MB472w

Maintenance Manual

110614A

Copyright Information

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The most up-to-date drivers and manuals are available from the web site:
http://www.okiprintingsolutions.com

PREFACE

This manual provides an overview of method for maintaining the MB472dnw.

This manual is intended for maintenance staff. For more information about how to operate the MB472dnw, please refer to User 's manual.

Note!
- Manual may be revised and updated at any time without notice.
- Unexpected mistakes may exist in the manual.
  OKI will not assume any responsibility whatsoever for damage to the equipmentrepaired/adjusted/changed by the user etc with this manual.
- The parts used for this printer may be damaged when handling inappropriately. We strongly recommend maintaining this machine by our registration maintenance staff.
- Please operate the machine after removing static electricity.

⚠Warning	
	Risk of explosion if battery is replaced by an incorrect type. Battery of the printer need not to be replaced. Do not touch the battery. Replace the whole board to replace the SU board (MSU). In the case of replacing batteries at board repairs, replace with the specified type ones. Installation of another type batteries may result in explosion. Caution for used batteries are as follows; do not recharge, force open, heat or dispose of in fire.

CONTENTS

1. CONFIGURATION

1.1 System configuration

System Configurations of the MFP Unit.

As the diagram 1-1 shows, for the MFP Unit is configured by Printer section and Scanner section.

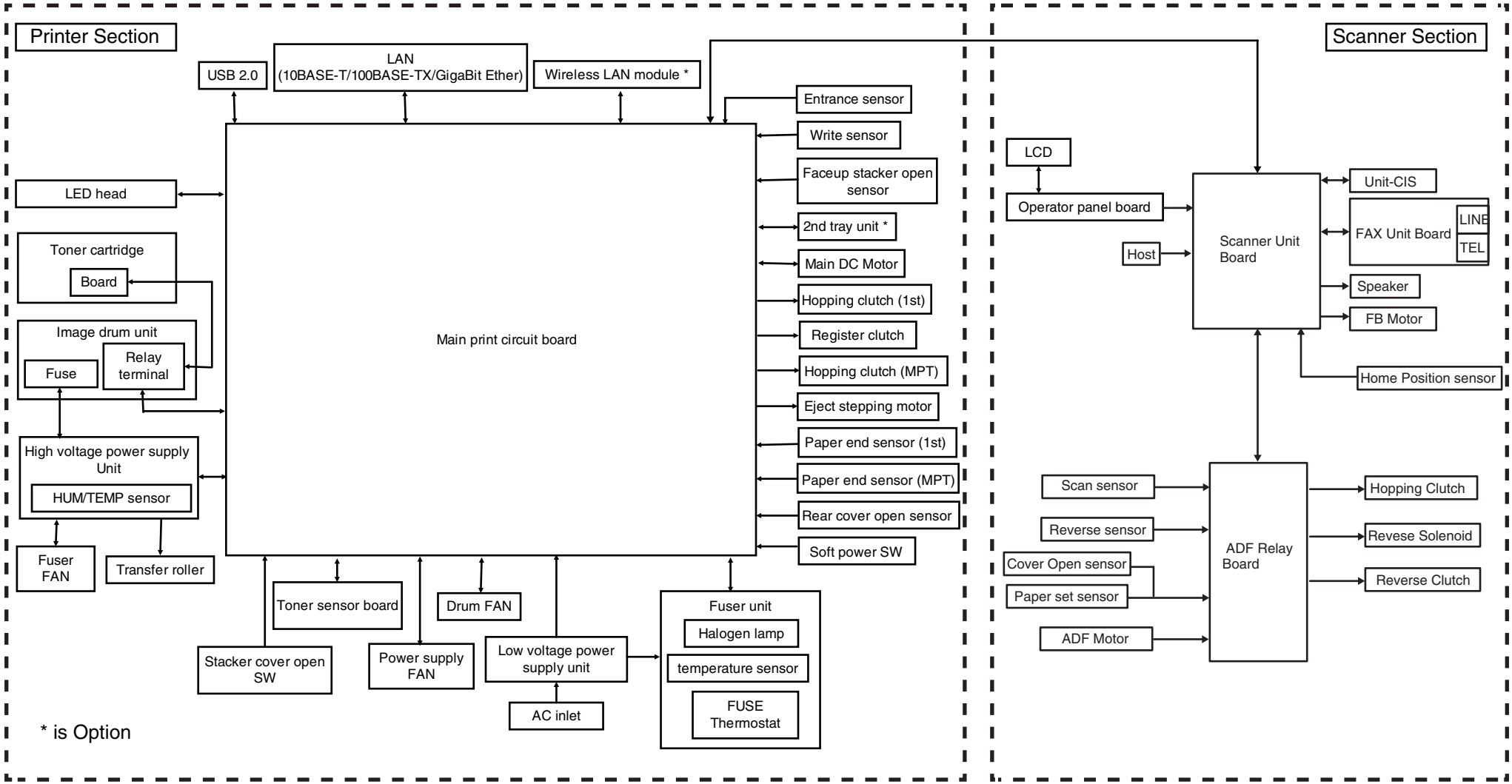


Figure 1-1

1.2 Structure of MFP

The insides of multi function printers are composed of the following parts.

- Scanner part
- Electronic photography process part
- Paper path
- Control part (CU part/PU part)
- Power supply parts (high voltage part/low voltage part)

Figure 1-2 shows the composition of the MFP.

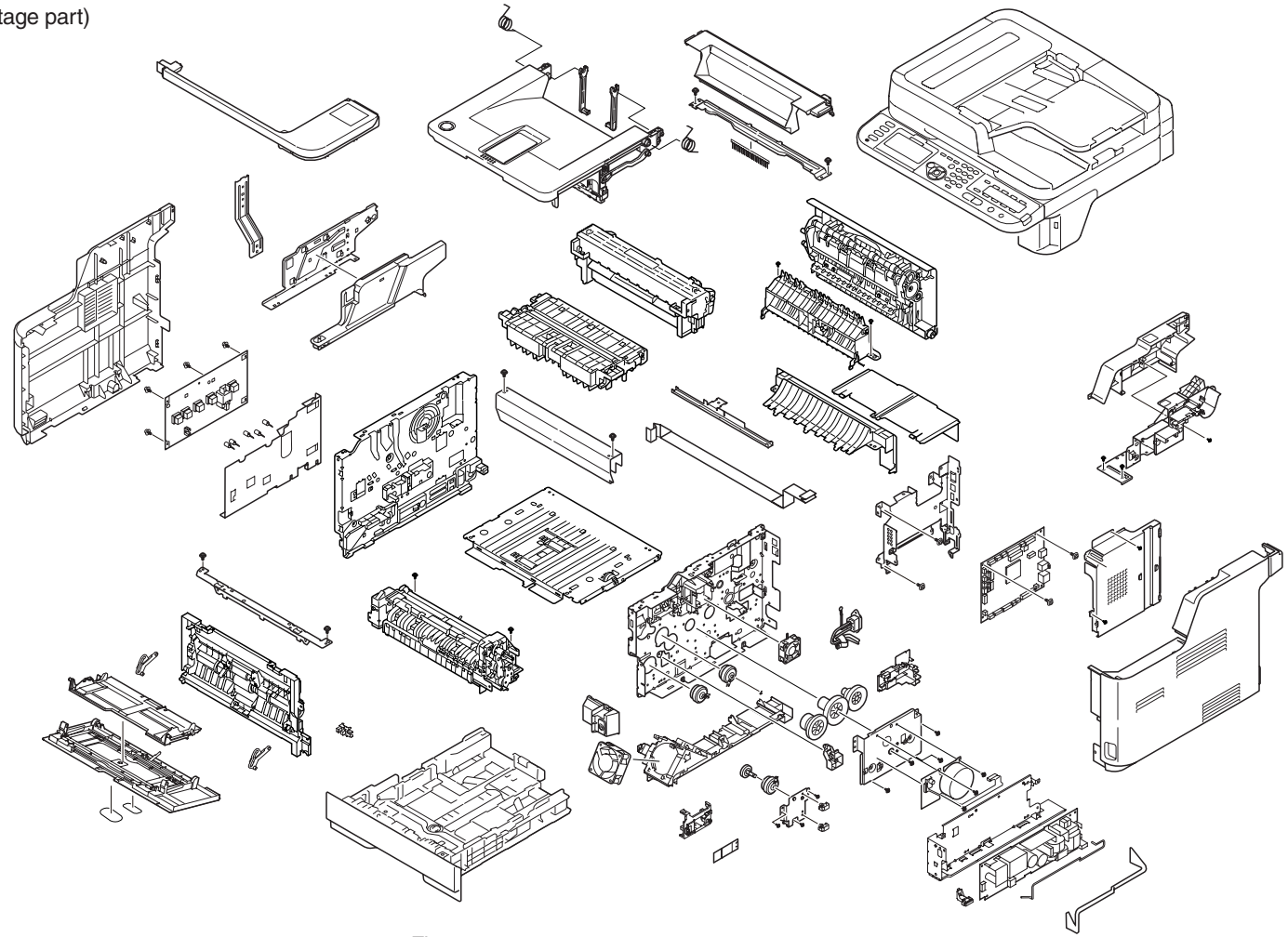
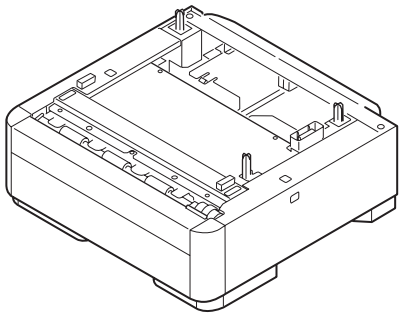


Figure 1-2

1.3 Offer of Options

This product can be installed with the following option.

(1) Second Tray Unit



1.4 Specifications

Print specifications

Item		MB472dnw
Segment		DT
Print speed (simplex)	A4	33ppm
	Letter	35ppm
Print speed (duplex)	A4	17ppm
	Letter	17ppm
Print Width		A4 / Letter
Time to First Print		5sec.
Warm-up time from power on		30sec.
Recovery time from deep sleep		7sec.
Resolution	Head	1200dpi
	Maximum Input dpi	1200x1200dpi
	Output dpi	1200x1200dpi , 600x600dpi , 300x300dpi (driver support only)
CPU	Core	MF2
	Clock	667MHz
RAM	Resident	512MB
	Option	No
ROM		3.0GB (eMMC) Program + font area : 256MB Data storage area : 2.75GB
HDD/SD card (Data storage)		No
Connectivity	Standard	USB 2.0 ,10/100/Gigabit Ethernet,Wireless 802.11abgn,Host USB x 1 (Front),RJ11x2 (Line/Tel)
	Options	No
Printer Language		PCL5e, PCL6(XL), EPSON FX, IBM ProPrinter, XPS
Fonts	Scalable Typefaces	87 PCL fonts
	Bitmap Typefaces	4 PCL fonts (Line Printer, OCR-A/B, USPS ZIP Barcode)
	Barcode	10 types of one dimension with 26 variations: UPC-A, UPC-E, EAN/JAN-8, EAN/JAN-13, Interleaved2of5, Code39, Code 128, EAN/UCC-128, CODABAR, ZIP+4POSTNET 2 types of two dimensions : PDF417, Qrcode

Item			MB472dnw
Paper input	Paper size	1st Tray	A4,A5,A6,B5,Letter,Legal13/13.5/14,Executive, Statement,16K (197 x 273),16K (195 x 270), 16K (184 x 260),Custom
		2nd Tray (Option)	A4,A5,B5,Letter,Legal13/13.5/14,Executive, 16K (197 x 273),16K (195 x 270),16K (184 x 260), Custom
		MPT	A4,A5,A6,B5,Letter,Legal13/13.5/14,Executive, Statement,16K (197 x 273),16K (195 x 270), 16K (184 x 260),4" x 6",5" x 7", Custom, C6, C5, DL, Com-9, Com-10, Monarch,NAGAGATA #3, NAGAGATA #4,YOUGATA #4, HAGAKI,OUFUKU HAGAKI
		Duplex	A4,B5,Letter,Legal13/13.5/14,Executive, 16K (197 x 273),16K (195 x 270),16K (184 x 260)
	Minimum paper size	1st Tray	3.9" x 5.8" (100 x 148mm)
		2nd Tray (Option)	5.8" x 8.3" (148x210mm) (A5 size)
		MPT	3.4" x 5.5" (86 x 140mm)
		Duplex	7.2" x 10.1" (182x257mm) (B5 size)
	Maximum paper size	1st Tray/ 2ndTray/ Duplex	8.5" x 14" (216 x 356mm) (Legal14 size)
		MPT	8.5" x 52" (216 x 1,321mm)
	Paper weight	1st Tray/ 2ndTray/ Duplex	16 - 32lb (60.16 - 120.32g/m^2)
		MPT	16 - 43lb (60 - 163g/m^2)
	Paper Capacity	1st Tray	250 sheets (80g/m^2)
		2nd Tray (Option)	530 sheets (80g/m^2)
		MPT	100 sheets (80g/m^2)

Item			MB472dnw
Paper output	Paper size	Facedown Tray	A4,A5,A6,B5,Letter,Legal13/13.5/14,Executive, 16K (197 x 273),16K (195 x 270), 16K (184 x 260),Statement,Custom
		Faceup Tray	A4,A5,A6,B5,Letter,Legal13/13.5/14,Executive, 16K (197 x 273),16K (195 x 270),16K (184 x 260), Statement,Custom, Com-9, Com-10, Monarch, DL, C5, C6, 4" x 6", 5" x 7",HAGAKI, OUFUKU HAGAKI, NAGAGATA #3, NAGAGATA #4, YOUGATA #4, Banner up to 52"
	Paper weight	Facedown Tray	16 - 32lb (60.16 - 120.32g/m2)
		Faceup Tray	16 - 43lb (60 - 163g/m2)
	Paper Capacity	Facedown Tray	150 sheets (≦ 80g/m2)
		Faceup Tray	100 sheets (≦ 80g/m2)
Acoustic noise		Operating	54dBA
		Operating (Quiet mode)	52dBA
		Standby	30dBA
		Power save mode	Background level
Power consumption		Deep sleep mode	1.9W
		Power save mode	10W
		Idle	95W
		Typical operation	600W
		Peak	950W
Power Requirment			<Voltage> ODA, Taiwan : 120V AC +/-10% OEL, ODA230, AOS : 230V AC +/-10% <Frequency> 50/60Hz +/-2%
Operating tempature			10 - 32 (C degree)
Operating humidity			20 - 80 %
Operation panel		Type/Color	Mono Graphic
		Size	3.5 inches
		Back Light	Yes (White)
		LED	Copy/Scan/Print/Fax(Blue),Status (Amber),Start (Green x 2),Power save (Green),Data in memory

Item		MB472dnw
Operation panel	Switches	Copy, Scan, Print, Fax, Status, Setting, Help, Reset, Back, OK, Arrow(Up/Down/Left/Right), Numerical(0-9,*,#), Clear, Mono Start, Color Start, Stop, Power Save, Speed dial (Job macro), Shift, One touch (x8),QWERTY keyboard
	Soft power switch	Front side : right bottom corner
Buzzer		Yes (Speaker)
Dimension (inch./mm)	Width	16.8"/427mm
	Depth	16.7"/425mm
	Height	17.9"/455mm
Weight		Approx. 20kg
Printer life		200,000 pages or 5 years
Max. Monthly Printer duty		60,000 pages
Recommended Duty Cycle		250 to 3,000 pages
MTBF (2.3% duty)		5,700 hours
MPBF		24,000 pages
MTTR		20 minutes
Toner life	Starter toner	Approx. 2,000 pages (company standard)
	Supplies	3,000 pages / 7,000 pages (@ISO19752)
Image drum life at simplex (w/o power save)	Continuous	44,000 pages
	3 pages per job	30,000 pages
	1 page per job	17,500 pages
Image drum life at duplex (w/o power save)	Continuous	11,500 pages
	6 pages per job	10,500 pages
	2 pages per job	8,500 pages
Transfer roller life		Equal to printer Life
Fuser life		Equal to printer Life

Item		MB472dnw
Print Function	Quiet mode	Yes
	Toner save mode	Yes
	Override A4/ Letter	Yes (for Printing)
	AirPrint	Yes
	Google Cloud Print	Yes
	USB direct print	Yes (TIFF)
	Secure Print	Yes
	Encrypt secure Print	Yes
	IC card reader	TBD (by firmware update)
Remote Firmware update		Yes
Certification		Energy star (ver.2), Blue Angel, Wi-Fi certified (WPA2 enterprise supported)

Copy specifications

Item		MB472dnw
Copy speed (Flatbed)	A4	up to 33cpm
	Letter	up to 35cpm
Copy speed (ADF simplex, multipul originals)	A4	up to 33cpm
	Letter	up to 35cpm
Copy speed (ADF duplex, multipul originals)	A4	16cpm
	Letter	16cpm
Time to first copy		10sec
Copy resolution	Scan	300x300dpi, 300x600dpi, 600x600dpi
	Print	600x600dpi
	Resolution selection	High speed, Normal, High quality
Original size	Flatbed	A4,A5,A6,B5,Letter,Executive Minimum size:N/A Maximum size:8.5"x11.69" (215.9x297mm)
	RADF(Simplex)	A4,A5,A6,B5,Letter,Legal13"/13.5"/14",Executive Minimum size:4.13"x5.8" (105x148mm) Maximum size:8.5"x14" (215.9x355.6mm)
	RADF(Duplex)	A4,A5,B5,Letter,Legal13"/13.5"/14",Executive Minimum size:4.13"x5.8" (105x148mm) Maximum size:8.5"x14" (215.9x355.6mm)
Original weight	Flatbed	N/A
	RADF	16 - 28lb (60 - 105g/m^2)
Original capacity	Flatbed	N/A
	RADF	50 sheets (80g/m^2)
Copy Scaling		Auto, Manual : 25% - 400%, Preset : 100%, 70%(A4->A5), 78%(Legal14->Letter), 81%(Legal13.5->Letter), 84%(Legal13->Letter), 86%(A4->B5), 94%(A4->Letter), 97%(Letter->A4), 98%(Fit to page), 115%(B5->A4), 141%(A5->A4)
Copy Quantity Selectcion		up to 99
Document type selection		Text, Photo/Text, Photo, Photo(Glossy)
Image quality adjustment		Density, Background removal, Contrast

Item		MB472dnw
Copy function	Duplex copy	Yes (1 to 2, 2 to 1, 2 to 2)
	ID card copy	Yes
	Collate	Yes
	Continuous scan	Yes
	N in 1	Yes (2in1/4in1)
	Repeart	Yes (x2/x4)
	Mixed originals	Yes (comibination of Letter and Legal 13/13.5/14)
	Edge erase	Yes (OFF, 2 to 50mm)
	Margin shift	Yes (OFF,-25 to +25mm from left/top)

Scan specifications

Item		MB472dnw
Sensor	type	Color CIS
	Optical resolution	600dpi
Scan speed	Flatbed	6 sec/page (A4, Gray, 300dpi), 11sec/page (A4, Color, 300dpi)
	ADF	2 sec/page (A4, Gray, 300dpi) , 6sec/page (A4, Color, 300dpi)
Original size		Same as Copy specifications
Scan to Function		Email, Shared folder (CIFS/FTP/HTTP), USB, Computer(Local PC), Remote scan
Scan to email, network PC, USB	Mode	Color, Grayscale, Binary
	Resolution	75, 100, 150, 200, 300, 400, 600dpi
	File format	PDF, Secure PDF, High compression-PDF, S-TIFF/M-TIFF(RAW/G3/G4 Compressed), JPEG(color, grayscale only), XPS
	Document type selection	Text, Photo/Text, Photo, Photo(Glossy)
	Duplex scan	Yes (OFF/Long edge bind/Short edge bind)
	Continuous scan (Job build)	Yes
	Image quality adjustment	Density, Background removal, Contrast, Hue, Saturation, RGB
	Edge erase	Yes (OFF, 5 to 50mm)
	File compression level	Color / Grayscale : Low / Medium / High Binary : Raw / Medium / High
	Address book	300 locations, 20 group address
	Scan profile	50 profiles
	File system (scan to USB)	FAT12, FAT(FAT16), FAT32
Scan to computer (with Actkey)	Mode	Color, Grayscale, Binary, Halftone
	Resolution	75, 100, 150, 200, 300, 400, 600dpi
	File format	PDF（Multi/Single), TIFF（Multi/Single), JPEG, BMP, PCX, GIF, TGA, PNG, WMF, EMF
Remote scan	Mode	Color, Grayscale, Binary, Halftone
	Resolution	75, 100, 150, 200, 300, 400, 600, 1200, 2400, 4800, 9600, 19200dpi, Custom(50 to 600dpi)
Communication data storage		Yes

FAX specifications

Item		MB472dw
Connetivity		PSTN, PBX line
Speed		ITU-T G3 (Super G3) up to 33.6kbps, Approx. 2seconds/page
Coding method		MH, MR, MMR, JBIG
Fax memory		4MB (Approx. 200pages)
One-touch dials		16 dials (8 x 2 using Shift key)
Speed dials		300 locations, 20 groups
On hook dial		Yes
Redial		Yes
Internet Fax		T.37 simple mode
Original size		A4, Letter, Legal13, Legal13.5, Legal14
Resolution		Std, Fine, Ex-fine, Photo
Density control		Yes (7 levels)
Duplex scan/print		Yes
Continuous scan		Yes
FAX function	TEl/TAD/FAX auto switching	Yes
	Distinctive Ring Detection	Yes
	Automatic Tray select for Fax print	Yes (Letter&Legal13/13.5/14)
	Block junk FAX	Yes
	PC FAX	Yes (sending only)
	Automated delivery	Yes
	Edge erase	Yes
	FAX reception image preview	No
	FAX to server (FAX gateway)	Yes

Common specifications

Item	MB472dw
Emulation	PCL / SIDM / XPS
Network (wired)	10/100/Gigabit
Network (wireless)	802.11a/b/g/n (standard)
SD memory	No
FDI	No
Protocol	TCP/IP v4, TCP/IP v6, NetBIOS over TCP, DHCP, BOOTP, HTTP, HTTPS, DNS, DDNS, WINS, UPNP, Bonjour., SMTP, POP3, SNMPv1&v3, SNTP, IPP, IPPS, WSD Print, WSD Scan, LLTD, IEEE802.1X, LPR, Port9100, Telnet, FTP, IPSec, Secure Protocol Server, LDAP, LDAPS, CIFS, FTP, FTPS, SMTP, SMTPS, AirPrint, Google Cloud Print, WLAN 802.11abgn

Report Print

No	Report Name	Manual	Auto
		Op Panel	
1	Configuration	Yes	No
2	File List	Yes	No
3	Error Log	Yes	No
4	Demo Page	Yes	No
5	MFP Usage Report	Yes	No
6	Network Information	Yes	No
7	PCL Font List	Yes	No
8	PSE Font List	No	No
9	PPR Font List	Yes	No
10	FX Font List	Yes	No
11	Engine Menu Print	Yes*	No
12	File System Check Report	No	No
13	Scan To Log Report	Yes	No
14	E-Mail Address List	Yes	No
15	Speed Dial List	Yes	No
16	Group List	Yes	No
17	Transmit Journal, Receipt Journal	Yes	Yes
18	Transmit Confirmation Report	No	Yes
19	Check Message	No	Yes
20	F-CODE Box Journal	No	Yes
21	Erased Report	No	Yes
22	F-Code Box List	Yes	No
23	Block Junk Fax List	Yes	No
24	T30 Monitor	Yes	No
25	E-mail/Internet FAX/ FAX Server Transmit and Receipt Journal	Yes	Yes
26	E-mail/Internet FAX Transmit Confirmation Report	No	Yes
27	E-mail/Internet FAX Check Message Report	No	Yes
28	Network Syslog Print	Yes	No
29	Print check Pattern	Yes	No

* Default settings is not to be displayed in a menu item.

1.5 Interface specifications

1.5.1 USB Interface Specification

1.5.1.1 Outline of USB Interface

(1) Basic Specification

USB

(2) Transmission Mode

Hi speed (480Mbps±0.05% max.)

(3) Power Control

Self power device

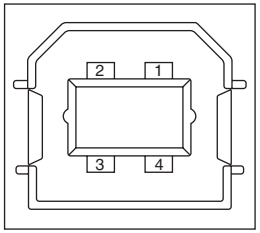
1.5.1.2 USB Interface Connector and Cable

(1) Connector

• Printer side: B receptacle (female)

Upstream port

Equivalent of UBR24-4K5C00 (made by ACON)



Connector pin arrangement

• Cable side: B plug (male)

(2) Cable

Cable length : Specification Cable of USB2.0 spec. of less than 5m.(less than 2m is recommended)

1.5.1.3 USB Interface Signal

	Name of Single	Function
1	Vbus	Power Supply (+5V)(red)
2	D -	Data transmission (white)
3	D +	Data transmission (green)
4	GND	Single ground (black)
Shell	Shield	

1.5.2 Network Interface Specification

1.5.2.1 Network Interface Basic Specification

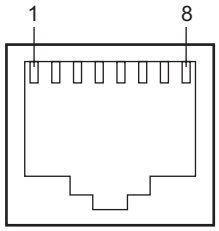
Network Protocol
· TCP/IP related

1.5.2.2 Network Interface Connector and Cable

(1) Connector

1000 Base-T/100 BASE-TX/10 BASE-T

(auto switch and simultaneous use are not available)



Connector pin arrangement

(2) Cable

Unshielded twisted pair cable with RJ-45 connectors (category 5e or later)

1.5.2.3 Network Interface Signal

Pin No.	Signal name	Functions
1	TRD+(0)	Transmit and receive Data 0 (+)
2	TRD-(0)	Transmit and receive Data 0 (-)
3	TRD+(1)	Transmit and receive Data 1 (+)
4	TRD+(2)	Transmit and receive Data 2 (+)
5	TRD-(2)	Transmit and receive Data 2 (-)
6	TRD-(1)	Transmit and receive Data 1 (-)
7	TRD+(3)	Transmit and receive Data 3 (+)
8	TRD-(3)	Transmit and receive Data 3 (-)

1.5.3 Telephone Line Interface Specification

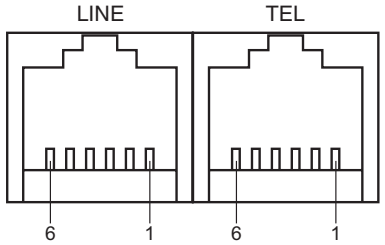
1.5.3.1 Outline of telephone Line Interface

The machine will reliably communicate with distant stations over voice-level telephone line.

1.5.3.2 Telephone Line Interface Connector and Cable

Connector Type : RJ-11
Cable Type : TEL Cable (With RJ-11 plug)

Connector contact arrengement



1.5.3.3 Telephone Line Interface signal

	Contact No.	Functions
TEL	1	Unspecified
	2	Unspecified
	3	TCP
	4	TCP
	5	Unspecified
	6	Unspecified
LINE	1	Unspecified
	2	Unspecified
	3	TCP
	4	TCP
	5	Unspecified
	6	Unspecified

TCP : Terminal Connection Point

1.5.4 USB Host Interface

1.5.4.1 Outline of USB Host Interface

(1) Basic Specification
USB

(2) Transmission Mode
Hi Speed (480Mbps±0.05% max.)

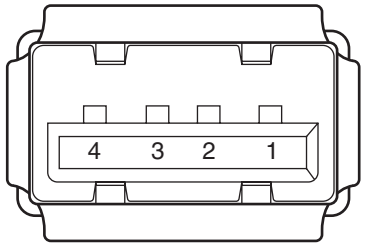
(3) Supply Power
Max. 500mA

(4) Connection devices
USB memory

1.5.4.2 USB Host Interface Connector

USB A plug connector

Equivalent of UBA-4R-D14-4DLF (JST Mfg. Co.,Ltd)



Connector pin arrangement

1.5.4.3 USB Host Interface Signal

	Name of Signal	Function
1	Vbus	Power Supply (+5V)(red)
2	D -	Data transmission (white)
3	D +	Data transmission (green)
4	GND	Single ground (black)
Shell	Shield	

1.5.5 Wireless LAN Interface

1.5.5.1 Outline of Wireless LAN

(1) Specification

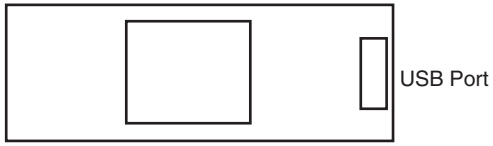
IEEE 802.11b/g/n (2.4GHz/5GHz)

(2) Power supply voltage

5V

(3) MFP side interfaces

USB



Note! In using wireless LAN, don't connect a LAN cable to this product.

2. TROUBLESHOOTING PROCEDURES

2.1 Precautions prior to repair

(1) Confirm the basic check items indicated in the User's Manual.

(2) Through hearing from the user, obtain information, as far in detail as possible, on the situation concerning the fault.

(3) Inspect the printer in a condition close to the actual situation in which the fault occurred.

2.2 Items to be checked prior to taking action on abnormal images

(1) Check to see if the printer is operated in an adequate environment.

(2) Check to see if the consumables (toner, drum cartridges) are replaced properly.

(3) Check to see if the right paper is used. See the paper specifications.

(4) Check to see if the drum cartridges are installed properly.

2.3 Precautions when taking action on abnormal images

(1) Do not bring your hand or any object in contact with the surface of the OPC drum.

(2) Do not expose the OPC drum to direct sun.

(3) Do not touch the fuser unit, which can be very hot.

(4) Do not expose the image drums to light for over five minutes at the room temperature.

2.4 Preparations for troubleshooting

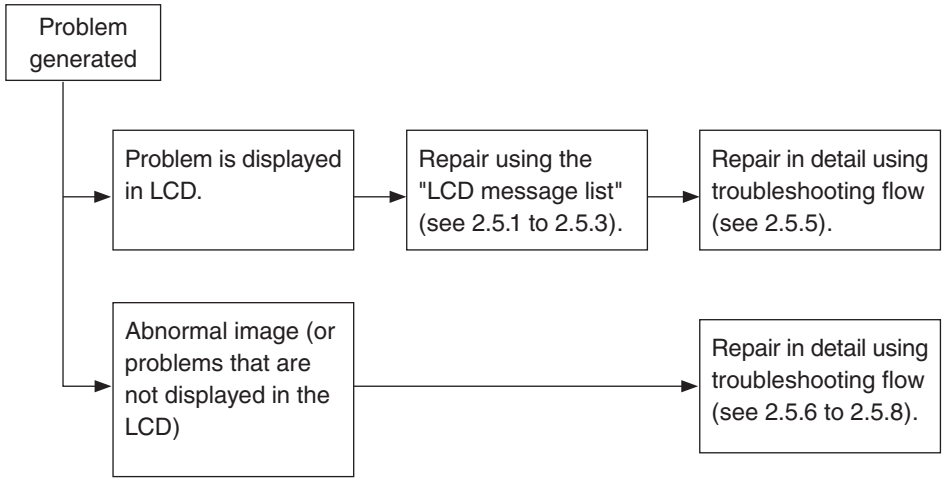
(1) Display of LCD

The breakdown situation of this machine is display in LCD.

Do an appropriate trouble repair based on information displayed in LCD.

2.5 Troubleshooting method

If a trouble occurs in the printer, search for it by the following procedure:



2.5.1 LCD messages list

Initializing & Shutdown

No.	Category	PJL Status Code	Error Warning		Description
1	Initializing	-	1 2 3 4 5	Menu Resetting	Indicates that EEPROM of the controller side is being reset. The condition that EEPROM is reset includes the followings. - Changes of destination channel - Compulsive initialization of EEPROM - Reset by a FactoryDefaults operator of PS - OEM set of PJL command
2	Initializing	-	1 2 3 4 5	Wait a moment. Network initializing ...	The network is in initializing. If this status occurred during the unit initialinzing the message is displayed by English.
3	Initializing	-	1 2 3 4 5	Flash Memory Format	Displays that Flash memory is being formatted. It is displayed it when "Service Menu"-"System Maintenance"-"Format Flash Memory" of a system maintenance menu is performed. The function mentioned above is secret to users. Therefore, this status does not occur in a user environment.
4	Initializing	-	1 2 3 4 5	Erasing Disk %PERCENT%	Indicates that the Flash memory is being erased. Erase process of the Flash memory is valid to start from "Management"-"Flash Memory Setup"-"Initialize" of Admin Setup Menu. %PERSENT% : A ratio of the capacity that elimination was finished.

No.	Category	PJL Status Code	Error Warning		Description
5	Initializing	-	1 2 3 4 5	%STORAGE% Error: %ERRCODE% To %STORAGE% format, select [Format] To shut down, select [Cancel]	%ERRCODE% : 0 Indicates that the unformatted storage is detected during the initializing. %ERRCODE% : 250 Indicates that machine detected broken file about secure print. Needs to format once again. [Format] pressed, Storage format is started and the unit is rebooted automatically. [Cancel] pressed, the unit is shut down. ---------- The following is changed by a status parameter. %STORAGE% : Multimedia Card %ERRCODE% : Error Code
6	Initializing	-	1 2 3 4 5	Status Mode	Displays that normal Online mode starts. Data (Job) from an external portion is processed even though an error takes place after Online (ready) state once this mode starts. Displays Error or Warning on a panel. This function is secret to users. Therefore, this status does not occur in a user environment.
7	Shutdown	-	1 2 3 4 5	Shutdown in progress. Please wait. The machine turns off automatically.	It is shown that a unit is shutting down.

Normal

No.	Category	PJL Status Code	Error Warning		Description
1	Normal	40988	1 2 3 4 5	PU downloading ...	Downloading PU F/W (This is not user-level error) This function is secret to users. Therefore, this status does not occur in a user environment. It occurs during downloading firmware of option tray.
2	Normal	40825	1 2 3 4 5	Wait a moment. Message Data processing ...	Indicates that message data to be updated is being processed.
3	Normal	40826	1 2 3 4 5	Wait a moment. Message Data writing ...	Indicates that message data to be updated is being written.
4	Normal	40827	1 2 3 4 5	Power OFF/ON Message Data written OK.	Indicates that message data to be updated has been written successfully.

No.	Category	PJL Status Code	Error Warning		Description
5	Normal	40828	1 2 3 4 5	Please check data. Message Data Write Error %CODE%	Indicates that writing of message data to be uploaded has been failed. %CODE% is a decimal value (one digit) and represents the cause of failure in writing. = 1 … FAIL: Other errors. = 2 … DATA_ERROR: Hash check error in data reading/writing, or abnormal FLASH = 3 … OVERFLOW: Downloading failure due to FLASH memory full at starting or during writing in a language file = 4 … MEMORYFULL: Memory reservation failure = 5 … UNSUPPORTED_ DATA: Downloading data unsupported on the MFP
6	Normal	30956	1 2 3 4 5	Wait a moment. Network Configuration writing ...	This appears during the NIC configuration data is storing into the flash memory, as the setting was changed.
7	Normal	30993	1 2 3 4 5	Wait a moment. Network initializing ...	This appears when the NIC initialization is occurred, as the setting was changed.
8	Normal	10798	1 2 3 4 5	SIP update in progress.	Indicates that downloading the SIP firmware data.
9	Normal	-	1 2 3 4 5	Please check data. Program Data Write Error <%DLCODE%>	Indicates that an error has happened while writing the SIP download data. %DLCODE% 1: Data transfer error 2: No device space 3: Check sum error 4: Chip detection error 5: Chip erace error 6: Chip writing error 7: Chip verify error 8: Data error (Product code is wrong e.t.c.) 9: Data size error
10	Normal	10795	1 2 3 4 5	%RDYMSG%	Indicates that the unit date is being updated by using PJL command.
11	Normal	10796	1 2 3 4 5	%RDYMSG%	Indicates that the requested process is finished. "Passed" is displayed, if the process is completed correctly. "Failed" is displayed, if the process is finished with an error. This indication disappear automatically after it displayed for three seconds.
12	Normal	10759	1 2 3 4 5	Wait a moment. Executing maintenance.	Executing maintenance. While this status occurs, panel is locked.
13	Normal	10001	1 2 3 4 5	Online Mode Ready to print.	Shows Online status.

No.	Category	PJL Status Code	Error Warning		Description
14	Normal	10002	1 2 3 4 5	<Print Stand-by Screen> Offline ---------- <Status Key> Offline Mode	Shows Offline status.
15	Normal	10993	1 2 3 4 5	File accessing ...	The status showing FILE SYSTEM (FLASH) is being accessed.
16	Normal	10061	1 2 3 4 5	Data arrive.	Data receiving, process not started yet. Displayed mainly during PJL process without text print data or during job spooling.
17	Normal	10023	1 2 3 4 5	Processing ...	Data receiving or output processing
18	Normal	10096	1 2 3 4 5	Data present.	Un-printed data remains in Buffer. Waiting for data to follow.
19	Normal	10098	1 2 3 4 5	Print page %PAGES% No. of Copies %A%/%B%	Printing the following print job and reports. - PC Printing - Engine Status - File System Error Report - T30 Monitor - MFP Usage Report "Print page" means the current number of printing page (%PAGES%). "No of Copies" is displayed as "%A%/%B%". %A%: The number of copy in printing. %B%: the total number of printing.

No.	Category	PJL Status Code	Error Warning		Description
20	Normal	10017	1 2 3 4 5	Demo Page printing ...	Printing Demo Pages. Indicates that the stored Demo Print data is printing, and the installed Demo Print data in Flash is printing.
21	Normal	10015	1 2 3 4 5	Font List printing ...	Printing Font Lists. Indicates that printing sample data of the following fonts. - PCL Font List - PPR Font List - FX Font List
22	Normal	10014	1 2 3 4 5	Configuration printing ...	Printing Configuration. Indicates that printing of menu items and the current settings.
23	Normal	10056	1 2 3 4 5	File List printing ...	Printing File Lists. Indicates that printing of the stored File (except hidden files) list in File system(FLASH).
24	Normal	10057	1 2 3 4 5	Error Log printing ...	Printing Error Logs
25	Normal	10942	1 2 3 4 5	Network Information printing ...	It is shown that a network setup is printing. - Network Information - Network Syslog If chosen by menu "Reports"-"System"-"Network Information", printing of a network setup will be started.
26	Normal	10891	1 2 3 4 5	MFP Usage printing ...	Printing MFP Usage Report.

No.	Category	PJL Status Code	Error Warning		Description
27	Normal	10889	1 2 3 4 5	Scan To Log printing ...	Printing Scan to Log.
28	Normal	10099	1 2 3 4 5	Print page %PAGES% No. of Copies %A%/%B%	Collate printing. "Print page" means the current number of printing page (%PAGES%). "No of Copies" is displayed as "%A%/%B%". %A%: The number of copy in printing. %B%: the total number of printing. The unit of "Print page" is "Impression". In simplex printing, "Print page" counter is increased by 1 when the paper exited from fuser. In duplex printing, "Print page" counter is increased by 2 when the paper exited from fuser (after the back side printed out).

No.	Category	PJL Status Code	Error Warning		Description
29	Normal	10099	1 2 3 4 5	Print page %PAGES% No. of Copies %A%/%B%	Copy printing. "Print page" means the current number of printing page (%PAGES%). "No of Copies" is displayed as "%A%/%B%". %A%: The number of pages in printing. %B%: The total number of printing. The unit of "Print page" is "Impression". In simplex printing, "Print page" counter is increased by 1 when the paper exited from fuser. In duplex printing, "Print page" counter is increased by 2 when the paper exited from fuser (after the back side printed out).
30	Normal	10897	1 2 3 4 5	Verifying data.	Indicates that the integrity of print data for encrypted authentication is being verified (for corruption and tampering).
31	Normal	10007	1 2 3 4 5	Deleting data.	Indicates that job cancellation has been instructed and data is being ignored until the job completion.
32	Normal	10007	1 2 3 4 5	Deleting data.	Indicates if JAM occurs when Jam Recover is OFF, that job cancellation has been instructed and data is being ignored until the job completion.

No.	Category	PJL Status Code	Error Warning		Description
33	Normal	10007	1 2 3 4 5	Deleting data.	Indicates a job being cancelled due to no print permit. (Related to JobAccount) 1. A job received from a user who is denied printing. 2. A color job received from a user who is denied color printing.
34	Normal	10989	1 2 3 4 5	Warming Up.	Shows cooling down status. It is cautious of a period following "Preparing".
35	Normal	10003	1 2 3 4 5	Warming up	Warming up.
36	Normal	-	1 2 3 4 5	Cancelling ...	Indicates that copy job is cancelling.
37	Normal	10863	1 2 3 4 5	<Scan To Mail/ Network PC Screen> Scanning ... P.%SCAN_PAGE% %LOCATION_INFO% %DOC_SIZE%	Indicates that it is scanning of documents. The unit of "Page" is "Impression". In duplex scanning, "Page" counter is increased by 1 when the front side of sheet scanning started, and the counter is increased by 1 when the back side scanning started.

No.	Category	PJL Status Code	Error Warning		Description
37	Normal	10863		<ScanToUSBMemory> Scanning ... P.%SCAN_PAGE% %DOC_SIZE% <PushScan> Scanning ... %SCAN_PAGE%page %AP_INFO% <PCScan> Scanning ... <Status AP> Scanning ... <Fax Sending Screen> Scanning ... %TXPAGE% Page(s) %DOC_SIZE% <Fax Manual Sending Screen> Manual Fax sending: Sending ... %TXPAGE% Page(s) %DOC_SIZE%	%LOCATION_INFO%: Location Information (Scan To E-mail, Scan To Network PC only) %SCAN_PAGE% : the number of current scanning page. %DOC_SIZE% : Document size Scan Size setting is "Auto" : the detected document size. Scan Size setting isn't "Auto" : the selected scan size. --- Indicates that it is scanning of documents by ScanToUSBMemory. The unit of "Page" is "Impression". In duplex scanning, "Page" counter is increased by 1 when the front side of sheet scanning started, and the counter is increased by 1 when the back side scanning started. %SCAN_PAGE%: the number of current scanning page. %DOC_SIZE%: Document size Scan Size setting is "Auto" : the detected document size. Scan Size setting isn't "Auto" : the selected scan size. --- Indicates that it is scanning of documents by Push Scan / PC Scan. %AP_INFO% : Selected application setting. While a document is scanned by FAX memory transmission, status LED does not illuminate because this status is not raise.

No.	Category	PJL Status Code	Error Warning		Description
38	Normal	-	1 2 3 4 5	<ScanToPrintAP> Scan Pages sss Print Pages ppp Copy aa/bb ---------- It cannot confirm this message from a status key.	Indicates that it is copying. sss: the number of current scanning page. ppp: the number of current printing page. aa: the number of current printing. bb: the total number of printing. The unit of "Scanned pages" is "Impression". For example, in duplex scanning, "Scanned pages" counter is increased +1 at the front side of sheet scanning started, and the counter is increased +1 at the back side scanning started. The unit of "Print pages" is "Impression". In simplex printing, "Print page" counter is increased by 1 when the paper exited from fuser. In duplex printing, "Print page" counter is increased by 2 when the paper exited from fuser (after the back side printed out).
39	Normal	-	1 2 3 4 5	<Copy Screen> Please set next document. ------------------------------ <Scan To, Fax Sending Screen> Please set next document.	This screen is displayed at the time of the scanning completed in Job Build = ON.
40	Normal	10861	1 2 3 4 5	Cancelling ...	Indicates that the scanning for Scan To is cancelling by the pressing Stop key.

No.	Category	PJL Status Code	Error Warning		Description
41	Normal	10859	1 2 3 4 5	Data writing to USB Memory.	Indicates that it is wrighting the image file to USB memory after the scanning completed. The cancel operation by STOP key pressing is unsupported during the writing to USB memory.
42	Normal	10797	1 2 3 4 5	Connecting to PC ...	Indicates that it is connecting to PC. This message will be displayed at Start key pressed after the orignal document set.
43	Normal	-	1 2 3 4 5	Telephone	Indicates that tha fax receiving started.
44	Normal	-	1 2 3 4 5	Fax receiving ... Page: %RXPAGE% ======== [F-code PollingRX] Fax receiving ... Page: %RXPAGE% %RXFAXNUMBER%	Indicates that it is receiving fax data. %RXPAGE% : number of the current receiving page %RXFAXNUMBER% : sender Fax no. (※F -code PollingRX only) In the case that the F-code PollingRX is done by using speed dial, display field is the following... A dial number is displayed during dialing An entry name is displayed in fax no. field during fax receiving.

No.	Category	PJL Status Code	Error Warning		Description
45	Normal	-	1 2 3 4 5	Fax receiving ... Page: %RXPAGE% ======== [F-code PollingRX] Fax receiving ... Page: %RXPAGE% %RXFAXNUMBER%	Indicates that it is receiving fax data. %RXPAGE% : number of the current receiving page %RXFAXNUMBER% : sender Fax no. (※F -code PollingRX only) In the case that the F-code PollingRX is done by using speed dial, display field is the following... A dial number is displayed during dialing An entry name is displayed in fax no. field during fax receiving.
46	Normal	-	1 2 3 4 5	Fax calling ... %TXFAXNUMBER%	Indicates that it is calling. %TXFAXNUMBER% : fax number of the calling.
47	Normal	-	1 2 3 4 5	Fax calling ... %TXFAXNUMBER%	Indicates that it is negotiating. %TXFAXNUMBER% : fax number of the calling.

No.	Category	PJL Status Code	Error Warning		Description
48	Normal	-	1 2 3 4 5	Fax sending ... Page: %TXPAGE% %TXFAXNUMBER% ======== [F-code PollingTX] Fax sending ... Page: %TXPAGE%	Indicates that it is sending fax data. %TXPAGE% : number of the current receiving page %TXFAXNUMBER% : recipient Fax no.(Not display on F-code PollingTX) In the case of manual fax sending, "Manual Fax sending: Sending ..." is displayed on LCD. Scan page count and document size are displayed in the left bottom. Page number, Fax no. are not displayed. In the case that the fax sending is done by using speed dial, fax no. is displayed during both dialing and sending.
49	Normal	-	1 2 3 4 5	Fax sending ... Page: %TXPAGE% %TXFAXNUMBER% ======== [F-code PollingTX] Fax sending ... Page: %TXPAGE%	Indicates that it is sending fax data. %TXPAGE% : number of the current receiving page %TXFAXNUMBER% : recipient Fax no.(Not display on F-code PollingTX) In the case of manual fax sending, "Manual Fax sending: Sending ..." is displayed on LCD. Scan page count and document size are displayed in the left bottom. Page number, Fax no. are not displayed. In the case that the fax sending is done by using speed dial, fax no. is displayed during both dialing and sending.

No.	Category	PJL Status Code	Error Warning		Description
50	Normal	-	1 2 3 4 5	Cancelling ...	Indicates that the scanning for fax sending is cancelling by pressing Stop key.
51	Normal	10878 10868	1 2 3 4 5	Network communicating ... %STATUS%	Indicates that the details of network communication. %STATUS% E-mail transmission in progress. Transmission in progress. E-mail transmission in progress: indicates that E-mail data is sending to Mail Server. Transmission in progress: indicates that data sending via network. The cancel operation by STOP key pressing is unsupported during E-mail and fail sending.
52	Normal	10879	1 2 3 4 5	Connecting to server ...	Indicates that connecting to mail server. The cancel operation by STOP key pressing is unsupported during the connecting to mail server.

No.	Category	PJL Status Code	Error Warning		Description
53	Normal	10875	1 2 3 4 5	Cancelling sending ...	Indicates that E-mail sending is cancelling. This massage is displayed when an error is occurred during E-mail sending. When E-mail is being sent, user cannot cancel the sending by pressing "STOP" key. The key operation is disableed during this message displayed.
54	Normal	10869	1 2 3 4 5	Connecting to server ...	Indicates that connecting to file server. The cancel operation by STOP key pressing is unsupported during the connecting to file server.
55	Normal	10865	1 2 3 4 5	Cancelling sending ...	Indicates that file sending is cancelling. This message is displayed when an error is occurred during file sending. When file is being sent to server, user cannot cancel the sending by pressing "STOP" key. The key operation is disableed during this message displayed.
56	Normal	10799	1 2 3 4 5	Address Book printing ...	Indicates that printing of E-mail address list and Group address list that they are registered in Address Book.
57	Normal	10800	1 2 3 4 5	Speed Dial List printing ...	Indicates that printing of fax location list that is registered in Speed dial.

No.	Category	PJL Status Code	Error Warning		Description
58	Normal	10801	1 2 3 4 5	Group List printing ...	Indicates that printing of fax location list that is registered in Group dial.
59	Normal	10802	1 2 3 4 5	Transmit Journal printing ...	Indicates that printing of fax sending result list.
60	Normal	10803	1 2 3 4 5	Receipt Journal printing ...	Indicates that printing of fax receiving result list.
61	Normal	10804	1 2 3 4 5	Transmit/Receipt Journal printing ...	Indicates that printing of fax communication (sending and receiving) result list.
62	Normal	10805	1 2 3 4 5	Daily Journal printing ...	Indicates that printing of fax comunication (sending and receiving) result list that was executed within 24 hours.
63	Normal	10806	1 2 3 4 5	MCF Report printing ...	Indicates that printing of fax sending confirmation report.
64	Normal	10807	1 2 3 4 5	Check Message printing ...	Indicates that printing of fax communication error report.
65	Normal	10808	1 2 3 4 5	Fcode Box Journal printing ...	Indicates that printing of the message report that fax receiving data is sroted in F code box by F code receiving.
66	Normal	10809	1 2 3 4 5	Erased Report printing ...	Indicates that printing of the message report that the stored fax data in memory was eraced.

No.	Category	PJL Status Code	Error Warning		Description
67	Normal	10810	1 2 3 4 5	Fcode Box List printing ...	Indicates that printing of the enabled F code box list.
68	Normal	10811	1 2 3 4 5	Block Junk Fax List printing ...	Indicates that printing of the location list that is not permission to receive fax.
69	Normal	10812	1 2 3 4 5	Stored Doc. List printing ...	Indicates that printing of the stored fax image data list.
70	Normal	10793	1 2 3 4 5	Data transmission in progress.	Indicates that scanned image data sending to PC. Cannot see the message at broadband network environment.
71	Normal	10838	1 2 3 4 5	Cancelling ...	Indicates that the image data writing to USB memory is cancelling. This massage is displayed when an error is occurred during the data writing to USB memory. The key operation is disableed during this message displayed.
72	Normal	-	1 2 3 4 5	Fax Rx Doc. printing ...	Printing fax Received Data.
73	Normal	-	1 2 3 4 5	Fax Store Doc. printing ...	Printing Stored fax sending data.

No.	Category	PJL Status Code	Error Warning		Description
74	Normal	-	1 2 3 4 5	Do you wish to resume scanning?	Indicates to resume the ADF scanning for copy. The message is displayed when occurring some printer related errors and clearing the error conditions. If all sheets are scanned correctly and no remained before stopping the scanning, the message is not displayed.
75	Normal	-	1 2 3 4 5	Cancelling ...	Indicates that cancellation of PushScan (by panel operation) is accepted and being processed. The status falls when the processing is complete.
76	Normal	-	1 2 3 4 5	File loading from USB Memory.	Indicates that a file is being read from a USB memory. Pressing Stop key will cancel the job.
77	Normal	-	1 2 3 4 5	Cancelling ...	Indicates that reading from a USB memory is being cancelled.
78	Normal	-	1 2 3 4 5	An error occurred. Scanning is pending.	Indicates that scanning has been suspended.
79	Normal	10764	1 2 3 4 5	MCF Report printing ...	Indicates that printing of Internet fax sending confirmation report.
80	Normal	10765	1 2 3 4 5	Check Message printing ...	Indicates that printing of Internet fax communication error report.
81	Normal	10766	1 2 3 4 5	Transmit/Receipt Journal printing ...	Indicates that printing of Internet fax and E-mail communication (sending and receiving) and FAX server (sending) result list.
82	Normal	-	1 2 3 4 5	Cancelling ...	This appears when scanning is cancelled in ScanToFax mode.
83	Normal	10794	1 2 3 4 5	Please insert USB Memory.	Indicates that Scan to USB memory / PrintFromUSBMemory is selected without USB memory connection.
84	Normal	-	1 2 3 4 5	Registering with Google Cloud Print. Don't turn off the power untill registration is complete.	Indicating that it is processing registration of the printer to Google cloud print service. Printer communicates with the Google Cloud Print service over the Internet.
85	Normal	-	1 2 3 4 5	Deleting from Google Cloud Print.	Indicating that it is processing deleting of the printer to Google cloud print service. Printer communicates with the Google Cloud Print service over the Internet.
86	Normal	-	1 2 3 4 5		Indicating that printer/MFP received the command for identifying printer from AirPrint device such as iPhone, This status is removed automatically in 10 seconds.

Warning

No.	Category	PJL Status Code	Error Warning		Description
1	Warning	10081 (K)	1 2 3 4 5	%COLOR% Toner Low Please see Help for details.	Toner amount is low. Moreover, when set as "Admin Setup"-"Management"-"System Setup"-"Near Life LED"=Disable, Alarm LED is switched off. %COLOR% K
2	Warning	10924 (K)	1 2 3 4 5	NON RECOMMENDED TONER Please see Help for details.	It is not a toner cartridge of an original manufacturer's product. %COLOR% K
3	Warning	10954 (K)	1 2 3 4 5	NON RECOMMENDED TONER. Please see Help for details.	It is not a toner cartridge of an original manufacturer's product. %COLOR% K
4	Warning	10950 (K)	1 2 3 4 5	Non Recommended Toner Please see Help for details.	It is not a toner cartridge of an original manufacturer's product. %COLOR% K
5	Information	-	1 2 3 4 5	%INFO%	Indicates that the new consumable (toner). This status should be appeared at detecting the new consumable (toner), and be disappeared automatically after 3 seconds. %INFO% is contained in the consumable tag. [OKI Original]
6	Warning	10076 (K)	1 2 3 4 5	Image Drum Unit Near Life Please see Help for details.	The life of the drum (warning). Displayed in a combination of other message in the first line. The printer stops at the point when it reaches the drum life (Shifts to error, OFF-LINE.) Moreover, when set as "Admin Setup"-"Management"-"System Setup"-"Near Life LED"=Disable, Alarm LED is switched off.
7	Warning	10965 (K)	1 2 3 4 5	%COLOR% Toner Empty Please see Help for details.	Notifies the toner is empty. This is a warning only. This appears when the cover was opened and closed just after the toner empty error occurred. %COLOR% K
8	Warning	10938 (K)	1 2 3 4 5	%COLOR% Toner Cartridge not installed. Please see Help for details.	Notifies the toner cartridge is not installed. This is a warning only. %COLOR% K
9	Warning	10969 (K)	1 2 3 4 5	Please install new Image Drum Unit. Please see Help for details.	Notifies the life of the drum. This is a warning only. This appears when the cover was opened and closed just after the drum life error occurred.
10	Warning	-	1 2 3 4 5	For Maximum Performance Always Use %COMPANY_NAME% Original	This should be appeared after the toner/drum/print cartridge low/empty warning messages when the OKIORIGINALCONSUMABLEDISPLAY is ON to display this.

No.	Category	PJL Status Code	Error Warning		Description
11	Warning	10944 (K)	1 2 3 4 5	%COLOR% Head Data Error	The LED head calibration data is missing or invalid. Printing can be proceeded without calibrating light radiation. PU firmware does not notify this warning to CU firmware at the time of Shipping Mode. Therefore, this status does not occur in a user environment. %COLOR% K
12	Warning	16012(Tray1) 16013(Tray2)	1 2 3 4 5	%TRAY% Empty Please see Help for details.	%TRAY%: The tray is empty. Treated as Warning until printing to the empty tray is designated. %TRAY% Tray1 Tray2
13	Warning	10902	1 2 3 4 5	%TRAY% missing. Please see Help for details.	Indicates that paper trays are not installed. %TRAY% Tray1

No.	Category	PJL Status Code	Error Warning		Description
14	Warning	32000 ~ 32026	1 2 3 4 5	Disk Use Failed %FS_ERR% Please see Help for details. Close	A disk error is occurred, which is other than the file system fill or the disk write protected. Operation that does not involve a disk is available. This message is cleared by OK key pressed. %FS_ERR% = 0 GENERAL ERROR = 1 VOLUME NOT AVAILABLE = 3 FILE NOT FOUND = 4 NO FREE FILE DESCRIPTORS = 5 INVALID NUMBER OF BYTES = 6 FILE ALREADY EXISTS = 7 ILLEGAL NAME = 8 CANT DEL ROOT = 9 NOT FILE = 10 NOT DIRECTORY = 11 NOT SAME VOLUME = 12 READ ONLY = 13 ROOT DIR FULL = 14 DIR NOT EMPTY = 15 BAD DISK = 16 NO LABEL = 17 INVALID PARAMETER = 18 NO CONTIG SPACE = 19 CANT CHANGE ROOT = 20 FD OBSOLETE = 21 DELETED = 22 NO BLOCK DEVICE = 23 BAD SEEK = 24 INTERNAL ERROR = 25 WRITE ONLY
15	Warning	32002	1 2 3 4 5	File System is full. Please see Help for details.	Disk-full is occurring. Because this is a temporary warning, it remains until the end of the job and disappears.

No.	Category	PJL Status Code	Error Warning		Description
16	Warning	32026	1 2 3 4 5	File System is write protected. Please see Help for details.	An attempt to write in a read-only file was done. Because this is a temporary warning, it remains until the end of the job and disappears.
17	Warning	10898	1 2 3 4 5	File erasing ...	Indicates that a secret file is being erased.
18	Warning	30961	1 2 3 4 5	Deleting encrypted job.	It indicates the deletion of encrypted authentication print job and saving of deletion request of file.
19	Warning	10787	1 2 3 4 5	Accounting Log Buffer Full (Delete old logs)	The function isn't accepted because log buffer is full. (Related to JobAccount). This message is displayed, if the log buffer is full and "Operation at Log Full" in Job Accounting Server Software is set to "Delete old logs". The new jobs will be able to execute after the following operations. 1. The log in the unit must be got by Job Accounting Server Software. 2. The setting of "Operation at Log Full" must be changed to "Does not acquire logs".
20	Warning	10071(K)	1 2 3 4 5	Please check %COLOR% Toner Cartridge. Please see Help for details.	Something is wrong with the toner sensor during printing. %COLOR% K

No.	Category	PJL Status Code	Error Warning		Description
21	Warning	10756	1 2 3 4 5	Wait Timeout is disabled. If your printer is connected to USB port, it may become unable to print a job without via the USB port.	Indicates that Print Timeout is disabled.
22	Warning	30927	1 2 3 4 5	Error PDL Close	Indicating that it has been occured an internal processing error into the PDL emulation . It's a clearable warning. User should press OK button for clearing the warning.
23	Warning	10758	1 2 3 4 5	It was not possible to communicate with the SNTP server.	Notifies that the system has attempted to obtain the current time from the SNTP server and failed.
24	Warning	-	1 2 3 4 5	System received LOCK signal. Close	Panel lock signal (Disable) is recognized during copy job movement, and a warning message is displayed.
25	Warning	10830	1 2 3 4 5	Access Limitation Error Deleted unauthorized user data. Please see Help for details. Close	Notifies users that jobs have been cancelled because they are not permitted for printing. (Related to JobAccount). Notifies users that jobs have been cancelled because they are not permitted for PC-Fax. (Related to JobAccount).

No.	Category	PJL Status Code	Error Warning		Description
26	Warning	10823	1 2 3 4 5	Access Limitation Error Data was deleted due to the printing limitation. Please see Help for details. Close	Notifies users that jobs were cancelled because they are not permitted for printing. (Related to JobAccount Color Access Contorl.).
27	Warning	30114 10827	1 2 3 4 5	Received invalid data. Please see Help for details. Close	Invalid data was received. Press the OK key and eliminate the warning. Displayed when unsupported PDL command is received.
28	Warning	40994	1 2 3 4 5	Memory Overflow Please see Help for details. Close	Memory Overflow was occurred in the collate print.
29	Warning	30962	1 2 3 4 5	Expired Secure Job Please see Help for details. Close	Indicates that an applicable job has been automatically deleted as the retention period for authentication printing has expired.
30	Warning	30963	1 2 3 4 5	Received invalid data. Please see Help for details. Close	Indicates that a job has been deleted because corruption of data has been detected by the integrity verification in authentication printing.
31	Warning	10814	1 2 3 4 5	Accounting Log Buffer is near full. Please see Help for details.	It indicates the Job Accounting log buffer is near full.
32	Warning	10815	1 2 3 4 5	Accounting Log Writing Error Please see Help for details. Close	The Job Accounting log is not registered correctly because of thr disc access error is occurred during accounting log writing (Related to Logging). This message is displayed until OK key pressed.

No.	Category	PJL Status Code	Error Warning		Description
33	Warning	10818	1 2 3 4 5	Job Log Writing Error Please see Help for details. Close	The log is not registered correctly because of thr disc access error is occurred during system job log writing. This message is displayed until OK key pressed.
34	Warning	10651	1 2 3 4 5	IPv4 address is conflicted. Please change IPv4 address.	IPv4 address is conflicted.
35	Warning	10821	1 2 3 4 5	Please remove the connected USB device. Unsupported USB device is connected.	Indicates that the unsupported USB device was connected. This message will be displayed until the unsupported USB device disconnected.
36	Warning	10648	1 2 3 4 5	Please remove the connected USB device. USB device has not been recognized.	Indicates that the USB device has not been recognized. This message will be displayed until the USB device disconnected.
37	Warning	10819	1 2 3 4 5	Please remove the USB Hub. USB Hub is connected.	Indicates that the unsupported USB Hub was connected. This message will be displayed until the unsupported USB Hub disconnected.

No.	Category	PJL Status Code	Error Warning		Description
38	Warning	-	1 2 3 4 5	E-mail receiving has been cancelled. Please see Help for details. Close	Indicates that Email receiving has been canceled. It has the following possibilities. - The format of email that has received is illegal or not supported. - The attached file is illegal or not supported. - The attached file that has received is too large, for example, file size exceeds 8MB. - Network connection has disconnected.
39	Warning	-	1 2 3 4 5	Please Call Service. Fax Combination Error Please see Help for details.	Indicates that machine has combination problems between existence of the fax modem board and model of the machine. This status displays when system cannot detect the fax modem on fax model.

Error (Enable to restore)

No.	Category	PJL Status Code	Error Warning		Description
1	Error	10899	1 2 3 4 5	Erased Data Full Please see Help for details.	Indicates that a secret file waiting to be erased is full.
2	Error	470yy 472yy 473yy	1 2 3 4 5	Please install paper on %TRAY%. : %ERRCODE% Please set paper (%MEDIA_SIZE%). To cancel, select [Cancel]	Printing request is issued to an empty tray. Load paper that was set in %MEDIA_SIZE%. (It takes a while until the status disappears after you have closed the tray and the lever lifted.) %TRAY% MP Tray Error 490 Tray1 Error 491 Tray2 Error 492
3	Error	46002 (Tray1)	1 2 3 4 5	Please close %TRAY%.: 430,440 To cancel, select [Cancel]	Indicates removal of the paper cassette of Tray 1 that is a paper path in attempting to print from Tray 2. %TRAY% Tray1 Error 430
4	Error	46012	1 2 3 4 5	Please close %TRAY%.: 430,440 To cancel, select [Cancel]	Indicates that paper feed is unavailable in attempting to print from Tray 1 due to removal of the paper cassette of Tray 1. %TRAY% Tray1 Error 430 Note: If the paper cassette of the tray is removed during displaying paper request, system will display that tray is removed (this display)
5	Error	40028 (K)	1 2 3 4 5	%COLOR% Toner Empty: %ERRCODE% Please see Help for details.	Toner ends. Error 413 : K Warning status takes effect at Cover Open/ Close.
6	Error	40947 (K)	1 2 3 4 5	%COLOR% Non Recommended Toner.: %ERRCODE% Please see Help for details.	It is a toner besides our specification. Please exchange to the toner cartridge of an original manufacturer's product. Error 557 : K
7	Error	40910 (K)	1 2 3 4 5	%COLOR% Non Recommended Toner.: %ERRCODE% Please see Help for details.	It is a toner besides our specification. Please exchange to the toner cartridge of an original manufacturer's product. Error 617 : K
8	Error	40906 (K)	1 2 3 4 5	%COLOR% Non Recommended Toner.: %ERRCODE% Please see Help for details.	It is a toner besides our specification. Please exchange to the toner cartridge of an original manufacturer's product. Error 623 : K
9	Error	40943 (K)	1 2 3 4 5	%COLOR% Non Recommended Toner.: %ERRCODE% Please see Help for details.	It is a toner besides our specification. Please exchange to the toner cartridge of an original manufacturer's product. Error 553 : K
10	Error	40902 (K)	1 2 3 4 5	%COLOR% Toner Cartridge not installed.: %ERRCODE% Please see Help for details.	The toner cartridge is not installed. Error 613 : K Four following behavior is carried out by mode of operation. 1. Only warning display. (This error is not displayed). 2. Warning status takes effect at Cover Open/ Close. 3. With no automatic concentration compensation. 4. This error is displayed and it stops.

No.	Category	PJL Status Code	Error Warning		Description
11	Error	40959 (K)	1 2 3 4 5	Please check %COLOR% Toner Cartridge.: %ERRCODE% Please see Help for details.	Something is wrong with the toner sensor. This status is indicated in Shipping Mode only. If the same error is detected in FACTORY Mode, it is indicated as service call of 163. Error 543 : K
12	Error	30034	1 2 3 4 5	Paper Size Error Please open the scanner unit and the top cover and check paper size. Please see Help for details.	Inappropriate size paper was fed from a tray. Check the paper in the tray or check for Multiple-feed. Open and close the cover to perform recovery printing, and continue. Error 400
13	Error	40077	1 2 3 4 5	Paper Jam: 390 Please open the scanner unit and the top cover. Please see Help for details.	Paper Jam occurred during paper feeding from tray. Error 390 : MP Tray
14	Error	40077	1 2 3 4 5	Paper Jam: %ERRCODE% Please pull out the paper cassette of the indicated tray. Please see Help for details.	Paper Jam occurred during paper feeding from tray. Error 391 : Tray1 Error 392 : Tray2
15	Error	40078 (380,381) 40079 (382)	1 2 3 4 5	Paper Jam: %ERRCODE% Please open the scanner unit and the top cover. Please see Help for details.	Jam has occurred in paper path. Error 380 : Feed Error 381 : Transport Error 382 : Exit
16	Error	40819	1 2 3 4 5	Paper Jam: 389 Please open the scanner unit and the top cover. Please see Help for details.	Jam has occurred in paper path. Error 389 : Printing Page lost

No.	Category	PJL Status Code	Error Warning		Description
17	Error	40054	1 2 3 4 5	Paper Jam: 372 Please open the scanner unit and the top cover. Please see Help for details.	Jam has occurred nearby DUPLEX unit. Error 372 : Misfeed from Duplex
18	Error	40996 (K)	1 2 3 4 5	Please install new Image Drum Unit. Please see Help for details.	The life of the image drum (Alarm) Error 353 : K Warning status takes effect at Cover Open/ Close.
19	Error	40936 (K)	1 2 3 4 5	Please install new Image Drum Unit. Please see Help for details.	The toner empty error is occurred after the image drum reached its life. Error 563 : K This is displayed until a user exchanges the image drum.
20	Error	40914 (K)	1 2 3 4 5	Please check %COLOR% Toner Cartridge.: %ERRCODE% Please see Help for details.	Shows that the toner is not supplied (the toner cannot be detected). The lever of toner cartridge may not be locked, or toner cartridge may be set with protection tape. Shows that the toner cartridge lever has not been locked. %ERRCODE%: specifies 3 digits error code. Error 547 : K
21	Error + Information	-	1 2 3 4 5	%COLOR% Toner Empty: %ERRCODE% For Maximum Performance Always Use %COMPANY_NAME% Original Please see Help for details.	This should be appeared after the toner empty error messages when OKIORIGINALCONSUMABLEDISPLAY is ON to display this. Error 413 : K
22	Error	40716	1 2 3 4 5	Connect to PC failed. Please see Help for details. Close	Indicates that it is failed to connect to PC. If the OK key is pressed, it shift to stand-by screen.

No.	Category	PJL Status Code	Error Warning		Description
23	Error	40033 (K)	1 2 3 4 5	Please check Image Drum Unit. Please see Help for details.	The image drum is not correctly installed. Error 343 : K
24	Error + Information	-	1 2 3 4 5	Please install new Image Drum Unit. For Maximum Performance Always Use %COMPANY_NAME% Original. Please see Help for details.	This should be appeared after the drum life error messages when OKIORIGINALCONSUMABLEDISPLAY is ON to display this. Error 353 : K
25	Error + Information	-	1 2 3 4 5	Please install new Image Drum Unit. For Maximum Performance Always Use %COMPANY_NAME% Original. Please see Help for details.	This should be appeared after the drum life error messages when OKIORIGINALCONSUMABLEDISPLAY is ON to display this. Error 563 : K
26	Error	40580	1 2 3 4 5	Caution, unknown Consumable detected. Go to User Manual "Trouble Shooting" to restore operation.	Unknown Consumable detected. Use a special startup(Press Cancel when power on) to start the printer to on-line, but a history will be recorded.
27	Error	40021 40720	1 2 3 4 5	Please check the %COVER%.: %ERRCODE% Please close the %COVER%. Please see Help for details.	The cover is open. Error 310 : Top Cover Error 587 : Rear Cover %COVER% top cover rear cover
28	Error	40788	1 2 3 4 5	ADF Cover Open Please see Help for details.	Indicates that ADF cover of scanner unit is opened. Indicates that inter-lock cover of scanner unit is lifted up. Notes: If inter-lock cover is lifted up during scanning from document feeder, system will display document jam.

No.	Category	PJL Status Code	Error Warning		Description
29	Error	40789	1 2 3 4 5	Document Jam Please open the scanner unit and the ADF cover. Please see Help for details.	Indicates that the document jam occurred during the scanning.
30	Error	40779	1 2 3 4 5	Lamp Error. Please call service. <%CODE%> Please see Help for details.	Indicates that the lamp error is occured. This message is displayed because of the light intensity of lamp is weaker. %CODE% : details =1:Calibration defective (device) =2:Calibration defective (LED) =3:Calibration defective (timewise deterioration)
31	Error	40780	1 2 3 4 5	Power OFF/ON Carriage Error <1> Please see Help for details.	Indicates that the caridge error is occurred. This message is displayed because of the calidge of scanner doesn't work normally. <1>: The calidge of scanner doesn't work normally.
32	Error	40734	1 2 3 4 5	USB Memory Full Please see Help for details. Close	Indicates that the file saving is failed bacause of USB memory doesn't have enough free space. The file saving is aborted.
33	Error	40731	1 2 3 4 5	Writing Failed Please see Help for details. Close	Indicates that the file saving is failed for the reasons of being in a write-protected state.

No.	Category	PJL Status Code	Error Warning		Description
34	Error	30941	1 2 3 4 5	USB Memory disconnected. Please see Help for details. Close	Indicates that the USB memory was extracted. When a USB memory is extracted all over ScanToMemory execution, the file saving of image file is stopped.
35	Error	-	1 2 3 4 5	USB Memory disconnected. Close	Indicates that the USB memory is disconnected while PrintFromUSBMemory is running. Reading of the image file is cancelled.
36	Error	-	1 2 3 4 5	Cannot open the file. Close	Notifies that the specified file cannot be opened.
37	Error	-	1 2 3 4 5	Cannot read the file. Close	Notifies that processing has failed, for instance, because of a fault in the equipment in which the data was to be stored.
38	Error	-	1 2 3 4 5	Access denied to PC. Please check PC. Close	Indicates that PC rejects a PushScan request. (Select Close with the cursor and) press [OK] button, and the display will return to ScanTo standby screen. (At present, screens to return to after errors have been reset vary from function to function. It is desirable to return to the same screen.)

No.	Category	PJL Status Code	Error Warning		Description
39	Error	30938	1 2 3 4 5	Decode error occurred. Please check image data. Close	Indicates that an error has occurred during analysis of image data input to the MFP from an external source. This appears when an error has occurred during analysis of TIFF or JPEG data in A05: DirectPrint, A07: InternetFAX, E-mailPrint, or FaxToPrint (saving sent/received data) mode.
40	Error	-	1 2 3 4 5	Communication Error Close	Indicates that the fax sending was failed. The details of the fax sending errors are not displayed. The message is shown after the job was finished by communication error and it is kept until pressing a OK key. It is reset at new transmission. (When Country Code is Germany, it is not applied by DTS.)
41	Error	-	1 2 3 4 5	Communication Error Close	Indicates that the fax receiving was failed. The details of the fax receiving errors are not displayed. The message is shown after the job was finished by communication error and it is kept until pressing a OK key. It is reset at new transmission. (When Country Code is Germany, it is not applied by DTS.)

No.	Category	PJL Status Code	Error Warning		Description
42	Error	40593	1 2 3 4 5	File Transmission Error Please see Help for details. Close	Indicates that file sending was failed due to the file server problems, network cable discnnected or network trouble (Scan To Network PC). This message is cleared by the pressing OK key.
43	Error	40595	1 2 3 4 5	E-mail Transmission Error Please see Help for details. Close	Indicates that E-mail sending was failed due to the mail server problems, network cable discnnected or network trouble (Scan To E-mail). This message is cleared by the pressing OK key.
44	Error	40765	1 2 3 4 5	Please check SMTP settings. Please see Help for details. Close	Indicates that failed to connect with SMTP server.
45	Error	40764	1 2 3 4 5	Please check POP3 settings. Please see Help for details. Close	Indicates that failed to connect with POP3 server.
46	Error	40763	1 2 3 4 5	SMTP Login failed. Please see Help for details. Close	Indicates that failed to login in SMTP server.
47	Error	40762	1 2 3 4 5	SMTP Auth. Unsupported Please see Help for details. Close	Indicates that authentification is unsupported by SMTP server.
48	Error	40761	1 2 3 4 5	POP3 Login failed. Please see Help for details. Close	Indicates that failed to login in POP3 server.

