

# MX700

# Service Manual

**Revision 0**



## QY8-13BM-000

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### Scope

This manual has been issued by Canon Inc., to provide the service technicians of this product with the information necessary for qualified persons to learn technical theory, installation, maintenance, and repair of products. The manual covers information applicable in all regions where the product is sold. For this reason, it may contain information that is not applicable to your region.

This manual does not provide sufficient information for disassembly and reassembly procedures.  
Refer to the graphics in the separate Parts Catalog.

### Revision

This manual could include technical inaccuracies or typographical errors due to improvements or changes made to the product. When changes are made to the contents of the manual, Canon will release technical information when necessary. When substantial changes are made to the contents of the manual, Canon will issue a revised edition.

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## 4. MACHINE TRANSPORTATION



## 1. MAINTENANCE

### 1-1. Adjustment, Periodic Maintenance, Periodic Replacement Parts, and Replacement Consumables by Service Engineer

#### (1) Adjustment

Adjustment	Timing	Purpose	Tool	Approx. time
EEPROM initialization	- At logic board replacement	To initialize settings	None. Perform in the service mode.	1 min.
Destination settings (EEPROM settings)	- At logic board replacement	To set destination.	None. Perform in the service mode.	1 min.
Ink absorber counter resetting (EEPROM settings)	- At logic board replacement - At ink absorber replacement	To reset the ink absorber counter.	None. Perform in the service mode.	1 min.
Ink absorber counter value setting (EEPROM settings)	- At logic board replacement - At ink absorber replacement	To set the ink amount data in the ink absorber to the ink absorber counter.	None. Perform in the service mode.	1 min.
Paper feed motor position adjustment	- At paper feed motor replacement	To adjust the belt tension. (Position the paper feed motor so that the belt is stretched tight.)	None.	5 min.
Carriage rail position adjustment	- At carriage unit replacement - After carriage rail removal and re-assembly	To adjust the distance between the print head and paper (between the carriage and the platen).	None.	5 min.
Print head alignment	- At print head replacement - At logic board replacement - When print quality is not satisfying	To secure the dot placement accuracy.	None.	3 min. (Manual)
Grease application	- At carriage unit or carriage rail replacement - At LF earth spring or paper feed roller replacement - At PG - AP arm lever replacement	To maintain sliding properties of the following items: - Carriage rail - LF earth spring - Eject roller - PG - AP arm lever	- FLOIL KG-107A - IF-20 - MOLYKOTE PG641	1 min.
Ink system function check	- At logic board replacement - At spur base replacement - At carriage unit replacement	To maintain detection functionality for presence of the ink tanks and each ink tank position.	None. Perform in the service mode.	1 min.
LCD language settings	- At logic board replacement	To set the language to be displayed on the LCD.	None. Perform in the user mode.	1 min.
Document pressure sheet position adjustment	- At document pressure sheet replacement - DF Base replacement	Hold the sheet with the long side down, then position its upper left corner approx. 1 mm in from the platen glass reference edges (back left).	None. 	1 min.



The screws securing the paper feed motor may be loosened only at replacement of the paper feed motor unit.

## (2) Periodic maintenance

No periodic maintenance is necessary.

## (3) Periodic replacement parts

There are no parts in this machine that require periodic replacement by a service engineer.

## (4) Replacement consumables

There are no consumables that require replacement by a service engineer.

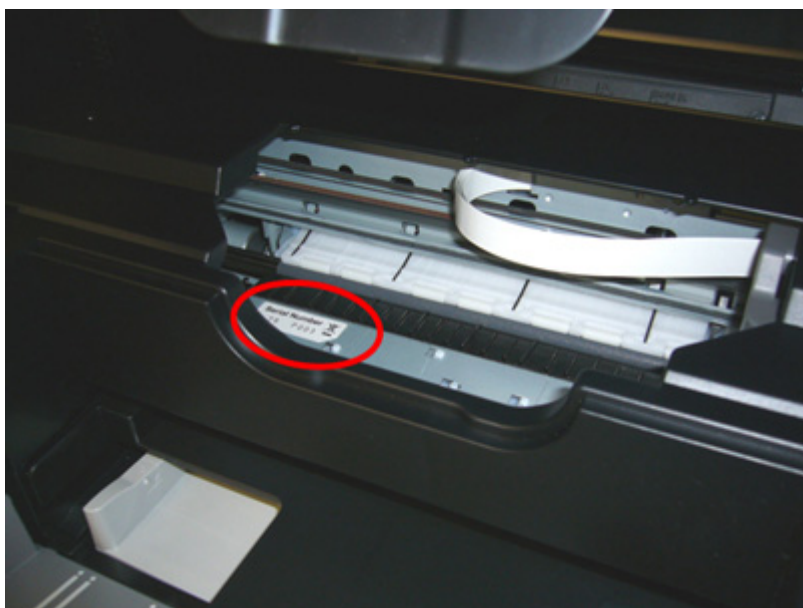
## 1-2. Customer Maintenance

Adjustment	Timing	Purpose	Tool	Approx. time
Print head alignment	At print head replacement	To ensure accurate dot placement.	- Machine buttons - Computer (MP driver)	3 min. (Manual)
Print head cleaning	When print quality is not satisfying.	To improve nozzle conditions.	- Machine buttons - Computer (MP driver)	1 min.
Print head deep cleaning	When print quality is not satisfying, and not improved by print head cleaning.	To improve nozzle conditions.	- Machine buttons - Computer (MP driver)	2 min.
Ink tank replacement	When an ink tank becomes empty. ("No ink error" displayed on the monitor or on the machine LCD, or short flashing of an ink tank LED)	To replace the empty ink tank.	---	1 min.
Rear tray paper feed roller cleaning	- When paper does not feed properly. - When the front side of the paper is smeared.	To clean the paper feed rollers.	- Machine buttons - Computer (MP driver)	2 min.
Front tray paper feed roller cleaning	- When paper does not feed properly. - When the front side of the paper is smeared.	To clean the paper feed rollers.	Manually clean the roller with a cotton swab.	1 min.
Bottom plate cleaning	When the back side of the paper is smeared.	To clean the platen ribs.	- Machine buttons - Computer (MP driver)	1 min.
Scanning area cleaning	When the platen glass or document pressure sheet is dirty.	To clean the platen glass and document pressure sheet.	Soft, dry, and clean lint-free cloth.	1 min.
ADF cleaning	When inside of the ADF cover is dirty	To clean the inside of the ADF cover	Soft, dry, and clean lint-free cloth.	1 min.
Exterior cleaning	When necessary	To clean the machine exterior	Soft, dry, and clean lint-free cloth (cloth for cleaning glasses, etc.)	1 min.

### 1-3. Special Tools

Name	Tool No.	Application	Remarks
FLOIL KG-107A	QY9-0057-000	To the sliding portions of the carriage rail and main chassis.	In common with the S520.
ELECTRICITY GREASE IF-20	CK-8006-000	To the LF earth spring sliding portions.	
MOLYKOTE PG641	CK-0562	To the PG - AP arm lever sliding portions.	In common with the S520.

### 1-4. Serial Number Location



On the spur base unit (visible at the front left when the scanning unit is opened).

◀<1. MAINTENANCE>▶▶





## 2. LIST OF ERROR DISPLAY / INDICATION / TROUBLESHOOTING

Errors and warnings are displayed by the following ways:

1. Operator call errors are indicated by the Alarm LED lit in orange, and the error and its solution are displayed on the LCD in text and by icon.
2. Messages during printing from a computer are displayed on the MP driver Status Monitor.
3. Error codes are printed in the "operator call/service call error record" area in EEPROM information print

Buttons valid when an operator call error occurs:

1. ON/OFF button: To turn the machine off and on again.
2. OK button: To clear and recover from an error. In some operator call errors, the error will automatically be cleared when the cause of the error is eliminated, and pressing the OK button may not be necessary.
3. Stop/Reset button: To cancel the job at error occurrence, and to clear the error.

### 2-1. Operator Call Errors (by Alarm LED Lit in Orange)

Error	Error code	Message on the LCD	Solution
No paper in the rear tray.	[1000]	Rear tray. There is no paper. Load paper and press [OK].	Confirm that the rear tray is selected as the paper source. Set the paper in the rear tray, and press the OK button.
No paper in the front tray.	[1003]	Front tray. There is no paper. Load paper and press [OK].	Confirm that the front tray is selected as the paper source. Set the paper in the front tray, and press the OK button.
Front door close error	[1250]	Paper output tray is closed. Open the paper output tray.	Open the paper output tray.
Paper jam.	[1300]	The paper is jammed. Clear the paper and press [OK].	Remove the jammed paper, and press the OK button.
Paper jam in the rear guide.	[1303]		
Ink may have run out.	[1600]	The following ink may have run out. Replacing the ink tank is recommended. (U041)	Replace the applicable ink tank, or press the OK button to clear the error without ink tank replacement. When the error is cleared by pressing the OK button, ink may run out during printing.
Ink tank not installed.	[1660]	The following ink tank cannot be recognized. (U043) (Applicable ink tank icon)	Install the applicable ink tank(s) properly, and confirm that the LED's of all the ink tanks light red.
Print head not installed, or not properly installed.	[1401]	Print head is not installed. Install the print head. (U051)	Install the print head properly.
Print head temperature sensor error.	[1403]	The type of print head is incorrect. Install the correct print head. (U052)	Re-set the print head. If the error is not cleared, the print head may be defective. Replace the print head.
Faulty EEPROM data of the print head.	[1405, 1682]		
Multiple ink tanks of the same color installed.	[1681]	More than one ink tank of the following color is installed. (U071)	Replace the wrong ink tank(s) with the correct one(s).
Ink tank in a wrong position.	[1680]	Some ink tanks are not installed in place. (U072)	Install the ink tank(s) in the correct position.
Warning: The ink absorber becomes almost full.	[1700, 1701, 1710, 1711]	Contact the support center or service center for ink absorber replacement. Press [OK] to continue printing.	Replace the ink absorber, and reset its counter. [See <a href="#">3-3. Adjustment / Settings, (10) Service mode.</a> ] Pressing the OK button will exit the error, and enable printing without replacing the ink absorber. However, when the ink absorber becomes full, no further printing can be performed unless the applicable ink

			absorber is replaced.
The connected digital camera or digital video camera does not support Camera Direct Printing.	[2001]	The device may be incompatible. Remove the device and check the manual supplied with the connected device.	Remove the cable between the camera and the machine.
The remaining ink amount unknown.	[1683]	(Applicable ink tank icon) The remaining level of the following ink cannot be correctly detected. Replace the ink tank. (U130)	An ink tank which has once been empty is installed. Replace the applicable ink tank with a new one. Printing with a once-empty ink tank can damage the machine. To continue printing without replacing the ink tank(s), press the Stop/Reset button for 5 sec. or longer to disable the function to detect the remaining ink amount. After the operation, it is recorded in the machine EEPROM that the function to detect the remaining ink amount was disabled.
Ink tank not recognized.	[1684]	The following ink tank cannot be recognized. (U140) (Applicable ink tank icon)	A non-supported ink tank is installed (the ink tank LED is turned off). Install the supported ink tanks.
Ink tank not recognized.	[1410 to 1419]	The following ink tank cannot be recognized. (U150) (Applicable ink tank icon)	A hardware error occurred in an ink tank (the ink tank LED is turned off). Replace the ink tank(s).
Scanning unit (printer cover) open.	[1200]	Cover is open. Close cover.	Close the scanning unit (printer cover).
Non-supported hub	[2002]	An unsupported USB hub is connected. Remove the hub.	Remove the applicable USB hub from the PictBridge (USB) connector.
No ink (no raw ink).	[1688]	The following ink has run out. Replace the ink tank. (U163) (Applicable ink tank icon)	Replace the empty ink tank(s), and close the scanning unit (printer cover). Printing with an empty ink tank can damage the machine. To continue printing without replacing the ink tank(s), press the Stop/Reset button for 5 sec. or longer to disable the function to detect the remaining ink amount. After the operation, it is recorded in the machine EEPROM that the function to detect the remaining ink amount was disabled.

## 2-2. Service Call Errors (by Cyclic Blinking of Alarm and Power LEDs)

Service call errors are indicated by the number of cycles the Alarm and Power LEDs blink, and the corresponding error code is displayed on the LCD.

Cycles of blinking of Alarm and Power LEDs	Error	Error code	Conditions	Solution (Replacement of listed parts, which are likely to be faulty)
2 times	Carriage error	[5100]	An error occurred in the carriage encoder signal.	- Carriage unit (QM3-2650) - Timing slit film (QC2-5687) - Logic board (QM3-2834) - Carriage motor (QK1-1500)
3 times	Line feed error	[6000]	An error occurred in the LF encoder signal.	- Timing sensor unit (QM3-2572) - Timing slit disk film (QC1-9597) - Feed roller (QL2-2206) - Logic board (QM3-2834) - Paper feed motor (QK1-3849)
4 times	Purge cam sensor error	[5C00]	An error occurred in the purge unit.	- Purge unit (QM3-2651)

				- Logic board (QM3-2834)
5 times	ASF (cam) sensor error	[5700]	An error occurred in the ASF cam sensor.	- Sheet feed unit (QM3-2677) - PE sensor board (QM3-2571) - Logic board (QM3-2834)
6 times	Internal temperature error	[5400]	The internal temperature is not normal.	- Logic board (QM3-2834) - Carriage unit (QM3-2650)
7 times	Ink absorber full	[5B00, 5B10, 5B01, 5B11]	The ink absorber is supposed to be full. <u>Message on the LCD:</u> Ink absorber full. Service required. <u>Error codes:</u> Overseas: 5B00: Main ink absorber 5B10: Borderless-print ink absorber Japan: 5B01: Main ink absorber 5B11: Borderless-print ink absorber	- Ink absorber kit (QY5-0192)
8 times	Print head temperature rise error	[5200]	The print head temperature exceeded the specified value.	- Print head (QY6-0070) - Logic board (QM3-2834)
9 times	EEPROM error	[6800]	A problem occurred in writing to the EEPROM.	- Logic board (QM3-2834)
10 times	VH monitor error	[B200]	The internal temperature exceeded the specified value.	- Print head (QY6-0070) - Carriage unit (QM3-2650) - Logic board (QM3-2834)
12 times	APP position error	[6A80]	An error occurred in the APP motor during purging operation.	- Sheet feed unit (QM3-2677) - Purge unit (QM3-2651) - Logic board (QM3-2834)
14 times	APP sensor error	[6A90]	An error occurred in the APP cam sensor.	- Sheet feed unit (QM3-2677) - Logic board (QM3-2834)
15 times	USB Host VBUS overcurrent	[9000]	The USB Host VBUS is overloaded.	- Logic board (QM3-2834)
19 times	Ink tank position sensor error	[6502]	None of the ink tank position is detected.	- Spur base unit (QM3-2664) - Logic board (QM3-2834)
22 times	Scanner home position error	[5010]	The scanner unit cannot detect the home position, or the scanner unit warming-up is not performed properly at power-on. On the LCD, "Scanner is not operating correctly." is displayed.	- Scanner unit (QM3-2672)
Power and Alarm LEDs lit	ROM / RAM error	---	The check sum value is incorrect in the ROM check or RAM check at hard-power-on.	- Logic board (QM3-2834)



Before replacement of the logic board ass'y, check the ink absorber counter value (by service test print or EEPROM information print). If the counter value is 7% or more, also replace the ink absorber kit (QY5-0192) when replacing the logic board ass'y. If the counter value is less than 7%, register the current ink absorber counter value to the replaced new logic board instead.  
[\[See 3-3. Adjustment / Settings, \(10\) Service mode, for details.\]](#)



## 2-3. Fax Errors

For errors other than those listed below, please refer to the "G3 / G4 Facsimile Error Code List (Rev. 2)."

### (1) User error codes

Error code	TX / RX	Meaning
#001	TX	Document jam
#003	TX / RX	Document is too long, or page time-over
#005	TX / RX	Initial identification (T0 / T1) time-over
#009	RX	Recording paper jam, or no recording paper
#012	TX	No recording paper at the receiving machine
#017	TX	Redial time-over, but no DT detected
#018	TX	Auto dialing transmission error, or redial time-over
#022	TX	Call failed (no dial registration)
#037	RX	Memory overflow at reception of an image
#085	TX	No color fax function supported in the receiving machine
#099	TX / RX	Transmission terminated mid-way by pressing the Stop/Reset button
#995	TX / RX	During TX (sending): Memory transmission reservation cancelled During RX (receiving): Image data received in the memory cleared





### (2) Service error codes

Error code	TX / RX	Meaning
##100	TX	Re-transmission of the procedure signal has been attempted the specified number of times, but failed.
##101	TX / RX	Sender's modem speed does not match the receiving machine.
##102	TX	Fallback is not available.
##103	RX	EOL has not been detected for 5 seconds (or 15 seconds in CBT).
##104	TX	RTN or PIN has been received.
##106	RX	The procedure signal has been expected for 6 seconds, but not received.
##107	RX	Fallback is not available at the sending machine.
##109	TX	After DCS transmission, a signal other than DIS, DTC, FTT, CFR, or CRP has been received, and re-transmission of the procedure signal has been attempted the specified number of times but failed.
##111	TX / RX	Memory error
##114	RX	RTN has been received.
##200	RX	A carrier has not been detected for 5 seconds during image reception.
##201	TX / RX	DCN has been received in a method other than the binary procedure.
##204	TX	DTC has been received even when there is no sending data.
##220	TX / RX	System error (main program hang-up)
##224	TX / RX	An error has occurred in the procedure signal in G3 transmission.
##226	TX / RX	The stack pointer has shifted from the RAM area.
##229	RX	The recording area has been locked for 1 minute.
##232	TX	The encoder control unit has malfunctioned.
##237	RX	The decoder control unit has malfunctioned.
##238	RX	The print control unit has malfunctioned.
##261	TX / RX	A system error has occurred between the modem and the system control board.

##280	TX	Re-transmission of the procedure signal has been attempted the specified number of times, but failed.
##281	TX	Re-transmission of the procedure signal has been attempted the specified number of times, but failed.
##282	TX	Re-transmission of the procedure signal has been attempted the specified number of times, but failed.
##283	TX	Re-transmission of the procedure signal has been attempted the specified number of times, but failed.
##284	TX	After TCF transmission, DCN has been received.
##285	TX	After EOP transmission, DCN has been received.
##286	TX	After EOM transmission, DCN has been received.
##287	TX	After MPS transmission, DCN has been received.
##288	TX	After EOP transmission, a signal other than PIN, PIP, MCF, RTP, RTN has been received.
##289	TX	After EOM transmission, a signal other than PIN, PIP, MCF, RTP, RTN has been received.
##290	TX	After MPS transmission, a signal other than PIN, PIP, MCF, RTP, RTN has been received.
##670	TX	In V.8 late start, the DIS V.8 ability from the receiving machine was detected, and CI was sent in response; however, the procedure failed, causing T1 time-over.
##671	RX	In V.8 call reception, the procedure fails to proceed to phase 2 after CM detection, causing T1 time-over.
##672	TX	In V.34 transmission, the procedure fails to proceed from phase 2 to phase 3 or later, causing T1 time-over
##673	RX	In V.34 reception, the procedure fails to proceed from phase 2 to phase 3 or later, causing T1 time-over
##674	TX	In V.34 transmission, the procedure fails to proceed from phase 3 or 4 to the control channel or later, causing T1 time-over
##675	RX	In V.34 reception, the procedure fails to proceed from phase 3 or 4 to the control channel or further, causing T1 time-over
##750	TX	After transmitting PPS-NULL in ECM transmission, no significant signal has been received, and re-transmission of the procedure signal has been attempted the number of specified times but failed.
##752	TX	After transmitting PPS-NULL in ECM transmission, DCN has been received.
##753	TX	After transmitting PPS-NULL in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed, or T5 time-over (60 sec.) has occurred.
##754	TX	After transmitting PPS-NULL in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed.
##755	TX	After transmitting PPS-MPS in ECM transmission, no significant signal has been received, and re-transmission of the procedure signal has been attempted the number of specified times but failed.
##757	TX	After transmitting PPS-MPS in ECM transmission, DCN has been received.
##758	TX	After transmitting PPS-MPS in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed, or T5 time-over (60 sec.) has occurred.
##759	TX	After transmitting PPS-MPS in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed.
##760	TX	After transmitting PPS-EOM in ECM transmission, no significant signal has been received, and re-transmission of the procedure signal has been attempted the number of specified times but failed.
##762	TX	After transmitting PPS-EOM in ECM transmission, DCN has been received.
##763	TX	After transmitting PPS-EOM in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed, or T5 time-over (60 sec.) has occurred.
##764	TX	After transmitting PPS-EOM in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed.
##765	TX	After transmitting PPS-EOP in ECM transmission, no significant signal has been received, and re-transmission of the procedure signal has been attempted the number of specified times but failed.
##767	TX	After transmitting PPS-EOP in ECM transmission, DCN has been received.
##768	TX	After transmitting PPS-EOP in ECM transmission, re-transmission of the procedure signal has been

		attempted the number of specified times but failed, or T5 time-over (60 sec.) has occurred.
##769	TX	After transmitting PPS-EOP in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed.
##770	TX	After transmitting EOR-NULL in ECM transmission, no significant signal has been received, and re-transmission of the procedure signal has been attempted the number of specified times but failed.
##772	TX	After transmitting EOR-NULL in ECM transmission, DCN has been received.
##773	TX	After transmitting EOR-NULL in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed, or T5 time-over (60 sec.) has occurred.
##774	TX	After transmitting EOR-NULL in ECM transmission, ERR has been received.
##775	TX	After transmitting EOR-MPS in ECM transmission, no significant signal has been received, and re-transmission of the procedure signal has been attempted the number of specified times but failed.
##777	TX	After transmitting EOR-MPS in ECM transmission, DCN has been received.
##778	TX	After transmitting EOR-MPS in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed, or T5 time-over (60 sec.) has occurred.
##779	TX	After transmitting EOR-MPS in ECM transmission, ERR has been received.
##780	TX	After transmitting EOR-EOM in ECM transmission, no significant signal has been received, and re-transmission of the procedure signal has been attempted the number of specified times but failed.
##782	TX	After transmitting EOR-EOM in ECM transmission, DCN has been received.
##783	TX	After transmitting EOR-EOM in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed, or T5 time-over (60 sec.) has occurred.
##784	TX	After transmitting EOR-EOM in ECM transmission, ERR has been received.
##785	TX	After transmitting EOR-EOP in ECM transmission, no significant signal has been received, and re-transmission of the procedure signal has been attempted the number of specified times but failed.
##787	TX	After transmitting EOR-EOP in ECM transmission, DCN has been received.
##788	TX	After transmitting EOR-EOP in ECM transmission, re-transmission of the procedure signal has been attempted the number of specified times but failed, or T5 time-over (60 sec.) has occurred.
##789	TX	After transmitting EOR-EOP in ECM transmission, ERR has been received.
##790	RX	After receiving EOR-EOP in ECM reception, ERR has been transmitted.
##791	TX / RX	During the ECM mode procedure, a signal other than a significant one has been received.
##792	RX	In ECM reception, PPS-NULL between partial pages has not been detected.
##793	RX	During high-speed signal reception in ECM, no effective frame has been detected, and a time-over has occurred.

## 2-4. Other Error Messages

Message on the LCD	Cause	Solution
The selected paper cannot be fed from front tray. Change the paper source and press [OK].	The paper type being used is not supported for paper feeding from the front tray.	Change the paper source to the rear tray.
Borderless print is not available for paper from front tray. Change the paper source and press [OK].	Borderless print is attempted when the front tray is selected as the paper source.	Change the paper source to the rear tray.
Change the setting(s).	Settings made conflict each other. (e.g. Selecting borderless printing on plain paper)	Change the settings so that they will not conflict each other.
Device memory is full. Reduce the number of documents (photos, etc.) to scan or copy.	The memory is not sufficient to do the print job in copying.	Reduce the amount of data to be printed, or print from a computer.
Failed to scan. Either document cannot be scanned or is not placed on the platen glass.	The machine failed in scanning the document for Fit-to-page copy, or photos or films were not recognized in pre-scanning.	Press the OK button to clear the error.
Press  . (  : Color button icon)	The Black button was pressed, but it is invalid.	A temporary error. Press the Color button to continue the operation.
Press  . (  : Black button icon)	The Color button was pressed, but it is invalid.	A temporary error. Press the Black button to continue the operation.
There are no photos in memory card.	Supported image files are not in the memory card.	A temporary error. - Confirm that supported image files are in the memory card. - Images with double-byte characters used in the file name (or folder name) may not be recognized. Change the file (or folder) name so that it contains only single-byte alphanumeric characters. - If images are edited on the computer, print them from the computer.
The value exceeds the number of copies you can print.	During selecting images or specifying the number of copies, the total print quantity exceeds the prescribed value of 999.	A temporary error. The last operation before the error is cancelled, and the total print quantity returns to the value before the error.
Memory card is not set. Insert the card after checking the direction.	The memory card is not inserted in the slot properly.	Set a memory card.
DPOF information is not saved in the memory card.	DPOF print was selected in the menu, but no DPOF files are contained in the memory card.	A temporary error. The LCD automatically returns to the display before the error occurrence.
The number of copies to print is not set. Input the number of copies.	Printing was attempted without specifying the print quantity (with the print quantity left "0" (zero)).	A temporary error. Specify the print quantity.
This layout is available only for A4 or 8.5"x11"(215x279).	In Layout print, "Mixed 1, 2, or 3" which is available only with A4 or Letter size paper is selected, but the paper size is not set to A4 or Letter.	A temporary error. The LCD automatically returns to the display before the error occurrence.
Change the setting after removing the card.	With a memory card inserted in the slot, change of the Read/Write attribute was attempted.	A temporary error. Remove the memory card, then change the Read/Write attribute.
The card is currently write-enabled. Set to read-only mode before performing operation.	With the memory card set to the Read/write mode, Card Direct printing operation was attempted from the menu.	A temporary error. Remove the memory card, change the memory card setting to Read-only, then perform Card Direct printing.
The paper size is not correct. Check the page size you have set.	Non-supported size of paper for Camera Direct printing via PictBridge connection is selected.	Cancel printing on the digital camera. Confirm the paper size, and print again.

## 2-5. Warnings

Warning	Message on the LCD	Solution
Low ink	"!" is indicated for an applicable ink tank icon in the Status Monitor.	No special solution.  Since the ink will be used up soon, prepare for a new ink tank.
Print head temperature rise	If the print head temperature does not fall, the print head error will occur.	When the print head temperature falls, the error is automatically cleared.  If the print head error is indicated, repair servicing is required.
Protection of excess rise of the print head temperature	If the print head temperature does not fall, the print head error will occur.	If the print head temperature exceeds the specified limit, an intermission is inserted during printing.
Restrictions on paper	The current paper cannot be set. Change the size and type.	Re-select the supported paper type and size.
USB cable not connected	Set the PC to start scan.	Connect the USB cable, then turn on the computer.
Cancellation of image select information	Reset the selected photo information? Yes No	<ul style="list-style-type: none"> <li>- Select <b>Yes</b>, and press the OK button. =&gt; The image selection is cancelled, and the menu or sub-menu is displayed.</li> <li>- Select <b>No</b>, and press the OK button. =&gt; The LCD returns to the display immediately before the message was displayed.</li> </ul>
	Do you want to clear the image scanned from the photo? Yes No	
	Do you want to clear the scanned image and rescan? Yes No	

## 2-6. Troubleshooting by Symptom

	Symptom	Solution
Faulty operation	The power does not turn on. The power turns off immediately after power-on.	<ul style="list-style-type: none"> <li>- Confirm the connection of <ul style="list-style-type: none"> <li>- the power cord, and</li> <li>- between the logic board and the power supply unit.</li> </ul> </li> <li>- Replace the <ul style="list-style-type: none"> <li>- power supply unit, or</li> <li>- logic board.</li> </ul> </li> </ul>
	A strange noise occurs.	<ul style="list-style-type: none"> <li>- Remove foreign material.</li> <li>- Attach a removed part if any.</li> <li>- Check the operation of the moving parts (such as purge unit, carriage unit, and paper feeding mechanism)</li> <li>- Replace a faulty part, if any.</li> </ul>
	Nothing is displayed on the LCD.	<ul style="list-style-type: none"> <li>- Confirm the connection between the operation panel, the LCD unit, and the logic board.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- LCD unit, or</li> <li>- logic board.</li> </ul> </li> </ul>
	A portion of the LCD is not displayed.	<ul style="list-style-type: none"> <li>- Perform the button and LCD test in the service mode, and confirm that the LCD is displayed without any segments missing or flickering.</li> <li>- Confirm the connection between the operation panel, the LCD unit, and the logic board.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- LCD unit, or</li> <li>- logic board.</li> </ul> </li> </ul>
	Paper feed problems (multi-feeding, skewed feeding, no feeding).	<ul style="list-style-type: none"> <li>- Examine the inside to confirm that no parts are damaged, and the rollers are clean.</li> <li>- Remove foreign material.</li> <li>- Adjust the paper guide properly.</li> <li>- Set the paper properly.</li> <li>- Confirm the following: <ul style="list-style-type: none"> <li>- selected paper source</li> <li>- attachment of the rear cover (for feeding from the front tray)</li> <li>- connection of each harness and the logic board</li> </ul> </li> <li>- Replace the <ul style="list-style-type: none"> <li>- sheet feeder unit,</li> <li>- ASF cover unit,</li> <li>- bottom case unit (for paper feeding from the front tray), or</li> <li>- logic board.</li> </ul> </li> </ul>
	Carriage movement problems (contact to other parts, strange noise).	<ul style="list-style-type: none"> <li>- Confirm that the carriage timing slit strip film is free from damage or grease.</li> <li>- Clean the carriage timing slit strip film (with ethanol and lint-free paper).</li> <li>- Remove foreign material.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- carriage timing slit strip film, or</li> <li>- carriage unit.</li> </ul> </li> </ul>
	Faulty scanning (no scanning, strange noise).	<ul style="list-style-type: none"> <li>- Confirm the connection between the scanning unit and the logic board.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- scanning unit, or</li> <li>- logic board.</li> </ul> </li> </ul>
	No paper feeding from the ADF (no	<ul style="list-style-type: none"> <li>- Confirm the connection</li> </ul>

	operation of the ADF motor).	<ul style="list-style-type: none"> <li>- between the ADF motor and the ADF PWB, and</li> <li>- between the ADF PWB and the logic board.</li> </ul> - Replace the <ul style="list-style-type: none"> <li>- document feed unit, or</li> <li>- logic board</li> </ul>
	No sound from the speaker.	<ul style="list-style-type: none"> <li>- Confirm the connection between the speaker and the logic board.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- speaker, or</li> <li>- logic board.</li> </ul> </li> </ul>
Unsatisfactory print quality	No printing, or no color ejected.	<ul style="list-style-type: none"> <li>- Confirm that the ink tanks are installed properly.</li> <li>- Perform print head maintenance.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- ink tank, or</li> <li>- print head*<sup>1</sup>.</li> </ul> </li> <li>- Remove foreign material from the purge unit caps, if any.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- purge unit, or</li> <li>- logic board.</li> </ul> </li> </ul>
	Printing is faint, or white lines appear on printouts even after print head cleaning. Line(s) not included in the print data appears on printouts.	<ul style="list-style-type: none"> <li>- Remove and re-install the print head.</li> <li>- Confirm that the ink tanks are installed properly.</li> <li>- Perform print head maintenance.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- ink tank,</li> <li>- print head*<sup>1</sup></li> <li>- purge unit, or</li> <li>- logic board.</li> </ul> </li> </ul>
	Paper gets smeared.	<ul style="list-style-type: none"> <li>- Feed several sheets of paper.</li> <li>- Perform bottom plate cleaning.</li> <li>- Clean the paper path with a cotton swab or cloth.</li> <li>- Clean the rear tray paper feed rollers.</li> <li>- Clean the front tray paper feed rollers.</li> </ul>
	A part of a line is missing on printouts.	<ul style="list-style-type: none"> <li>- Replace the <ul style="list-style-type: none"> <li>- ink tank, or</li> <li>- print head*<sup>1</sup>.</li> </ul> </li> </ul>
	Color hue is incorrect.	<ul style="list-style-type: none"> <li>- Confirm that the ink tanks are installed properly.</li> <li>- Perform print head maintenance.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- ink tank, or</li> <li>- print head*<sup>1</sup></li> </ul> </li> <li>- Perform print head alignment.</li> </ul>
	Printing is incorrect.	Replace the logic board.
	No ejection of black ink.	<ul style="list-style-type: none"> <li>- Confirm that the ink tanks are installed properly.</li> <li>- Perform print head maintenance.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- ink tank, or</li> <li>- print head*<sup>1</sup>.</li> </ul> </li> <li>- Remove foreign material from the purge unit caps, if any.</li> <li>- Replace the purge unit.</li> </ul>
	Graphic or text is enlarged on printouts.	<p><b>When enlarged in the carriage movement direction:</b></p> <ul style="list-style-type: none"> <li>- Clean grease or oil off the timing slit strip film.</li> <li>- Replace the <ul style="list-style-type: none"> <li>- timing slit strip film,</li> <li>- carriage unit, or</li> <li>- logic board.</li> </ul> </li> </ul> <p><b>When enlarged in the paper feed direction:</b></p>

		<ul style="list-style-type: none"> <li>- Clean grease or oil off the timing slit disk film.</li> <li>- Replace the             <ul style="list-style-type: none"> <li>- timing slit disk film,</li> <li>- timing sensor unit,</li> <li>- LF roller, or</li> <li>- logic board.</li> </ul> </li> </ul>
Faulty scanning	No scanning.	<ul style="list-style-type: none"> <li>- Confirm the connection between the scanning unit and the logic board.</li> <li>- Replace the             <ul style="list-style-type: none"> <li>- scanning unit, or</li> <li>- logic board.</li> </ul> </li> </ul>
	Streaks or smears on the scanned image.	<ul style="list-style-type: none"> <li>- Clean the platen glass.</li> <li>- Confirm the connection between the scanning unit and the logic board.</li> <li>- Replace the             <ul style="list-style-type: none"> <li>- scanning unit,</li> <li>- logic board, or</li> <li>- document pressure sheet.</li> </ul> </li> </ul>
	No paper feeding from the ADF (no operation of the ADF motor).	<ul style="list-style-type: none"> <li>- Confirm the connection             <ul style="list-style-type: none"> <li>- between the ADF motor and the ADF PWB, and</li> <li>- between the ADF PWB and the logic board.</li> </ul> </li> <li>- Replace the             <ul style="list-style-type: none"> <li>- document feed unit, or</li> <li>- logic board.</li> </ul> </li> </ul>
	Document slipping over the roller (copied image enlarged), or document not separated.	<ul style="list-style-type: none"> <li>- Clean the friction tab, document feed roller, and separation roller. - Replace the document feed unit.</li> </ul>

\*1: Replace the print head only after the print head deep cleaning is performed 2 times, and when the problem persists.

◀ <2. LIST OF ERROR DISPLAY / INDICATION / TROUBLESHOOTING> ▶ ▲





### 3. REPAIR

#### 3-1. Notes on Service Part Replacement (and Disassembling / Reassembling)

Service part	Notes on replacement*1	Adjustment / settings	Operation check
Logic board ass'y (QM3-2834)	<ul style="list-style-type: none"> <li>- Before removal of the logic board ass'y, remove the power cord, and allow for approx. 1 minute (for discharge of capacitor's accumulated charges), to prevent damages to the logic board ass'y.</li> <li>- Before replacement, check the ink absorber counter value (by service test print or EEPROM information print). [See 3-4. <a href="#">Verification Items</a>, (1) <a href="#">Service test print</a> for details.]</li> </ul>	<b>After replacement:</b> <ol style="list-style-type: none"> <li>1. Initialize the EEPROM.</li> <li>2. Set the destination in the EEPROM.</li> <li>3. Set the ink absorber counter value.</li> <li>4. Set the language to be displayed on the LCD. [See 3-3. <a href="#">Adjustment / Settings</a>, (10) <a href="#">Service mode</a>, for details of 1 to 4.]</li> <li>5. Perform print head alignment in the user mode.</li> </ol>	<ul style="list-style-type: none"> <li>- EEPROM information print</li> <li>- Service test print</li> <li>- Printing via USB connection</li> <li>- Copying</li> <li>- Direct printing from a digital camera (PictBridge)</li> </ul>
Absorber kit (QY5-0192)		<b>After replacement:</b> <ol style="list-style-type: none"> <li>1. Reset the ink absorber counter. [See 3-3. <a href="#">Adjustment / Settings</a>, (10) <a href="#">Service mode</a>, for details.]</li> </ol>	<ul style="list-style-type: none"> <li>- Ink absorber counter value print (Printing is performed automatically after the ink absorber counter is reset.)</li> </ul>
Carriage unit (QM3-2650)	<ul style="list-style-type: none"> <li>- The screws securing the carriage rail are allowed to be loosened only at carriage replacement. Before removing the screws, mark the positions of the screws on the carriage rail so that they will be returned to their original positions after the carriage is replaced.</li> </ul>	<b>At replacement:</b> <ol style="list-style-type: none"> <li>1. Apply grease to the sliding portions. [See 3-3. <a href="#">Adjustment / Settings</a>, (6) <a href="#">Grease application</a>, for details.]</li> </ol> <b>After replacement:</b> <ol style="list-style-type: none"> <li>2. Adjust the distance between the print head and the paper (between the carriage rail and the platen). [See 3-3. <a href="#">Adjustment / Settings</a>, (2) <a href="#">Carriage rail adjustment</a>, for details.]</li> <li>3. Check the ink system function. [See 3-3. <a href="#">Adjustment / Settings</a>, (10) <a href="#">Service mode</a>, for details.]</li> <li>4. Perform print head alignment in the user mode.</li> </ol>	<ul style="list-style-type: none"> <li>- Service test print (Confirm ink system function.)</li> <li>- Printing on thick paper.</li> </ul>
Paper feed motor (QK1-3849)	<ul style="list-style-type: none"> <li>- The red screws securing the paper feed motor are allowed to be loosened only for paper feed motor replacement. (DO NOT loosen them in any other cases.)</li> </ul>	<b>At replacement:</b> <ol style="list-style-type: none"> <li>1. Adjust the paper feed motor. [See 3-3. <a href="#">Adjustment / Settings</a>, (1) <a href="#">Paper feed motor adjustment</a>, for details.]</li> </ol>	
Spur base unit (QM3-2664)		<b>After replacement:</b> <ol style="list-style-type: none"> <li>1. Check the ink system function. [See 3-3. <a href="#">Adjustment / Settings</a>, (10) <a href="#">Service mode</a>, for details.]</li> </ol>	<ul style="list-style-type: none"> <li>- Service test print</li> </ul>

DF Base (QC2-6162)		<b>At replacement:</b> 1. Adjust the document pressure sheet position. [See <a href="#">3-3. Adjustment / Settings, (2) Carriage rail adjustment</a> , for details.]	
Document pressure sheet (QC2-4884)			
Scanner unit (QM3-2672)			
Timing slit strip film (QC2-5687)	<ul style="list-style-type: none"> <li>- Upon contact with the film, wipe the film with ethanol.</li> <li>- Confirm no grease is on the film. (Wipe off any grease thoroughly with ethanol.)</li> <li>- Do not bend the film</li> </ul>	<b>After replacement:</b> 1. Perform print head alignment in the user mode.	- Service test print
Timing slit disk film (QC1-9597)			
Print head (QY6-0070)		<b>After replacement:</b> 1. Perform print head alignment in the user mode.	- Service test print

**\*1: General notes:**

- Make sure that the flexible cables and wires in the harness are in the proper position and connected correctly.  
See [3-2. Special Notes on Repair Servicing](#) or the Parts Catalog for details.
- Do not drop the ferrite core, which may cause damage.
- Protect electrical parts from damage due to static electricity.
- Before removing a unit, after removing the power cord, allow the machine to sit for approx. 1 minute (for capacitor discharging to protect the logic board ass'y from damages).
- Do not touch the timing slit strip film and timing slit disk film. No grease or abrasion is allowed.
- Protect the units from soiled with ink.
- Protect the housing from scratches.
- Exercise caution with the screws, as follows:
  - i. The screws of the paper feed motor may be loosened only at replacement of the paper feed motor unit (DO NOT loosen them in other cases).
  - ii. The screws securing the carriage rail may be loosened only at replacement of the carriage unit. After carriage unit replacement, print on thick paper to confirm that the distance between the print head and paper (between the carriage rail and the platen) is correct, and that the print head does not contact the paper during printing. If the print head contacts the paper, adjust the carriage rail position, while referring to [[3-3. Adjustment / Settings, \(2\) Carriage rail adjustment](#)].

◀ <3-1. Notes on Service Part Replacement> ▶



## 3-2. Special Notes on Repair Servicing

(Click on the image to enlarge it.)

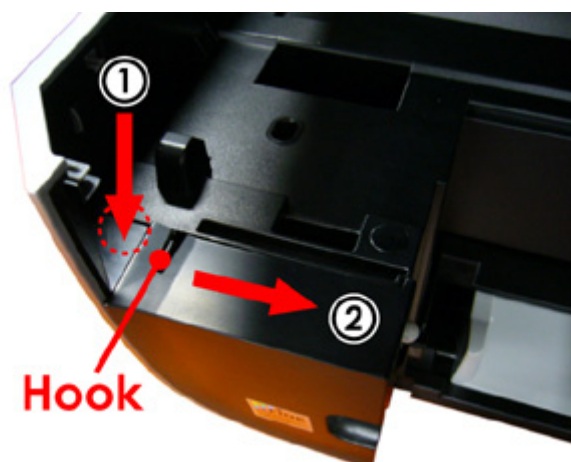
\*\*\*\*\*

If there is a power failure or if you disconnect the power cord, the date/time settings as well as all documents stored in memory will be lost. User data and speed dialing settings are retained.

\*\*\*\*\*

### (1) Side cover L unit removal

- 1) Press on the location (1) to release the hook, and slide the front panel L to the direction (2) to remove.
- 2) Remove 1 screw from the front side.



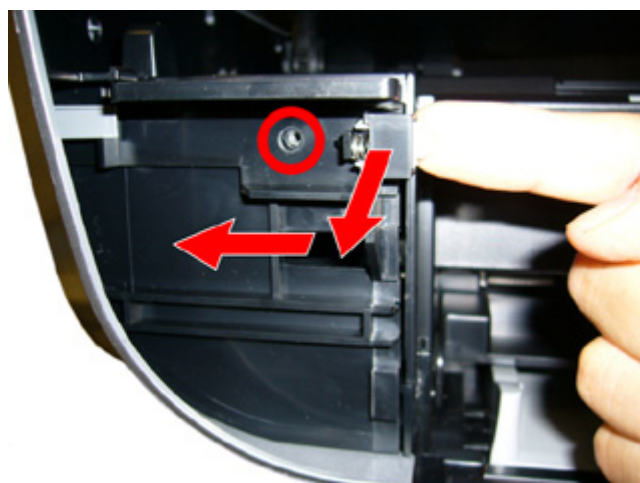
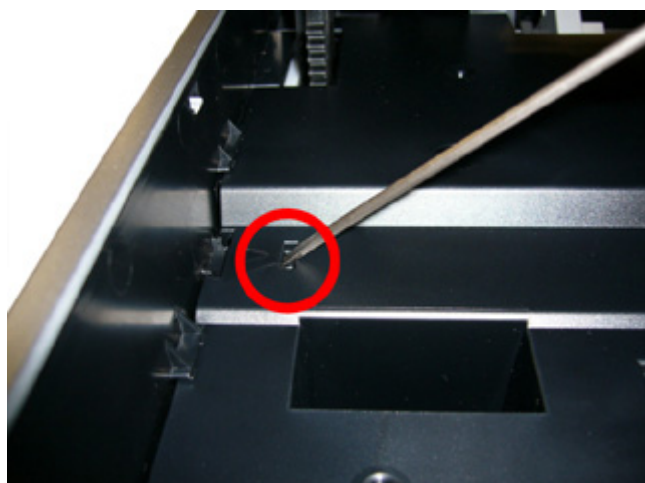
- 3) Remove 2 screws from rear side.

- 4) Release the rear hook by pulling it upward.



- 5) Release the middle frame hook by pressing it using such as a flat-blade screwdriver.

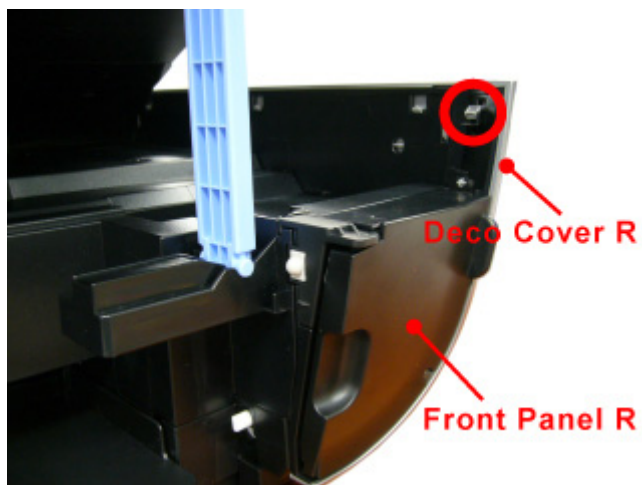
- 6) Pull the side cover L unit toward the front to disengage it from the round boss, then slide the unit to the left.



## (2) Side cover R unit removal

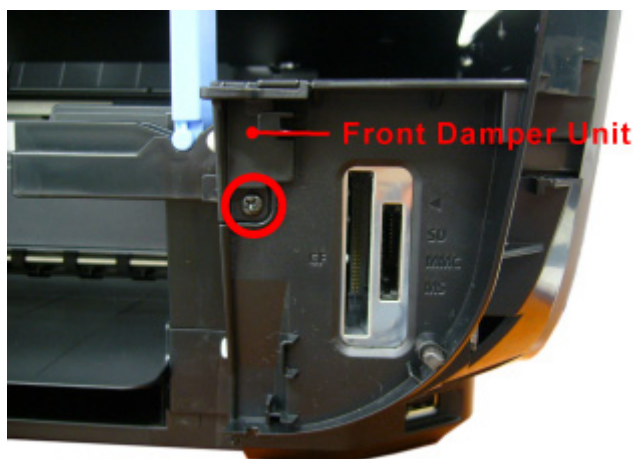
- 1) Release the hook in the red circle in the photo, and remove the deco cover R.

Note: The deco cover R alone is not designated as a service part.



- 2) Remove the front panel R.

- 3) Remove 1 screw, and slide the front damper unit to the left to release the hook.
- 4) Remove 2 screws from the rear side.



- 5) Pull the rear side hook upward to release it.

- 6) Release the middle frame hook by pressing it using such as a flat-blade screwdriver.





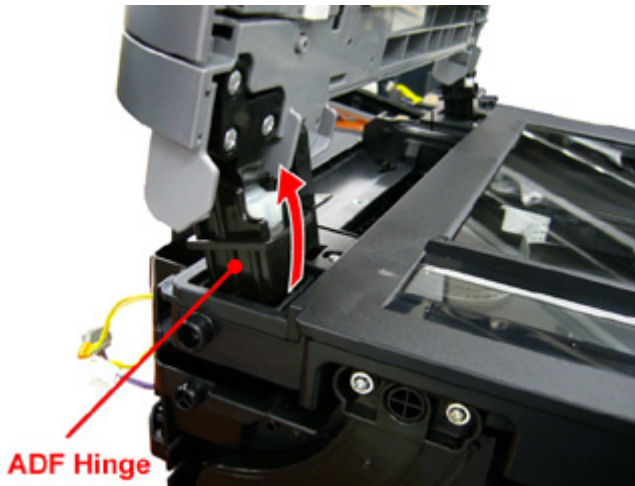
7) Pull the side cover R unit toward the front to disengage it from the round boss, then slide the unit to the right.



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### (3) ADF unit removal

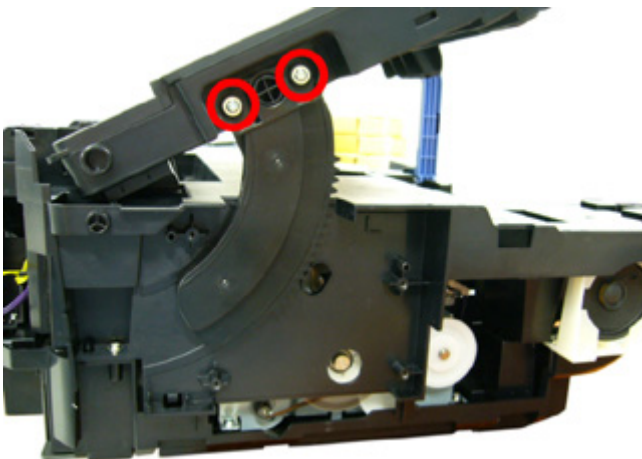
- 1) Remove 2 harnesses.
- 2) Raise the ADF unit, and , while pushing the ADF hinge back, lift the ADF unit.



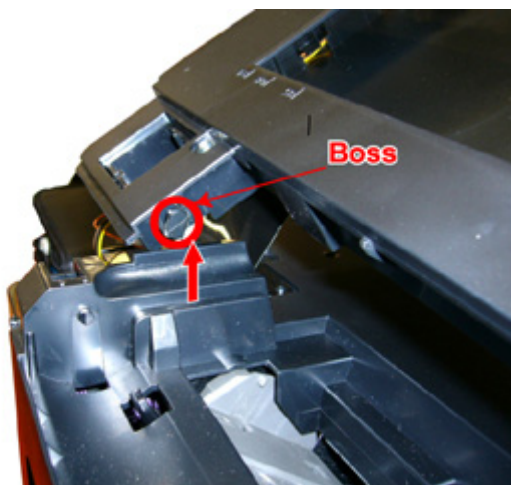
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### (4) Scanner unit removal

- 1) Remove 2 flexible cables and 1 harness.
- 2) Remove 2 screws fixing the damper rack gear.



3) Raise the scanner unit, and release from the right boss.



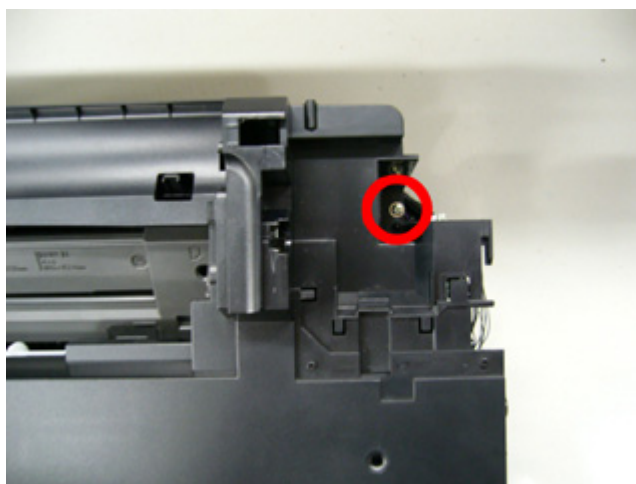
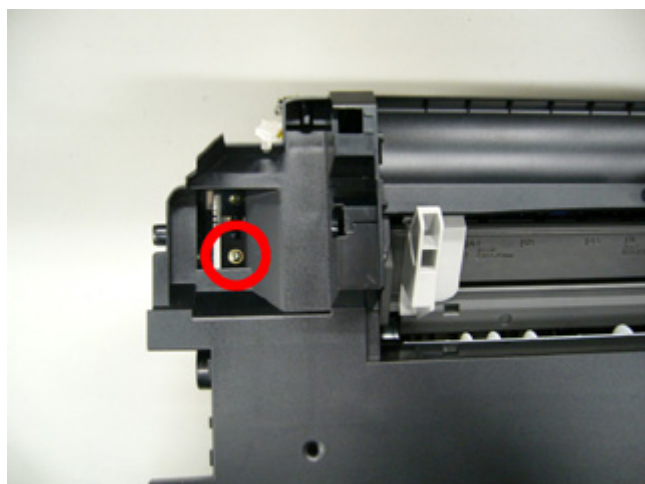
4) Slide the scanner unit to the left to disengage it from the left boss.

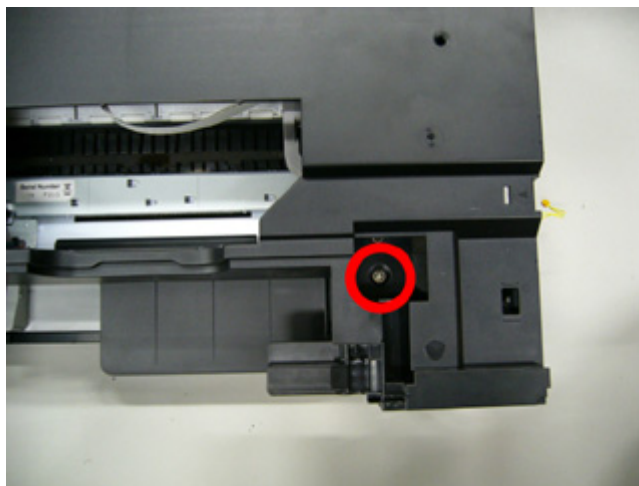


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## (5) Middle Frame unit removal

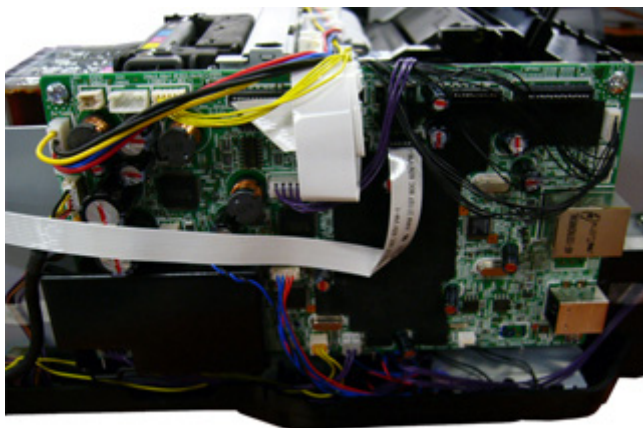
1) Remove 4 screws.



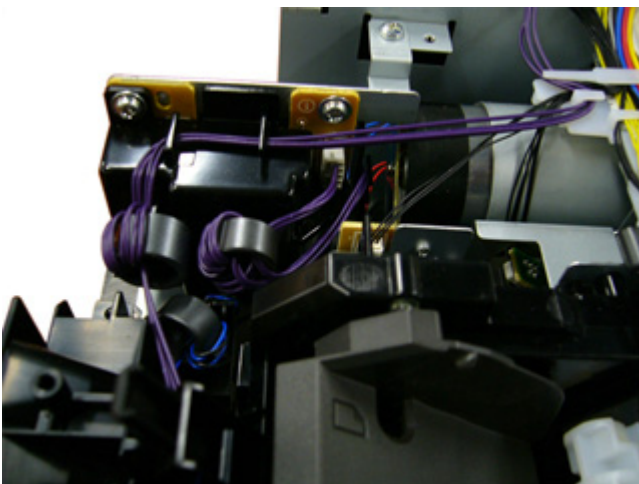
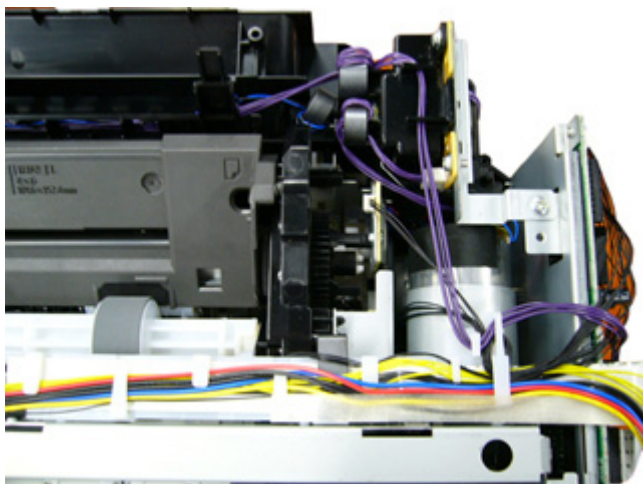


## (6) Cable wiring and connection

### 1) Logic board

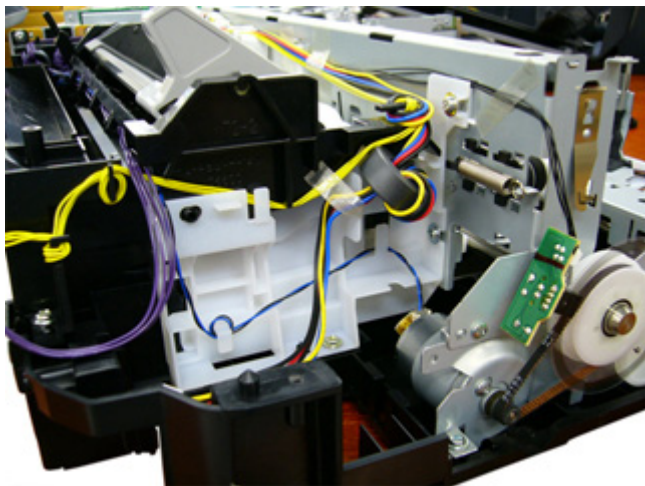


### 2) Printer unit (right part)

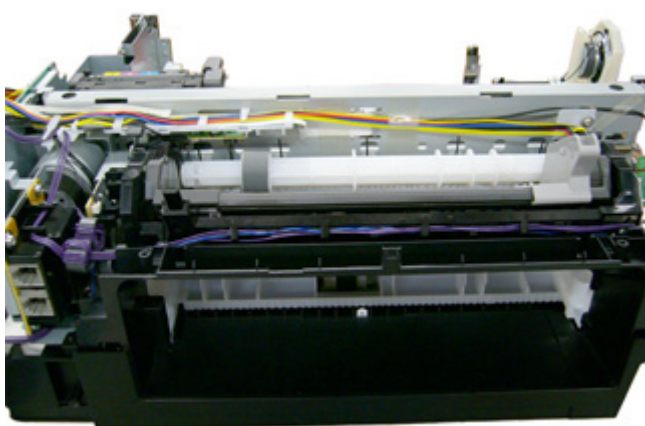




3) Printer unit (left part)

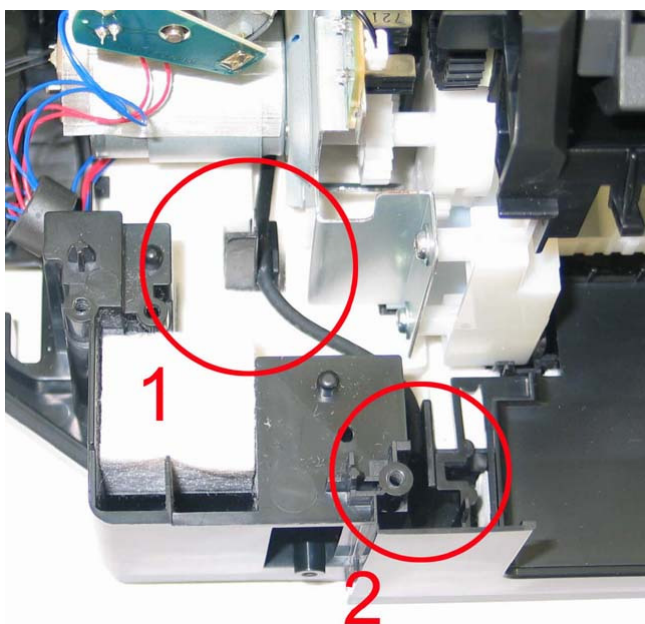


4) Printer unit (back side)



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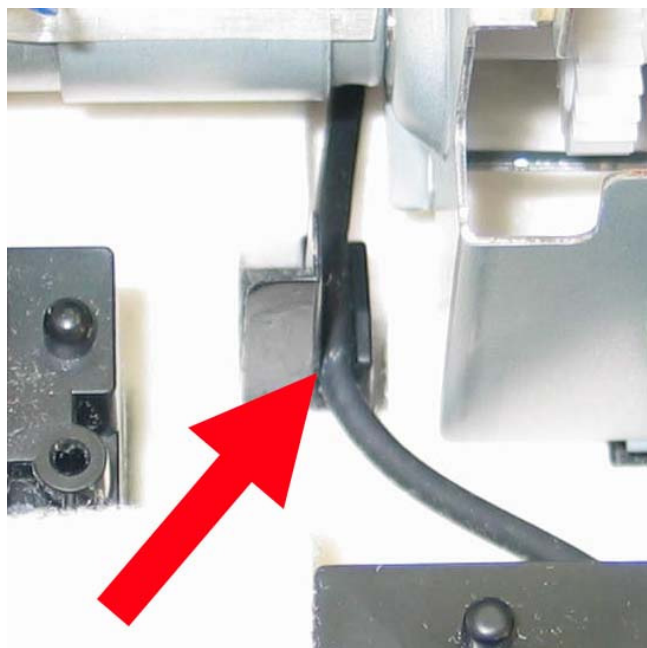
## (7) Ink tube installation





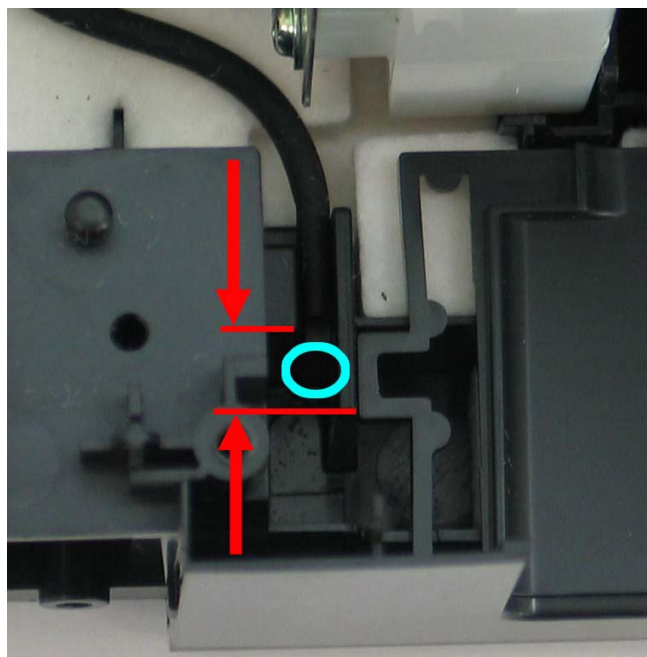
< About Circle 1 in the photo >

Fit the tube between the ribs.



< About Circle 2 in the photo >

Fit the tube between the ribs, and adjust the tube so that the tube end (indicated by the blue circle in the photo) is between the edges of the right and left ribs (between the red lines in the photo).



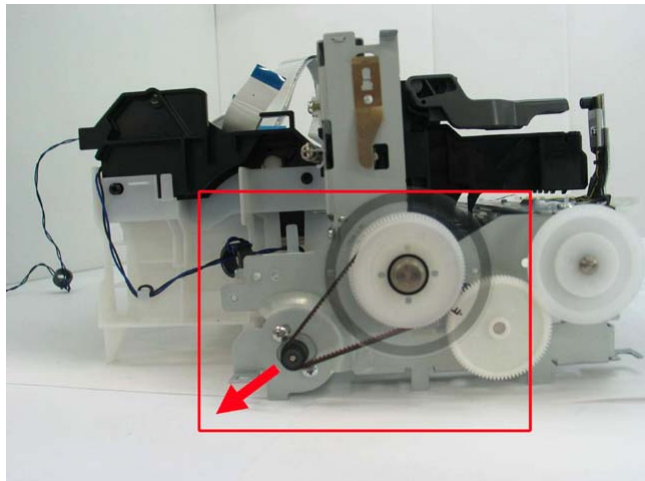
◀<3-2. Special Notes on Repair Servicing>▶ ▲



### 3-3. Adjustment / Settings

#### (1) Paper feed motor adjustment

- 1) When attaching the motor, fasten the screws so that the belt is properly stretched (in the direction indicated by the blue arrow in the photo below).
- 2) After replacement, be sure to perform the service test print, and confirm that no strange noise or faulty print operation (due to dislocation of the belt or gear, or out-of-phase motor, etc.) occurs.



The screws securing the paper feed motor may be loosened only at replacement of the paper feed motor unit. DO NOT loosen them in other cases.

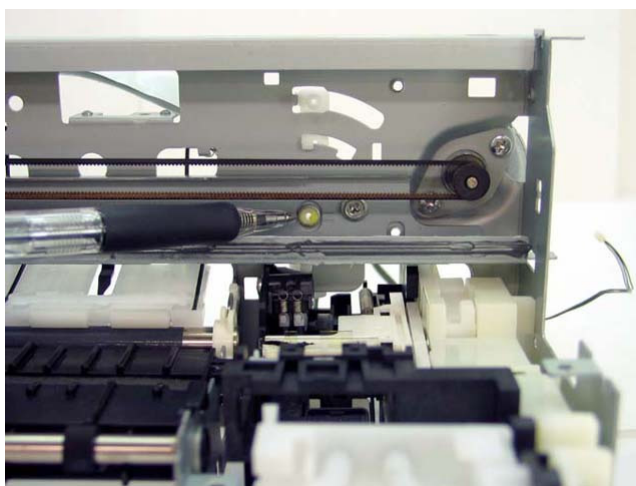
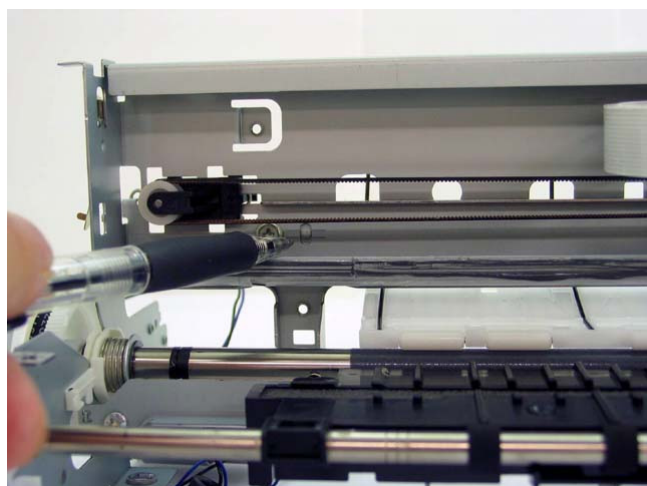
#### (2) Carriage rail adjustment

Perform the following adjustments when attaching the carriage rail:

- 1) Before loosening the screws, mark the following positions on the rail:

Left side: Mark the boss position.

Right side: Mark the hole position.



- 2) In attaching the carriage rail, make sure that the left boss and right hole fit to the marks made in step 1) respectively, then fasten the screws.
- 3) Be sure to perform the confirmation test detailed below; confirm that the print quality is proper and the print head is not contacting the paper.

#### <Confirmation test>

Using Photo Paper Pro, and with the paper thickness lever set to the left position (normal position), print an image and confirm that the print quality is proper, and the print head is free from contacting the paper.

If the print quality is not proper, or the print head contacts the paper, adjust the head-to-paper distance in the following procedures:

#### <How to adjust the head-to-paper distance>

- i. Mark the current position of the left boss and the right hole. (See the step 1 of the carriage rail adjustment above.)
- ii. Loosen the hexagon-head screws, and adjust the head-to-paper distance.
  - To prevent the print head from contacting the paper: Raise the carriage rail from the current position.
  - To improve the print quality: Lower the carriage rail from the current position.

### (3) Document pressure sheet attachment

#### < How to attach the sheet >

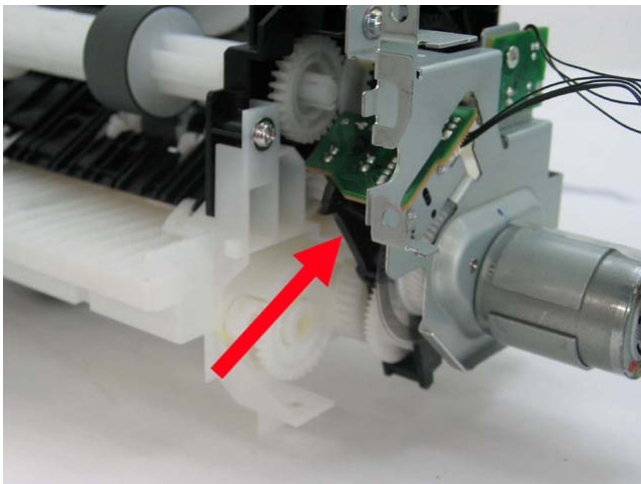
- 1) Peel off the cover sheet from the double-sided adhesive tape on the back of the document pressure sheet.  
With the long-side down, position the upper-left corner of the document pressure sheet approx. 1 mm off the scanning reference edges (back left) on the platen glass.
- 2) Slowly close the ADF unit. The ADF unit will attach to the plate.

#### < Confirmation after attachment >

- 1) Open the plate to confirm the following:
  - No extension of the sponge edges over the mold part of the upper scanner cover.
  - No gap between the platen glass reference edges and the corresponding sponge edges.
- 2) Open and close the plate to confirm the following:
  - The sponge must not be caught by the mold part of the upper scanner cover.

### (4) Sheet feeder unit adjustment

Assemble the sheet feeder unit with the swing arm (pointed by the red arrow in the photo) in the raised position.



## (5) Front tray paper feed roller cleaning

- 1) Press the ON/OFF button to turn off the machine.
- 2) Set 5 sheets or more of A4 or letter size plain paper in the front tray.
- 3) Push the rear cover tab to the right and pull out the rear cover.



- 4) While rotating the paper feed roller toward you using your finger, wipe off smears with a cotton swab. If a smear or stain is not removed easily, moisten the swab and clean the roller.



- 5) When cleaning is completed, remove the paper from the front tray, and re-set it.
- 6) Attach the rear cover.



---

Make sure the rear cover fits in place. Improper attachment of the cover will cause paper jams.

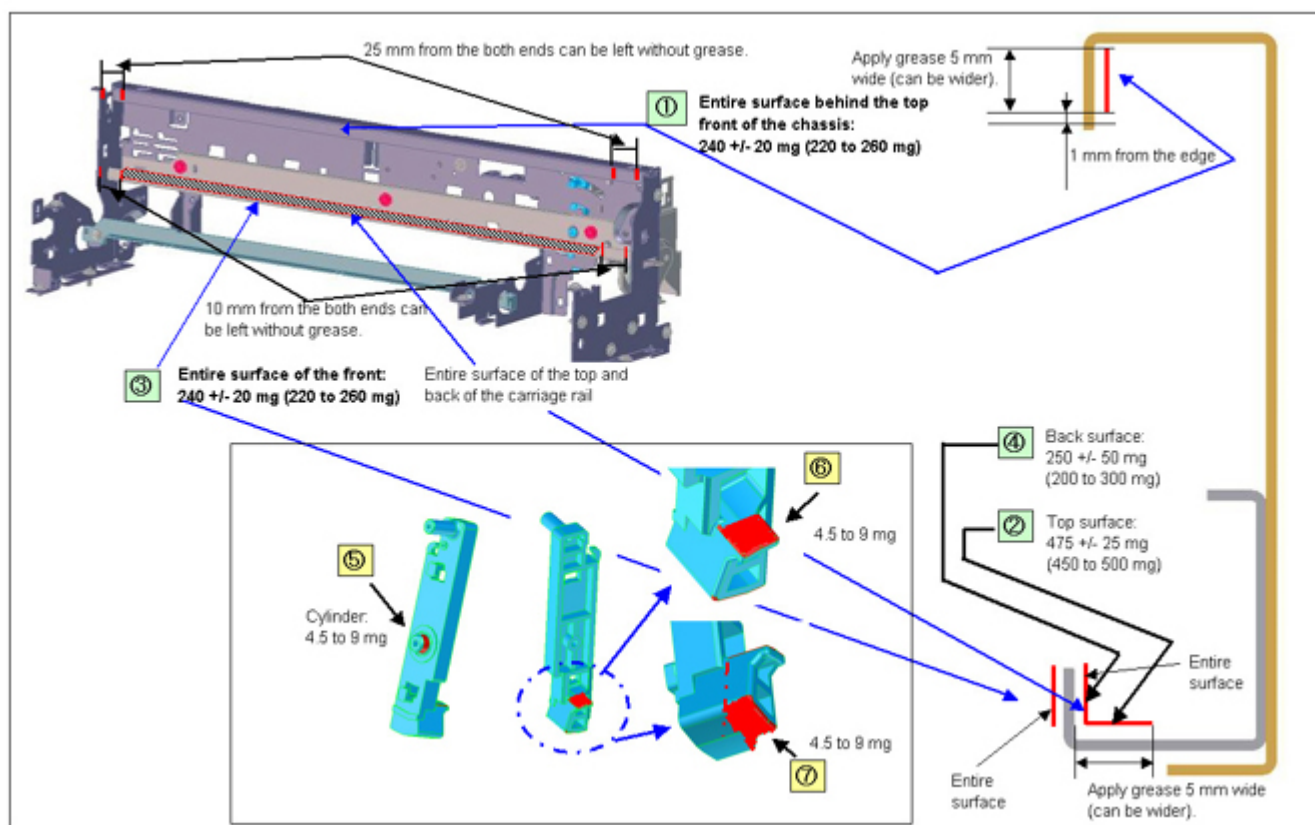
---

## (6) Grease application

### 1) Printer unit

No	Part name	Drawing No.	Where to apply grease / oil	Grease / oil	Grease / oil amount (mg)	Number of locations
1	Chassis ass'y	(1)	Behind the top front of the chassis where the carriage unit slides	Floil KG107A	240 +/- 20	1
2	Carriage rail	(2)	Top surface of the carriage rail where the carriage unit slides	Floil KG107A	475 +/- 25	1
3	Carriage rail	(3)	Front surface of the carriage rail where the carriage unit slides	Floil KG107A	240 +/- 20	1
4	Carriage rail	(4)	Back of the carriage rail where the carriage unit slides	Floil KG107A	250 +/- 50	1
5	AP-PG arm lever	(5)	Chassis sliding portion	Molykote PG-641	4.5 to 9.0	1
6	AP-PG arm lever	(6)	AP-PG swing arm contact portion	Molykote PG-641	4.5 to 9.0	1
7	AP-PG arm lever	(7)	AP-PG swing arm contact portion	Molykote PG-641	4.5 to 9.0	1

1 drop = 9 to 18 mg

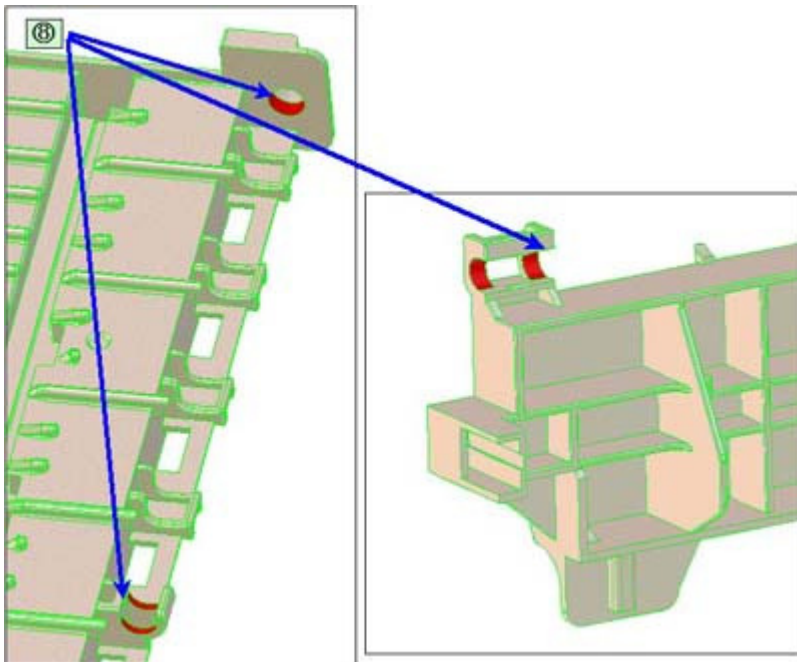




2) Platen

No	Part name	Drawing No.	Where to apply grease / oil	Grease / oil	Grease / oil amount (mg)	Number of drops x locations
8	Platen	(8)	Eject roller sliding portion	Floil KG107A	4.5 to 9	1/2 x 3

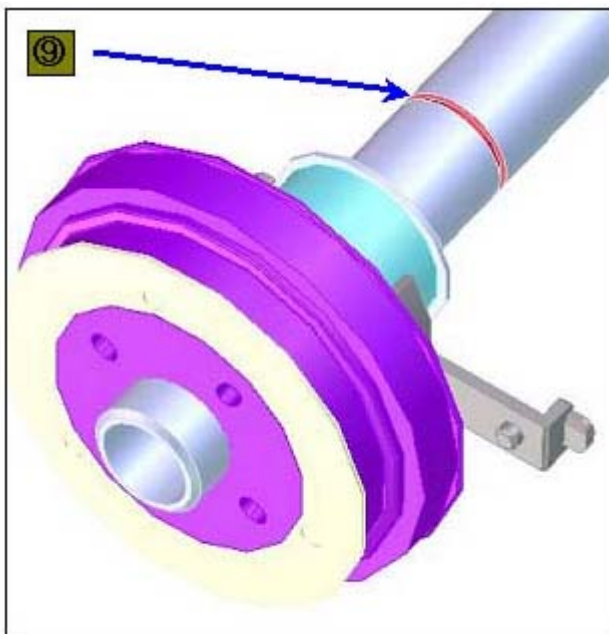
1 drop = 9 to 18 mg



3) LF roller

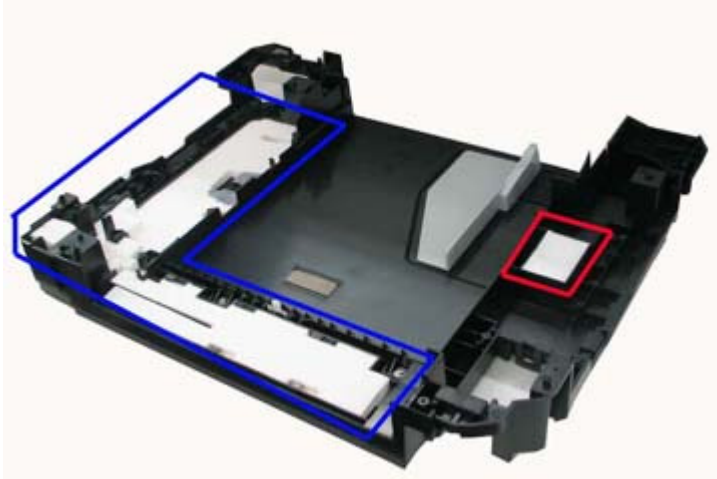
No	Part name	Drawing No.	Where to apply grease / oil	Grease / oil	Grease / oil amount (mg)	Number of drops x locations
9	LF roller	(9)	LF earth spring sliding portion	IF-20	9 to 18	1/2 x 1

1 drop = 9 to 18 mg



(7) Ink absorber replacement

- 1) At the time of an error indicating that the ink absorber is full, replace either the main or the borderless-print ink absorber according to the error message.
- When the main ink absorber is full:  
Replace the absorber indicated by the blue frame in the photo below (component of QY5-0192).
  - When the borderless-print ink absorber is full:  
Replace 2 absorbers in the red circle in the photo below and the platen ink absorber (components of QY5-0192).



The main ink absorber and the borderless-print ink absorber have separate counters respectively. After ink absorber replacement, reset the applicable ink absorber counter according to the replaced ink absorber. For details, see (8) [Ink absorber counter setting](#).

2) Partial replacement of the main ink absorber

For the main ink absorber, the following replacement methods are available:

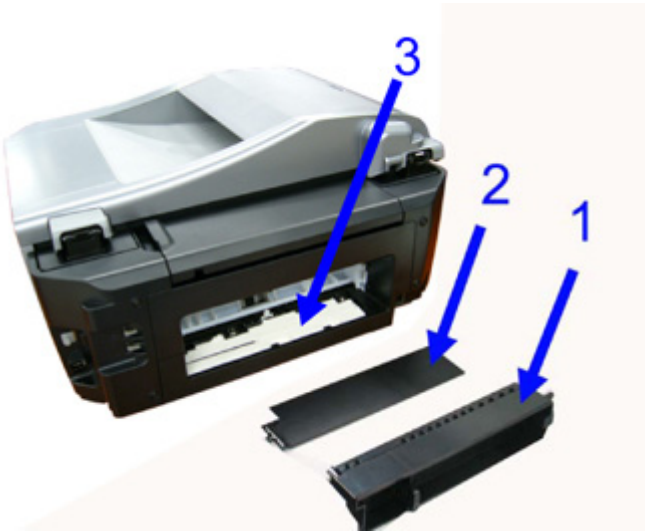
Replacement method	Difficulties	Ink absorber volume to be replaced	Print yield after replacement
Partial replacement	Low	Approx. 40% of the entire main ink absorber	Approx. 8,000 pages
Whole replacement	High	The entire main ink absorber	Approx. 20,000 pages

After ink absorber replacement, set the ink absorber counter value according to the replacement method.  
See (8) [Ink absorber counter setting](#), for details.

<How to perform the partial replacement>

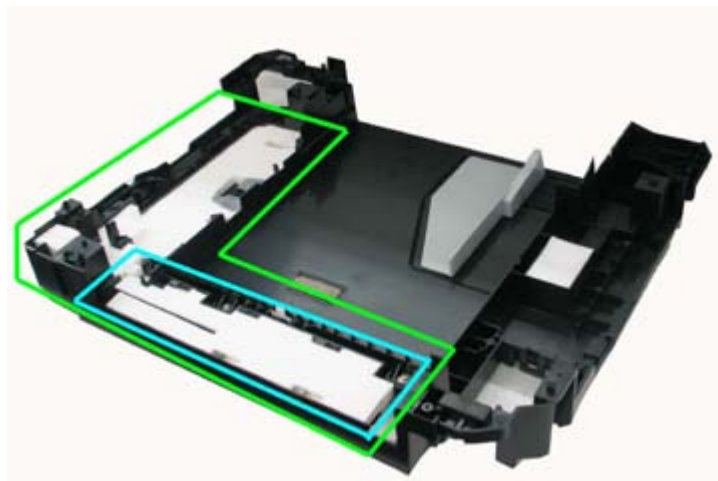
Remove the rear cover (No. 1 in the photo) and the ink absorber cover (No. 2 in the photo) from the rear side of the machine, and replace the portion of the main ink absorber (approx. 40%, No. 3 in the photo).

(Time required: Approx. 4 min. including the operation check after replacement)



<The portion replaced in the partial replacement>

- Entire main ink absorber: Indicated by the green lines
- The portion to be replaced in partial replacement: Indicated by the blue lines



## (8) Ink absorber counter setting

Before replacement of the logic board, check the ink absorber counter value, and register it to the replaced new logic board. In addition, according to the ink absorber counter value, replace the ink absorber (ink absorber kit). When the ink absorber is replaced, reset the applicable ink absorber counter (to 0%).

- How to check the ink absorber counter value:  
See [3-4. Verification Items, \(1\) Service test print](#).
- How to set the ink absorber counter:  
See ["Ink absorber counter setting"](#) below.

## (9) User mode

Function	Procedures	Remarks
Print head manual cleaning	<ul style="list-style-type: none"> <li>- Cleaning both Black and Color: Perform via the machine operation panel.</li> <li>- Cleaning Black or Color separately, or both Black and Color: Perform from the MP driver Maintenance tab.</li> </ul>	
Print head deep cleaning	<ul style="list-style-type: none"> <li>- Cleaning both Black and Color: Perform via the machine operation panel.</li> <li>- Cleaning Black or Color separately, or both Black and Color: Perform from the MP driver Maintenance tab.</li> </ul>	
Rear tray paper feed roller cleaning	Perform via the machine operation panel, or from the MP driver Maintenance tab.	
Front tray paper feed roller cleaning	Clean the rollers manually.	
Nozzle check pattern printing	Perform via the machine operation panel, or from the MP driver Maintenance tab.	Set a sheet of plain paper (A4 or Letter) in the rear tray or the front tray which is selected on the Paper Feed Switch button.
Manual print head alignment	Perform via the machine operation panel, or from the MP driver Maintenance tab.	Set 2 sheets of plain paper (A4 or Letter) in the rear tray or the front tray which is selected on the Paper Feed Switch button.
Bottom plate cleaning	Perform via the machine operation panel, or from the MP driver Maintenance tab.	Cleaning of the platen ribs when the back side of paper gets smeared. Fold a sheet of plain paper (A4 or Letter) in half crosswise, then unfold and set it in the rear tray with the folded ridge facing down.



## (10) Service mode

Function	Procedures	Remarks
Service test print - Model name - Destination - ROM version - USB serial number - Ink absorber counter value (ink amount in the ink absorber) - Ink system function check result	See "Service mode operation procedures" below.	Set a sheet of A4 or letter size paper. For print sample, see 3-4. <a href="#">Verification Items</a> , (1) <a href="#">Service test print</a> , "Service test print sample."
EEPROM information print - Model name - Destination - ROM version - Ink absorber counter value (ink amount in the ink absorber) - Print information - Error information, etc.	See "Service mode operation procedures" below.	Set a sheet of A4 or letter size paper.
EEPROM initialization	See "Service mode operation procedures" below.	The following items are NOT initialized, and the shipment arrival flag is not on: - USB serial number - Destination settings - Ink absorber counter value (ink amount in the ink absorber)
Ink absorber counter reset	See "Service mode operation procedures" below.	Set a sheet of A4 or Letter sized plain paper. After the ink absorber counter is reset, the counter value is printed automatically.
Destination settings	See "Service mode operation procedures" below.	
Button and LCD test	See "Service mode operation procedures" below.	
Ink absorber counter setting	See "Service mode operation procedures" below.	

### <Service mode operation procedures>

- 1) With the machine power turned off, while pressing the Stop/Reset button, press and hold the ON/OFF button. (DO NOT release the buttons). The Power LED lights in green to indicate that a function is selectable.
- 2) While holding the ON/OFF button, release the Stop/Reset button. (DO NOT release the ON/OFF button.)
- 3) While holding the ON/OFF button, press the Stop/Reset button 2 times, and then release both the ON/OFF and Stop/Reset buttons. (Each time the Stop/Reset button is pressed, the Alarm and Power LEDs light alternately, Alarm in orange and Power in green, starting with Alarm LED.)
- 4) When the Power LED lights in green (and "Service Mode Idle" is displayed on the LCD), press the Stop/Reset button the specified number of time(s) according to the function listed in the table below, then press the ON/OFF button. (Each time the Stop/Reset button is pressed, the Alarm and Power LEDs light alternately, Alarm in orange and Power in green, starting with Alarm LED.)

Time(s)	LED indication	Function	Remarks
0 times	Green (Power)	Power off	Even when the print head is not installed, the carriage returns and locks in the home position capped.
1 time	Orange (Alarm)	Service test print	Service test print - Model name - Destination - ROM version - USB serial number - Ink absorber counter value (ink amount in the ink absorber) - Ink system function check result - Barcode (model name + destination) <a href="#">See 3-4. Verification Items, (1) Service test print, "Service test print sample."</a>
2 times	Green (Power)	EEPROM information print	EEPROM information print - Model name - Destination - ROM version - Ink absorber counter value (ink amount in the ink absorber) - Print information - Error information, etc.
3 times	Orange (Alarm)	EEPROM initialization	The following items are NOT initialized, and the shipment arrival flag is not on: - USB serial number - Destination settings - Ink absorber counter value - Record of disabling the function to detect the remaining ink amount - Record of ink absorber counter resetting
4 times	Green (Power)	Ink absorber counter resetting	<a href="#">See "Ink absorber counter resetting" below</a> and <a href="#">the print sample in 3-4. Verification Items, (2) Ink absorber counter value print.</a>
5 times	Orange (Alarm)	Destination settings	Press the Stop/Reset button the specified number of time (s) according to the destination. <a href="#">See "Destination settings" below.</a>
6 times	Green (Power)	Print head deep cleaning	Cleaning of both Black and Color
7 to 9 times	Orange (Alarm) at odd numbers, Green (Power) at even numbers	Return to the menu selection	
10 times	Green (Power)	Return to the menu selection	
11 times	Orange (Alarm)	Return to the menu selection	
12 times	Green (Power)	Button and LCD test	<a href="#">See "Button and LCD test" below.</a>
13 times	Orange (Alarm)	Ink absorber counter setting	<a href="#">See "Ink absorber counter setting" below.</a>
14 times or more	Green (Power)	Return to the menu selection	



If the Stop/Reset button is pressed 14 or more times, the Alarm LED (orange) or Power LED (green) lights steadily without any changes.

### <Destination settings>

In the destination settings mode, press the Stop/Reset button the specified number of time(s) according to the destination listed in the table below, and press the ON/OFF button.

Time(s)	LED indication	Destination
0 times	Green (Power)	No change of the destination
1 time	Orange (Alarm)	Japan
2 times	Green (Power)	Korea
3 times	Orange (Alarm)	US
4 times	Green (Power)	Europe
5 times	Orange (Alarm)	Australia
6 times	Green (Power)	Asia
7 times	Orange (Alarm)	China
8 times	Green (Power)	Taiwan
9 times	Orange (Alarm)	Latin America
10 times	Green (Power)	Brazil
11 times	Orange (Alarm)	Canada
12 times or more	Green (Power)	Return to the destination selection



After setting the destination, confirm the model name and destination in service test print or EEPROM information print.

### <Ink absorber counter resetting>

Reset the ink absorber counter (to 0%) when the ink absorber is replaced

- 1) In the ink absorber counter resetting mode, press the Stop/Reset button the specified number of time(s) according to the replaced ink absorber to set its counter to 0%, or 60% (for partial replacement).

Time(s)	Replaced ink absorber	Counter value
0 times	Main ink absorber	Reset to 0%
1 time	Borderless-print ink absorber	Reset to 0%
2 times	Both the main and borderless-print ink absorbers	Reset to 0%
3 times	A portion of the main ink absorber (partial replacement)	Reset to 60%

- 2) Press the ON/OFF button to specify the ink absorber counter value.
- 3) After the ink absorber counter is reset, the counter value is printed automatically.

### <Ink absorber counter setting>

Set the ink absorber counter value to a new EEPROM after the logic board is replaced in servicing.

- 1) Before replacement of the logic board, check the ink absorber counter value in EEPROM information print.
- 2) In the ink absorber counter setting mode, press the Stop/Reset button the specified number of time(s) according to the ink absorber whose counter value should be transferred to the replaced new EEPROM.

Time(s)	Ink absorber	Remarks
0 times	Main ink absorber	Reset to 0%
1 time	Borderless-print ink absorber	Reset to 0%
2 times	Both the main and borderless-print ink absorbers	Reset to 0%
3 times or more	Not valid	Press the ON/OFF button to return to the ink absorber counter setting mode.

- 3) Press the ON/OFF button to proceed to the next step.
- 4) The ink absorber counter value can be set in 10% increments by pressing the Stop/Reset button. Press the Stop/Reset button the appropriate number of time(s) to select the value which is closest to the actual ink absorber counter value.

Time(s)	Ink absorber counter value to be set (%)
0 times	0%
1 time	10%
2 times	20%
3 times	30%
4 times	40%
5 times	50%
6 times	60%
7 times	70%
8 times	80%
9 times	90%
10 times or more	Not valid. Press the ON/OFF button to return to the ink absorber counter setting mode.

- 5) Press the ON/OFF button to set the selected value to the EEPROM. Print EEPROM information to confirm that the value is properly set to the EEPROM.

## <Button and LCD test>

Confirm the operation after replacement of the operation panel unit, logic board, or LCD unit.

- 1) In the button and LCD test mode, press the Stop/Reset button. The LCD turns blue, waiting for a button to be pressed.
- 2) Press each button of the operation panel.

The LCD is divided into 36 segments, representing each button. The color of a segment corresponding to the pressed button changes to red.

After all the 33 buttons are pressed, the remaining segments (from 34 to 36) turn red at the same time.

1	2	3	4	5	6
20	21	22	23	24	7
19	32	33	34	25	8
18	31	36	35	26	9
17	30	29	28	27	10
16	15	14	13	12	11

1. ON/OFF	10. ▲	22. 6
2. COPY	11. ►	23. 7
3. FAX	12. ▼	24. 8
4. SCAN	13. ◀	25. 9
5. MEMORY	14. OK	26. *
CARD	15. Back	27. 0
6. Enlarge/Reduce	16. Settings	28. #
7. FAX Quality	17. 1	29. