferred to other devices.) When 1 is set, the function is turned ON since the license key in use is enabled.
	Use case	• When the function is turned OFF • When checking the installation status
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The function is turned OFF after changing the setting value from 1 to 0 and turning OFF/ON the power. The function is not turned ON even if changing the setting from 0 to 1. (Reregistration of the license key is required.)
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
ST-PCL		Disabling of license no-transfer of PCL function
	Details	To disable license no-transfer of PCL function. The function is turned OFF when changing the setting value from 1 to 0, but the transfer license key is not issued. (The license is not transferred to other devices.) When 1 is set, the function is turned ON since the license key in use is enabled.
	Use case	• When the function is turned OFF • When checking the installation status
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The function is turned OFF after changing the setting value from 1 to 0 and turning OFF/ON the power. The function is not turned ON even if changing the setting from 0 to 1. (Reregistration of the license key is required.)
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

COPIER > OPTION > LCNS-OF		
ST-PS		Disabling of license no-transfer of PS function
	Details	To disable license no-transfer of PS function. The function is turned OFF when changing the setting value from 1 to 0, but the transfer license key is not issued. (The license is not transferred to other devices.) When 1 is set, the function is turned ON since the license key in use is enabled.
	Use case	• When the function is turned OFF • When checking the installation status
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The function is turned OFF after changing the setting value from 1 to 0 and turning OFF/ON the power. The function is not turned ON even if changing the setting from 0 to 1. (Reregistration of the license key is required.)
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

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	• 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	• 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
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	• 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	• 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

FUNCTION

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 CCRTN OFF
	Bit 5	-
	Bit 6	-
	Bit 7	Connect the terminal as F network type 2
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	-
	Bit 7	Output 1080Hz before CED
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
	Bit 7	Do not send CED for manual incoming 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 Widthe 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	-
	Bit 7	-
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	-
	Bit 7	-
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 7 0: Grid Bk, 1: Halftone, 2: Solid black, 3: Solid white, 4: 17 gradations, 5: Thin horizontal line, 6: PASCAL correction chart, 7: Chart 128
	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 4 0: TBIC, 1: Resolution dithering, 2: Gradation dithering, 3: Color tone dithering, 4: High-resolution dithering
	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
DENS		Adjustment of test print engine F value
	Details	To adjust the engine F value for the test print. As the value is larger, the image gets darker.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-4 to 4
	Default value	0
	Supplement/memo	F value: The value used as an index for indicating lens brightness
MABK		Setting of toner thinning process at test print
	Details	To execute the thinning process to alleviate the toner scattering at test print. The thinning amount of toner increases in accordance with Mode 1 to Mode 3.
	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 3 0: OFF, 1: Mode1, 2: Mode2, 3: Mode3
	Default value	0
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
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
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

TESTMODE > FAX > MODEM		
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 • 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

■ 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

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

9 Installation Procedure

- How to Check this Installation Procedure
- Host Machine
- Wireless LAN Board-C1
- Control Interface Kit-C1
- MiCARD Attachment Kit-A1
- Copy Card Reader-F1

How to Check this Installation Procedure

Description on the parts included in the package

The parts with a diagonal line in the contents list will not be used.

When Using the Parts Included in the Package

A symbol is described on the illustration in the case of using the parts included in the package of this product.

Packaged Item

Symbols in the Illustration

F-9-1

The frequently-performed operations are described with symbols in this procedure.

Screw

Tighten

Remove

Connector

Connect

Disconnect

Harness

Secure

Free

Claw

Insert

Remove

Push

Plug in

Turn on

Checking instruction

Check

Visual Check

Sound Check

F-9-2

Host Machine

Selecting the Site of Installation

The followings are the condition for installation environment.
It is better to see the planned location of installation before carrying the host machine in the user site.

1) Power Supply Requirements:220 V to 240 V, 50/60 Hz
2) Do not connect the machine to an uninterruptible power source.
3) Use an AC power outlet exclusively for the machine. Do not use the other sockets of the AC power outlet.
4) Do not plug the power plug into the auxiliary outlet on a computer.
5) Do not connect the machine and any of the following devices to the same AC outlet.

- Copy machine
- Air conditioner
- Shredder
- Equipment that consumes a large amount of electricity
- Equipment that generates electrical noise

6) When unplugging the power cord, keep interval of 5 seconds or more before plugging it again.
7) The maximum power consumption of the machine is 1,200 W or less.
8) Electrical noise or a dramatic drop in mains voltage may cause the machine or computer to operate incorrectly or lose data.
9) Temperature and Humidity Conditions

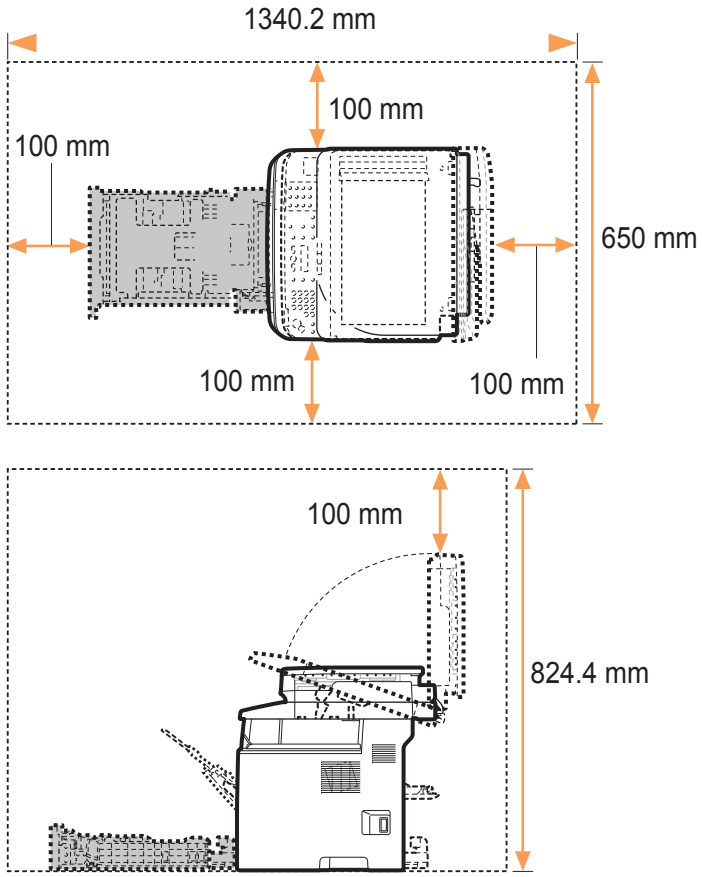
- Temperature range: 10 to 30°deg C
- Humidity range: 20 to 80 % RH (no condensation)

10) Installation Requirements

- A location with sufficient space
- A location with good ventilation
- A location with a flat, even surface
- A location able to fully support the weight of the machine

11) Do not install the machine at the following locations, as this may result in product damage.

- A location subject to dramatic changes in temperature or humidity
- A location subject to condensation
- A poorly ventilated location (If you perform high-volume printing for an extended period of time using the machine placed in a poorly ventilated room, you may be exposed to ozone and odors generated by the machine, as well as chemical particles released during printing. It is highly important that proper ventilation be assured at the installation location.)
- A location near equipment that generates magnetic or electromagnetic waves
- A laboratory or location where chemical reactions occur
- A location exposed to salt air, corrosive gases, or toxic gases
- A location where the floor is covered with a carpet or floor mat, to cause the machine to slide easily over or sink into the carpet or mat from its weight



F-9-3

Points to Note before Using Wireless LAN

- This product is for connecting to the Access Point which is less than 500 mm away and from indoor. Please move the product to a proper distance.
- Check that there is no shielding object. Communication through a wall or across a floor generally makes the communication status worse. Please adjust its installation position.
- When a device (such as a microwave oven) that generates a radio wave of similar frequency to the frequency used by the Wireless LAN is placed nearby, this may cause a radio wave interference. Please install as far away as possible from a radio wave interference source.

Points to Note before Installation

When installing the machine, please note the following points.

- When moving and installing this equipment from a cold location to a warm location, condensation may form and cause image failures, so leave the machine packed for 2 hours or more and let it warm up before installation. (Condensation: A phenomenon where a metal object is brought in from a cold location to a warm location, water vapor around this object is quickly chilled and form on its metal surface as water drops.)

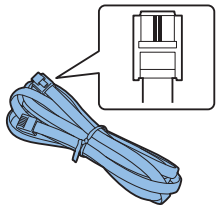
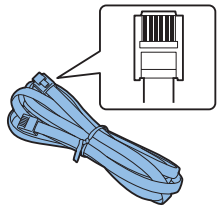
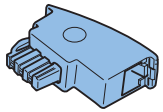
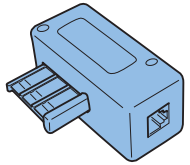
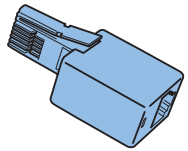
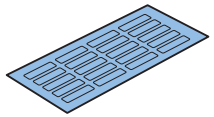
Table of Options Combination

NOTE:
Refer to the table below to install the options described in the table. Be sure to check the combination before the installation work.

	Copy Card Reader-F1	Control Interface Kit-C1	MiCARD Attachment Kit-A1	IC-Card Reader(a sales company's option)
Copy Card Reader-F1	-	No	No	No
Control Interface Kit-C1	No	-	Yes	Yes
MiCARD Attachment Kit-A1	No	Yes	-	Yes
IC-Card Reader(a sales company's option)	No	Yes	Yes	-

Yes: installation is available
No: installation is not available

Checking the Contents

☐ [1] Power Supply Cord X 1 	☐ [2] Telephone Cord (2 Contact type) X 1 	☐ [3] Telephone Cord (6 Contact type) X 1 
☐ [4] PTT Plug X 1 Only for Gamany 	☐ [5] PTT Plug X 1 Only for France 	☐ [6] PTT Plug X 1 Only for Italy 
☐ [7] Address Label X 1 		

F-9-4

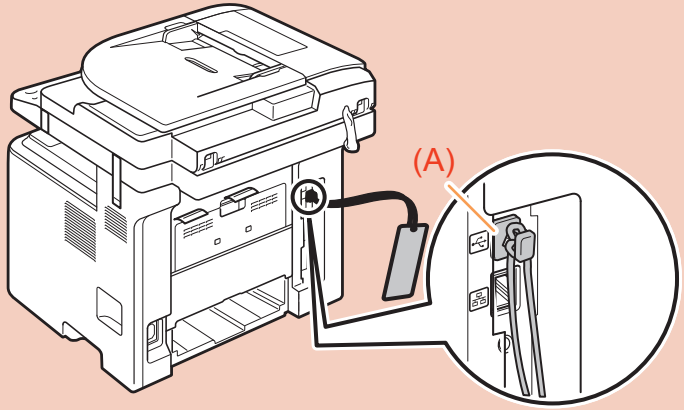
<CD/Guides>

- e-Manual CD
- User Software CD
- Starter Guide
- Modular Cable Instruction Sheet
- Equipment Affixing Instruction Sheet

Unpacking and Installation Procedure

CAUTION:

Do not remove the cap (A) from USB port. Remove this cap when installing USB connection.



F-9-5

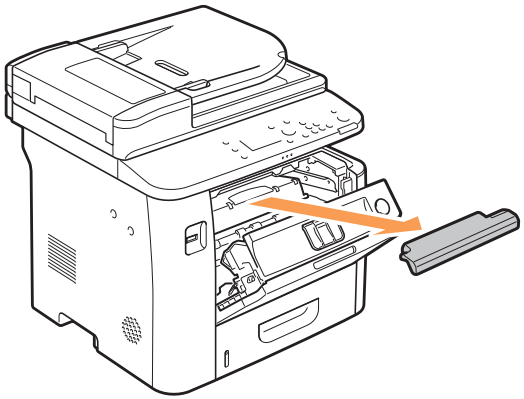
☐

1) Remove all tapes attached to the machine and packing materials from the machine.

☐

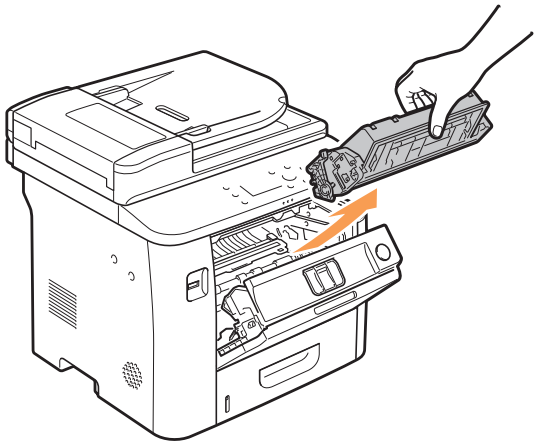
2) Open the Front Cover.

☐
3) Remove packing materials.



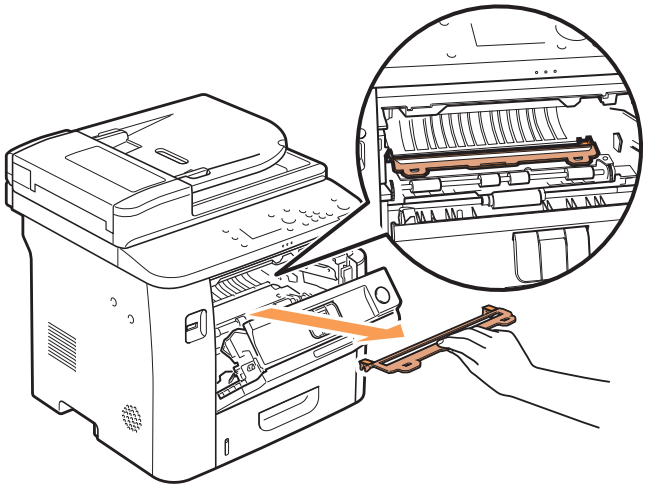
F-9-6

☐
4) Remove the Cartridge.



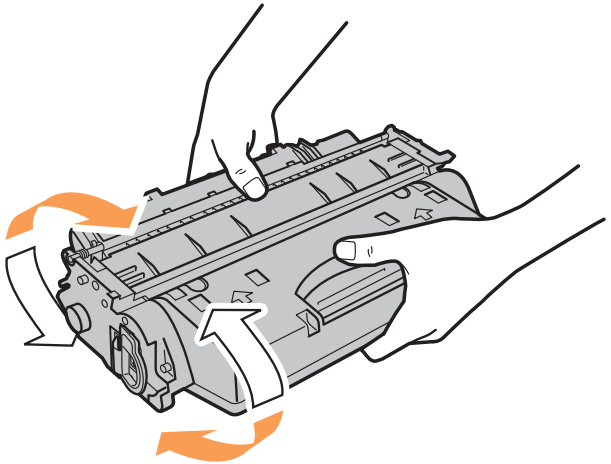
F-9-7

☐
5) Remove the Spacer.



F-9-8

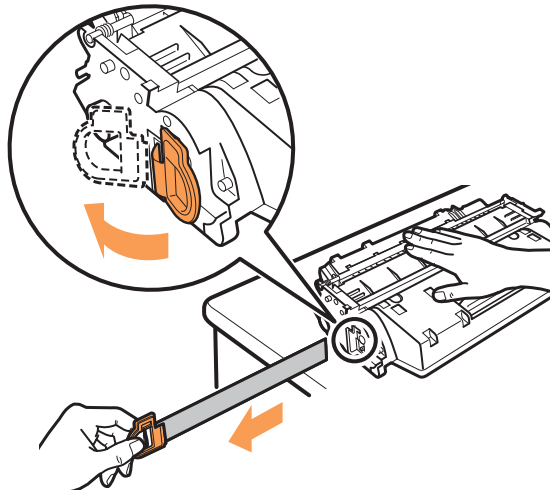
☐
6) Shake the Cartridge 5 to 6 times.



F-9-9

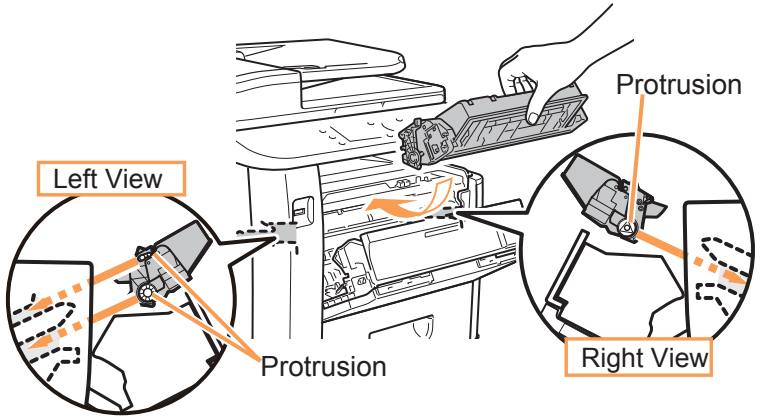
☐
7) Place the cartridge on a flat surface and pull out the tab.

NOTE:
The length of sealing tape is about 500mm.



F-9-10

☐
8) Fit the protrusions on right and left to the Guide and push in until it stops.



F-9-11

☐
9) Close the Front Cover.

CAUTION:

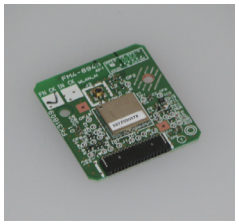
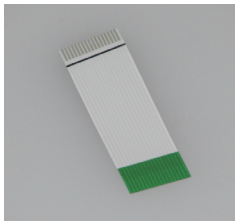
Do not connect the USB Cable.

☐
10) Connect the power plug to the outlet.
11) Turn ON the main power switch.
12) Follow the direction on the screen to set the initial setting.

How to Turn OFF the Main Power:
13) Turn OFF the main power switch.
14) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Wireless LAN Board-C1

Checking the Contents

[1] Wireless LAN Board X1	[2] Flat Cable X1	[3] Screw (TP;M3x6) X1
		

F-9-12

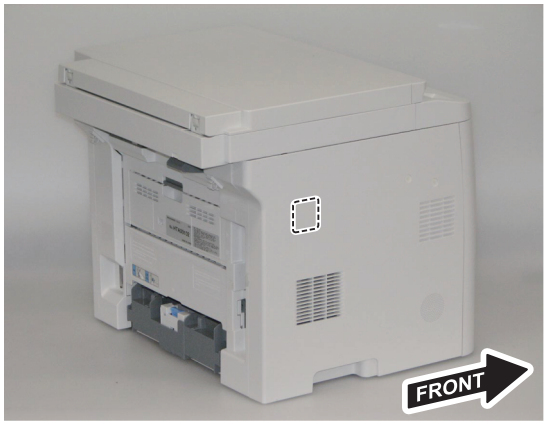
Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.

2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



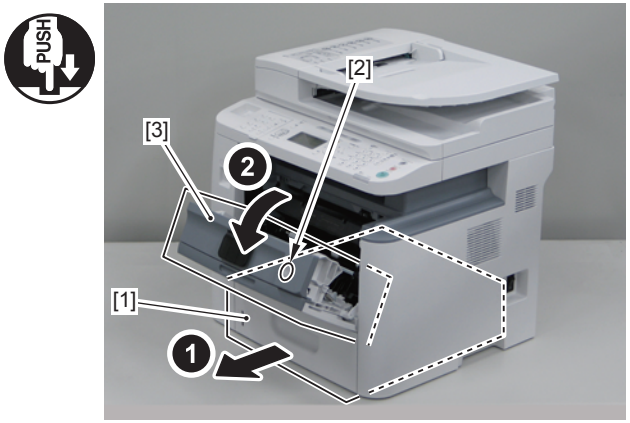
F-9-13

Installation Procedure

☐

1) Remove the cassette [1].

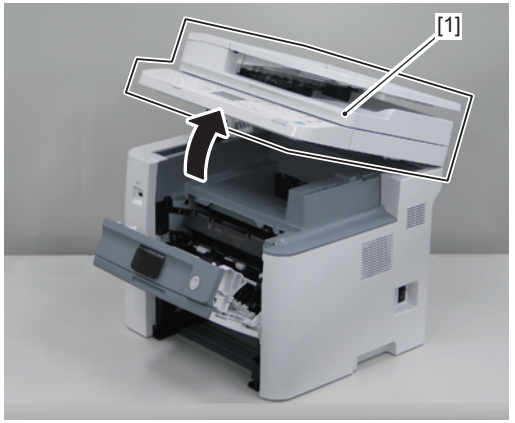
2) Press the Open Button [2], and open the Front Cover Unit [3].



F-9-14

☐

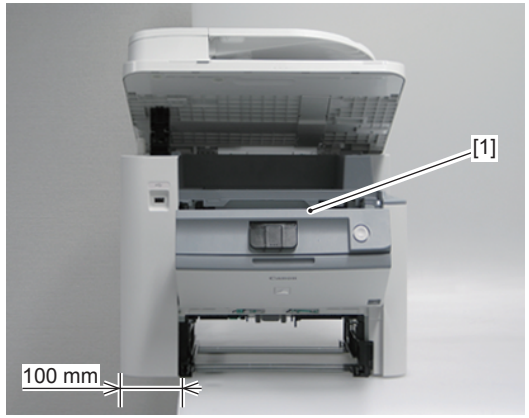
3) Open the ADF Unit + Reader Unit [1].



F-9-15

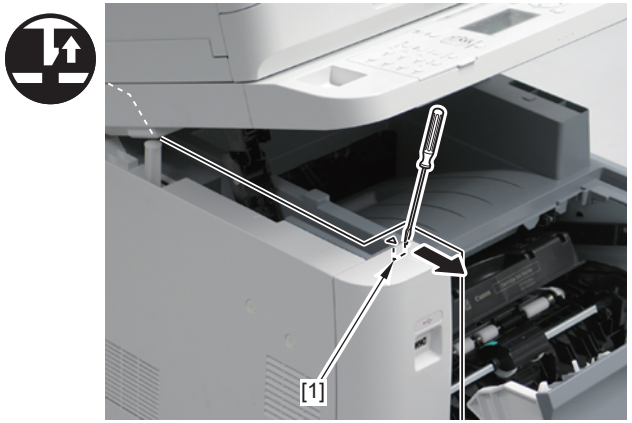
☐
4) Place the host machine [1] while shifting the left side of it approx. 100mm from the working table to release the claw at the lower side of the Left Cover Unit.

CAUTION:
Be careful not to drop the host machine when shifting it.



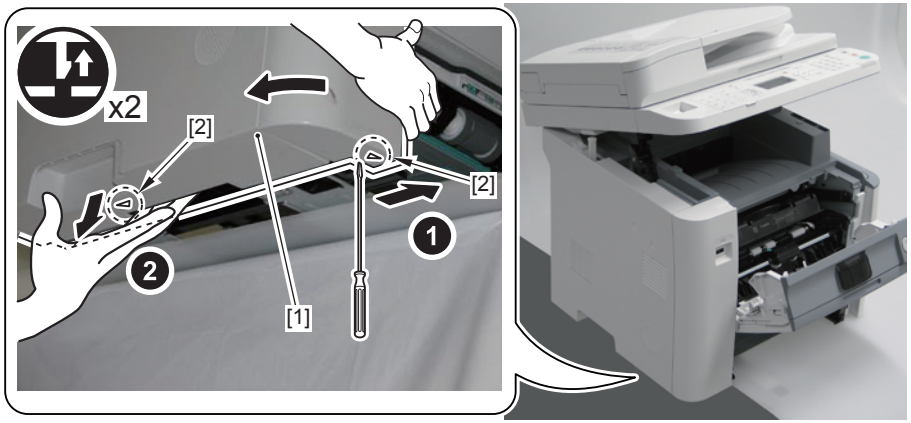
F-9-16

☐
5) Release the claw [1].



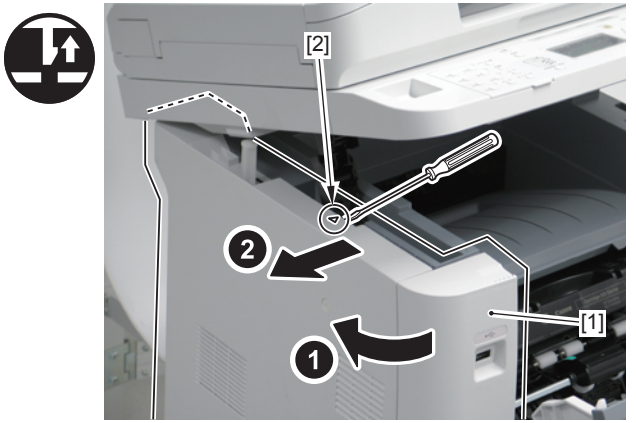
F-9-17

☐
6) While opening the Left Cover unit [1] in the direction of the arrow, release the 2 Claws [2] at lower side.



F-9-18

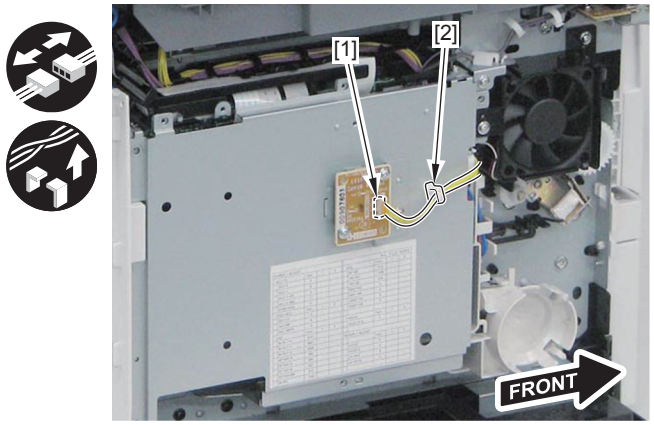
☐
7) Release the claw [2] while pulling the Left Cover Unit [1] in the direction of the arrow.



F-9-19

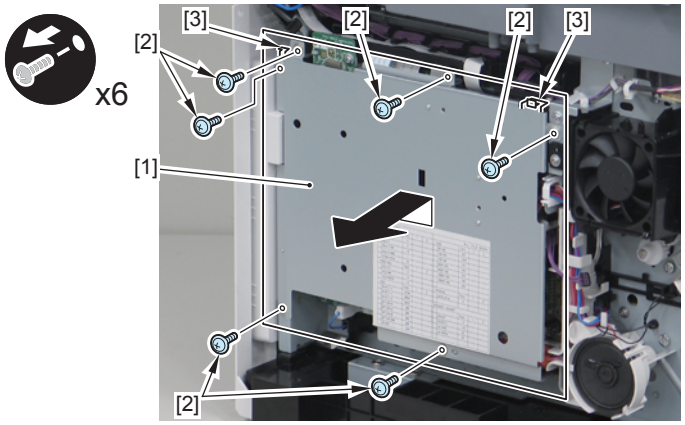
☐
8) Remove the Left Cover Unit.
9) After removing the Left Cover Unit, place the host machine in the center of working table.

☐
10) Disconnect the connector [1].
- 1 Wire Saddle [2]



F-9-20

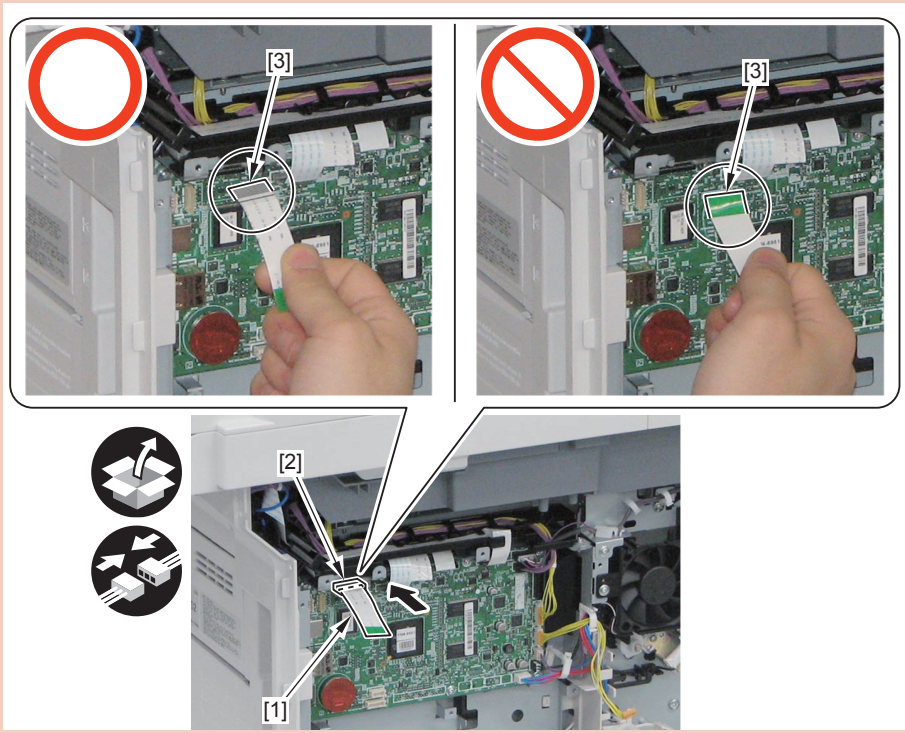
☐
11) Remove the Controller Cover [1].
- 6 Screws [2] (The removed screws will be used in step 15.)
- 2 Hooks [3]



F-9-21

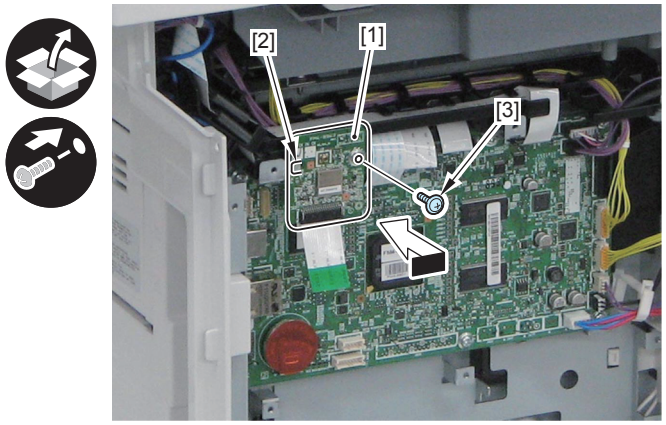
☐
12) Connect the Flat Cable [1] to the Main Controller PCB [2].

CAUTION:
Insert the Flat Cable with its continuity surface up [3].



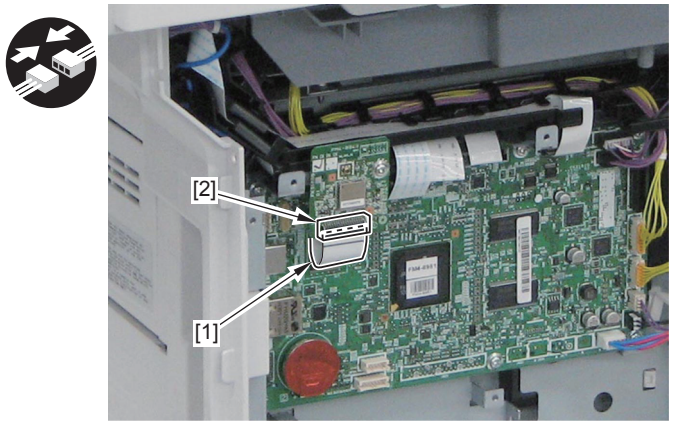
F-9-22

☐
13) Install the Wireless LAN Board [1].
- 1 Hook [2]
- 1 Screw (TP; M3x6) [3]



F-9-23

☐
14) Connect the Flat Cable [1] to the Wireless LAN Bord [2].



F-9-24

☐
15) Return the covers to their original positions.
- Controller Cover
- Left Cover Unit

☐
16) Connect the power plug to the outlet.
17) Turn ON the main power switch.

Setting After Installation

☐
1) Select service mode > COPIER > OPTION > ACC > WLAN
2) Setting value: 1
3) Turn OFF and then ON the main power switch to enable the setting value.
4) Menu > System Settings > Network Settings, and check that the items of the Wireless LAN are displayed.

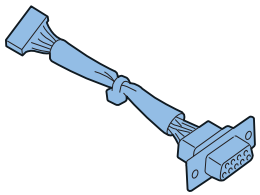
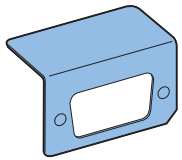
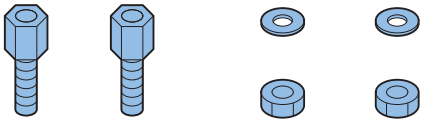
NOTE :
For Network Settings, refer to the Service Manual.
How to enter System Manager Settings:
1) Enter the Manager ID : 7654321. (Default vallues)
2) Enter the PIN : 7654321. (Default values)
3) Press the "ID" key.

Control Interface Kit-C1

Points to Note at Installation

It cannot be used in combination with the Copy Card Reader-F1.

Checking the Contents

☐ [1] CC-VI Cable X1 	☐ [2] D-SUB Support Plate X1 	☐ [3] Washer (Large) X2 
☐ [4] Hexagonal Screw (Washer (Small),Nut) X2 Do not use a Nut 		

F-9-25

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

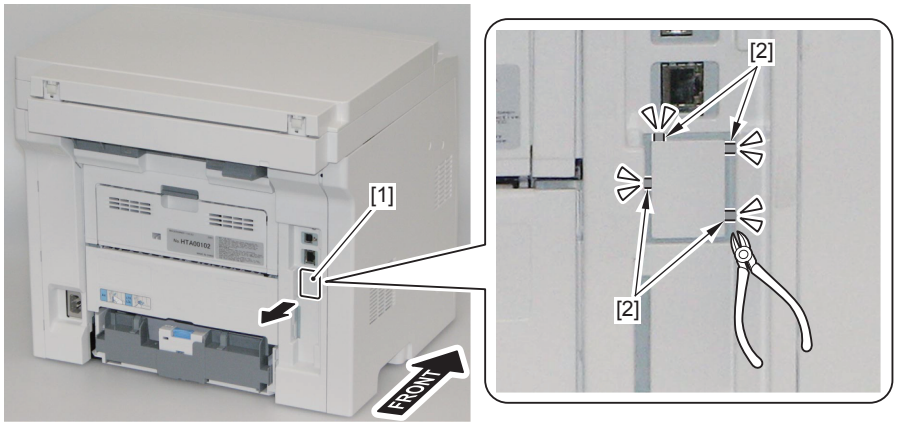
F-9-26

Installation Procedure

☐

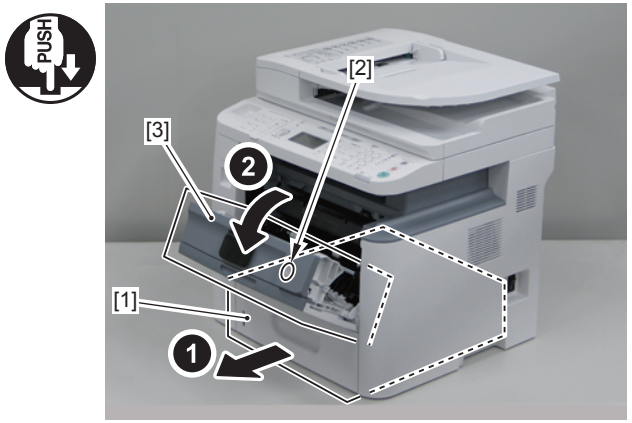
1) Cut off the 4 parts [2] of the Small Cover [1] of the Left Rear Cover with nippers.

NOTE:
When cutting off the part, be sure not to make burrs.



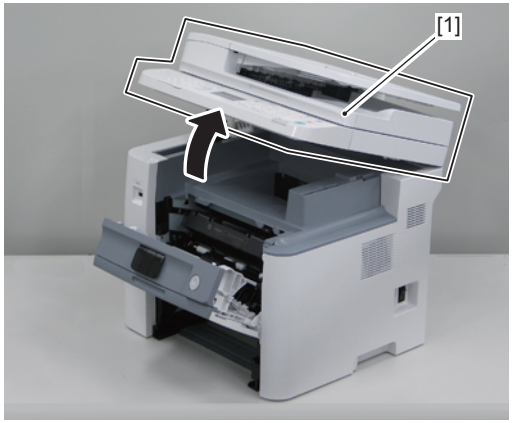
F-9-27

☐
2) Remove the cassette [1].
3) Press the Open Button [2], and open the Front Cover Unit [3].



F-9-28

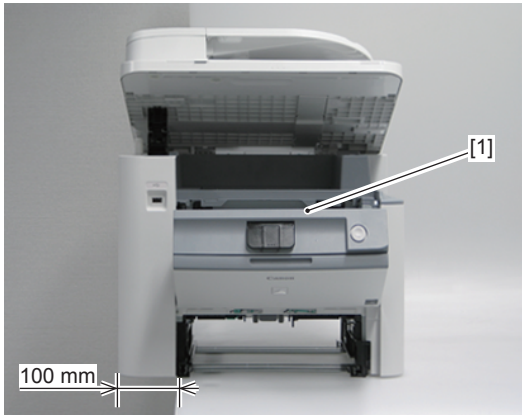
☐
4) Open the ADF Unit + Reader Unit [1].



F-9-29

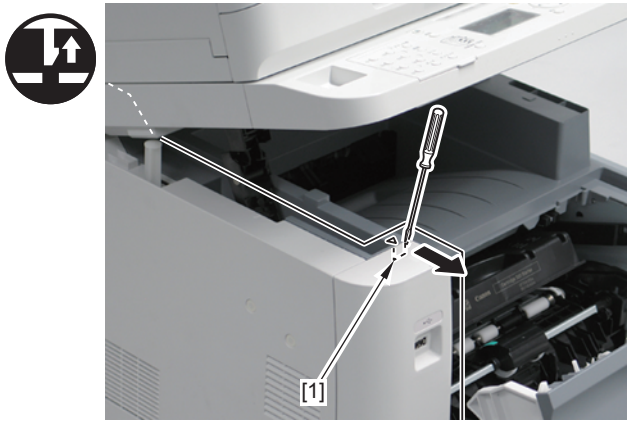
☐
5) Place the host machine [1] while shifting the left side of it approx. 100mm from the working table to release the claw at the lower side of the Left Cover Unit.

CAUTION:
Be careful not to drop the host machine when shifting it.



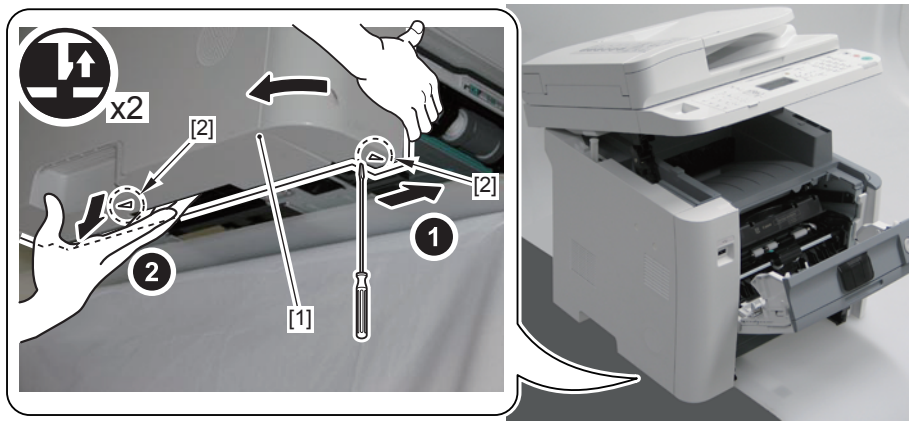
F-9-30

☐
6) Release the claw [1].



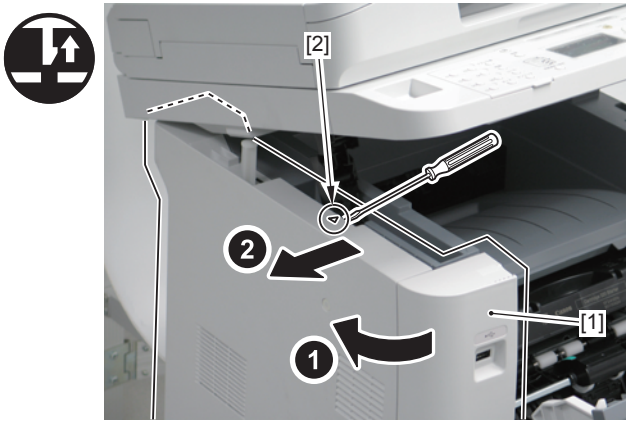
F-9-31

☐
7) While opening the Left Cover Unit[1] in the direction of the arrow, release the 2 Claws [2] at lower side.



F-9-32

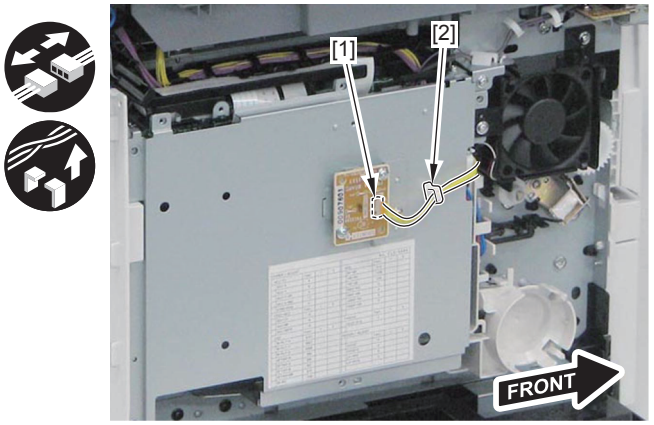
☐
8) Release the claw [2] while pulling the Left Cover Unit[1] in the direction of the arrow.



F-9-33

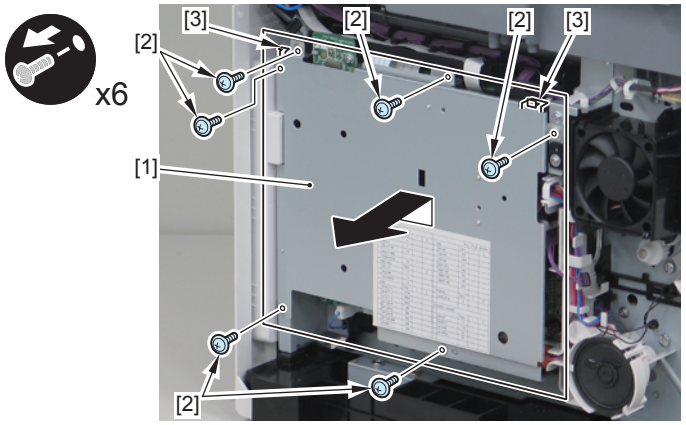
☐
9) Remove the Left Cover Unit.
10) After removing the Left Cover Unit, place the host machine in the center of working table.

☐
11) Disconnect the connector [1].
- 1 Wire Saddle [2]



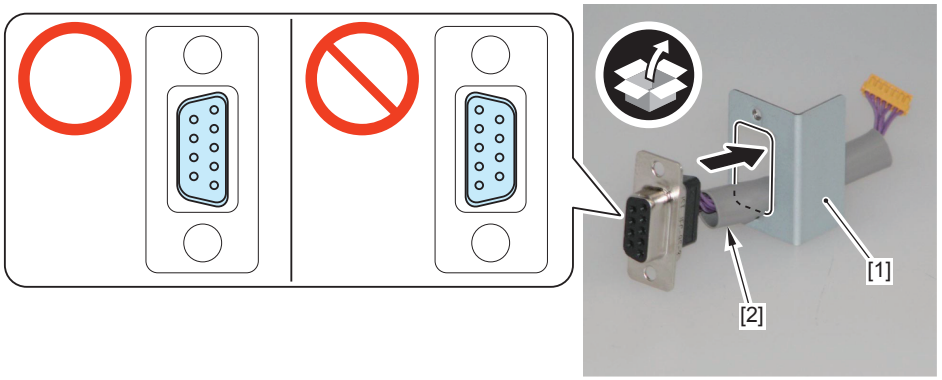
F-9-34

☐
12) Remove the Controller Cover [1].
- 6 Screws [2] (The removed screws will be used in step 15.)
- 2 Hooks [3]



F-9-35

☐
13) Put the CC-VI Cable [2] through the D-SUB Support Plate [1].

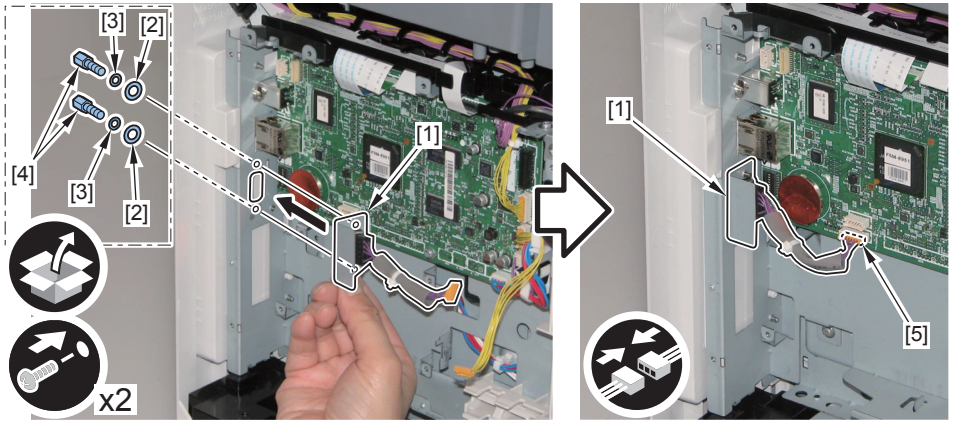


F-9-36

☐
14) Connect the CC-VI Cable [1] to the Main Controller PCB.

- 2 Washers (Large) [2]
- 2 Spring Washers (Small) [3]
- 2 Hexagon Screws [4]
- 1 Connector [5]

NOTE :
Be sure to tighten the Hexagon Screw with needlenose pliers.



F-9-37

☐
15) Return the covers to their original positions.

- Controller Cover
- Left Cover Unit

MiCARD Attachment Kit-A1

Points to Note at Installation

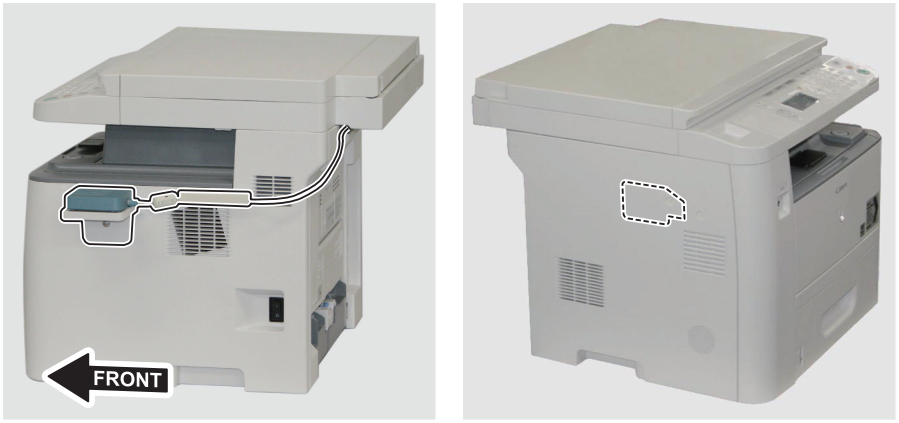
The IC-Card Reader that is a sales company's option / Mi CARD Attachment Kit-A1 cannot be used in combination with the Copy Card Reader-F1.

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

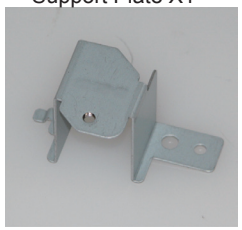
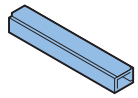
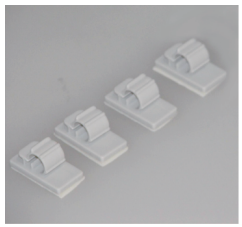
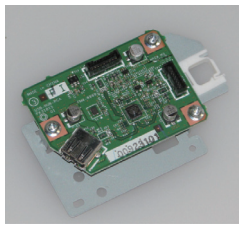
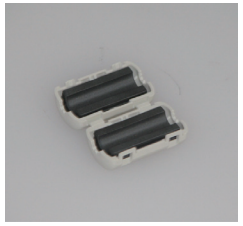
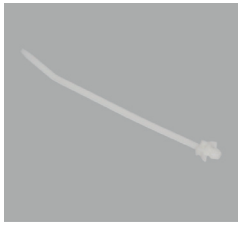
1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



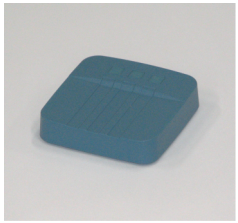
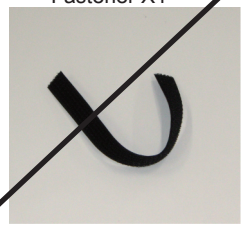
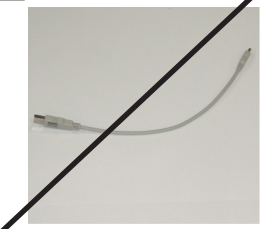
F-9-38

Checking the Contents

☐ [1] Right Cover Support Plate X1 	☐ [2] IC-Card Reader Base X1 	☐ [3] Cord Guide X1 
☐ [4] Cord Clamp X4 	☐ [5] USB Hub Unit X1 	☐ [6] USB Hub Relay Harness X1 
☐ [7] Wire Saddle X2 	☐ [8] Ring Core X1 	☐ [9] Reuse Band X1 
☐ [10] Screw (TP; M4x16) X1 	☐ [11] Screw (TP; M3x6) X1 	☐ [12] Screw (TP; M4x8) X1 

F-9-39

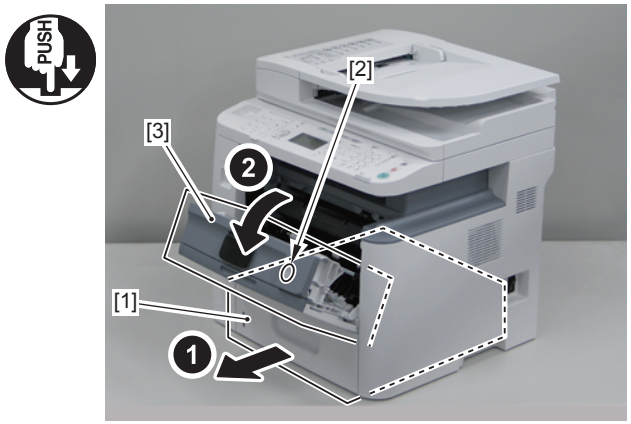
NOTE :
The following contents will also be used when installing the IC-Card Reader (a sales company's option).

☐ [13] USB Cable X1 	☐ [14] IC-Card Reader X1 	☐ [15] Connection Fixation Cover X1 
☐ [16] Hook-and-Loop Fastener X1 	☐ [17] USB Cable X1 	

F-9-40

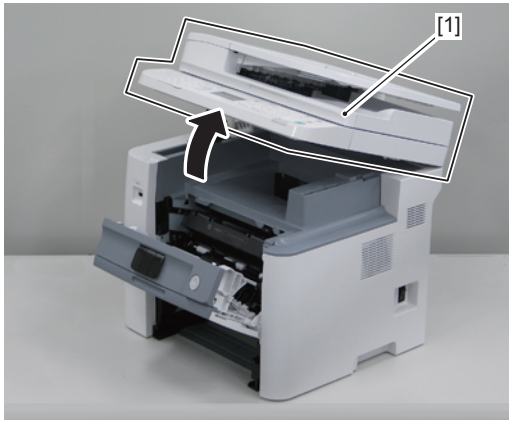
Installation Procedure

☐
1) Remove the cassette [1].
2) Press the Open Button [2], and open the Front Cover Unit [3].



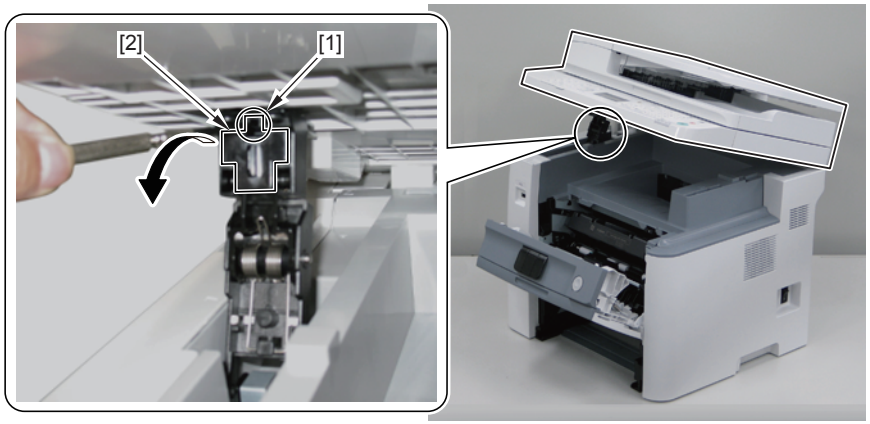
F-9-41

☐
3) Open the ADF Unit + Reader Unit [1].



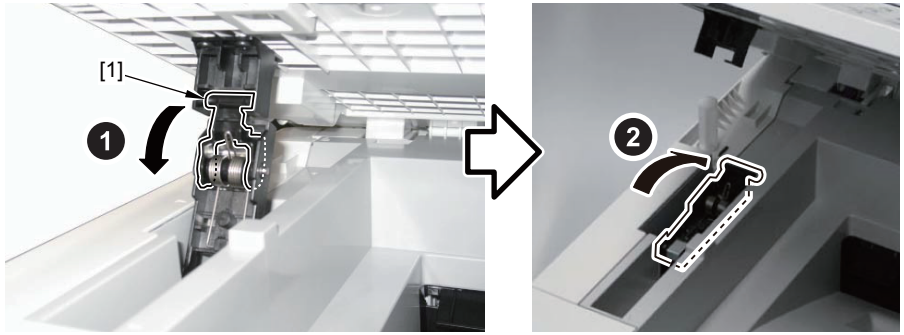
F-9-42

☐
4) Release the claw [1], and remove the Arm Cover [2].



F-9-43

☐
5) Release the Connection of Arm [1] and turn it toward the rear.

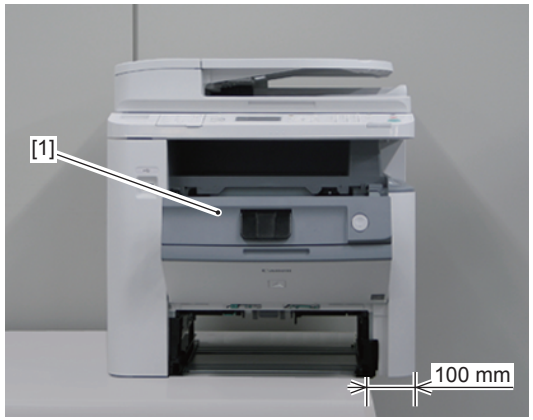


F-9-44

⚠CAUTION:
When opening/closing the ADF Unit+Reader Unit after releasing the arm,
be sure perform the work while supporting the ADF Unit+Reader Unit.
Be careful not to get your hand caught.

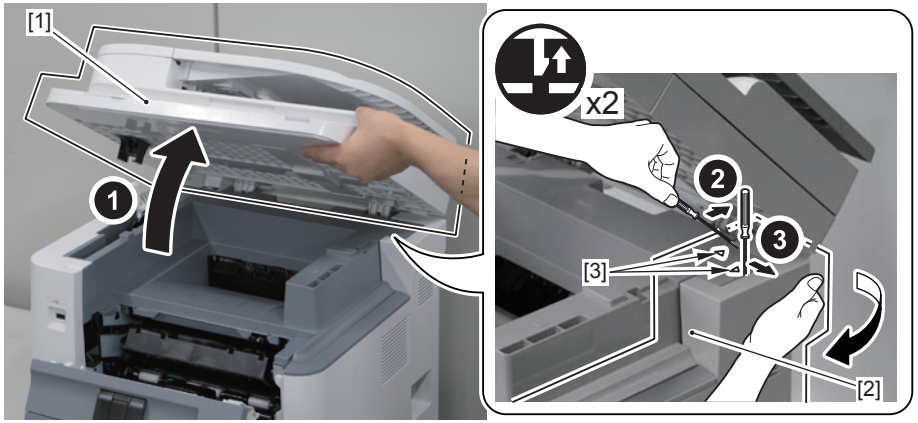
☐
6) Place the host machine [1] while shifting the right side of it approx. 100mm from the working table to release the claw at the lower side of the Right Cover Unit.

CAUTION:
Be careful not to drop the host machine when shifting it.



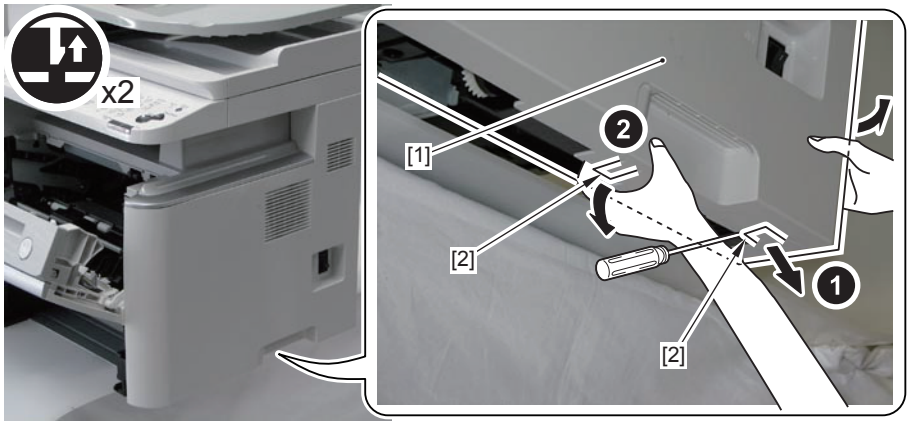
F-9-45

☐
7) Open the ADF Unit + Reader Unit [1], and release the 2 Claws [3] while pulling the Right Cover Unit [2] in the direction of the arrow.



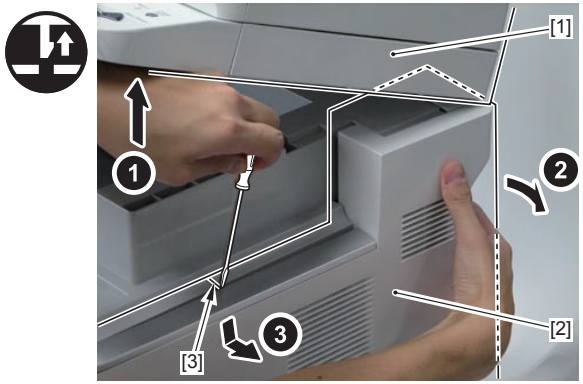
F-9-46

☐
8) Close the ADF Unit + Reader Unit, and release the 2 Claws [2] at lower side while pulling the Right Cover Unit [1] in the direction of the arrow.



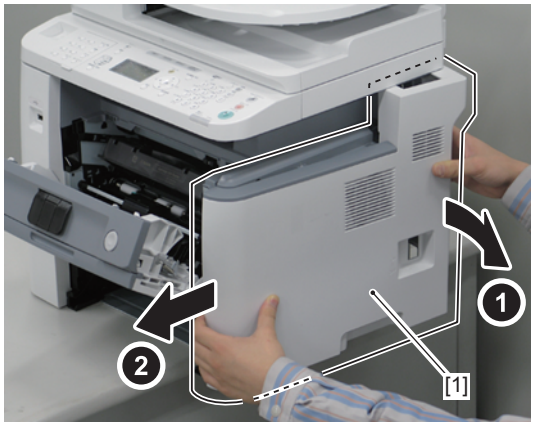
F-9-47

☐
9) Open the ADF Unit + Reader Unit [1], and release the claw [3] while pulling the Right Cover Unit [2] in the direction of the arrow.



F-9-48

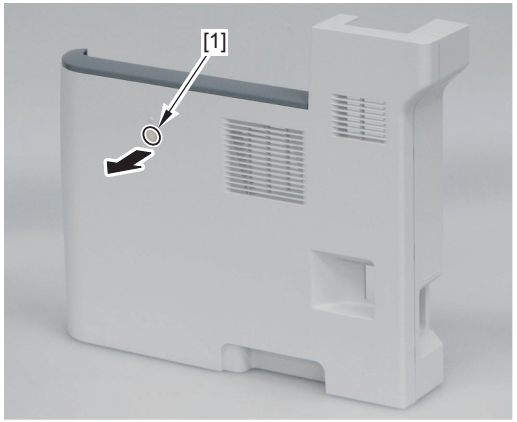
☐
10) Remove the Right Cover Unit [1].



F-9-49

☐
11) After removing the Right Cover unit, place the host machine in the center of working table.

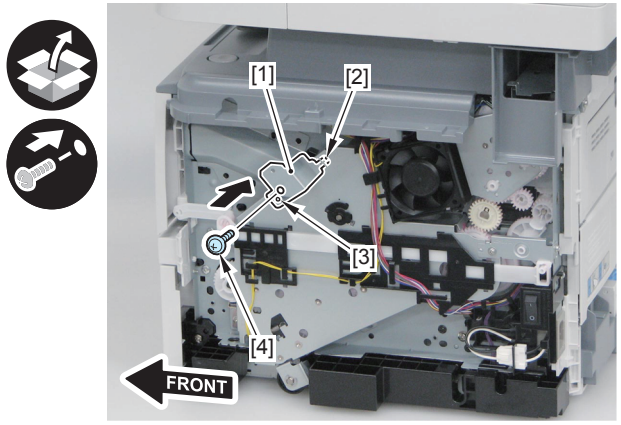
☐
12) Remove the Face Seal [1]. (The removed Face Seal will not be used.)



F-9-50

☐
13) Install the Right Cover Support Plate [1].

- 1 Hook [2]
- 1 Boss [3]
- 1 Screw (TP; M4x8) [4]

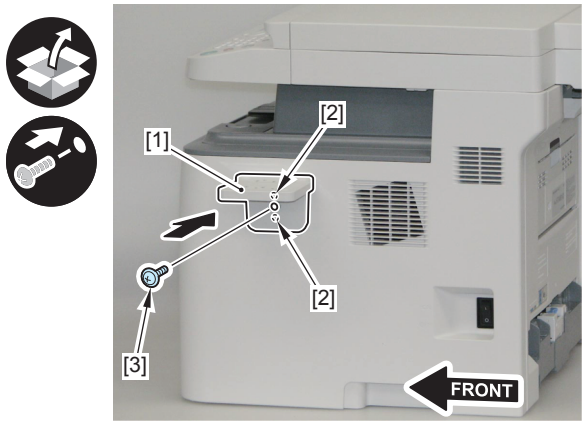


F-9-51

☐
14) Return the Right Cover to its original position.

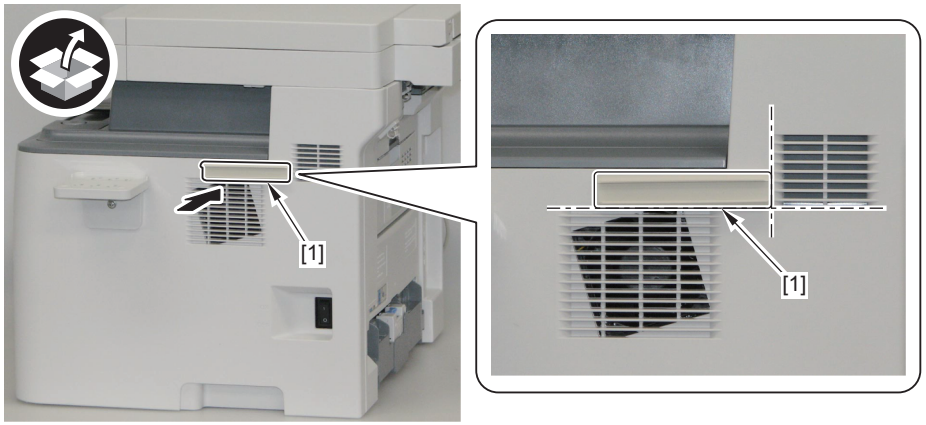
☐
15) Install the IC-Card Reader Base [1].

- 2 Bosses [2]
- 1 Screw (TP; M4x16) [3]



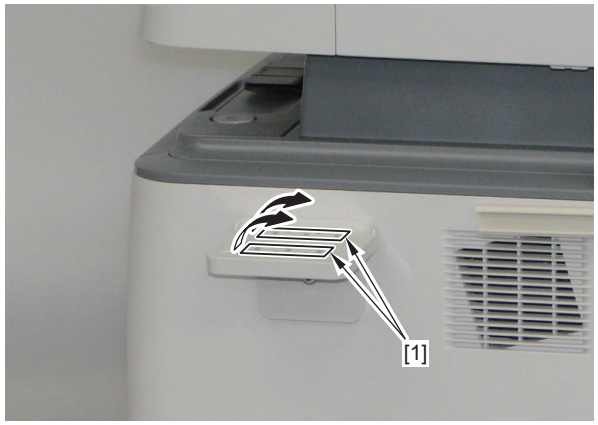
F-9-52

☐
16) Affix the Cord Guige [1] as shown in the figure and remove the cover.



F-9-53

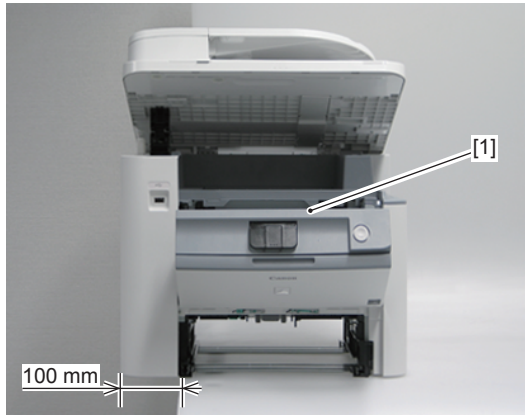
☐
17) Remove the release paper of double-sided tape [1] from the IC-Card Reader Base.



F-9-54

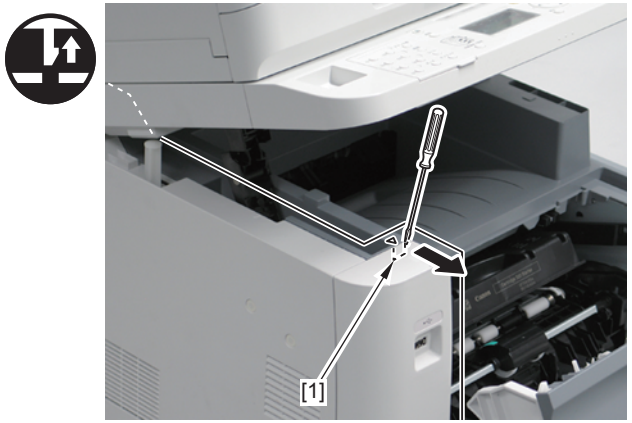
☐ 18) Place the host machine [1] while shifting the left side of it approx. 100mm from the working table to release the claw at the lower side of the Left Cover Unit.

CAUTION:
Be careful not to drop the host machine when shifting it.



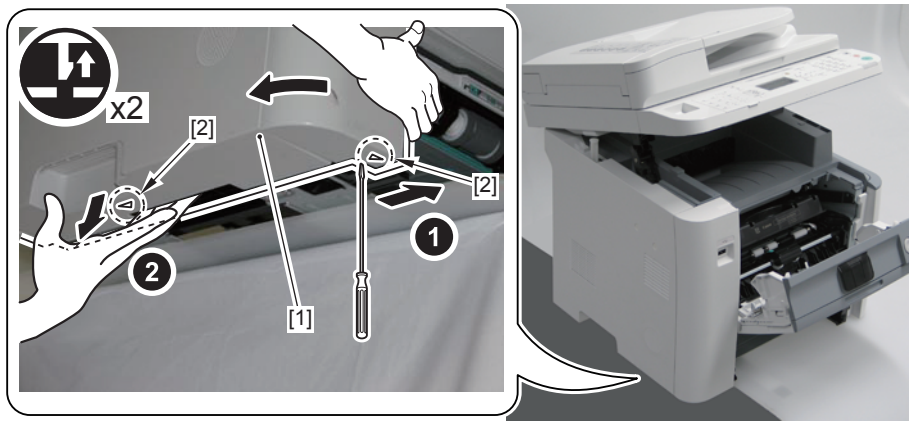
F-9-55

☐ 19) Release the claw [1].



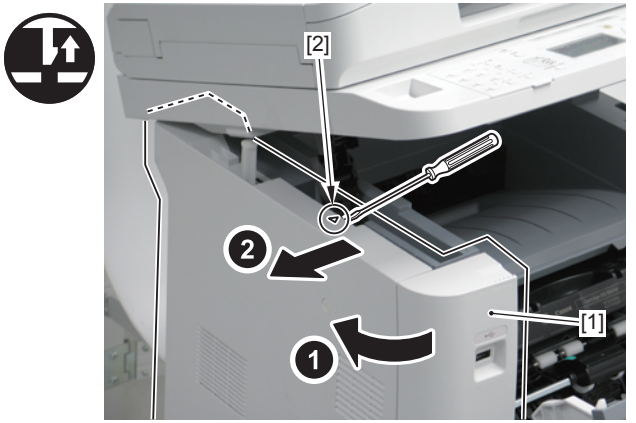
F-9-56

☐ 20) While opening the Left Cover Unit [1] in the direction of the arrow, release the 2 Claws [2] at lower side.



F-9-57

☐ 21) Release the claw [2] while pulling the Left Cover Unit [1] in the direction of the arrow.

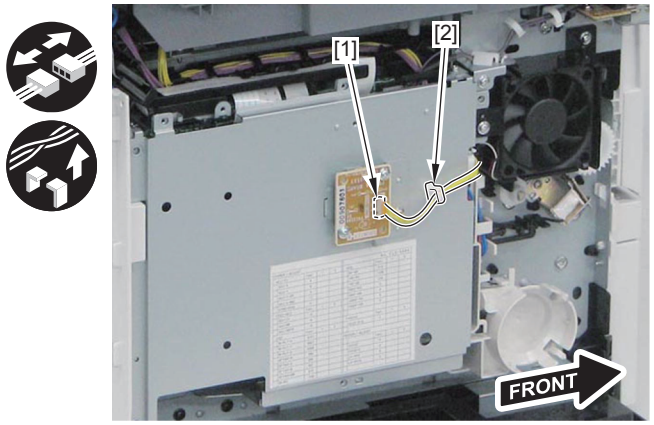


F-9-58

☐ 22) Remove the Left Cover Unit.

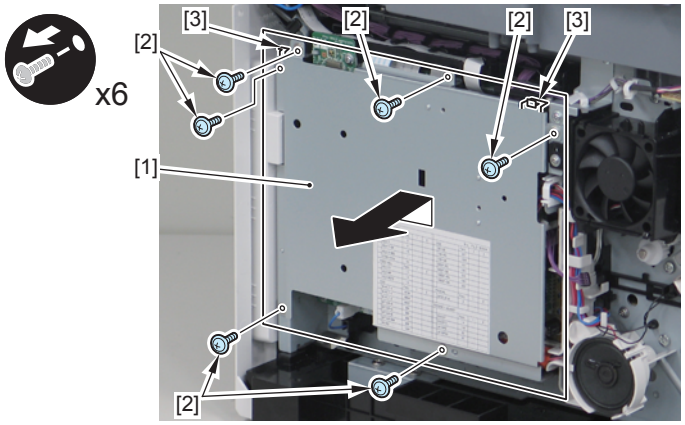
23) After removing the Left Cover, place the host machine in the center of working table.

☐
24) Disconnect the connector [1].
- 1 Wire Saddle [2]



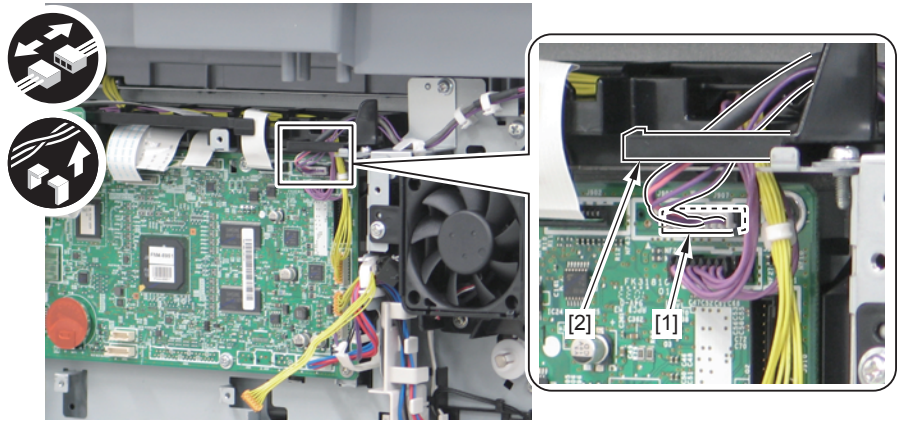
F-9-59

☐
25) Remove the Controller Cover [1].
- 6 Screws [2] (The removed screws will be used in step 28.)
- 2 Hooks [3]



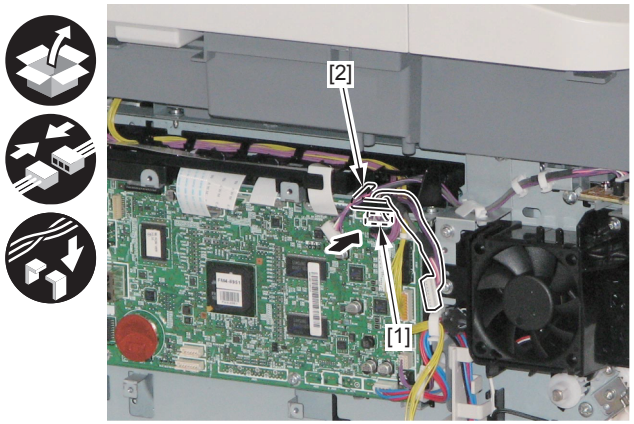
F-9-60

☐
26) Disconnect the connector [1] from the Main Controller PCB and free the harness from the guide [2].



F-9-61

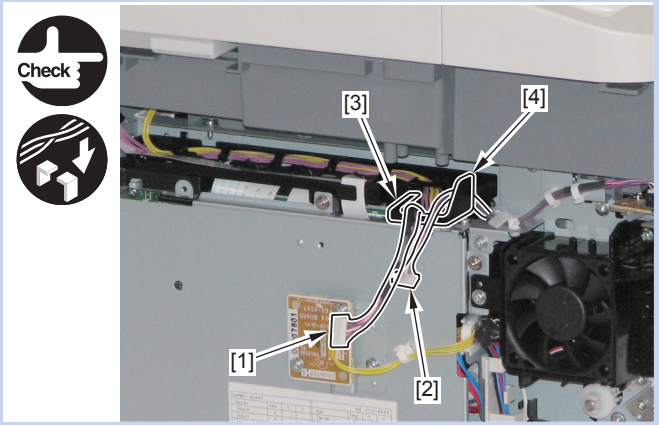
☐
27) Connect the USB Hub PCB Relay Harness [1] to the Main Controller PCB and put it through the Harness Guide [2].



F-9-62

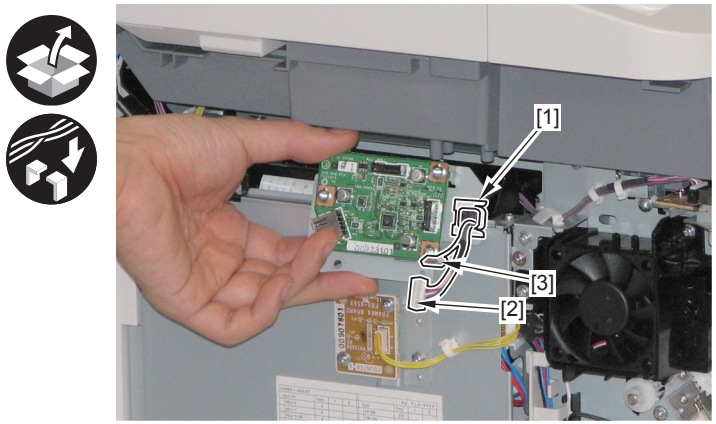
☐
28) Return the Controller Cover to its original position.

NOTE :
Put the USB Hub Relay Harness [1] through the guide [3].
Put the Host Machine Relay Harness [2] through the guide [4].



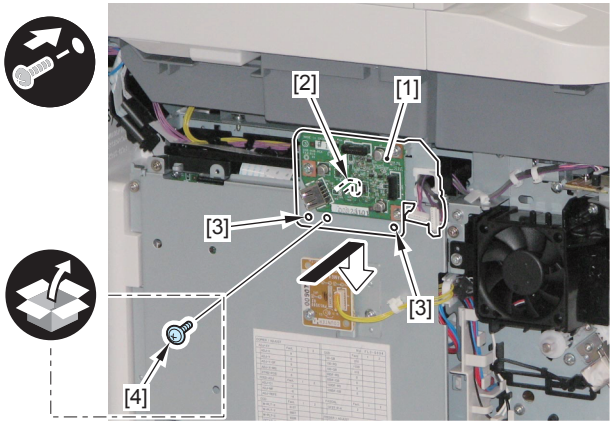
F-9-63

☐
29) Put the USB Relay Harness [2] and the Host Machine Relay Harness [3] through the Edge Saddle [1] on the USB Hub Unit.



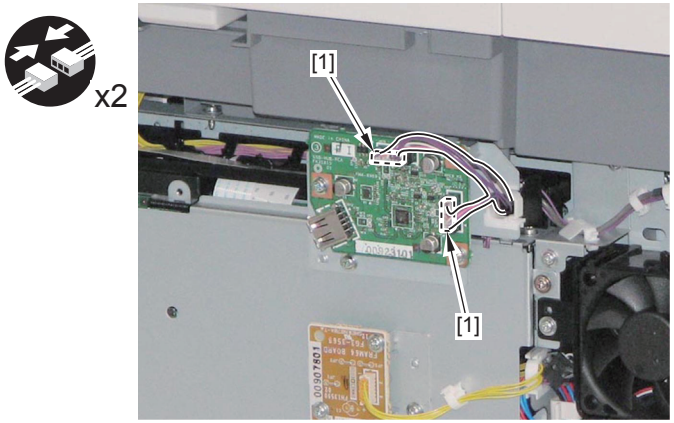
F-9-64

☐
30) Install the USB Hub Unit [1].
- 1 Hook [2]
- 2 Bosses [3]
- 1 Screw (TP; M3x6) [4]



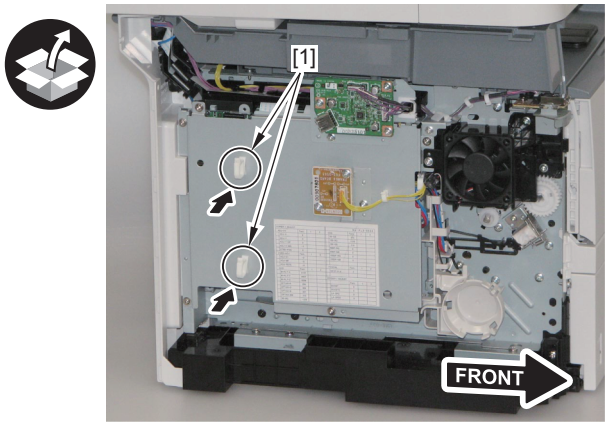
F-9-65

☐
31) Connect the connector to the USB Hub Unit as shown in the figure.
- 2 Connectors [1]



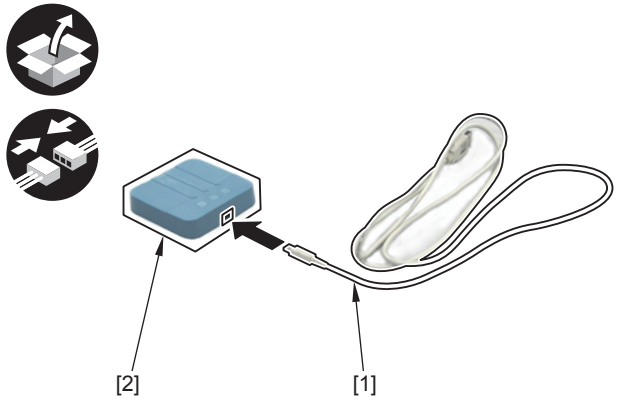
F-9-66

☐ 32) Install the 2 Wire Saddles [1].



F-9-67

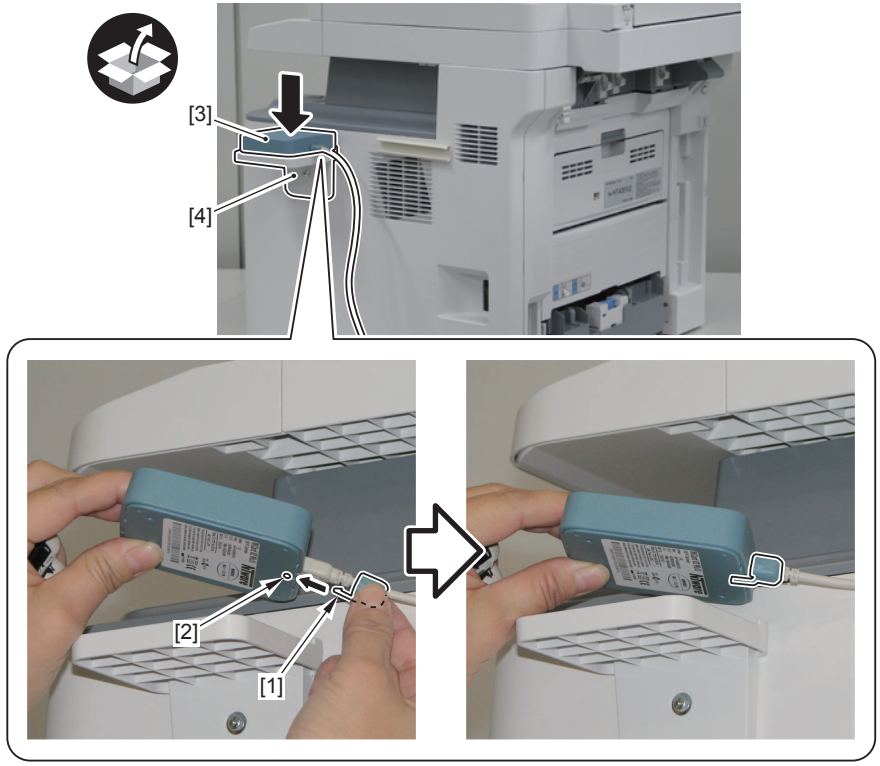
☐ 33) Connect the USB Cable [1] to the IC-Card Reader [2].



F-9-68

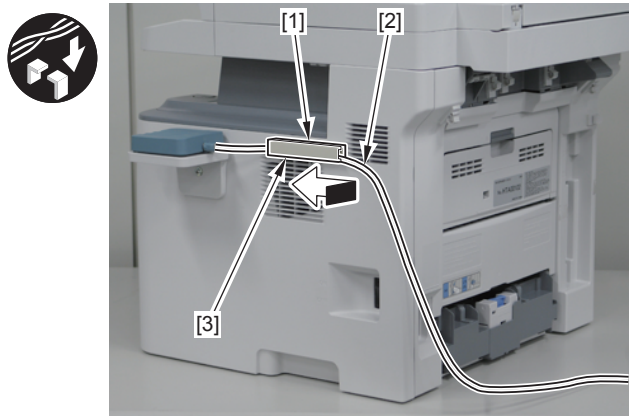
☐ 34) Install the Connection Fixation Cover [1] to the USB Cable, and secure the IC-Card Reader [3] to the IC-Card Reader Base [4].

- 1 Boss [2]



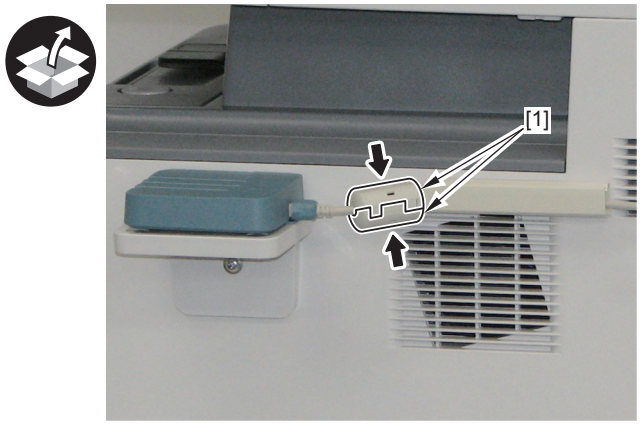
F-9-69

☐ 35) Put the USB Cable [2] through the Cord Guide [1], and install the Cord Guide Cover [3].



F-9-70

☐ 36) Install the Ring Core [1] as shown in the figure.

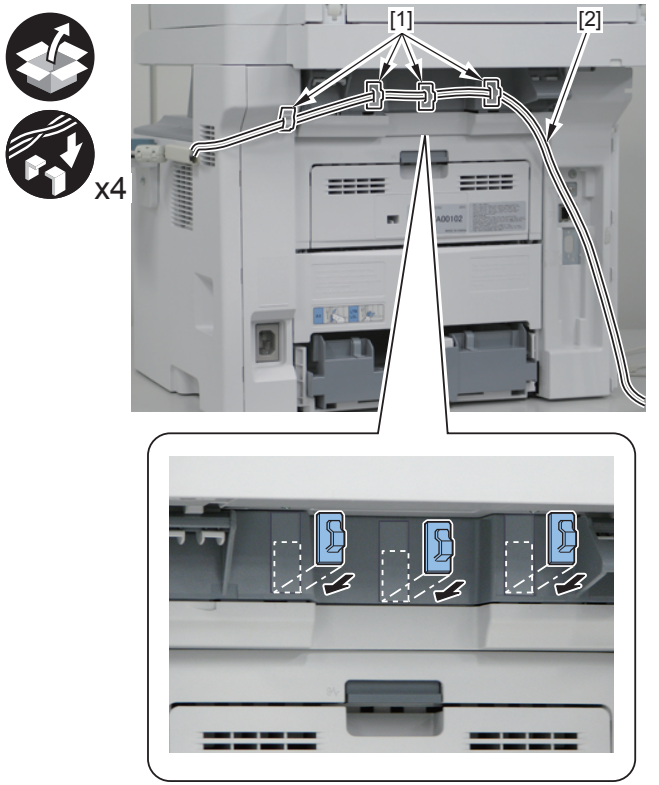


F-9-71

☐ 37) Affix the 4 Cord Clamps [1] as shown in the figure, and install the USB Cable [2].

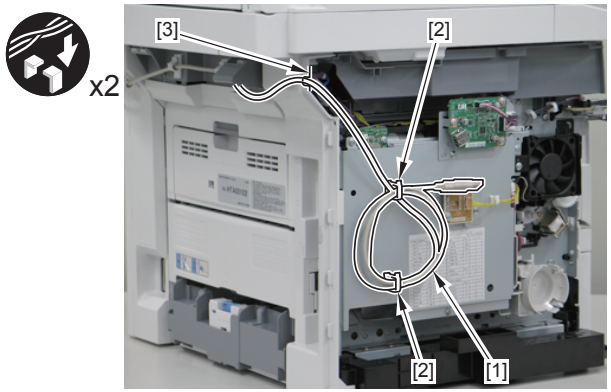
CAUTION:

When affixing the Cord Clamps, be sure to align them with the underside of the depression.



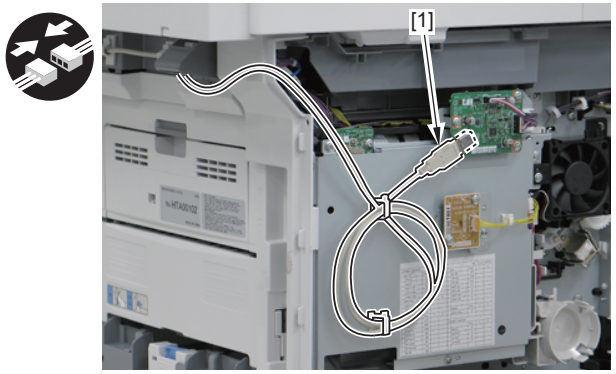
F-9-72

☐ 38) Wind the USB Cable [1] 3 times, secure it using the 2 Wire Saddles [2], and then put it through the cut-off [3] of the Left Rear Cover.



F-9-73

☐ 39) Connect the USB Cable [1] to the USB Hub Unit.

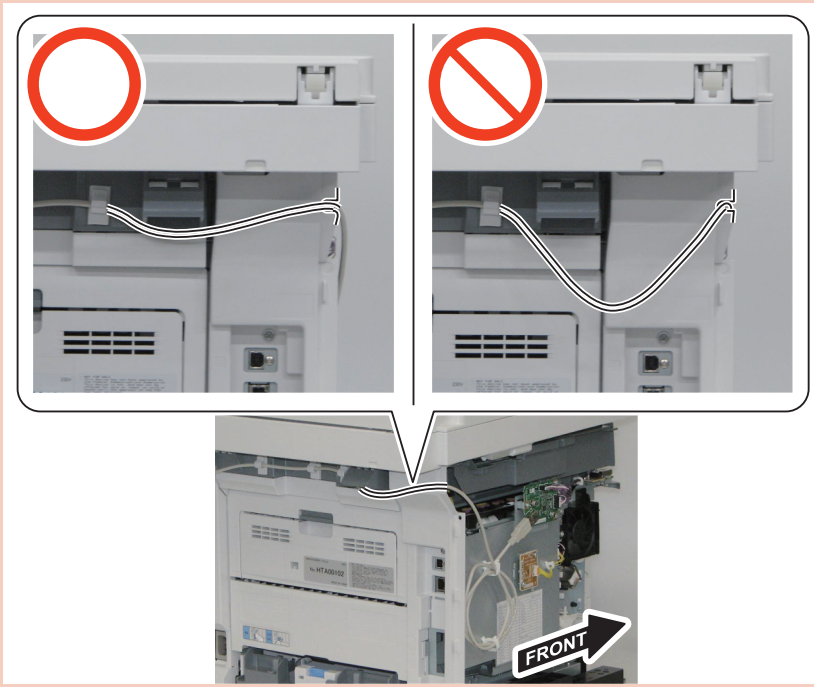


F-9-74

☐ 40) Adjust the length of the USB Cable.

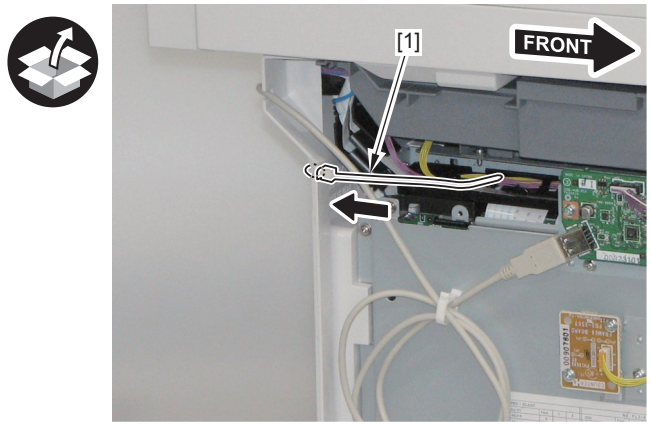
CAUTION:

Be sure that there is no extra slack when securing the USB Cable.



F-9-75

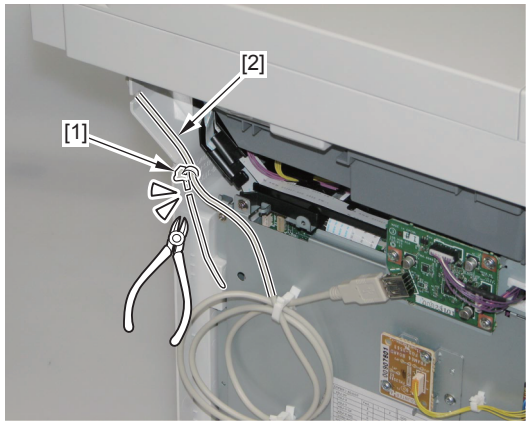
☐ 41) Install the Reuse Band [1] inside the Left Rear Cover Unit.



F-9-76

☐ 42) Secure the USB Cable [2] with the Reuse Band [1], and cut off the Reuse Band with nippers.

CAUTION:
Be careful not to damage the USB Cable.



F-9-77

☐ 43) Return the Left Cover unit to its original position.

CAUTION:
When returning the Left Cover to its original position, be sure not ti the USB Cable.

Checking after Installation

☐

When IC-CardReader is not Enabled by the Server

After turning ON the power, check the following operations:

- Beep sound of the IC Card Reader is heard.
- The green LED and red LED of the IC Card Reader light for a quick moment. -> The red LED flashes.

When IC-Card Reader is Enabled by the Server

After turning ON the power, check the following operations:

- Beep sound of the IC Card Reader is heard.
- The green LED and red LED of the IC Card Reader light for a quick moment. -> The red LED flashes.

Copy Card Reader-F1

Points to Note at Installation

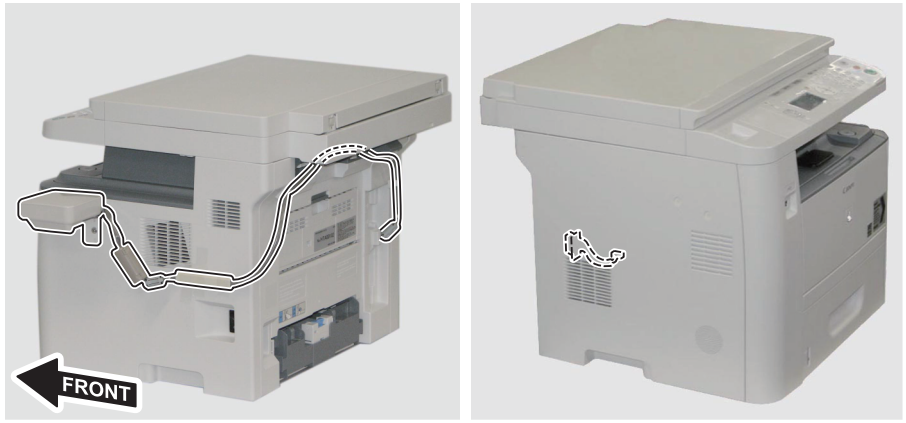
- The Copy Card Reader-F1 cannot be used in combination with the IC-Card Reader that is a sales company's option / Mi CARD Attachment Kit-Ai.
- The Copy Card Reader-F1 cannot be used in combination with the Control Interface Kit-C1.

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

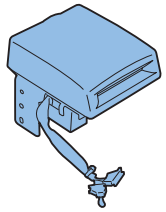
Installation Outline Drawing



F-9-78

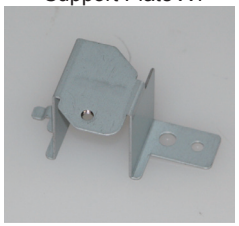
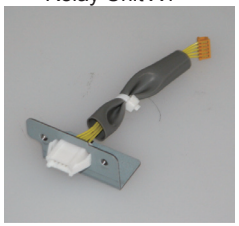
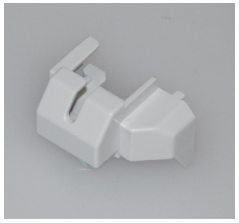
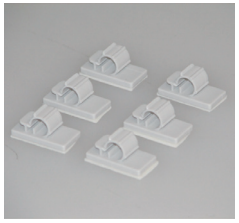
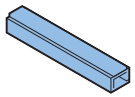
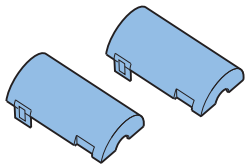
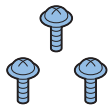
Checking the Contents

Card Reader-F1

☐ [1] Card Reader Unit X 1	☐ [2] Screw (RS tight; M4x10) X 1	☐ [3] Toothed washer X 1
		

F-9-79

Copy Card Reader Attachmentt-G1

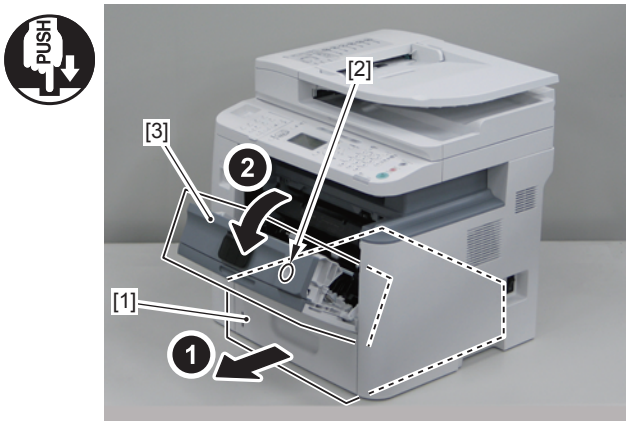
☐ [1] Right Cover Support Plate X1 	☐ [2] Card Reader Relay Unit X1 	☐ [3] Card Reader Relay Harness X1 
☐ [4] Connector Cover X1 	☐ [5] Cord Clamp X6 	☐ [6] Cord Guide X1 
☐ [7] Connector Case X2 	☐ [8] Screw (RS tight; M4x10) X1 	☐ [9] Screw(TP;M3x6) X3 

F-9-80

Installation Procedure

☐

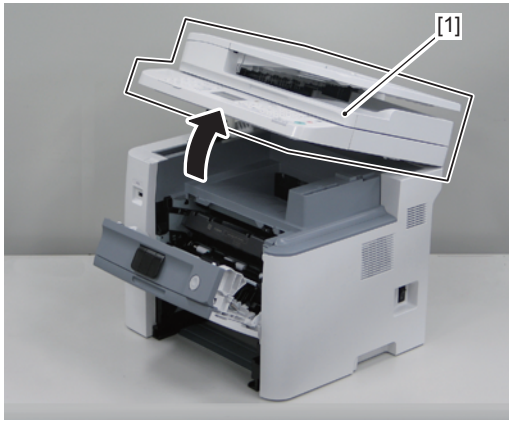
1) Remove the cassette [1].
2) Press the Open Button [2], and open the Front Cover Unit [3].



F-9-81

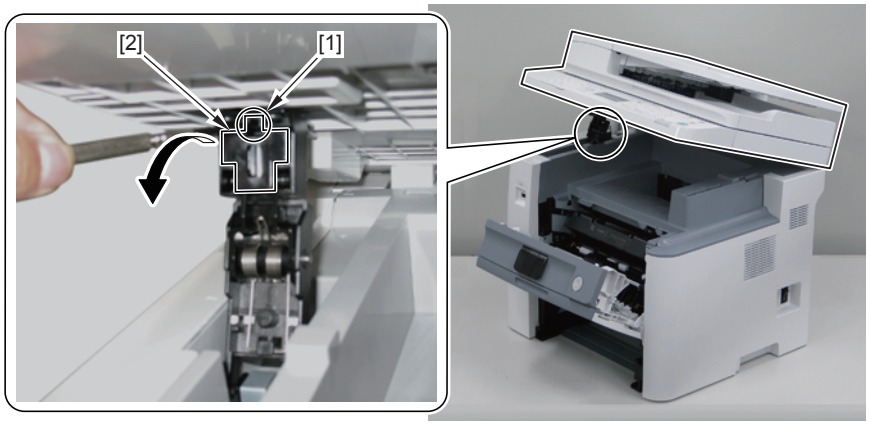
☐

3) Open the ADF Unit + Reader Unit [1].



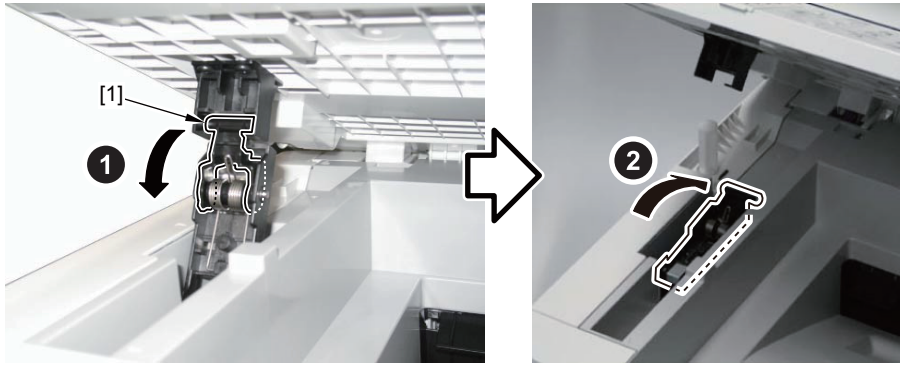
F-9-82

☐
4) Release the claw [1], and remove the Arm Cover [2].



F-9-83

☐
5) Release the Connection of Arm [1] and turn it toward the rear.

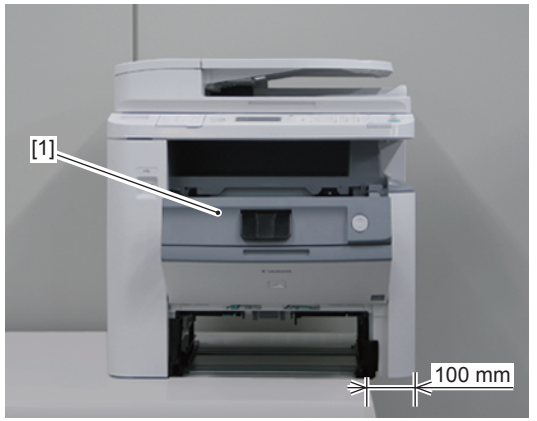


F-9-84

⚠CAUTION:
When opening/closing the ADF unit+Reader Unit after releasing the arm,
be sure perform the work while supporting the ADF unit+Reader Unit.
Be careful not to get your hand caught.

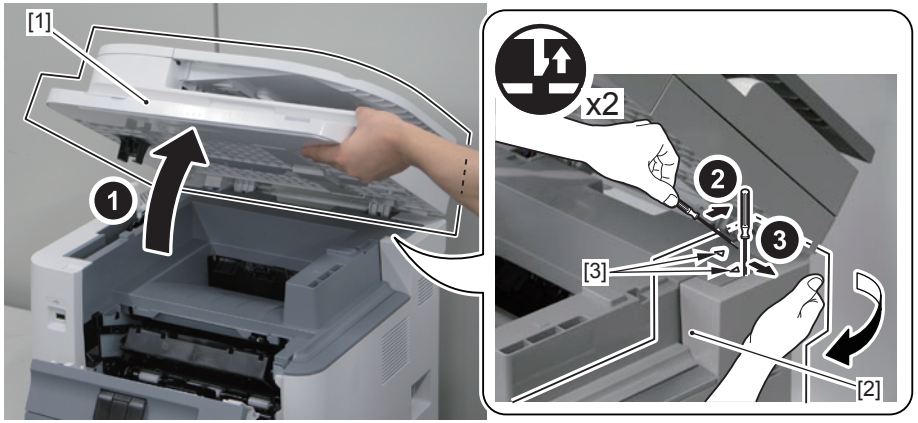
☐
6) Place the host machine [1] while shifting the right side of it approx. 100mm from the working table to release the claw at the lower side of the Right Cover Unit.

CAUTION:
Be careful not to drop the host machine when shifting it.



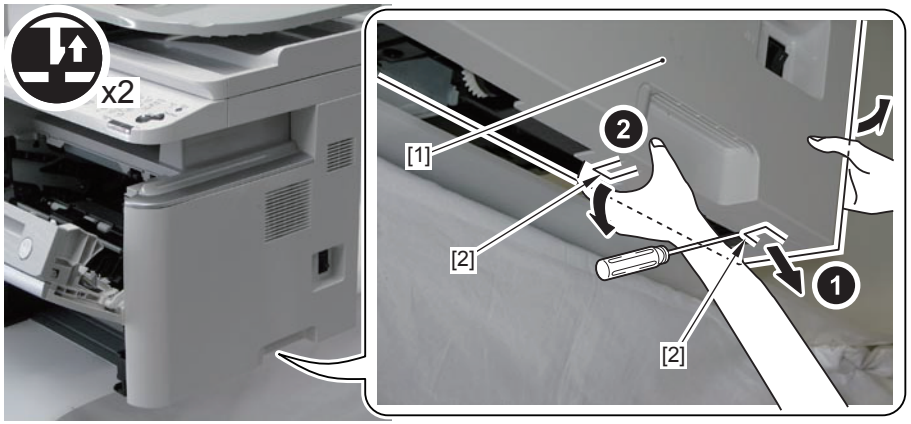
F-9-85

☐
7) Open the ADF Unit + Reader Unit [1], and release the 2 Claws [3] while pulling the Right Cover Unit [2] in the direction of the arrow.



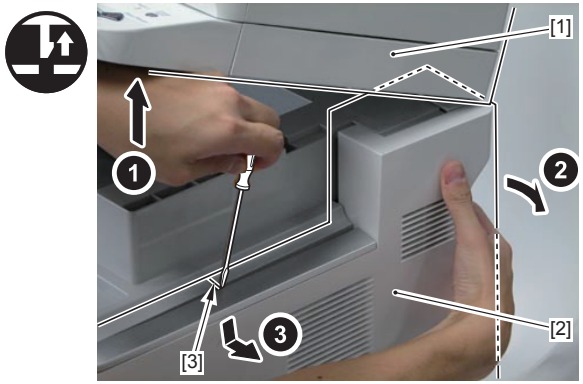
F-9-86

☐
8) Close the ADF Unit + Reader Unit, and release the 2 Claws [2] at lower side while pulling the Right Cover Unit [1] in the direction of the arrow.



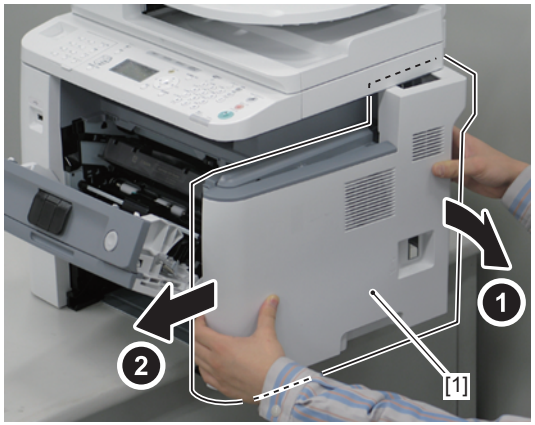
F-9-87

☐
9) Open the ADF Unit + Reader Unit [1], and release the claw [3] while pulling the Right Cover Unit [2] in the direction of the arrow.



F-9-88

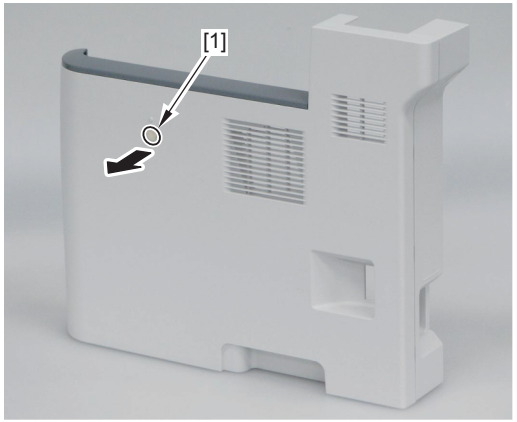
☐
10) Remove the Right Cover Unit [1].



F-9-89

☐
11) After removing the Right Cover Unit, place the host machine in the center of working table.

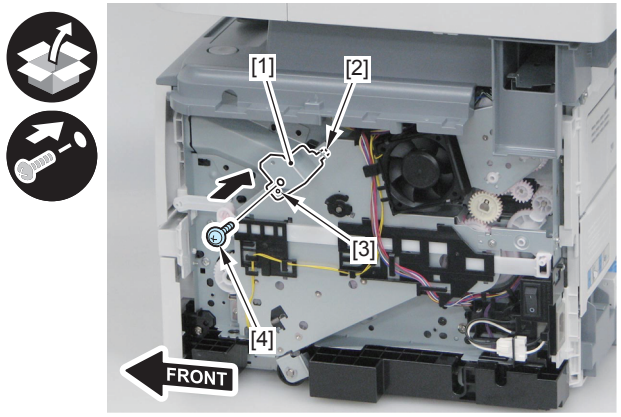
☐
12) Remove the Face Seal [1]. (The removed Face Seal will not be used.)



F-9-90

☐ 13) Install the Right Cover Support Plate [1].

- 1 Hook [2]
- 1 Boss [3]
- 1 Screw (RS Tightening; M4x10) [4]

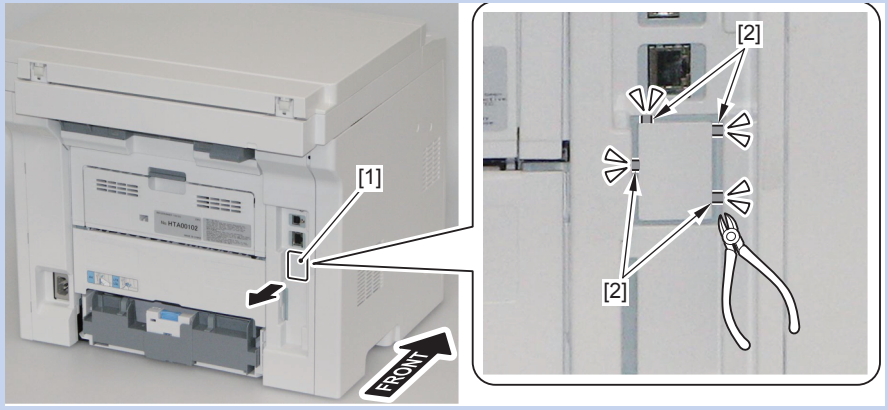


F-9-91

☐ 14) Return the Right Cover to its original position.

☐ 15) Cut off the 4 parts [2] of the Small Cover [1] of the Right Rear Cover with nippers.

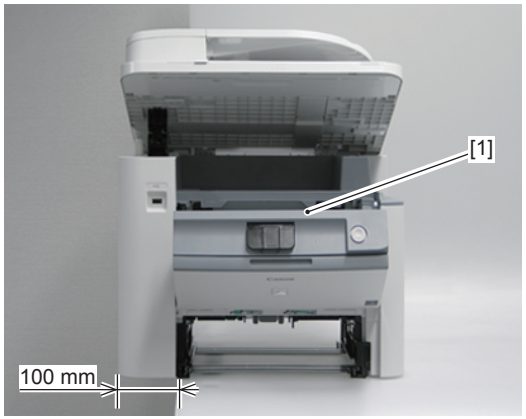
NOTE :
When cutting off the part, be sure not to make burrs.



F-9-92

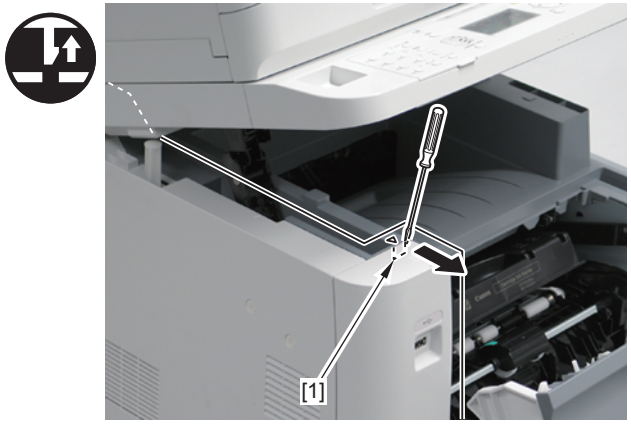
☐ 16) Place the host machine [1] while shifting the left side of it approx. 100mm from the working table to release the claw at the lower side of the Left Cover Unit.

CAUTION:
Be careful not to drop the host machine when shifting it.



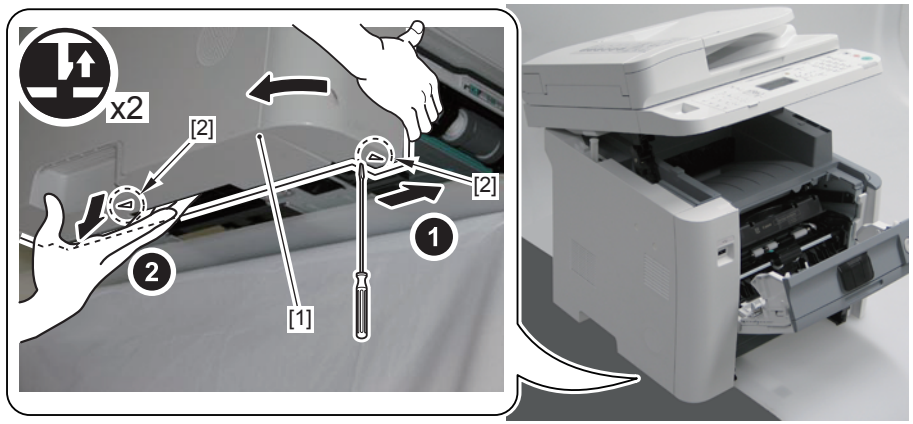
F-9-93

☐ 17) Release the claw [1].



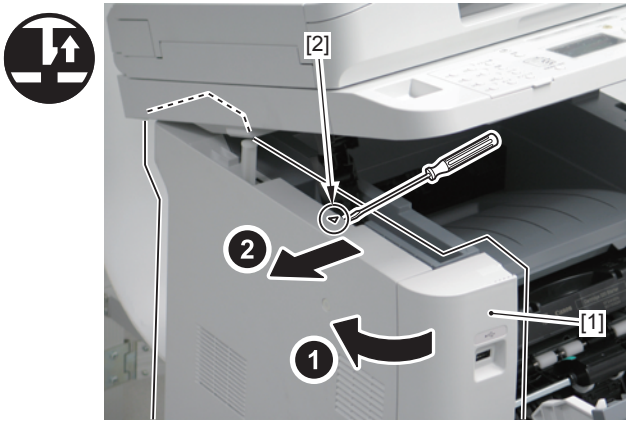
F-9-94

☐
18) While opening the Left Cover Unit [1] in the direction of the arrow, release the 2 Claws [2] at lower side.



F-9-95

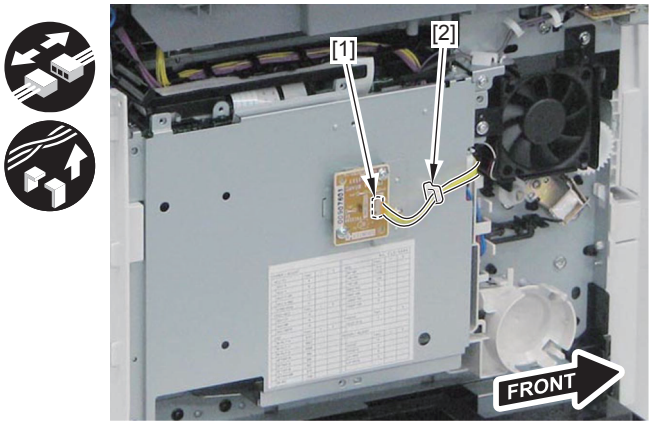
☐
19) Release the claw [2] while pulling the Left Cover Unit [1] in the direction of the arrow.



F-9-96

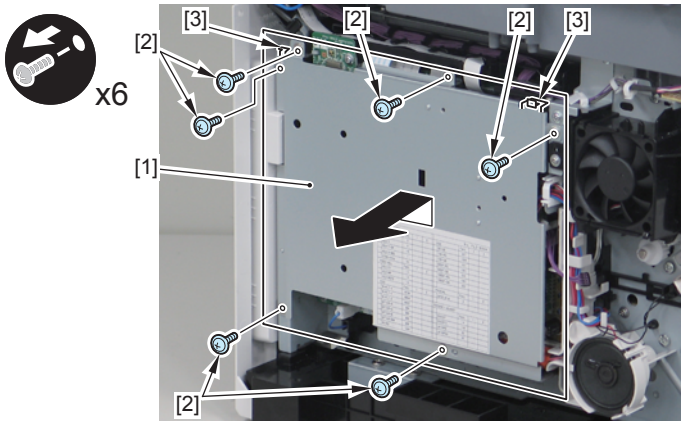
☐
20) Remove the Left Cover Unit.
21) After removing the Left Cover, place the host machine in the center of working table.

☐
22) Disconnect the connector [1].
- 1 Wire Saddle [2]



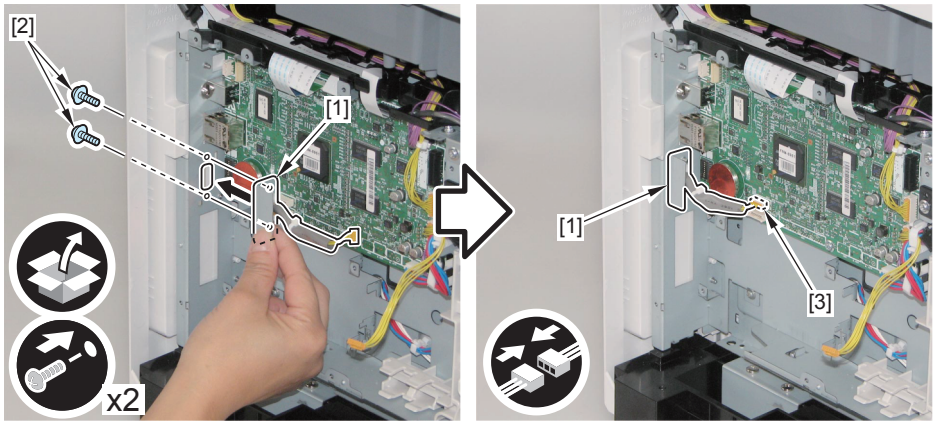
F-9-97

☐
23) Remove the Controller Cover [1].
- 6 Screws [2] (The removed screws will be used in step 25.)
- 2 Hooks [3]



F-9-98

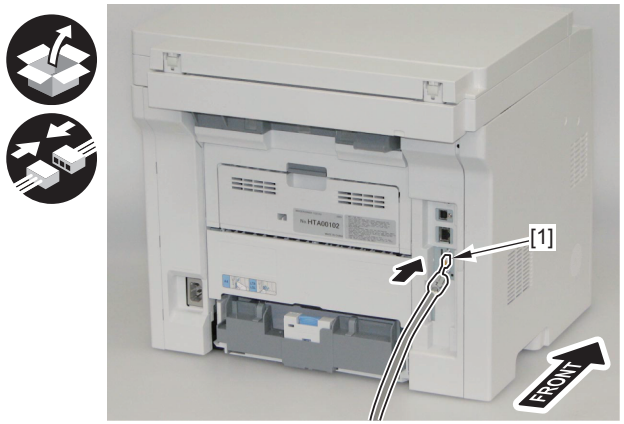
☐
24) Install the Card Reader Relay Unit [1].
- 2 Screws (TP; M3x6) [2]
- 1 Connector [3]



F-9-99

☐
25) Return the covers to their original positions.
- Controller Cover
- Left Cover

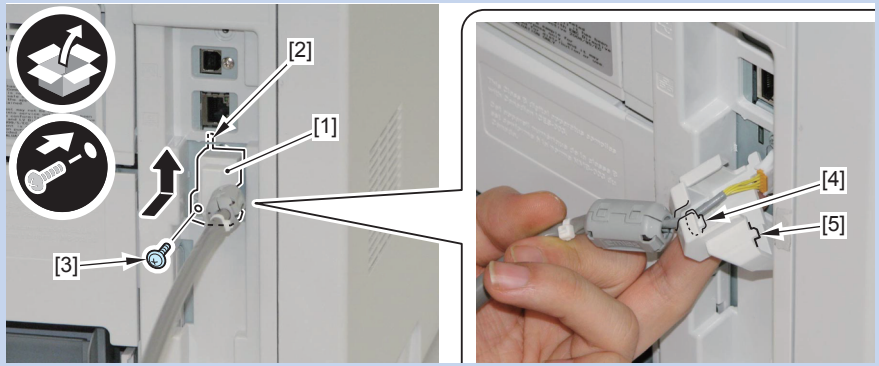
☐
26) Install the Card Reader Relay Harness [1].



F-9-100

☐
27) Install the Connector Cover [1].
- 1 Hook [2]
- 1 Protrusion [5]
- 1 Screw (TP; M3x6) [3]

NOTE :
When installing the Connector Cover, be sure to place the tie-wrap [4] inside the Connector Cover.



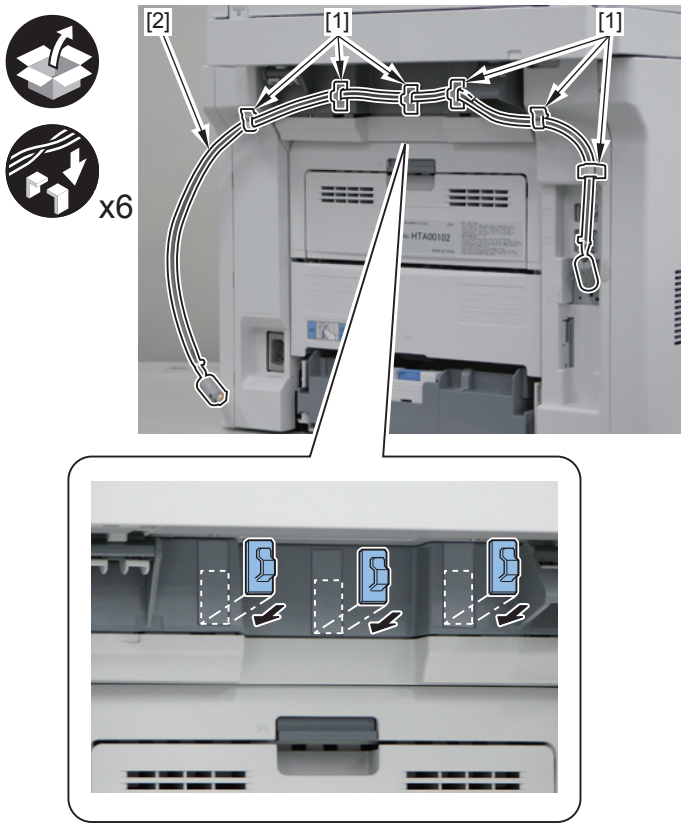
F-9-101

☐

28) Affix the 6 Cord Clamps [1] as shown in the figure, and install the Card Reader Relay Harness [2].

CAUTION:

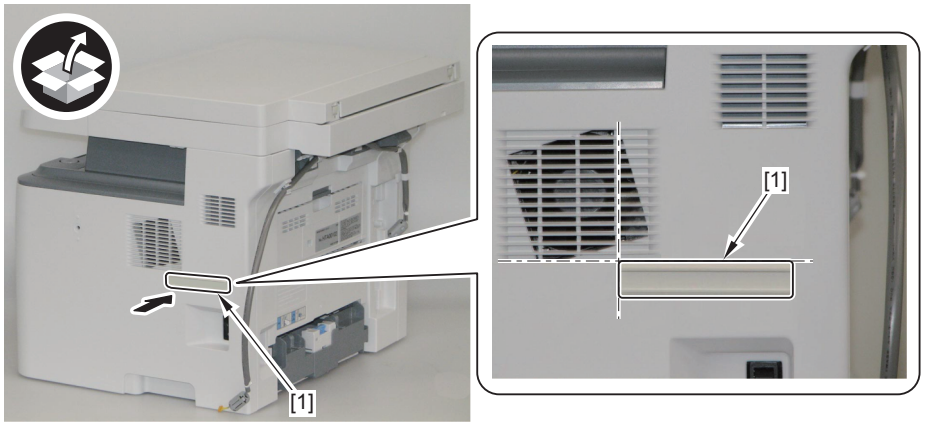
- When affixing the Cord Clamps, be sure to align them with the underside of the depression.
- Be sure that there is no extra slack when securing the Card Reader Relay Harness.



F-9-102

☐

29) Affix the Cord Guide [1] as shown in the figure remove the cover.

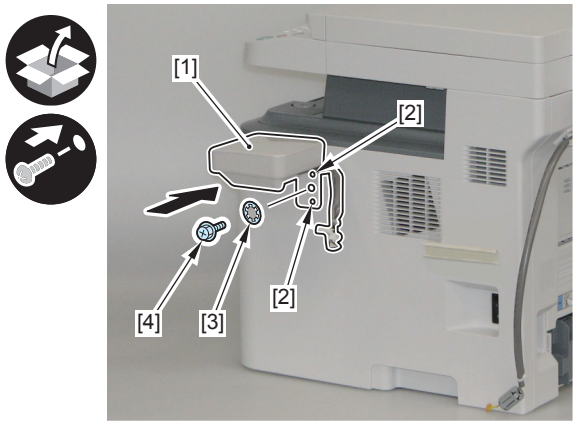


F-9-103

☐

30) Install the Card Reader [1].

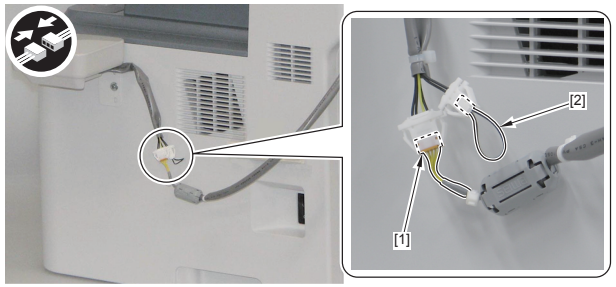
- 2 Bosses [2]
- 1 Toothed Washer [3]
- 1 Screw (RS Tightening; M4x10) [4]



F-9-104

☐
31) Connect the connector [1] of the Card Reader Relay Harness to the Card Reader.

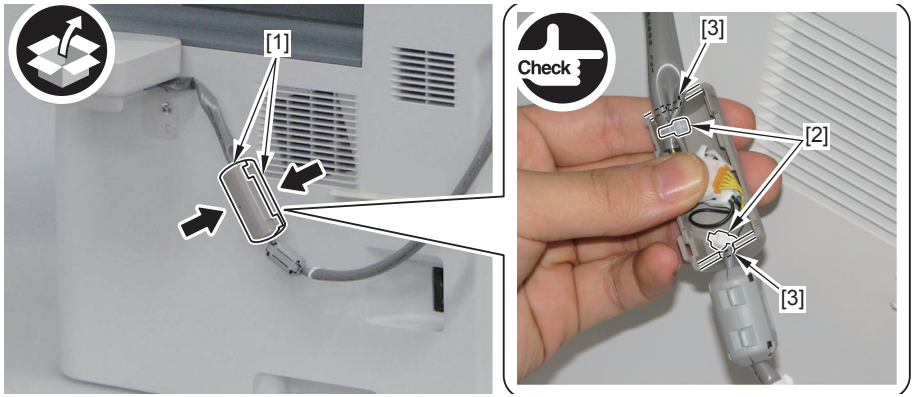
CAUTION:
Do not disconnect the short connector [2].



F-9-105

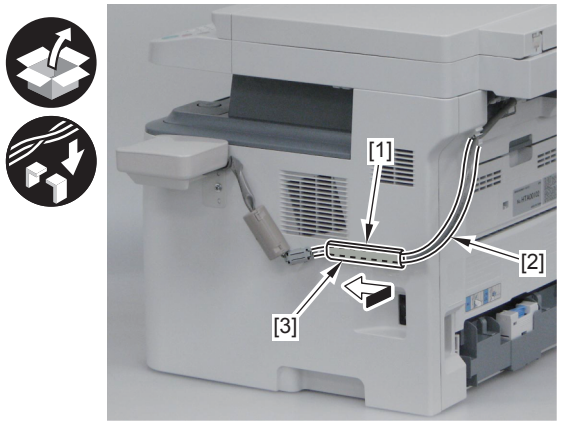
☐
32) Install the 2 Connector Cases [1].

CAUTION:
- When installing the Connector Case, be sure to place the tie-wraps [2] inside the groove [3] of the Connector Case.
- Be careful not to trap cables.



F-9-106

☐
33) Put the Card Reader Relay Harness [2] through the Cord Guide [1], and install the Cover [3] of the Cord Guide.



F-9-107

☐
34) Connect the power plug to the outlet.
35) Turn ON the main power switch.

Setting After Installation

□

Configure the card management information settings in service mode.

1) COPIER > FUNCTION > INSTALL > CARD-NUM, and enter the first number of the card to be used.

- Enter the smallest card number to be used by the user.

2) Sequence numbers beginning with the number specified in COPIER > FUNCTION > INSTALL > CARD are automatically registered.

- From the entered card number, 300 cards can be used.

3) Select ON for the Dept ID control.

- Menu > System Settings > Dept.ID manegement On/Off > ON > OK

4) Turn OFF and then ON the main power switch to enable the setting values.

5) Check that a message [You must insert a control card.] appears.

NOTE:
How to enter System Manager Settings
1) Enter the Manager ID : 7654321. (Default vallues)
2) Enter the PIN : 7654321. (Default values)
3) Press the "ID" key.

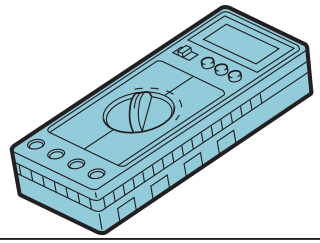
Appendex

- Service Tools
- Solvents and Oils
- General Timing Chart
- General Circuit Diagram

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-10-1 T-10-1

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	• Keep away from flame • Purchase locally
2	Lubricant	Apply to gear	• HY9-0007 (MOLYCOTE EM-50L)
3	Lubricant	Apply to ADF scanning area	• FY9-6020(Oil glass cleaner)

T-10-2

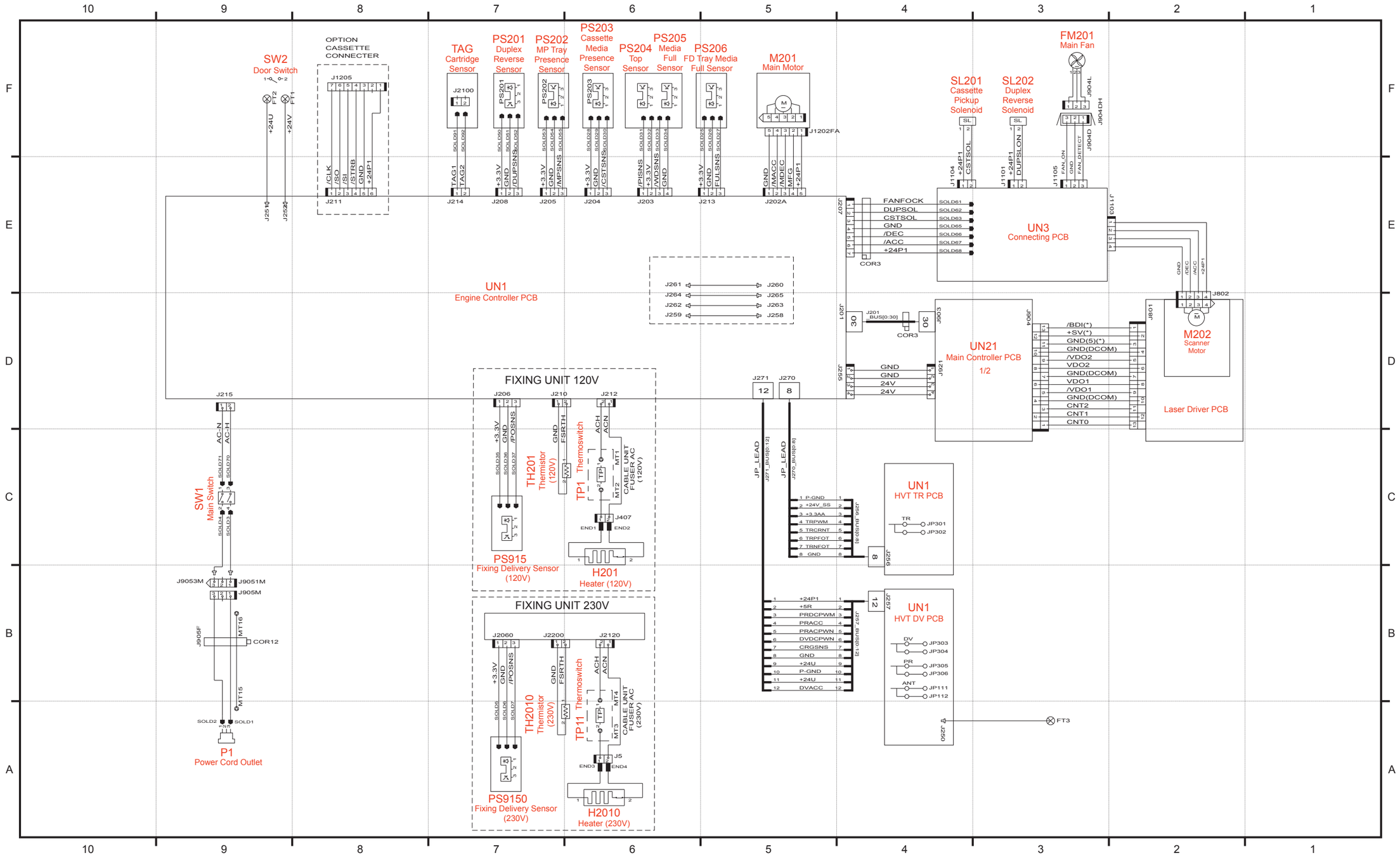
General Timing Chart

Timing chart two consecutive prints on LTR paper

F-10-2

General Circuit Diagram

General Circuit Diagram (1/2)

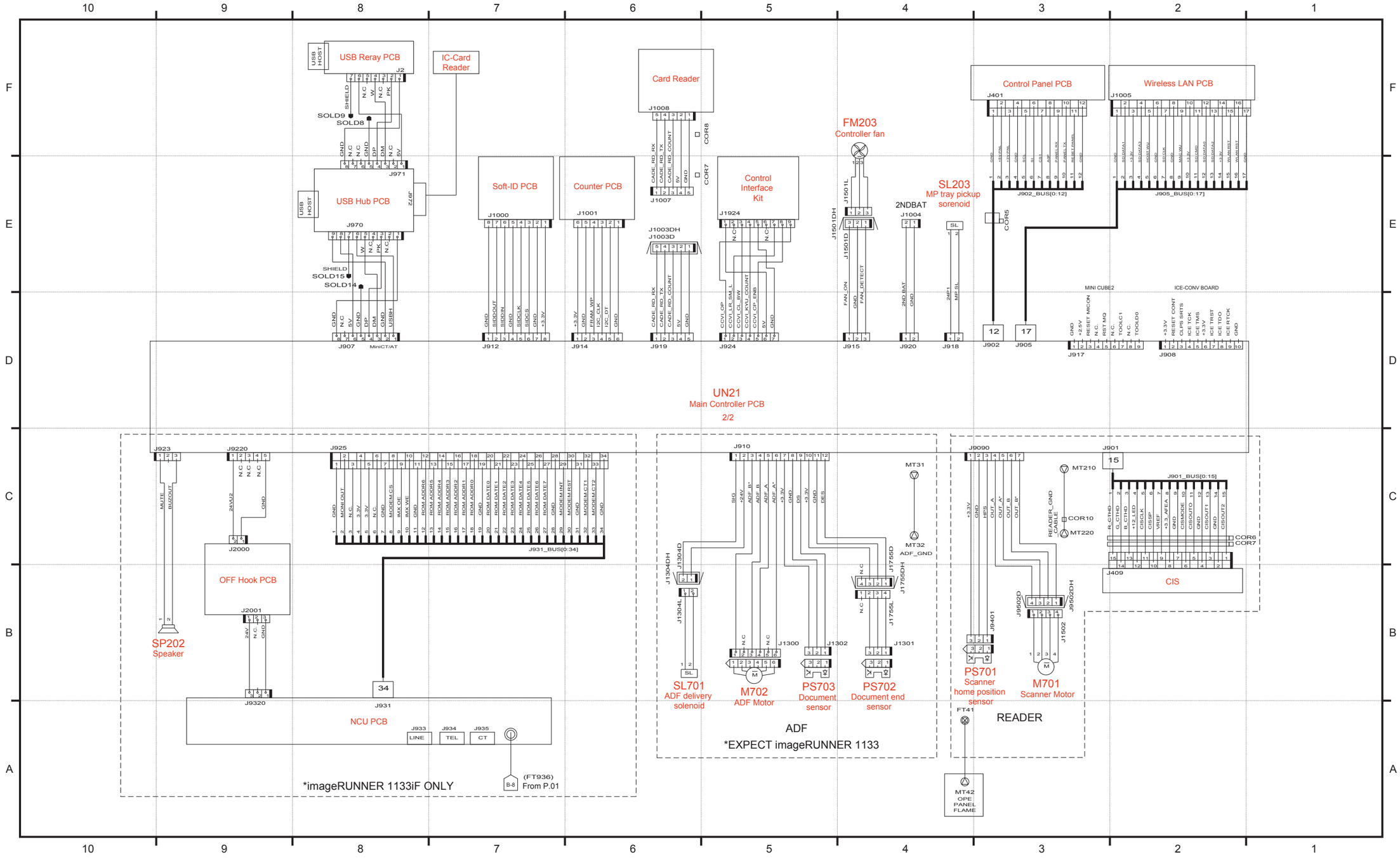


P.1

F-10-3

Appendix > General Circuit Diagram > General Circuit Diagram (1/2)

General Circuit Diagram (2/2)



Appendix > General Circuit Diagram > General Circuit Diagram (2/2)