No.	Category	PJL Status Code	Error Warning		Description
49	Error	40812	1 2 3 4 5	Getting target IP failed. Please check DHCP settings. Please see Help for details.	Indicates that DHCP server is not found out. Scan to E-mail, Scan to Network PC and Scan to Remote PC (WSD) are unusable during this status occurring. This message is displayed by the timing when "Mail", "Network PC" icons were pressed with a "Scan Menu" screen.
50	Error	40752	1 2 3 4 5	Please check DNS settings. Please see Help for details. Close	Indicates that failed to connect DNS Server. The same message is displayed, if name resoution is failed in DNS server.
51	Error	40565	1 2 3 4 5	Document Jam Please open the scanner unit and the ADF cover. Please see Help for details.	At machine initial time (power-on, cover close and just after that a scan was completed), a manuscript was detected on a set sensor.
52	Error	40588	1 2 3 4 5	Please close faceup stacker. 581:Cannot print with duplex.	Indicates that the printer cannot carry out duplex printing because the faceup stacker is open. ※ This is handled as an error, if the faceup stacker is open, the printer does not reverse the exit motor and thus cannot draw the print medium onto the duplex path.
53	Error	40585	1 2 3 4 5	Please open the top cover. 409:Faceup Stacker Error	Indicates that an error has occurred as the faceup stacker was operated during printing and printing stopped.

No.	Category	PJL Status Code	Error Warning		Description
54	Error	40587	1 2 3 4 5	Please install new Image Drum Unit Please see Help for details.	The life of the image drum (Error 347)
55	Error	411yy yy: paper size	1 2 3 4 5	Please install paper on MP Tray. Please set paper (%MEDIA_SIZE%). To cancel, select [Cancel]	Manual paper feed is required. Manually insert the paper shown by %MEDIA_SIZE%. Error 500
56	Error	-	1 2 3 4 5	Memory Overflow Rx	Indicates that the fax Memory Overflow was occurred during fax receiving.
57	Error	40778	1 2 3 4 5	Memory Overflow Please see Help for details. Close	Display that Memory Overflow is occurred during PC Fax Job receiving. Return to Mode Selection screen by the pressing OK key.
58	Error	482yy 483yy	1 2 3 4 5	Tray Media Mismatch: %ERRCODE% Please install paper(%MEDIA_SIZE% %MEDIA_TYPE%) on %TRAY%.	The media type in the tray and the print data do not match. Load paper that was set in %MEDIA_SIZE% and %MEDIA_TYPE% in tray. %TRAY% Tray1 Error 461 Tray2 Error 462
59	Error	480yy	1 2 3 4 5	Tray Media Mismatch: %ERRCODE% Please install paper(%MEDIA_SIZE% %MEDIA_TYPE%) on %TRAY%.	The media type in the tray and the print data do not match. Load paper that was set in %MEDIA_SIZE% and %MEDIA_TYPE% in tray. %TRAY% MP Tray Error 460
60	Error	482yy 483yy 485yy	1 2 3 4 5	Tray Media Mismatch: %ERRCODE% Please install paper(%MEDIA_SIZE% %MEDIA_TYPE%) on %TRAY%.	The size of paper or media type in the tray does not match the print data. Load paper that was set in %MEDIA_SIZE% and %MEDIA_TYPE% in tray. %TRAY% Tray1 Error 461 Tray2 Error 462 The paper size displaying form of the custom mode is the same as above.
61	Error	480yy	1 2 3 4 5	Tray Media Mismatch: %ERRCODE% Please install paper(%MEDIA_SIZE% %MEDIA_TYPE%) on %TRAY%.	The size of paper or media type in the tray does not match the print data. Load paper that was set in %MEDIA_SIZE% and %MEDIA_TYPE% in tray. %TRAY% MP Tray Error 460
62	Error	30097	1 2 3 4 5	Memory Overflow: 420 Please see Help for details. Close	Memory capacity overflows due to the following reason. Decrease the data amount. - Too much print data in a page. - Too much Macro data. - Too much DLL data. - After frame buffer compression, over flow occurred.

No.	Category	PJL Status Code	Error Warning		Description
63	Error	40735 40759 40748 40591 40710	1 2 3 4 5	Memory Overflow Please see Help for details. Close	Indicates that Memory Overflow is occurred during the following functions executing. - Memory Overflow is occurred during the executing of copy. - Memory Overflow is occurred during the executing of Scan To mail. - Memory Overflow is occurred during the executing of Scan To Network PC. - Memory Overflow is occurred during the executing of Scan To USB memory. - Memory Overflow is occurred during the executing of Fax sending.
64	Error	40751	1 2 3 4 5	Please check Server setting. Please see Help for details. Close	Indicates that failed to connect with file server.
65	Error	40750	1 2 3 4 5	Server Login failed. Please see Help for details. Close	Indicates that failed to login in CIFS or FTP server.
66	Error	40718	1 2 3 4 5	Entering directory failed. Please see Help for details. Close	Indicates that failed to access in directory of FTP server.
67	Error	40744	1 2 3 4 5	Changing data Transfer Type failed. Please see Help for details. Close	Indicates that the data transfer type of FTP server is not supported by this unit. The file sending will be success by the changing of data transfer type in FTP serve.

No.	Category	PJL Status Code	Error Warning		Description
68	Error	40592	1 2 3 4 5	Not authorized to write file. Please see Help for details. Close	Indicates that failed to make image file in file server during Scan To Network PC executing.
69	Error	40742	1 2 3 4 5	Storage Space Full Please see Help for details. Close	Indicates that the file sending is failed because of FTP Server doesn't have enough free space in strage device. (FTP Server)
70	Error	40741	1 2 3 4 5	Please change File Name. Please see Help for details. Close	Indicates that the file sending is failed because of the file name is not permission. (FTP Server)
71	Error	40594	1 2 3 4 5	Device communication protocol not supported. Please see Help for details. Close	Indicates that the server does not support CIFS/ FTP.
72	Error	40739	1 2 3 4 5	Please check Network Share Name. Please see Help for details. Close	Indicates that the network folder name is wrong. (CIFS Server)
73	Error	40364	1 2 3 4 5	Receiving data timeout. Close	When receiving data by Port9100, LPR, FTP, IPP, WSD, or Email, a timeout occurred in stream.
74	Error	-	1 2 3 4 5	Memory Overflow has occurred during Fax Tx reservation. Close	Memory overflow has occurred during ScanToFax.

No.	Category	PJL Status Code	Error Warning		Description
75	Error	-	1 2 3 4 5	Memory Overflow Close	Memory overflow has occurred while fax is being received.
76	Error	-	1 2 3 4 5	Telephone Please see Help for details.	The screen that specified talking by telephone is displayed, when the handset hooked up.
77	Error	-	1 2 3 4 5	Wireless startup failed. Please see Help for details.	Wireless startup failed. Restart the device.If the problem is not resolved, Check cableconnection between CU board and Wireless LAN board.
78	Error	-	1 2 3 4 5	Wireless settings are incomplete. Please see Help for details.	Wireless settings are incomplete. Try making the manual settings or automatic settings once again.If the problem is not resolved, initialize the network settings, and then try making the manual settings or automatic settings once again.
79	Error	-	1 2 3 4 5	Not connected to wireless access point. Please see Help for details.	Not connected to wireless access point. Check that the wireless access point power supply is ON. Check the wireless access point settings, and then try making the manual settings or automatic settings.
80	Error	40427	1 2 3 4 5	Firmware Update Error Please try again. If network doesn't work, please try firmware update over USB.	Indicating that FW remote update failed.

Error (Disable to restore)

No.	Category	PJL Status Code	Error Warning		Description
1	Error	40700 40701 40702 40703 40709	1 2 3 4 5	Inspection is required. %ERRCODE%: SIP Error	Indicates that the processing of Scan Image Processing contller was failed. User must turn Off/ On the power supply, if this status occurred. %ERRCODE% =1 : RAM Check Error =2 : Illigal parameters =3 : Memory Overflow =4 : Scanner Receiving Time-out =5 : Others (Fatal Error)
2	Error	40714	1 2 3 4 5	SIP Firmware Missing	Indicates that the firmware in board can not be detected.
3	Error	-	1 2 3 4 5	Inspection is required. PU Flash Error	It is shown that PU firmware has booted in Loader mode. If initialization is completed, it will change to the status of no.5. This status may occur also in a user environment. When it occurs, the maintenance by a maintenance member is required (equivalent to S/C). Communication error occurred between CU and PU. PU firmware may not be downloaded.
4	Error	-	1 2 3 4 5	Inspection is required. PU Communication Error	Displays that communication to PU firmware failed. This status may occur also in a user environment. When it occurs, the maintenance by a maintenance member is required (equivalent to S/C). If this status occurred during the unit initialinzing the message is displayed by English.
5	Error	40978	1 2 3 4 5	%PUFLASH% Flash Error	PU flush error (Error occurs during the alteration of PU farm or it failed in the alteration in PU flush of such as LED Head information.) %PUFLASH% PU TRAY2 IM
6	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. The message of fatal error is specified by English only.
7	Error	40057	1 2 3 4 5	Inspection is required. %ERRCODE%:Error	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. The message of fatal error is specified by English only.

No.	Category	PJL Status Code	Error Warning		Description
8	Error	40057	1 2 3 4 5	Inspection is required. %ERRCODE%:Error %CODE%	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. '%CODE%' specifies error code that is the detailed error cause. (2 digits, hexadecimal) The message of fatal error is specified by English only.
9	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. F0C, F0D, FFE, and FFF are hexadecimal code. The message of fatal error is specified by English only.
10	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. The message of fatal error is specified by English only.
11	Error	40787	1 2 3 4 5	Power OFF/ON Carriage Error <%CODE%>	Indicates that it is carriage error. %CODE% : details =2 : Home position error (carriage connection error) =3 : Defective detecting black edge
12	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error %FATALSTRING1%	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. '%FATALSTRING1%' specifies error code that is the detailed error cause. The message of fatal error is specified by English only.
13	Error	40057	1 2 3 4 5	%ERRCODE%:Error %FATALSTRING2%	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. '%FATALSTRING2%' specifies error code that is the detailed error cause. The message of fatal error is specified by English only.
14	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Error %CODE%	A fatal error occurred. For more information, see "Service Calls List." %ERRCODE%: specifies 3 digits (decimal) error code. '%CODE%' specifies error code that is the detailed error cause. The message of fatal error is specified by English only.

No.	Category	PJL Status Code	Error Warning		Description
15	Error	40057	1 2 3 4 5	Power OFF/ON %ERRCODE%:Download Error	Downloading Media Table to PU has failed. (Related to CustomMediaType.) %ERRCODE%: specifies 3 digits (decimal) error code. The message of fatal error is specifiedby English only. "Download Error" is specified by Japanease and English only.
16	Error	30936	1 2 3 4 5	Unauthorized Scan Error Code: X01 Close	Notifies that a particular pattern is detected (banknote detection) during scanning for photocopy. The message shall be written in English even when the MFP is bound for Japan. The exact words shall be displayed and they shall not be shortened. The message shall not be translated into any other languages.
17	Error	-	1 2 3 4 5	This wireless firmware version does not operate on this device. Please see Help for details.	This wireless firmware version does not operate on this device. Please confirm CU and Wireless LAN Firmware-Version. When needed, update each firmware.

2.5.2 Service Call List

Display	Cause	Error details		Measure
Power OFF/ON 002 : Error 003 : Error 005 : Error FFF : Error	CPU Exception	Is the error display provided again?	Yes	Turn off and on the MFP. Replace the CU/ PU board.
Inspection is required. 030 : Error	CU RAM Check Error	Is the error display provided again?	Yes	Turn off and on the MFP. Replace the CU/ PU board.
Inspection is required. 040 : Error	CU EEPROM error	Is the error display provided again?	Yes	Turn off and on the MFP. Replace the CU/ PU board.
Inspection is required. 042 : Error 043 : Error	Flash memory file system error	Accessing the flash ROM directly mounted on the CU/ PU board failed.		Turn off and on the MFP. Replace the CU/ PU board.
Inspection is required. 067 : Error	IM Communication Error			
Inspection is required. 069 : Error	NIC Chip Error			
Power OFF/ON 070 : Error	PostScript error	Error is deteced inside the postscript core		Take note of the address that is displayed on LCD. Turn off and on the MFP.
Power OFF/ON 072 : Error *.	Engine interface error or PU-CU interface error	Is the CU/PU board installed properly?	No Yes	Reinstall the CU/ PU board properly. Replace the CU/ PU board.
Power OFF/ON 073 : Error **	Video error. An error was detected in expanding image data (an invalid data was received)	Is the CU/PU board installed properly?	No Yes	Reinstall it properly. Change the PC to a high-specification one or decrease the resolution, and perform printing again.
		Does the error occur again?	Yes	Replace the CU/ PU board.
				Replace the interface cable. Reinstall the PC printer driver.
		Is the CU/PU board installed properly?	No Yes	Reinstall it properly. Perform printing again. Print other data.
		Does the error occur again? Does the error depend on print data?	Yes No Yes	Replace the CU/PU board. Ask design people to analyze the data.
Power OFF/ON 075 : Error **	Video error. An error was detected in expanding image data.	Is the CU/PU installed properly?	No Yes	Reinstall it properly. Replace it.
Power OFF/ON 077 : Error	VIC Illegal Decomp Error			
Inspection is required. 081 : Error	Parameter matching check error	Reading from or writing into EEPROM or flash memory cannot be made properly.		Turn off and on the MFP. Replace the CU/PU board when the symptom persists.
Inspection is required. 098 : Error	Power Control Error			
Inspection is required. 104 : Error	An engine EEPROM read/write error was detected.	Does the error occur again?	Yes	Turn off and on the MFP Replace the CU/PU board.

Display	Cause	Error details		Measure
Inspection is required. 106 : Error	Engine control logic error	Does the error occur again?	Yes	Turn off and on the MFP Replace the CU/PU board.
Inspection is required. 112 : Error	The 2nd tray for a model different from the MFP was detected.	Is the 2nd tray for the MFP installed?	No	Install proper 2nd tray.
Inspection is required. 121 : Error	High-voltage power supply interface error	Is the cable between the CU/PU board and the high-voltage power unit connected properly? Is a contact faulty?	No Yes No	Reconnect it properly. Check the high-voltage line for no poor connection. Replace the high-voltage power supply.
Inspection is required. 122 : Error	Power Supply Fan error	Does the fan at the rear of the MFP operate? Is the connector of the fan connected properly?	No Yes No Yes	Be sure of the connection of the fan. Replace the CU/PU board. Connect the fan properly. Replace the CU/PU board.
Inspection is required. 123 : Error	Ambient humidity error or non connection of humidity sensor	Is the cable from the CU/PU board to the toner sensor board connected properly?	No Yes	Re-connect it properly. Replace the toner sensor board.
Inspection is required. 124 : Error	Ambient temperature error	Is the cable from the CU/PU board to the toner sensor board connected properly?	No Yes	Re-connect it properly. Replace the toner sensor board.
Power OFF/ON 126 : Error	Sensor Dewed Error			
Inspection is required. 127 : Error	An error of exhaust fan of the Fuser	Is the fan's connector properly connected? Does the error occur again?	No Yes No	Connect properly. Replace the fan's motor. Replace the PU board.
Inspection is required. 128 : Error 05	Image drum fan error	Is the connector of the fan connected properly? Does the error occur again?	No Yes No	Re-connect it properly. Replace the fan motor. Replace the CU/PU board.

Display	Cause	Error details		Measure
Inspection is required. 134 : Error	LED head detection error (134=K)	Is the LED head installed properly? Is the LED head fuse broken? Does the error occur again?	No Yes Yes No Yes	Install the LED head unit. Check the LED head fuse. Check the fuse. Turn off and on the MFP. Replace the LED head unit.
Inspection is required. 153 : Error	Image drum unit fuse-cut error	Is the image drum unit installed properly? Does the error occur again? Is the MFP recovered by replacing the toner sensor board.	No Yes Yes No	Re-install it. Turn off and on the MFP. Be sure of the cable connection from the CU/PU board to the toner sensor board, and then replace the toner sensor board. Replace the CU/PU board.
Inspection is required. 163 : Error	Toner sensor detection error (163=K). This error does not occur with the MFP in the factory shipped configuration.	Is the toner cartridge installed? Is the toner slide shutter set?	No No Yes	Install the toner cartridge. Turn it to the fixed position. Turn off and on the MFP. Replace the toner sensor assembly.
Inspection is required. 170 : Error 171 : Error	A fuser thermistor short or open circuit was detected.	Does the error occur again?	Yes	Turn off and on the MFP. Replace the fuser unit.
Inspection is required. 172 : Error 173 : Error	A fuser thermistor temperature error (high or low temperature) was detected.	Does the error occur again? Does the error occur again?	Yes Yes	Turn off and on the MFP. Replace the fuser unit. Replace the low-voltage power supply, and then replace the CU/PU board when the error occurs again.

Display	Cause	Error details		Measure
Inspection is required. 182 : Error	Option unit I/F error	Does the error occur again? Does the error occur again?	Yes Yes	Turn off and on the MFP. Be sure of connector connection. Replace the option unit.
Power OFF/ON 190 : Error	System memory overflow	Does the error occur again?	Yes	Turn off and on the MFP. Replace the CU/PU board.
Power OFF/ON 203 : Error 204 : Error 207 : Error 208 : Error 213 : Error 214 : Error	CU program error (203 to 214 do not occur in general use of the MFP)	Invalid processing was performed with a CU program.		Replace the CU/PU board.
Power OFF/ON 209 : Download error	Custom Media Type table downloading failure	Custom Media Type table downloading failed.		Turn off and on the MFP, and then re-download it (In general use of the MFP, this downloading is not performed and this error does not occur).
Inspection is required. 230 : Error	TAG Reader not installed			
Inspection is required. 231 : Error *	TAG interface error	IA TAG interface error was detected. 01 : A short-circuit error. 02 : TAG communication error.		Be sure the toner cartridges and the image drums are properly set. Replace the toner cartridges. When the error occurs again after the image drums are re-installed, be sure of the cable connection from the CU/PU board to the toner sensor board.
Inspection is required. 250 : Error	Secure File Erasing Error			
Inspection is required. 251 : Error	Secure Disk Erasing Error			
PRESS POWER SW FOR 5SEC Error : 813	SU Communication Error	Communication error between the Controller and the Scanner Unit is detected.		Turn off and on the MFP.
Power OFF/ON 923 : Error	A lock error with black image drum	The image drum does not revolve properly. Does the error display is provided again by turning off and on the MFP?	 Yes Yes	Be sure the image drum is properly installed properly. Replace the image drum unit. Replace the image drum motor.
Power OFF/ON 933 : Error	Tray-2 CPU clock frequency error			The error is occurred when Factory mode only.
Power OFF/ON 941 : Error 942 : Error 943 : Error 944 : Error 946 : Error	PU Error	A PU error was detected. 941 : Watch Doc Timer Error 942 : Detection of Unassigned Interruption 943 : CPU Error Detection 944 : Dcon Access Error 946 : AC Voltage Zero-crossing Error		Turn off and on the MFP. When this error occurs again, replace the CU/PU board. The 946 error is occurred when Factory mode only.
Inspection is required. 982 : Error	Excessive Optional Tray Detected			
Inspection is required. 984 : Error	Black Tag Version Mismatch			

Note! With the MFP's temperature not more than 0ºC, Service call errors 171 Error may occur. After turn off the MFP, turn on the MFP after the MFP warms.

2.5.3 Fax Error List

Termination Code List

#	Value (Hex)	Description
1.	0	NORMAL (Ended normally)
2.	1	STOP (A user cancelled a job during sending.)
3.	2	An incoming call was received. The produdre ended unsuccessfully (T1 timeout).
4.	3	CANCEL for shutdown
5.	11	Document jam during real time sending
6.	14	Memory Full during RX / Memory Full (Insufficient avaialble memory at the time of receiving. Or exceeded a maximum number of received pages.)
7.	19	FAX ERROR_TX_JOB_DELETED (Cancellation of jobs waiting for sending: Redialing, calling again & resending, and programed sending, including delayed transmission)
8.	21	CONNECTION FAIL (A line wasn't connected or a dial tone wasn't detected at the time of dial calling.)
9.	22	Failed sending during ringing (Conflict between sending and receiving)
		Timeout of T0 timer in Phase-A
		Timeout of T1 timer in Phase-B
10.	23	Redial All Failed (when all of redialing was NG)
11.	24	Telephone Line Cable connected to the TEL Connector.
12.	25	Telephone Line Cable disconnected to the LINE Connector.
13.	26	Not detect Dial Tone when dialing
14.	27	Detect Busy Tone when dialing
15.	32	V8 negotiation Fail (Not compatible with a sender in V34 receiving)
16.	35	SUB discrepancy in confidential receiving
17.	36	Box full in confidential receiving
18.	37	SEP discrepancy in bulletin board polling sending
19.	38	The box was unavailabl in bulletin board polling sending.
20.	39	The box was unavailabl in confidential receiving.
21.	40	Retry Out (Sent DCS three times in fax sending and no resoponse.)
22.	41	Too Many FTT (Training failure)
23.	43	T2 Time Out (A machine on the other end didn't respond and T2 timeout.)
24.	45	Phase-B Command Rec Error (Failed to receive a control signal at the time of receiving) (Including SEP discrepancy in bulletin board polling receiving)
25.	46	Phase-B Response Rec Error (Failed to receive a control signal at the time of sending) (Including SUB discrepancy in confidential sending)
26.	47	Phase-B Invalid Command/Response Rx (Received an invalid signal.)
27.	48	A machine on the other end was incapable of receiving.
28.	49	T1 timeout after EOM (T1 timeout after EOM receiving)
29.	4A	Invalid CSI error (Dialing numbers didn't match with ID of the machin on the other end in confirmation sending.)
30.	4B	Invalid TSI error (matches number denied acceptance registered as nuisance fax)
31.	4c	FIF:bit49 of a facing machine's DIS was 0 in confidential sending (A facing machine was incapable of confidential receiving).
32.	4d	FIF:bit47 of a facing machine's DIS was 0 in bulletin board polling receiving (A facing machine was incapable of bulletin board polling sending).
33.	51	Image Data not ready (Decoding or file system error in scanned or received images)
34.	52	Phase-C Time Out (EOL (not in ECM) or Frame (in ECM) timeout occurred during data receiving)
35.	60	Retry Out (A machine on the other end made no response in sending Phase-D. Retry error of post-command.)
36.	65	RNR time out (Time out error of flow control of RR/RNR in sending)
37.	66	RTN/PIN Received, EOR/ERR/DCN (Received RTN/PIN (N-ECM) ERR (ECM))
38.	67	Phase-D Invalid Command/Response Rx (Received an invalid signal.)
39.	69	Phase-D Response Rec Error (Failed to receive a control signal at the time of sending)
40.	6A	EOR error (Received EOR at the time of receiving)
41.	80	MODEM hung-up (Couldn't control a modem)
42.	82	V34 t1 timeout, control channel error (T1 timeout with V34 control channel)
43.	83	V34 t1 timeout, primary channel error (T1 timeout with V34 primary channel)
44.	84	Data not sent until guard timer expire (Timeout at PH-C guard timer)
45.	90	Exceeded the maximum number of digits of dial entry (A maximum of 80 digits after unfolding a dial symbol)

2.5.4 Email/Internet FAX/FAX Server Error List

ErrorCode	Description
1	Connection failed. Please check "SMTP Server" settings.
2	Connection failed. Please check "SMTP Server Port" settings.
3	Authentication failed. "SMTP Auth" Unsupported.
4	Authentication failed. "SMTP Auth" Login failed. Be sure of the login name and password for the mail server.
5	Authentication failed. Please check "POP Server" settings.
6	Authentication failed. Please check "POP Server Port" settings.
7	Authentication failed. "POP" Login failed. Be sure of the login name and password for the POP server.
8	SMTP Transmission Error. Check network configuration, cable connection and status, and the server status.
9	POP Transmission Error. Check network configuration, cable connection and status, and the server status.
11	SMTP Transmission Error. Sending Data is biggest. Please Check for Mailbox quota at SMTP Server.
12	SMTP Transmission Error. Please wait and retry.
13	SMTP Transmission Panic. Contact the network administrator.
15	Email receiving has been cancelled. Canceled from SMTP Client or POP Server.
16	Email receiving has been cancelled from user.
19	Email receiving has been cancelled. MIME Error. The format of email or the attached file may be not supported.
20	Email receiving has been cancelled. Unsupported MIME. The format of email or the attached file may be not supported.
22	Email receiving has been cancelled. An attached file may have exceed its size limit(8M Byte). Large files cannot be printed.
24	Email receiving has been cancelled. Contact the network administrator.

2.5.5 Preparing for troubleshooting

Note! • When replacing the CU/PU board, please read the content on the EEPROM chip of the old board and copy it to the new board. (Refer to 3.6.1 when exchange the CU/PU board)
• Connection diagram is see Fig1-1.

2.5.5.(1) LCD Display Trouble

(1-1) LCD displays nothing

Check item	Checking	Action in case of fail
(1-1-1) Checking fuse		
Fuse on SU board (MSU)	Check whether F6 or F8 has blown.	Replace F6 or F8 or SU board (MSU).
(1-1-2) Checking connections		
Connection between low-voltage power supply unit and SU board (MSU)	Make sure the low-voltage power supply unit is connected to the POWERCN connector on the SU board (MSU) properly. Check whether the cable connector is half-connected or tilted, or whether wires are broken. Check whether there is any fault in the cable assembly, e.g., missing wires.	Connect the cable properly.
Cable assembly connecting low-voltage power supply unit to SU board (MSU)		Replace the cable with a good cable.
Connection between SU board (MSU) and operation panel	Make sure the 16-pin FFC is connected to the OPE2 connector on the SU board (MSU) properly. Make sure the 16-pin FFC is connected to the CN1 connector on the OPE board (OPM-2) properly. Check whether the cable connector is half-connected or tilted.	Connect the cable properly.
FFC connecting SU board (MSU) to OPE board (OPM-2)	Check for broken wires using a tester. Check visually whether the sheath peels.	Replace the cable with a good cable.
(1-1-2) Checking connections		
Connection between SU board (MSU) and CU/PU board	Make sure the 16-pin FFC is connected to the OPE1 connector on the SU board (MSU) properly. Make sure the 16-pin FFC is connected to the OPE connector on the CU/PU board (MRM) properly. Check whether the cable connector is half-connected or tilted.	Connect the cable properly.
FFC connecting SU board (MSU) to CU/PU board (MRM)	Check for broken wires using a tester. Check visually whether the sheath peels.	Replace the cable with a good cable
(1-1-3) Checking power supplies		
AC power supplied to the printer	Check the supplied voltage from the AC power source.	Supply AC power.
5VS and 24V power supplied to SU board (MSU)	Check the 5VS power at 1 pin and 24V power at 3, 4 pin of the POWERCN connector on the SU board (MSU).	Replace the low voltage power supply or CU Board (MRM).
5VOPE and 3.3VSF power supplied to OPE board (OPM-2)	Check the 5VOPE power at 16pin and 3.3VSF power at 14pin of the CN1 connector on the OPE board (OPM-2).	Replace the SU board (MSU).
(1-1-4) Checking for short circuit of power supply		
5V and 24V power supplied to SU board (MSU)	Check for a short circuit using the POWER connector on the SU board (MSU). 3, 4pin: 24V 1pin: +5VS 2, 5, 6pin: 0V If there is a short circuit, locate it. Disconnect the cables from the SU board (MSU) one by one to locate the short circuit.	Replace the short-circuited component.

(1-2) Display of OKI logo

Check item	Checking	Action in case of fail
(1-2-1) Operation panel display does not change.		
Operation panel display	OKI logo stays on.	Replace the CU board (MRM).

(1-3) Error message display

Check item	Checking	Action in case of fail
(1-3-1) Error message		
Error message display	Check the detail of the error on the error message list.	Follow the instructions.

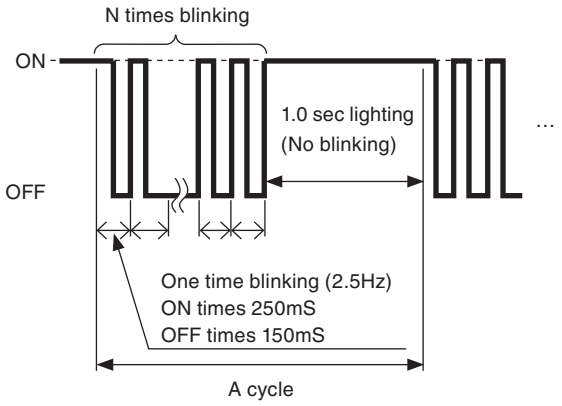
2.5.5.(2) Abnormal MFP operation after powered on

(2-1) No operation

Check item	Checking	Action in case of fail
(2-1-1) Checking power supplies		
AC power supplied to the printer	Check the supplied voltage from the AC power source.	Supply AC power.
5V and 24V power supplied to CU/PU board (MRM)	Check the power supply using the POWER connector on the CU/PU board (MRM). 7, 8, 9pin: 24V 1, 2, 3pin: 5V 4, 5, 6pin: 0VL 10, 11, 12pin: 0VP	Replace the low-voltage power supply.
5V, and 24V power supplied to SU board (MSU)	Check the power supply using the POWER connector on the SU board (MSU). 3, 4pin: 5V 7, 8pin: 24V 5, 6pin: 0VL 9, 10pin: 0VP	Replace the low-voltage power supply.
3.3V power supplied to SU board (MSU)	Check the power supply using the GDIIF connector on the SU board (MSU). 3pin: 3.3V 4, 6, 9pin: 0V	Replace the CU/PU board (MRM).

Check item	Checking	Action in case of fail
(2-1-2) Confirmation of the power switch LED		
Power Switch LED	Confirm whether the LED is off. If the LED blinks rapidly, the number of blinking times in a cycleshows an error. The timing of blinking rapidly is shown in the below figure	Replace either of the power supply unit, the CU board (MRM), SW-Assy (Front), the cables connected to the CU board and power supply unit or the cables connected to the CU board and SW-assy. In case of 2, 4, 8 or 10 times of LED blinking rapidly: Replace either of the power supply unit, the CU board (MRM), the cables connected to the power supply unit and the CU board. In case of 3, 6 or 9 times of LED blinking rapidly: Replace the CU board (MRM).

Rapid blinking of the LED



Check item	Checking	Action in case of fail
(2-1-3) Checking connections		
Connection between low-voltage power supply unit and CU/PU board (MRM)	Make sure the low-voltage power supply unit is connected to the POWER connector on the CU/PU board (MRM) properly. Check whether the cable connector is half-connected or tilted, or whether wires are broken. Check whether there is any fault in the cable assembly, e.g., missing wires.	Connect the cable properly.
Cable assembly connecting low-voltage power supply unit to CU/PU board (MRM)		Replace the cable with a good cable.
Connection between low-voltage power supply unit and SU board (MSU)	Do the checking as described in (1-1-2).	Refer to (1-1-2).
Cable assembly connecting low-voltage power supply unit to SU board (MSU)		
Connection between CU/PU board (MRM) unit and SU board (MSU)		
Cable assembly connecting CU/PU board (MRM) to SU board (MSU)		

(2-2) Abnormal sound

Check item	Checking	Action in case of fail
(2-2-1) Checking for loss of synchronization of motor (driver failure)		
Operation of each motor	Check whether each motor operates properly using the self-diagnosis mode. Check by detection of a load. Noise that sounds like "pooh" is made when there is a fault.	Replace CU/PU board (MRM) and SU board (MSU).
Condition of each motor cable	Check the wiring of each motor. Check for a short circuit by visual check and using a tester. Disconnect the motor cable from the PCB and check the resistance between the FG and each pin of the disconnected cable.	Replace the motor cable. Correct the wiring.
(2-2-2) Checking for loss of synchronization of motor (load by consumables)		
Operation of each motor	Check whether each motor operates properly using the self-diagnosis mode. Check by detection of a load. Noise that sounds like "pooh" is made when there is a fault.	Replace the consumable(s). When testing with a new consumable part, use the fuse keep mode on the system maintenance menu.
(2-2-3) Check for gear jumping (load by consumables)		
Operation of each motor	Check whether each motor operates properly using the self-diagnosis mode. Check by detection of a load. Noise that sounds like "batz batz" is made when there is a fault.	Replace the consumable(s). When testing with a new consumable part, use the fuse keep mode on the system maintenance menu.
Position of consumables	Check visually whether each consumable gear is in place and they engage with one another.	Replace or repair mechanical part(s).
(2-2-4) Checking cable wiring		
Cable wiring around cooling fans	Check whether a cable touches the blades of a fan as the cable is not properly laid. When it does, noise that sounds like "clack clack" is made.	Lay the cable properly.

(2-3) Abnormal odor

Confirmation Items	Confirmation Tasks	Action at NG
(2-3-1) Locate the position with abnormal odor occurred.		
Fuser unit	Take out the fuser and confirm the odor.	Perform (2-3-2).
Low-voltage power supply unit	Take out the low-voltage power supply unit and confirm the odor.	Exchange low-voltage power supply unit

(2-4) Slow starting time

Confirmation Items	Confirmation Tasks	Action at NG
(2-4-1) Check a fuser unit		
Halogen lamp	Confirm the wattage of the halogen lamp mounted in the fuser.	Exchange for wattage parts of the rated voltage.
(2-4-2) Check optional parts		
Expansion memory	Reset the optional parts (expansion memory) and recheck the operation.	Exchange optional parts

● Paper Jams

This section explains how to clear paper jams.

Reference! • For details on the location of each component of the machine, refer to "Swich scan test" on P. 3-16 and "Motor clutch test" on P.3-18.

Checking Error Messages

When a paper jam occurs, the [Paper jam] or [Document jam] message appears on the display screen and the <STATUS> key on the operator panel blinks. The error code and description differ according to where the paper jam occurs.

Clearing Paper Jams

⚠Caution	Possible to get burned.	
Since the fuser unit right is extremely hot, perform the operation with care.		

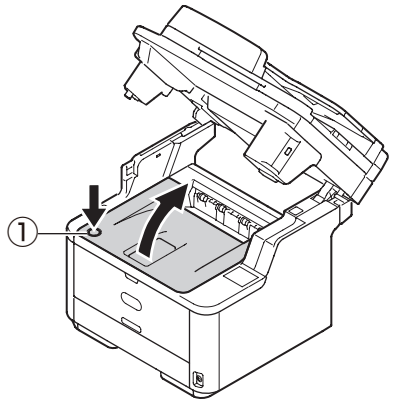
Note! • The image drum (the green tube) is very delicate. Handle it carefully.
• Do not expose the image drum to direct sunlight or very bright interior light (approximately more than 1500 lux). Even under the normal interior light, do not leave it for more than 5 minutes.

Error Code 372 (Duplex paper jam)

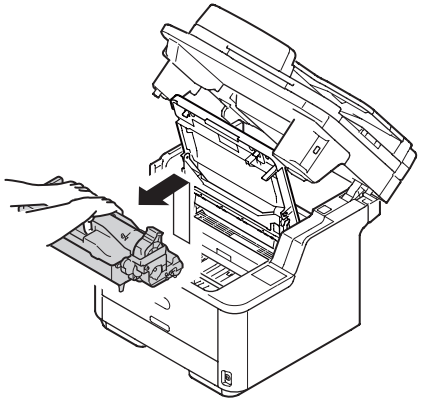
(1) Remove any documents from the document tray if any.

(2) Open the scanner unit.

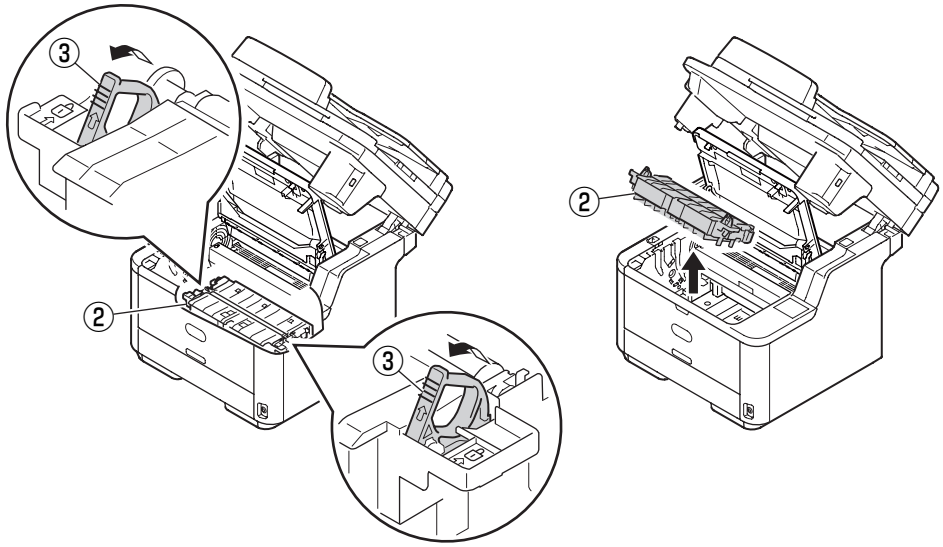
(3) Press the top cover open button ① and open the top cover.



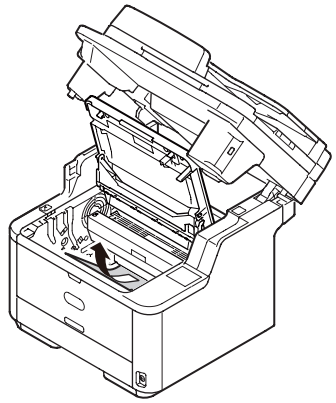
(4) Carefully lift out the image drum, complete with the toner cartridge. Be careful not to touch or scratch the green drum surface.



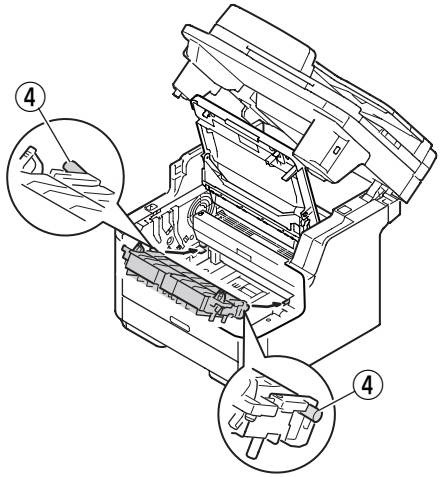
(5) Then, remove the Duplex unit ② by raising the coloured handles ③ on each side, and then by holding the handles and gently lifting it out.



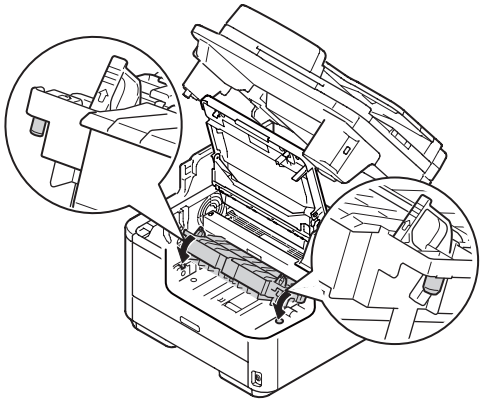
(6) Remove any paper and replace the duplex unit.



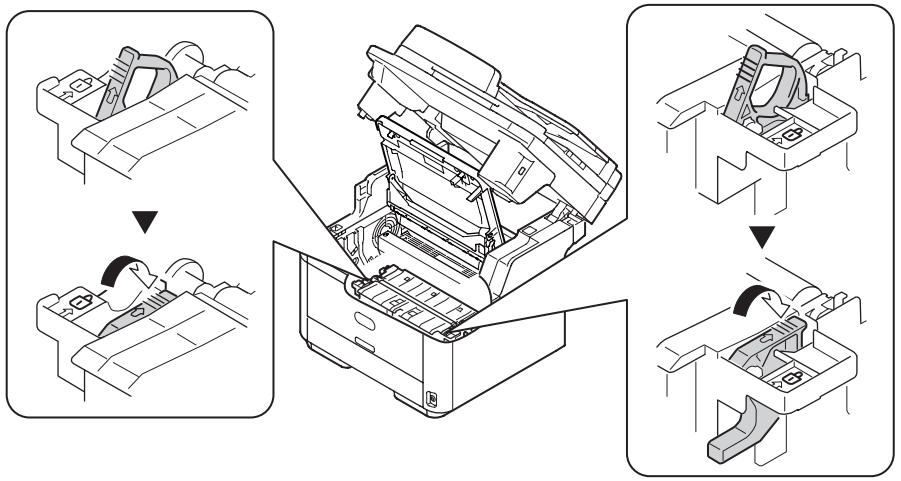
(7) When you return the transcription unit into the printer, insert both projections ④ of the front end of transcription unit into holders of the printer.



(8) Insert rear projections , locating close to both handles of the transcription unit, into both mounting holes of the printer.

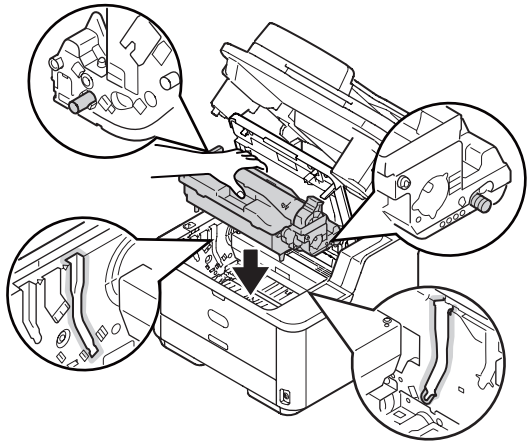


(9) Secure the transcription unit to the printer by rotating both handles of the transcription unit in the arrow direction of 🔒 .



Note! Do not touch the sponge roller of the transcription unit by your hand.

(10) Re-install the image drum complete with toner cartridge, ensuring that the pegs (1 & 2) correctly locate into the slots on each side of the printer (3).



(11) Close the top cover.

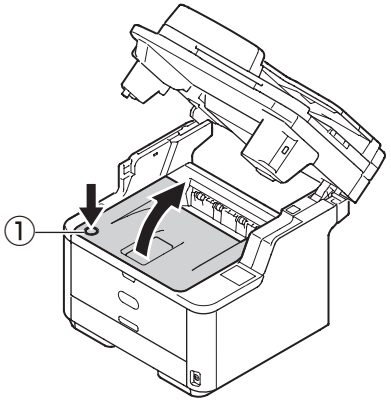
(12) Close the scanner unit.

Error Code 380, 381, 382, 389 (Paper feed jam)

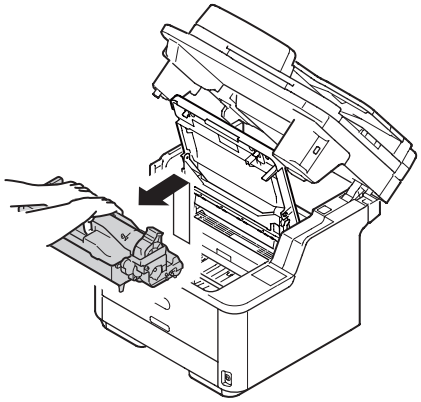
(1) Remove any documents from the document tray if any.

(2) Open the scanner unit.

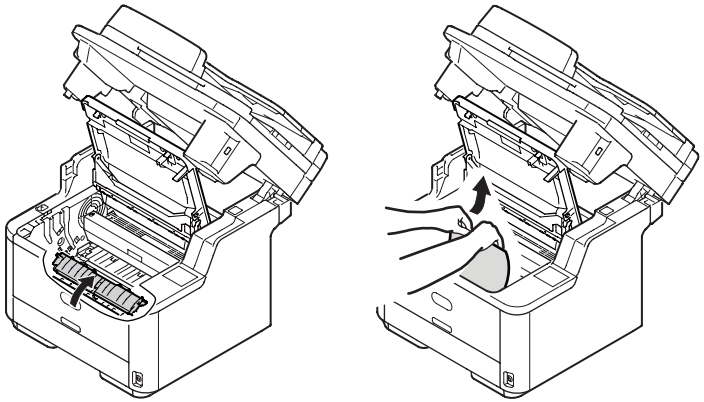
(3) Press the top cover open button ① and open the top cover.



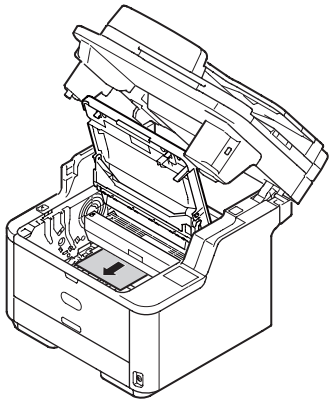
(4) Carefully lift out the image drum, complete with the toner cartridge. Be careful not to touch or scratch the green drum surface.



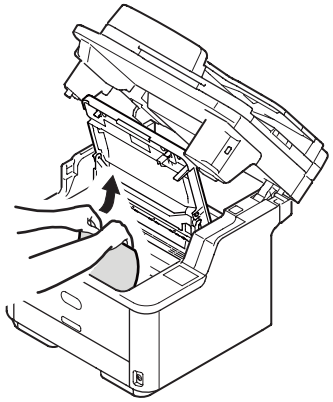
(5) If the top end of paper is visible at the rear side of transparent resist guide, rotate the resist guide toward the fuser unit and hold the paper top end and carefully pull out the paper.



If neither the top or bottom end of paper is visible, move the jammed paper in the arrow direction as shown. Hold the top end of paper by your hands and carefully pull out the paper.



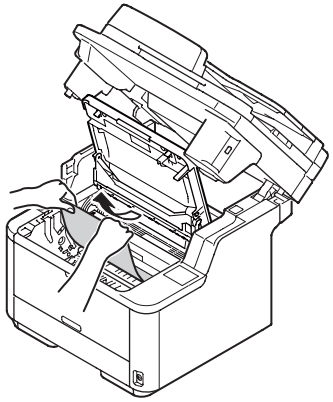
If the bottom end of paper is visible, hold the paper by your hands and carefully pull out the paper.



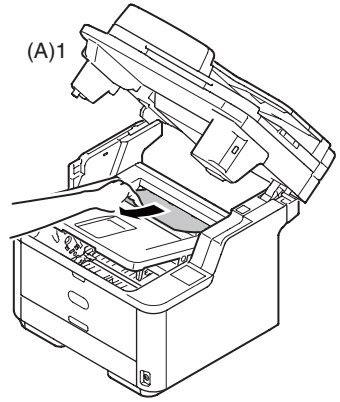
Paper discharge unit (Paper jammed)

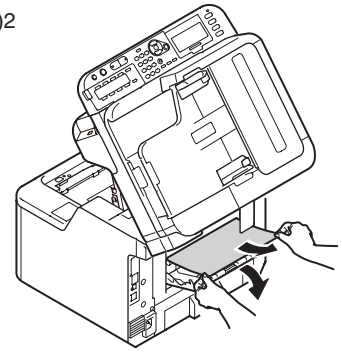
• If the bottom end of paper is visible in the printer, hold and pull out the paper carefully.

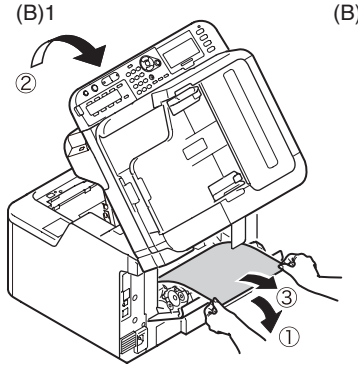
Note! • If paper jams at the paper discharge unit and if the paper is visible inside of the top cover, pull out the paper toward the inside of the printer.

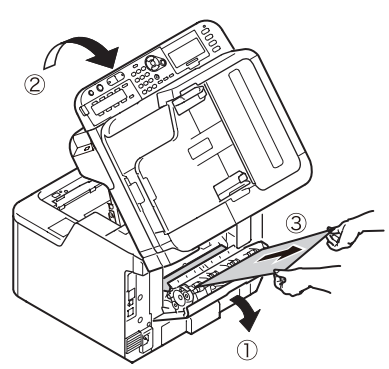


• If the bottom end of paper is not visible but its top end is visible at the paper discharge unit, hold the top end of paper and pull out the paper carefully. If you cannot remove the paper by following Steps (A)1 and (A)2, pull out the paper by following Steps (B).

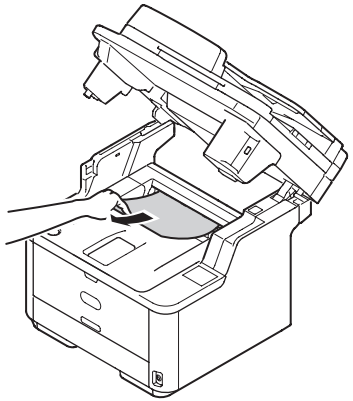








- If you have failed to remove jammed paper, do not force to pull out the paper but follow the steps below.

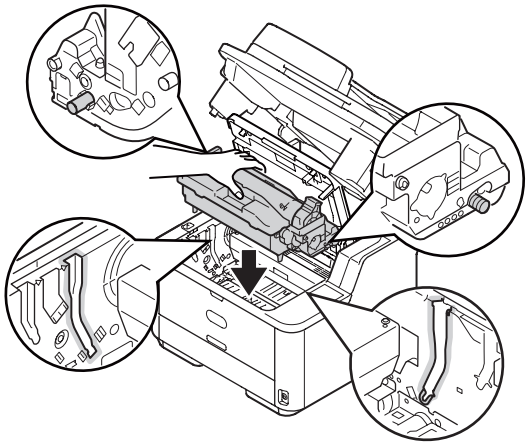


❶ Return the image drum cartridge into the printer, and close the top cover.

❷ Turn the printer Power switch OFF first, and then turn it ON again. When the motor starts to rotate, hold the top end of paper and pull out the paper.

Note! If paper jams when you load papers, check to see that no paper remains in each paper feed unit. Remember that you can release the alarm display only after you have opened the top cover first and then closed it again.

(6) Re-install the image drum complete with toner cartridge, ensuring that the pegs (1 & 2) correctly locate into the slots on each side of the printer (3).



(7) Close the top cover.

(8) Close the scanner unit.

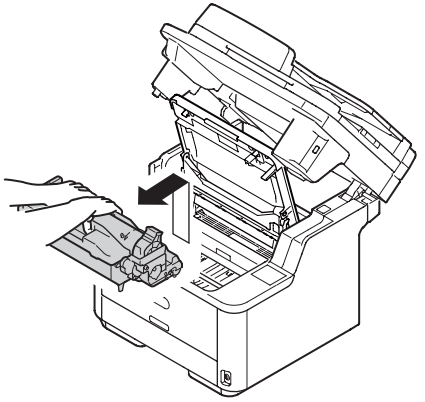
Error Code 390 (Paper feed jam (Multipurpose tray))

(1) Remove any documents from the document tray if any.

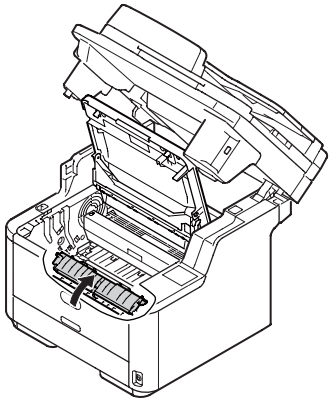
(2) Open the scanner unit.

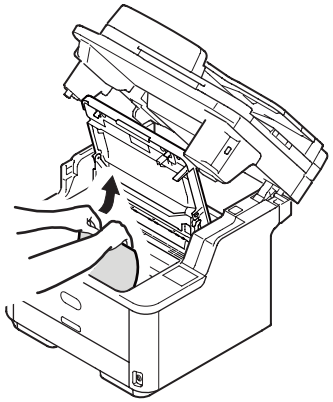
(3) Press the top cover open button (1) and open the top cover.

(4) Carefully lift out the image drum, complete with the toner cartridge. Be careful not to touch or scratch the green drum surface.

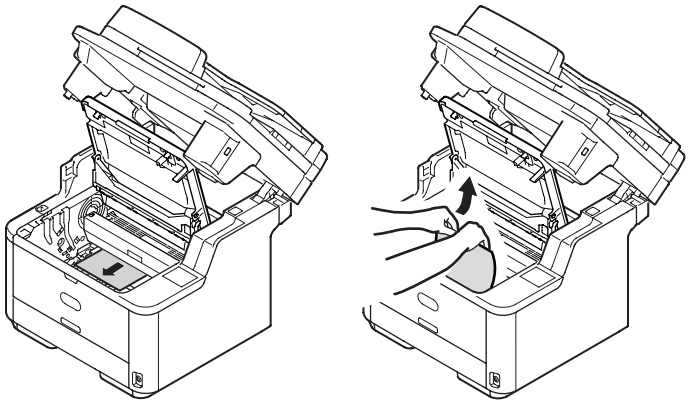


(5) If the top end of paper is visible at the rear side of transparent resist guide, rotate the resist guide toward the fuser unit and hold the paper top end and carefully pull out the paper.

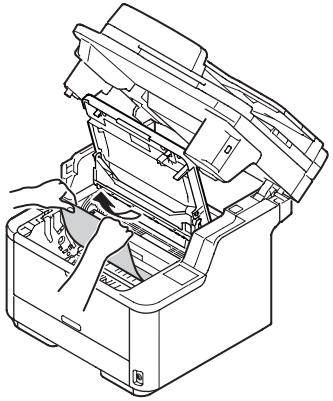




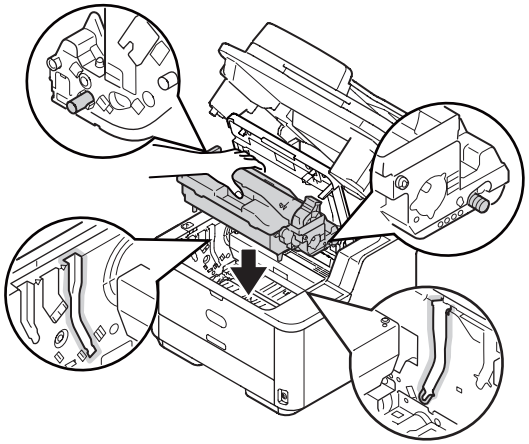
If neither the top or bottom end of paper is visible, move the jammed paper in the arrow direction as shown. Hold the top end of paper by your hands and carefully pull out the paper.



If the bottom end of paper is visible, hold the paper by your hands and carefully pull out the paper.



(6) Re-install the image drum complete with toner cartridge, ensuring that the pegs (1 & 2) correctly locate into the slots on each side of the printer (3).



(7) Close the top cover.

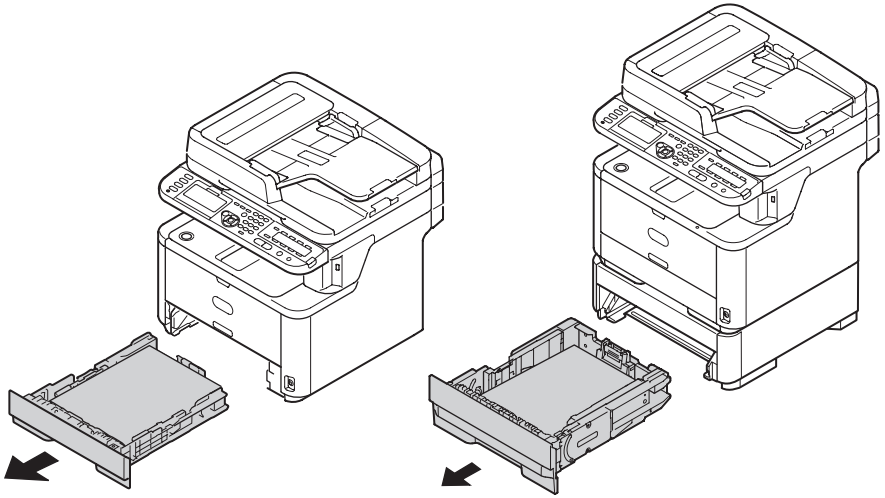
(8) Close the scanner unit.

Error Code 391, 392 (Paper feed jam)

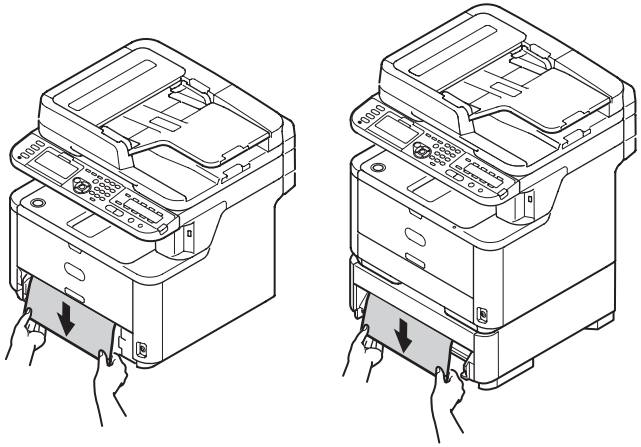
Error Code 391 indicates an error in Tray1 and Error Code 392 indicates a paper jam in Tray2.

Memo! The following procedure uses tray 1 as an example.

(1) Pull out and remove the paper cassette of the indicated tray.



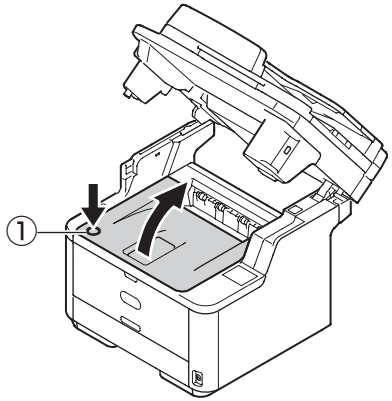
(2) Remove jammed paper.



(3) Return the tray into the machine.

(4) Open the scanner unit.

(5) Press the top cover open button ① and open the top cover.



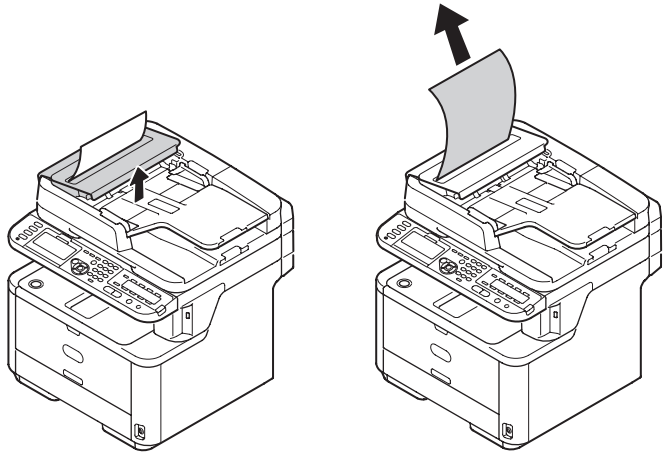
(6) Close the top cover.

(7) Close the scanner unit.

Document Jam Occurred

■When you can see the document In the Duplex Paper Path

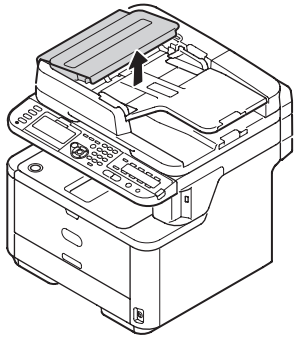
(1) Open the ADF cover, and pull out the document upward.



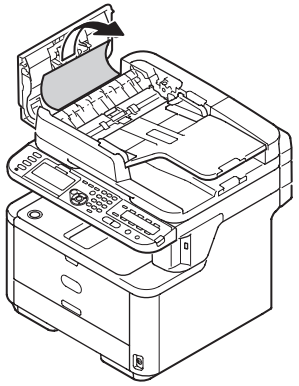
■When you can see the document Inside the ADF

(1) Remove any documents from the document tray if any.

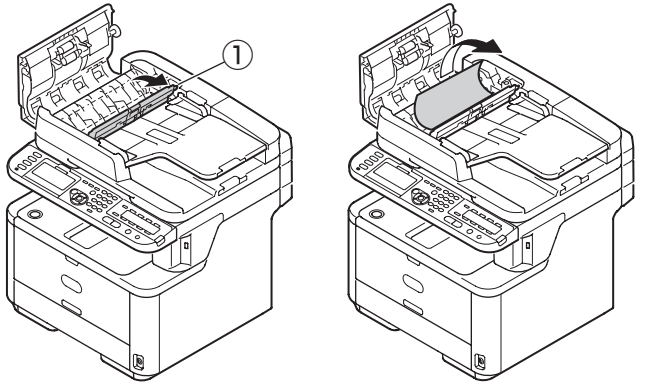
(2) Open the ADF cover.



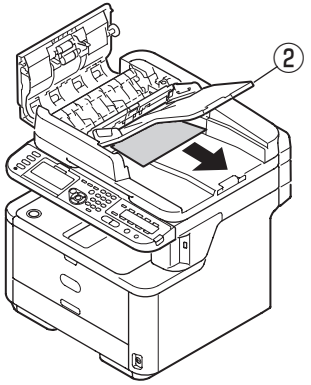
(3) Hold jammed document by the top edge, and gently pull it out.



If the edge of the document can been seen under the paper guide ① , lift the paper guide and then pull out the document.



If the edge of the document cannot be seen in the ADF, lift the document tray ② and then pull out the document.



Pull down the document tray.

(4) Close the ADF cover.

2.5.5. (3) Paper feed jam (Error code 391: 1st tray)

(3-1) Does a jam error occur when turning on the power?

Check item	Check operation	Actions for NG results
(3-1-1) Check condition of paper running path		
Paper running path of the front unit	Open the front cover check if paper is not jammed in the paper running path.	Remove the paper
(3-1-2) Check condition of the mechanical parts		
Entrance sensor	Does the entrance sensor lever work normally? (It moves freely by touching.)	Replace the entrance sensor lever.
	Clean a sensor.	replace the main board.

(3-2) Jam occurs immediately after the paper feed is started. (1st tray)

Check item	Check operation	Actions for NG results
(3-2-1) Check condition of paper running path		
Paper running path of the front unit	Open the front cover check if paper is not jammed in the paper running path.	Remove the paper
(3-2-2) Check condition of the mechanical parts		
Entrance sensor	Is the paper sent to the entrance sensor lever?	Replace the paper feed roller, pick-up roller or paper cassette.
	Does the entrance sensor lever work normally? (It moves freely by touching.)	Replace the entrance sensor lever.
	Is the IN_WR connector of the main board connected properly?	Connect the IN_WR connector properly.

Check item	Check operation	Actions for NG results
(3-2-3) Check the paper feed roller rotate.		
Casette	Does the paper feed roller rotate?	YES: Set the paper cassette appropriately. NO: Go next question.
Paper feed roller and shaft.	Does the paper feed clutch work normally?	YES: Replace the paper feed roller and shaft. NO: Go next question.
Connector	Is HCLT connector of the main board appropriately connected?	YES: Go next question. NO: Connect HCLT connector appropriately.
Clutch	Is the coil resistance of the paper feed clutch (Normal resistance: Pin1, Pin2, and approx. 192) normally?	YES: Replace the main board. NO: Replace the paper feed clutch.

2.5.5. (4) Feed jam (Error code: 380, 381)

(4-1) Jam occurs immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(4-1-1) Check condition of paper running path		
Paper running path of the front unit	Open the front cover check if paper is not jammed in the paper running path.	Remove the paper
(4-1-2) Check condition of the mechanical parts		
Write sensor	Does the write sensor lever work normally? (It moves freely by touching.)	Replace the paper sensor plate.
	Clean a sensor.	Replace the main board.

(4-2) Jam occurs immediately after the paper feed is started.

Check item	Check operation	Actions for NG results
(4-2-1) Check condition of paper running path		
Paper running path of the front unit	Open the front cover check if paper is not jammed in the paper running path.	Remove the paper
(4-2-2) Check condition of the mechanical parts		
Write sensor	Does the paper reach the write sensor lever?	YES: Go next question. NO: Go Check paper feed roller.
	Does the ejection sensor lever work normally? (It moves freely by touching.)	Replace the write sensor lever.
	Is theIN_WR connector of the main board connected properly?	Connect the IN_WR connector properly.
	Clean the write sensor	Replace the main board.
Paper feed roller	Does the paper feed roller rotate?	Replace Paper Feed Roller or Paper Feed Clutch.
	Is the image drum cartridge appropriately set?	Set the image drum cartridge appropriately.

Check item	Check operation	Actions for NG results
(4-2-2) Check condition of the mechanical parts		
Ejection sensor lever	Does the paper reach the ejection sensor lever?	YES: Go next question. NO: Go Check drum motror.
	Does the ejection sensor lever work normally? (It moves freely by touching.)	Replace the ejection sensor lever.
	Is the EXIT connector of the main board connected properly?	Connect the EXIT connector properly.
	Clean the ejection sensor	Replace the main board.
Drum motor	Does the main drum motor rotate?	YES: Go Check transfer roller. NO: Go next question.
	Is the DM connector of the main board connected appropriately?	Connect DM connector appropriately.
	Replace the main drum motor.	Replace the main board.
Transfer roller	Does the transfer roller rotate?	Check the gear. (Transfer roller gear, drum gear at the left of drum cartridge)
	Is the fuser unit Assy appropriately installed?	Install the fuser unit Assy.
Image drum cartridge	Is the image drum cartridge appropriately Installed?	Set the image drum cartridge appropriately.

2.5.5. (5) Paper feed jam (Error code 390: Multipurpose tray)

(5-1) Does a jam error occur when turning on the power?

Check item	Check operation	Actions for NG results
(5-1-1) Check condition of paper running path		
Paper running path of the multipurpose tray	Open the front cover check if paper is not jammed in the paper running path.	Remove the paper
Sheet Receive of the multipurpose tray	Confirm that the Sheet Receive has moved up normally. Confirm that the support spindle and spring of the Sheet Receive have been installed in the specified positions normally.	Correct installation of the above parts so that the Sheet Receive moves up to the specified position normally.
(5-1-2) Check condition of the mechanical parts		
Entrance sensor	Does the entrance sensor lever work normally? (It moves freely by touching.)	Replace the entrance sensor lever.
Front cover	Confirm that the locks in the right and left of the front cover are locked normally.	Replace the font cover assembly
Check the feed roller and the pickup roller.	Check if any foreign materials such as paper dust on the surface of the feed roller or of the pickup roller or not.	Remove the foreign material.
	Clean a sensor.	Replace the main board.

(5-2) Jam occurs immediately after paper feed is started. (Multipurpose tray)

Check item	Check operation	Actions for NG results
(5-2-1) Check condition of paper running path		
Paper running path of the multipurpose tray	Open the front cover check if paper is not jammed in the paper running path.	Remove the paper
Sheet Receive of the multipurpose tray	Confirm that the Sheet Receive has moved up normally. Confirm that the support spindle and spring of the Sheet Receive have been installed in the specified positions normally.	Correct installation of the above parts so that the Sheet Receive moves up to the specified position normally.
(5-2-2) Check condition of the mechanical parts		
Entrance sensor	Is the paper sent to the entrance sensor lever?	Replace the paper feed roller, pick-up roller or paper cassette.
	Does the entrance sensor lever work normally? (It moves freely by touching.)	Replace the entrance sensor lever.
	Is the IN_WR connector of the main board connected properly?	Connect the IN_WR connector properly.

Check item	Check operation	Actions for NG results
(5-2-3) Check the paper feed roller rotate.		
Multipurpose tray	Does the paper feed roller rotate?	YES: Set the paper multipurpose tray appropriately. NO: Go next question.
Paper feed roller and shaft.	Does the paper feed clutch work normally?	YES: Replace the paper feed roller and shaft. NO: Go next question.
Connector	Is HCLT connector of the main board appropriately connected?	YES: Go next question. NO: Connect HCLT connector appropriately.
Clutch	Is the coil resistance of the paper feed clutch (Normal resistance: Pin1, Pin2, and approx. 192) normally?	YES: Replace the main board. NO: Replace the paper feed clutch.

2.5.5. (6) Paper running jam (Error code: 381)

(6-1) Jam occurs immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(6-1-1) Check condition of paper running path		
Paper running path of the ejection unit	Open the rear cover and top cover check if paper is not jammed in the paper running path.	Remove the paper
(6-1-2) Check condition of the mechanical parts		
Ejecting sensor	Does the ejecting sensor lever work normally? (It moves freely by touching.)	Replace the ejecting sensor.
	Clean a sensor.	Replace the main board.

(6-2) Jam occurs immediately after the paper feed is started.

Check item	Check operation	Actions for NG results
(6-2-1) Check condition of paper running path		
Paper running path of the ejection unit	Open the rear cover and top cover check if paper is not jammed in the paper running path.	Remove the paper
(6-2-2) Check condition of the mechanical parts		
Paper ejection roller	Is the paper ejection roller appropriately installed?	Install the paper ejection roller appropriately.
Paper ejection spring	Is the paper ejection spring appropriately installed?	Install the paper ejection spring appropriately.
Cover-Assy Rear or fuser unit Assy.	Replace Cover-Assy Rear.	Replace fuser unit Assy.

2.5.5. (7) Two-sided printing jam (Error code: 372)

(7-1) Two-sided printing jam.

Check item	Check operation	Actions for NG results
(7-1-1) Check condition of the paper running path		
Paper running path of the Duplex unit	Check if paper is jammed or not in the paper running path. Open the front cover and check if any paper remains in the Duplex feeder or not. Open the rear cover and check if any paper remains in the paper reversing path or not. Remove the Duplex unit. Check if any paper exists in the Duplex insertion slot or not. Open the cover of the Duplex paper running path and check if any paper remains inside of the Duplex unit.	Remove the jammed paper.

2.5.5. (8) Paper size error (Error code: 400)

(8-1) Jam occurs when paper end is located near the entrance sensor.

Check item	Check operation	Actions for NG results
(8-1-1) Check paper size and respective sensor.		
Paper size	Is the paper which is specified size used?	Use a specified-size paper.
Entrance sensor	Does the entrance sensor lever work normally? (It moves freely by touching.)	Replace the entrance sensor lever, or clean the entrance sensor.
Write sensor	Does the write sensor lever work appropriately? (It moves freely by touching.)	Replace the write sensor lever.
Main board	Clean the write sensor.	Replace the main board.

2.5.5. (9) Fuser unit error (Error code: 170 to 177)

(9-1) Error occurs immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(9-1-1) Thermistor is defective Note)		
Thermistor	Check the thermistors if they are shorted or opened internally. Check the resistance value at the connector pins in the bottom of the fuser unit. (Refer to section 6.1 Resistance check (fuser unit).)	Replace the fuser unit.

Note! Service calls 171 error and 171 error can occur when the printer temperature is below 0℃. Turn on the power again after the printer temperature has increased.

(9-2) Error occurs approx. 1 minute after the power is turned on.

Check item	Check operation	Actions for NG results
(9-2-1) Temperature increase of fuser unit		
Thermostat, halogen lamp	Heater of the fuser unit is controlled of its temperature. Check if the fuser unit gets hot or not by touching it with hands. If the fuser unit temperature does not increase and remains cold, check that the resistance between pin-1 and pin-2, and that in between pin-3 and pin-4 of the two connectors is in the range of several ohms to several ten ohms respectively. (Refer to section 6.1 Resistance value (fuser unit).)	Replace the fuser unit.
(9-2-2) AC power input to the halogen lamp		
AC power voltage from the low voltage power supply	Check if the AC voltage for heater is normally supplied or not. Power supply J2 connector, between pin-1 and pin-2.	Replace the low voltage power supply.
Heater ON signal that is output from CU/PU to the low voltage power supply	Check that the heater ON signal goes active at the warming up timing, or not. "L" active while ON. CU/PU board POWER connector 15 pin.	Replace the CU/PU board.

2.5.5. (10) Motor fan error (Error code: 122, 127, 128)

(10-1) The low voltage power supply fan does not rotate immediately after the power is turned on.

Check item	Check operation	Actions for NG results
(10-1-1) Cable connection condition and wiring condition		
Cable connection condition and wiring condition of the low voltage power supply fan and those of the fuser fan	Check if the connectors are connected normally or not. Check if extra length of the cables does not touch the fan blade or not.	Correct the connection condition of the connectors. Correct the cable wiring route. Replace the fan.

(10-2) All fans of the printer do not rotate.

Check item	Check operation	Actions for NG results
(10-2-1) 24V power supply		
CU/PU board fuses, F1 and F2	Check if the fuses F1 and F2 are not open-circuit or not.	24V power supplied to the CU/PU board
24V power supplied to the CU/PU board	Check the power supply voltages at the POWER connector of the CU/PU board. 12, 13, 14pin: 24V 9, 10, 11pin: 0VP 8pin:0V	Replace the low voltage power supply.

2.5.5. (11) Print speed is slow. (Performance is low.)

(11-1) Print speed decreases.

Check item	Check operation	Actions for NG results
(11-1-1) Media Weight setting		
Media Weight that is specified for the print	Check if the wrong Media Weight has been specified or not.	Correct the Media Weight.

2.5.5. (12) Option unit cannot be recognized.

(12-1) Option try unit cannot be recognized.

Check item	Check operation	Actions for NG results
(12-1-1) Option try board		
Option tray unit	Check that it is Option Tray which can be used in MB4xx.	Replace it with an appropriate option tray unit.
(12-1-2) Check the system connection		
Connection between the CU/PU board and the option tray board (GOG PCB)	Check that the cord between the 2ND connector of the CU/PU board and the option tray board is properly connected.	Correct the connections.
Square connector connecting the option tray unit with the main unit	Check if any foreign material exists in the connecting portion of the square connector.	Remove the foreign material.
Square connector connecting the option tray unit with the main unit	Is the terminals of the square connector damaged?	Replace the connector.
(12-1-3) Check the control signals.		
Control signal that is output from the CU/PU board to the option tray board (GOG PCB)	Check the control signals that are output from the 2ND connector of the CU/PU board. Pin 6: TXD (PU -> 2nd) Pin 5: RXD (2nd -> PU)	Replace the CU/PU board.

2.5.5. (13) LED head cannot be recognized. (Error code: 134)

(13-1) Service call 134 (LED HEAD Missing)

Check item	Check operation	Actions for NG results
(13-1-1) Check the system connection		
Connecting condition of the CU/PU board connector and the head connector	Check the connecting condition of the FFC by the visual inspection.	Correct the connection to the normal connecting condition.
Head FFC	Remove the head FFC from the printer. Check if any open-circuit or peeling-off of sheath has occurred or not throughout the cable.	Replace the head FFC or CU/PU board.
Conduction of the fuse on the CU/PU board	Check that measurements taken at both ends of each capacitor CP7 show 5V. (See section 2.6.) Or, instead of the above, check if each fuse F502 is open or not.	Replace the CU/PU board.

2.5.5. (14) Toner cartridge cannot be recognized. (Error code: 543)

(14-1) Error caused by the consumable items.

Check item	Check operation	Actions for NG results
(14-1-1) Consumable items installation condition		
ID unit and toner cartridge	Check that the ID unit is installed in the normal position. Check that the lock lever of the toner cartridge is locked.	Correct the installation to the normal installation condition.

(14-2) Error caused by the toner sensor

Check item	Check operation	Actions for NG results
(14-2-1) Toner sensor condition		
Toner sensor	Is the receptor of the toner sensor stained?	Wipe off the stain from the toner sensor.
Toner sensor	Confirm that the toner sensor works normally by using the SWITCH SCAN function of the self-diagnostic mode. Place a white paper in front of the toner sensor, and check if the SCAN state changes or not.	Replace the toner sensor board, CU/PU board, or FFC that is located between the toner sensor board and the CU/PU board.

Note! Toner sensor operation check method using the SWITCH SCAN function of the self-diagnostic mode.

(1) How to check operation of the toner sensor at the printer side.

1. Status change of the toner sensor can be checked from the Operator Panel using the self-diagnostic mode. First, switch the display to the Operator Panel display. For the method of switching the display to the Operator Panel display, refer to section 3.4.2.3 Switch Scan Test
2. Remove the ID unit and the toner cartridge (TC) from a printer. There is a window inside a printer opposing the ID side when viewed from the front of a printer. The toner sensor is located inside the window.
3. Place a white paper 3 mm away from the sensor window. The white paper should be placed in the manner of opposing the toner sensor.
4. When light is reflected by a white paper so that incident light falls on the toner sensor, the Operator Panel display shows "L". When the paper is moved so that any light is not reflected by the paper so that the incident light does not reach the toner sensor, "H" is displayed on the Operator Panel.
5. If the Operator Panel display toggles between "H" <-> "L" as a paper is flipped in front of the toner sensor, it indicates that the toner sensor and the related system of the printer are working normally.

Action to be taken at NG

- Clean surface of the toner sensor to remove the stains due to residual toner and paper dust.
- Check the connection state between the CU/PU board and the toner sensor board (97T) that are connected with the FFC cable.
- Check it once again, and if no change has found in the state, replace the CU/PU board or the toner sensor board (97T).

(2) How to check operation of the toner sensor at the toner cartridge (TC) side

1. To the position where the toner sensor is confirmed to be operating normally in the printer itself by the above paragraph (1), install the TC and the ID unit to check operations by observing display on the Operator Panel.
2. If the ID unit works normally, the display on the Operator Panel will toggle between "H" <-> "L" in synchronism with movement of the silver reflector plate that is located on the side of the ID.

Action to be taken at NG

- Check operation condition of the respective ID motors by using the Motor & Clutch Test of the self-diagnostic mode.
- Clean surface of the silver reflector plate on the side of ID to remove stains. (Stain due to toner or paper dust)
- Replace the TC of different color and the ID unit as a pair.

  If a satisfactory operation is attained by using the a pair of TC of different color and the ID unit, replace the TC or replace the ID unit.

(14-3) Error caused by the defective mechanism

Check item	Check operation	Actions for NG results
(14-3-1) Mechanical load applied to the ID unit		
ID unit	Check if a heavy mechanical load is being applied to the ID unit due to breakage of the waster toner belt, or not. Check if a heavy mechanical load is being applied to the ID unit by the waster toner box, or not.	Replace the K toner.
(14-3-2) Motor operating condition		
ID motor	Confirm that the respective ID motors work normally or not by using the Motor & Clutch Test of the self-diagnostic mode. Check if any extra load exists or not.	Replace the CU/PU board or the ID motor.

2.5.5. (15) Fuse cut error (Error code: 153 to 155)

(15-1) Fuse cut error

Check item	Check operation	Actions for NG results
(15-1-1) Check the system connection		
FFC connecting the CU/PU board and the high voltage board (97T PCB)	Check if the HVIF connector of the CU/PU board or the HVIF connector of the high voltage board (97T PCB) is connected halfway or inserted in a slanted angle.	Connect the FFC normally. Alternately, replace the FFC.
(15-1-2) Fuse cut circuit		
CU/PU board	Upon completion of the system connection check, turn off the power once and back on. The, check if the error occurs or not.	Replace the CU/PU board.

2.5.5. (16) Humidity sensor error (Error code: 123)

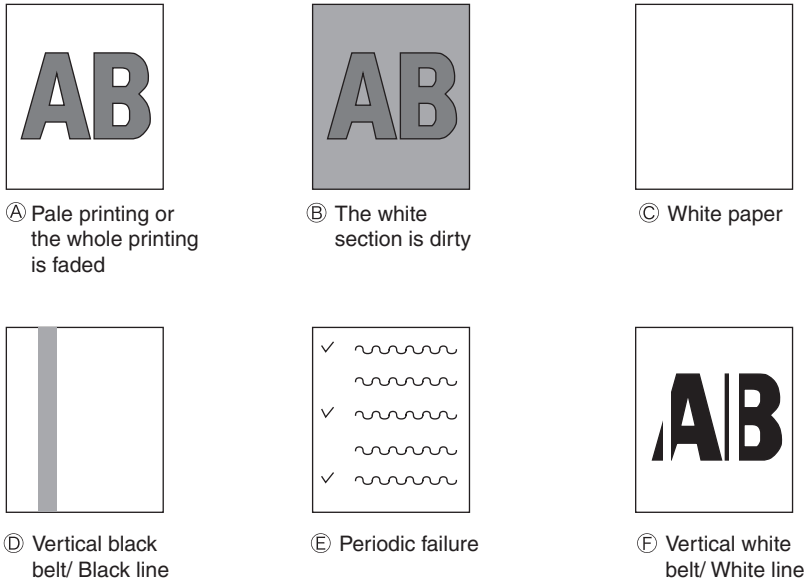
(16-1) Humidity sensor error

Check item	Check operation	Actions for NG results
(16-1-1) Check the system connection		
Connection to the CU/PU board and to the toner sensor board	Check if the 28-conductor FFC is connected to the HVIF connector of the CU/PU board normally.	Re-connect the cable normally.
FFC connecting the CU/PU board and the high voltage board	Check for open-circuit with HVIF. Check that peeling off of sheath does not occur in any cables by visual inspection.	Replace the FFC with the normal FFC.
(16-1-2) Environment condition		
Sharp change of environment condition	Is the environment condition changed sharply from a low temperature environment to a high environment condition within a short time? (Example is such a case that a printer is moved from storage condition of a cold area in winter to an office environment.)	Leave a printer for around one hour in the new environment to get used to the new environment. After that, turn on the power again. Before turn on the power, touch the metal panel of the controller panel and the metal plate inside a printer to feel temperature increase inside a printer with human hands. After confirmation that the printer temperature has increased close to the room temperature, turn on the power again.

2.5.6 Print Troubleshooting

The troubleshooting procedure of abnormal printing is described as follows. The typical abnormal printing is shown in the following Figure 2-1.

Trouble	Flowchart number
Pale printing or the whole printing is faded. (Fig.2-1 Ⓐ)	①
The white section is dirty. (Fig.2-1 Ⓑ)	②
White paper is outputted (Fig. 2-1 Ⓒ)	③
Vertical black belt/ Black line (Fig. 2-1 Ⓓ)	④
Periodic failure (Fig. 2-1 Ⓔ)	⑤
A part of printing is extracted	⑥
Inefficient fusing (when touching the printed sheet, printed characters or image is faded or come off.)	⑦
Vertical white belt/ White line (Fig. 2-1 Ⓕ)	⑧



Ⓐ Pale printing or the whole printing is faded

Ⓑ The white section is dirty

Ⓒ White paper

Ⓓ Vertical black belt/ Black line

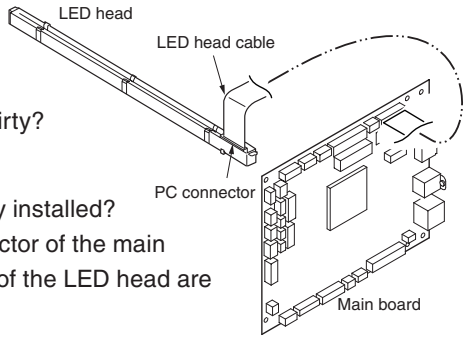
Ⓔ Periodic failure

Ⓕ Vertical white belt/ White line

Figure 2-1

① Pale printing or the whole printing is faded.

- Does the printer lack toner? (Is the message of Toner Low displayed?)
  - Yes Supply the toner.
- No Is specified paper used.
  - No Use specified paper.
- Yes Is the lens of the LED head dirty?
  - Yes Clean the lens.
- No Is the LED head appropriately installed? (Check that the HEAD connector of the main board and the PC connector of the LED head are appropriately connected.)



  - No Install the LED head appropriately.
- Yes Does the contact plate of the transfer roller contact the TR terminal of the high-voltage power supply unit properly? (See Figure 2-3 , Section 6.2 (9))
  - No Adjust the contact plate of the transfer roller so that it contacts the TR terminal of the high-voltage power supply unit and the transfer roller shaft well.
- Yes Are the contact of the developing roller and toner supply roller of the image drum cartridge appropriately connected to the contact assembly? (See Figure 2-2 Ⓐ and Ⓒ)
  - No Adjust so that the contacts of the developing roller and toner supply roller are connected to the contact assembly.
- Yes Replace the transfer roller.
- Has the trouble been solved?
  - Yes Completed
- No Replace the image drum cartridge.
- Has the trouble been solved?
  - Yes Completed
- No Is the surface elasticity of the back-up roller normal?
  - No Replace the fuser Assy.
- Yes Replace the main board or high-voltage power supply unit.

② The white section is dirty

- Is the image drum exposed by the external light?
  - Yes Install the image drum in the printer and wait 30 minutes.
- No From [MAINTENANCE MENU], select [PAPER BLACK SET] - [SMR SETTING] and set a larger value for adjustment.
- Has the trouble been solved?
  - Yes Completed.
- No From [MAINTENANCE MENU], select [SMR SETTING] and set a smaller value for adjustment.
- Has the trouble been solved?
  - Yes Completed.
- No Is the heat roller of the fuser unit assy dirty?
  - Yes Clean the heat roller.
- Has the trouble been solved?
  - Yes Completed.
- No Replace the image drum cartridge.
- Has the trouble been solved?
  - Yes Completed.
- No Replace the main board, high-voltage power/ sensor board.

③ White paper is outputted

- Is the LED head appropriately connected? (Check the HEAD connector of the main board and the PC connector of the LED head.)
  - No Connect the LED head appropriately or replace the head cable.
- Yes Is the image drum cartridge appropriately connected to the earth contact? (See Figure 2-2 Ⓓ)
  - No Adjust the earth contact (drum) of the contact assembly.
- Yes Replace the LED head.
- Has the trouble been solved?
  - Yes Completed.
- No Replace the main board or high-voltage power supply unit.

④ Vertical black belt/ Black line

- Clean the LED lens array of the LED head.
- Has the trouble been solved?
  - Yes Completed.
- No Replace the LED head.
- Has the trouble been solved?
  - Yes Completed.
- No Replace the image drum cartridge.
- Has the trouble been solved?
  - Yes Completed.
- No Replace the main board or high-voltage power supply unit.

⑤ Periodic failure

	Cycle	Handling
Image Drum	94.25mm	Replace or clean the image drum cartridge.
Developing roller	39.68mm	Replace the image drum cartridge.
Toner supply roller	58.36mm	Replace the image drum cartridge.
Charging roller	37.70mm	Replace the image drum cartridge.
Transfer roller	51.52mm	Replace the transfer roller.
Heat roller	88.12mm	Replace the fuser unit Assy.
Back-up roller	89.54mm	Replace the back-up roller.

⑥ In case of error printing

- Does the contact plate of the transfer roller contact the TR terminal of the high-voltage power supply unit properly? (See Figure 2-3, Section 6.2 (9))
  - • No — Adjust the contact plate so that it contacts the TR terminal of the high-voltage power supply unit properly.
- Yes — Replace transfer roller.
- Has the problem been solved?
  - • Yes — Completed
- No — Is LED Head installed properly? (Check the HEAD connector of main board and PC connector of LED Head.)
  - • No — Install LED Head properly.
- Yes — Replace LED Head or Head cable.
- Has the problem been solved?
  - • Yes — Completed
- No — Replace the main board or high-voltage power supply unit.

⑦ In case of inefficient fusing (If touch by hand the character or image that are printed on paper will be faded or unstuck.)

- Is the specified paper used?
  - • No — Use the specified paper.
- Yes — Is the backup roller surface normal?
  - • No — Replace the fuser Assy.
- Yes — Does the contact plate of the fuser Assy contact the base plate properly? (See Figure 2-4.)
  - • No — Adjust the contact plate of the fuser Assy so that it contacts the base plate properly.
- Yes — Replace Fuser Assy.
- Has the problem been solved?
  - • Yes — Completed
- No — Replace the main board or high-voltage power supply unit.

⑧ Vertical white belt/ White line

- Is the LED lens dirty?
  - • Yes — Clean the LED lens.
- No — Does the contact plate of the transfer roller contact the TR terminal of the high-voltage power supply unit properly? (See Figure 2-3, Section 6.2 (9))
  - •No — Adjust the contact plate so that it contacts the TR terminal of the high-voltage power supply unit properly.
- Yes — Replace the transfer roller.
- Has the trouble been solved?
  - • Yes — Completed.
- No — Is the backup roller surface normal?
  - • No — Replace the fuser Assy.
- Yes — Is the LED head appropriately installed? (Check the HEAD connector of the main board and the PC connector of the LED head.)
  - • No — Install the LED head appropriately.
- Yes — Replace the LED head.
- Has the trouble been solved?
  - • Yes — Completed.
- Yes — Replace the image drum cartridge.
- Has the trouble been solved?
- No — Replace the main board or high-voltage power supply unit.

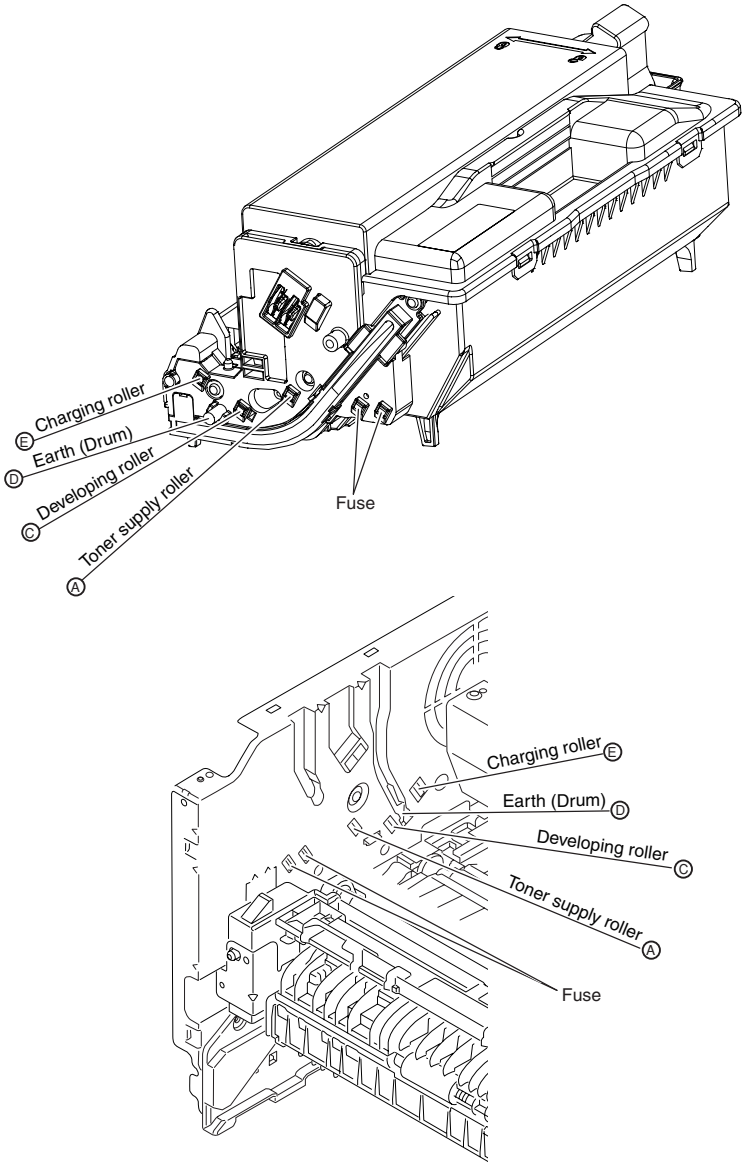


Figure 2-2

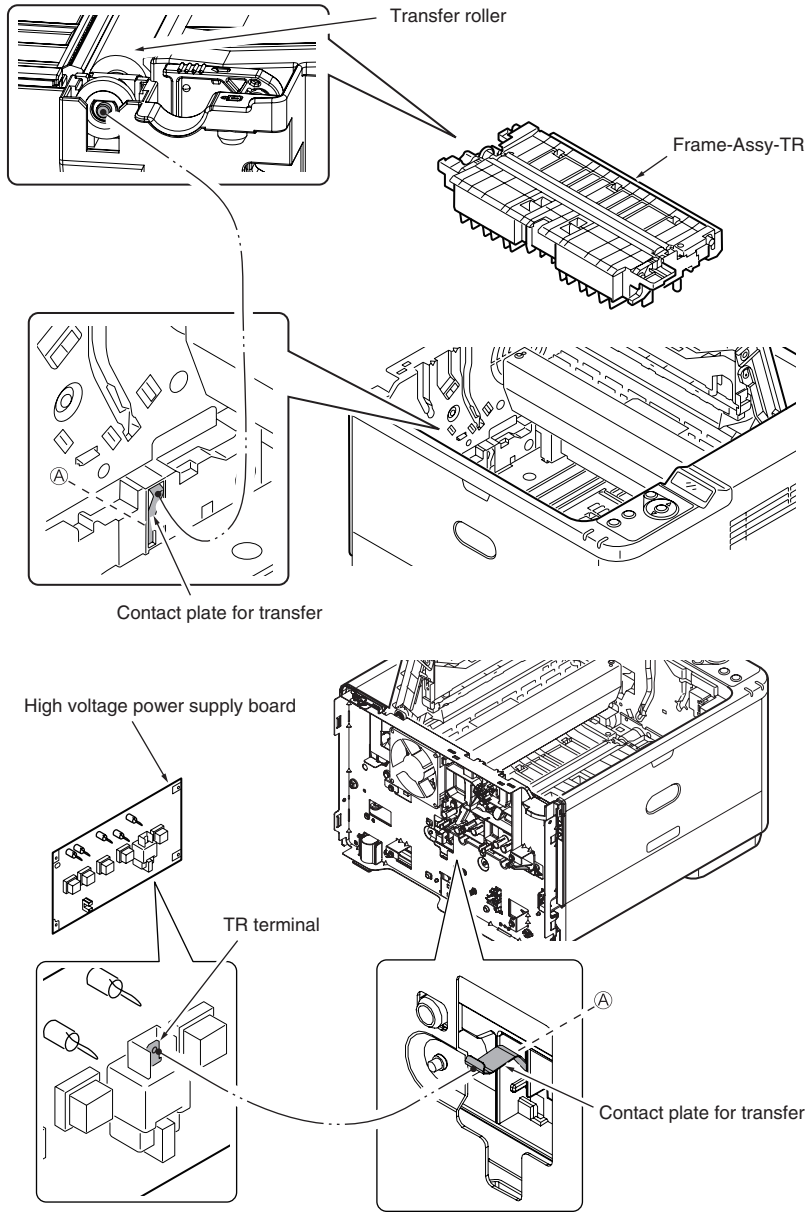


Figure 2-3

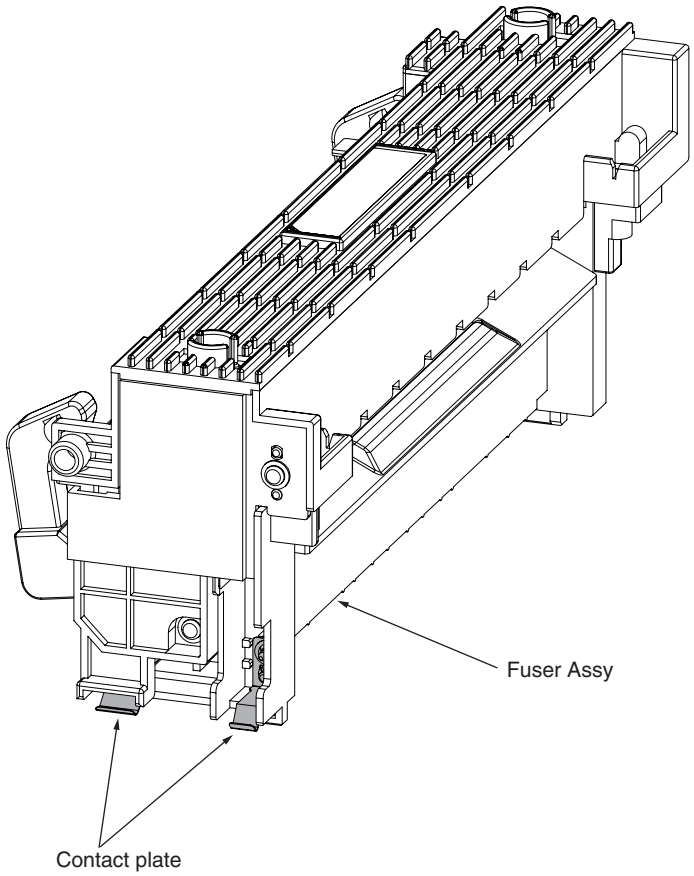


Figure 2-4

2.5.7 Response after Flash compulsive initialization

Explain the response after compulsive initialization is performed with trouble occurred in Flash.

(1) Flash compulsive initialization

If Flash compulsive initialization is performed, the following data would be deleted and the network and fax would not be available.

- NIC-Firmware
- WebPage data
- Log data
- Address data
- Message data
- Language file

It is necessary to write above Firmware and data into Flash by the Maintenance Utility.

Note! Do not carry it out usually.

2.5.8 Copy Image Abnormality Error Troubleshooting

- When the following symptom occurs in the copy image, implement the inspection and adjustment of the copy image.
  - ① Line appears on the copy image.
  - ② The copy image becomes slightly thin.
  - ③ The copy image becomes dark.
  - ④ The copy image becomes abnormal.

1. Identifying the problem.

   Perform section 2.5.6 "~" to identify whether the problem is located in the printer or in the scanner.

   If the cause of the problem is in the scanner, go to the next item.

2. Cleaning

   Perform sections 5.5 "Cleaning Rollers in the ADF", 5.6 "Cleaning the Document Glass" respectively.

2.5.9 Network Troubleshooting

(1) Cannot print from Utility.

Confirmation Items	Confirmation Tasks	Action at NG
(1) Check the LINK lamp.		
Check whether LINK lamp (green) is lighted.	Check whether HUB and printer are connected normally. (Check the network cable connection.)	Reconnect the network cable normally.
	Check whether straight cable is used.	Replace with straight cable.
	Try to insert the network cable into different HUB port.	Try to replace the HUB.
(2) Check the content of network information		
Check IP address, Subnet mask, Gateway address.	Print out the network information. Check IP address, Subnet mask, Gateway address.	Set the IP address, Subnet mask, Gateway address correctly.
(3) Check whether the communication on the network is normal.		
Send the Ping command from PC to printer to check	Send the Ping command from PC to printer, and check whether the response is correct.	Set the IP address, Subnet mask, Gateway address correctly.
(4) Check the utility		
Check the settings of OKI LPR utility.	Check the setting items of OKI LPR utility.	Set the setting items of OKI LPR utility correctly.
(5) Check the OS standard port.		
Check windows (XP, Vista, 7) standard LPR port.	Set windows (XP, Vista, 7) standard LPR port, and check whether print is normal.	Set windows (XP, Vista, 7) standard LPR port correctly.

2.5.10 Wireless Troubleshooting

(1) Cannot print through Wireless Network.

Confirmation Items	Confirmation Tasks	Action at NG
(1) Check Network Connection setting.		
Check Network Connection is Wireless not Wired.	Print out the network information. Check Network Connection setting is Wireless.	Set Wireless setting by Manual Setup or Auto Setup (WPS) to connect to wireless access point. Network Connection setting switches from Wired to Wireless.
(2) Check the connection to the wireless LAN access point.		
Check that the wireless LAN setting is right and the device is connecting to the wireless LAN access point.	Check the panel of the device, and Check whether the status (“Not connected to wireless access point.”) has occurred.	*1
	Check the panel of the device, and Check whether the status (“Wireless settings are incomplete.”) has occurred.	The settings of SSID, the security setting, the encryption key, and the certificate, etc. are insufficient. Please set all necessary settings.
(3) Check whether it is possible to communicate by way of wireless LAN.		
Check whether it is possible to communicate via wireless LAN.	Please refer to Network Troubleshooting for Checkation Tasks and Action at NG. Moreover, when wireless security is set to "WEP", the connection to wireless LAN access point might not be able to be communicated though does. Set it to the security setting of wireless LAN access point additionally again.	

*1 : Check once again whether the SSID, security setting, and an encrypting key of the wireless LAN access point are same as the settings of this device. When any one of settings is different, the device cannot be connected to the wireless LAN access point.
Check that a WEP key index of the wireless LAN access point is 1 when the security settings of the wireless LAN access point are WEP. When a WEP key index of the wireless LAN access point is not 1, it can not communicate with this device.
When a time-out error is displayed after automatic setting (WPS-PBC/PIN) execution, the connection setting with the wireless LAN access point is not completed in time.
Start WPS of the wireless LAN access point as soon as you start WPS of this device. (It is no problem that you start WPS of the wireless LAN access point first.)
When an overlap error is displayed after automatic setting (WPS-PBC) execution, there is a device carrying out WPS in others. Carry out WPS again after a while.

2.6 Fuse Checking

Table 7-6 Fuse Errors

Fuse Name		Error Description	Insert Point	Resistance
CU/PU board (MRM)	F1	Error 310(Cover Open) occurs while printing.	2ND, POWFAN2, HVFAN, FUSECUT, HVIF	1Ω or less
	F2	No show on display. Cover Open is shown on display while printing.	HEAD, TAG, EXIT, WRSNS, TONER, RCO, INSNS, PAP, OPE, EXITM, THERM, IDTHERM	
	F3	No show on display. and POW LED brink first.	POWSU, USB POWER SWITCH, RESET IC	
	F4	Machine does not work.	USB POWER SWITCH	
	F5	Wireless LAN does not work.	POWSU, USB POWER SWITCH	
	F7	Power OFF/ON 923 Error is shown on display.	Power save control, Clutch Driver, Motor Driver	
	F9	OP is not displayed.	OPE	
	F10	No show on display. and POW LED brink first.	LED HEAD, LDO Regulator, Board GOG-2(2ND Tray), Power save1, Power save2, FAN Driver	
	F11	Power Save button does not work.	OPE	
	F12	HEAD missing. Fatal error 134.	LED HEAD	
	F501	White papers are printed	LED HEAD	
	F502	Scanner unit does not work.	Scanner unit	
SU board (MSU)	F1	Service Call "Lamp Error Please call service.<03>"	CIS	1Ω or less
	F2	Freeze up while initializing.	RSET IC, I2C EXPANDER, FAX, RTC	
	F3	Document jam occurs while copying.	FAX, SOLENOID, CLUTCH	
	F4	Service Call "Power OFF/ON Carridge Error <02>"	ADF motor, FB motor	
	F5	Scanner unit doesn't start up while initializing.	Graphic OP, FAX, OP-AMP, SPEAKER	
	F6	Freeze up while initializing. No display on the operator panel.	USB to SD card, USB HUB, Reset IC, FBS (HP Sensor), ADFS(Sensor*4), LED Drive, AFE, CIS1(CFA69)	
	F7	Scanner unit doesn't start up while initializing.	Graphic OP, RSET IC, I2C EXPANDER	
	F8	No display on the operator panel.	USB to SD card, USB HUB, Reset IC, FBS (HP Sensor), ADFS(Sensor*4), LED Drive, AFE, CIS1(CFA69)	
	F9	Scanner unit doesn't start up while initializing.	Graphic OP, FAX, OP-AMP, SPEAKER, USB Power SW	
	F10	No error after initializing, but unavailable of Host USB.	USB Power SW	

3. MAINTENANCE MENUS

MB461/MB471/MB491 can be adjusted by using Maintenance Utility, or button operation on its operator panel.
The printer has maintenance menus in addition to general menus. The menus intended for adjustment purposes should be selected.

3.1 Maintenance Menu

Service Menu

When the equipment is in standby mode, access the password entry screen by pressing [Device Settings] → [#] → [0] → [1] → [0] → [3] → [*].

Note! The initial Password is set to "000000" (six zeros).

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password					**********				Enter the password for accessing the maintenance menu. 6 to 12 characters (numerals and lower-case alphabetic characters) may be entered.
	System Maintenance	OKIUSER *MPS mode: MPS. Not shown during maintenance.			ODA OEL APS JP1 JPOEM1 OEMA OEML				Set the destination. JPOEM1 : OEM for Japan OEMA : OEM for overseas, with A4 as default size OEML : OEM for overseas, with Letter as default size Device reboots automatically after exiting the menu. Displayed under the following conditions: "However, operation when JP1/JPOEM/OEMA/OEML is chosen is not guaranteed. The display condition of the menu is following two. ① "System Maintenance" - "When "OKIUSER" is other than JPOEM1, OEMA or OEML ② "Manufacturer" is "OKI DATA CORP".
		Format Flash Memory	Execute						Formats flash ROM memory. When this command is executed, the menu is exited and formatting of the resident (onboard) flash device begins. Use of this command is strictly prohibited (contact design before use)
		Reset Admin Password	Execute						Returns the administrator password to the factory default value.
		All Reset *MPS mode: MPS. Not shown during maintenance.	Execute						Returns the content of EEPROM and Flash to their factory default values. When this command is executed, the following confirmation message is displayed: "This change will reboot the device automatically. Proceed?" When "No" has been selected, the system returns to the previous menu. When "Yes" has been selected, the menu is exited immediately and then, after rebooting, reset processing begins. See the "format scope" sheet for the scope of formatting.

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	System Maintenance	Test Print Menu			Enable Disable				Switches between displaying and not displaying the "ID Check" and "Engine Information" in the "Report" - "Print Report" category (default: DISABLE). If this item is set to "DISABLE," the "ID Check" and "Engine Information" will remain undisplayed at all times. The printer will reboot after changing the settings and exiting the menu.
		Change Password	New Pass-word		**********				Set a new password for accessing the maintenance menu. 6 to 12 characters (numerals and lower-case alphabetic characters) may be entered.
			Verify Pass-word		**********				Have the user enter the new password for accessing the maintenance menu, set using "NEW PASSWORD," for confirmation purposes. 6 to 12 characters (numerals and lower-case alphabetic characters) may be entered.
		Check RTC							Displays a snapshot of the current time. (The time does not change during display.)
		Save Syslog	Execute						Saves the network communication log (syslog) to nonvolatile memory.
		Print Syslog	Execute						Prints the network communication log (syslog).
		Power Save	Power Save Enable		ON OFF	ON	ON		Setting Valid/Invalid of Save-power mode.
			Sleep		ON OFF	ON	ON		Setting Valid/Invalid of Sleep mode.
	Panel Maintenance	LED Test	LED Continuation						This mode is that LED turn on sequentially.
			LED Interval						Setting interval that LED turn on sequentially.
			LED Single						This mode is that LED turn on individually.
		LCD Test	LCD Continuation						This mode is that a pattern is displayed sequentially.
			LCD Interval						Setting interval that a pattern is displayed.
			LCD Single	All Black					Selected pattern is displayed individually.
				All White					
				GS Certification pattern					
				Text (Light On)					
				Text (Light Off)					
		Key Test	Key Continuation						Testing whether operation panel keys work.
			Key Time						Setting interval that a key name is displayed.

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Panel Maintenance	Sound Test			Low Middle High				Select the volume of the forced buzzer. For the buzzer pattern, use the error sound (three buzzes)
	Copy Maintenance	Print Check Pattern	Execute						Starts printing from the panel using a copy evaluation test chart inside the FW.
	Scanner Maintenance	Scanner Calibration	Execute						Starts execution of scanner calibration. Instead of being conducted automatically after operating for a certain period of time, calibration is executed by the user as needed. During calibration, the fact that calibration is underway is displayed. Note: Also included under AdminSetting.
		Adjust Scan Position	FBS	Side Reg.	+8 ~ -8 mm	0	0	0	Adjusting the position of the scanning start pixel by one Step=4/600 dpi (= 0.17mm) at the book scanning.
				Front Edge	+30 ~ -30 mm	0	0	0	During book scanning, add a value for the basic value (= 5 mm) when reading the shadow of the front edge of the document. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
			ADF (Front-side)	Side Reg.	+8 ~ -8 mm	0	0	0	Adjusting the position of the scanning start pixel by one Step=4/600 dpi (= 0.17mm) at the book scanning.
				Front Edge	+30 ~ -40 mm	0	0	0	When reading a document from the ADF, add a value for the basic value when reading the shadow of the front edge of the document. To skip the front edge of the document, add a negative value. Increase or decrease the number of motor pulses from detection by the sensor of the front edge of the media until actual reading starts. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
				Back Edge	+30 ~ -40 mm	0	0	0	When reading a document from the ADF, add a value for the basic value when skipping the back edge of the document. To read the shadow of the back edge of the document, add a negative value. Increase or decrease the number of motor pulses from detection by the sensor of the back edge of the media until actual reading ends. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
			ADF (Back-side)	Front Edge	+30 ~ -40 mm	0	0	0	When reading a document from the ADF, add a value for the basic value when reading the shadow of the front edge of the document. To skip the front edge of the document, add a negative value. Increase or decrease the number of motor pulses from detection by the sensor of the front edge of the media until actual reading starts. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
				Back Edge	+30 ~ -40 mm	0	0	0	When reading a document from the ADF, add a value for the basic value when skipping the back edge of the document. To read the shadow of the back edge of the document, add a negative value. Increase or decrease the number of motor pulses from detection by the sensor of the back edge of the media until actual reading ends. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm).
			Adjust ADF Scan Position		+30 ~ -30 mm	0	0	0	Set the CIS reading position of the ADF for the focusing standard. Adjust in intervals of one step = 4/600 dpi (= 0.17 mm). This is correlated to adjustment of the ADF front edge position.

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Scanner Maintenance	Adjust Mech.	Adjust FB Motor	FB Drive Current	10 ~ 1400 [mA]	300 [mA]	300 [mA]		Only for engineering test Connect a panel or PC and set the electric current value of the scanner motor.
				FB Keep Current	10 ~ 1400 [mA]	50 [mA]	50 [mA]		
			Adjust ADF Motor	ADF Drive Current 1	10 ~ 1400 [mA]	840 [mA]	840 [mA]		
				ADF Drive Current 2	10 ~ 1400 [mA]	740 [mA]	740 [mA]		
				ADF Drive Current 3	10 ~ 1400 [mA]	700 [mA]	700 [mA]		
				ADF Drive Current 4	10 ~ 1400 [mA]	650 [mA]	650 [mA]		
				ADF Keep Current	10 ~ 1400 [mA]	200 [mA]	200 [mA]		
		Adjust CIS	Adjust CIS		simple R continuous G continuous B continuous All continuous				Only for engineering test Sequentially light the designated RGB colors and check them during calibration configuration duties. Move the CIS to the standard position. In the position moved to, sequentially light R, followed by G and B in the same manner. Light each color for approximately 3 seconds. Display "Testing" during execution? → On the panel, display "CIS light testing" and "Cancel."
			Check CIS		300dpi 600dpi ---Results Displayed--- CCD_SIG9_WID_H 0x000000 CCD_SIG2_WID_H 0x000000				Only for engineering test Check CIS maintenance displays the exposure time at each resolution. When resolution is set, scanner calibration is conducted at that resolution and the following results are displayed: Red-1 Red-2 (No indication) Green-1 Green-2 (No indication) Blue-1 Blue-2 (No indication) Lsync Note : CIS exposure time varies with resolution.

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Scanner Maintenance	Adjust CIS	Set CIS Exposure time		0 ~ 4294967295				Only for engineering test Change LED exposure time settings, and then read the document using PC Scan. Reading implemented for the LED exposure time in the settings, without conducting calibration. A warning is displayed when a value greater than the Lsync cycle has been set. Settings are shown below. Red-1 Red-2 (No indication) Green-1 Green-2 (No indication) Blue-1 Blue-2 (No indication) Lsync
		AFE Parameter			R3 (03h) R32 (20h) R33 (21h) R34 (22h) R35 (23h) R36 (24h) R37 (25h) R38 (26h) R39 (27h) R40 (28h) R41 (29h) R42 (2Ah) R43 (2Bh)				Only for engineering test Change AFE (IC) register settings (3 - 9 settings). Then, read the document using PC Scan. W : Display message showing that settings are complete. R : Display read value.
		Mechanical Test	ADF Test	Simplex/ Duplex	Simplex Duplex				Conduct mechanical testing (without reading an image). ADF : Test moving original document (stops when set document has been moved) May choose from single- or double-sided feeding. FBS : CIS moving test (stops after designated number of operations) Use fastest read speed (30 cpm). Display "Testing" during execution? → On the panel, indicate current number of executions using the message "Test no. xxx underway."
				Speed	Mono 300 x 300dpi Mono 600 x 600dpi Color 300 x 600dpi Color 600 x 600dpi				
				Execute	--Results-- Test no. xxx underway				

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Scanner Maintenance	Mechanical Test	FBS Test	Speed	Mono 300 x 600dpi Mono 600 x 600dpi Color 300 x 600dpi Color 600 x 600dpi				Conduct mechanical testing (without reading an image). ADF : Test moving original document (stops when set document has been moved) May choose from single- or double-sided feeding. FBS : CIS moving test (stops after designated number of operations) Use fastest read speed (40 cpm). Display "Testing" during execution? → On the panel, indicate current number of executions using the message "Test no. xxx underway."
				TImes	0~65535				
				Execute	--results-- Test no. xxx underway				
			Sensor Test		Examples of this display are shown below: ① MEDIA H/L ② SCAN H/L ③ REVERSE H/L ④ ADF CVR H/L ⑤ FB H/L				Display sensor status (H/L) in real time. Change the content of the display as needed when the sensor status displayed changes. ① Set-document detection sensor (MEDIA) ② Scanning sensor (SCAN) ③ Reverse sensor (REVERSE) ④ ADF cover-open senor (ADF CVR) ⑤ FB home-position sensor (FB HP)
			ADF Motor Test		Forward Forward Continuous Reverse Reverse Continuous				Test the ADF motor ① After a short press of the button, rotate in the CW direction for 10 seconds and then stop. ② After a long press of the button, rotate in the CW direction continuously. Stop when the Stop button is pressed. ③ After a short press of the button, rotate in the CCW direction for 10 seconds and then stop. ④ After a long press of the button, rotate in the CCW direction continuously. Stop when the Stop button is pressed. Deemed successful at all times. No need to display results. Display "Testing" during execution? → Display a message on the panel showing that testing is underway.
			Solenoid Test		Once Continuous				After a short press of the button, intake for 2 seconds and then stop. After a long press of the button, intake for 2 seconds and stop for 3 seconds repeat. Stop when the Stop button is pressed. Deemed successful at all times. No need to display results. Display "Testing" during execution? → Display a message on the panel showing that testing is underway.

Item1	Item2	Item3	Item4	Item5	Value	Default value ODA	Default value OEL	Default value JP	Notes
Password	Fax Maintenance	Line Test	Tone Send Test		2100Hz 1850Hz 1650Hz 1100Hz				Tone send test conducted.
			DP Send Test		0 ~ 9 Key				DP send test conducted.
			MF Send Test		0 ~ 9, #, * Key				MF send test conducted.
			Modem Signal Send Test		V.34 (33.6Kbps) V.34 (28.8Kbps) V.17 (14.4Kbps) V.17 (12.0Kbps) V.17 (9.6Kbps) V.17 (7.2Kbps) V.29 (9.6Kbps) V.29 (7.2Kbps) V.27 (4.8Kbps) V.27 (2.4Kbps) V.21 (0.3Kbps)				Modem-signal send test conducted. 11 types available, including V. 34 (33.6 Kbps).
		T.30 Monitor	Execute						The unit keeps the last transmission log (Tx/Rx commands) on volatile memory, and print when select "Execute". If turn off the unit, the records will be lost.
	Print Maintenance	Personality	XPS		Enable Disable	Enable	Enable	Enable	
			IBM PPR III XL		Enable Disable	Enable	Enable	Disable	
			EPSON FX		Enable Disable	Enable	Enable	Disable	
		Engine Diag Mode							

3.2 Service Bit Menu

Additional Fax Setting menu

(When setup ServiceBit=ON, the following items will be displayed at Admin Setup→Fax Setup)

#	Item	Settings	Description	ODA	OEL
1	Tone For Echo (For Transmission)	Enable Disable	When an Item is Enable: First DIS is ignored. Echo Protection Tone is sent with V.29. Interval of DIS and DCS is 1000ms When an Item is Disable: First DIS is not ignored. Echo Protection Tone is not sent with V.29. Interval of DIS and DCS is 75ms	Disable	Disable
2	Tone For Echo (For Reception)	Enable Disable	When an Item is Enable : Interval of CED and DIS is 1000ms When an Item is Disable : Interval of CED and DIS is 075ms	Disable	Disable
3	Attenuator	0~15 dB	Enter Attenuator.	Depends on Country Code	
4	MF Attenuator	0~15 dB	Enter MF (Tone) Attenuator.	Depends on Country Code	
5	Pulse Make Ratio	33% 39% 40%	Sets the make rate of DP (10 pps) during call. It only shows, when ServiceBit = ON and Tone/Pulse setting = PULSE.	Depends on Country Code	
6	Pulse Dial Type	N 10-N N+1	It only shows, when ServiceBit = ON and Tone/Pulse setting = PULSE.	Depends on Country Code	
7	MF (Tone) Duration	75, 85, 100 seconds	Enter MF (Tone) Duration. It only shows, when ServiceBit = ON and Tone/Pulse setting = TONE.	Depends on Country Code	
8	Calling Timer	1~255 second (s)	Sets the call connection wait time (TO timer).	Depends on Country Code	

3.3 Maintenance Utility

3.3.1 Maintenance Utility

The adjustments described in table 3-1 should be made by using Maintenance Utility.
The following details the utility:

(1) Maintenance Utility Operating Manuals:

42678821FU01 Rev.1 (Version 1.0.0) or higher(Japanese)

42678821FU02 Rev.1 (Version 1.0.0) or higher (English)

(2) Maintenance Utility program:

Applicable operating system	File name	Part number
Windows XP / Vista / 7 / 8	42678821FW01.zip	42678821FW01 Rev.1 (Version 2.0.0) or higher

Table 3-1: Adjustment options in Maintenance Utility

	Option	Adjustment	Section in Maintenance Utility Operating Manual	Operation from operator panel (section in this maintenance manual)
1	Board replacement	Copies information in the EEPROM in the PU block, and the settings in the EEPROM in the CU block. Purpose: To copy the above data onto a CU/PU board with which to replace the CU/PU board for a maintenance purpose.	3.1.1	Unavailable
2	Serial number setting	Rewrites the serial number recorded in the PU block and selects and rewrites the printer serial number recorded in the CU block and rewrites the output mode recorded in it. Purpose: To configure a maintenance replacement CU/PU board onto which the CU/PU board information cannot be copied with the board replacement function (e.g. due to an interface error).	3.2.1	Unavailable
3	Factory/ Shipping mode	Switches between the Factory and Shipping modes. Purpose: To configure a maintenance replacement CU/PU board onto which the CU/PU board information cannot be copied with the board replacement function (e.g. due to an interface error). The maintenance board is put to the Factory mode usually by default and, by using this function, must be set to the Shipping mode.	3.2.3	3.4.2.8
4	MAC address setting	Sets the MAC address.	3.2.2	Unavailable
5	Send to file	Send the specify file.	3.1.2	Unavailable
6	Password initialization	Initializes a Password.	3.2.5	
7	Network log storage	Stores a network log file.	3.3.1	Unavailable
8	PU log storage	Stores a PU log file	3.3.2	Unavailable
9	PU maintenance log storage	Saves a PU maintenance log file.	3.3.3	Unavailable
10	Test print	Executes the local print function and sends a specified file. Purpose: To check the printer for operation it performs solely and send a download file.	3.4	Perform local printing (refer to System Specification).
11	CU log storage	Saves a local print data.	3.3.4	Unavailable

Note! Do not operate or set options added with 'Never use this option,' or a malfunction is potentially caused.

Before starting the maintenance, please disable MPS mode setting when the unit activate MPS mode as Enable. The condition of MPS mode is displayed on the header of Configuration pages as "MPS : OFF/ON".

3.4 Self-diagnostic mode

This section describes LEVEL 0 and LEVEL 1.

3.4.1 Operator Panel

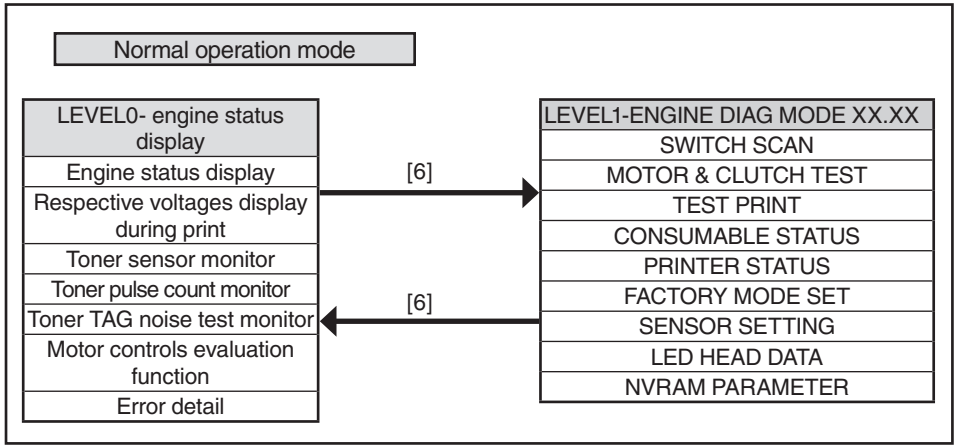
The following operational description on the self-diagnostic is premised on the following operator panel layout:

Example : MB472dnw

Self-diagnostic mode layout (entire)

(1) Menu option switching

Only while displayed as shown in a shaded area (XXXXX), the level of the self-diagnostic mode can be switched. [2] or [8] is used to switch to the option in a non-shaded area (XXXXX).

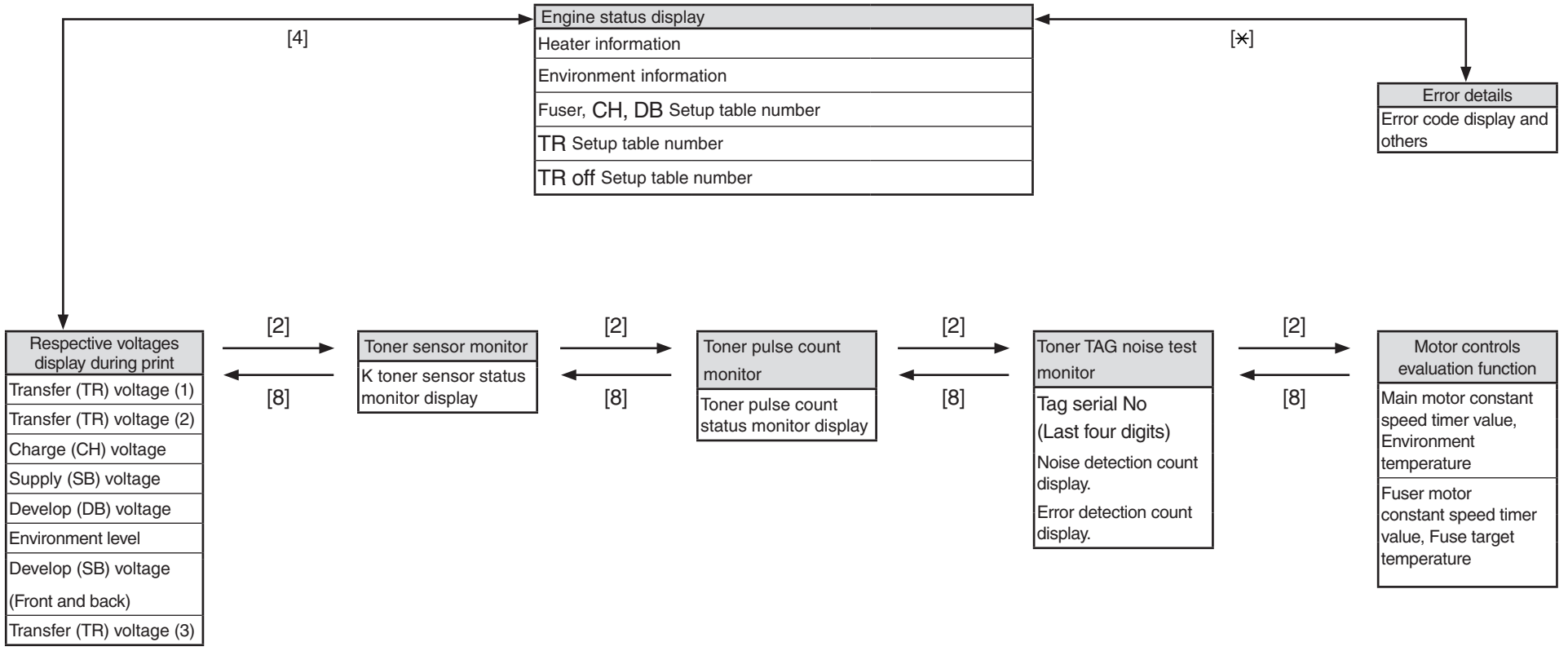


LEVEL0

(1) How to select the menu items

XXXX Menu items can be selected by pressing of [4] or [*], or by pressing of [2] or [8].

XXXX Menu items can be entered by pressing of [6] or [4], and can be selected by pressing of [2] or [8].



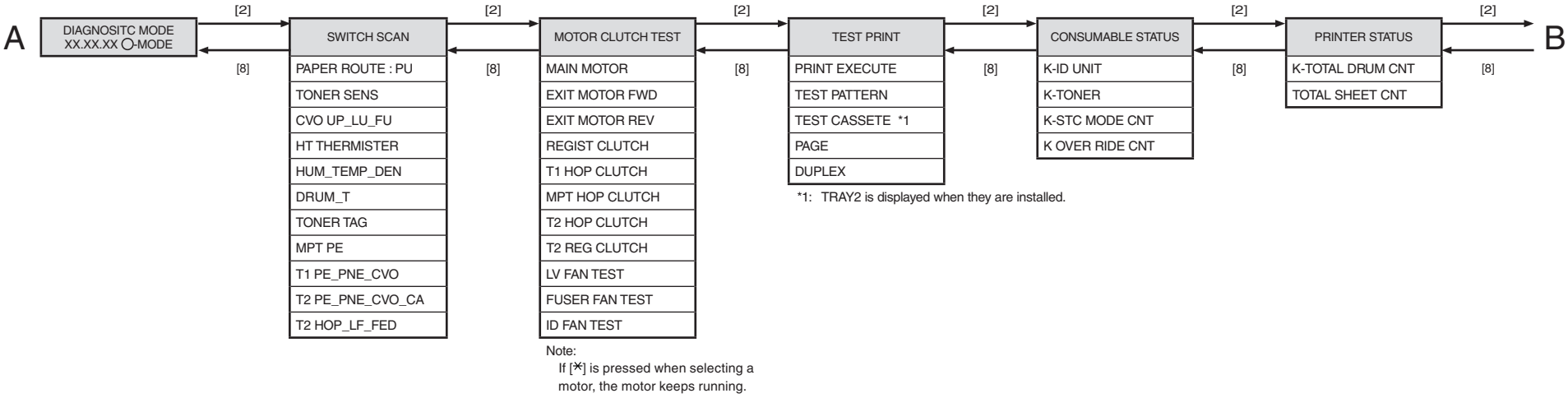
LEVEL1

(1) How to select the menu items

XXXXX Menu items can be selected by pressing either [2] or [8] key, and executed by pressing [6].

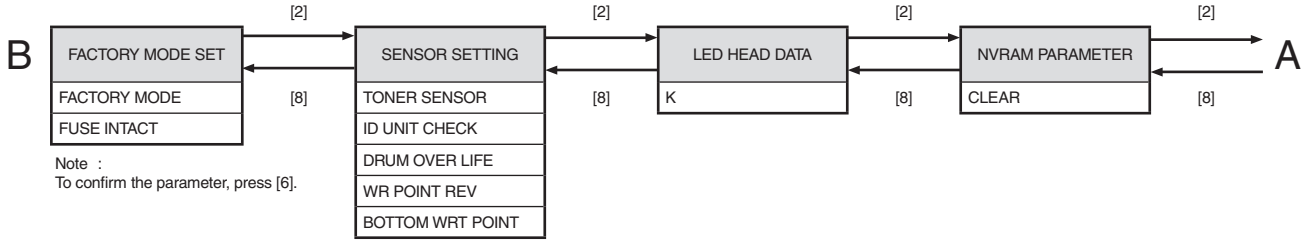
XXXXX Menu items can be entered by pressing of [6] or [4], and can be selected by pressing of [2] or [8].

The test can be executed by pressing [6], and can be exited by pressing [4].



Note:
If [✕] is pressed when selecting a motor, the motor keeps running.

*1: TRAY2 is displayed when they are installed.



Note :
To confirm the parameter, press [6].

Note :
To confirm the parameter, press [6].

3.4.2 Ordinary self-diagnostic mode (level 1)

Menu items of the ordinary self-diagnostic mode are shown below.

	Item	Self-diagnostic menu	Adjustment contents
1	Switch scan test	SWITCH SCAN	Entry sensor check and switch check
2	Motor clutch test	MOTOR&CLTCH TEST	Motor and clutch operation test
3	Test print execution	TEST PRINT	PU built-in test pattern print
4	Consumable item counter display	CONSUMABLE STATUS	Consumable items consumption status display
5	Consumable item accumulative counter display	PRINTER STATUS	Consumable items accumulative consumption status display
6	Factory/Shipping mode selection	FACTORY MODE SET	Switching between the Factory mode and the Shipping mode
7	FUSE status check		Respective FUSEs status display
8	Engine parameter setting	SENSOR SETTING	Valid/Invalid setups of error detection by various sensors
9	LED Head serial number display	LED HEAD DATA	LED Head serial number display
10	NVRAM parameter setting	NVRAM PARAMETER	Do not use this item

3.4.2.1 Entering self-diagnostic mode (level 1)

1. Make sure that the LCD is in standby state (no Error window is shown) and press the [Setting] to move to the setting window and then press the following button in the indicated sequence.

   [#] → [0] → [1] → [0] → [3] → [✳]

2. Type in the password to enter Service Maintenance Menu. It is [000000] by default. (Enter 0 six times)
3. Select [Printer Maintenance] → [Engine Diag Mode] in the Service Maintenance Menu and press the [6].

3.4.2.2 Exiting self-diagnostic mode

1. When the [4] is pressed from Diag Mode (Window displaying/Factory state), the setting window will return.

3.4.2.3 Switch scan test

This self-diagnostic menu is used to check the entry sensor and the switch.

1. Enter the self-diagnostic mode (level 1), press the [2] or [8] key repeatedly ,and press the [6] key when the "SWITCH SCAN" is displayed in the upper row of the display area. (Pressing the [2] key increments the test item and pressing the [8] key decrements the test item.)

SWITCH SCAN

2. Press either the [2] or [8] key until the desired menu item corresponding to the unit to be tested in Table 3-3 is displayed in the lower row of the display area. (Pressing the [2] key increments the test item and pressing the [8] key decrements the test item.)
3. Pressing the [6] key starts the test. Name and present status of the corresponding unit are displayed.

PAPER ROTE:PU
1=H 2=L 3=H 4=L

   Activate the respective units. (Figure 3-1) Status of the respective units are displayed on the corresponding areas of the LCD display. (Display changes depending on each sensor. Refer to Table 3-3 for details.)

4. Press the [#] key to return to the status of step 2.
5. Repeat steps 2 to 4 as required.
6. Press the [4] key to exit the test. (Returns to the status of step 1.)

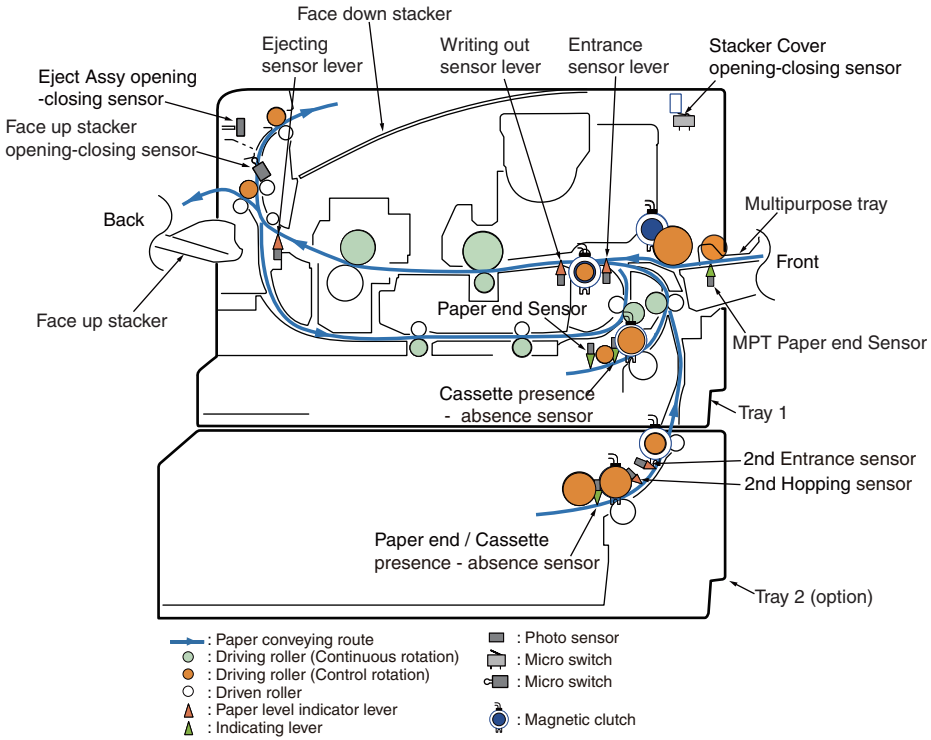


Figure 3-1 The sectional view of only printer

Table 3-3 SWITCH SCAN details

<Item having no function> Asterisk mark (*) is displayed in the lower row of display area.

* 1: "L" is displayed when the cover is opened.

NO	Display area, upper row	1		2		3		4	
		Details	Display area, lower row	Details	Display area, lower row	Details	Display area, lower row	Details	Display area, lower row
1	PAPER ROUTE : PU			In Sns	H : OFF L : ON	Write Sns	H : OFF L : ON	Exit Sns (OUT)	H : OFF L : ON
2	TONER SENS	Toner-K Sns	H : ON L : OFF						
3	CVO UP_LU_FU	Cover-Upper	H : Close L : Open	Cover Rear	H:Open L:Close	Cover-Face Up	H : Open L : Close		
4	HT THERMISTER					Upper-Side-Thermister	AD value: ***H		
5	HUM_TEMP_DEN	Hum Sns	AD value: ***H	Temperture-Sns	AD value: ***H				
6	DRUM_T	Drum Temperture-Sns	AD value: ***H						
7	TONER TAG	TAG-K presence or absence	UID: ***H						
8	MPT PE	MPT-Paper-End Sns	Port level H,L						
9	T1 PE_PNE_CVO	1st-Paper-End Sns	Port level H, L					Cassette-Sns-1st	Port level H, L
10	T2 PE_PNE_CVO_CA	2nd-Paper-End Sns	Port level H, L						
11	T2 HOP_LF_FED	2nd-Hopping Sns	Port level H, L			2nd-Feed Sns (TBD)	Port level H, L		

3.4.2.4 Motor clutch test

This self-diagnostic menu is used to test the motor and clutch.

1. Enter the self-diagnostic mode (level 1), press the [2] or [8] key repeatedly ,and press the [6] key when the "MOTOR & CLUTCH TEST" is displayed in the upper row of the display area. (Pressing the [2] key increments the test item and pressing the [8] key decrements the test item.)
2. Press either the [2] or [8] key until the desired menu item corresponding to the unit to be tested in Table 3-4 is displayed in the lower row of the display area. (Pressing the [2] key increments the test item and pressing the [8] key decrements the test item.)

MOTOR & CLUTCH TEST
ID MOTOR

3. Pressing the [6] key starts the test. The unit name starts flashing and the corresponding unit is activated for 10 seconds. (Refer to Figure 3-2.)

Note! After the corresponding unit has activated for 10 seconds, it returns to the status of step2, and is re-activated when the corresponding switch is pressed.

- The clutch solenoid repeats turning on and off during the normal print drive. (If a clutch solenoid cannot be activated independently, the motor is driven at the same time.)
- If [*] key is pressed when selecting a motor, the motor keeps running.

4. When the [#] key is pressed, the corresponding unit stops activating. (Display of the corresponding unit keeps displayed.)
5. Repeat steps 2 to 4 as required.
6. Pressing the [4] key terminates the test. (Returns to the status of step 1.)

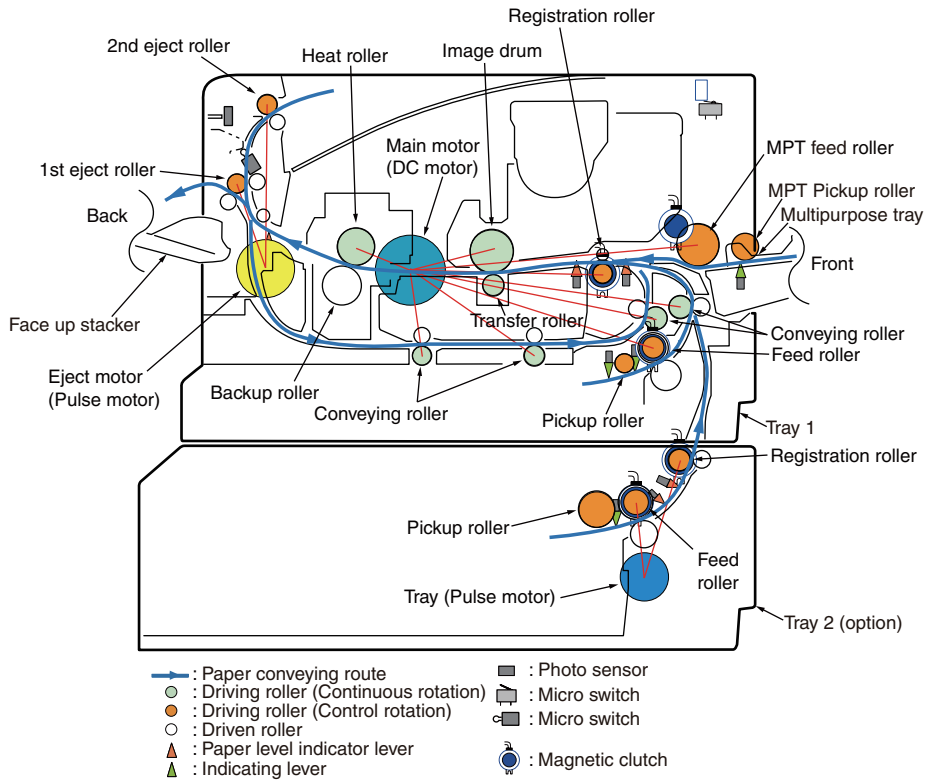


Figure 3-2 The sectional view of only printer

Table 3-4

Unit name display	Drive restriction condition	Remarks
MAIN MOTOR	-	-
EXIT MOTOR FWD	FaceUp Cover close	-
EXIT MOTOR REV	FaceUp Cover open	-
REGIST CLUTCH	MAIN MOTOR driving	-
T1 HOP CLUTCH	MAIN MOTOR driving	-
MPT HOP CLUTCH	MAIN MOTOR driving	-
T2 HOP CLUTCH	TRAY2 MOTOR driving	OPTION
T2 REG CLUTCH	TRAY2 MOTOR driving	OPTION
LV FAN TEST	-	-
FUSER FAN TEST	-	-
ID FAN TEST	-	-

Note! The rollers that rotate continuously (each of heat rollers, image drums, and conveying rollers) run in synchronization with the main motor.

3.4.2.5 Test print

This self-diagnostic menu is used to print the test pattern that is built inside PU. Other test patterns are stored in the controller.

This test print cannot be used to check the print quality.

Diagnosis for the abnormal print image should be performed in accordance with section 3.

1. Enter the self-diagnostic mode (level 1), press the [2] or [8] key repeatedly ,and press the [OK] key when the "TEST PRINT" is displayed in the upper row of the display area. (Pressing the [2] key increments the test item and pressing the [8 key decrements the test item.)
2. The setting items that can be applied to the test print only is displayed in the lower row of display area. Keep pressing the [2], [8] key until the desired menu item is displayed. (Pressing the [2] key increments the test item and pressing the [8] key decrements the test item.) (If all setting items need no entry [Default setting], go to step 5.)
3. Keep pressing the [2], [8] key, and press the [6] key at the menu item set by step 2. Then, the setting item is displayed in the upper row of display area, and the setting value is displayed in the lower row of display area.

   Pressing the [2] key increments the setting value. Pressing the [8] key decrements the setting value. (The setting value that is displayed at last is applied.) Pressing the [4] key determines the entry value, and returns to step 2. Repeat step 3 as required.

TEST PATTERN
1

Display	Setting value	Function
PRINT EXECUTE	–	Pressing the [6] key starts print/Pressing the [#] key terminates print. (In units of page)
TEST PATTERN	0	0: White paper print 1~7: Refer to next page. (Pattern print) 8~15: White paper print
TEST CASSETTE	TRAY1	Selecting source of paper supply. If the TRAY 2 is not installed, TRAY2 is not displayed.
	TRAY2	
	MPT	
PAGE	0000	Setting number of the test print copies
DUPLEX	OFF	Selecting OFF for duplex print. Duplex (1-sided) print is performed by the stack of one sheet of paper.
	1 PAGES STACK	

- ▢ is the initial default value. The menu item that is set here is valid in this menu item only.
  (The setting item is not saved in EEPROM.)

Note! PAGE setting

Pressing the [2] key or the [8] key shifts the digit. Pressing the [✳] key increments the setting value. Pressing the [#] key decrements the setting value. If print is executed while the number of print copies remains in "0000", printing will continue infinitely.

4. While the message "PRINT EXECUTE" that is set by the operation specified in step 2 is being displayed, press the [6] key and the test print is executed with the setting value that has been set by steps 2 and 3.

   Pressing the [#] key stops the test print.

   If any alarm that is shown in the following details column is issued at startup of test print or while test print is in progress, the test print is interrupted. (For error details, refer to section 2.5.1 LCD Status Message/ Trouble Table. However, the comment to be displayed is different in the case of the PU test print.)

Panel display	Details
PAPER END SELECTED TRAY	No paper
SELECTED TRAY IS NOT INSTALLED	Selected tray is not installed.
INSTALL CASSETTE TRAY OPEN	Cassette removal

Print pattern (It cannot be used for checking PQ.)

0:Write paper print
1:2x2 print
2:4x4 print
3:Horizontal line print
4:Slash line print
5:Vertical line print
6:White paper print
7:Black paper print
8 to 15:White paper print

- During printing, the following messages are displayed.

P=***

P : Number of test print copies (unit: copies)

- Displays are switched by pressing the [2] key.

T=*** U=***[###]
H=***%

U : *** = Upper heater temperature measurement value [unit:˚C]
[***] = Print execution target temperature [unit:˚C]
T : Environment temperature measurement value [unit:˚C]
H : Environment humidity measurement value [unit: %]

- Displays are switched by pressing the [2] key.

KTR=*.**

KTR indicate the transfer voltage setting value. (unit: KV)

• Displays are switched by pressing the [2] key.

KR=*.**

KR : BLACK transfer roller resistance value [unit: uA]

• Displays are switched by pressing the [2] key.

ETMP=***UTMP=***

ETMP : Environment temperature [unit: DEC]
UTMP : Fuse target temperature [unit: DEC]

• Displays are switched by pressing the [2] key.

DB:k**

DB : Develop voltage setting table ID number [unit: HEX]

• Displays are switched by pressing the [2] key.

TR1:k**
TR2:k**

TRI : Transfer voltage parameter VTR1 table ID number [unit: HEX]
TR2 : Transfer voltage parameter VTR2 table ID number [unit: HEX]

• Displays are switched by pressing the [2] key.

TROFF:**

TROFF : Transfer OFF voltage setting table ID number [unit: HEX]

5. Repeat steps 2 to 4 as required.
6. Pressing the [#] key terminates the test. (Returns to the status of step 1.)

3.4.2.6 Consumable item counter display

This self-diagnostic menu is used to display the consumption status of the consumable items.

1. Enter the self-diagnostic mode (level 1), press the [2] or [8] key repeatedly ,and press the [6] key when the "CONSUMABLE STATUS" is displayed in the upper row of the display area. (Pressing the [2] key increments the test item and pressing the [8] key decrements the test item.)
2. When the [2], [8] key is pressed, consumption statuses of the consumable items are displayed in order. (Pressing the [*] or [#] key is invalid.)
3. Pressing the [4] key terminates the test. (Returns to the status of step 1.)

Display area, upper row	Display area, lower row	Format	Unit	Details
K-ID UNIT	********IMAGES	DEC	Images	It shows the number of rotations counted after installation of a new ID UNIT on a three A4 Pages/Job basis.
K-TONER	********%	DEC	%	It shows the amount of toner consumption.
K-STC MODE CNT	******** * 8192	DEC	DOT	It shows the number of print dot counts of the toner. (It is a cumulative value counted after the first use of the printer.)
K OVER RIDE CNT	********TIMES	DEC	Times	It shows the number of overrides of life warnings for the toner cartridge.

3.4.2.7 Number of print copies counter display

This self-diagnostic menu is used to display status of the number of copies of a printer.

1. Enter the self-diagnostic mode (level 1), press the [2] or [8] key repeatedly ,and press the [6] key when the "PRINTER STATUS" is displayed in the upper row of the display area. (Pressing the [2] key increments the test item and pressing the [8] key decrements the test item.)
2. When the [2], [8] key is pressed, statuses of the number of print copies are displayed in order. (Pressing the [*] or [#] key is invalid.)
3. Pressing the [4] key terminates the test. (Returns to the status of step 1.)

Display area, upper row	Display area, lower row	Format	Unit	Details
K-TOTAL DRUM CNT	********IMAGES	DEC	Images	It shows the cumulative number of rotations.
TOTAL SHEET CNT	********COUNTS	DEC	Prints	Total number of print copies are displayed.

3.4.2.8 Switching between the Factory mode and the Shipping mode

This self-diagnostic menu item is used to switch between the Factory mode and the Shipping mode.

1. Enter the self-diagnostic mode (level 1) and keep pressing the [2] or [8] key until the following message is displayed.

FACTORY MODE SET

2. When the [6] key is pressed, the following message is displayed. Keep pressing the [2] or [8] key until the target item (refer to the following table) is displayed.

FACTORY MODE
SHIPPING MODE *

3. While the desired item to set is being displayed, press the [6] key that enables selection of the setting values.
4. While the desired setting value is being displayed, press the [6] key that registers the displayed value in EEPROM. (Returns to the status of step 2.)
5. Repeat steps 2 to 4 as required.
6. Pressing the [4] key terminates the test. (Returns to the status of step 1.)

Display	Setting value	Function
FACTORY MODE	FACTORY MODE	Sets the Factory working mode (fuse cut invalid mode).
	SHIPPING MODE	Releases the Factory working mode to make the fuse cut function valid.
FUSE INTACT Note: ******* indicates INTACT or BLOWN.	ID UNIT ******	Checks the fuse status of the K-ID unit.

3.4.2.9 Self-diagnostic function setting

This self-diagnostic menu is used to set valid/invalid of the error detection by the various sensors.

The error detection can be made invalid or valid for locating source of abnormality. However, this menu item requires expert knowledge to set among the engine operations. Handle this menu item with utmost care.

Be sure to return the setting to the default setting upon completion of usage of this item.

1. Enter the self-diagnostic mode (level 1) and keep pressing the [2] or [8] key until the following message is displayed.

SENSOR SETTING

2. When the [6] key is pressed, the following message is displayed. Keep pressing the [2] or [8] key until the target item (refer to the table below) is displayed.

TONER SENSOR
ENABLE *

3. When the [6] key is pressed, the following message is displayed.

   Pressing the [2] key increments the setting value.

   Pressing the [8] key decrements the setting value.
4. While the desired setting value is being displayed, press the [6] key that registers the displayed value in EEPROM. (Returns to the status of step 2.)
5. Repeat steps 2 to 4 as required.
6. Pressing the [4] key terminates (except the status of step 4) the setting. (Returns to the status of step 1.)

Display	Setting value	Operation at the setting value	Function
TONER SENSOR	ENABLE	Detects	Valid/Invalid of toner sensor operation.
	DISABLE	Not to detect	
ID UNIT CHECK	ENABLE	Checks	Valid/Invalid of ID installation check operation.
	DISABLE	Not to check	
DRUM OVER LIFE	STOP	Not to continue	The restriction on extending the life of toner-related items five times is lifted.
	CONTINUANCE	To continue	
WR POINT REV TBL=**H±*.***mm	00H~FFH	Correction value	The correction value is added to the existing write-down position.
BOTTOM WRT POINT TBL=**H±*.***mm	00H~FFH	Cut value	Amount of cut at the rear end of a paper is set.

Hatched portion: Default is shown

3.4.2.10 LED head serial number display

This self-diagnostic menu item is used to check whether the downloaded LED head data matches the serial number of the actual LED head.

1. Enter the self-diagnostic mode (level 1), press the [2] or [8] key repeatedly ,and press the [6] key when the "LED HEAD DATA" is displayed in the upper row of the display area. (Pressing the [2] key increments the test item and pressing the [8] key decrements the test item.)
2. When the [2] key or the [8] key is pressed, serial numbers of the K LED head data are displayed in order.
3. Pressing the [4] key terminates the test. (Returns to the status of step 1.)

K ** ** ****
xxxxxxxxxxxxx

** ** **** : Rev number

xxxxxxxxxxxxx : serial number

3.4.2.11 NVRAM parameter setting

Do not use this menu item.

3.4.3 Adjustment at part replacement

Adjustment is necessary while replacing the following part.

Replacing part	Adjustment
Main PCB board	EEPROM data upload / download

3.4.3.1 EEPROM data upload / download method

In the case of replacing the Print Board of Controller, copy the old EEPROM content to the new EEPROM of new board and then save the customer setting. To operate this, use Maintenance Utility.

About the operating method of Maintenance Utility, refer to Maintenance Utility Operating Specification.

Maintenance Utility is designed for working place engineer use only. It is not released to the end user.

Refer to Maintenance Utility Manual about Board Replacement.

3.5 Switch pressing function when power supply is turned on

When power supply of printer is turned on, the functions of usable switches are as follows. And, the switches below are effective when pressed before LED is lighted in the special start confirming pattern.

(1) [1] key and [▶] key

Despite of warning/error, always start by online mode (factory support function).

(2) [▼] key and [STOP] key

Initialize NIC settings to Factory defaults.

When executing this initialize, all network settings will be returned to Factory defaults.

It's not use in normal condition.

3.6 Settings after Parts Replacement

The necessary adjustments after the parts exchange are explained as follows.

Replaced Part	Adjustment
LED Head	Not required.
Image Drum Cartridge	Not required.
Main (CU/PU board (MRM))	Copy the EEPROM information; utility is required. Upgrade firmware by Firmware suite. See 6.3 Firmware Information.
SU board (MSU)	Copy the setting parameter of Scanner; utility is required. Setup of Country Code for Fax (mandatory). Upgrade firmware by Firmware suite. See 6.3 Firmware Information.
Scanner Unit (Maintenance)	

3.6.1 Notes on CU/PU board (MRM) replacement

1. When the EEPROM on a board to remove can be accessed (when SERVICE CALL 104 [Engine EEPROM Error] or 40 [EEPROM Error] is not displayed):

   (1) Remove information from the EEPROM in the PU block, and setting information from the EEPROM in the CU block, of the board, and temporarily store them onto an HDD of a computer, by using the board replacement function of Maintenance Utility (Refer to Maintenance Utility Operating Manual, about Board Replacement).

   (2) By using the board replacement function, copy the information and setting information into the EEPROM of a board to replace with.

   (3) When only the information or setting information can be removed from the board to replace, copy it into the EEPROM of the replacement board by using the board replacement function. With the board replacement function, separately configure the other information, which cannot be removed. Perform PU-block serial-number setting (Refer to Maintenance Utility Operating Manual, about Serial number setting), and make a change to the Shipping mode (Refer to Maintenance Utility Operating Manual, about Factory / Shipping mode setting), in setting windows when the information cannot be removed. Configure CU-block serial number information (Refer to Maintenance Utility Operating Manual, about Serial number setting) when the setting information cannot be removed.

   Note! When removing or writing information from/into the EEPROM by using Maintenance Utility, use the procedure shown below to place the printer to the Forced ONLINE mode before accessing the EEPROM. Even in the forced ONLINE mode, the printer provides an error indication when having an error.

   1. The printer displays ONLINE when operating properly, and provides an error indication when having an error, where the printer is internally online, being ready to communicate.

2. When the EEPROM on a board to remove cannot be accessed:

   When the operator panel displays SERVICE CALL 104 (Engine EEPROM Error) for, or data cannot be read from the EEPROM of, a board to remove, follow the following procedure to perform operation by using Maintenance Utility after the board is replaced with a new one:

   (1) [When facing OEL]

   (1-1)Set the PU serial number

   (Refer to Maintenance utility operation manual, about Serial number setting)

   SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

   - PU serial number is a 10-digit number which is basically the same as SAP serial number except that it has no the 2-digit revision number.
   - Set on the menu of [Serial number setting].

- If you want to specify the PU serial number, please add a "0" (a normal-width zero) then input the 11-digit number. (Please notice that when read out, the number will be 10 digits.)
  As shown in the following image, on the menu of [Serial number setting], eliminate the 2-digit revision number then add a normal-width zero to the 10-digit number and input it.

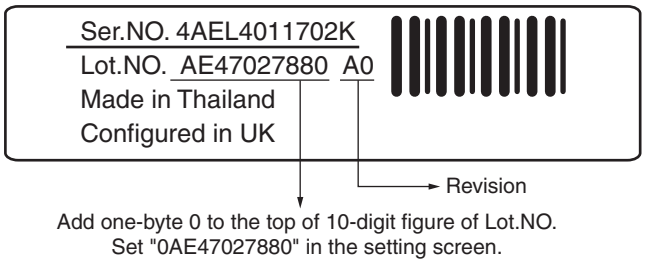


Figure of Serial No. label image (labeled in UK Factory)

- PU serial number will be output to the Printer Serial Number column in the header of Status Page. For this reason, check of PU serial number is performed by printing
  Status Page.
- After the configuration in the UK factory, when facing OEL, the PU serial number is taken as Lot Number and shown in the Lot Number: column of the last line which is in the header of the Status Page.

(1-2) Set the CU serial number

SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

- CU serial number is given an original number which is within 12 digits in the UK factory.
- Please notice that if you set the CU serial number, the menu setting in CU will be reset (back to the default setting). (For reference, Maintenance utility operation manual)
- On the menu of [Serial number setting], set the [Select printer serial number] to [CU serial number] and [Display mode] to [Display the both numbers].
- If you want to specify the CU serial number, please input the 12-digit number. (When read out, it will be 12 digits, too.)

Figure of Serial No. label image (labeled in UK Factory)

- CU serial number is shown in the Printer Serial Number Column in the header of Status Page. Therefore, the confirmation of the CU serial number after the change can be done by printing the Status Page.
- The PU serial number is shown in the Lot Number: column of the last line which is in the header of the MenuMap.

(2) [When not facing OEL]

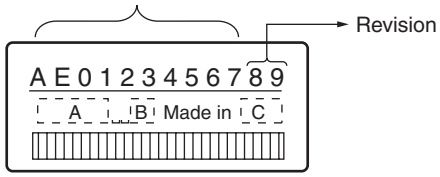
(2-1) Set the PU serial number

(Refer to Maintenance utility operation manual, about Serial number setting) SAP serial number can be applied to the device. The SAP serial number is displayed in the highest rung of the serial number label. It is a 12-digit number including production place (2 digits), production year (2 digits), sequence number (6 digits) and revision number (2 digits).

- PU serial number is a 10-digit number which is basically the same as SAP serial number except that it has no the 2-digit revision number.
- Set on the menu of [Serial number setting].
- If you want to specify the PU serial number, please add a "0" (a normal-width zero) then input the 11-digit number. (Please notice that when read out, the number will be 10 digits.)
  As shown in the following image, on the menu of [PU serial number setting], eliminate the 2-digit revision number then add a normal-width zero to the 10-digit number and input it.

Figure of Serial No. label image

Add one-byte 0 to the top of 10-digit figure of 12-digit SAP serial number to set.
Set "0AE01234567" in the setting screen of PU serial number.



- PU serial number will be output to the Printer Serial Number

  column in the header of Status Page. For this reason, check of PU serial number is performed by printing
  Status Page.
- After the configuration in the UK factory, when facing OEL, the PU serial number is taken as Lot Number and shown in the Lot Number: column of the last line which is in the header of the Status Page.

(2-2) Set the CU serial number

CU serial numbe setting is unnecessary When not facing OEL.

(3) Change to Shipping mode (Refer to Maintenance Utility Operating Manual about Factory / Shipping mode setting)

The printer is placed in the Factory mode after the CU/PU board is replaced with a new one. Switch the printer to the Shipping mode.

• Set on the menu of [Factory / Shipping mode setting].

Note! Note that replacing the EEPROM (the engine control board) clears life information about units, including the toner and image drums, causing errors in managing the lives of the units until the units are replaced. Below is the counts cleared with such Board Replacement. When the units are replaced with new ones, their respective counts except for Total Sheets Fed are cleared, the errors being corrected.

Item	Description	Count description
Image drum unit	Each the image drum unit life count for a color.	A value converted on an A4 page basis from the number of pages printed to date after installation of a new image drum unit.
Total number of sheets	A printer life count.	The total number of sheets fed.
Print black	Each the number of pages printed with an image drum.	The number of pages printed after installation of a new image drum unit.

3.6.2 Notes on SU board (MSU)/Scanner Unit replacement

1. Set the Scanner parameter when replacing the SU board (MSU)/Scanner Unit :
   Before replacing the SU board (MSU)/Scanner Unit, try to get the scanner setting parameters from the board by using the Board Replacement function of Maintenance Utility, if it is still able to be accessed by Maintenance Utility.

   After replacing the SU board (MSU)/Scanner Unit to new one, restore the scanner setting parameters to new one by using Maintenance Utility. For further information, refer the instruction of the manual of Maintenance Utility.

4. REPLACEMENT OF PARTS

This chapter describes the procedures of the field replacement of parts, assemblies and units. The procedures are to detach them. Reverse the procedures to attach them.

The reference part numbers used in this manual (such as ① and ②) do not identical to the part numbers in the maintenance disassembly configuration diagram (45762101TL) and RSPL (45762101TR) for the manual.

4.1 Notes on replacement of parts

(1) Prior to replacing a part, unplug the AC cord and the interface cable.

(a) Be sure to use the following procedure to unplug the AC cord:

① Turn off the printer [Hold down the power switch for about a second.].

② Pull out the AC plug of the AC cord from the AC power source.

③ Unplug the AC cord and the interface cable.

⚠ Warning	Electric shock hazard	⚠

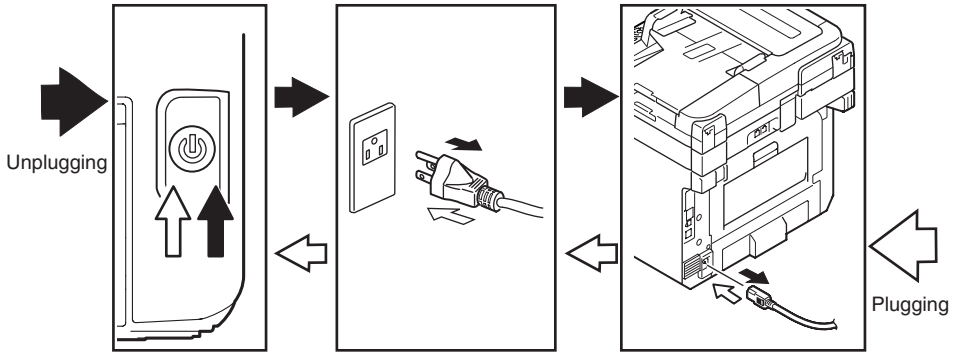
When replacing the low-voltage power supply, electric shock may occur. Wear insulated gloves, or be careful not to touch the conductors or terminals of the power supply directly. After the AC cord is unplugged, the capacitor may take about one minute to discharge completely or, due to PCB breakdown, could not discharge. Use caution about electric shock.

(b) Always use the following procedure to reconnect the printer:

① Connect the AC cord and the interface cable to the printer.

② Insert the AC plug into the AC power source.

③ Turn on the printer [Hold down the power switch for about a second to turn on the power.].



(2) Do not disassemble the printer so long as it operates properly.

(3) Minimize disassembly. Do not detach parts not shown in the part replacement procedure.

(4) Use the replacement tools specified.

(5) Conduct disassembly in the order instructed, or part damage may occur.

(6) Removed small parts, such as screws or collars, should be tentatively installed in their original positions.

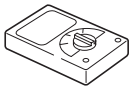
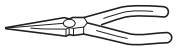
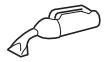
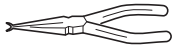
(7) Do not use static-prone gloves when handling integrated circuits (ICs), including microprocessors, and ROM and RAM chips, or circuit boards.

(8) Do not place printed-circuit boards (PCBs) directly on the printer or a floor.

Maintenance Tools:

Table 4-1-1 shows the tools necessary to replace printed-circuit boards and units:

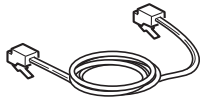
Table 4-1-1: Maintenance Tools

No.	Maintenance Tool		Quantity	Use	Remarks
1		Phillips screwdriver with magnetic tip, No. 2-200	1	3- to 5-mm screws	
2		Screwdriver No. 3-100	1		
3		Screwdriver No. 5-200	1		
4		Digital multimeter	1		
5		Pliers	1		
6		Handy vacuum cleaner (toner vacuum)	1		See note.
7		E-ring pliers	1	E-shaped ring removal	

Note! Use a toner vacuum. Using a general-purpose vacuum may cause fire.

Table 4-1-2 shows the tools necessary to use Maintenance Utility software.

Table 4-1-2: Maintenance Tools

No.	Maintenance Tool		Quantity	Use	Remarks
1		Notebook personal computer (with Maintenance Utility software installed)	1		See section 3.3 for Maintenance Utility.
2		USB cable	1		
3		Ethernet cable (crossover cable)	1		

4.2 Part replacement procedure

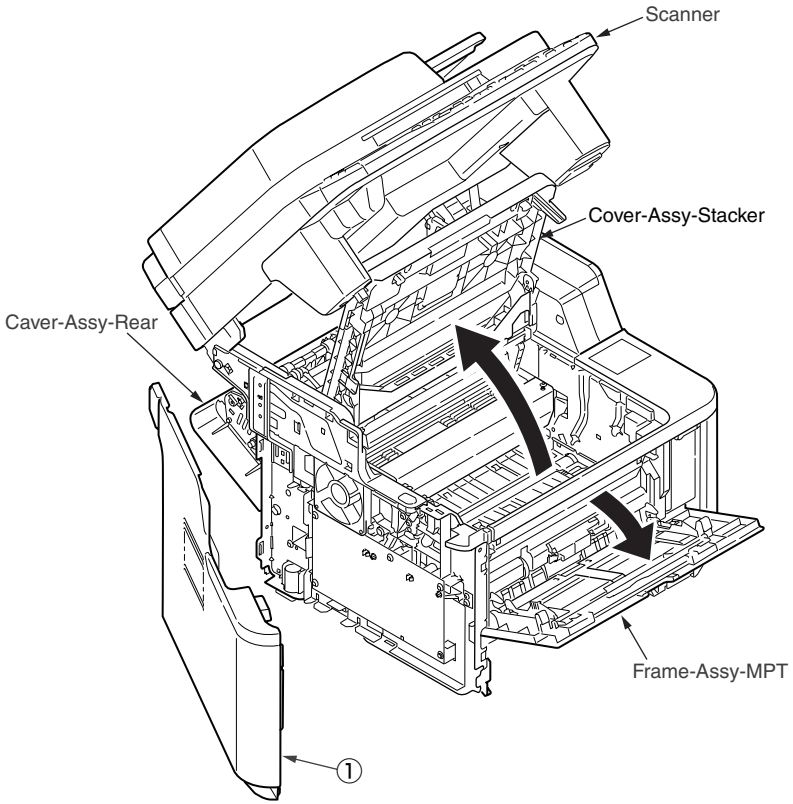
This section describes the procedure for replacing the parts and assemblies shown in the disassembly diagrams below.

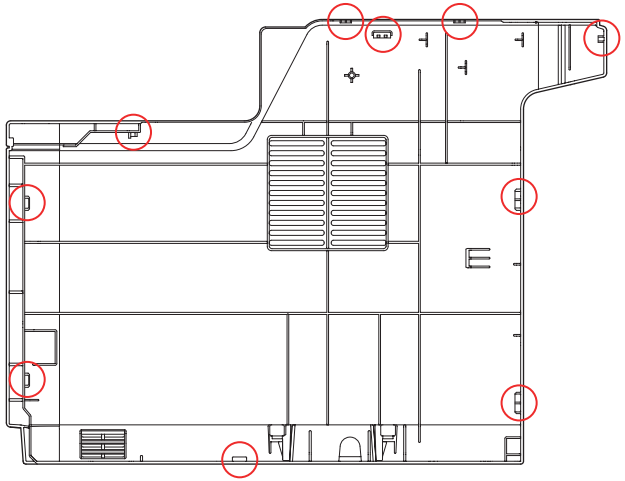
4.2.1 Cover Side (L)

(1) Remove the cassette assembly.

(2) Open the Scanner, Cover-Assy-Stacker, Frame-Assy-MPT and Cover-Assy-Rear.

(3) Unlatch the claws (10 portions) with to pull the front side of the mainbody to the arrow in figure to detach the Cover-Side (L) ① .





○ = Points of craws

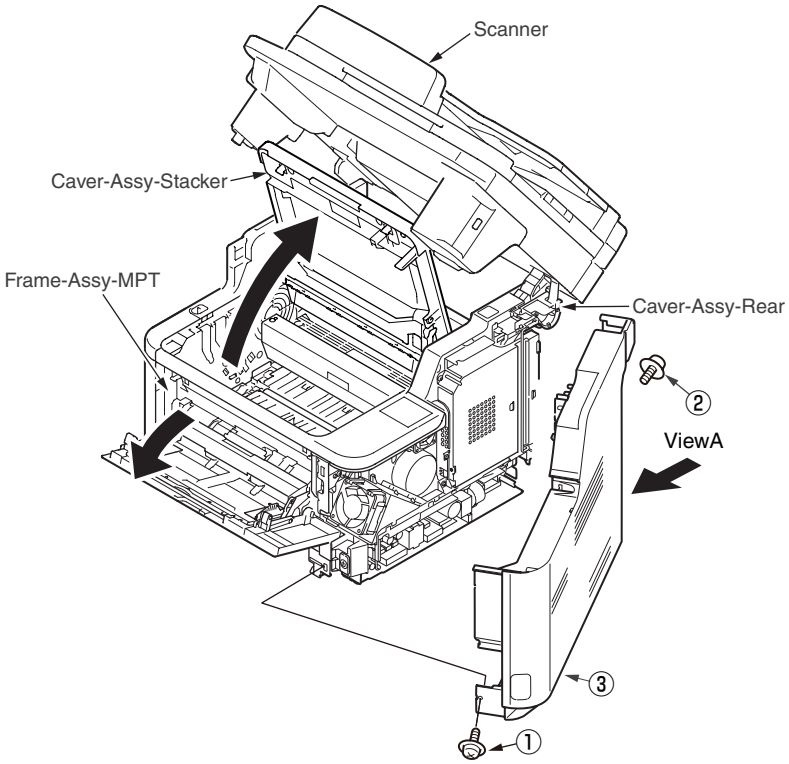
4.2.2 Cover Side(R)

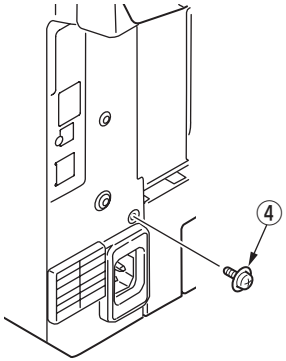
(1) Remove the cassette assembly.

(2) Open the Scanner, the Cover-Assy-Stacker, the Frame-Assy-MPT and the Cover-Assy-Rear.

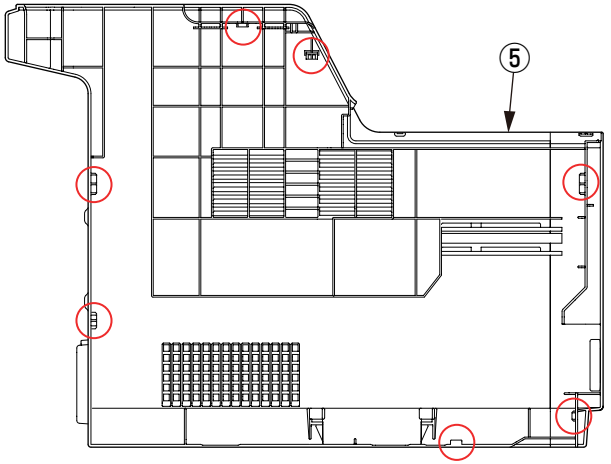
(3) Remove the Screw (Black) ① and the Screw (Silver) ② .

(4) Unlatch the claws (7points) with to pull the front side of the mainbody to the arrow in figure to detach the Cover-Side (R) ③ .





View A

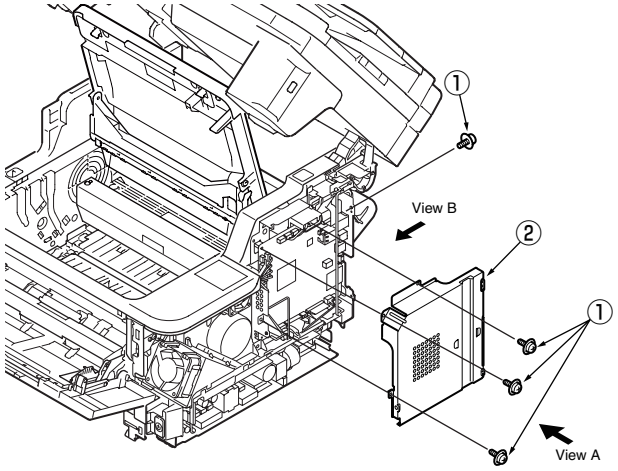


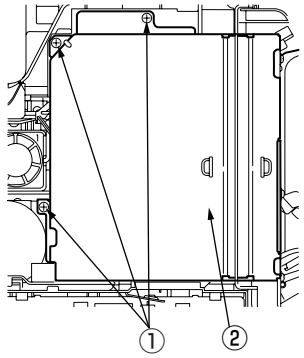
○ = Points of craws

4.2.3 Board MRM

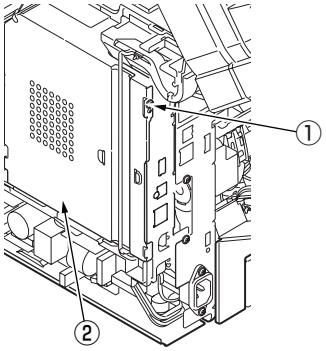
(1) Remove the Cover Side (R). (Refer to 4.2.2)

(2) Remove four Screws (Silver) ① , and remove the Plate Shield (CU) ② .



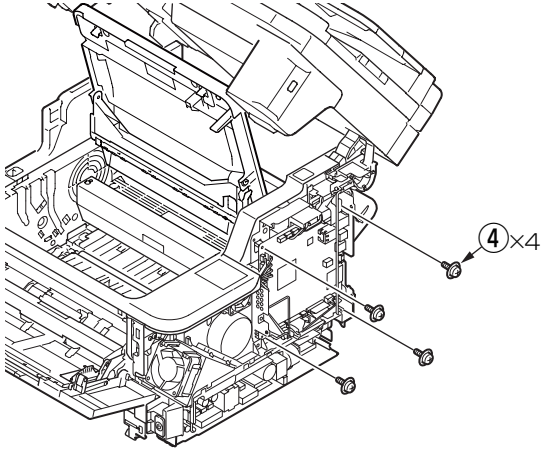


View A



View B

(3) Disconnect all cables and remove four Screws (Silver) ④ to detach the Board MRM ③ .



Note!

If replaced new board, update Firmware according to Chapter 9.3.
It is necessary to take the synchronization of the firmware version of SU board and CU board.

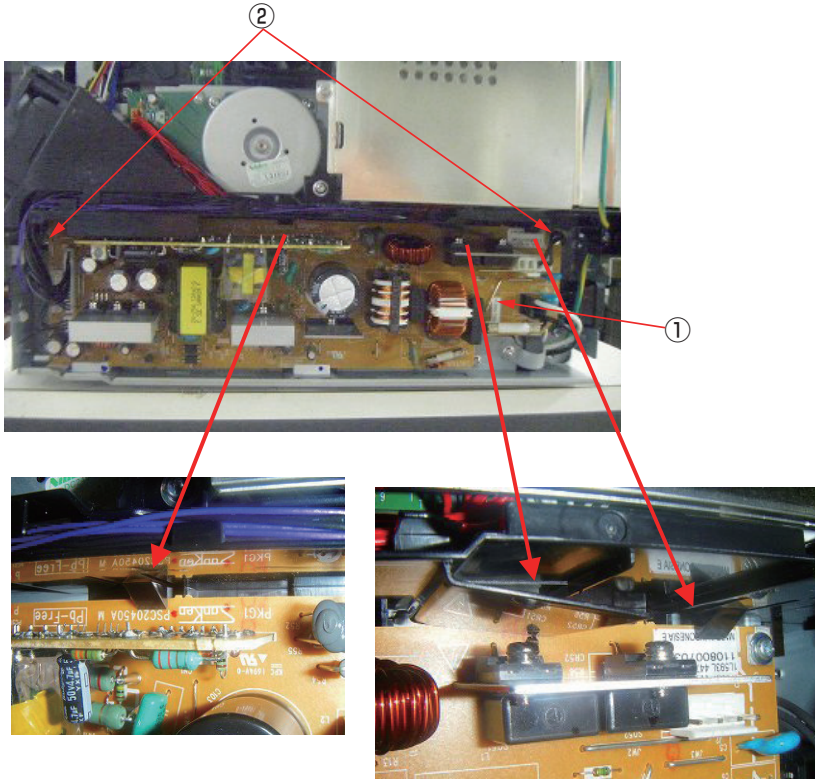
For MB451, MB451w:
If Error 049 is displayed on LCD after replacing to the new Board MRM, it is necessary to update the firmware according to Chapter 6.3.5.

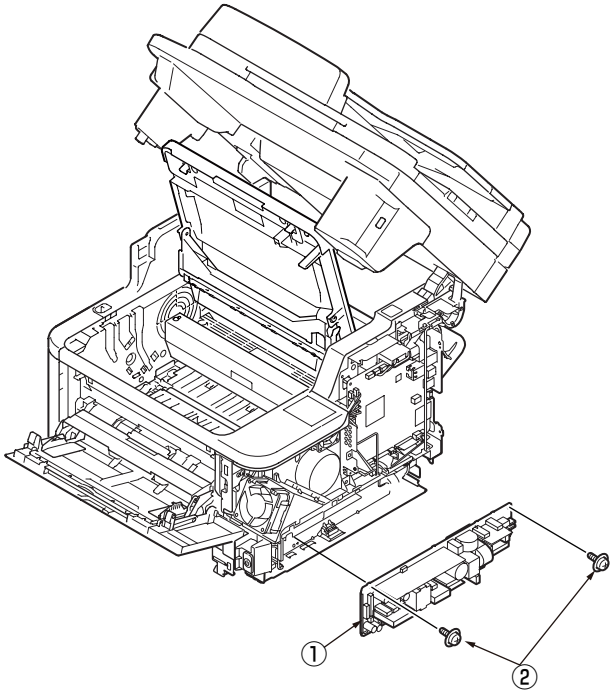
4.2.4 PWR unit

⚠ Warning	Electric shock hazard	⚡

When replacing the low-voltage power supply, electric shock may occur. Wear insulated gloves, or be careful not to touch the conductors or terminals of the power supply directly. After the AC cord is unplugged, the capacitor may take about one minute to discharge completely or, due to PCB breakdown, could not discharge. Use caution about electric shock.

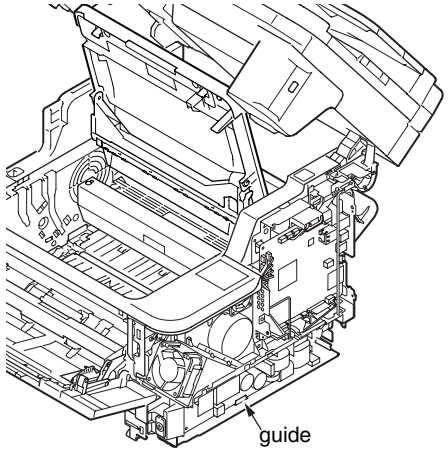
(1) Remove the Cover Side (R). (Refer to 4.2.2)
(2) Disconnect cables from the PWR unit-ACDC Switch ① .
(3) Remove two Screws (Silver) ② .
(4) Unlatch the claws (3 points) to detach the PWR unit-ACDC Switch ① .





(Note on removing / installing)

1. Assemble the POWER to main body in accordance to the groove on guide.



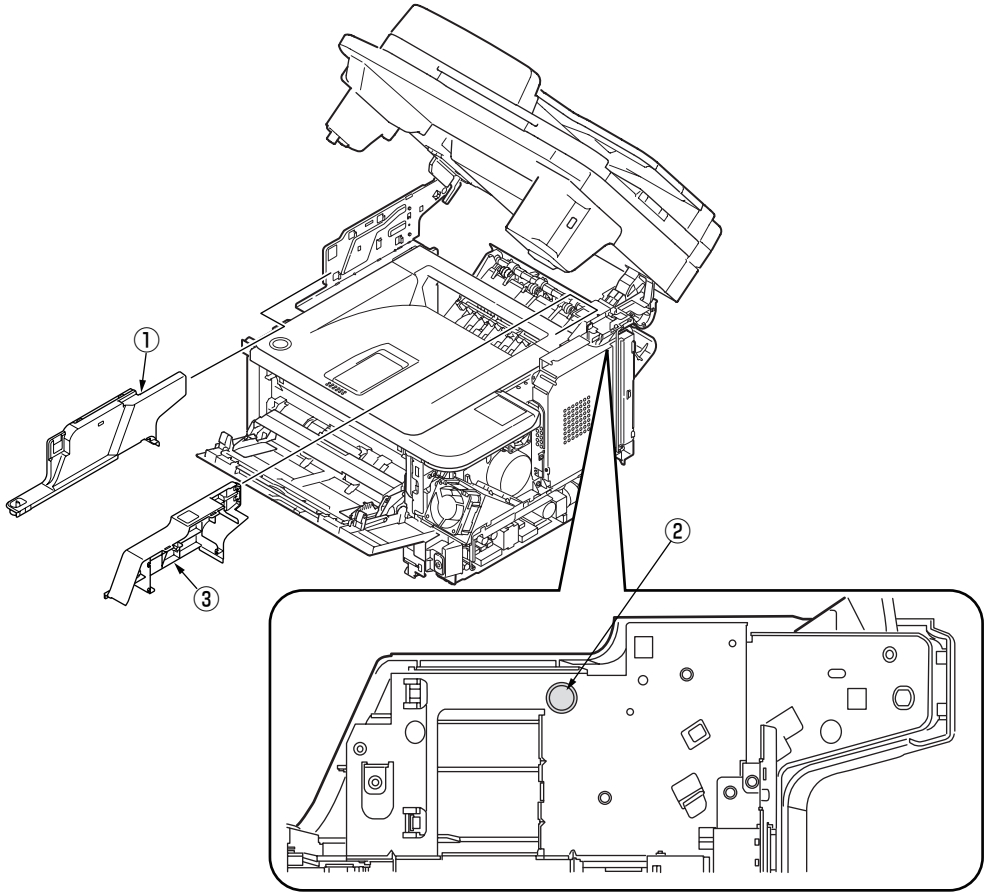
4.2.5 Cover Stay(R) / Cover Stay(L)

(1) Remove the Cover-Side (L). (Refer to 4.2.1)

(2) Remove the Cover Stay (L) ① .

(3) Remove the Cover Side (R) . (Refer to 4.2.2)

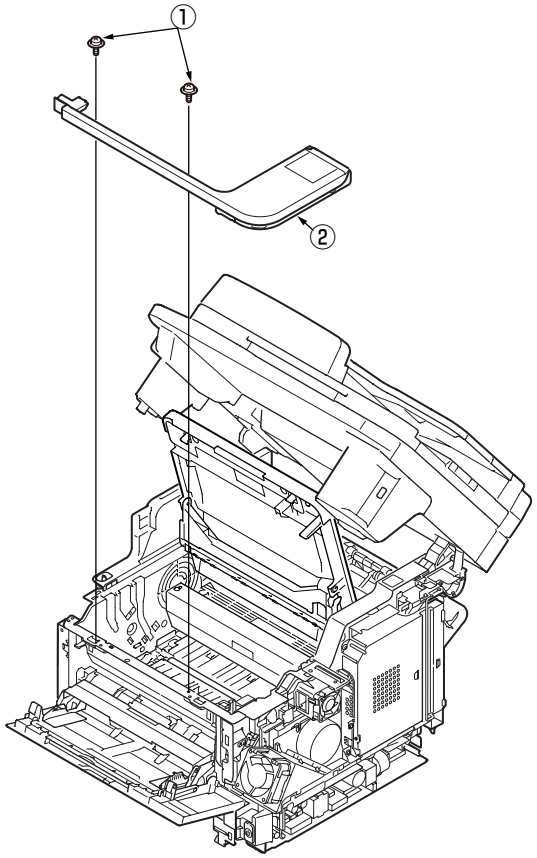
(4) Remove the Screw (Black) ② to detach the Cover-Stay(R) ③ .



4.2.6 Cover Front (Top)

(1) Remove the Cover Side (R) and Cover Side (L). (Refer to 4.2.1 and 4.2.2)

(2) Remove two-Screws (Black) ① to detach the Cover Front (Top) ② .



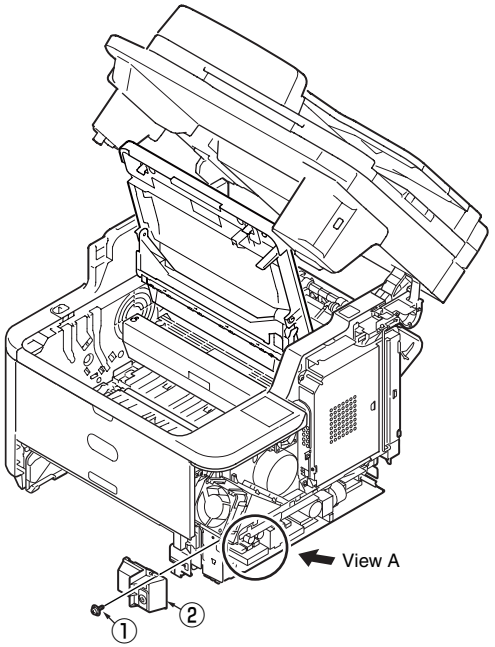
4.2.7 SW Assy

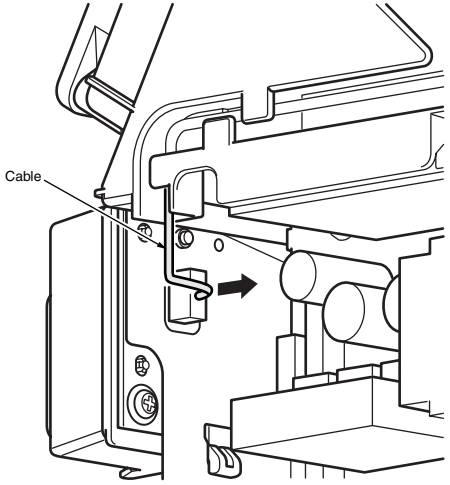
(1) Remove the Cover Side (R). (Refer to 4.2.2)

(2) Close the Frame-Assy-MPT.

(3) Remove the Cable.

(4) Remove the Screw (Silver) ① and to detach the SW Assy ② .





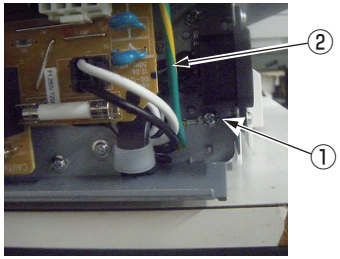
View A

4.2.8 Scanner unit

(1) Remove the Cover Side (L) and the Cover Side (R). (Refer to 4.2.1 and 4.2.2)

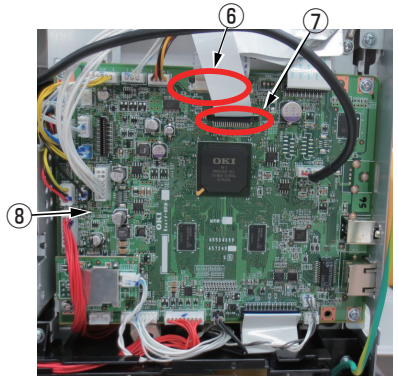
(2) Remove the Cover Stay (R) and Cover Stay (L). (Refer to 4.2.5)

(3) Remove the Screw (Silver) ① , and remove the FG-Cable ② from Guide Cable ③ .

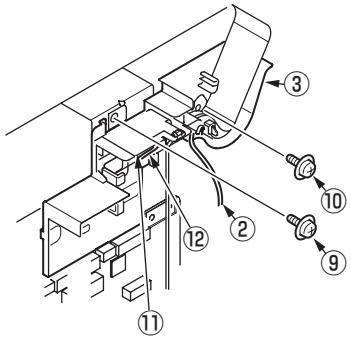


(4) Remove the Plate Shield (CU) .(Refer to 4.2.1 and 4.2.3)

(5) Disconnect the FFC ⑥ and the Cable ⑦ from the CU/PU Board ⑧ .



(6) Remove the Screw (Silver) ⑨ and the Screw (Black) ⑩ , and remove the FG Film (FFC) ⑪ and the Cable ⑫ from the Guide Cable ③ .

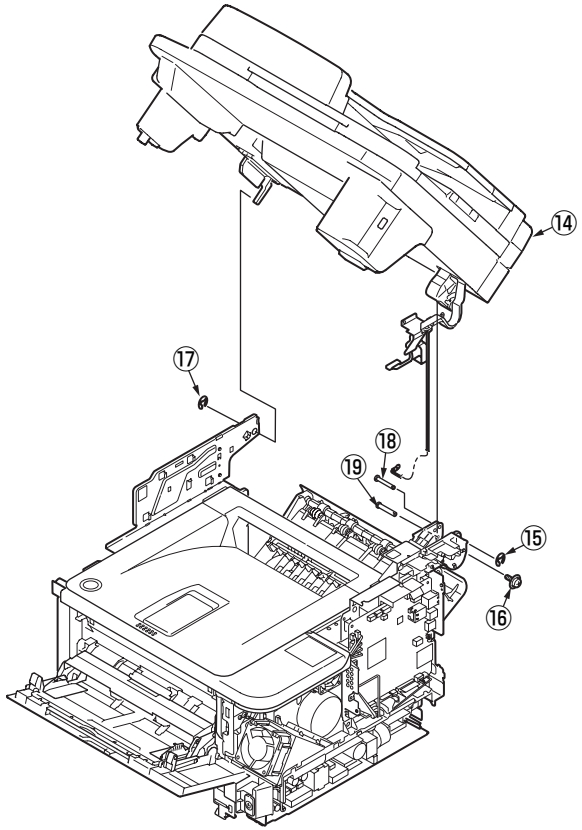


(7) Open the scanner ⑭ and remove the E-shaped retainer ring (RE4-SK) ⑮ and screw ⑯ .

(8) Remove the E-shaped retainer ring (RE6-SK) ⑰ .

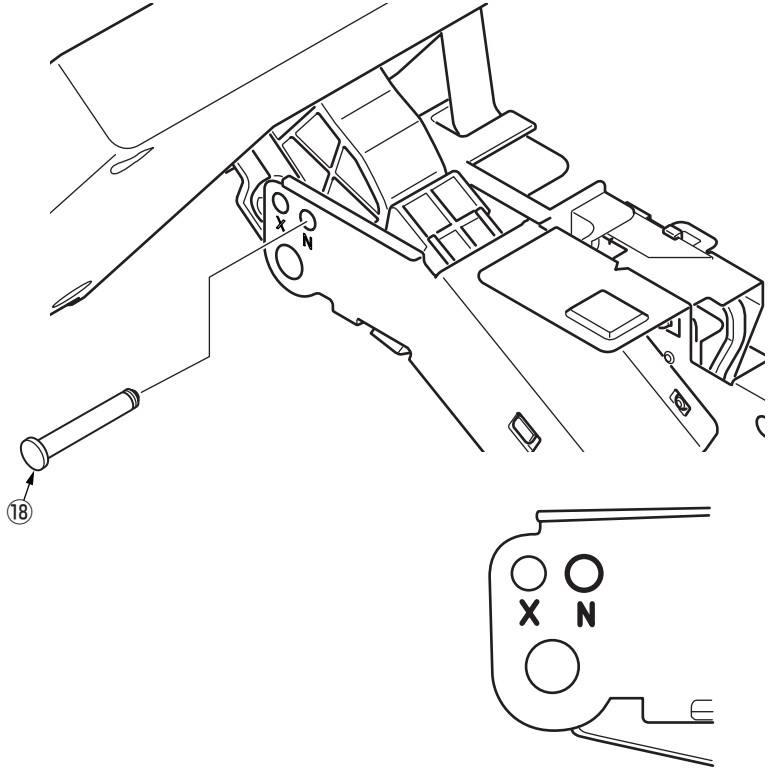
(9) Remove the shaft-stopper (hinge) ⑱ and remove the shaft-guide (hinge) ⑲ .

(10) Remove the scanner ⑭ .



***Note!* (to assemble)**

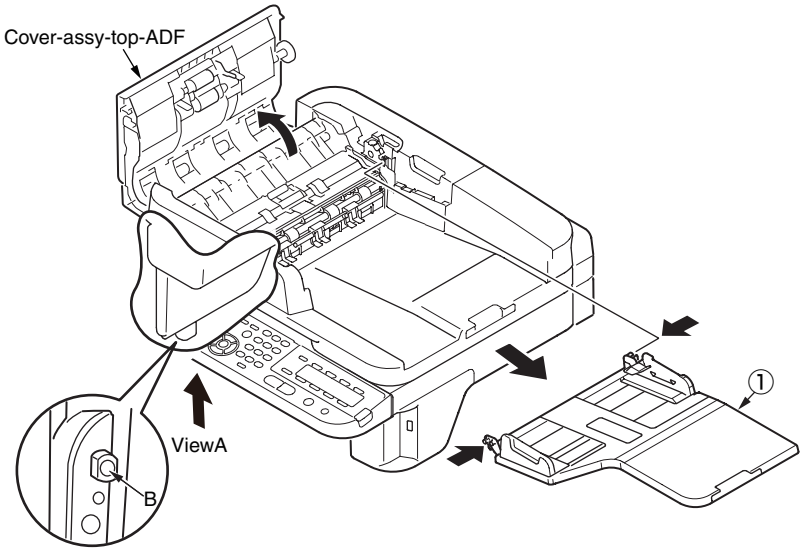
1. The case of to assemble for the scanner unit to the Mainbody, insert the the Shaft-Stopper (hinge) ⑱ to the hole with the marked 'N' on the Plate Assy Stay (R).



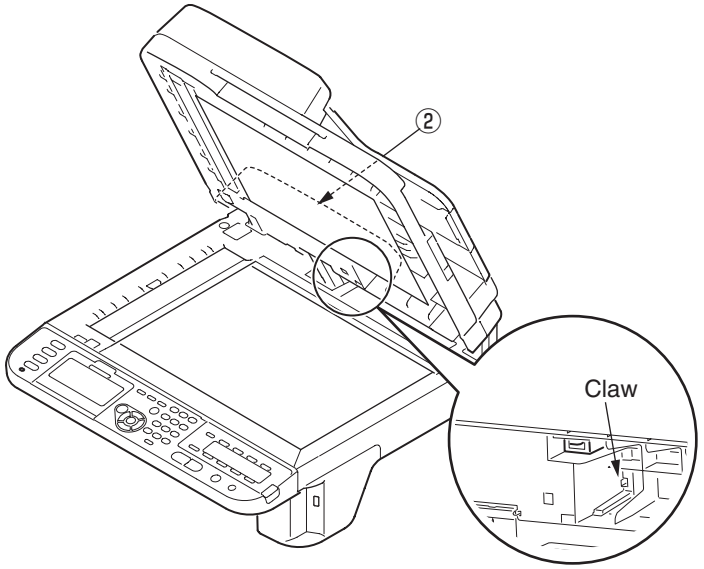
4.2.8.1 Tray-assy-document / Cover-ADF-R-assy

(1) Open the cover-assy-top-ADF .

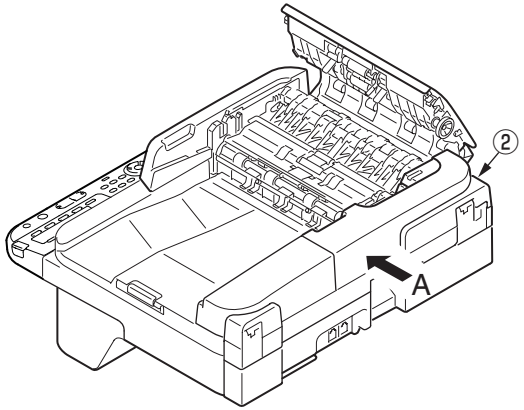
(2) Remove the tray-assy-document ① by pull it in the direction of the arrow.



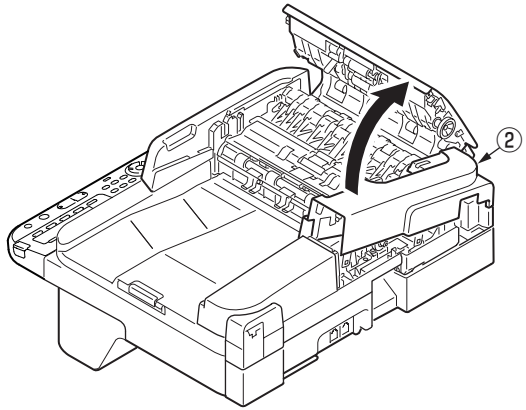
(3) Open the ADF-unit while pushing the portion B, and push the claw of cover-ADF-R-assy ② .



(4) Push the portion A. (Concurrent to push the (3))



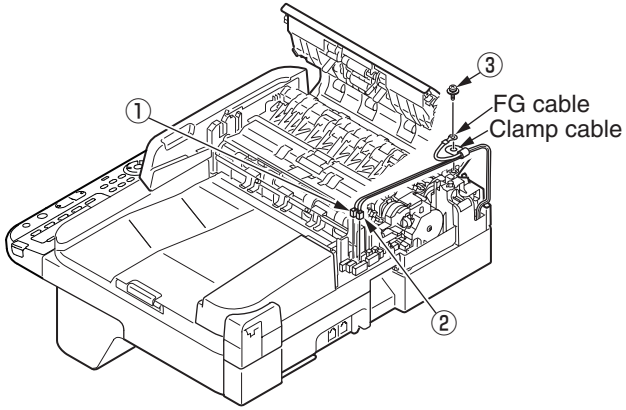
(5) Remove the cover-ADF-R-assy ② in the direction of the arrow.



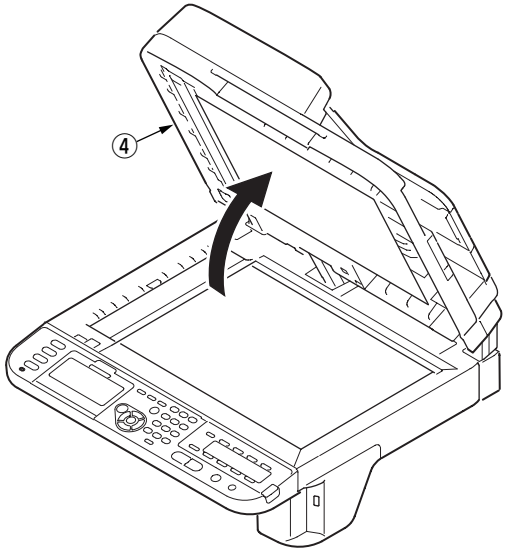
4.2.8.2 ADF-unit

(1) Remove the cover-ADF-R-assy. (See 4.2.8.1)

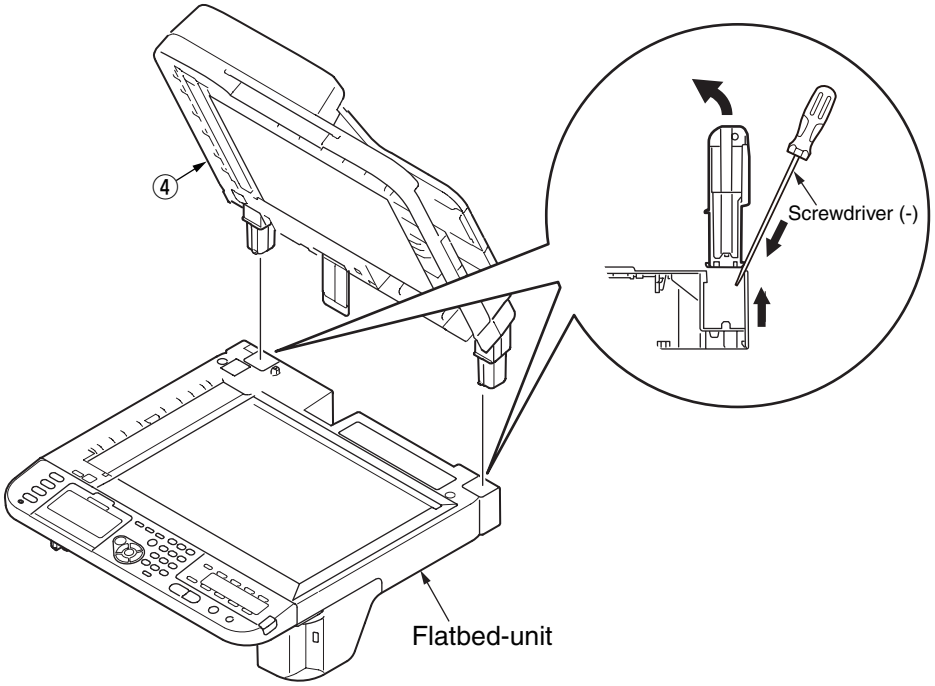
(2) Detach a connector ① and ② from the ADF board (MHD), and remove the screw ③ to remove the FG cable.



(3) Remove the clamp cable and pull the cables out of the hinge, and Open the ADF-unit ④ .

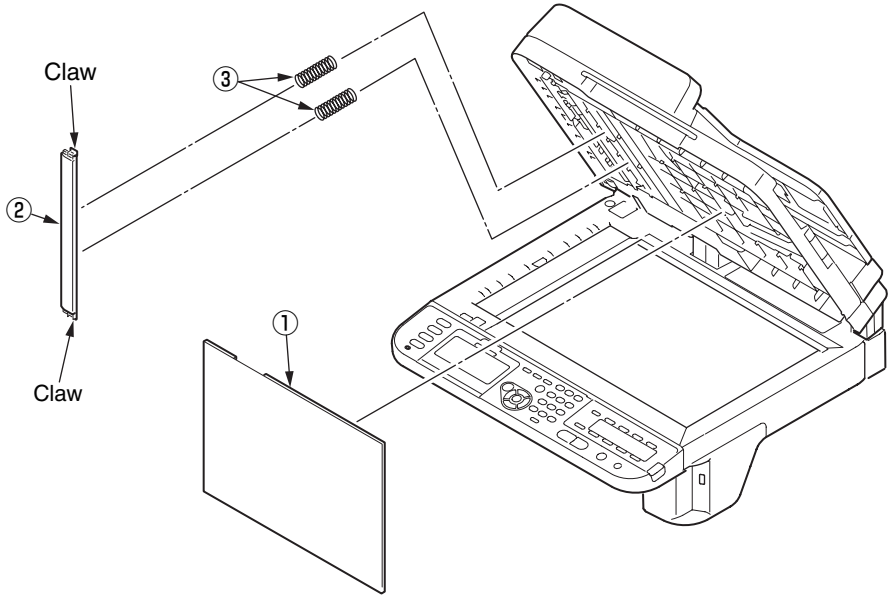


(4) Remove the ADF-unit ④ by insert the screwdriver to gap between ADF-unit ④ and flatbed-unit.

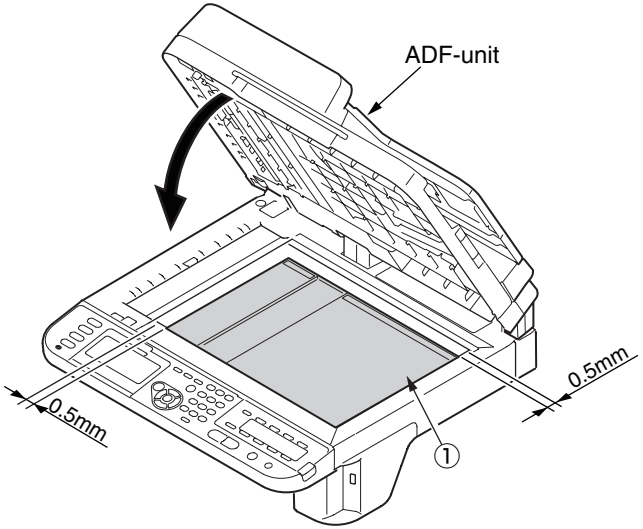


4.2.8.3 Sheet-document / Paper-weight-assy / Spring-PW-ADF

(1) Open the ADF-unit.
(2) Remove the sheet-document ① .
(3) Remove two claws to remove the paper-weight-assy ② and two spring-PW-ADF ③ .

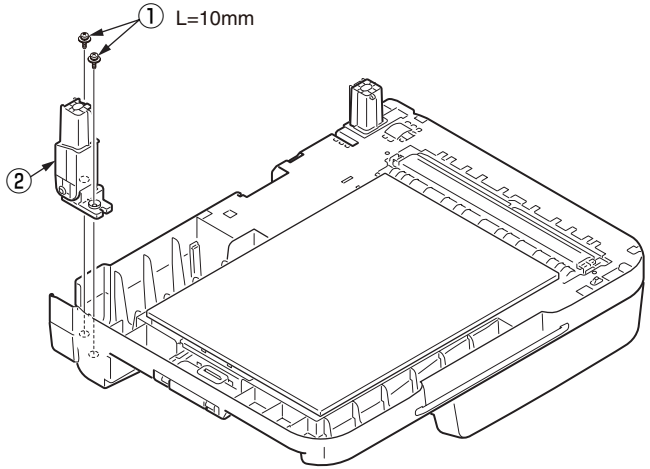


<Attention of affix the sheet-document>
(1) Degrease the affix area of ADF-unit.
(2) Remove the peeling-off sheet.
(3) Set the sheet-document ① (see the figure below).
(4) Close the ADF-unit.

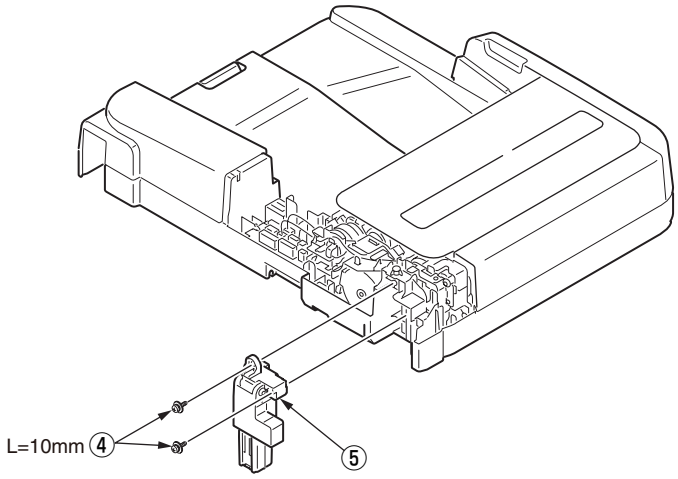


4.2.8.4 Hinge-assy-L / Hinge-assy-R

(1) Remove two screws (L=10mm) ① and remove the hinge-Assy-R ② .

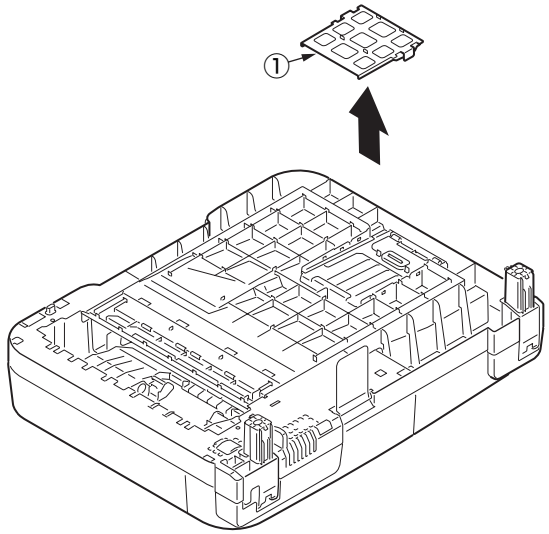


(2) Remove two screws (L=10mm) ④ and remove the hinge-Assy-L ⑤ .

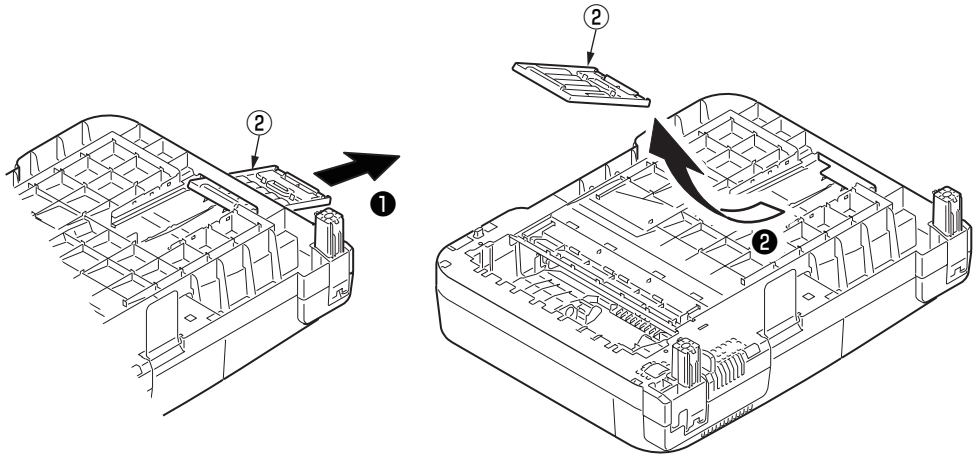


4.2.8.5 Cover-ADF-F / Guide-assy-exit-sub / ADF-assy / ADF board (MHD)

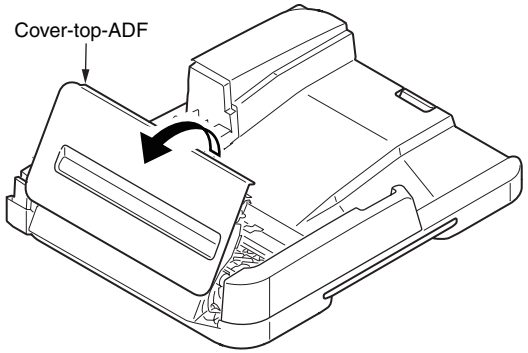
(1) Turn the ADF unit upside down and remove the support-sponge ① .



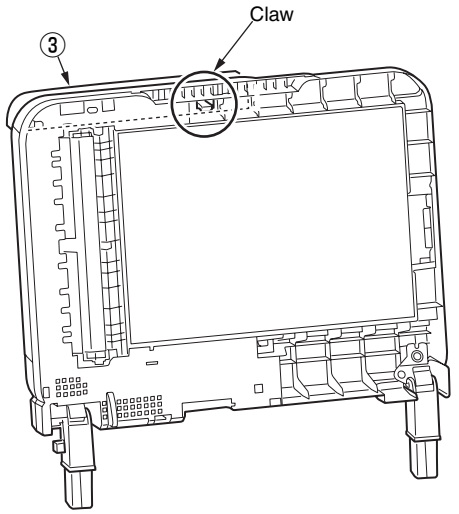
(2) Remove the guide-assy-exit-sub ② by pull it in the direction of the arrow.



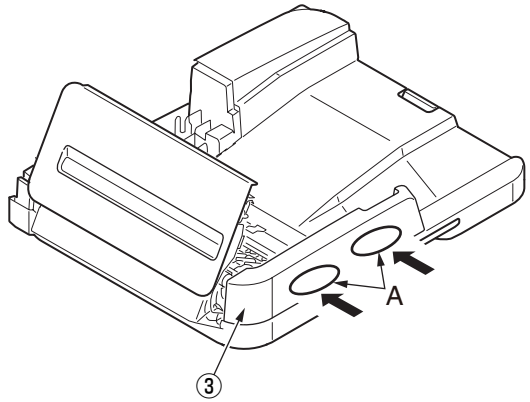
(3) Open the cover-top-ADF .



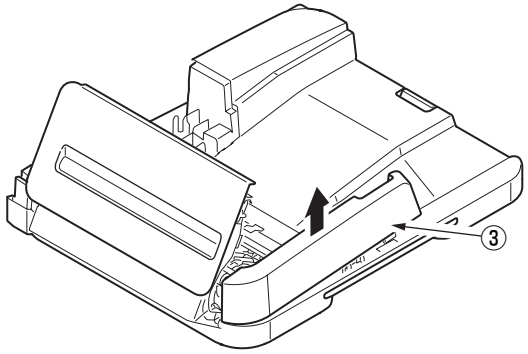
(4) Push the claw of cover-ADF-F ③ .



(5) Push the portion A (2 places). (Concurrent to push the (4))

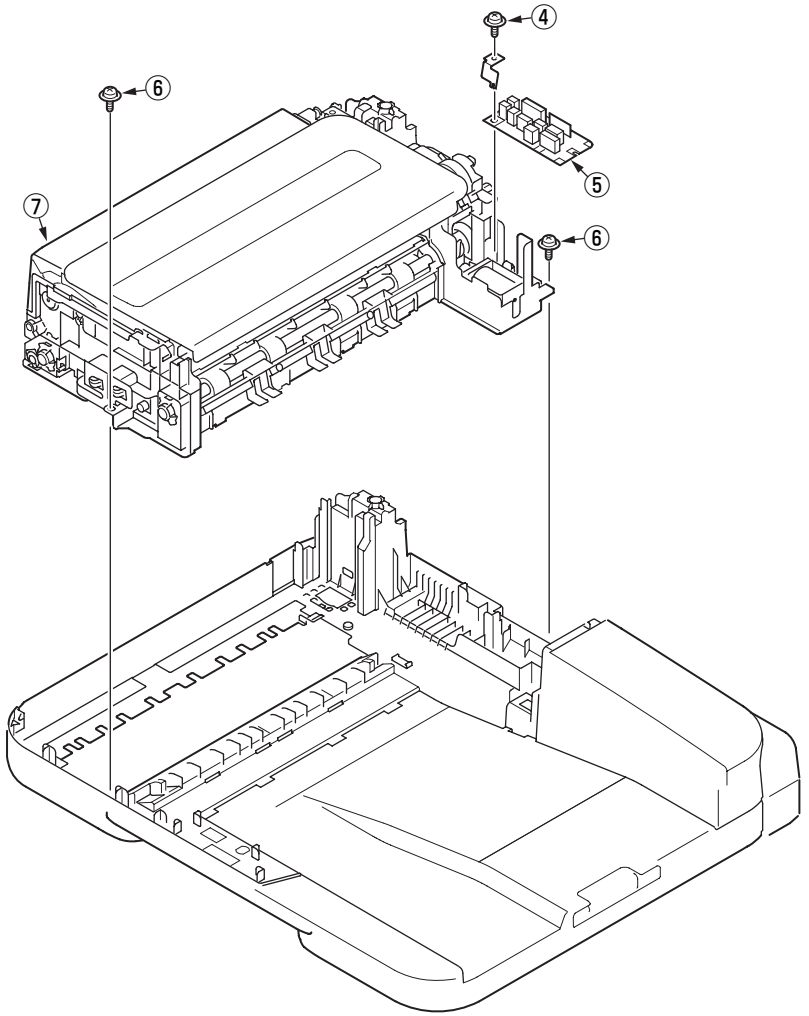


(6) Remove the cover-ADF-F ③ in the direction of the arrow.



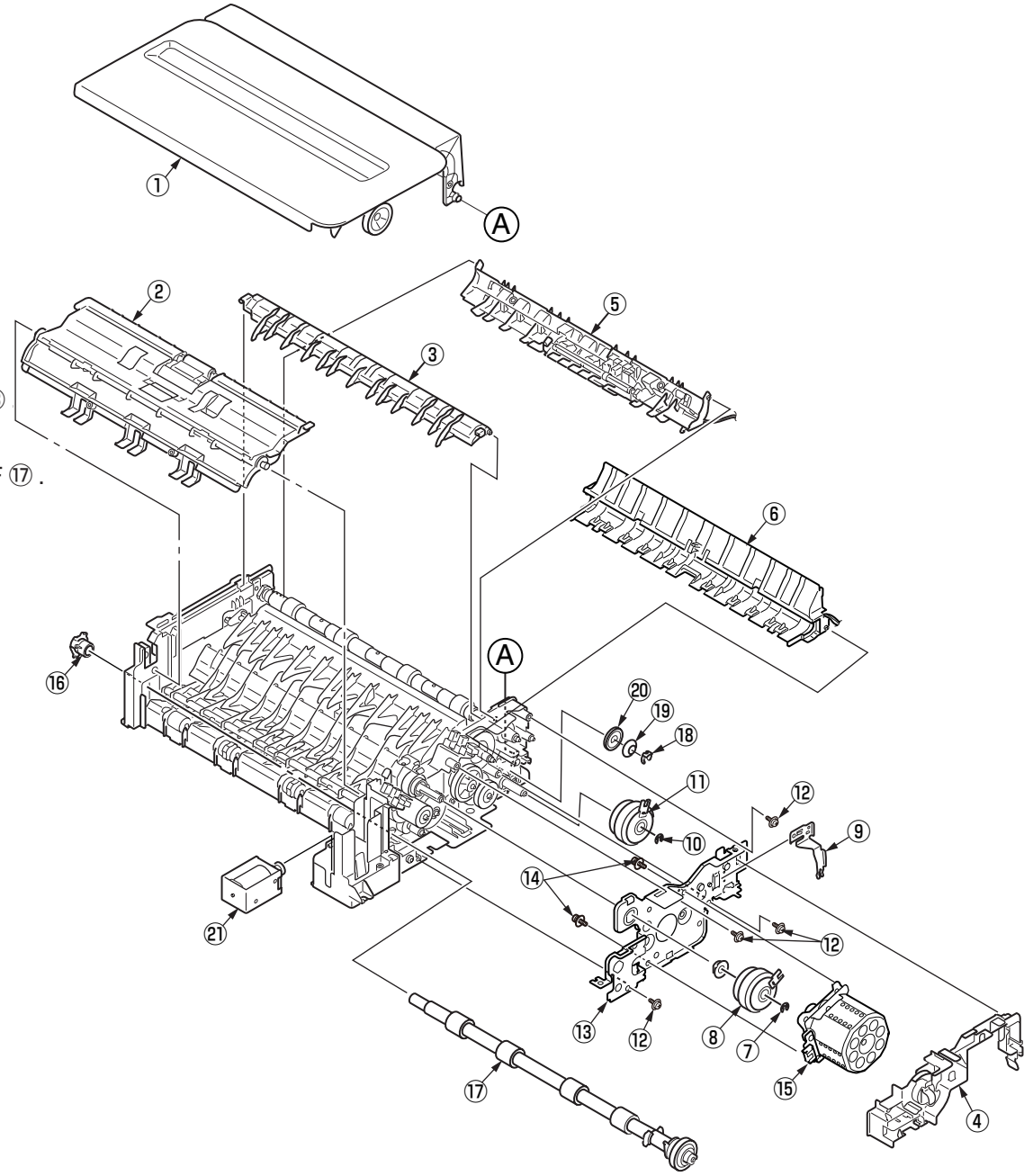
(7) Remove the screw (silver) ④ and remove the ADF board (MHD) ⑤ .

(8) Remove two screws (black) ⑥ and remove the ADF-assy ⑦ .



4.2.8.6 Cover-assy-top-ADF / Guide-assy / Roller / Motor / Clutch / Solenoid

(1) Remove the cover-assy-top-ADF ① .
(2) Remove the guide-assy-A ② .
(3) Remove the guide-B ③ .
(4) Remove the guide-cable ④ .
(5) Remove the guide-assy-C ⑤ .
(6) Remove the guide-assy-D ⑥ .
(7) Remove the E-type retaining ring ⑦ and remove the clutch ⑧ .
(8) Remove the plate-FG-S ⑨ .
(9) Remove the E-type retaining ring ⑩ and remove the clutch ⑪ .
(10) Remove four screws (black) ⑫ and remove the plate-motor-ADF ⑬
(11) Remove two screws (silver) ⑭ and remove the Motor-KTL40M ⑮ .
(12) Remove the bearing-shaft ⑯ and remove the roller-assy-eject-ADF ⑰ .
(13) Remove the retainer-4 ⑱ , spring ⑲ and washer-A ⑳ .
(14) Remove the solenoid ㉑ .



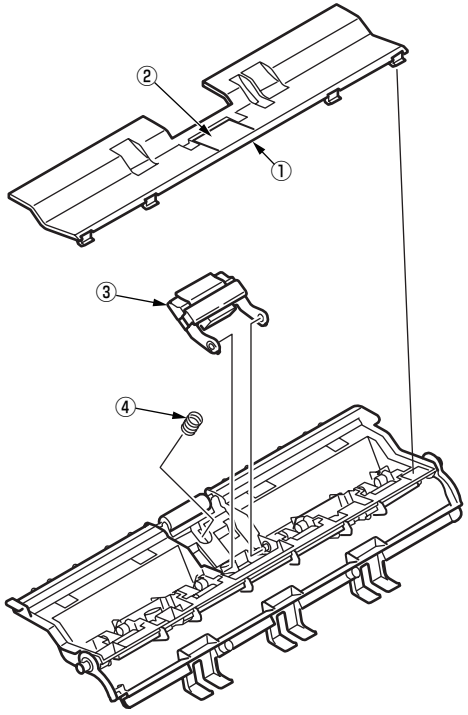
4.2.8.7 Guide-A-sub / Frame-assy-separator / Spring-separator / Rubber-friction

(1) Remove the guide-A-sub ① with rubber-friction ② .

(2) Remove the frame-assy separator ③ and spring-separator ④ .

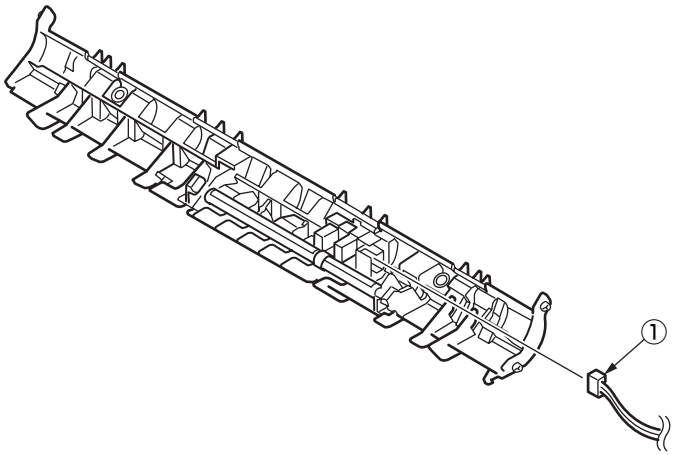
Note! • If change the ② … Remove the ② , then degrease the ① and affix the ② .

• If change the ① … Remove the ① and ② together.



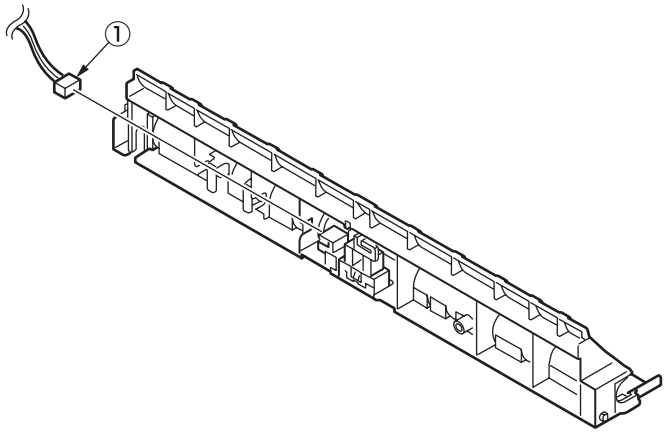
4.2.8.8 Cable (ADF-Rev SNS)

(1) Remove the cable ① .



4.2.8.9 Cable (ADF-Reg SNS)

(1) Remove the cable ① .

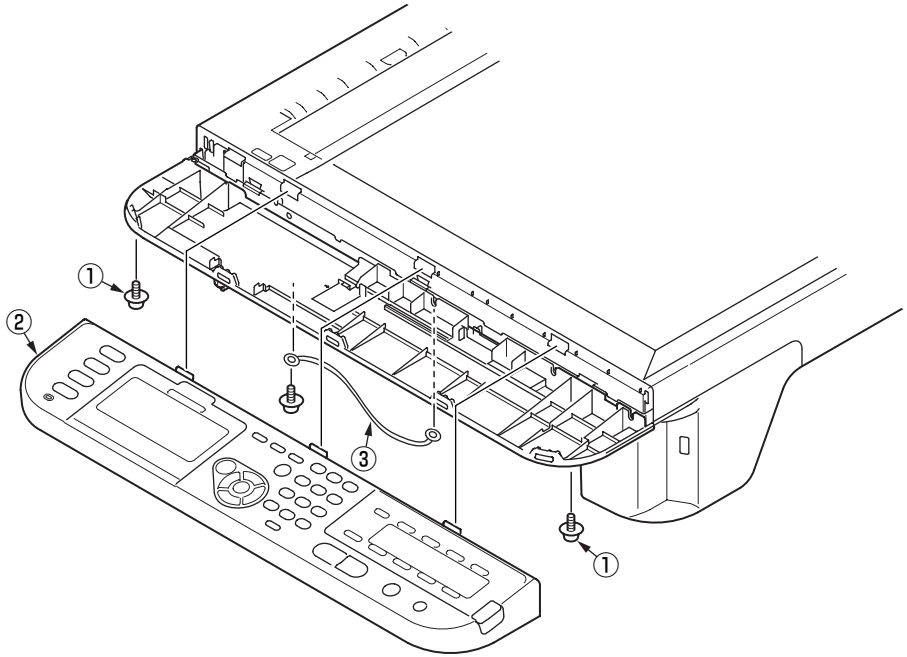


4.2.8.10 Frame-assy-OP

(1) Remove two screws (Black) ① .

(2) Remove three claws to remove the frame-assy-OP ② .

(3) Remove the screw (Black) ③ .

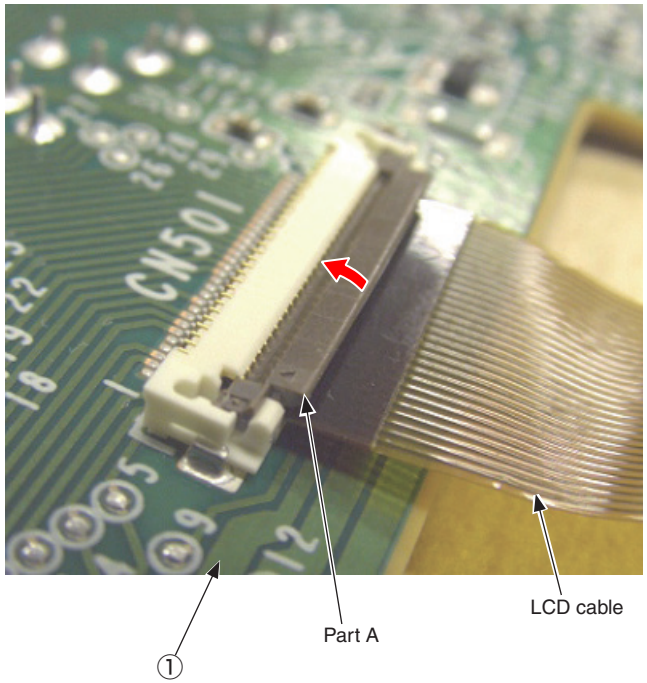


4.2.8.11 Frame-OP-panel / OPE board

(1) Remove eight claws to remove the OPE board (OPM-2) ① .

(2) Remove the LCD cable, while part A is raised in the direction of arrow.

Method of removing LCD cable



(3) Remove the rubber-pad (R) ② and rubber-pad (L) ③ .

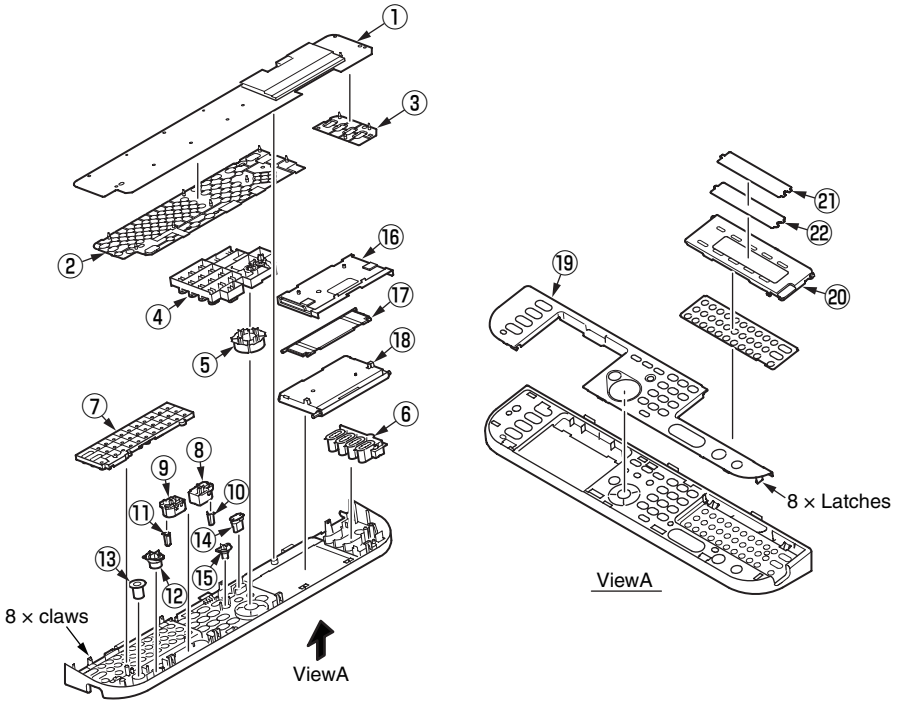
(4) Remove the button and lens ④ to ⑮ .

(5) Remove the cover bottom ⑯ and cover-cable ⑰ and LCD-assy ⑱ .

(6) Remove eight latehes to remove the cover-op-panel ⑲ .

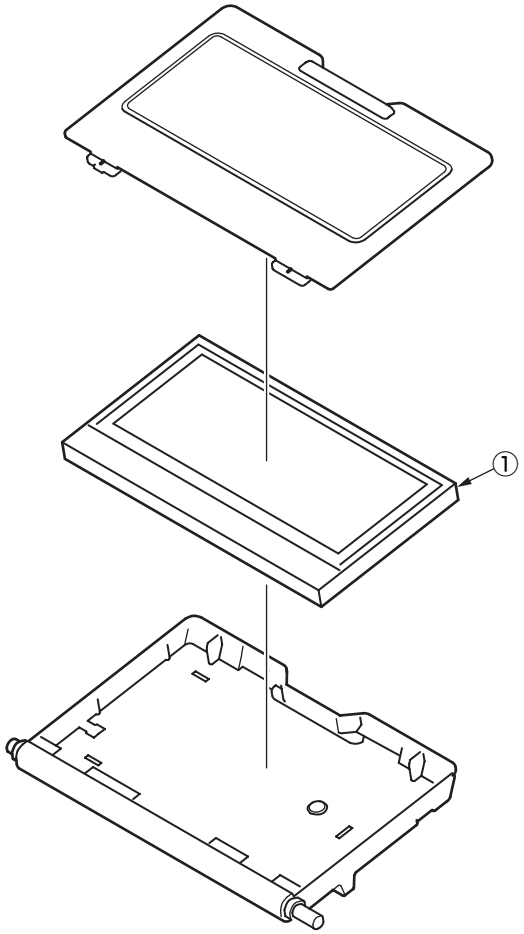
(7) Remove the cover-KB-assy ⑳ .

(8) Remove the film-one-touch ㉑ and sheet-one-touch ㉒ .



4.2.8.12 LCD-assy

(1) Remove the LCD-assy ① .

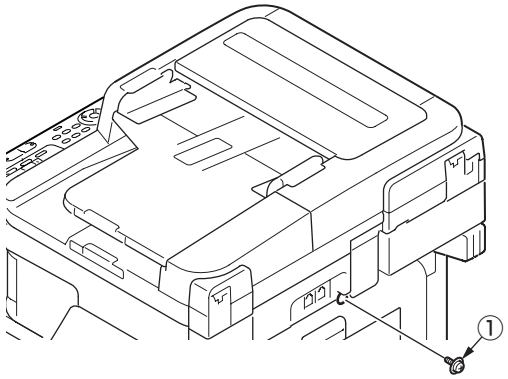


4.2.8.13 Frame-assy-FB

Note! • It exchanges it detaching the scanner unit from the MFP when the SU-board is exchanged.

• If replaced new board, update Firmware according to Chapter 9.3. It is necessary to take the synchronization of the firmware version of SU board and CU board.

(1) Remove the screw (silver-colored M4) ① .

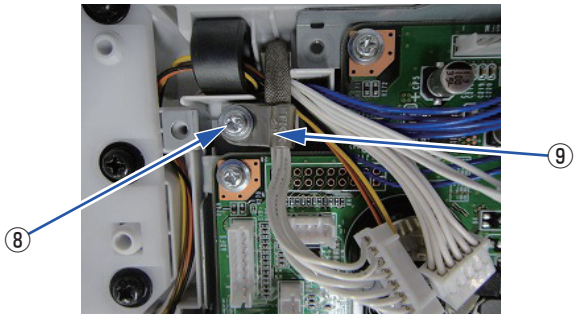


(2) Remove four screws (black-colored, L=10mm) ② to remove the Cover Bottom ③ .

(3) Remove Plate-FG (FAX) ④ from Cover Bottom ③ .

(4) Remove five screws (silver-colored) ⑤ and five screws (black-colored, L=8mm) ⑥ to remove the Plate-Shield (SU) ⑦ .

(5) Remove the screw (silver-colored) ⑧ to remove the Clamp ⑨ . And remove all SU-Board cables.



(6) Remove the screw (silver-colored M4) ⑩ to remove the Plate-FG ⑪ .

(7) Remove five screws (silver-colored) ⑫ to remove the SU-Board ⑬ .

(8) Remove the screw (black-colored, L=8mm) ⑭ to remove the Plate-USB ⑮ . And remove two screws (silver-colored, L=12mm) ⑯ to remove the cord-USB ⑰ .

And remove the core ⑱ from Cord-USB ⑰ . (two claws)

(9) Remove the screw (silver-colored M4) ⑲ to remove the cord-FG ⑳ .

(10) Remove three screws (black-colored, L=8mm) ㉑ to remove the Plate-Board (SU) ㉒ .

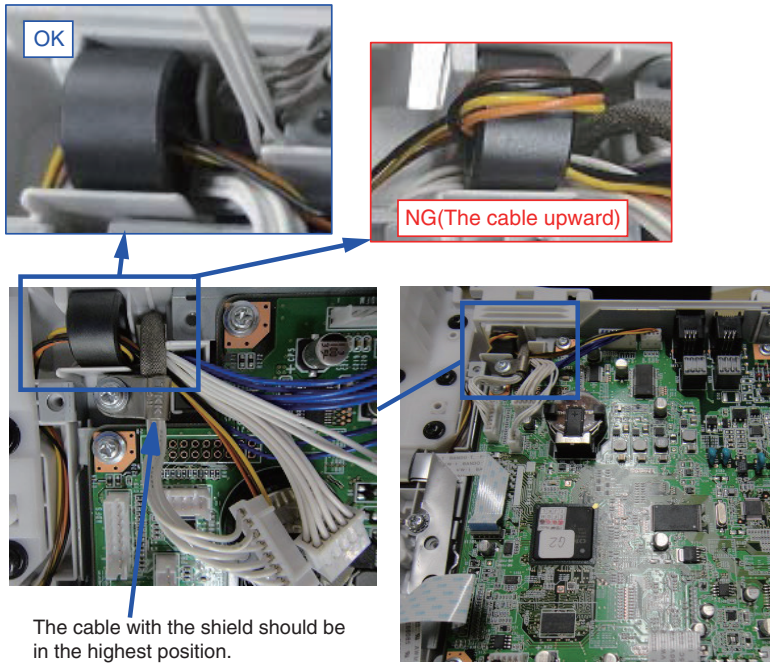
(11) Remove two screws (black-colored, L=10mm) ㉓ to remove the Cover-Assy-LF ㉔ .

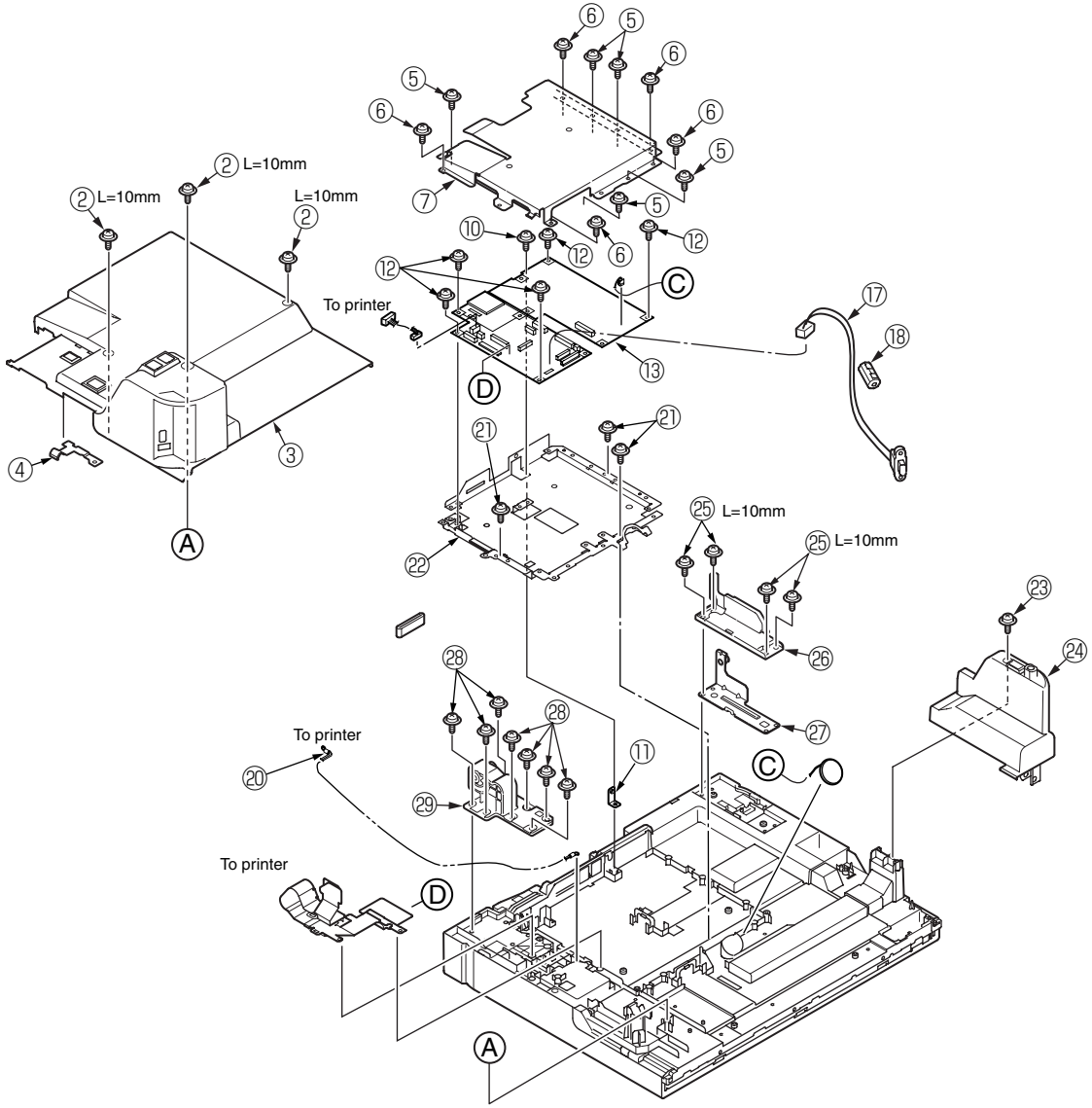
(12) Remove four screws (black-colored, L=10mm) ㉕ to remove the Cover-Hinge-L ㉖ and the Plate-Hinge-L (Caulking) ㉗ .

(13) Remove seven screws (black-colored, L=10mm M4) ㉘ to remove the Cam-hinge ㉙ .

***Note!* (to assemble)**

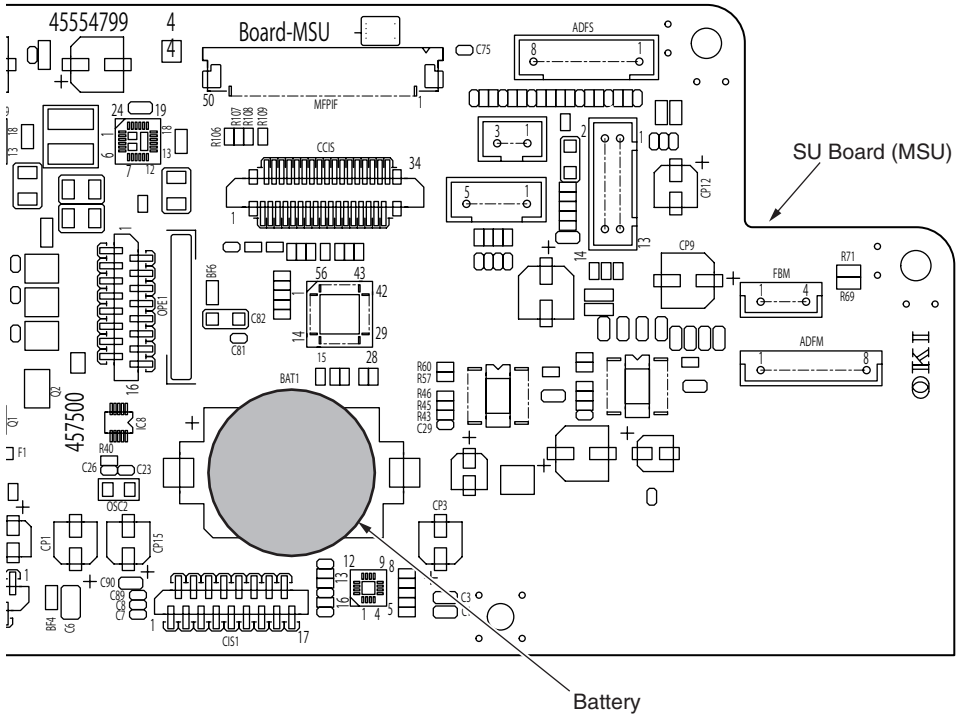
1. Since a cable will be pushed by Plate-Shield (SU), please place downward.




⑥
⑤
⑥
⑤
⑥
⑥
⑤
⑤
⑦
⑤
⑩
⑫
⑥
⑫
⑫
C
To printer
⑰
⑱
⑬
D
②L=10mm
②L=10mm
②
L=10mm
④
③
A
21
21
22
25 L=10mm
25 L=10mm
23
24
26
28
28
27
To printer
⑳
⑪
C
29
To printer
D
A

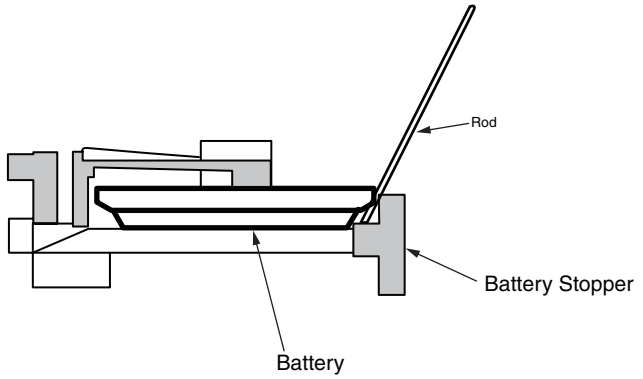
4.2.8.14 How to remove Battery (SU Board MSU)

(1) The position of the battery is shown in the below picture.

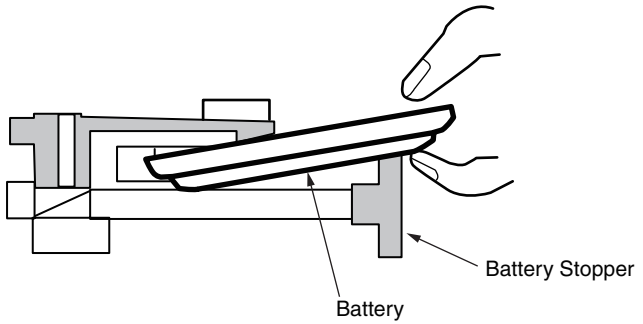


(2) How to remove the battery.

Insert finger, a needle or a rod in the gap between the battery and the its holder.

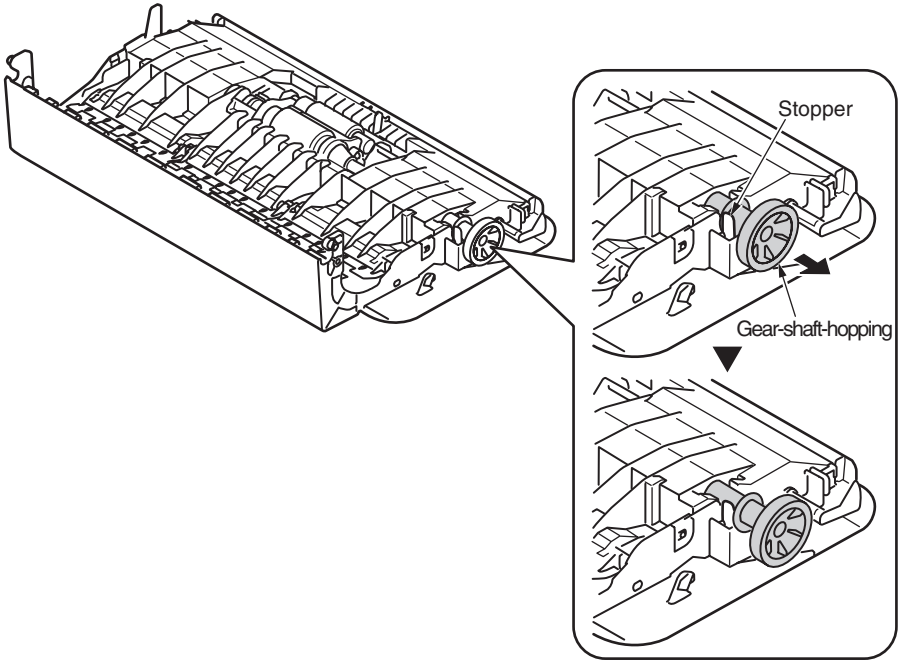


Raise the battery up so that it is put on the battery stopper, and remove it.

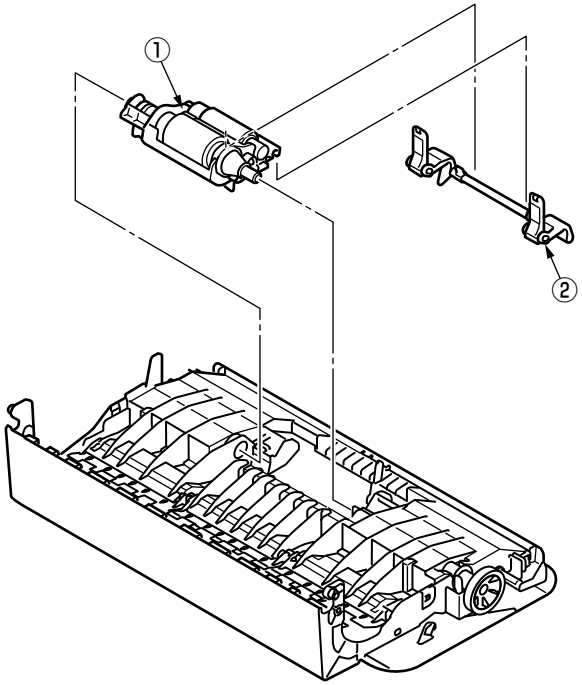


4.2.8.15 Frame-assy-hopping-ADF

(1) Slide the Gear-shaft-hopping while opening the stopper.



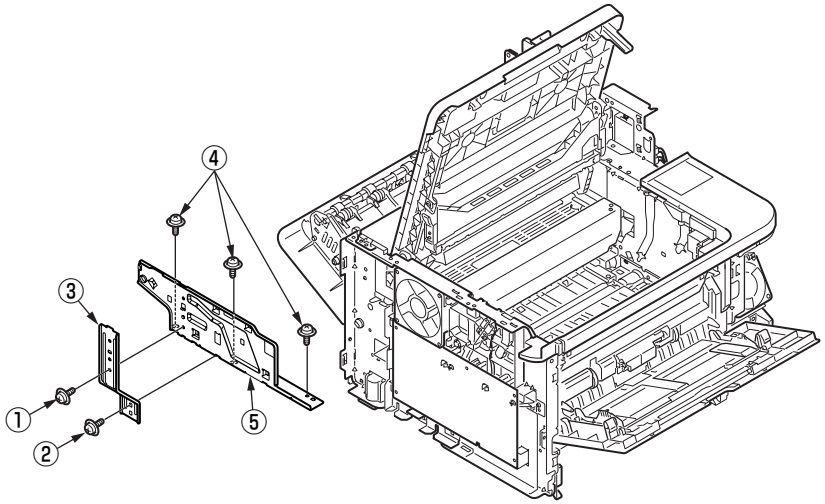
(2) Remove the Frame-assy-hopping-ADF ① and the Stopper-Assy-Gate ② .



4.2.9 Plate Stay L / Plate Assy Stay R

(1) Remove the Scanner unit. (Refer to 4.2.8)

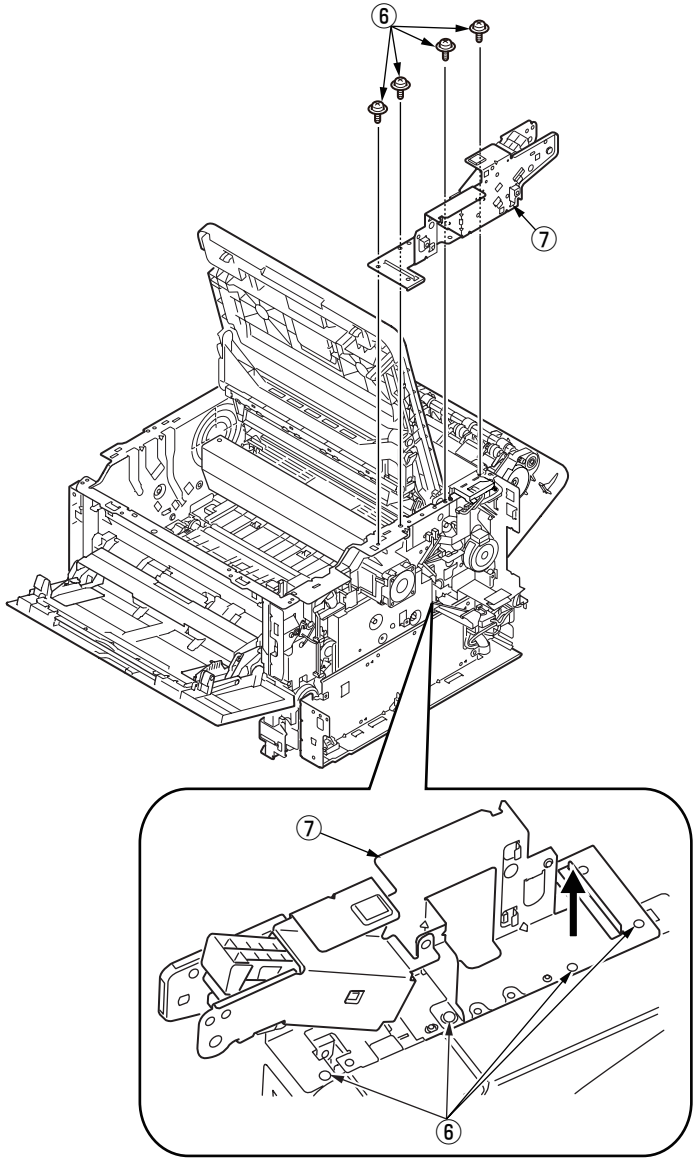
(2) Remove the screw ① and Round-tip screw ② and remove the plate support L ③ . Remove three screws ④ and remove plate stay L ⑤ .



(3) Remove the Cover Front (TOP). (Refer to 4.2.6)

(4) Remove the Plate Bracket (CU). (Refer to 4.2.14)

(5) Remove four screws (Silver) ⑥ to detach the Plate Assy Stay (R) ⑦ .



4.2.10 LED Head

(1) Open the Stacker Cover.

(2) Remove the ID UNIT.

(3) Disengage the tab of the Holder-Head from the stacker cover by using a flat-head screwdriver or something.

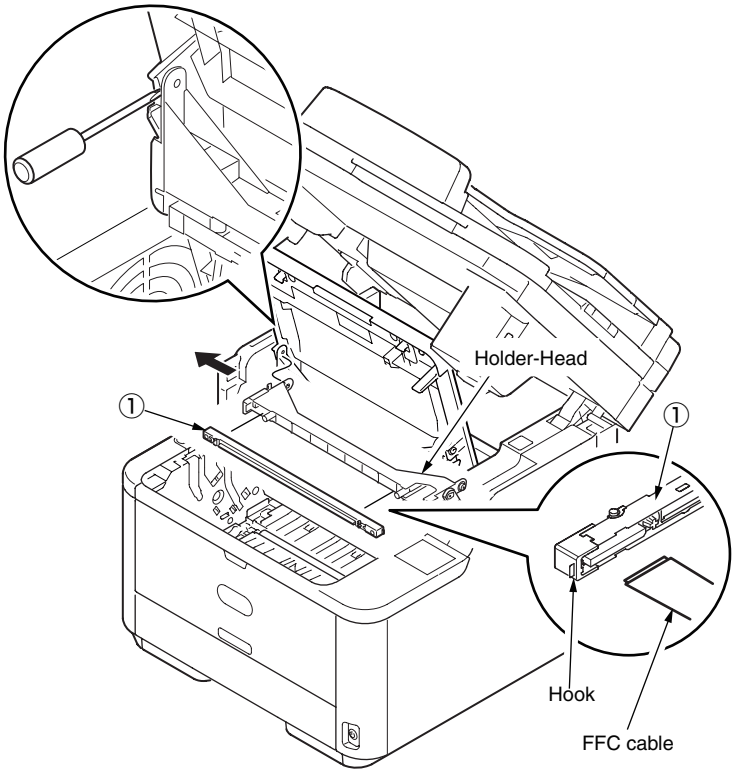
(4) Pull the Holder-Head toward you as illustrated below.

(5) Open the Holder-Head by arrow direction and then remove the hook. remove the LED Head ① .

(6) Remove the FFC cable from the connector of LED Head ① .

(7) Installing is performed by the reverse procedure with removing.

Note! Beware of not to touch or press the Lends of LED Head directly.



4.2.11 Frame-Assy-TR

(1) Open the Stacker Cover.

(2) Remove the ID UNIT.

(3) Take the Frame-Assy-TR out of the printer.

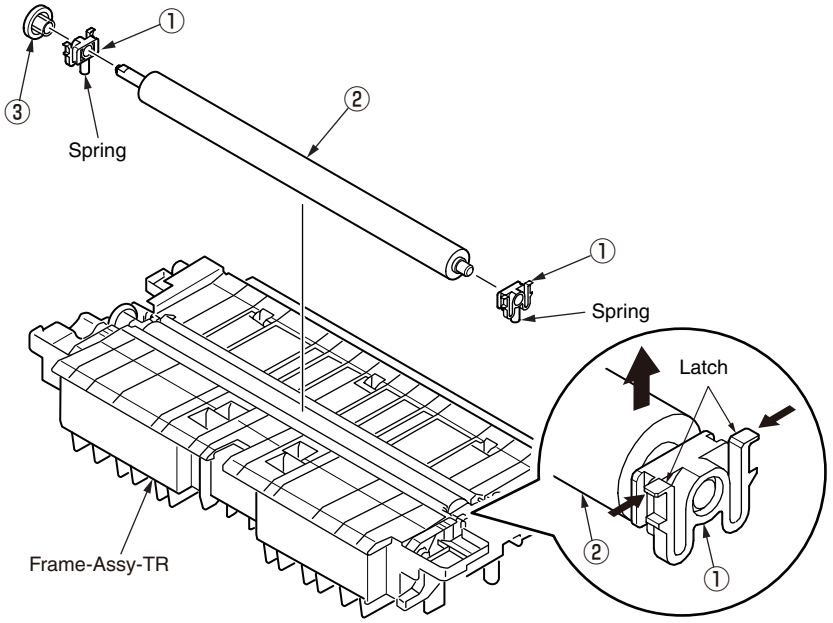
(4) Disengage the latches of Bearing-TR ① on both ends.

(5) Hold the Bearing-TR ① on the both side, and then lift up the Roller-Transfer ② .
(At this moment, Gear-TR ③ is also removed.)

(6) Installing is performed by the inverse procedure with removing.

Note! **(to assemble)**

1. While installing, pay attention to the up-and-down direction of Bearing-TR ① .
2. Operating carefully, not to touch Roller-Transfer ② surface.
3. Be careful not to fit each Bearing-TR ① to the Frame-Assy-TR with their springs inclined.
4. The each Bearing-TR and Spring are common. After assembled, strong the gear side pressure.



4.2.12 Duplex Belt Assy

(1) Take out the Frame-Assy-TR. (Refer to 4.2.11)

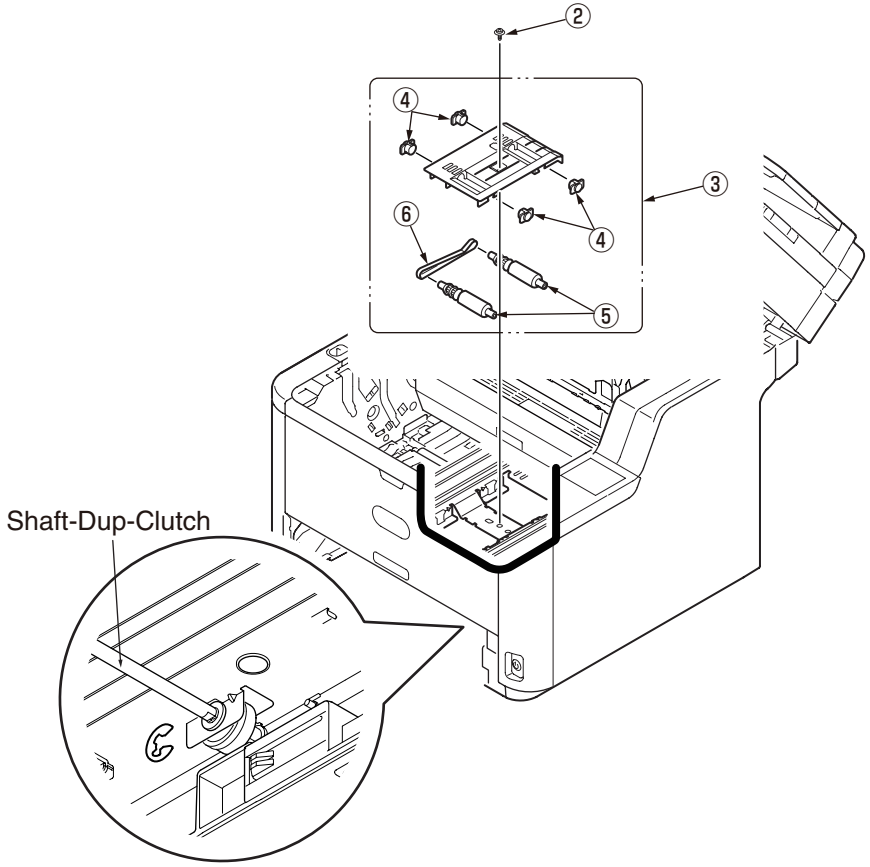
(2) Remove the cassette and place the printer unit with its right side down.

(3) Remove the E-ring (RE4-SK) ① and slide the Shaft-Dup-Clutch in the direction of the arrow.

(4) Raise the printer unit and remove the screw (Silver) ② and Frame-Duplex-Assy ③ .

(5) Remove the four pieces of Bearing ④ , Roller-Feed-Duplex ⑤ and Duplex-Belt ⑥ .

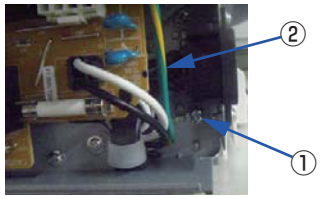
(6) Installing is performed by the inverse procedure with removing.



4.2.13 DC Motor

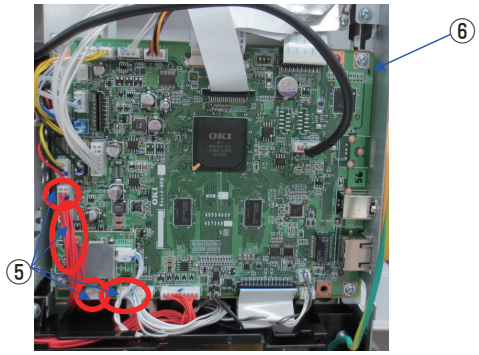
(1) Remove the Cover Side (R). (Refer to 4.2.2)

(2) Remove the screw (Silver) ① , and remove FG-Cable ② .



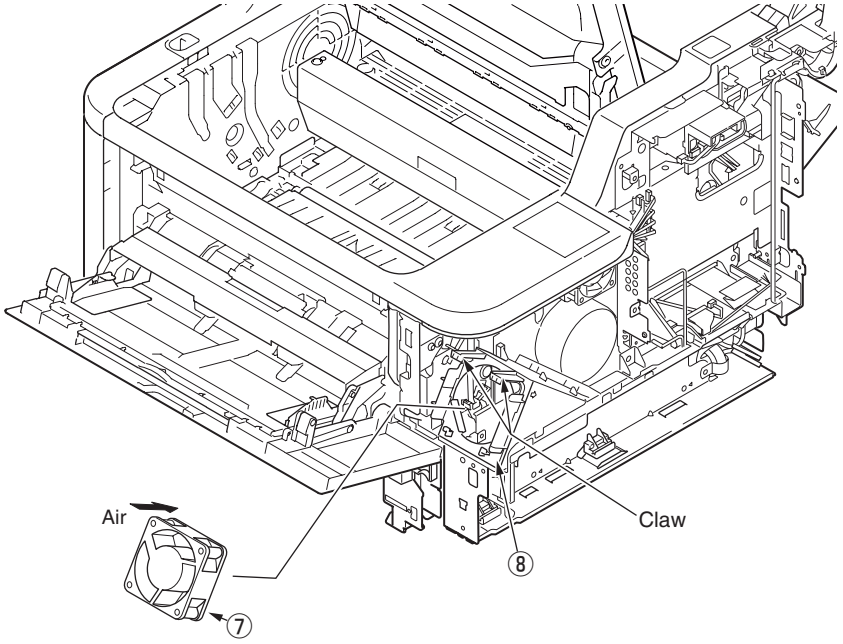
(3) Remove the PlateShield (CU) . (Refer to 4.2.3)

(4) Disconnect cables (4 point) ⑤ from the CU/PUBoard ⑥ .

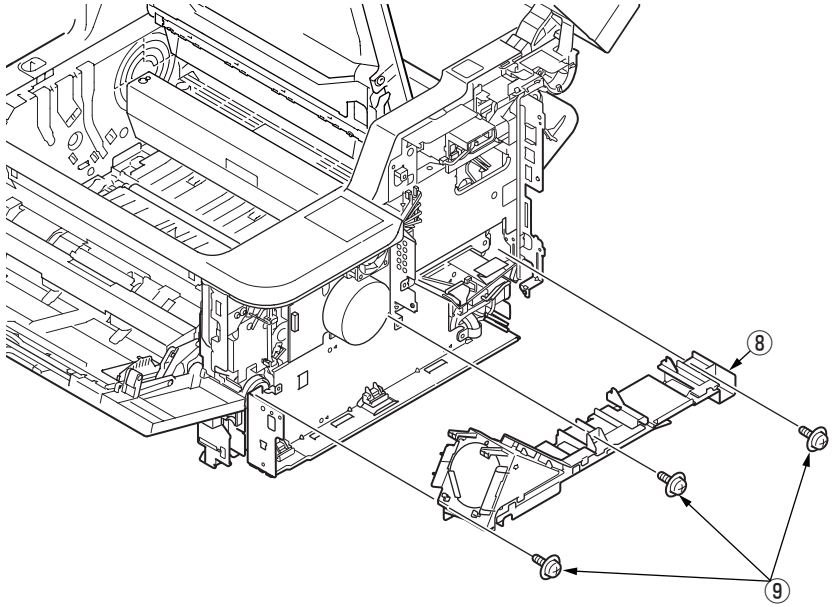


(5) Remove the PWR unit-ACDC Switch. (Refer to 4.2.4).

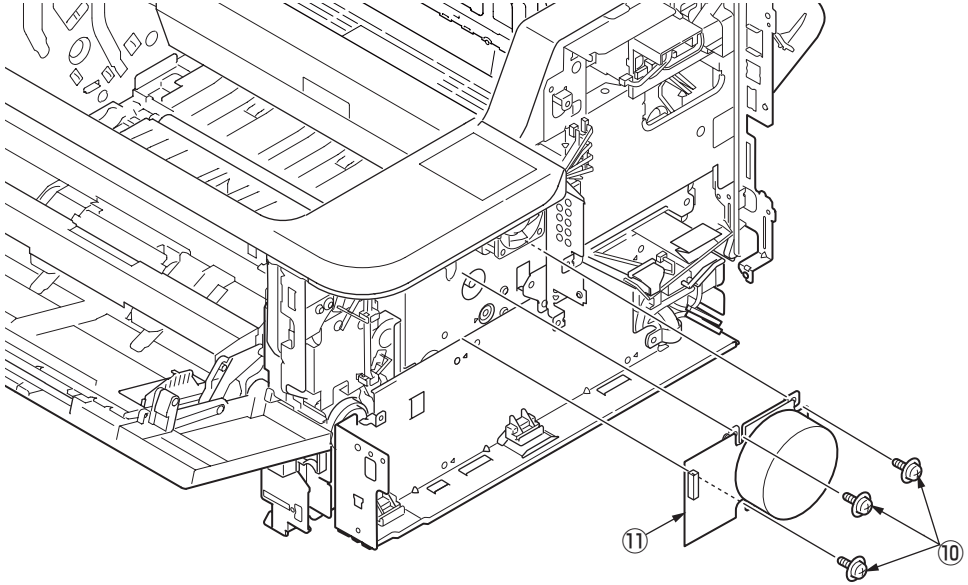
(6) Unlatch the claws (2points), and remove the Motor-FAN (60 x 25) ⑦ from the Duct Fan Power ⑧ .



(7) Remove three screws (Silver) ⑨ to detach Duct Fan Power ⑧ .



(8) Remove three screws(Silver) ⑩ to detach DC Motor ⑪ .



***Note!* (to assemble)**

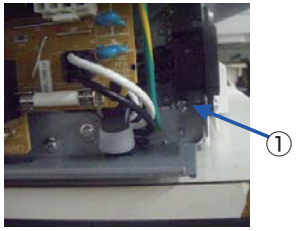
1. Note to assemble for the direction of the Motor-FAN's air flow.

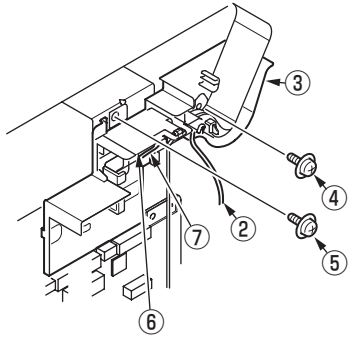
4.2.14 Hopping Clutch / MPT Clutch / Regist Clutch

(1) Remove the Board MSU. (Refer to 4.2.3).

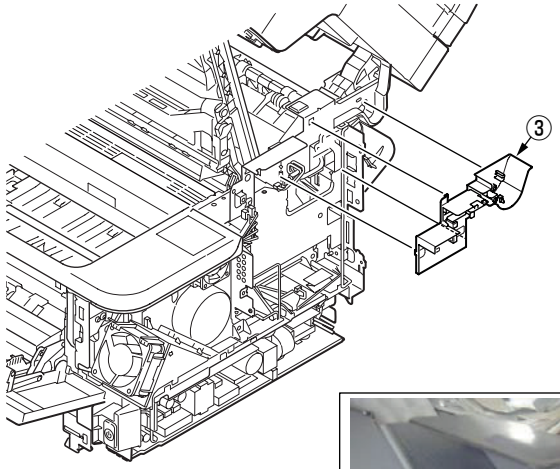
(2) Remove the screw (Silver) ① , and remove FG-Cable ② from the Guide Cable ③ .

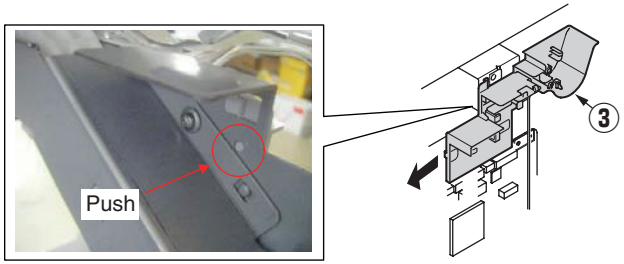
(3) Remove the screw (Black) ④ and the screw (Silver) ⑤ , and remove FG_ Film (FFC) ⑥ and Cable ⑦ from Guide Cable ③ .





(4) Unlatch the claws (4points), and remove the Guide Cable ③ .

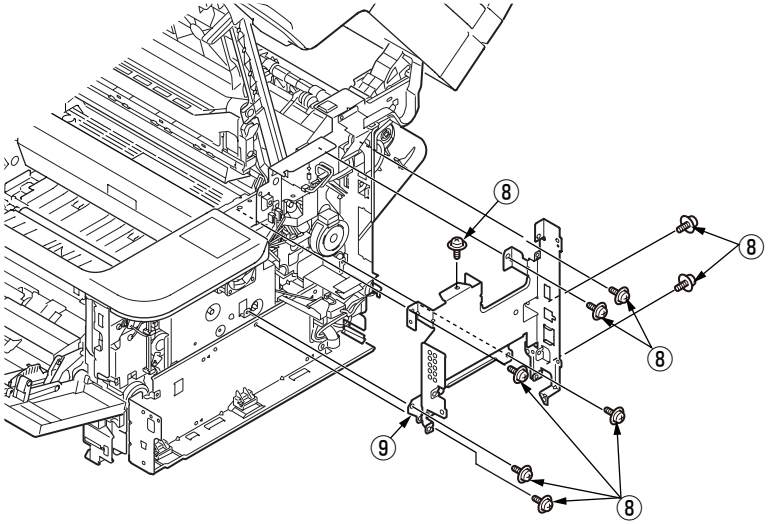


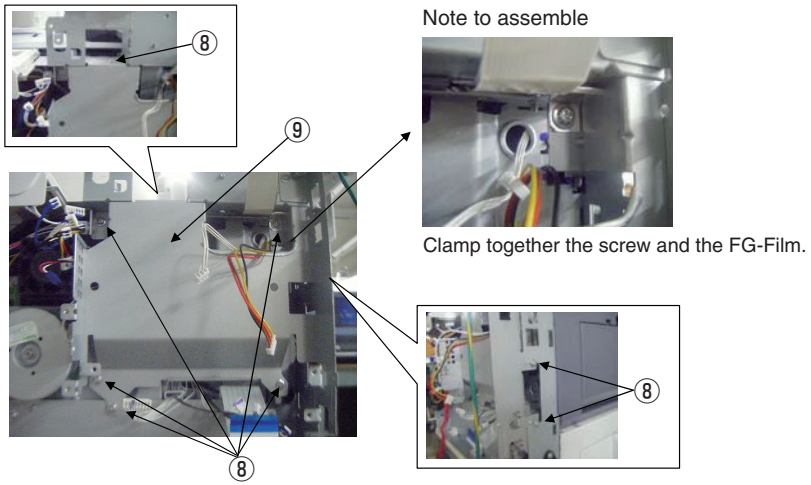


(5) Remove the PWR unit-ACDC Switch. (Refer to 4.2.4)

(6) Remove the DC Motor . (Rever to Refer to 4.2.13)

(7) Remove nine screws (silver) ⑧ to detach the Plate Bracket (CU) ⑨ .



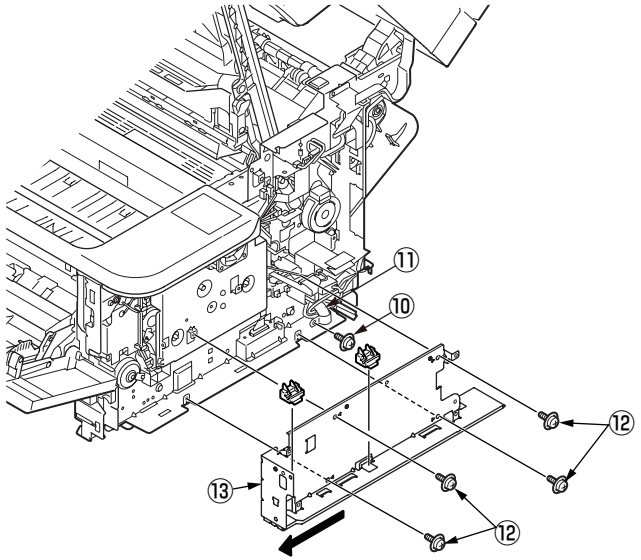


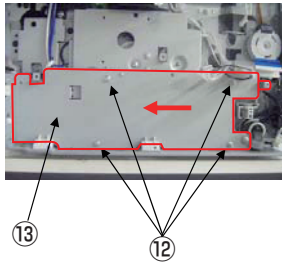
Note to assemble

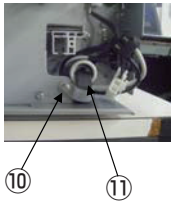
Clamp together the screw and the FG-Film.

(8) Remove the screw (silver, L=8mm) ⑩ to detach the Core ⑪ .

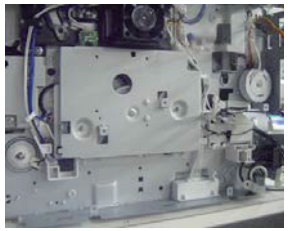
(9) Remove four screws (silver) ⑫ , and remove the Plate Base (PWU) ⑬ with to slide along to the arrow in figure.







(Reference)



The situation of the Mainbody without the Plate Base (PWU).

(10) Remove two screws (Black) ⑭ and the screw (Silver) ⑮ , remove the Plate-Clutch-MPT ⑯ .

(11) Remove the MPT Clutch ⑰ and the Gear-MPT ⑱ .

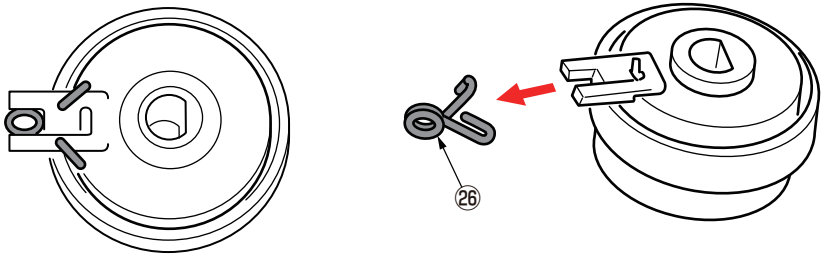
(12) Remove four screws (Silver) ⑲ , remove the Plate-Gear ⑳ .

(13) Remove the Gear-Reduction ㉑ .

(14) Remove the E-ring(RE3-SK) ㉒ , remove the Regist Clutch ㉓ .

(15) Remove the E-ring(RE3-SK) ㉔ , remove the Hopping Clutch ㉕ .

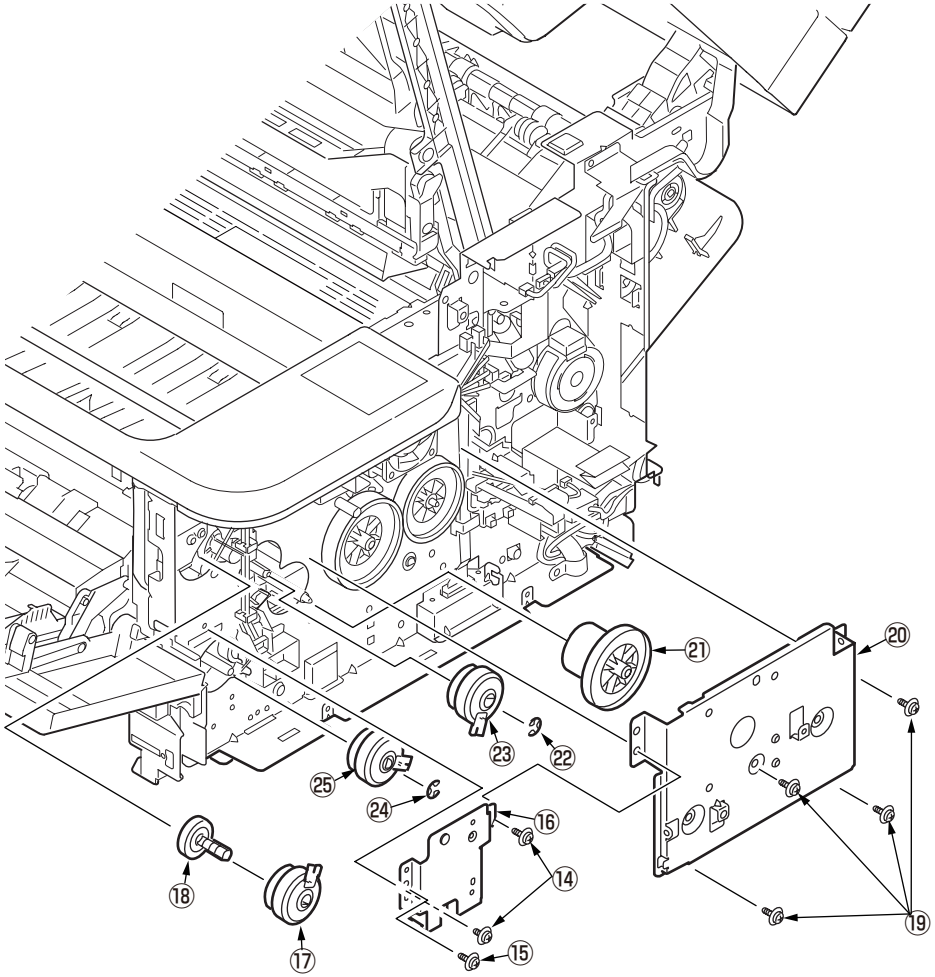
Remove the Spring ㉖ from the current Regist Clutch ㉓ or the current Hopping Clutch ㉕ . This Spring ㉖ can be used to the new Regist Clutch ㉓ or the new Hopping Clutch ㉕ .



(16) Installing is performed by the inverse procedure with removing.

Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).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4.2.15 HV-Board / Motor-FAN

(1) Remove the Cover Side (L). (Refer to 4.2.1)

(2) Remove the screw (Black) ① and four screws (Silver) ② , disengage the two tabs (a and b), and remove HV-Board ③ . Be careful not to lose Spring-Contact ④ that is removed with the board.

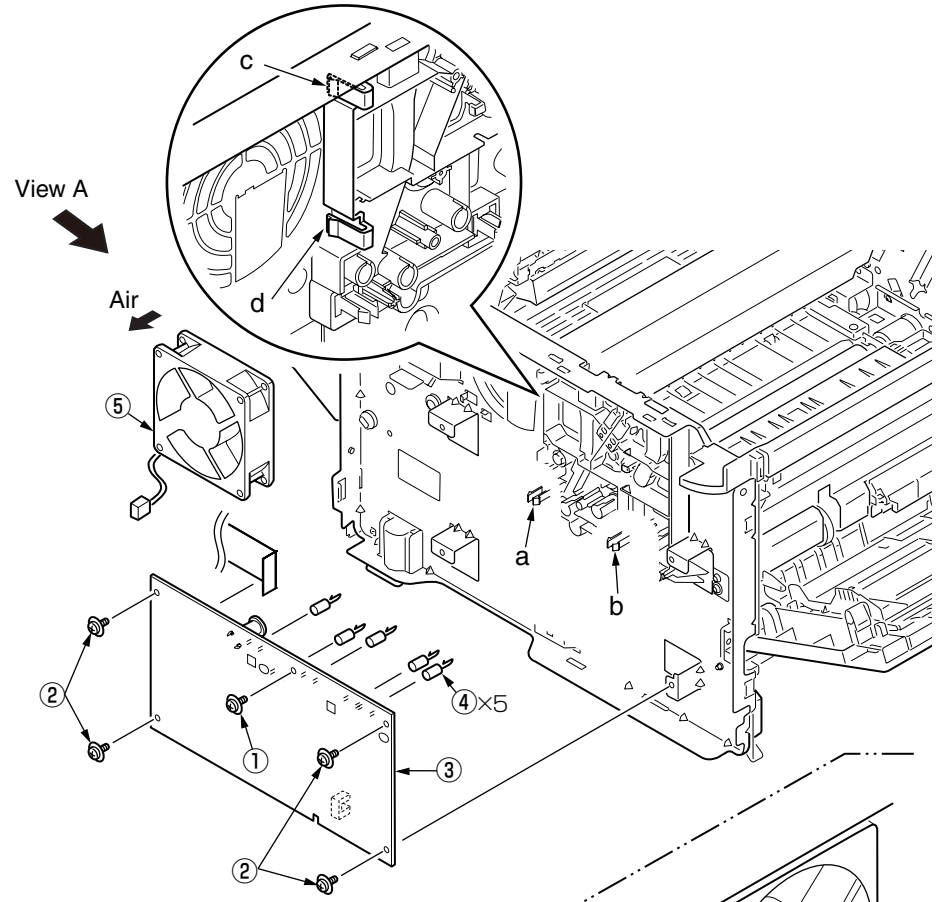
(3) Disconnect all of the three cables from HV-Board ③ .

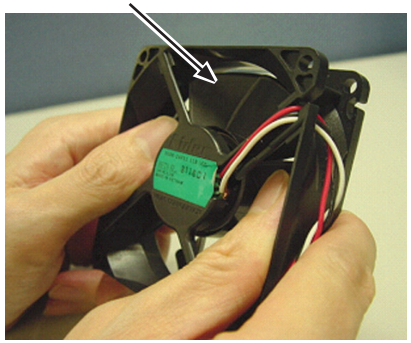
(4) Disengage the two tabs (c and d), and remove Motor-FAN (80×25) ⑤ .

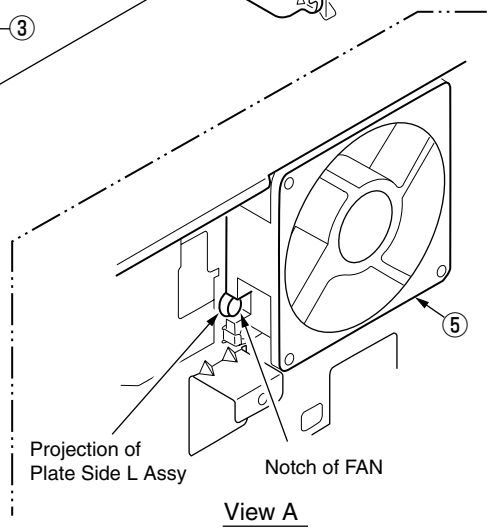
(5) Installing is performed by the inverse procedure with removing.

Note!

1. Install Motor-FAN (80×25) ⑤ with the label side outward and with its notch fitted to the appropriate projection of the Plate-Side-L.
2. See 7.2 (2) for the HV-Board ③ connector layout.
3. While removing or installing FAN, do not press impeller of the FAN as shown by the following photo. In case of the impeller unfastened by mistake, do not reuse it and install a new FAN.







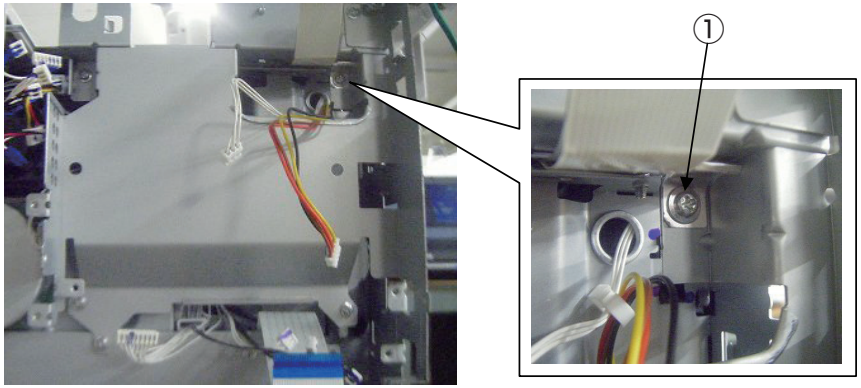
4.2.16 Cover Assy Stacker

(1) Remove the Scanner unit. (Refer to 4.2.8)

(2) Remove the Plate-Shield and CU/PU Board. (Refer to 4.2.3)

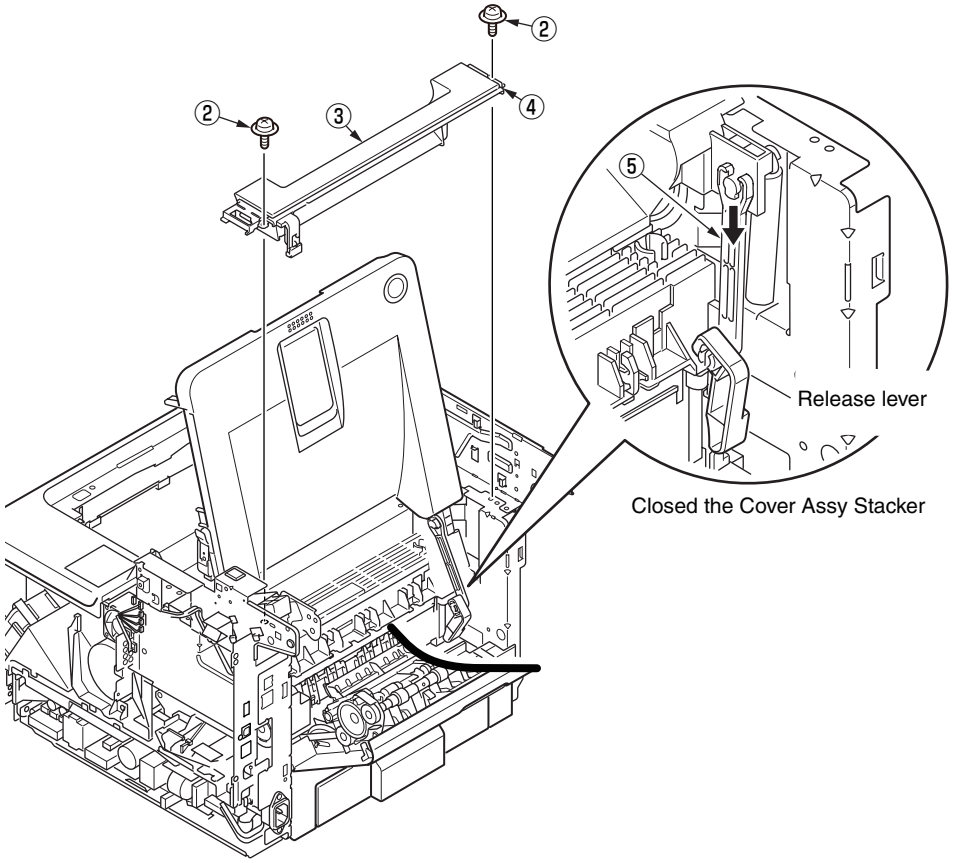
(3) Remove the Guide Cable . (Refer to 4.2.14)

(4) Remove the screw ① .



(5) Remove the two screws (Silver) ② . Remove the Cover-Eject ③ and Plate-Rear ④ .
(At this moment, Head cable is also removed.)

(6) With the Cover Assy Stacker closed, detach Lever-Link-Fuser ⑤ (on both sides) from the Cover Assy Stacker.

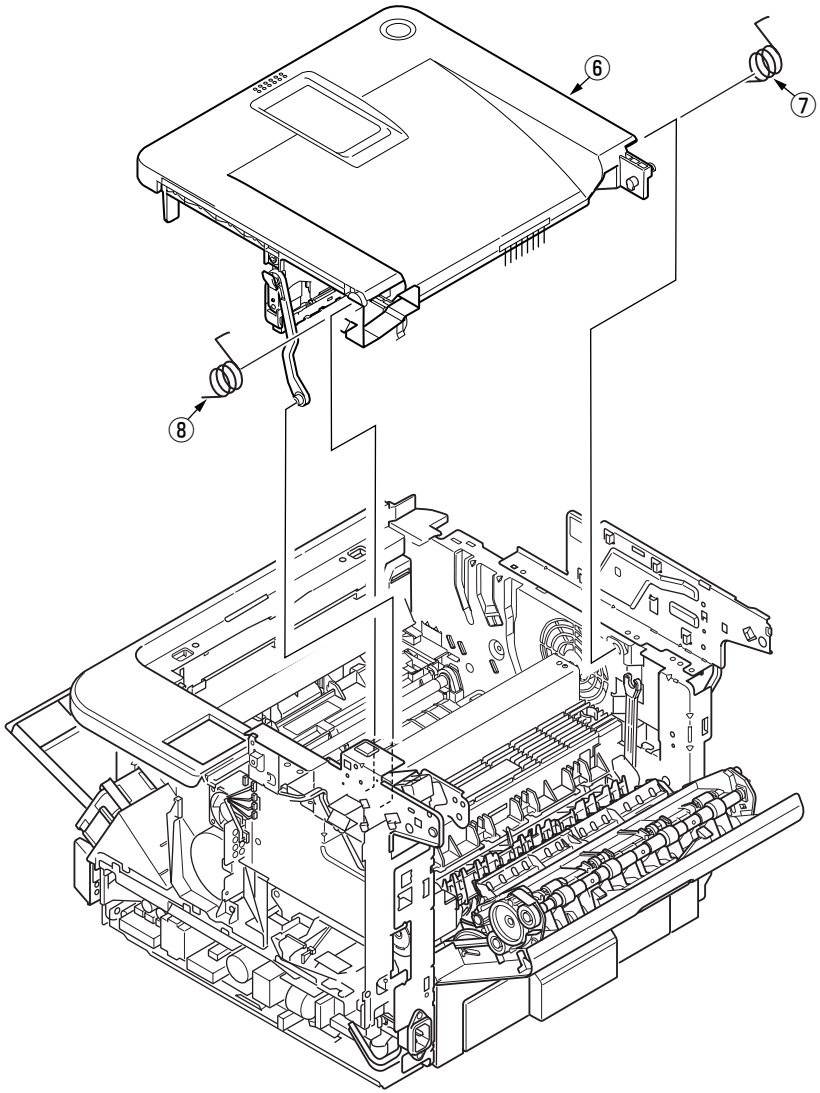


(7) Remove the Cover Assy Stacker ⑥ and two Spring-Torsion-ST ⑦ , ⑧ .

(8) Installing is performed by the reverse procedure with removing.

Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate moter).
2. Clamp together the screw and the FG-Film.



4.2.17 Stacker Cover

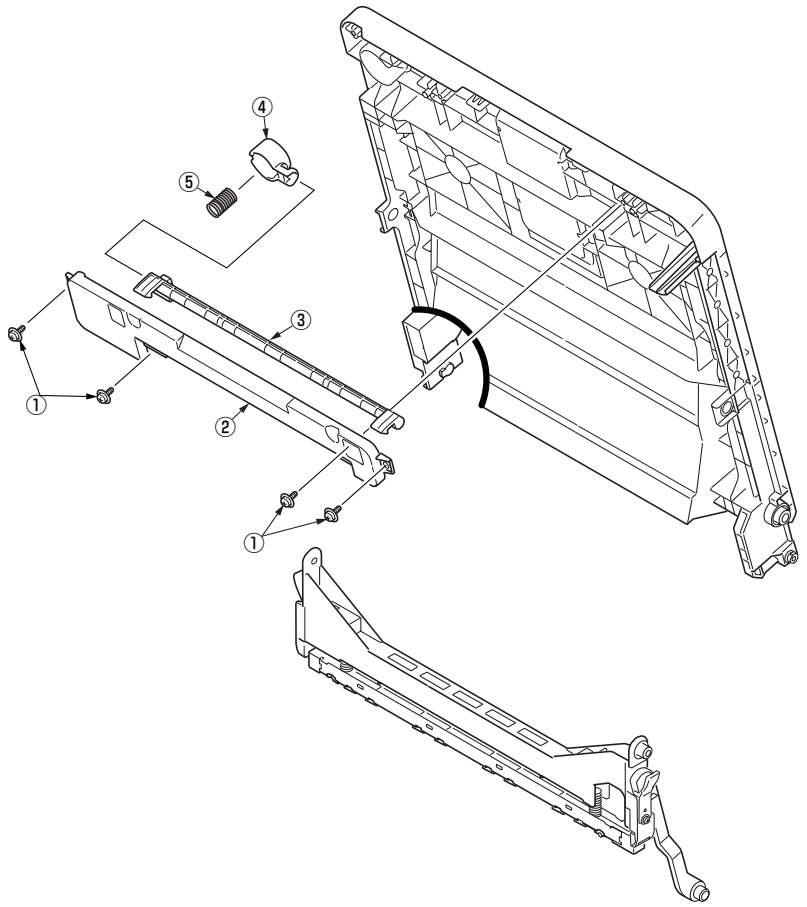
(1) Remove the Cover Assy Stacker. (Refer to 4.2.16)

(2) Remove the LED Head. (Refer to 4.2.10)

(3) Remove four screws (Black) ① , remove the Cover-Lever ② .

(4) Remove the Lever-Lock-Top ③ , Lever-Lock-Button ④ . Remove the Spring-Lever-Top ⑤ .

(5) Installing is performed by the reverse procedure with removing.



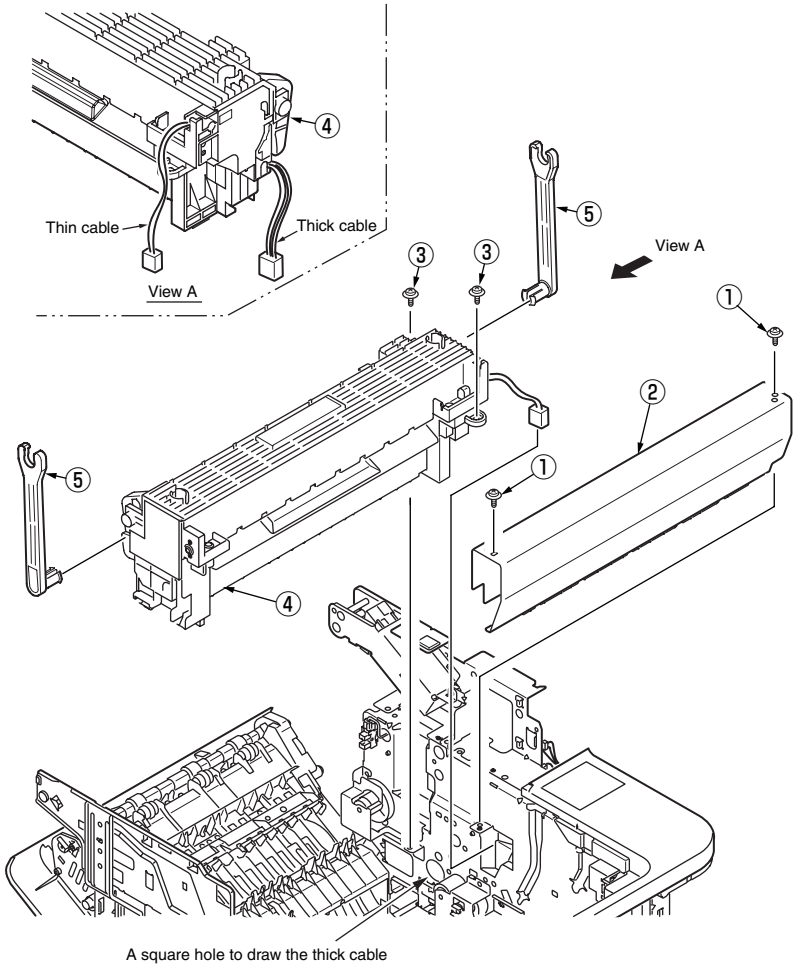
4.2.18 Fuser Assy

Note! Replace the Fuser-Assy by Assy unit.
It is forbidden for disassembling the Fuser-Assy, also, reusing the disassembled Fuser-Assy.

(1) Remove the Frame Assy TR. (Refer to 4.2.11)
(2) Remove the Scanner unit. (Refer to 4.2.8)
(3) Remove the Cover Assy Stacker. (Refer to 4.2.16)
(4) Remove the Guide Cable. (Refer to 4.2.14)
(5) Remove the PWR unit-ACDC Switch. (Refer to 4.2.4)
(6) Remove the Plate Bracket (CU). (Refer to 4.2.14)
(7) Remove the Plate Base (PWU). (Refer to 4.2.14)
(8) Remove two screws (Silver) ① . Remove the Plate-Duct-Assy ② .
(9) Remove the two screws (Silver) ③ and lift off Fuser-Assy ④ after disconnecting every cable from it.
(10) Remove the Lever-Link-Fuser ⑤ .(Both side)
(11) Assembling is performed by the inverse procedure with removing.

Note!

1. Fuser-Assy ④ may be really hot, beware of handling.
2. Beware of not to touch the DC motor inattentively (Do not rotate the motor).
3. Install the Fuser-Assy ④ and Plate-Duct-Assy ② carefully to avoid cables from being caught.
4. Beware of not to damage the FFC cable when disconnect the thick cable from Plate-Side-R-Assy.
5. Disconnect the FFC cable, when disconnect the thick cable. Beware of not to harflock the FFC cable when connect the FFC cable.

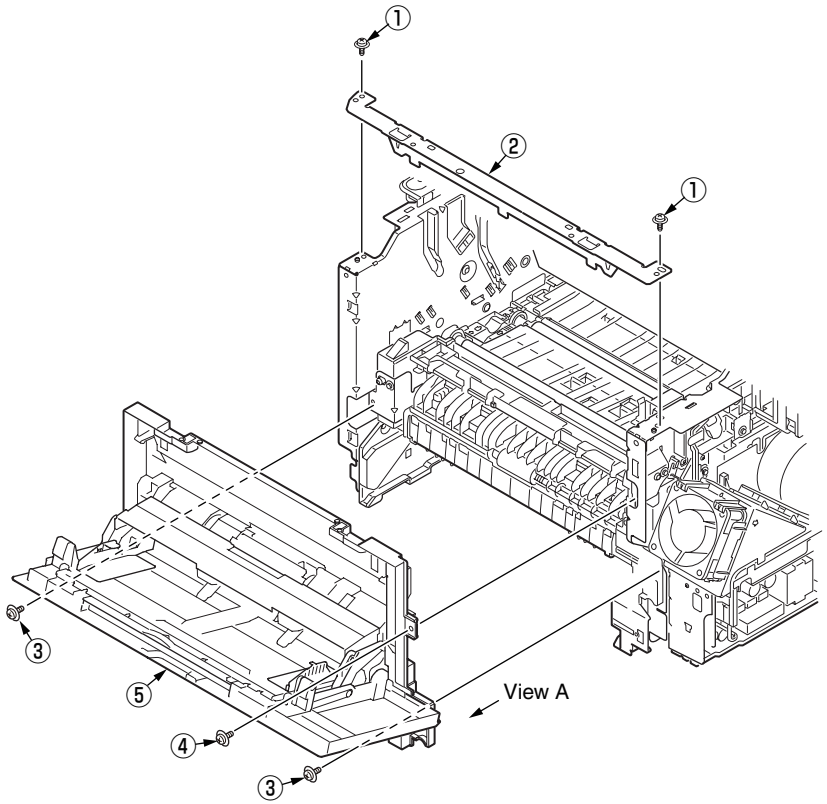


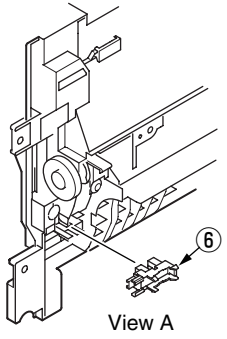
4.2.19 MPT Assy

(1) Remove the Cover Side (L) and Cover Side(R). (Refer to 4.2.1 / 4.2.2)
(2) Remove the Cover Front (Top). (Refer to 4.2.6)
(3) Remove the SW Assy. (Refer to 4.2.7)
(4) Remove two screws (Silver) ① . Remove the Plate-Front ② .
(5) Remove two screws (Silver) ③ . Remove the screw (Black) ④ .
(6) Remove MPT Assy ⑤ .
(7) Remove the Photo Interrupter ⑥ .
(8) Installing is performed by the inverse procedure with removing.

Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).





4.2.20 Cover Assy Rear

(1) Remove the CU/PU Board. (Refer to 4.2.3)

(2) Remove the Guide Cable. (Refer to 4.2.14)

(3) Remove the PWR unit-ACDC Switch. (Refer to 4.2.4)

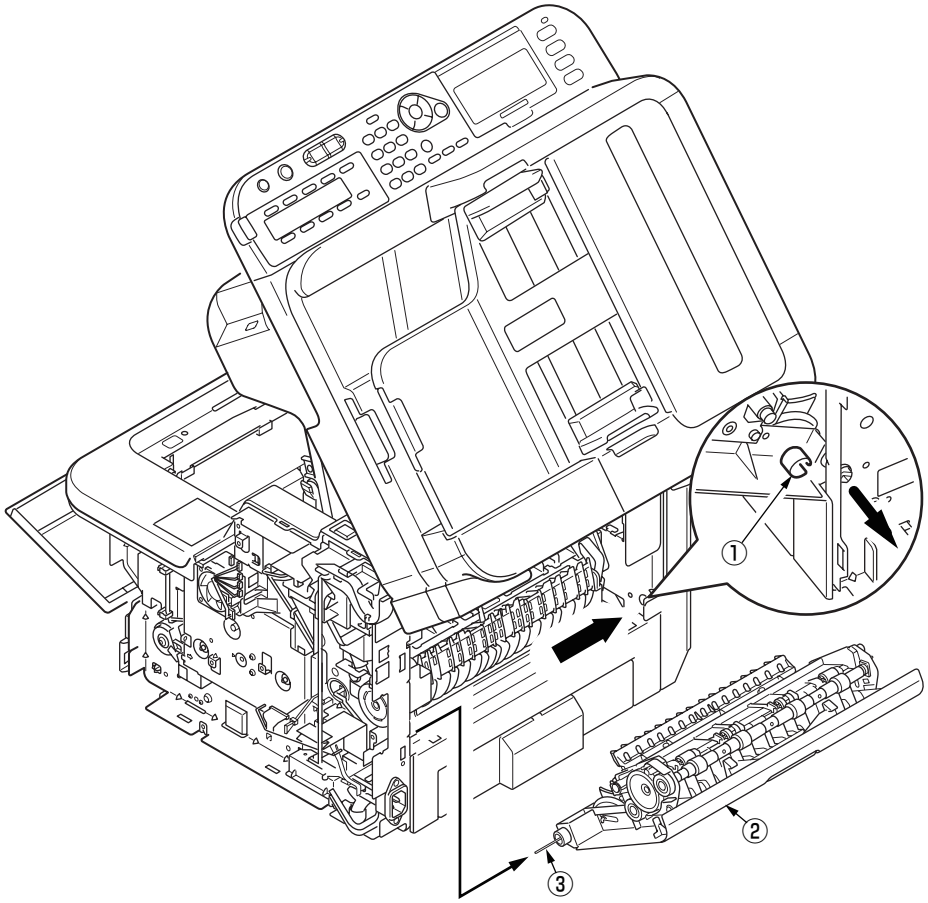
(4) Remove the Duct Fan Power. (Refer to 4.2.13)

(5) Remove the Plate Bracket (CU). (Refer to 4.2.14)

(6) Remove the Plate Base (PWU). (Refer to 4.2.14)

(7) Remove the Spacer ① .

(8) Slide Cover Assy Rear ② and pull it out of the hole on the right of the printer.
(Remove Cover Assy Rear ② carefully to avoid Cable-Sensor-FU ③ from being caught.)



(9) Remove two screws (Black) ④ and separate Cover-Rear ⑤ and Guide-Eject-Upper-Assy ⑥ .

(10) Remove the Gear-Idle ⑦ .

(11) Remove the Gear-Exit ⑧ (2 places), remove the Bearing-Eject_R ⑨ (2 places). Remove the Bearing-Feeder ⑩ .

(12) Remove the Shaft-Assy-Eject ⑪ (2 places).

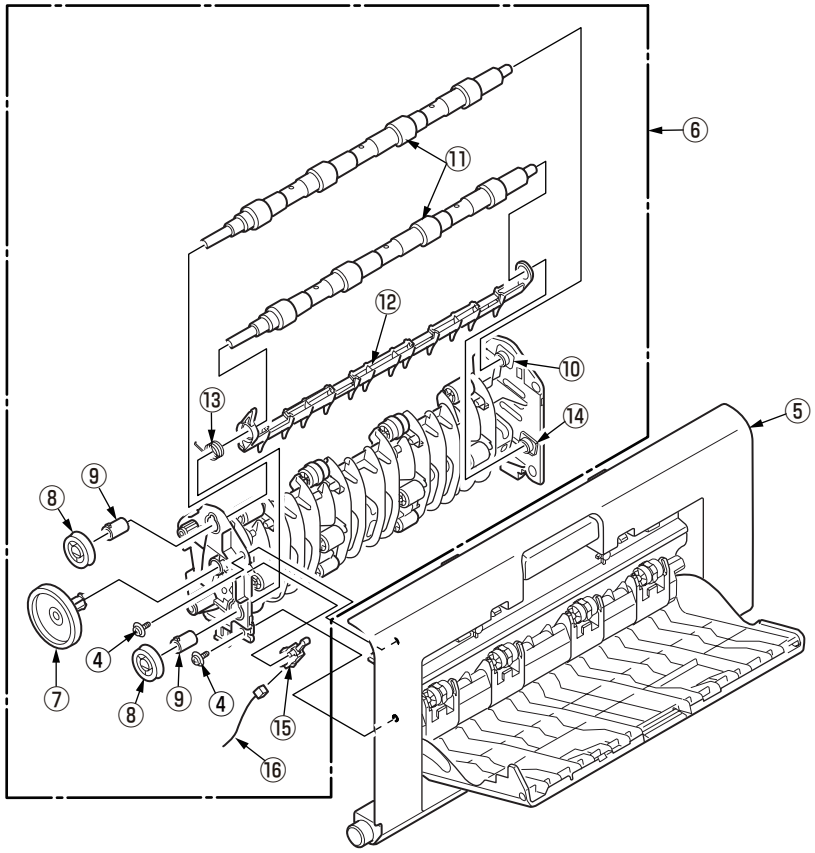
(13) Remove the Separator-FU ⑫ . Remove the Spring-Separator_FU ⑬ and Bearing-Feeder ⑭ .

(14) Remove the Stacker-Sensor ⑮ . Remove the Cable-Sensor-FU ⑯ .

(15) Installing is performed by the inverse procedure with removing.

***Note!* (to assemble)**

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).



4.2.21 Guide Eject Lower Assy

(1) Remove the Scanner unit. (Refer to 4.2.8)

(2) Remove the Cover Assy Rear. (Refer to 4.2.20)

(3) Remove the Cover-Eject. (Refer to 4.2.16)

(4) Remove two screws (Silver : 8mm) ① . Remove the Cover-Cassette-Rear Assy ② and Guide-Eject-Lower-Assy ③ .

(5) Remove the post ④ . Remove the Separator-SB-FD ⑤ and Spring-Separator_SB ⑥ .

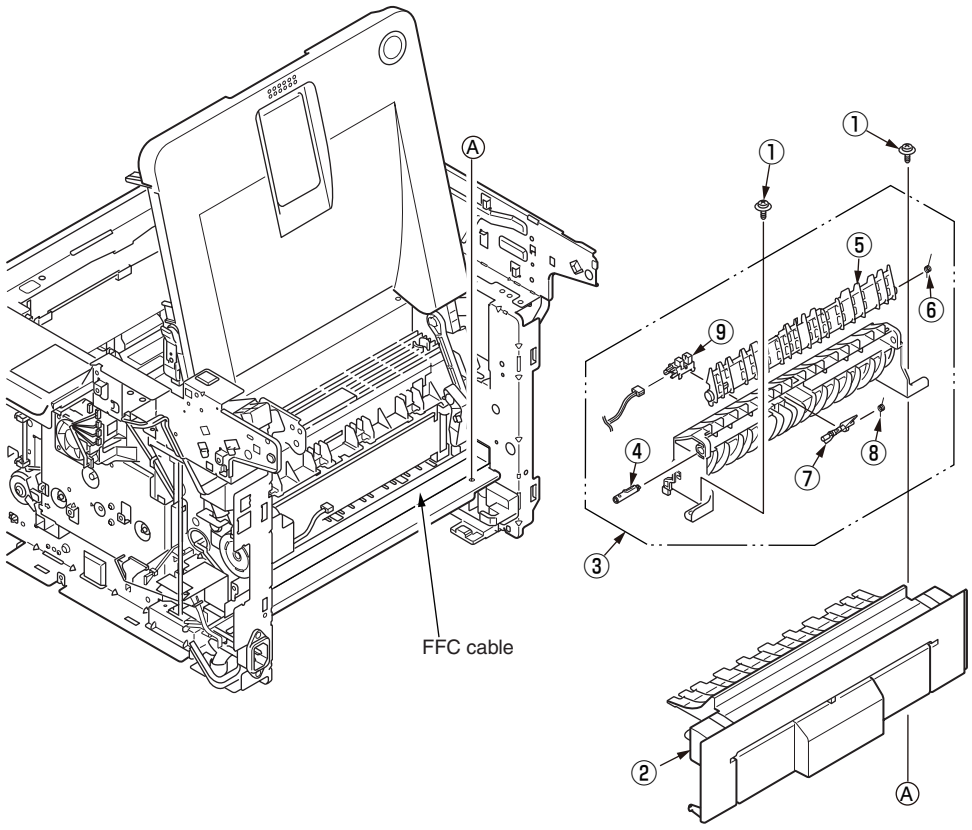
(6) Remove the Lever-Exit-Sensor ⑦ and Spring-Sensor-Exit ⑧ .

(7) Remove the Exit-Sensor ⑨ .

(8) Installing is performed by the inverse procedure with removing.

Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).
2. Install Cover-Cassette-Rear Assy ② carefully to avoid the FFC cable from being caught.



4.2.22 Eject Motor

(1) Remove the Scanner unit. (Refer to 4.2.8)

(2) Remove the Cover Assy Stacker. (Refer to 4.2.16)

(3) Remove the Cover Assy Rear. (Refer to 4.2.20)

(4) Remove the Guide-Eject-Lower-Assy. (Refer to 4.2.21)

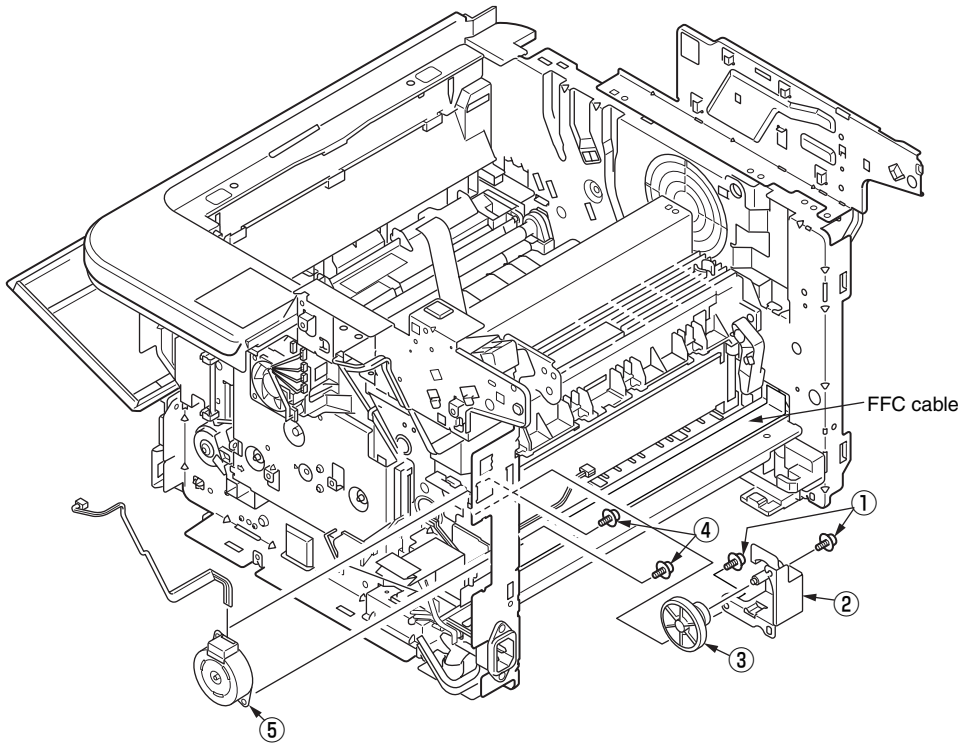
(5) Remove two screws (Silver) ① . Remove the Plate-Gear-Exit ② and Gear ③ .

(6) Remove two screws (Silver) ④ . Remove the Eject-Motor ⑤ .

(7) Installing is performed by the inverse procedure with removing.

Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).



4.2.23 Plate Side R Assy / Plate Side L Assy / Front Assy

(1) Remove the Scanner unit. (Refer to 4.2.8)

(2) Remove the Plate Stay L and Plate Assy Stay R. (Refer to 4.2.9)

(3) Remove the CU/PU Board. (Refer to 4.2.3)

(4) Remove the Power Supply Unit. (Refer to 4.2.4)

(5) Remove the DC Motor. (Refer to 4.2.13)

(6) Remove the Hoppng / MPT / Regist Clutch. (Refer to 4.2.14)

(7) Remove the HV-Board / Motor-FAN. (Refer to 4.2.15)

(8) Remove the Cover Assy Stacker. (Refer to 4.2.16)

(9) Remove the Fuser Assy. (Refer to 4.2.18)

(10) Remove the MPT Assy. (Refer to 4.2.19)

(11) Remove the Cover Assy Rear. (Refer to 4.2.20)

(12) Remove the Guide Eject Lower Assy. (Refer to 4.2.21)

(13) Remove the screw (Black) ① and the two screws (Silver) ② and separate the Plate Side L Assy ③ .

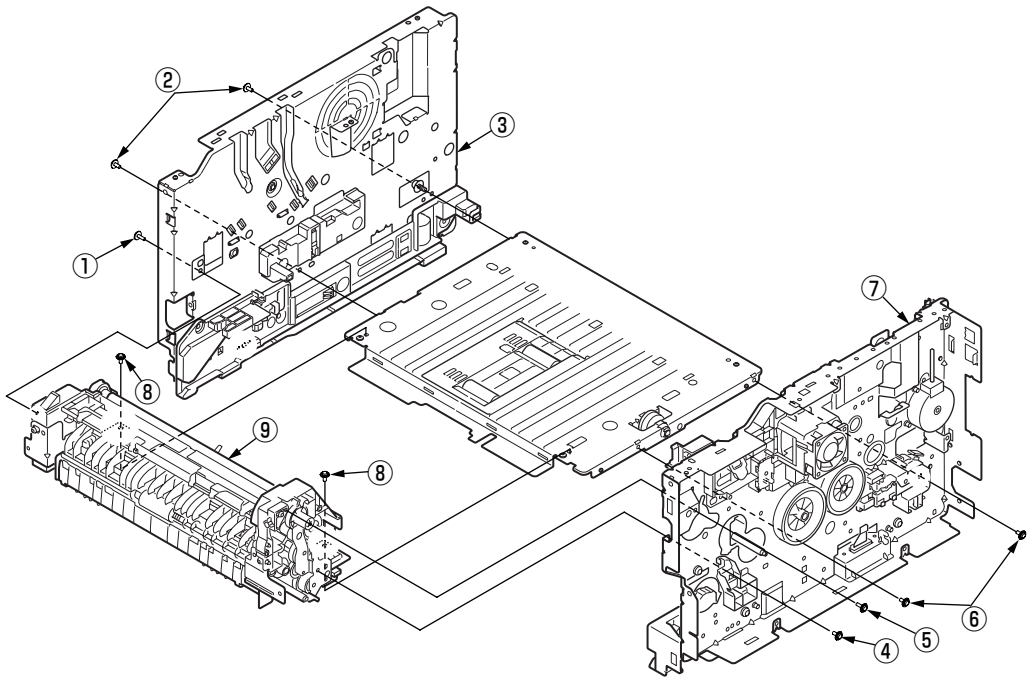
(14) Remove the screw (Silver) ④ , screw (Black) ⑤ and the two screws (Silver) ⑥ and separate the Plate Side R ⑦ Assy.

(15) Remove two screws (Silver) ⑧ . Remove the Front Assy ⑨ .

(16) Installing is performed by the inverse procedure with removing.

Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).



4.2.24 Plate Side L Assy

(1) Separate the Plate Side L Assy. (Refer to 4.2.23)

(2) Remove four screws (Silver) ① . Remove the Guide-Cassette-L ② and Spring-Lock-Cassette ③ .

(3) Remove Lever-Sensor Cassette ④ and Spring-Sensor ⑤ from the Guide-Cassette-L ② .

(4) Remove two screws (Silver) ⑥ . Remove the Frame-inner-L ⑦ .

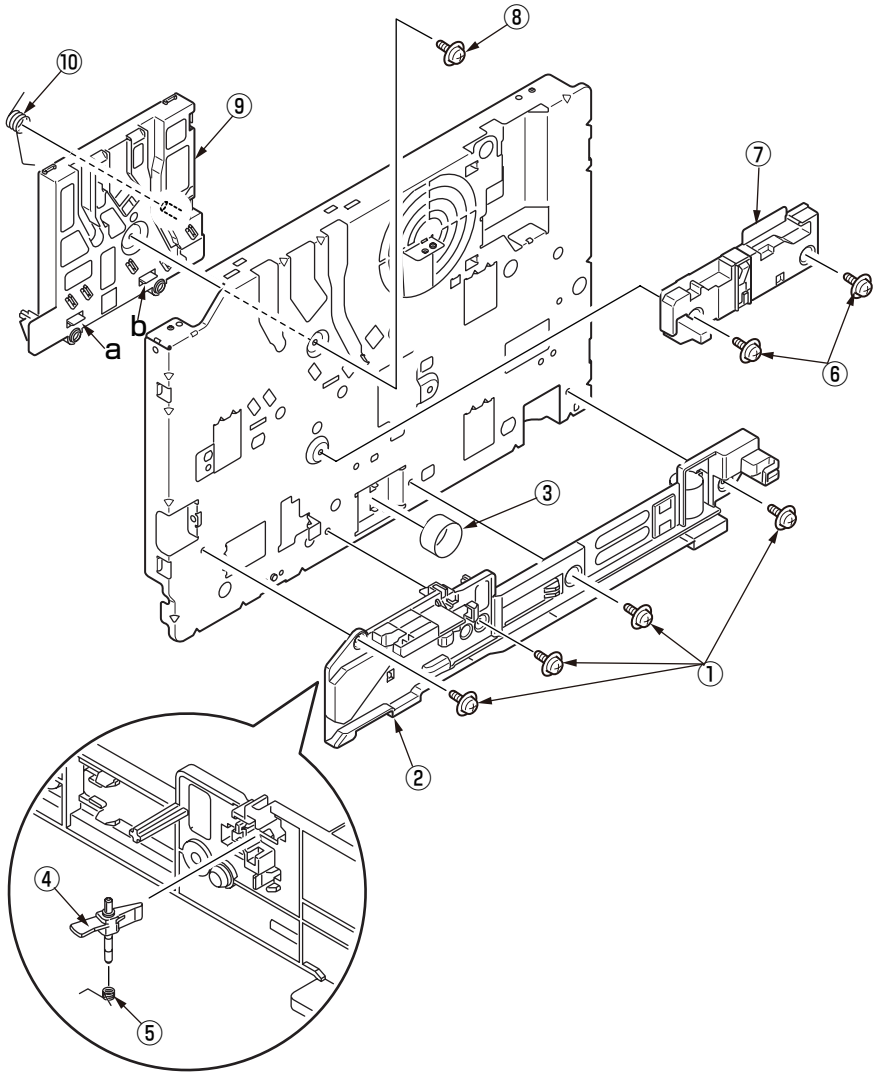
(5) Remove the screw (Black) ⑧ , disengage the two tabs (a and b), and remove Guide-ID-L ⑨ .

(6) Remove the Spring-ID-Lock-L ⑩ .

(7) Installing is performed by the inverse procedure with removing.

Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).



4.2.25 Plate Side R Assy

(1) Separate the Plate Side R Assy. (Refer to 4.2.23)

(2) Remove two screws (Silver) ① . Remove the Guide-Cassette-R ② .

(3) Remove two screws (Black) ③ . Remove the Connector ④ .

(4) Remove four screws (Silver) ⑤ . Remove the Plate-ID-Gear ⑥ , Gear-Idle-Z21 ⑦ , Gear-Idle-Z30-33 ⑧ .

(5) Remove the screw (Silver) ⑨ . Remove the Holder-Switch ⑩ and Micro switch ⑪ .

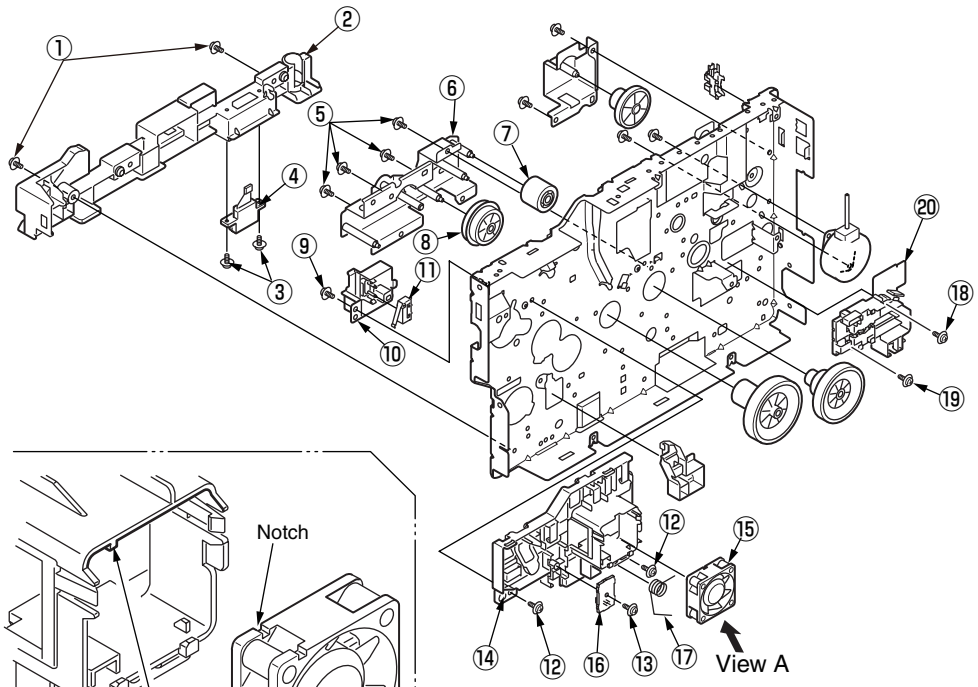
(6) Remove two screws (Silver) ⑫ , the screw (Black) ⑬ . Remove the Guide-ID-R ⑭ and Motor-Fan (40×15) ⑮ , Board-974 ⑯ , Spring-ID Lock R ⑰ .

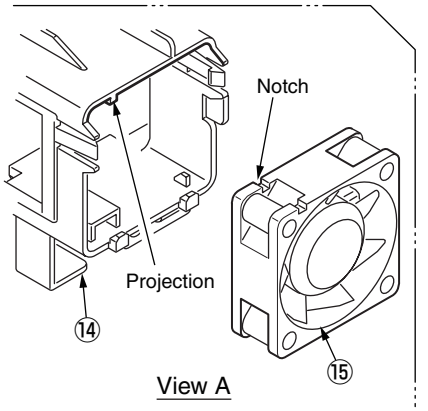
(7) Remove the screw(Silver) ⑱ and screw(M4) ⑲ .Remove the Guide-Cable ⑳ .

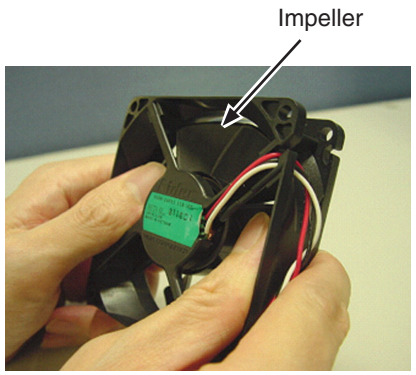
(8) Installing is performed by the inverse procedure with removing.

Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).
2. Install Motor-FAN (40×15) ⑮ with the label side inward and with its notch fitted to the appropriate projection of Guide-ID-R ⑭ .
3. While removing or installing FAN, do not press impeller of the FAN as shown by the following photo. In case of the impeller unfastened by mistake, do not reuse it and install a new FAN.







4.2.26 Roller Regist

(1) Separate the Front Assy. (Refer to 4.2.23)

(2) Remove two screws (Black) ① and Plate-Feed-B ② .
(Be careful not to lose the gear that is removed with the plate.)

(3) Remove the Gear-Idle-MPT ③ . Remove the Gear-Reduction-MPT ④ .

(4) Remove the E-ring (RE5-SK) ⑤ . Remove the Regist-Gear ⑥ .

(5) Remove the Gear-Pressure ⑦ .

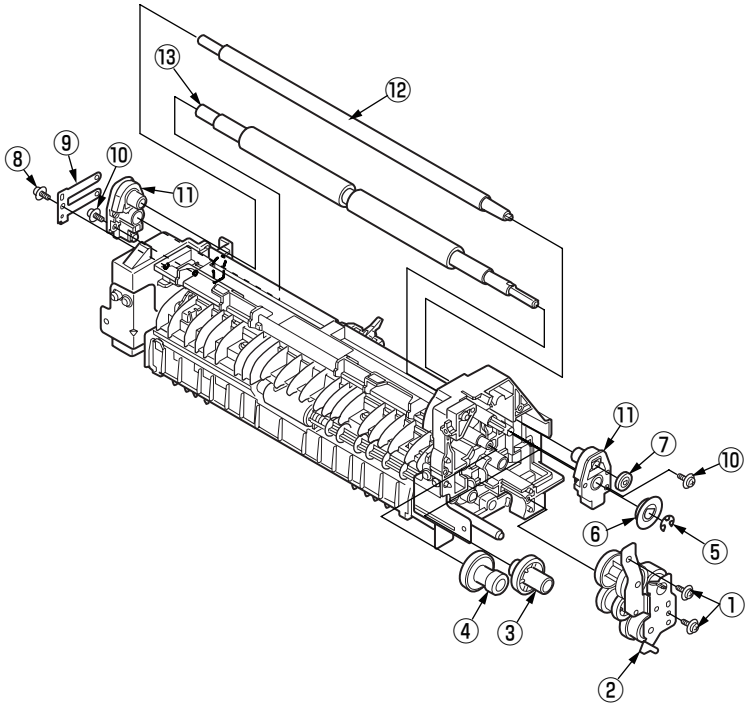
(6) Remove the screw (Black) ⑧ . Remove the Plate-Contact-REG ⑨ .

(7) Remove the two screws (Black) ⑩ . Remove the Holder-Regist-L/R ⑪ .

(8) Remove the Roller-Pressure ⑫ . Remove the Roller-Regist ⑬ .

(9) Installing is performed by the inverse procedure with removing.

Note! Beware of not to touch the DC motor inattentively (Do not rotate motor).



4.2.27 Roller Feed Assy

(1) Separate the Front Assy. (Refer to 4.2.23)

(2) Remove two screws (Black) ① and Plate-Feed-B ② .
(Be careful not to lose the gear that is removed with the plate.)

(3) Remove two screws (Black) ③ . Separate the Regist Assy.

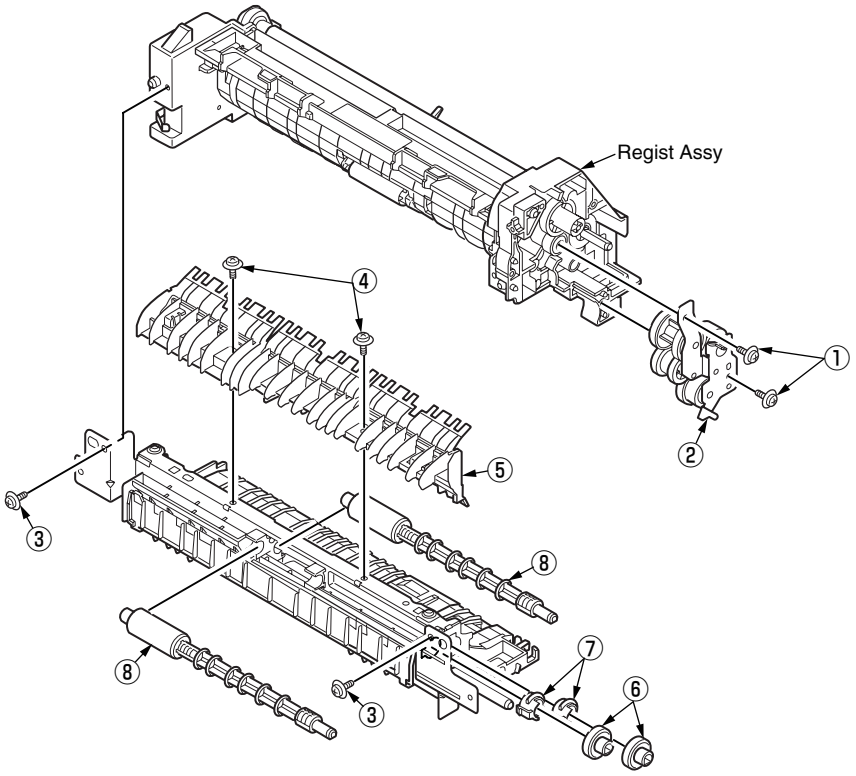
(4) Remove two screws (Silver) ④ . Remove the Frame-Hopping-Upper ⑤ (Four claws)..

(5) Remove two Gear-Roller-Feed ⑥ . Remove two Bush-Feed ⑦ .

(6) Remove two Roller-Feed-Assy ⑧ .

(7) Installing is performed by the inverse procedure with removing.

Note! Beware of not to touch the DC motor inattentively (Do not rotate motor).



4.2.28 Lever In Sensor / Lever WR Sensor / Photo Interrupter

(1) Separate the Front Assy. (Refer to 4.2.23)

(2) Separate the Roller-Pressure and Roller Regist. (Refer to 4.2.26)

(3) Remove two screws (Black) ① . Remove the Holder-Sensor ② .

(4) Remove the Lever-In-Sensor ③ . Remove the Spring-Sensor ④ .

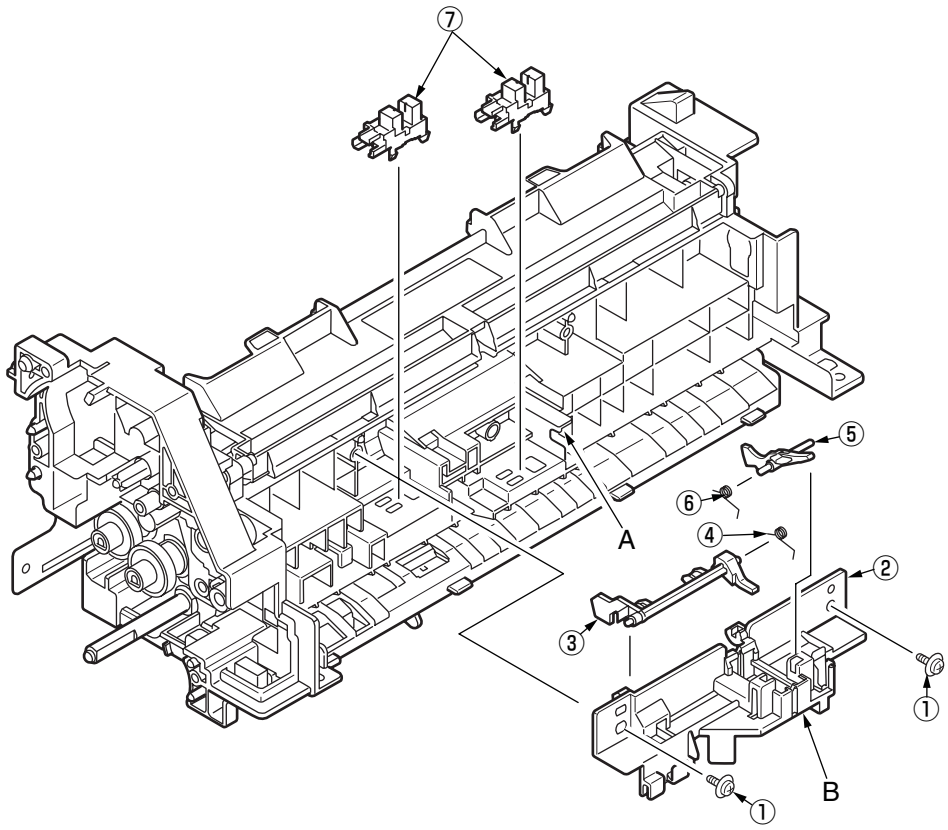
(5) Remove the Lever-WR-Sensor ⑤ . Remove the Spring-Sensor ⑥ .

(6) Remove two Photo Interrupter ⑦ .

(7) Installing is performed by the inverse procedure with removing.

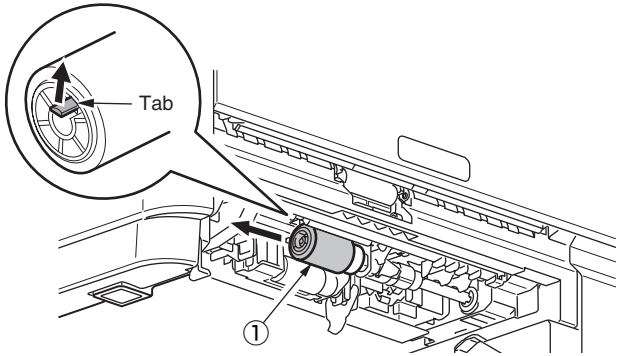
Note!

1. Beware of not to touch the DC motor inattentively (Do not rotate motor).
2. Make sure that the latch B of Holder-Sensor ② has engaged the latch A of the Front.

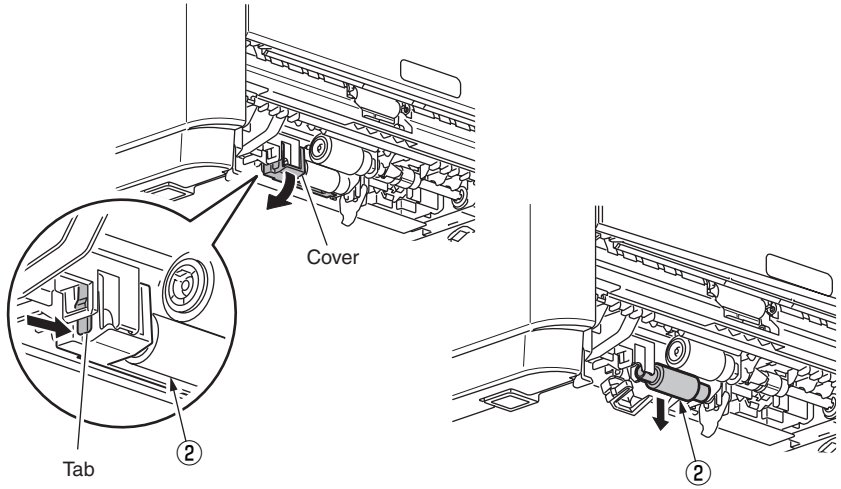


4.2.29 Paper feeding roller(Roller-Pick-Up, Roller-Feed-NOW)

- In the case of Tray 1
  (1) Turn off the printer and pull out the paper cassette tray.
  (2) Remove the feed roller ① as pushing its tab outward.



  (3) As pushing the tab downward, open the cover (black) that is on the left of the feed roller ② .
  (4) Pull out the feed roller ② downward.
  (5) Installing is performed by the inverse procedure with removing.



Note!

1. To install the feed roller (with no gear: Roller-Feed-NOW) ① , keep pushing it until it clicks into place and is fixed to the shaft.
2. To install the feed roller (with a gear: Roller-Pick-Up) ② , keep pushing the cover until the tab of the cover clicks into place.

4.2.30 Paper feeding roller (Roller-Assy-MPT)

(1) Turn off the printer.

(2) Open the multipurpose tray.

(3) Open the Lever-Link ① and feed roller cover ② .

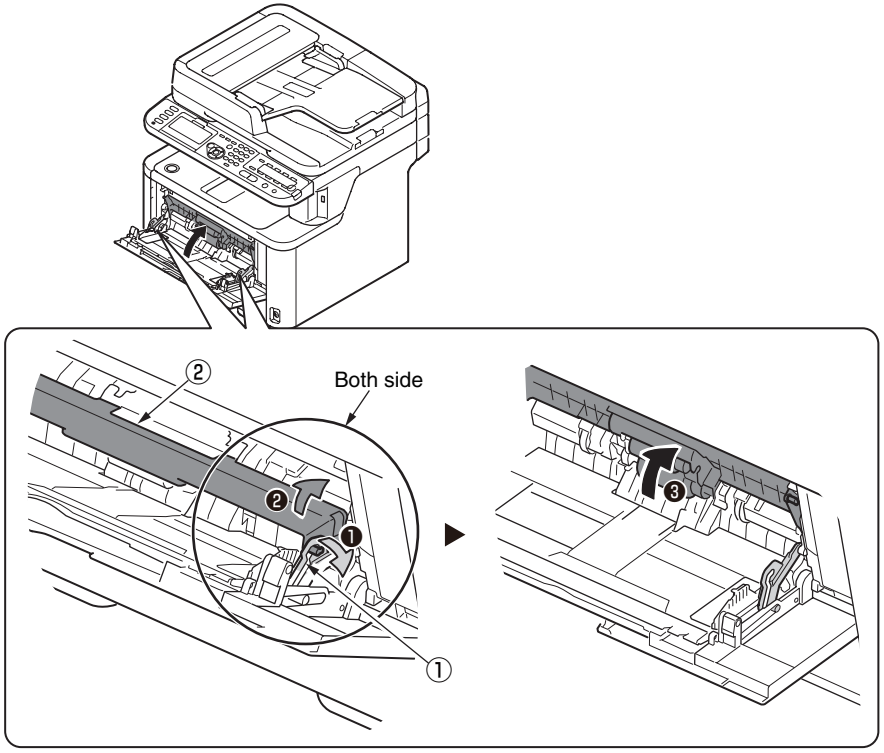
(4) Remove the feed sub roller ③ by rotating it toward you.

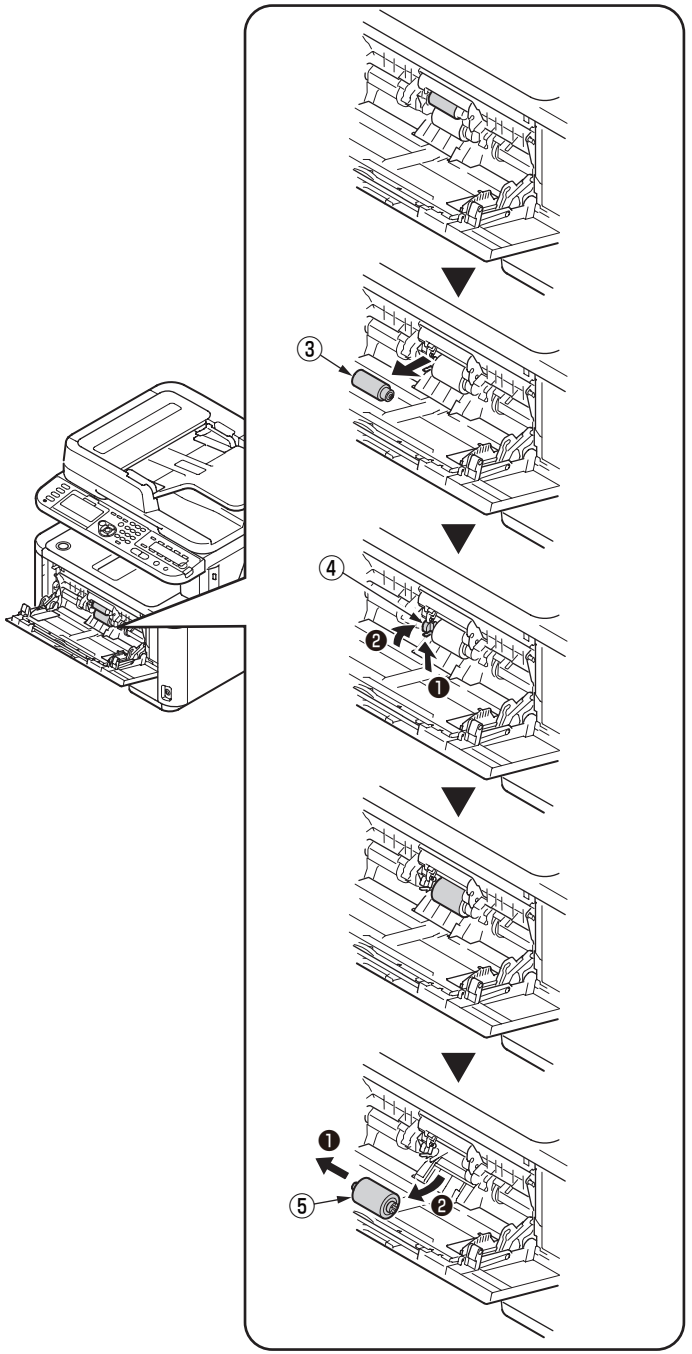
(5) Open the feed roller cover ④ by pushing its tab to the upwards ❶ and rotate ❷

(6) Remove the MPT roller ⑤ by rotating it toward you.

Note!

1. To install the feed roller (Roller-Assy-MPT) ⑤ , keep pushing the cover until the tab of the cover ④ clicks into place.
2. Check the feed roller cover ④ locked.





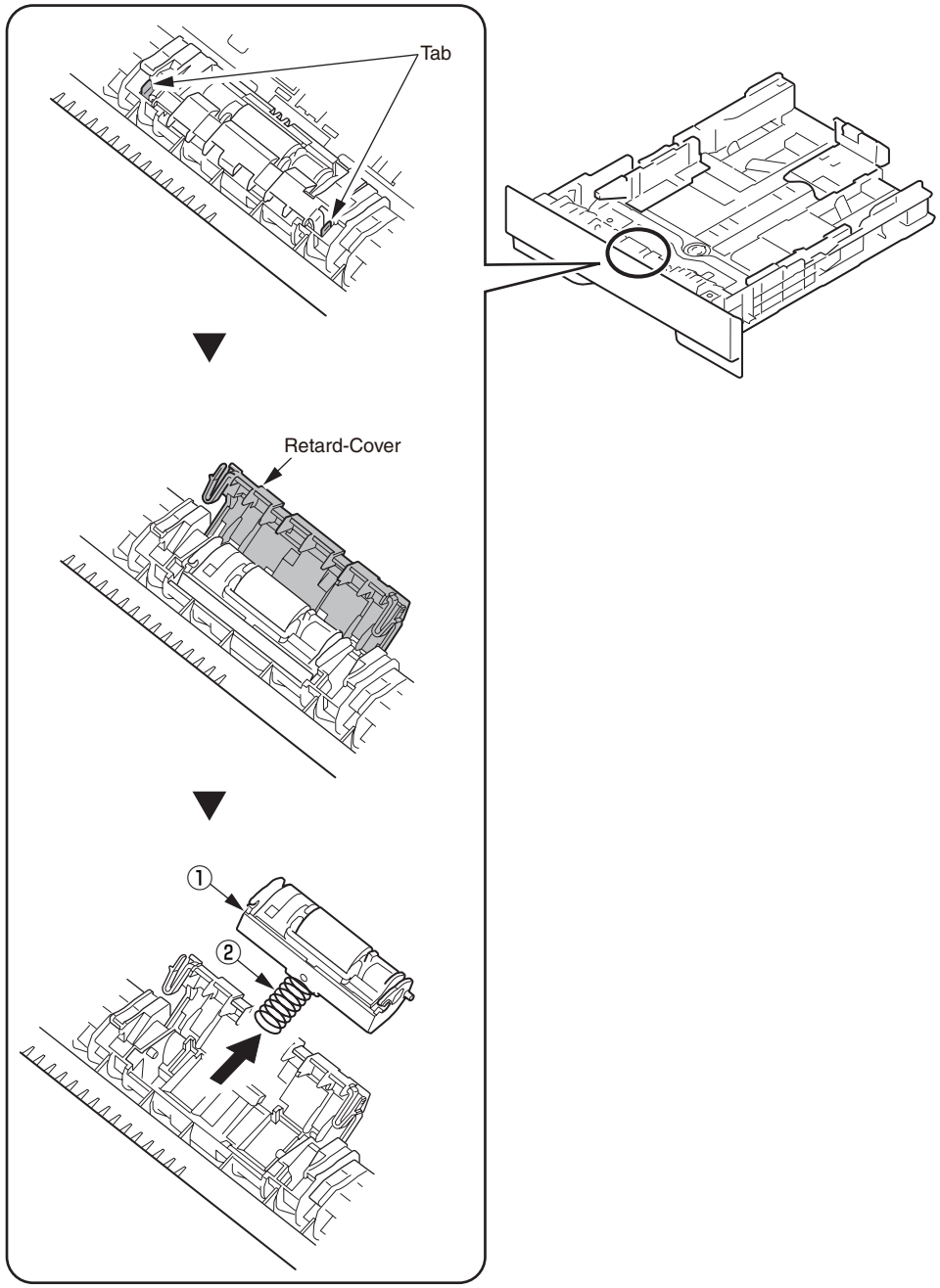
4.2.31 Frame-Assy-Retard, Spring-Retard

(1) Remove the cassette.

(2) Open the Retard-Cover by pushing two tabs in the directions of the arrows.

(3) Remove Frame-Assy-Retard ① by pushing it in the direction of the arrow.
(Spring-Retard ② is removed together.)

(4) Installing is performed by the inverse procedure with removing.



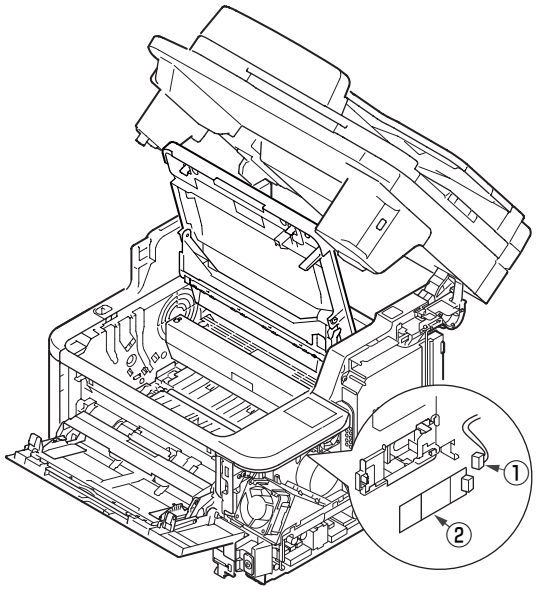
4.2.32 W-LAN Board (for MB472dnw)

(1) Remove the Cover Side(R). (Refer to 4.2.2)

(2) Disconnect the W-LAN cable ① from W-LAN board ② .

(3) Remove the W-LAN board ② .

(4) Installing is performed by the inverse procedure with removing.



4.3 Lubrication point

This subsection indicates the lubricating points of the printer. Conversely, it means that any other parts than the specified lubricating points must not be lubricated.

There is no need to lubricate in the midst of a disassembling job. However, if lubricating oil has been wiped off, supply the specified oil.

Lubricating work

(1) Symbols and names of oils

EM-D110 : MOLYKOTE EM-D110 (No : 44594501)

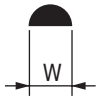
EM-30LP : MOLYKOTE EM-30LP (No : 44498501

GE-334C : FLOIL GE-334C (No : 41823301)

SF-133 : HANARL SF-133

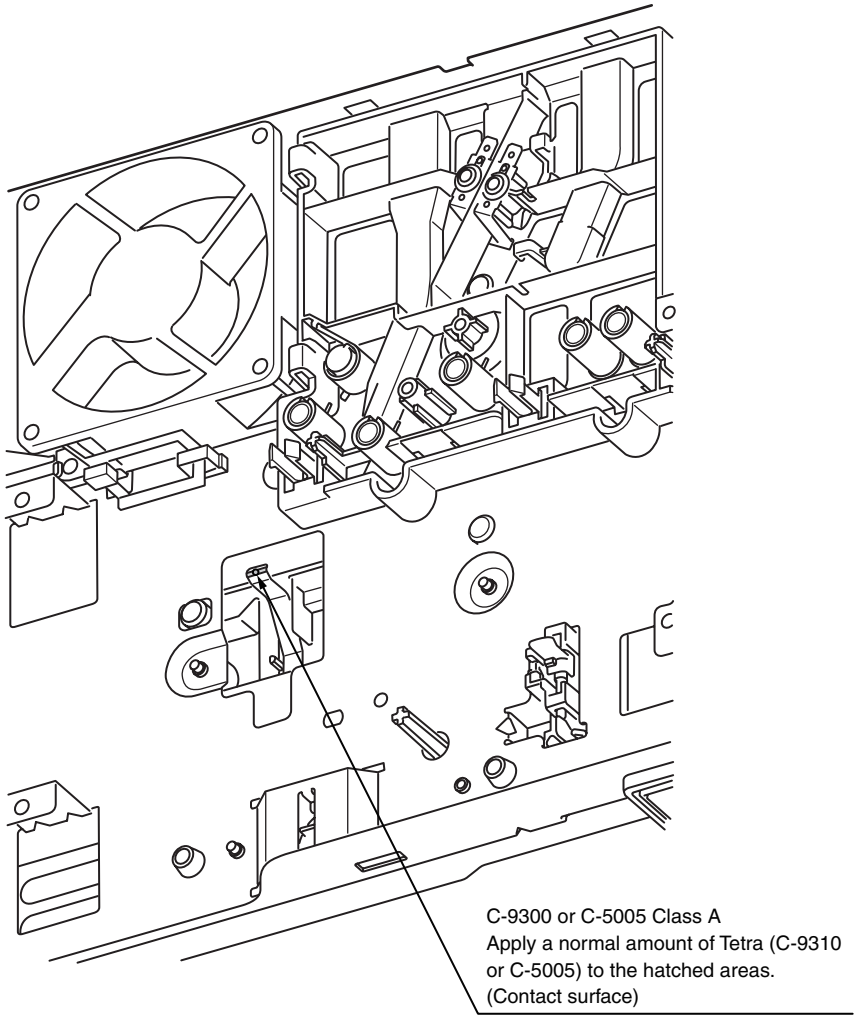
(2) Boundary samples of grease

Class	S	A	B	C	D	E	F
Amount of grease(cc)	0.0005	0.003	0.005	0.01	0.03	0.05	0.1
W(mm)	1.24	2.25	2.67	3.37	4.86	5.76	7.26
Sample	•	●	●	●	●	●	●

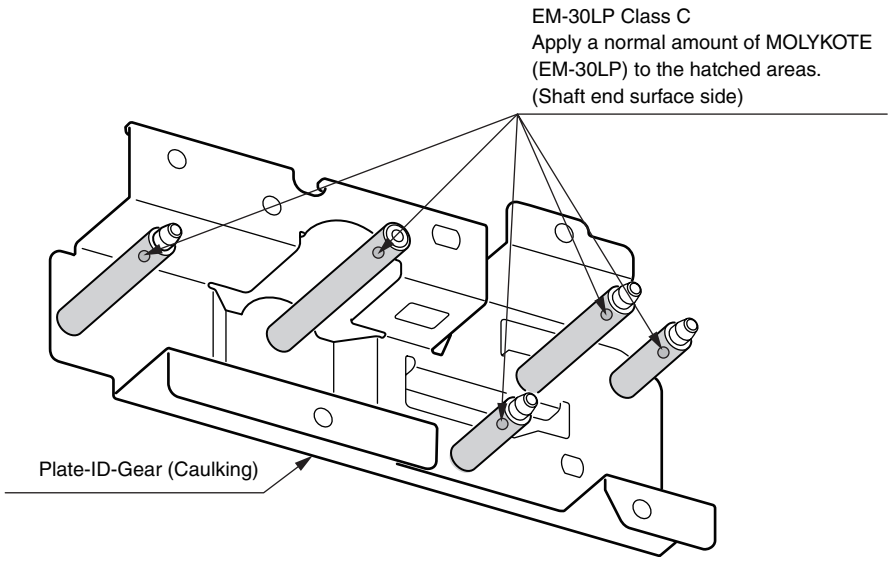


4.3.1 Printer

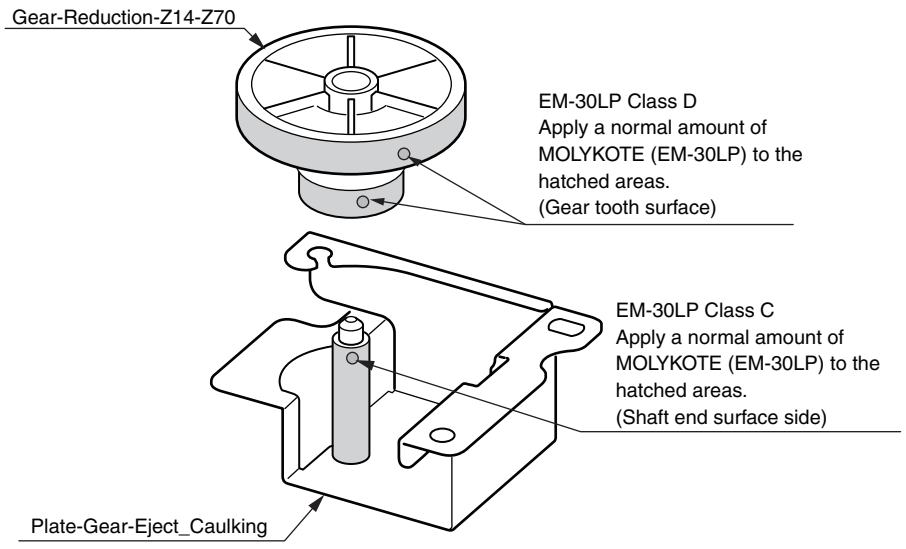
① Plate-Assy-Side-L



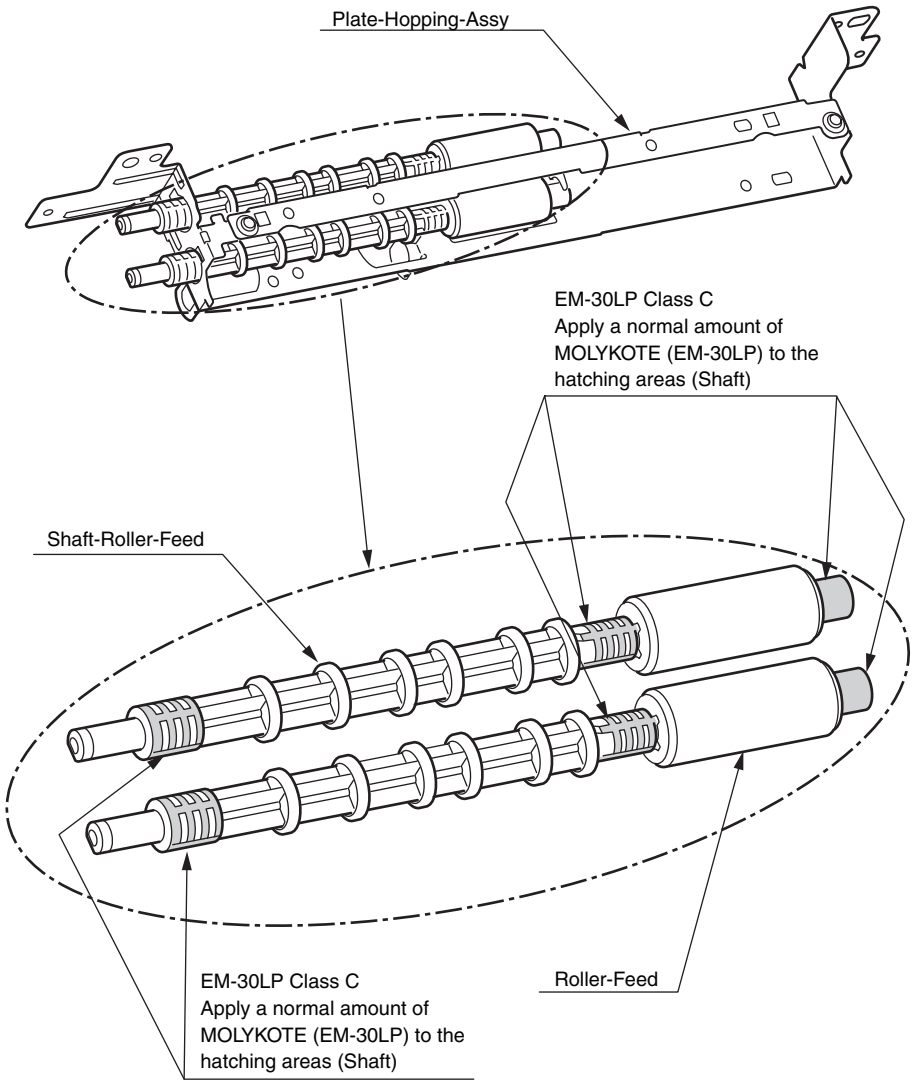
② -1 Plate-Assy-Side-R



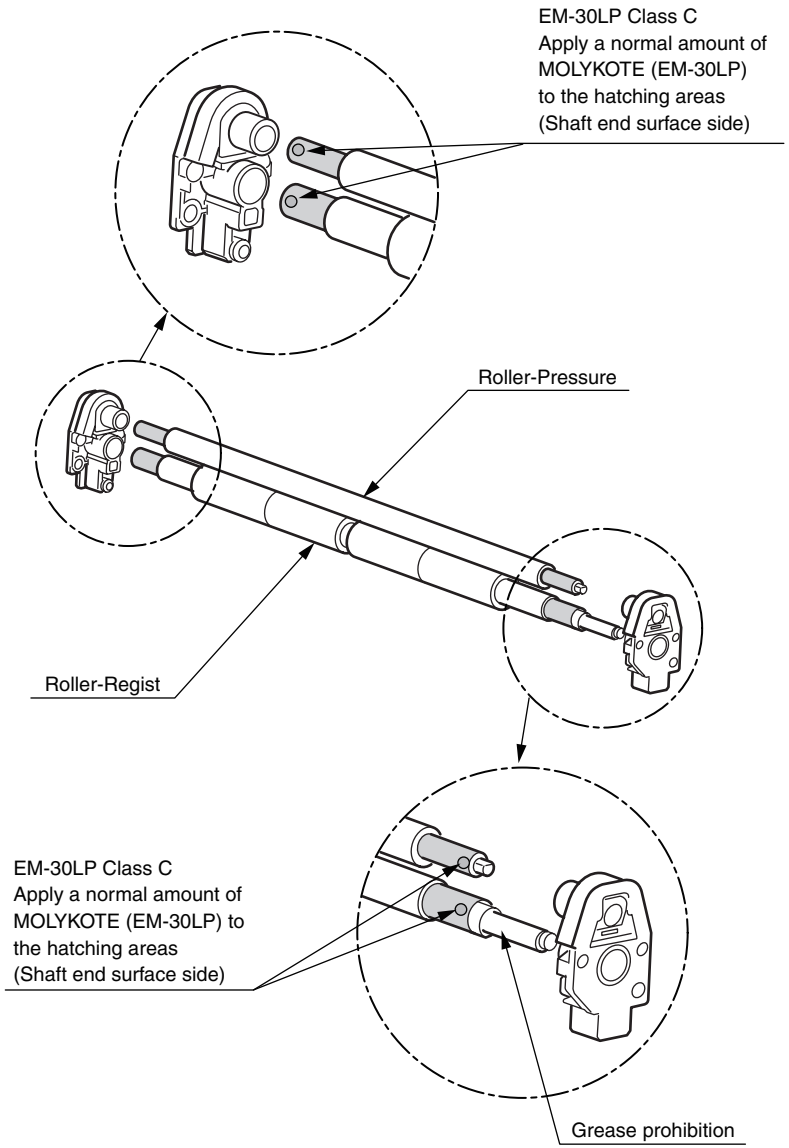
② -2 Plate-Assy-Side-R



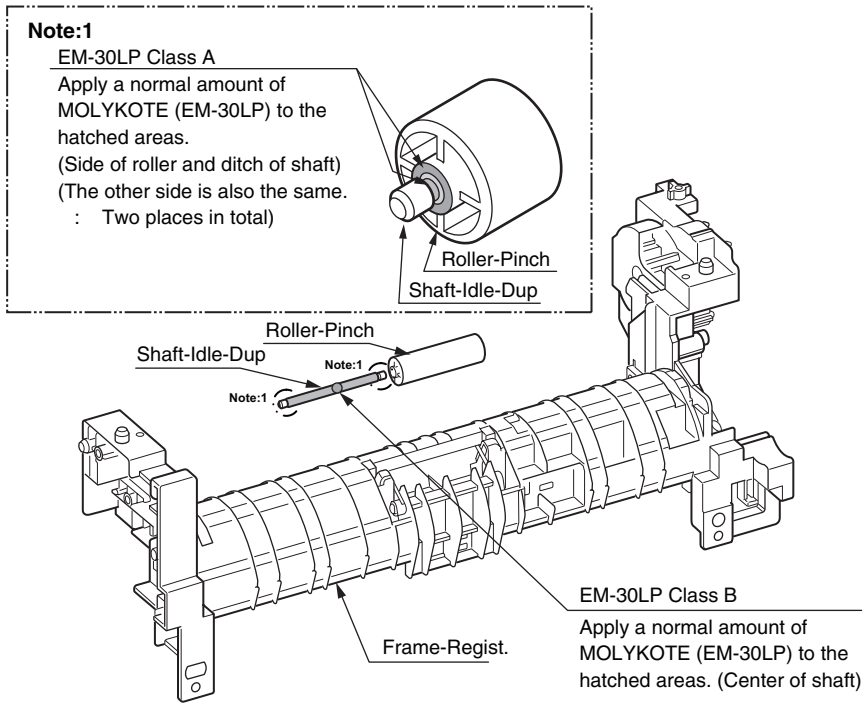
③ Frame-Assy. -Hopping



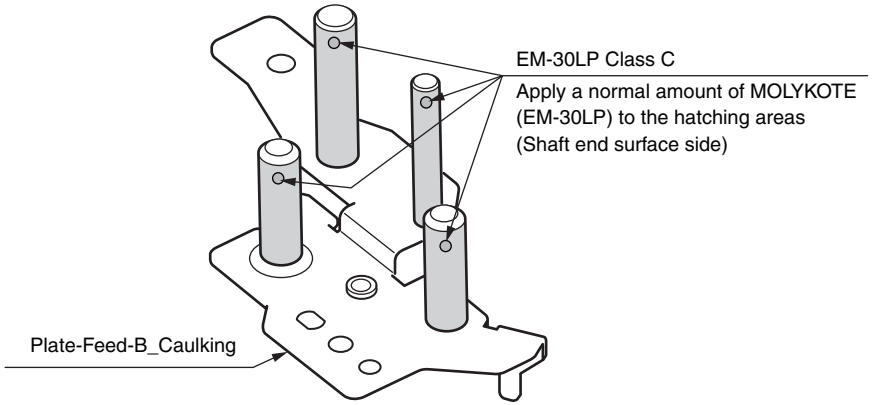
④ -1 Frame-Assy. -Regist



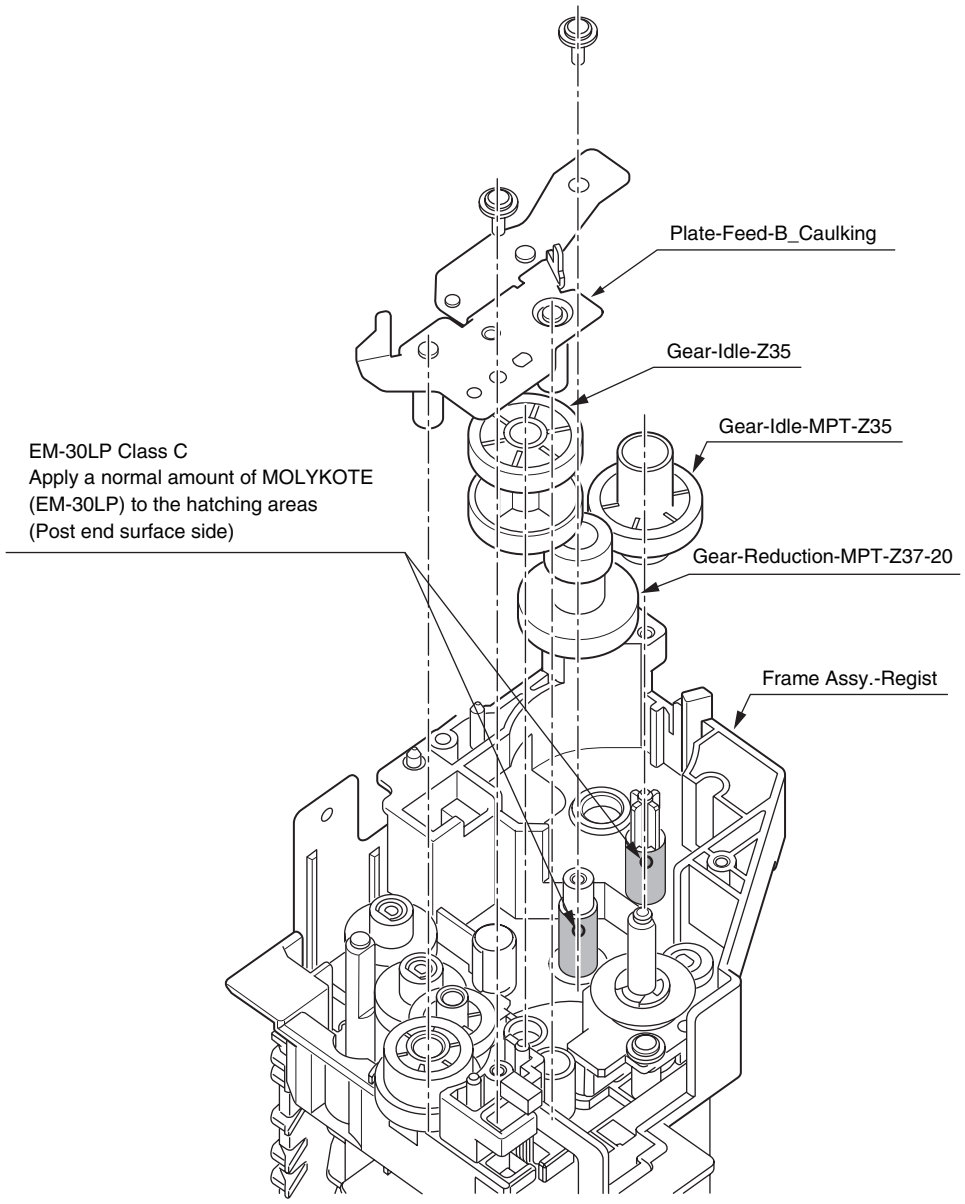
④ -2 Frame-Assy. -Regist



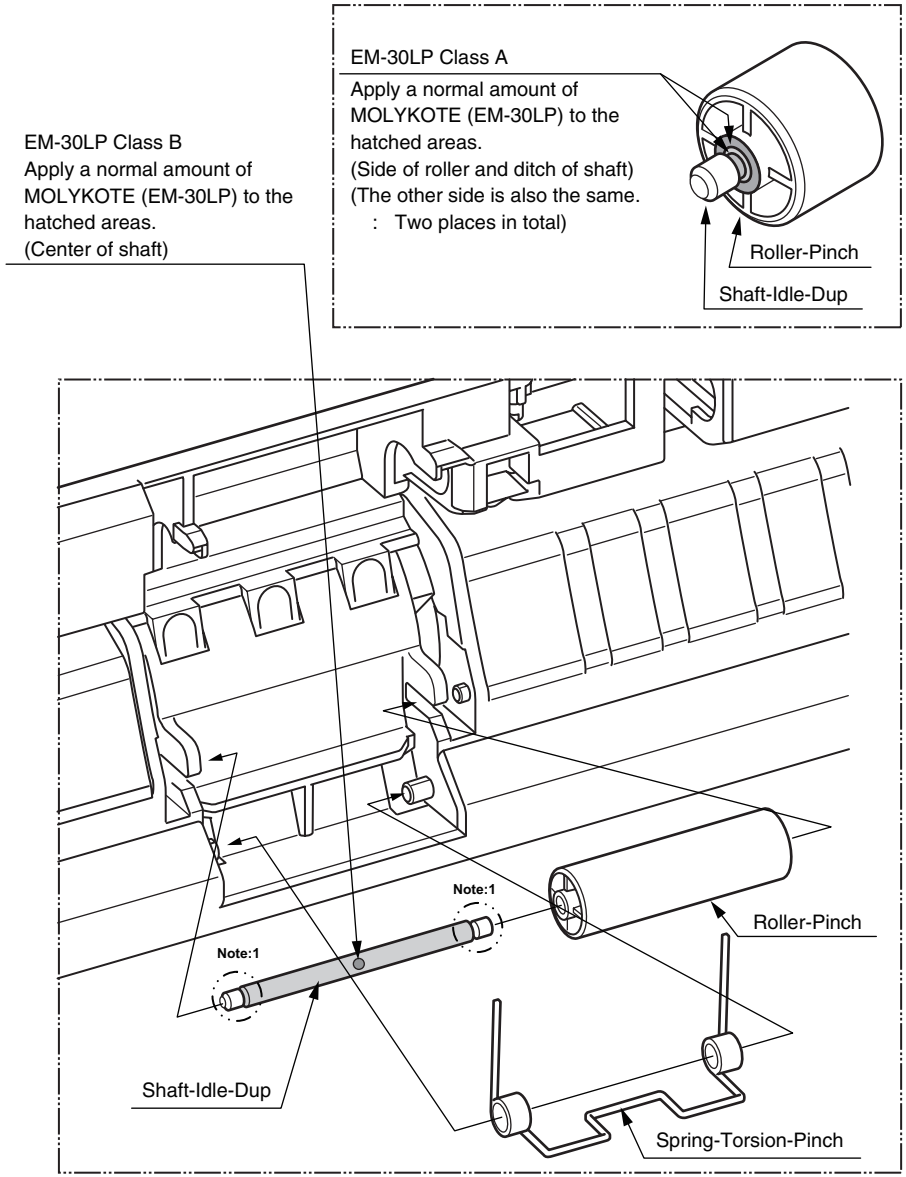
⑤ -1 Front-Assy.

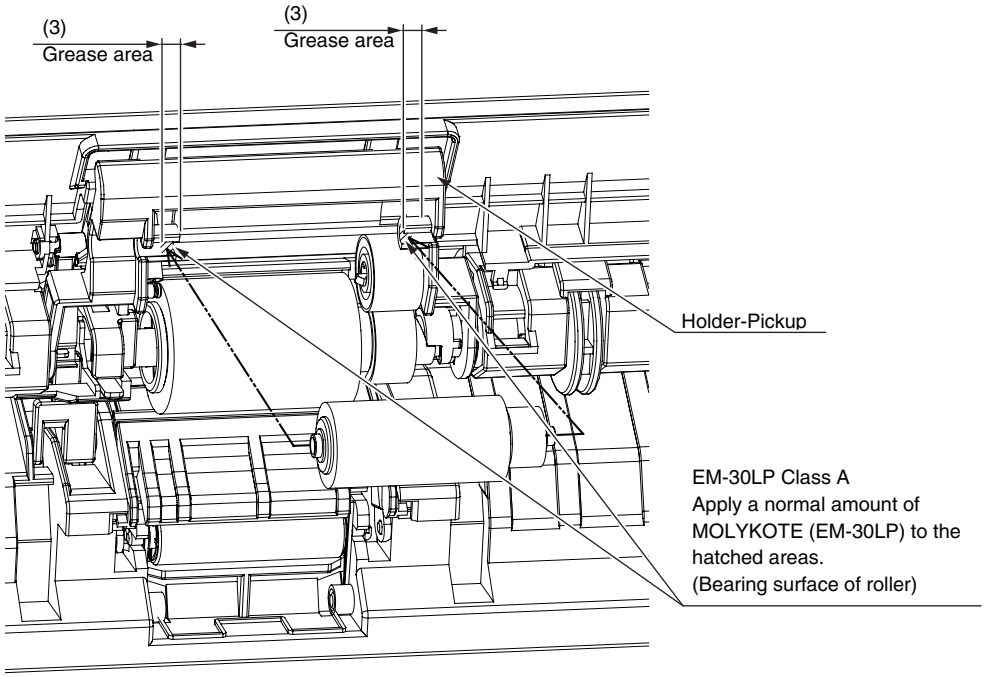


⑤ -2 Front-Assy.

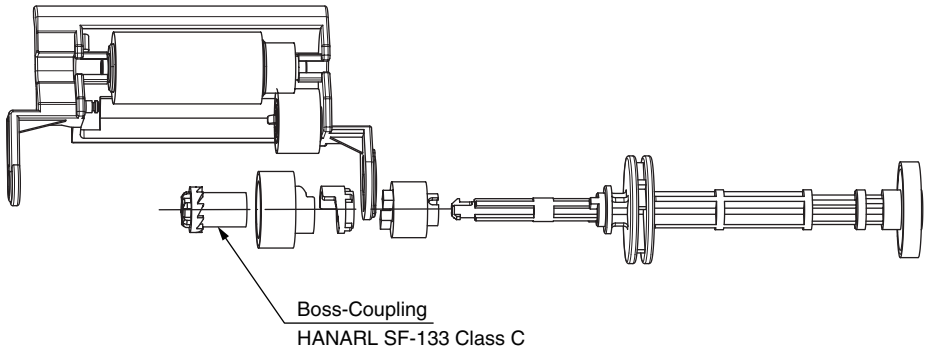


⑥ -1 Frame-Assy. -MPT



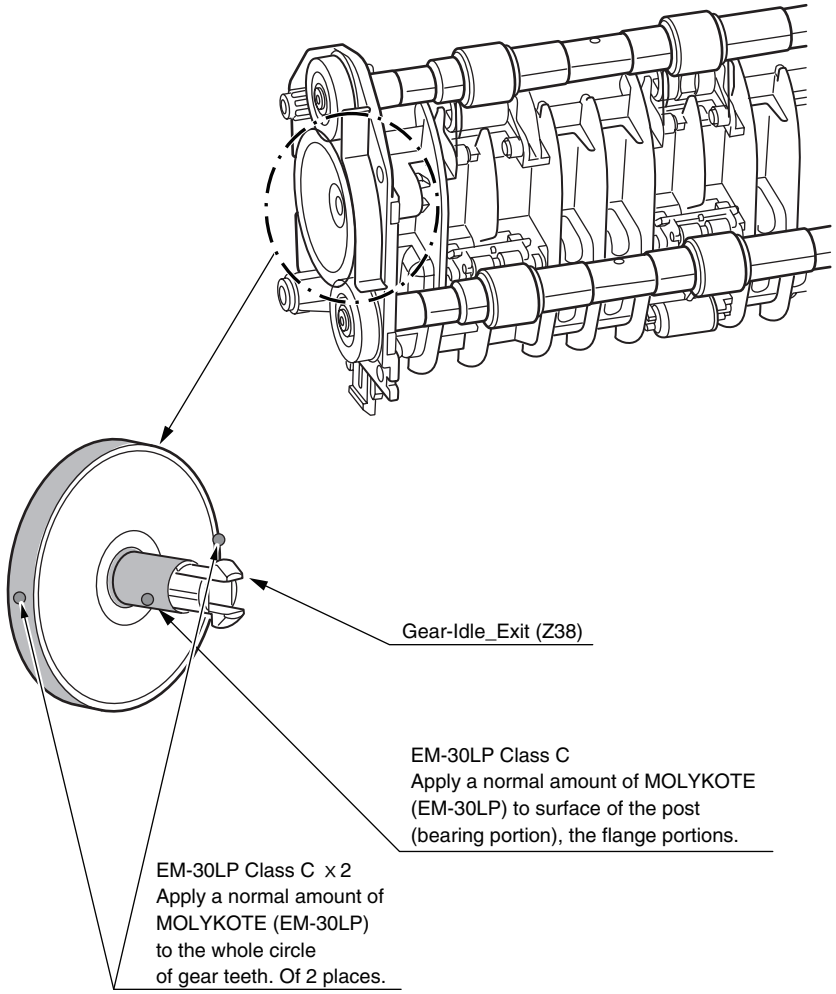


⑥ -2 Frame-Assy. -MPT



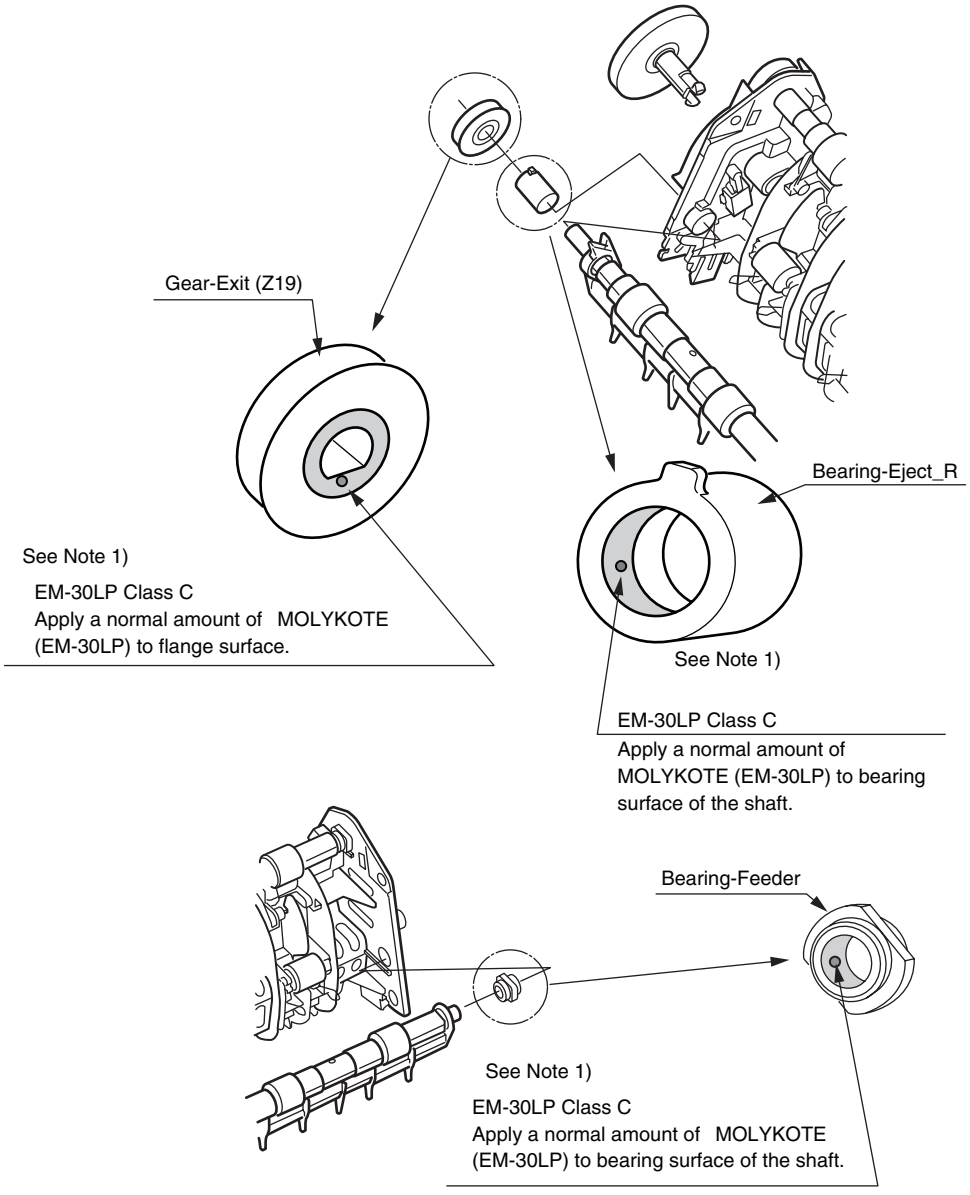
Leave it for about 30 minutes (drying time) after painting HANARL SF-133, and then assemble the Boss-Coupling.

⑦ Guide-Assy-Eject-U

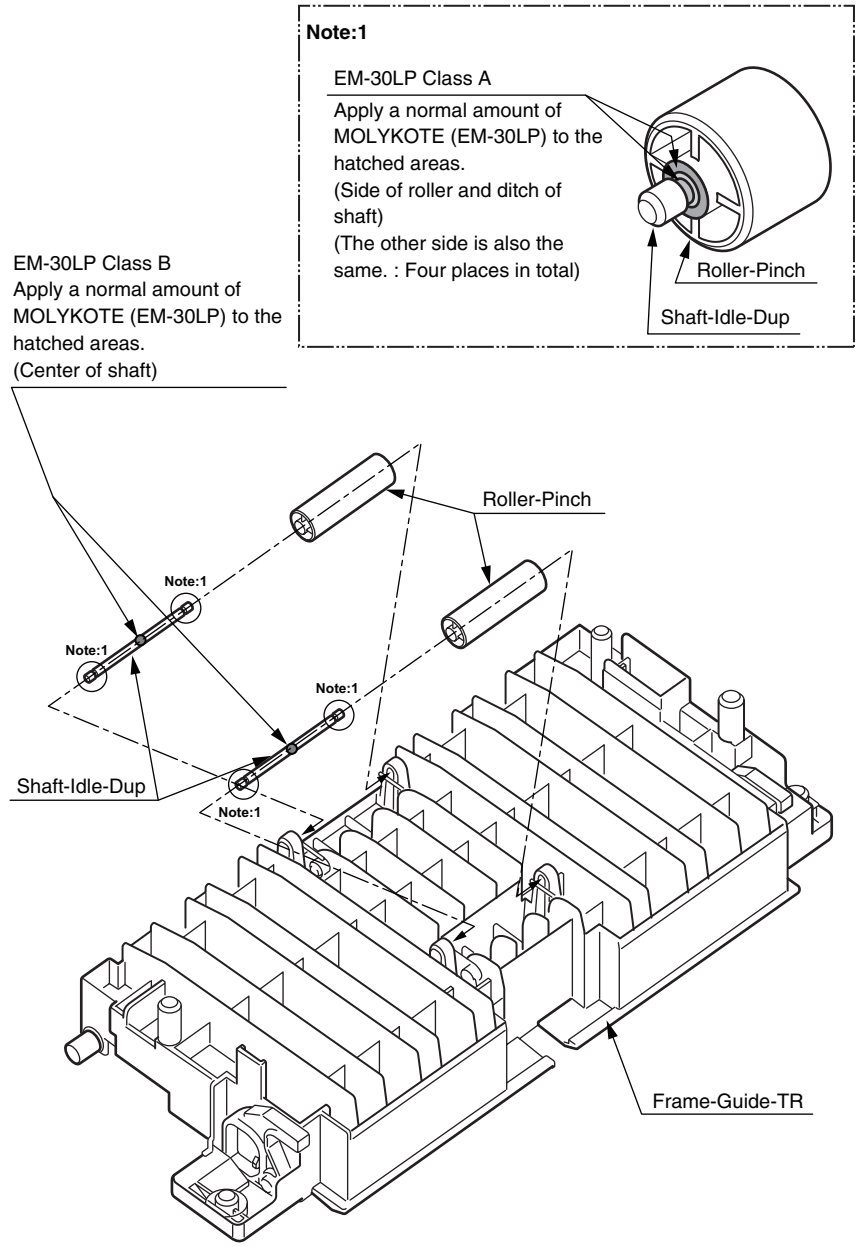


Detail

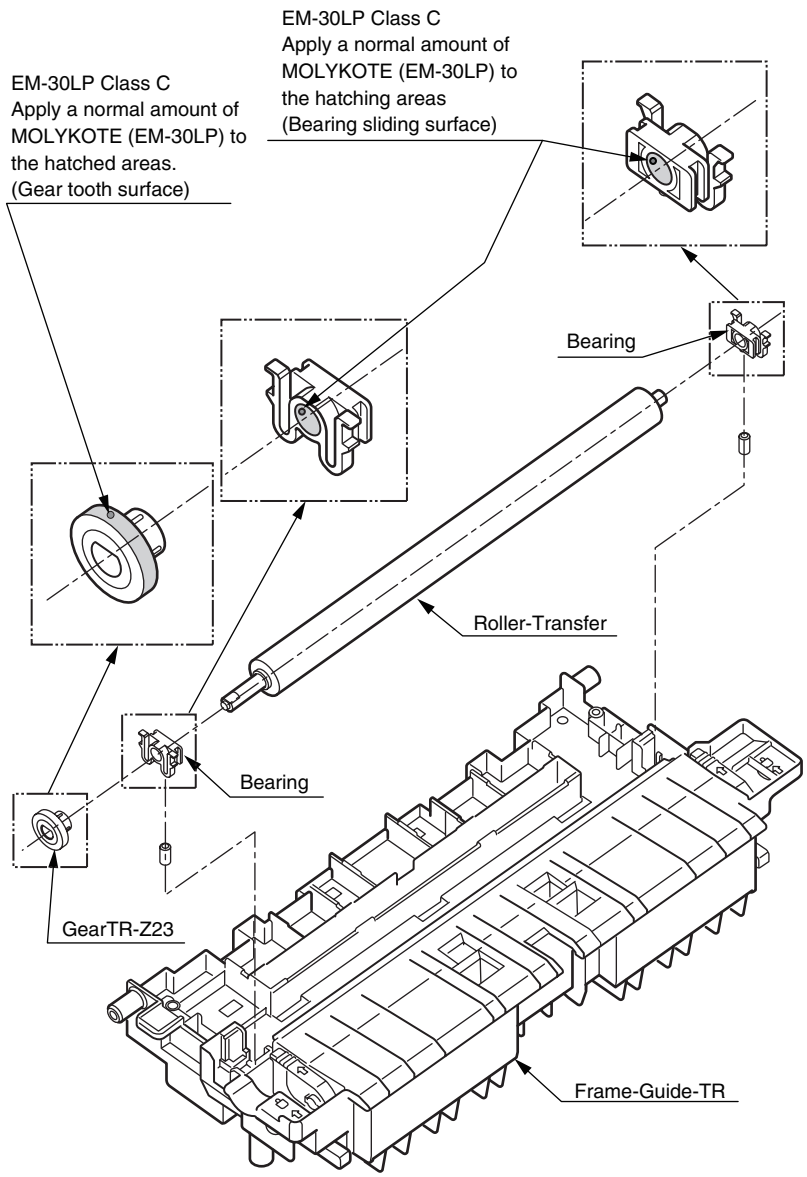
Note1) Please wipe the amount that grease began to see the sliding area off.



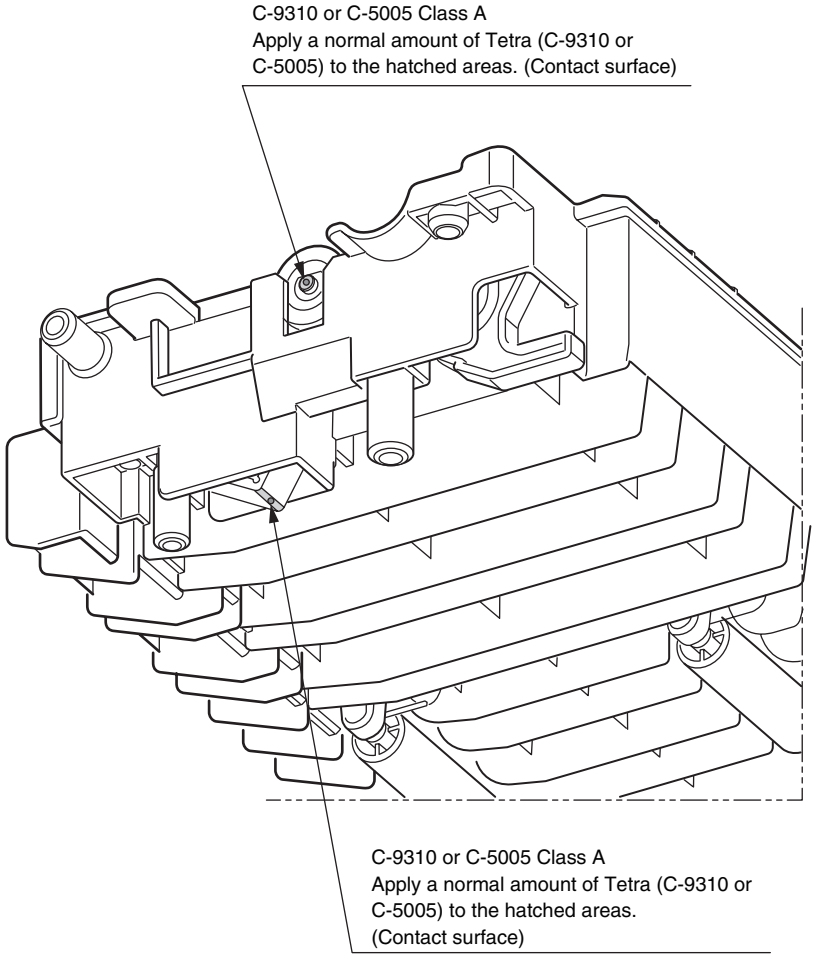
⑧ -1 Frame-Assy-TR



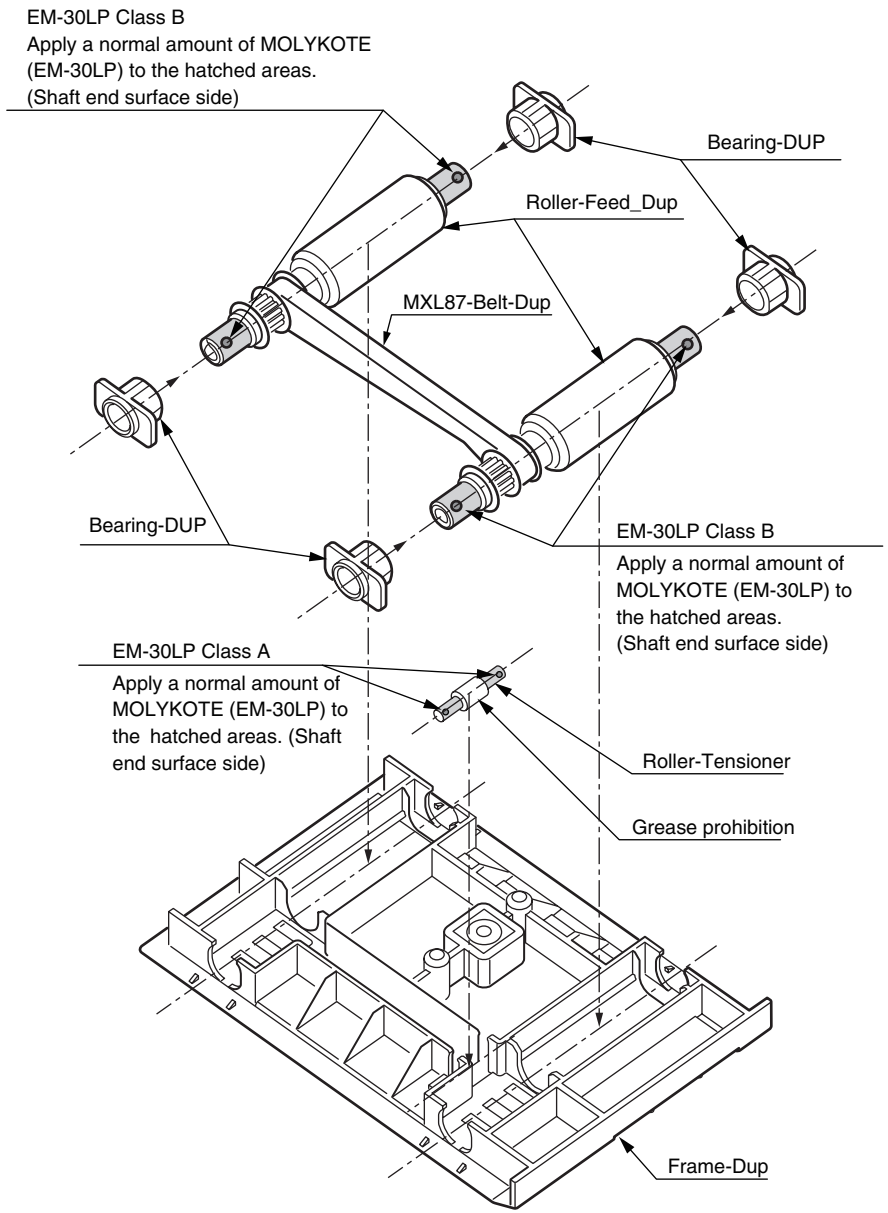
⑧ -2 Frame-Assy-TR



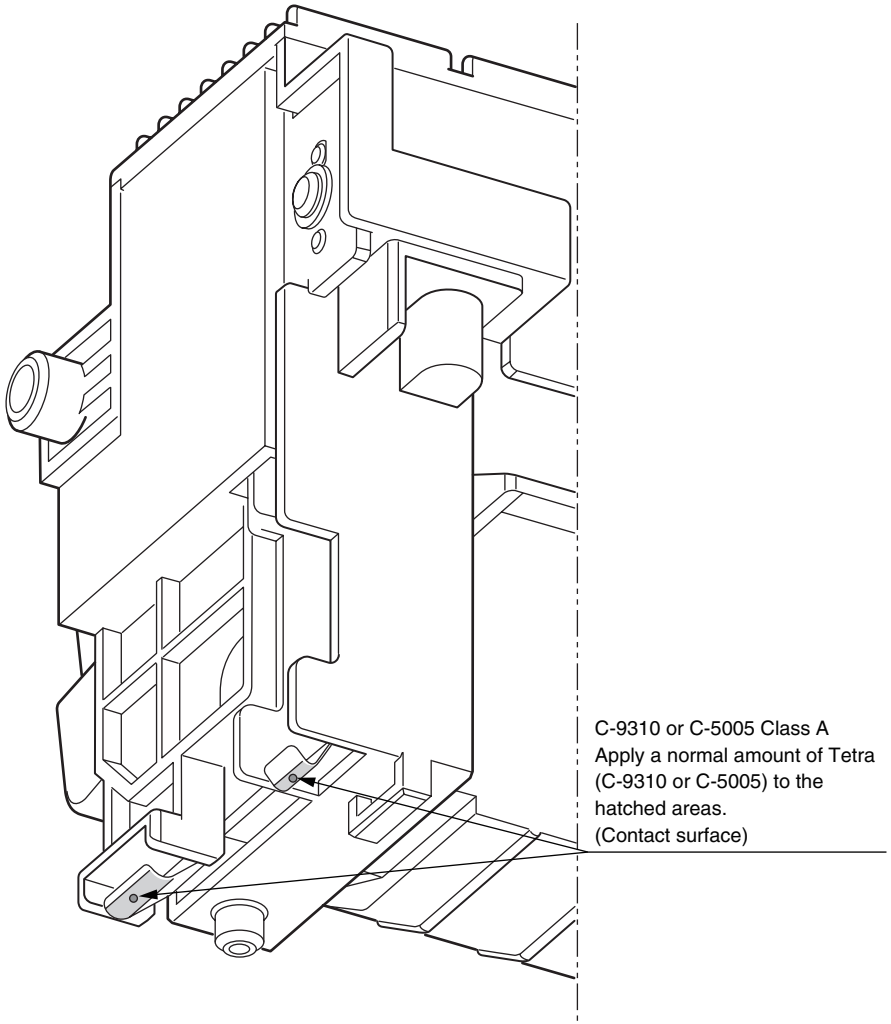
⑧ -3 Frame-Assy-TR



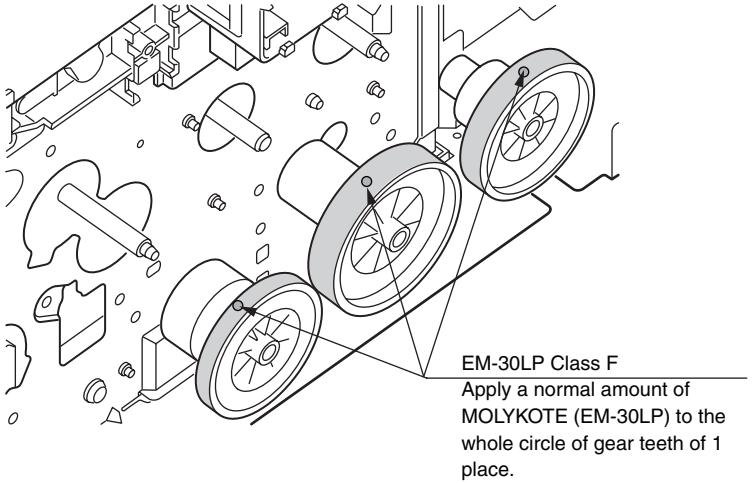
⑨ Duplex-Assy



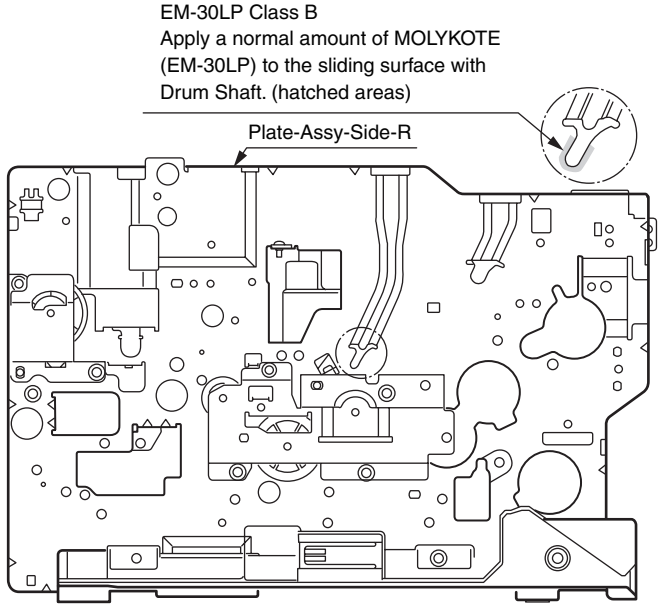
⑩ Fuser-Assy



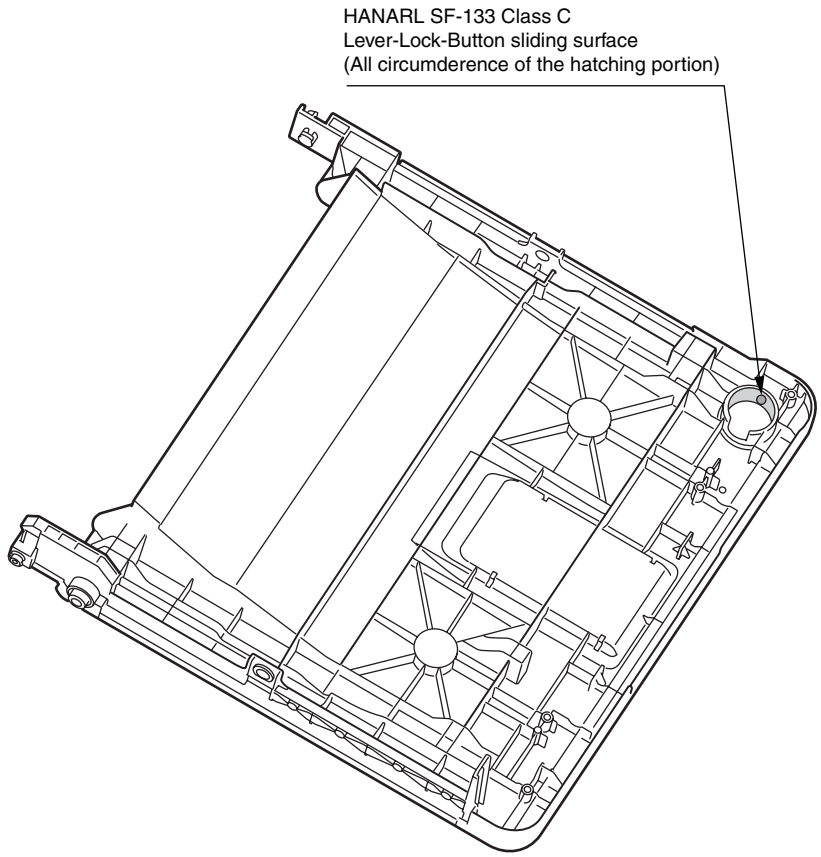
⑪ -1 Printer-Unit



⑪ -2 Printer-Unit



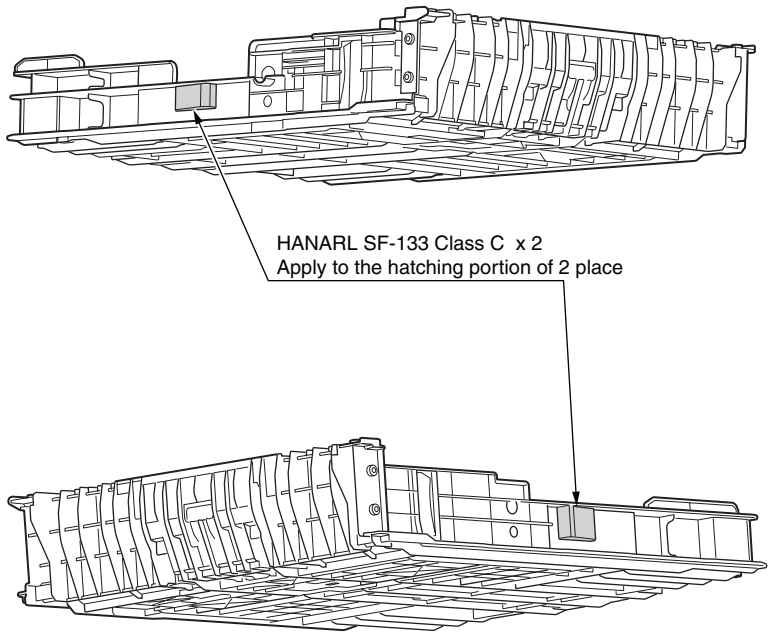
⑫ Cover-Assy-Stacker



※ Leave it for about 30minutes (drying time) after painting HANARL SF-133, and then Assemble the Lever-Lock-Button.

※ HANARL SF-133 should not protrude outside from the exterior surface.

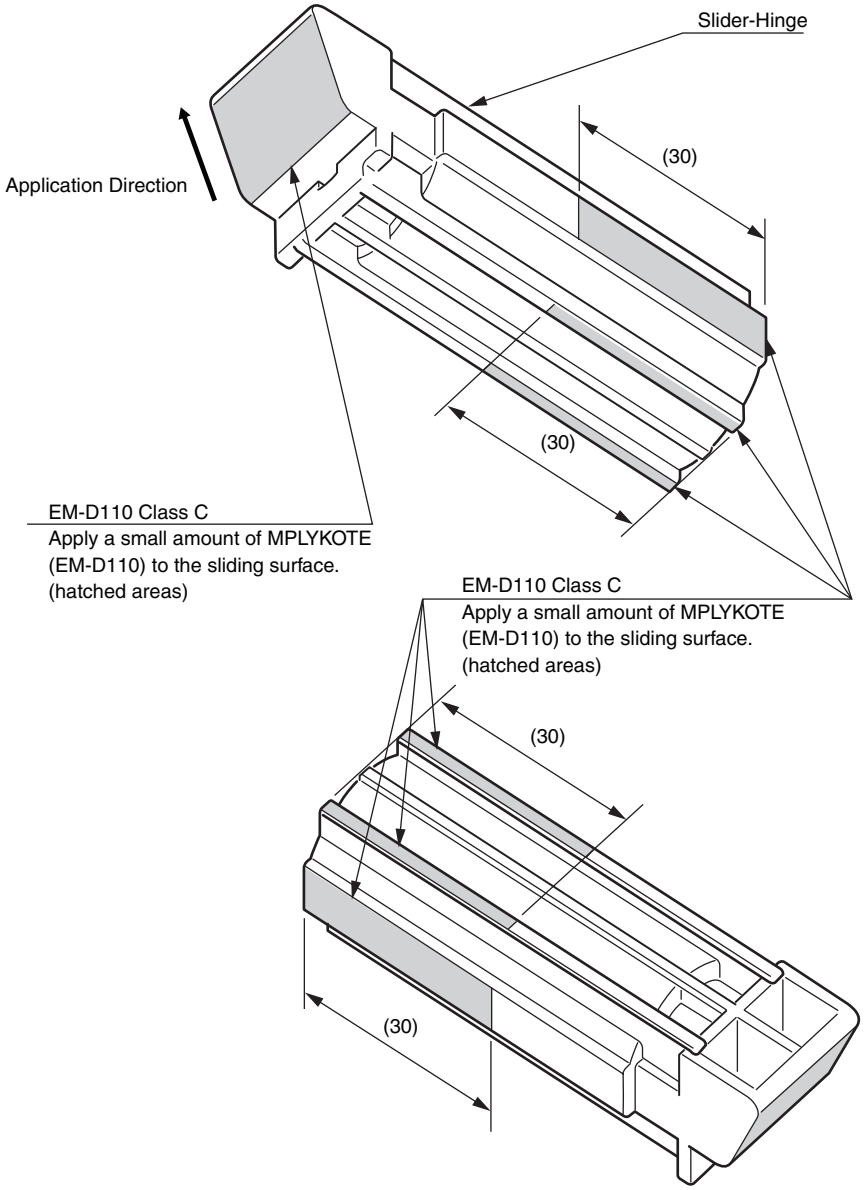
⑬ Cassette-Assy(250sht)



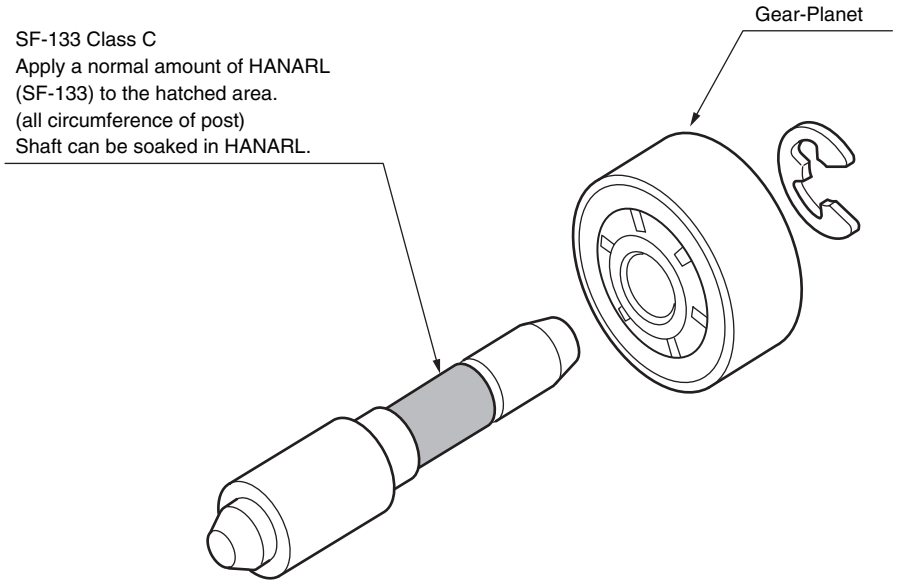
*Leave it for about 30minutes (drying time) after painting HANARL SF-133, and then Assemble the Cassette-Assy to printer.

4.3.2 Scanner

① MFP NIP-FN307

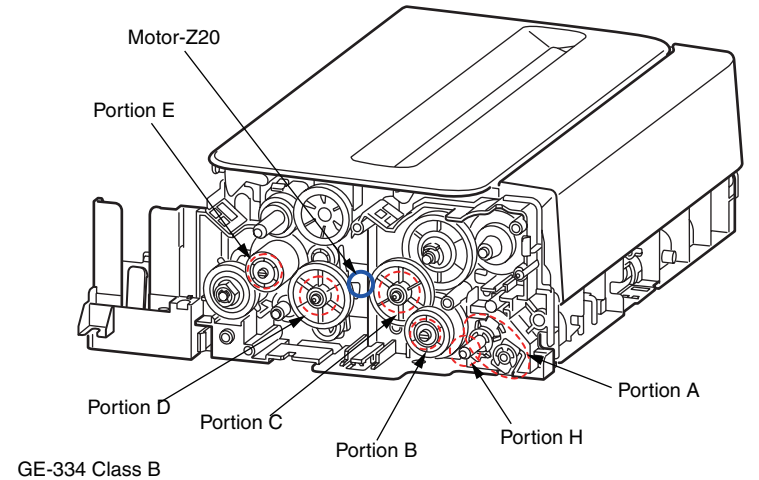


② Gear-Idle-Assy

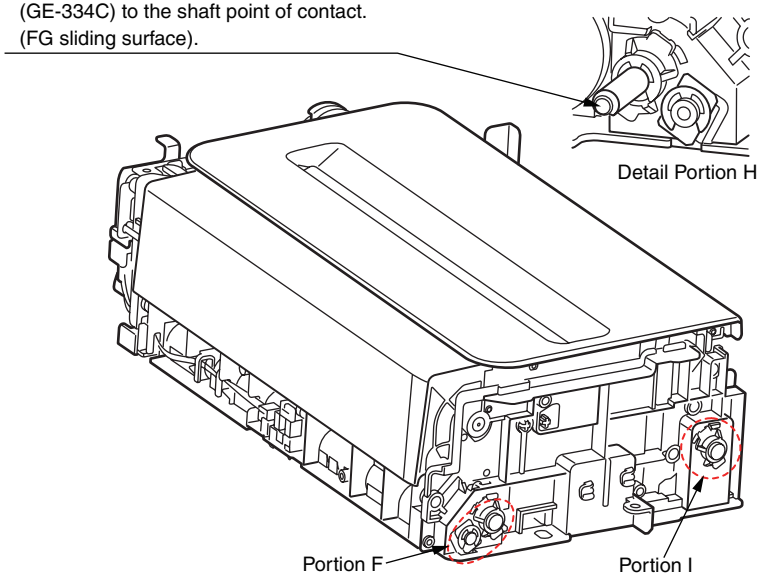


※ Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the Gear-Idle-Assy.

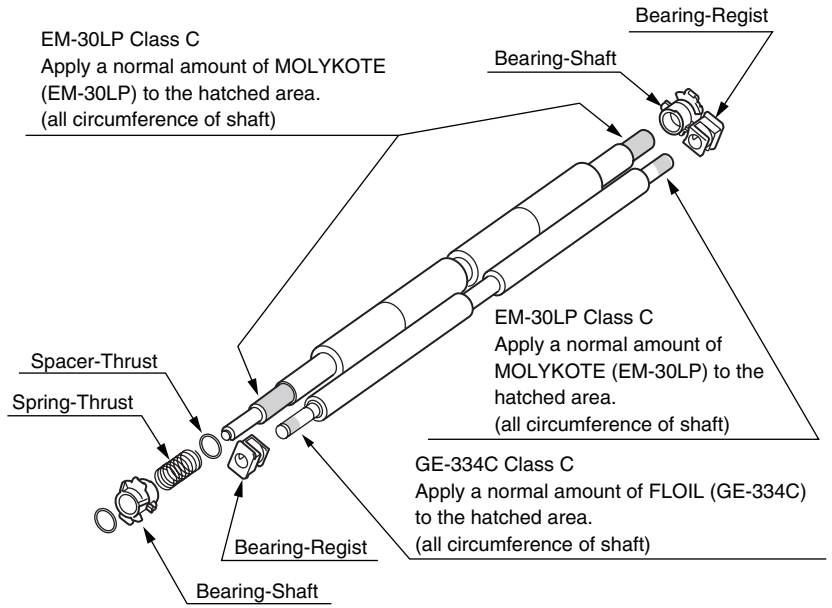
③ ADF-Assy



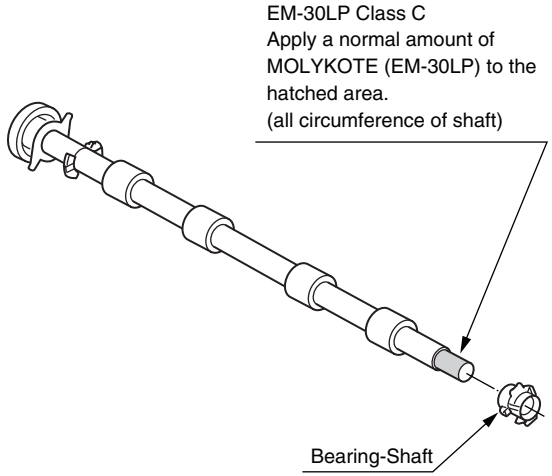
GE-334 Class B
Apply a normal amount of FLOIL
(GE-334C) to the shaft point of contact.
(FG sliding surface).



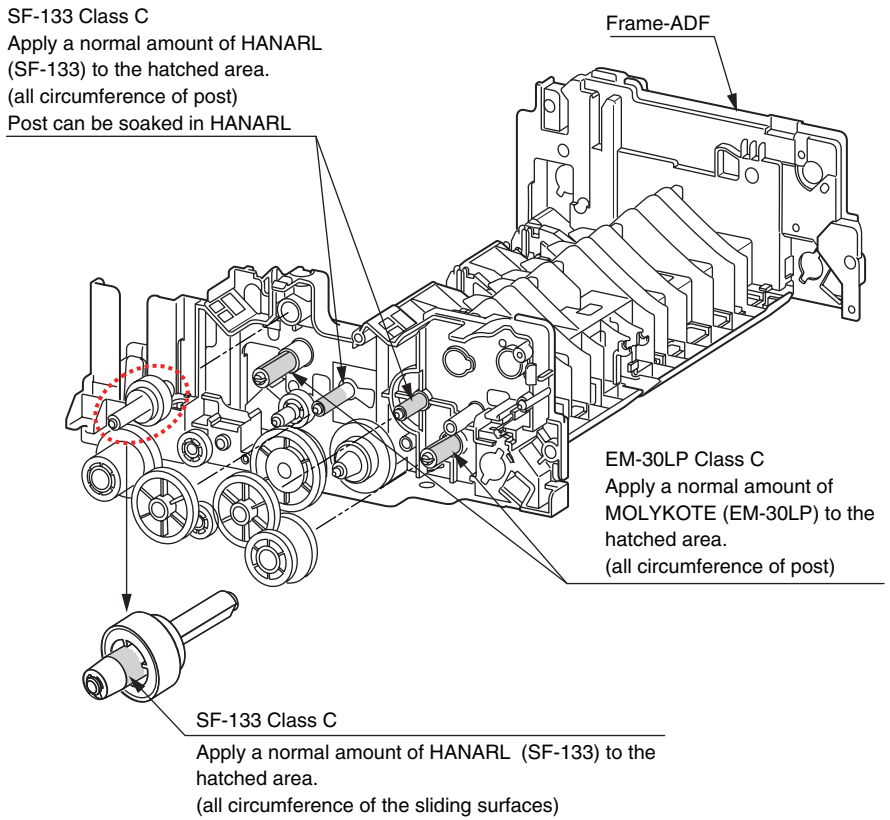
Portion A and F



Portion I

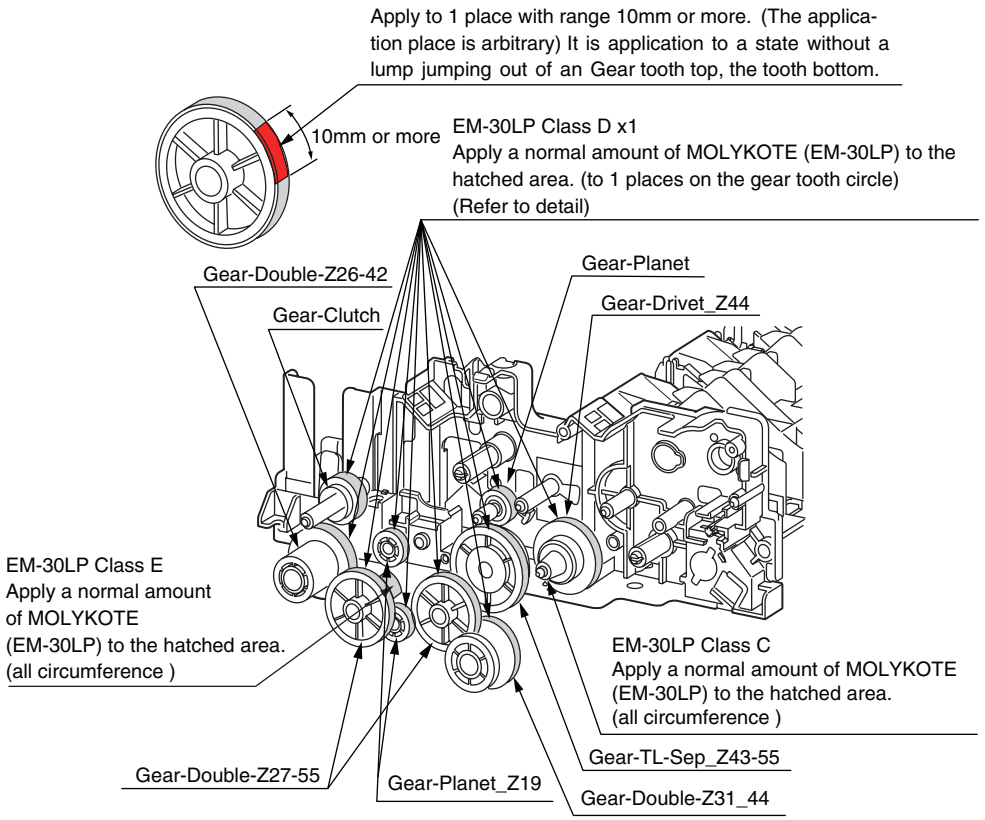


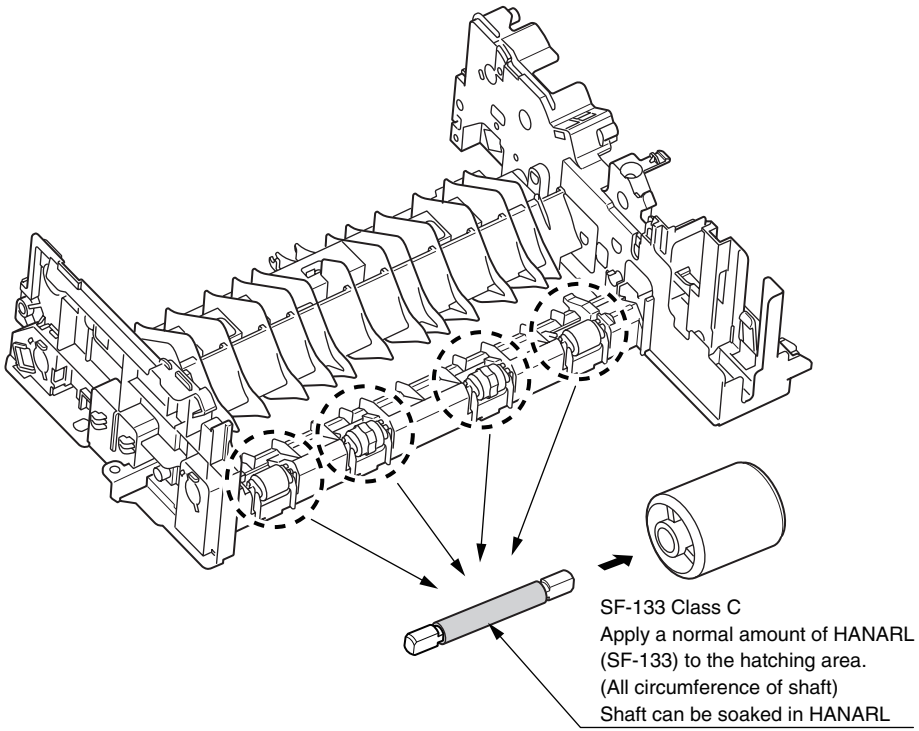
Portion B, C, D and E



※ Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the ADF-Assy.

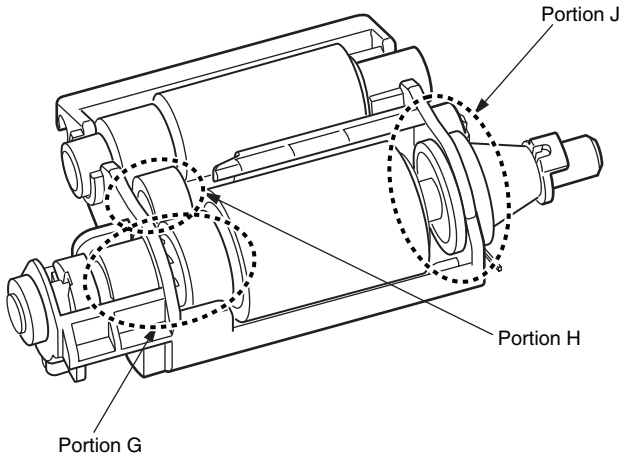
For detail



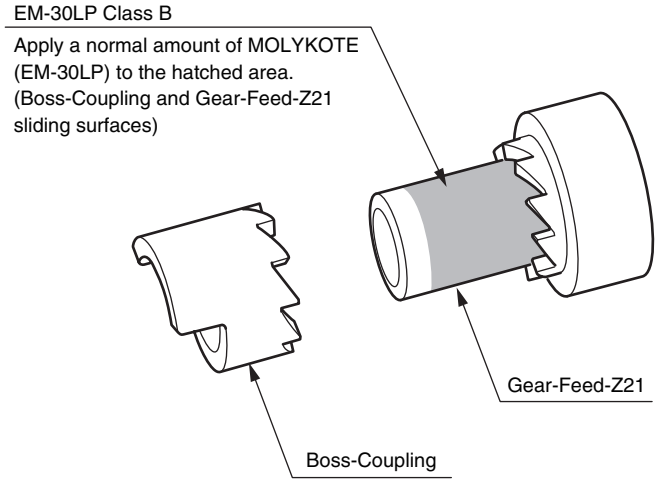


※ Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the roller.

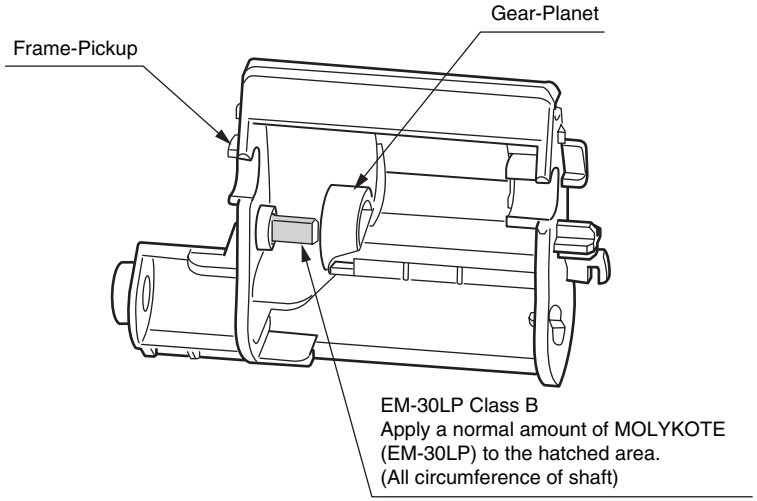
④ Frame-Assy-Hopping-ADF



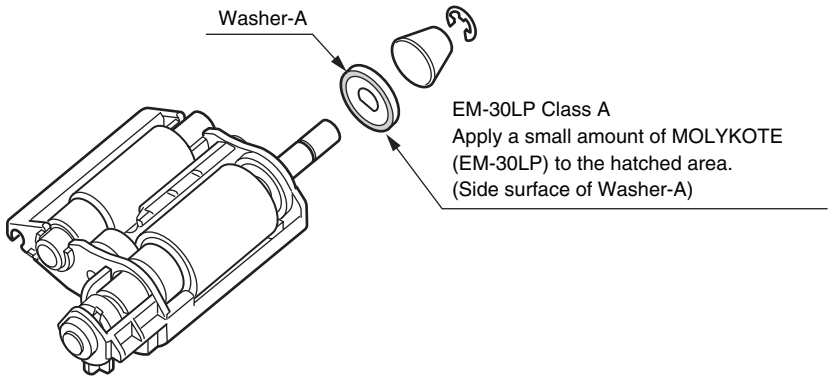
Portion G



Portion H

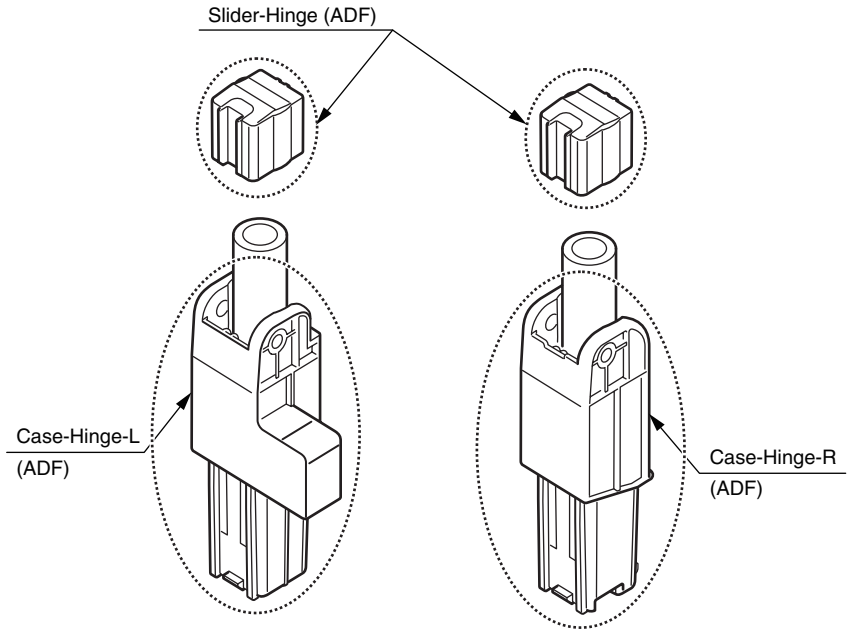


Portion J

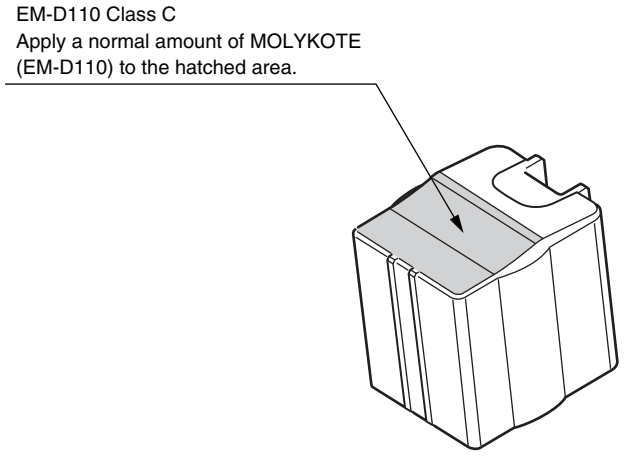


※ After assembly, please wipe off the grease that protrude.

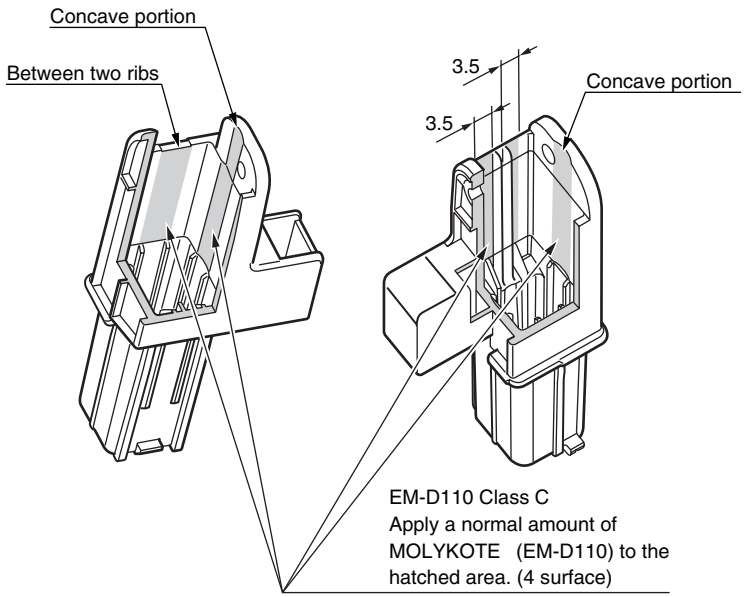
⑤ Hinge-Assy-L/R



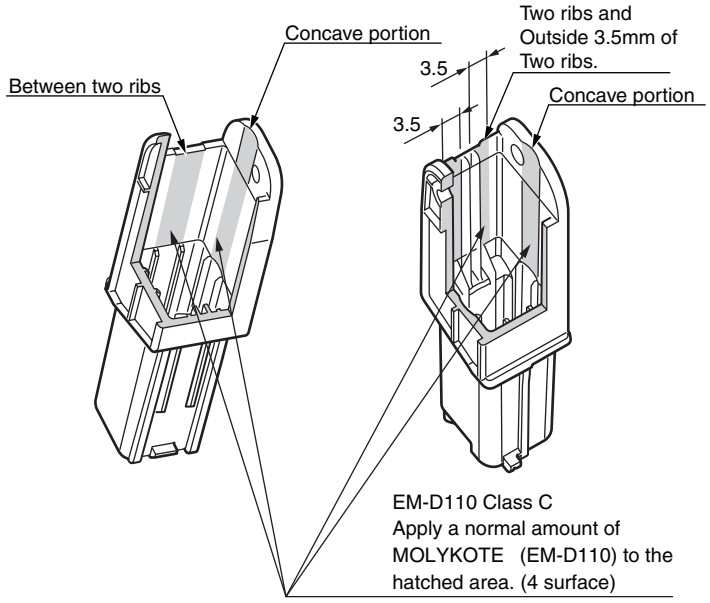
1) Slider-Hinge (ADF)



2) Case-Hinge-L

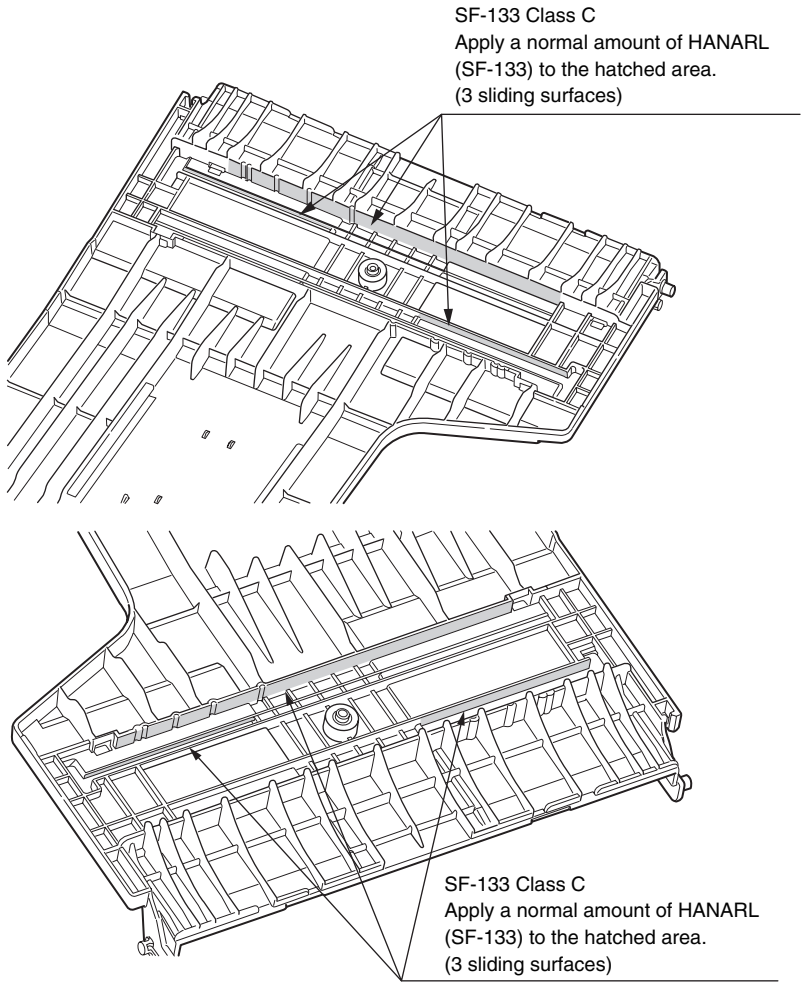


3) Case-Hinge-R



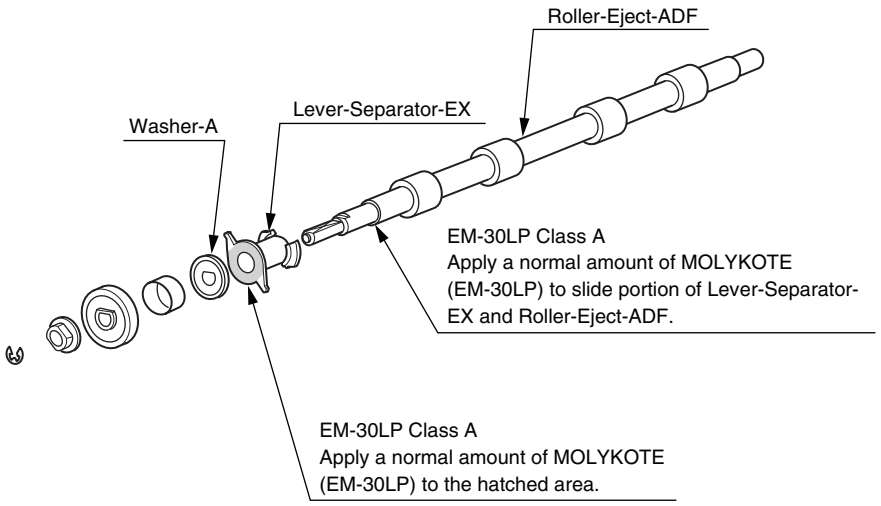
⑥ Tray-Assy-Document

Tray-Document

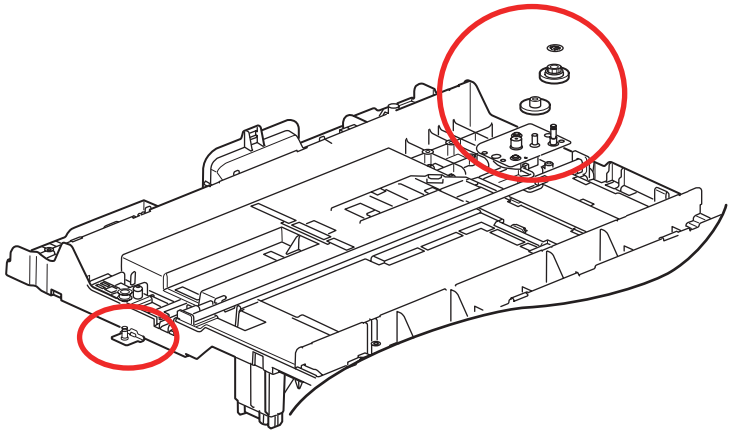


✖ Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the Tray-Assy-Document

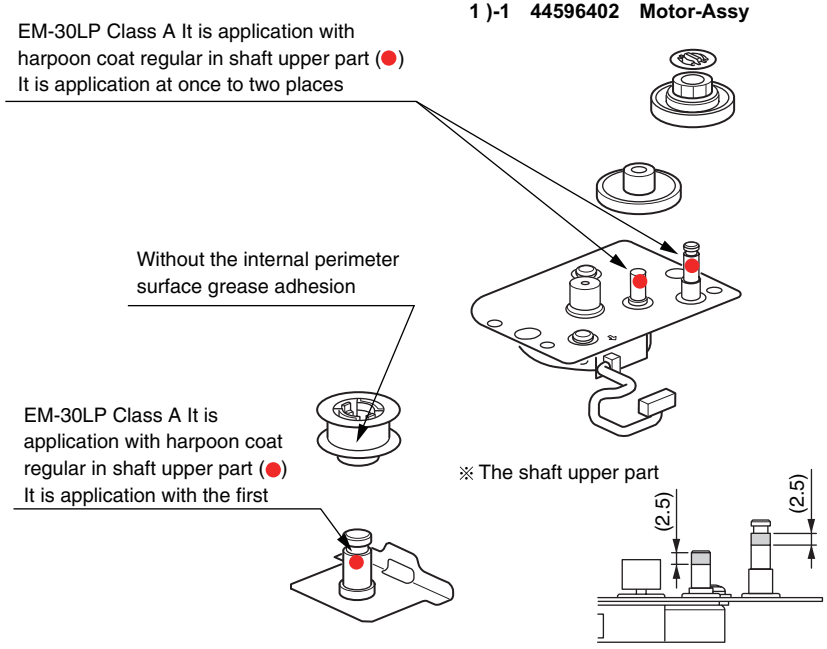
⑦ Roller-Assy-Eject-ADF



⑧ Frame-Assy-FB

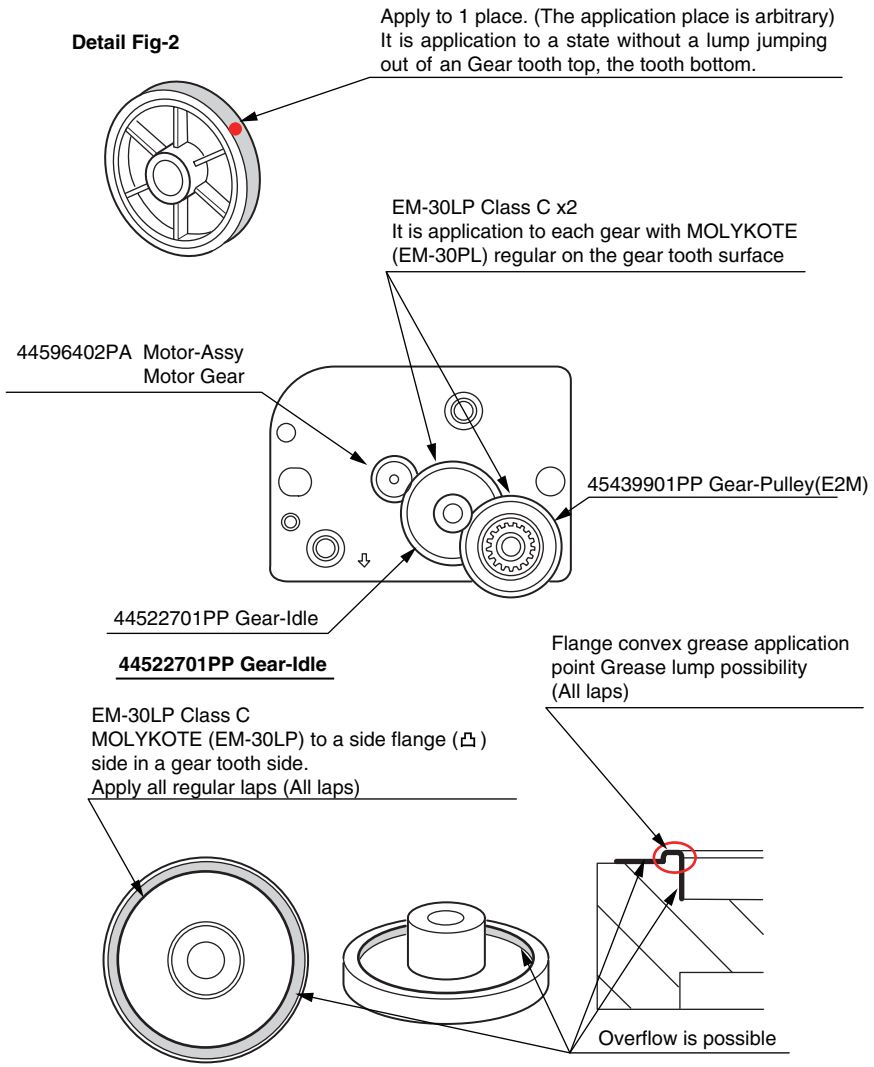


1)-1 44596402 Motor-Assy

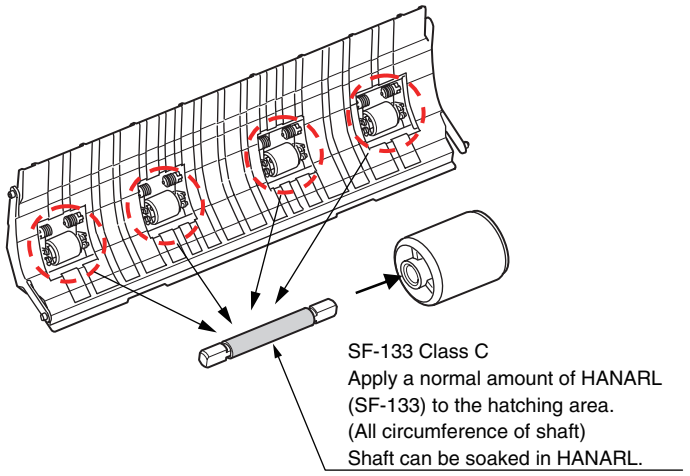


1)-2 4522401PP Plate-Pulley-Caulking

2) Motor-Assy / Gear-Idle / Gear-Pulley(E2M)

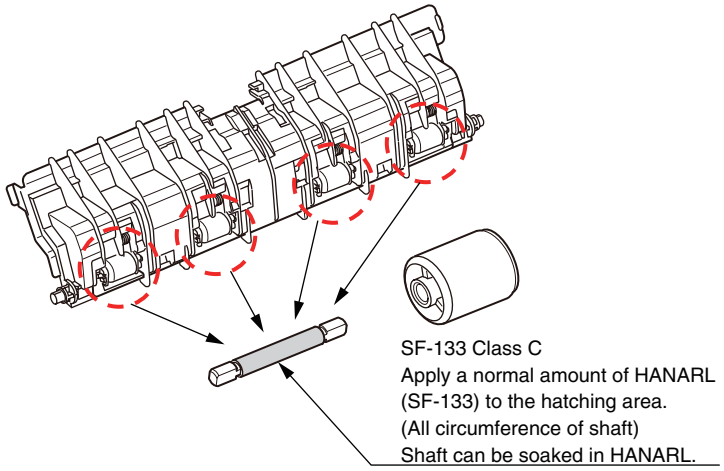


⑨ Guide-Assy-Top-B



※ Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the roller.

⑩ Guide-Assy-A



※ Leave it for about 3minutes (drying time) after painting HANARL SF-133, and then assemble the roller.

5. Periodic Maintenance

5.1 Cleaning

Remove toner powder and dust in the MFP inner section. Clean the inside of and the periphery of the MFP with the cloth as needed. Clean the MFP inner section with the handy cleaner (maintenance tool).

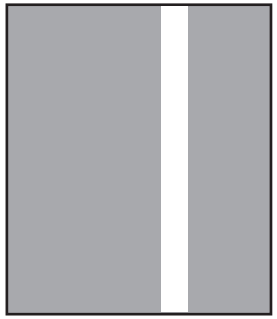
Note! Do not touch the image drum, LED lens array, and LED head terminal.

5.2 Cleaning of LED lens array

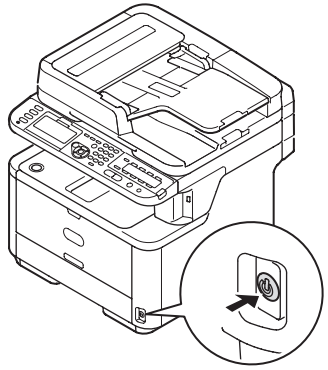
If the vertical white lines, and white belt (white spot, pale printing) occur in printing as shown below, the LED lens array should be cleaned or the toner cartridge should be replaced.

Note! As for the LED lens array, clean it with soft tissues or soft cloth after eliminating static electricity of a maintenance tool.

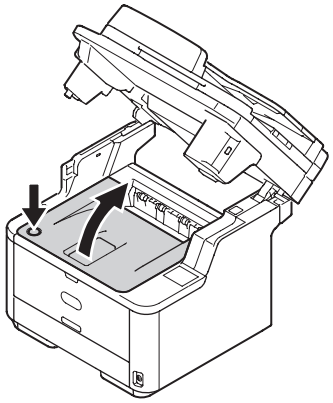
While lines or White belt
(White spot, pale printing)



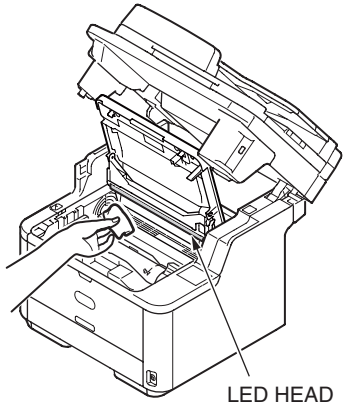
(1) Power off the MFP.



(2) Open the top cover.



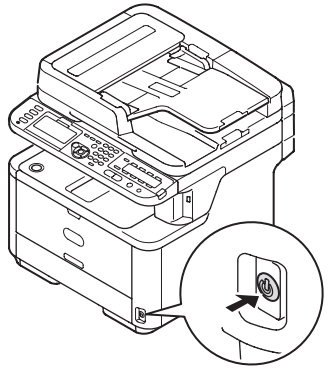
(3) Wipe the whole LED head softly with the soft tissues or cloth.



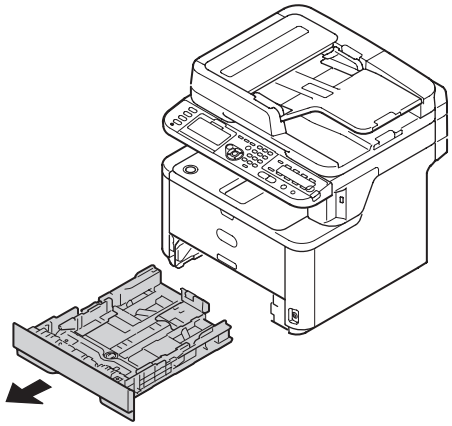
Note! Do not use solvents including methyl alcohol, and thinner.

5.3 Cleaning the Feed rollers and the Retard roller

(1) Power off the MFP.

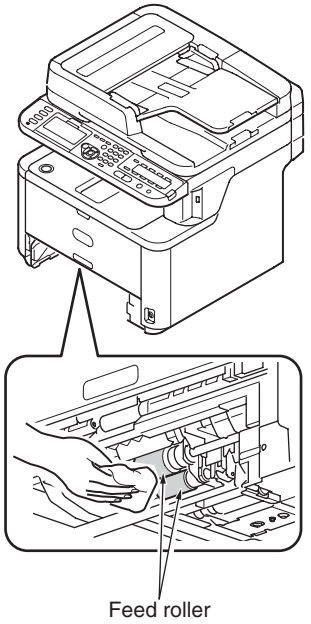


(2) Pull the tray out.



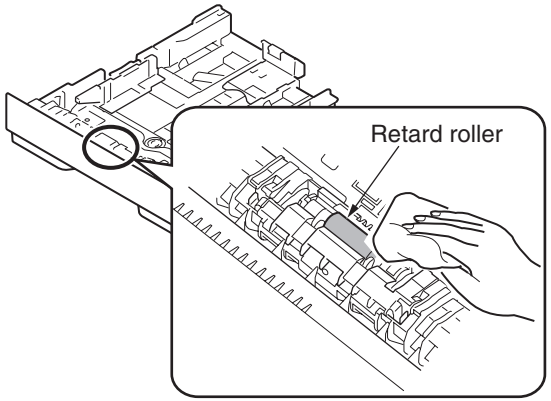
(3) Wipe two paper feed rollers inside the printer with a soft cloth that has been slightly moistened with water and then squeezed well.

Note! Use water only.

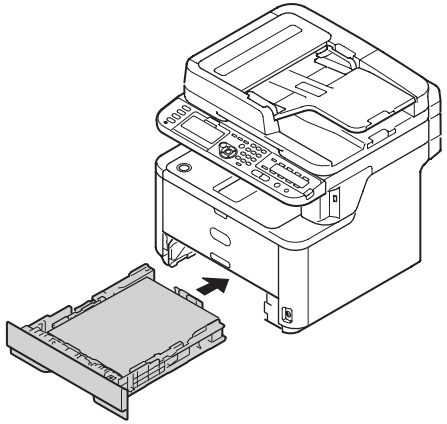


(4) Wipe two paper feed rollers in the tray with a soft cloth that has been slightly moistened with water and then squeezed well.

Note! Use water only.

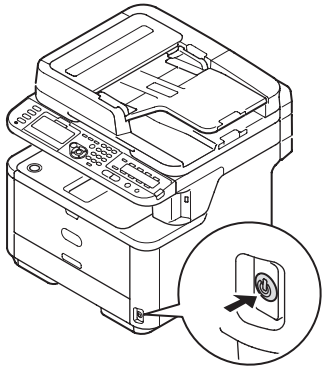


(5) Push the tray back into the MFP.

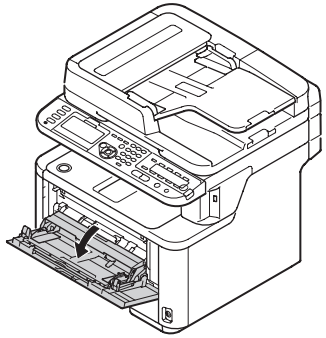


5.4 Cleaning the MPT Feed rollers

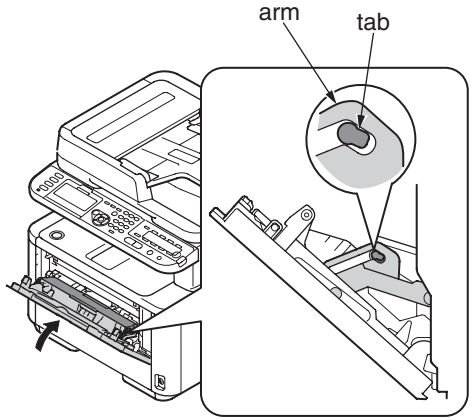
(1) Power off the MFP.



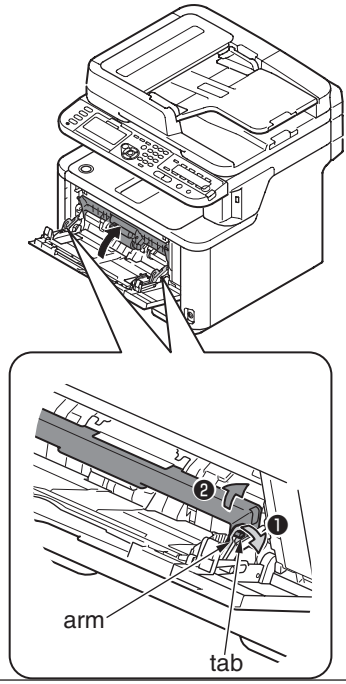
(2) Open the MPT.



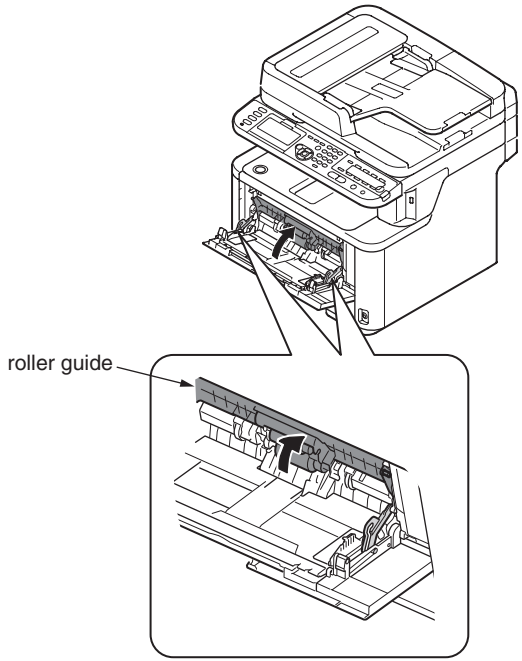
(3) Close the MPT gently to a position where the left and right tabs fit the arm grooves.



(4) Separate the tabs on the roller guide from the left and right arms by opening the arms outside.

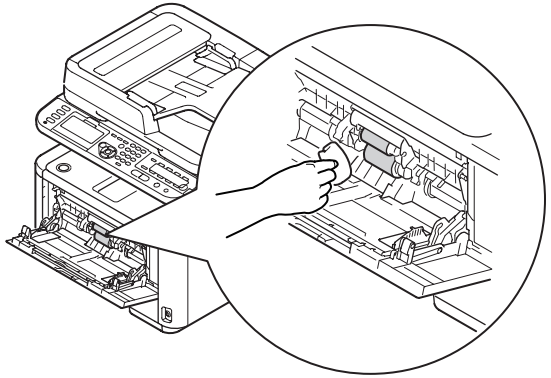


(5) Raise the roller guide until it comes in contact with the MFP.



(6) Wipe the two feed rollers with a tightly wrung cloth soaked in water through the opening for MPT.

Note! Use water only.

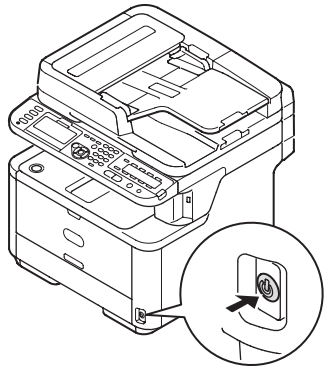


(7) Close the MPT is performed by the inverse procedure with opening.

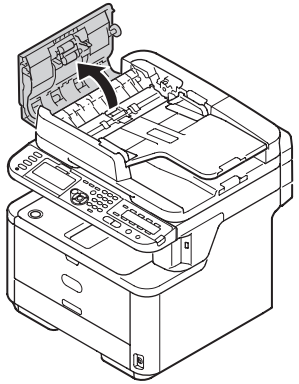
5.5 Cleaning Rollers in the ADF

If the document feeding rollers in the ADF are contaminated with ink, toner particles or paper dust, documents and outputs get dirty and a paper jam may occur. To prevent this, it is recommended to clean the rollers once a month.

(1) Power off the MFP.

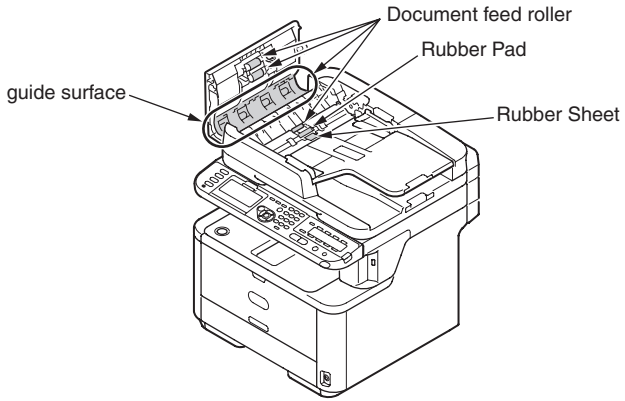


(2) Open the ADF cover.

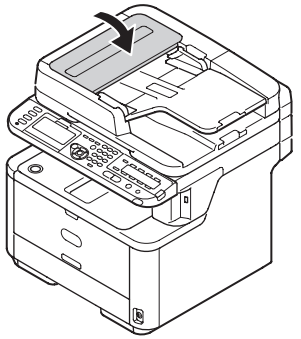


(3) Wipe the document feed roller, guide surface, rubber pad, and rubber sheet with a soft cloth that has been slightly moistened with water and squeezed well. Wipe the whole surface of the roller while turning it with your hand.

Note! If the rollers get too dirty, wipe them with a soft cloth lightly moistened with neutral detergent, and then wipe it again with a soft cloth lightly moistened with water.



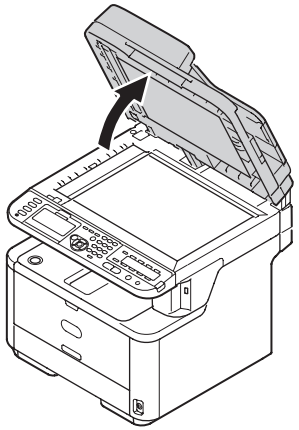
(4) Close the ADF Cover.



5.6 Cleaning the Document Glass

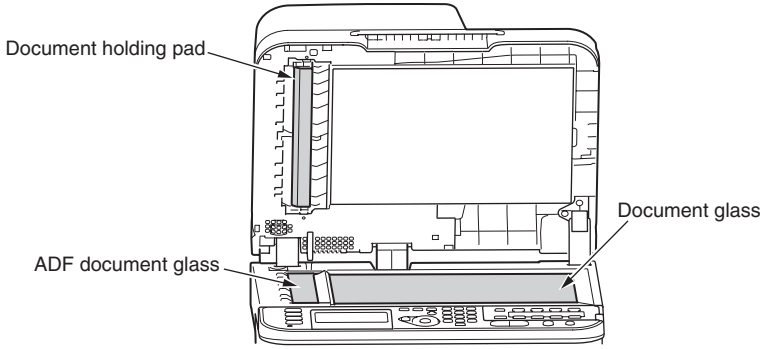
It is recommended to clean the document glass once a month to maintain image quality of the printouts.

(1) Open the document glass cover.



(2) Wipe the ADF document holding pad ,document glass ,and ADF document glass gently with a soft cloth that has been slightly moistened with water and squeezed well.

Caution! Do not use benzine, thinners or alcohol as a cleaning agent. They may damage the plastic parts of the MFP.

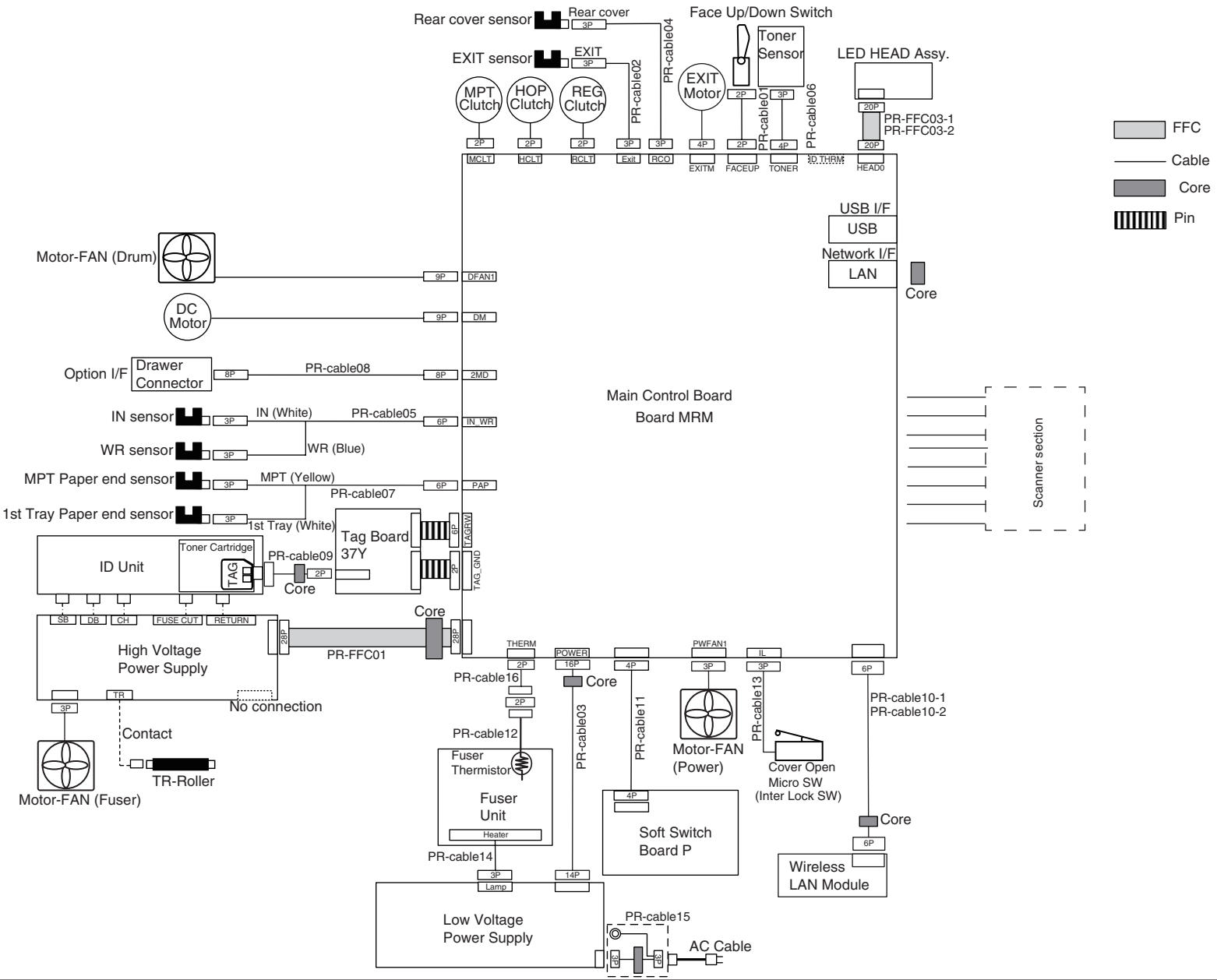


(3) Close the document glass cover.

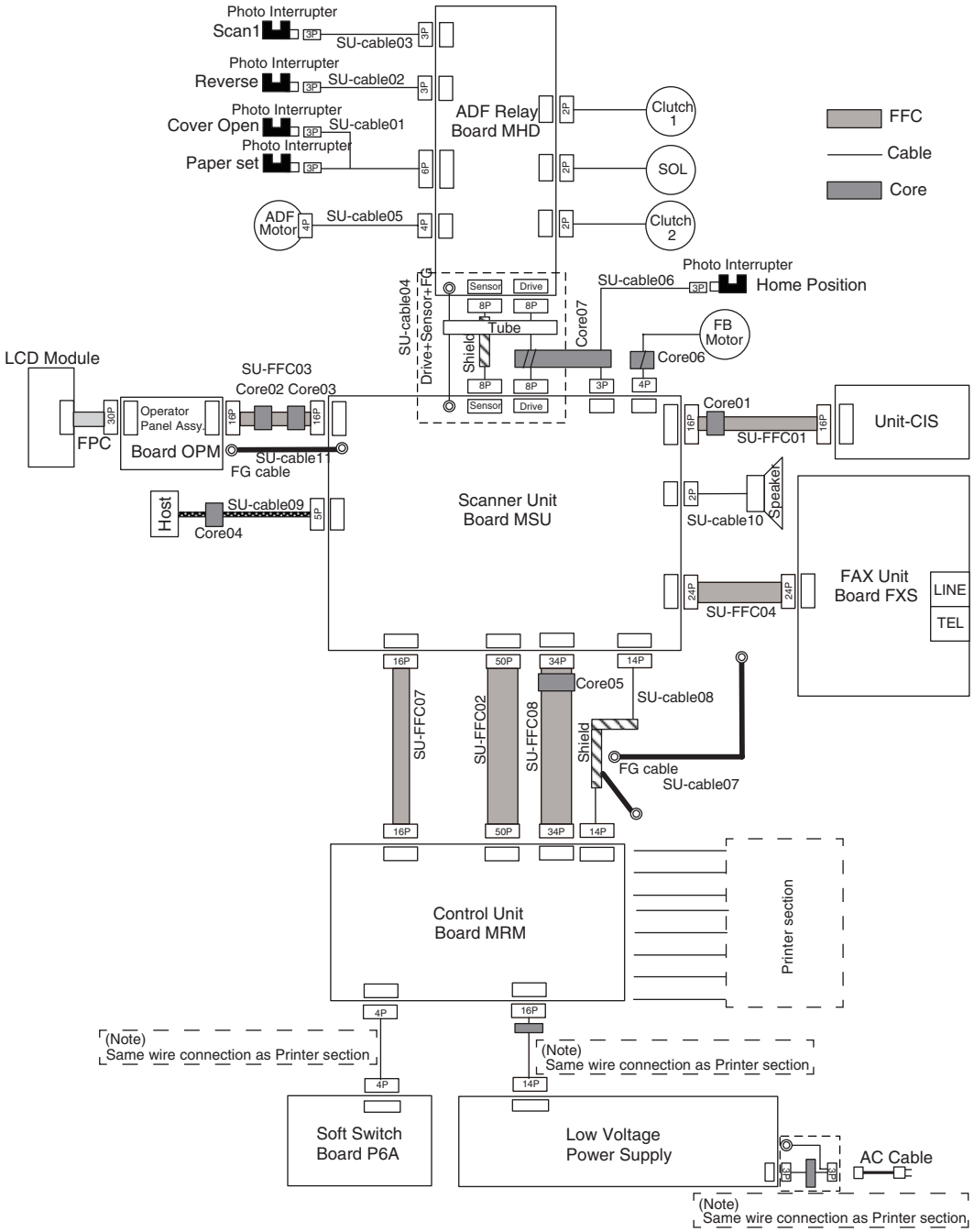
6. CONNECTION DIAGRAMS

6.1 Connection diagram

(1) Printer section



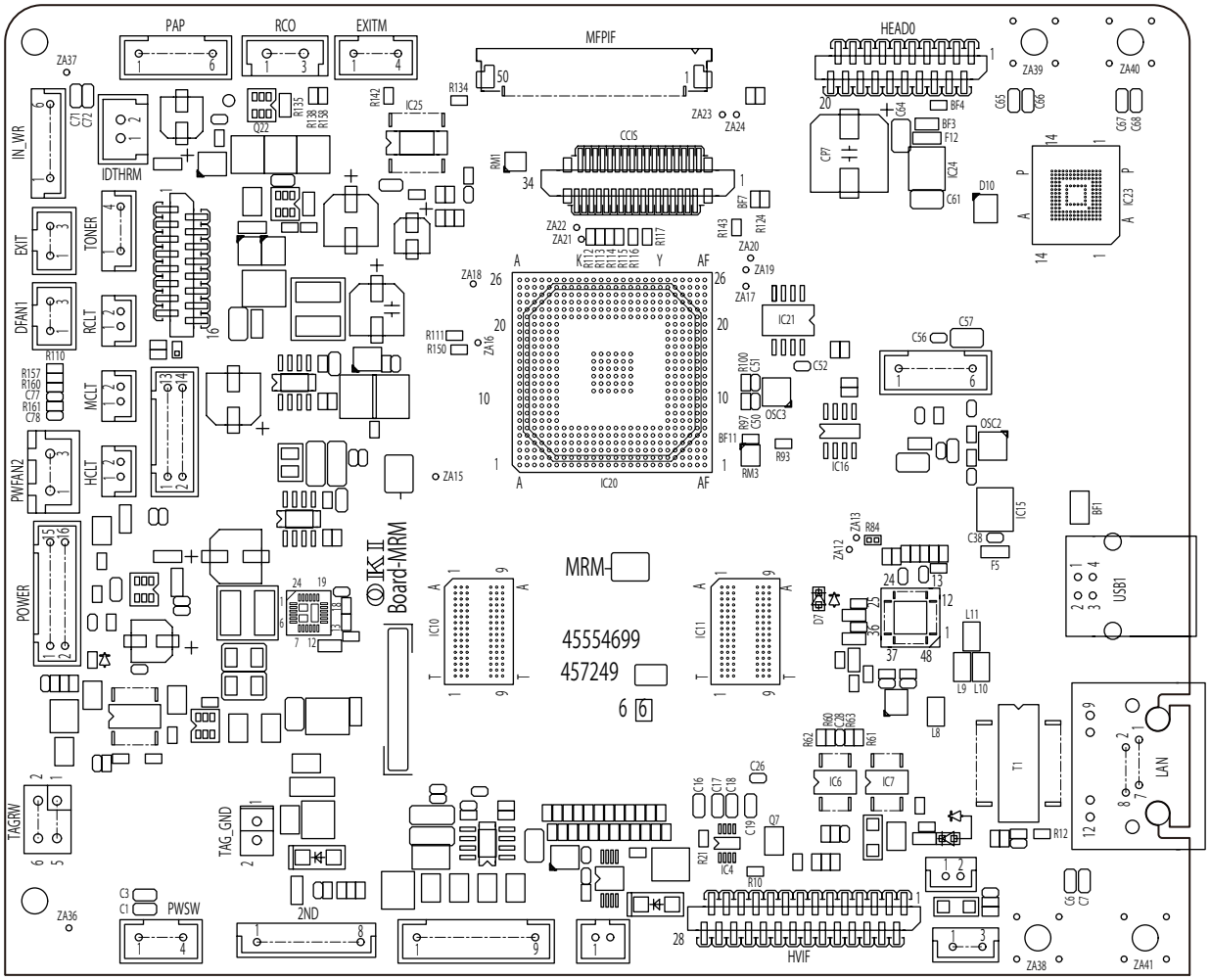
(2) Scanner section



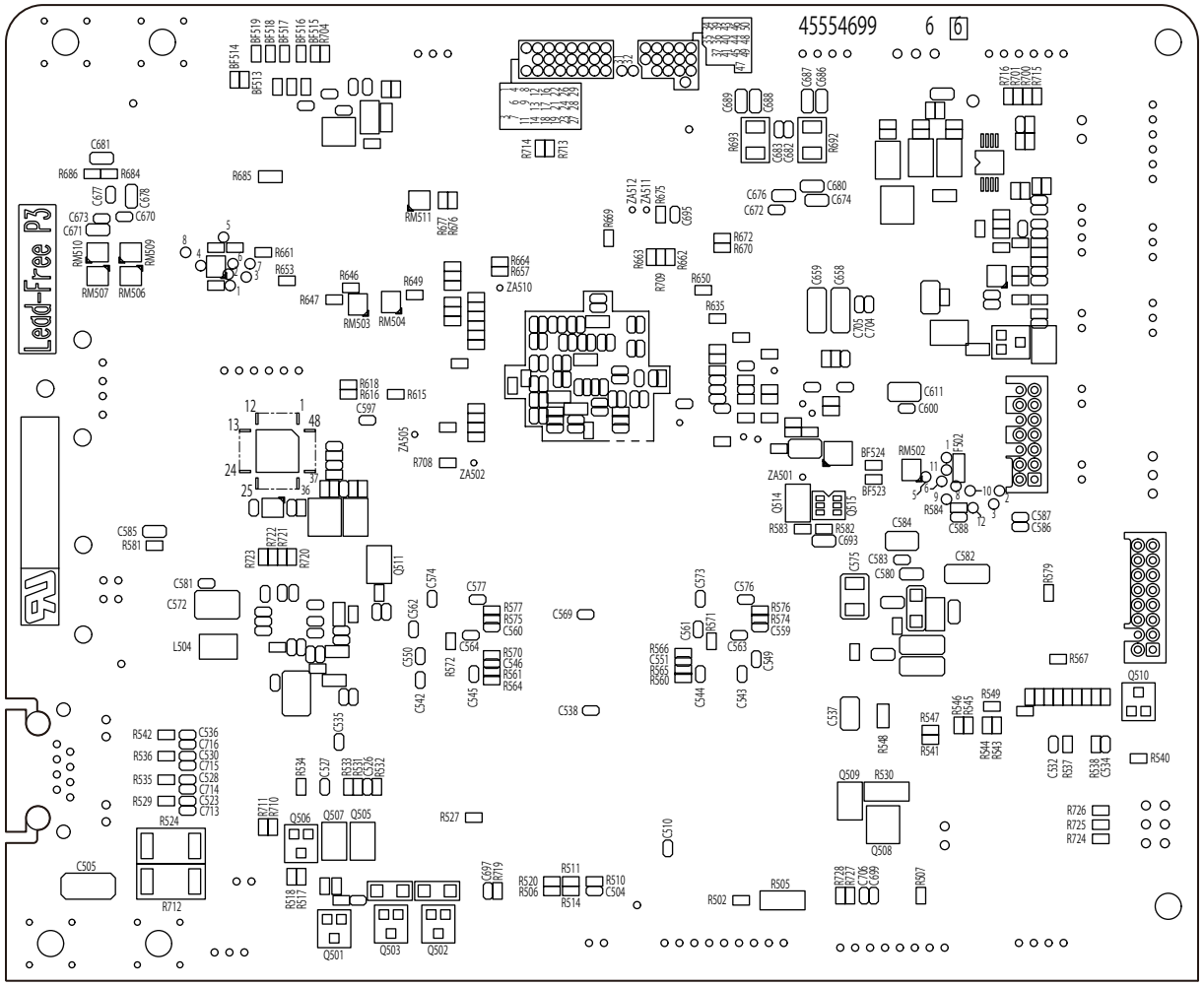
6.2 Board Layout

(1) Main control Board

Component side

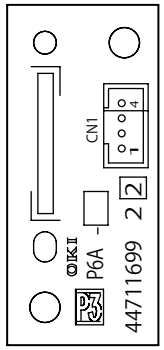


Soldering side



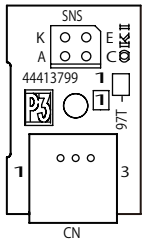
(2) Soft power switch Board

Component side



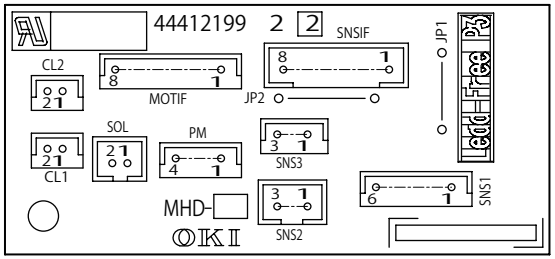
(3) Toner sensor Board

Component side



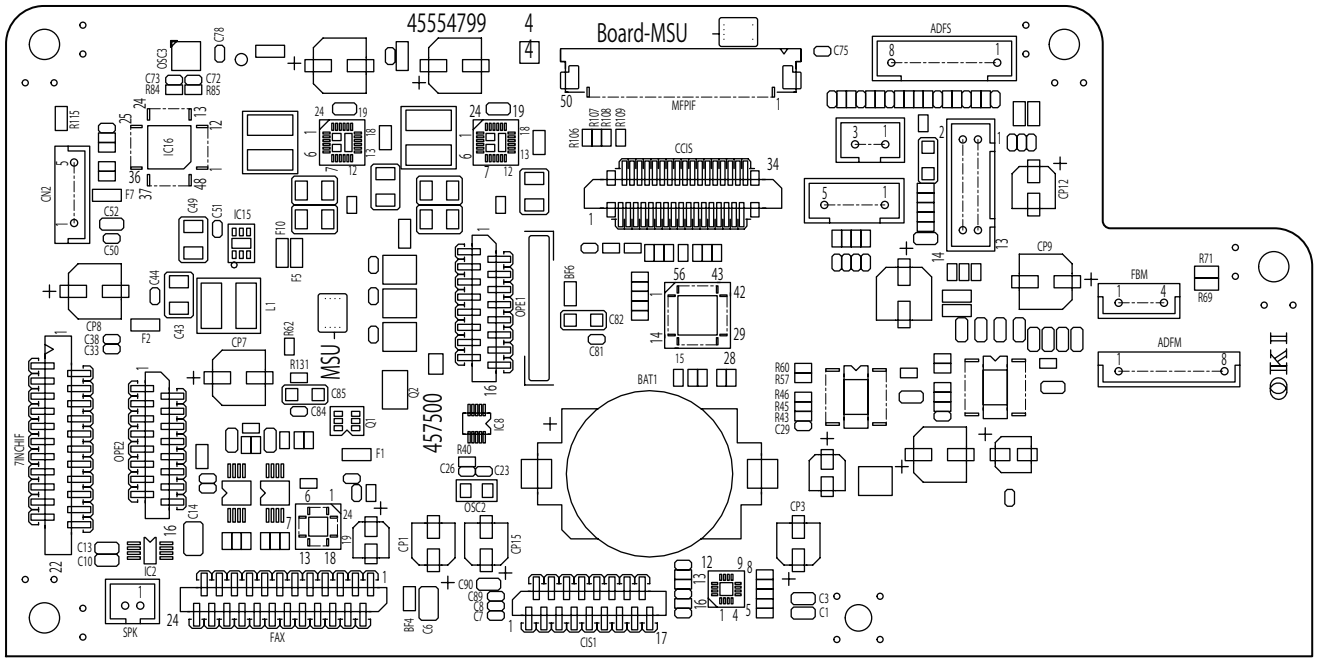
(4) ADF Relay Board

Component side

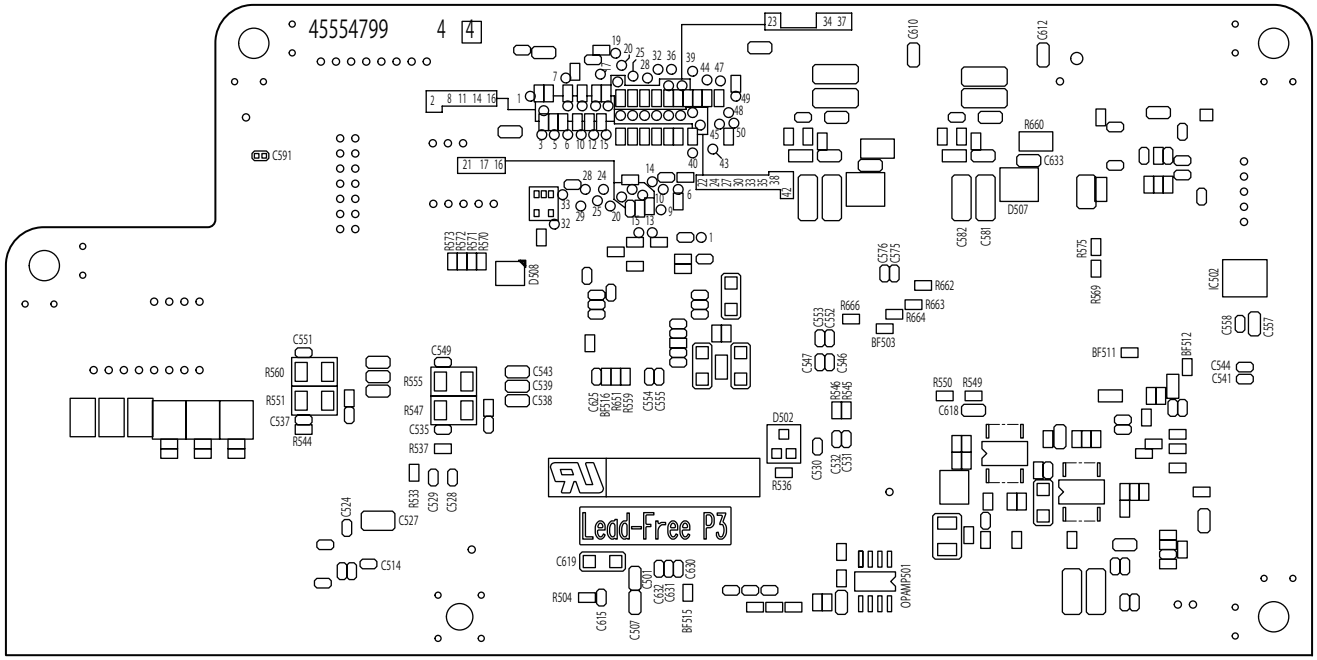


(5) Scanner Board

Component side

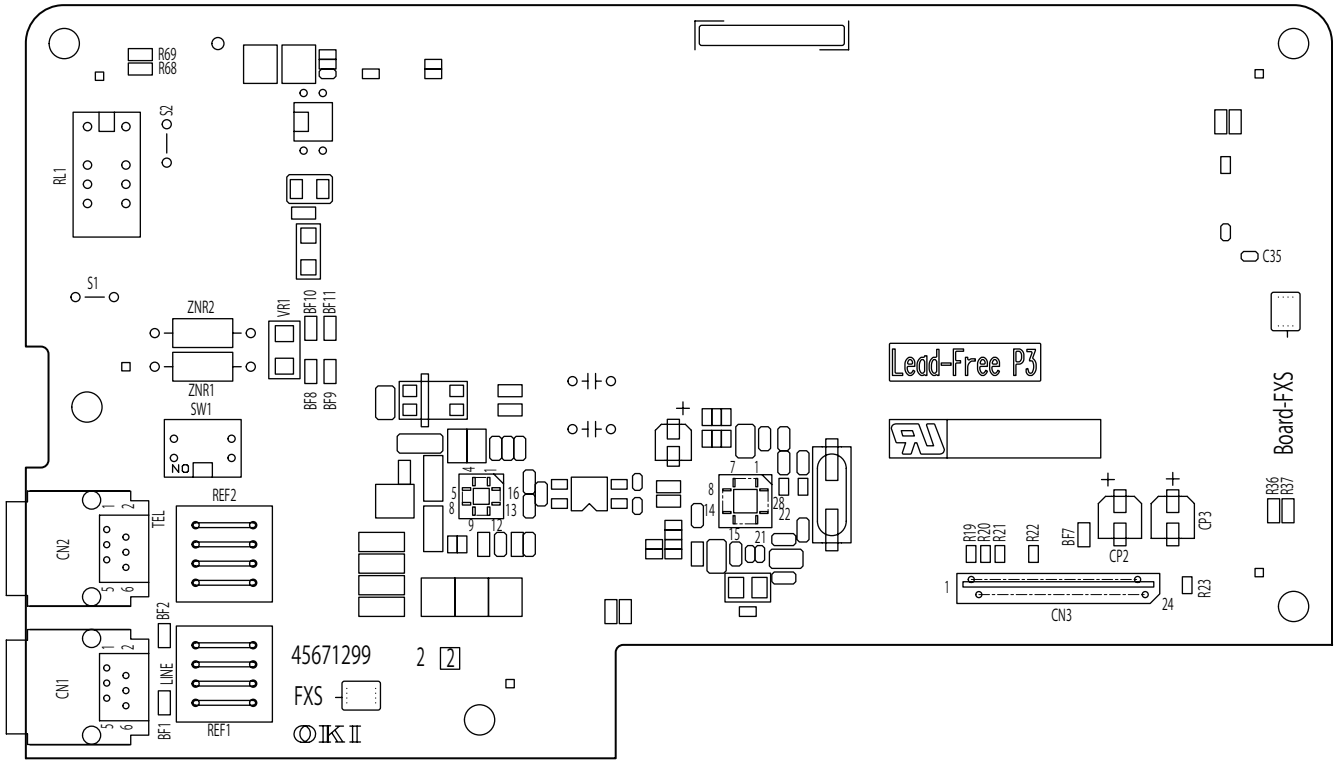


Soldering side



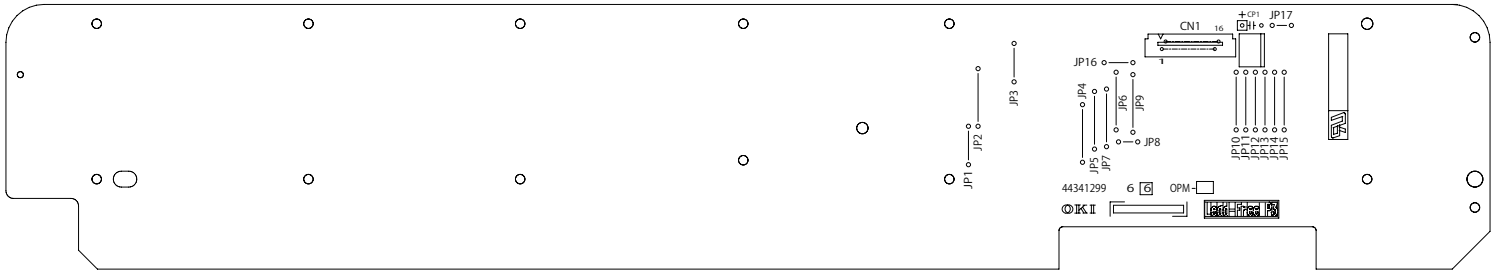
(6) FAX Board

Component side

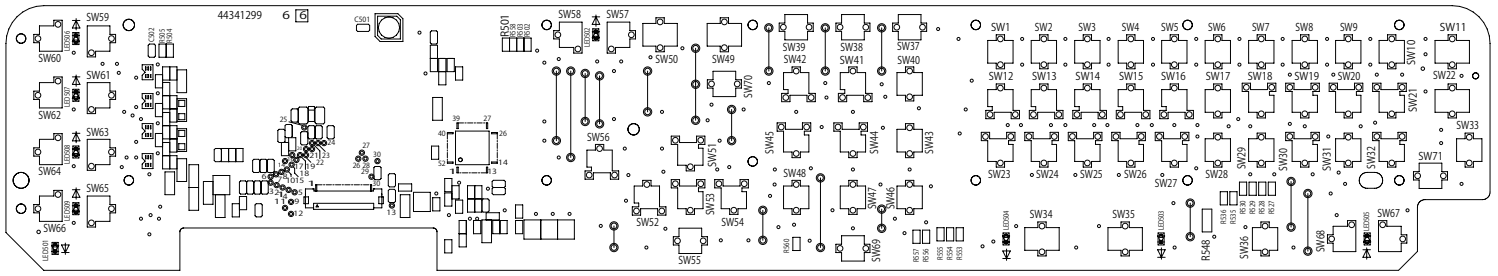


(7) OP Panel Board

Component side

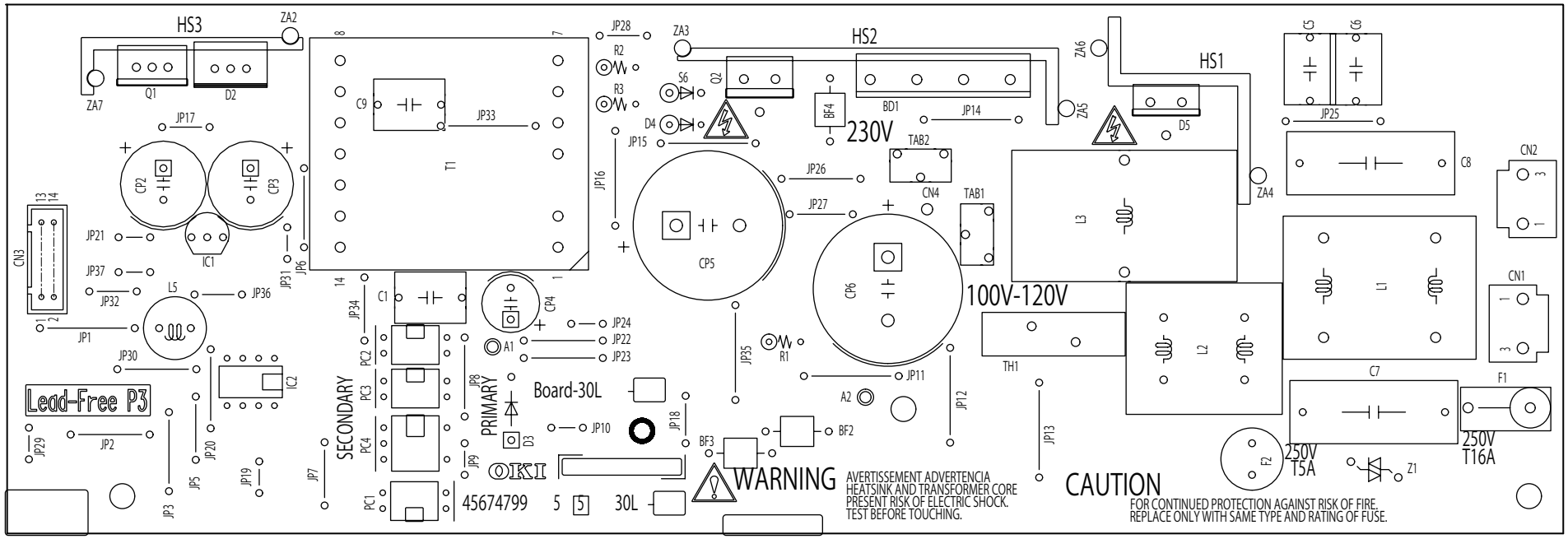


Soldering side

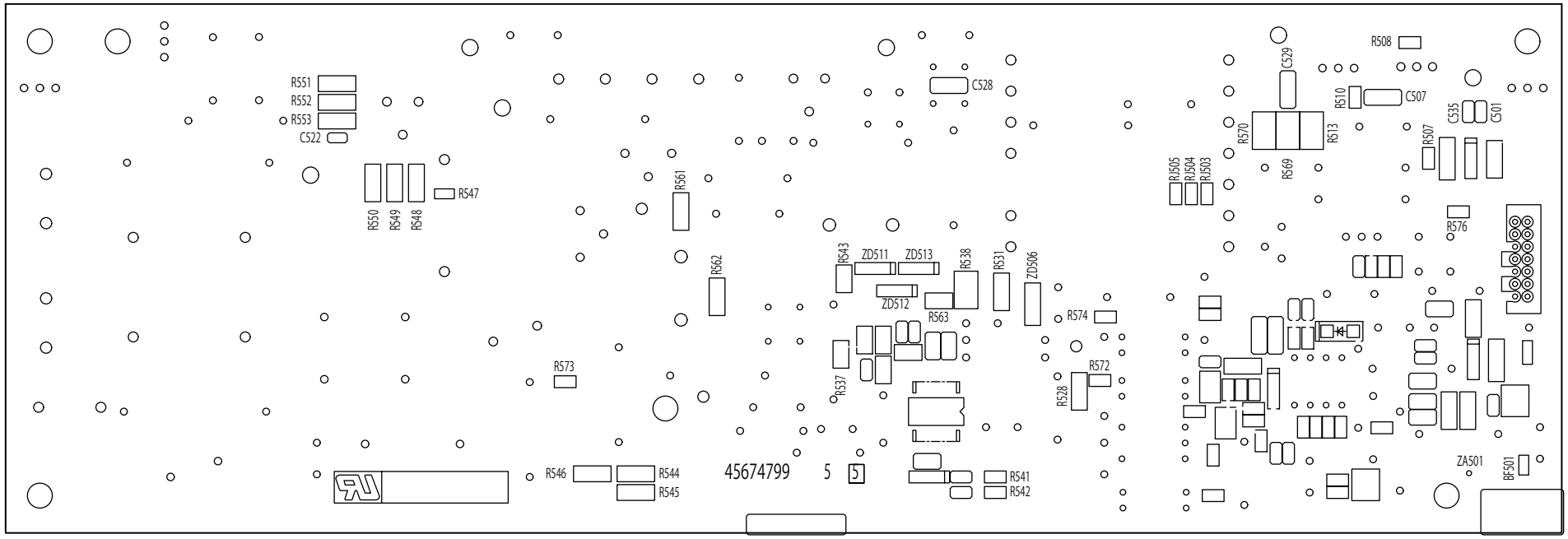


(8) Low-Voltage Power Board

Component side

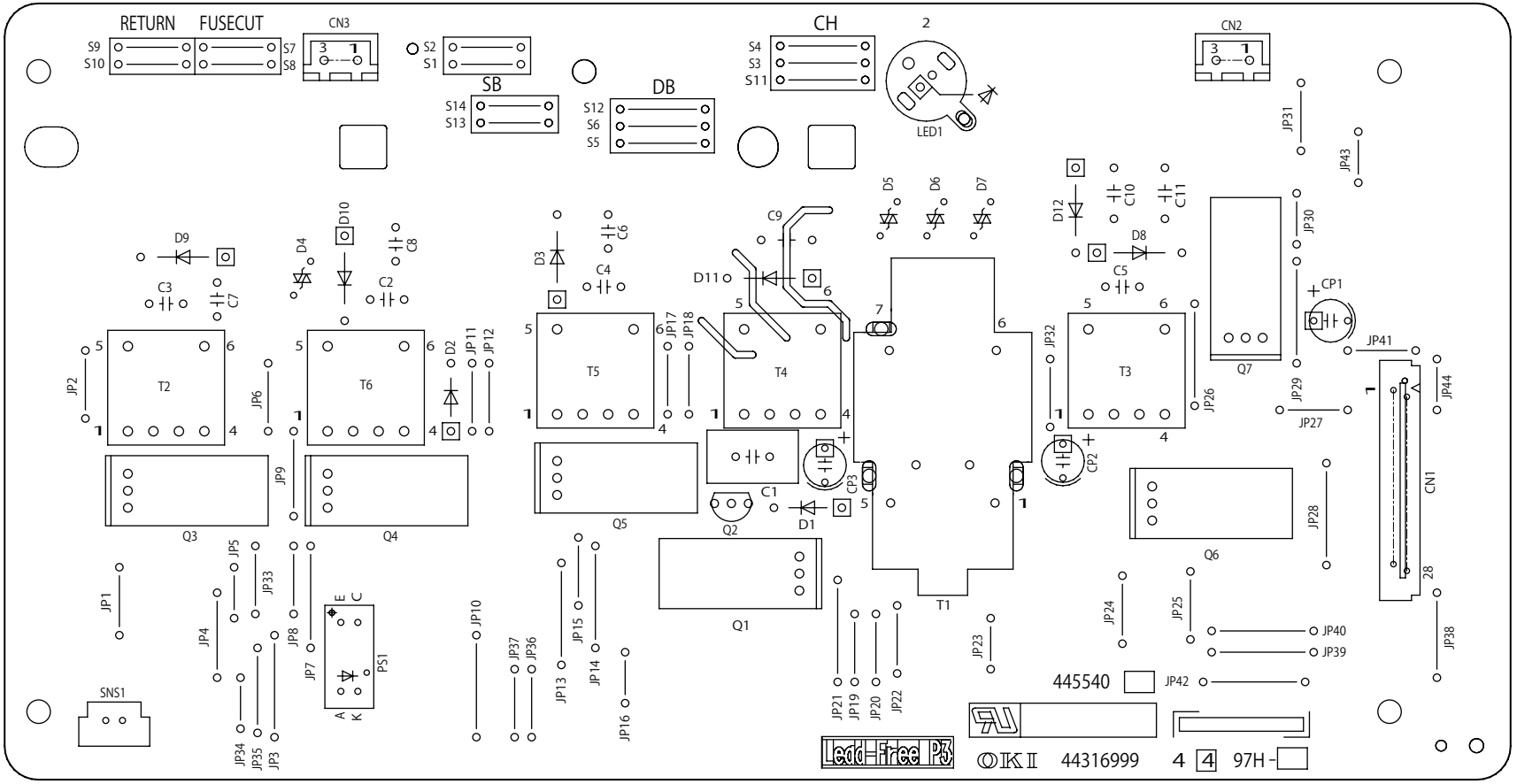


Soldering side

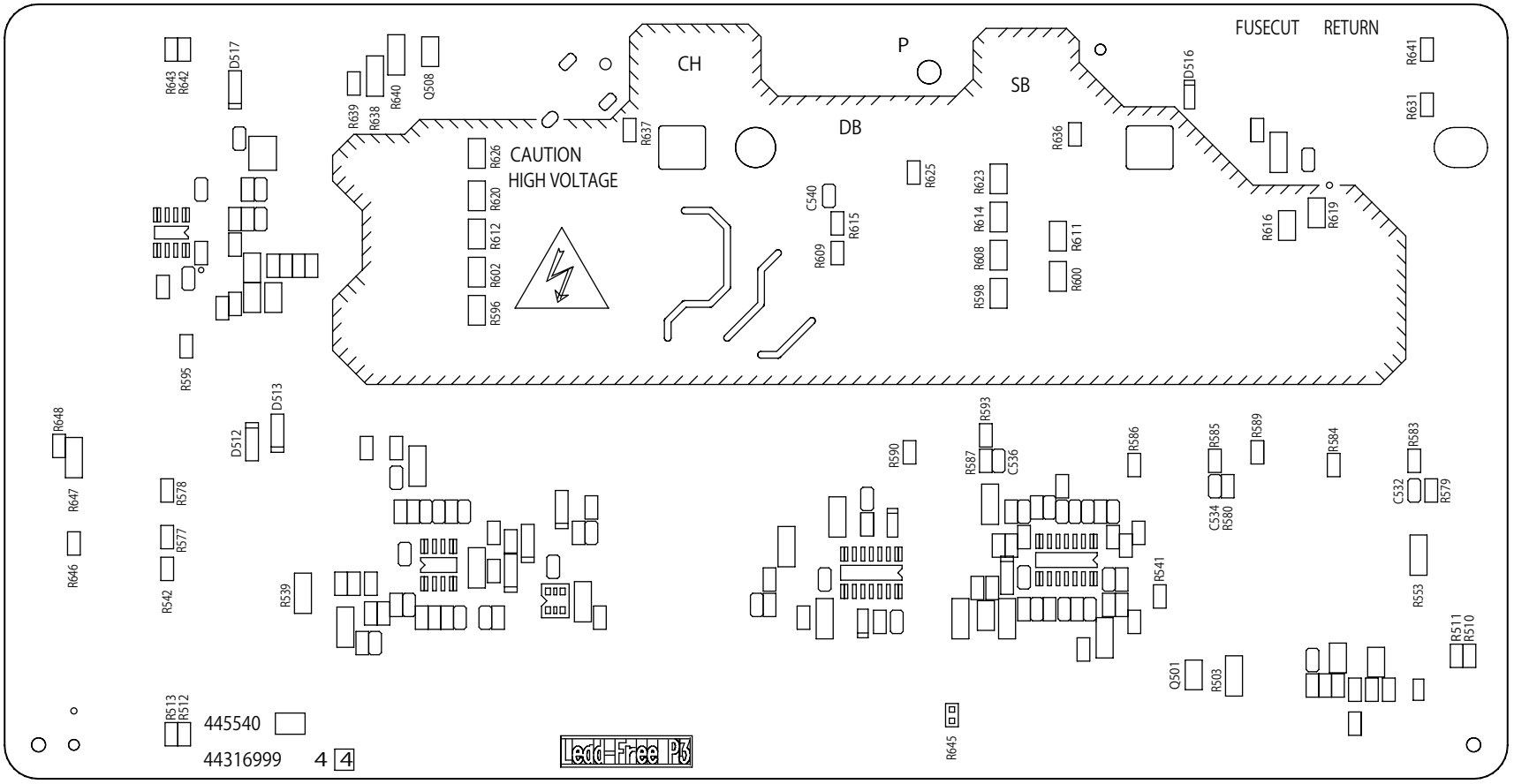


(9) High-Voltage Power Board

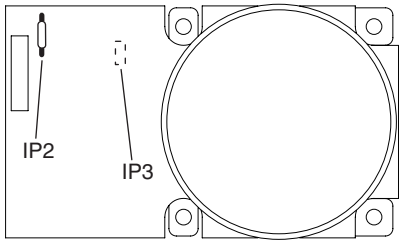
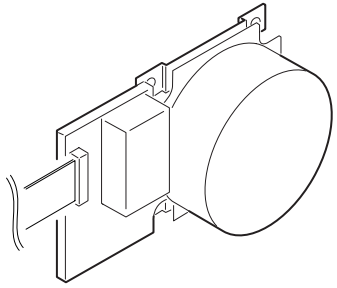
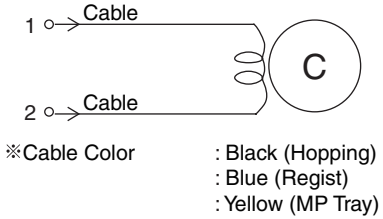
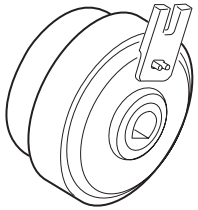
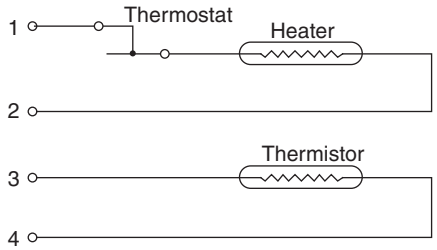
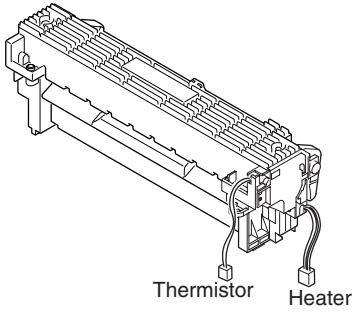
Component side

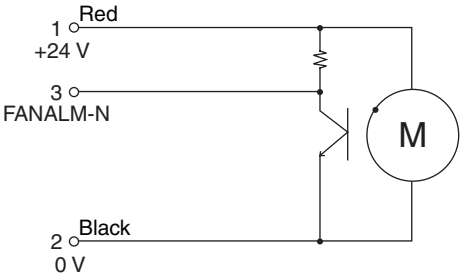
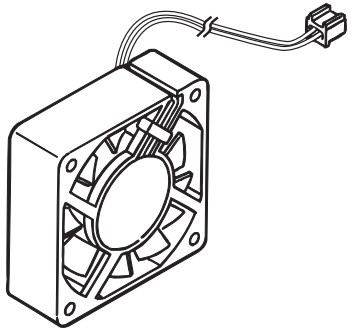
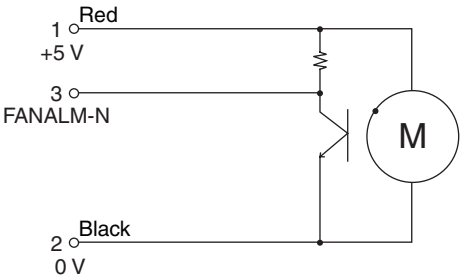
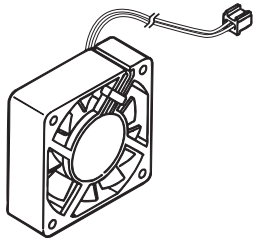
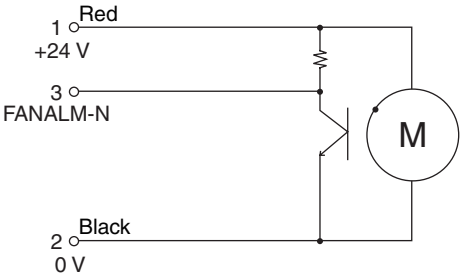
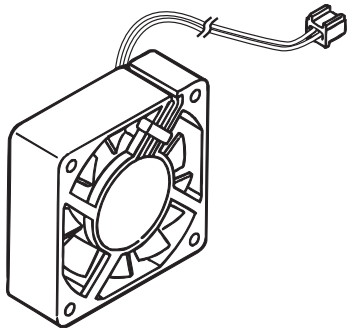


Soldering side



6.3 Resistance value

Unit	Circuit Diagram	Part Diagram	Resistance Value
DC Motor			Both ends of IP2 and IP3: 1 Ω or less
Clutch (Hopping) (Regist) (MP Tray)			Between Pin1 and Pin2 : 240 Ω
Fuser Assy			Between Pin1 and 2: Several to to several tens of ohms Between pin3 and 4 :360K Ω At the ambient temperature (25°C)

Unit	Circuit Diagram	Part Diagram	Resistance Value
FAN Motor (Fuser FAN, (80×25))			
FAN Motor (Drum FAN, (40×15))			
FAN Motor (Power FAN, (60×25))			

6.4 Firmware Information

6.4.1 ROM control numbers

(1) Firmware suite

This MFP can upgrade of a program using Firmware suite. Firmware suite is the file which combined and unified two or more firmware to one.

Firmware (PJL format)	Epsilon #	Notes
Firmware suite	44946001FY01	

Note! If SU board or CU board is replaced, Please upgrade firmware by Firmware suite.
It is necessary to take the synchronization of the firmware version of SU board and CU board.

6.4.2 Instruction of FW update

(1) FirmSuite includes all FWs listed below,

CU FW, NIC FW, PU FW, SU FW, Starting Logo.

The following is the updating order of FWs.

SU FW → Starting Logo → NIC FW → PU FW → CU FW

(2) Don't turn off the machine while it displays the message below,

"Wait a moment. Executing maintence".

Please follow the steps below,

i) Turn OFF/ON the machine.

ii) Send Firm Suite

iii) The machine displays "Wait a moment. Executing maintenance".

iv) The machine displays "PASSED".

v) Turn OFF/ON the machine

vi) Check the firmware version

Note! This FW update should be removed the TEL cable from the Scanner unit of the mainbody.

6.4.3 Checking and indication of the revision number

(1) Print out MenuMap and check to make sure that the firmware revision number has been updated.

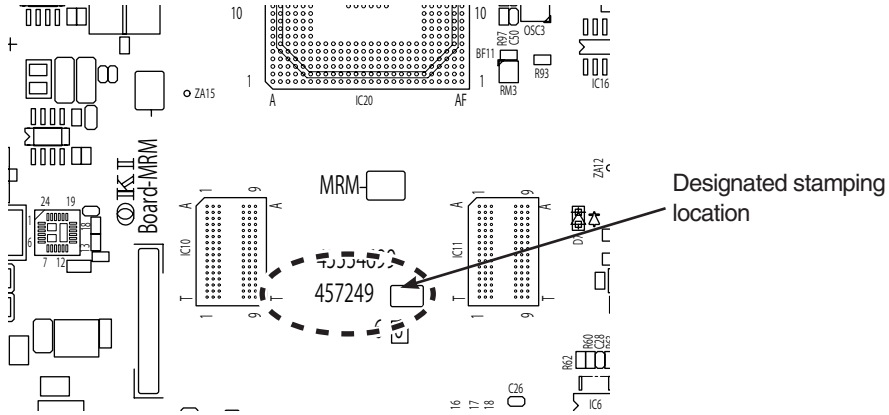
Configuration

Serial Number:BETA110030
Firmware Version:A01.02_0_4 CU Version:C1.02 [I01.18 U00.29 S
PU Version:00.00.22 [PI03.20 LO00.00.00] ET:2100A804 030403
PCL Program Version:06.22 [04.34 X05.16 P00.55 F00.54] XPS

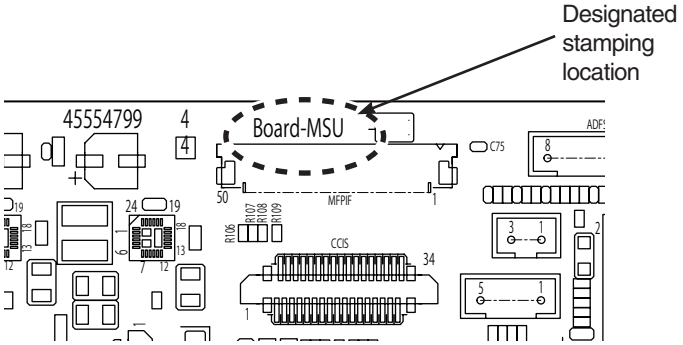
Country Code:International
Duplex:Installed Tray 1:A4 A
Flash Memory:3215 MB [F65]
OEL MC:CP FX:E
Network Version:00.43 Web Remote:00.25 IM Version:01.02
Panel Version:02.05.02 SU Hardware Type:002-O-00
ENGINE:1417 K:1412 T:1 I:0 D:1680 W:287100

6.4.4 Stamp of maintenance board indication

A designated article number is stamped in the area for maintenance board indication on the CU/PU board (MRM) in accordance with the 45724901YA.



A designated article number is stamped in the area for maintenance board indication on the SU board (MSU) in accordance with the 45762401RP.



7. APPENDIX

7.1 List of Initialized range

Setup Parameters		Administrator Setup																Firmware Update			Remarks
		Network factory defaults *1	Format Partition *3 (Common partitions)	Format Partition *3 (PCL partitions)	Format Partition *3 (PS partitions)	FLASH initialization *5	Language initialization *6	Reset Settings *7	Erase Privacy Data *8	Main counter reset *9	Consumable replacement reset *10	Job log deletion *11	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Registration data	E-mail address registration data								CL				CL		CL						
	Access control information registration data								CL				CL		CL						
	Speed dial registration data								CL				CL		CL						
	F-code bulletin board document							CL	CL						CL	CL	CL				
	Profile list								CL				CL		CL						
	Networkconnected PCs list								CL				CL		CL						
	Job memory registration data							CL	CL						CL	CL	CL				
	Custom demo data					CL			CL				CL		CL						
	Font (SD PCL area)			CL		CL			CL				CL		CL						
	Font (SD PS area)				CL	CL			CL				CL		CL						
	Font (FLASH PCL area)					CL			CL				CL		CL						
	Font (FLASH PS area)					CL			CL				CL		CL						
	Certificate								CL				CL		CL						
	Language file						CL						CL		CL						
	Auto delivery setup								CL				CL		CL						
	Communication data save setup								CL						CL	CL					

Setup Parameters		Administrator Setup																Firmware Update			Remarks
		Network factory defaults *1	Format Partition *3 (Common partitions)	Format Partition *3 (PCL partitions)	Format Partition *3 (PS partitions)	FLASH initialization *5	Language initialization *6	Reset Settings *7	Erase Privacy Data *8	Main counter reset *9	Consumable replacement reset *10	Job log deletion *11	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Setup data	Administrator password							FR	FR					FR	FR	FR					
	Paper/Sorting setup							FR	FR						FR	FR					
	Copy function setup							FR	FR						FR	FR					Menu under "Admin Setup" - "Copy Setup"
	Fax function setup							FR	FR				FR		FR	FR *18	FR *18				Menu under "Admin Setup" - "Fax Setup"
	F-code box							FR	FR						FR	FR	FR				
	Scanner function setup							FR	FR				FR *19		FR	FR					Menu under "Admin Setup" - "Scanner Setup"
	Print function setup							FR *23	FR *23						FR *23	FR					Menu under "Admin Setup" - "Print Setup"
	Network setup	FR						FR	FR				FR		FR	FR			FR		Menu under "Admin Setup" - "Network Menu" - "Network Setup"
	Mail server setup	FR						FR	FR				FR		FR	FR					Menu under "Admin Setup" - "Network Menu" - "Mail Server Setup"
	LDAP server setup	FR						FR	FR				FR		FR	FR					Menu under "Admin Setup" - "Network Menu" - "LDAP Server Setting"

Setup Parameters		Administrator Setup																Firmware Update			Remarks
		Network factory defaults *1	Format Partition *3 (Common partitions)	Format Partition *3 (PCL partitions)	Format Partition *3 (PS partitions)	FLASH initialization *5	Language initialization *6	Reset Settings *7	Erase Privacy Data *8	Main counter reset *9	Consumable replacement reset *10	Job log deletion *11	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Setup data	Secure print server setup	FR						FR	FR				FR		FR	FR					Menu under "Admin Setup" - "Network Menu" - "Secure Protocol Server Setting"
	Management setup							FR *25	FR						FR	FR					Menu under "Admin Setup" - "Management"
	Time							FR	FR						FR						Value set through "Admin Setup" - "User Install" - "Time Setup", "Set Daylight Saving", "Time Zone"
	User Install							FR	FR						FR	FR					Menu under "Admin Setting" - "User Install"
	User Install (fax-related settings)							FR	FR				FR		FR	FR *18	FR *18				Menu under "Admin Setting" - "User Install"
	Service technician password															FR					
	System maintenance															FR					
	Scanner maintenance																				Items other than "Service Maintenance" - "Scanner Maintenance" - "Adjust Scan Position" wouldn't be stored permanently.
	Fax maintenance															FR	FR				Obsolete. Unsupported in FN296/7

Setup Parameters		Administrator Setup																Firmware Update			Remarks
		Network factory defaults *1	Format Partition *3 (Common partitions)	Format Partition *3 (PCL partitions)	Format Partition *3 (PS partitions)	FLASH initialization *5	Language initialization *6	Reset Settings *7	Erase Privacy Data *8	Main counter reset *9	Consumable replacement reset *10	Job log deletion *11	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Setup data	Printer maintenance															FR *26					
	JA setting information								CL *27				CL		CL						
Job	Fax Tx data (pending)							CL	CL						CL	CL	CL				
	Fax Rx data (Print wait, Include Secure Receive image)							CL	CL						CL	CL	CL				
	Fax Rx data (confidential box)							CL	CL						CL	CL	CL				
	Secure print job		CL			CL			CL				CL		CL						
	Encrypted secure print job		CL			CL			CL				CL		CL						
Logs	JA log information					CL			CL *27				CL		CL						CAC Setting has been separated from AccessControl during the develpoment of FX750. It behaves following the information same as JA log.
	Usage Report								CL *27				CL		CL						
	Job log information							CL *28	CL			CL	CL		CL	CL *28					
	Debug log												CL		CL	CL					By default the setting is not stored.
	Email/Internet fax communication log								CL				CL		CL	CL					

Setup Parameters		Administrator Setup																Firmware Update			Remarks
		Network factory defaults *1	Format Partition *3 (Common partitions)	Format Partition *3 (PCL partitions)	Format Partition *3 (PS partitions)	FLASH initialization *5	Language initialization *6	Reset Settings *7	Erase Privacy Data *8	Main counter reset *9	Consumable replacement reset *10	Job log deletion *11	Format Flash ROM *13	Reset Admin Password *14	ALL RESET *15	OKIUSER change *16 [Factory default]	Country code change *17 [Default setting by sales companies, etc.]	CU FW update	NIC FW update	Scanner FW update	
Logs	Error log														CL						
	Dialing history								(CL)						(CL)						Stored in RAM. Erased when poweroff. i.e, when reboot operation is executed, the contents disappear.
	Fax Tx/Rx history							CL	CL						CL	CL	CL				
	Mail address history							CL	CL						CL	CL	CL				
	IFAX send address history							CL	CL						CL	CL	CL				
	Fax communication result information							CL	CL						CL	CL	CL				Including T30 monitor.
Counters	Maintenance counters (life-related)																				The value is owned by PU.
	Maintenance counters (JA-related) *24																				
	Main counters (dealer statisticsrelated)									CL			CL		CL						
	Consumable replacement (related to the main counter)										CL		*22								
	Print statistic password *21														FR	FR					
FW	NIC-F/W (web page included)												CL								
Other	Factory adjustment (gamma correction data)																				

*1 : Network factory defaults: "Admin Setup" - "Network Menu" - "Network Setup" - "Factory Defaults"
: It is executed to reset only network settings to the factory defaults make settings again due to unsuccessful network access.

*2 : (Undefined number)

*3 : Flash Memory format: "Admin Setup" - "Management" - "Flash Memory Setup" - "Format Partition"

*4 : (Undefined number)

*5 : FLASH initialization: "Admin Setup" - "Management" - "Flash Memory Setup" - "Initialize"

*6 : Language initialization: "Admin Setup" - "Management" - "Language Maint Setup" - "Initialize"
: This menu is executed when users want to delete downloaded language data and reset the display language back to English temporarily.

*7 : Reset Settings: "Admin Setup" - "Management" - "Reset Settings"
: This menu is executed to reset the device settings (including network settings) back to the defaults temporarily and make settings again when device operation is unstable, etc.

*8 : Erase Privacy Data: "Admin Setup" - "User Install" - "Erase Privacy Data"
: Not displayed when Job Accounting is operating.
: Users must execute this menu with "Flash Memory Setup" - "Initialize" before disposing of the device to prevent personal information from leaking.

*9 : Main counter reset: "Admin Setup" - "Management" - "Print Statistics" - "Reset Main Counter"
: Not displayed in MPS mode.

*10 : Consumable replacement reset: "Admin Setup" - "Management" - "Print Statistics" - "Reset Supplies Counter"
: Not displayed in MPS mode.

*11 : Job log deletion: "Admin Setup" - "Management" - "Job Log Setup" - "Clear Job Log"
: This menu is executed when users want to delete only the usage history of the device.

*12 : (Undefined number)

*13 : Format Flash ROM: "Service Maintenance" - "System Maintenance" - "Format Flash Memory"

*14 : Reset Admin Password: "Service Maintenance" - "System Maintenance" - "Reset Admin Password"
: This menu is used to initialize only the administrator password by support when users forget the administrator password.

*15 : ALL RESET: "Service Maintenance" - "System Maintenance" - "All Reset"
: Not displayed in MPS mode.
: This menu must be executed to delete customer information before dealers etc. lend devices to the next customers.

*16 : OKIUSER change: "Service Maintenance" - "System Maintenance" - "OKIUSER"
: Not displayed in MPS mode.

*17 : Country code change: "Admin Setup" - "Fax Setup" - "Fax Setting" - "Country Code"

*18 : Settings are initialized when their defaults are changed due to changes in destinations or country codes.

*19 : Only "File Name", "Template" under "Admin Setup" - "Scanner Setup" - "E-mail Setup" is initialized.

*20 : (Undefined number)

*21 : No means is provided to change the setting of the print statistic password.

*22 : Executing Format Flash ROM displays the total number of replacement retained in the CU FW of the device.
Consumable replacement information (toner/drum/belt/fuser) in a print statistic report shows a calculation result of the formula "actual PU replacement - CU display difference = replacement information."
Format Flash ROM clears the value of "CU display difference."

*23 : "PS Setup" - "L1 Tray" cannot be initialized by "Reset Settings"/"ErasePrivacy Data"/"All Reset."

*24 : In this item, the following Counters that belongs to Job Accounting's maintenance category is showed.
① Total Color A4/Letter Impressions
② Total Mono A4/Letter Impressions
③ Total ADF Pages Scanned [A4/Letter Conversion]
④ Total Pages Scanned [A4/Letter Conversion]

*25 : "Admin Setup" - "Management" - "System Setup" - "Access Control" is NOT included. The resetting condition is same as「Access control information registration data」.

*26 : "Service Maintenance" - "Print Maintenance" - "Dot Shift" is NOT resetted.

*27 : "Erase Privacy Data" would NOT be showed in panel menu if Job Accounting is enabled.

*28 : JobLog be deleted during reboot, for the item of JobLog's [store/no store] be resetted to [no store].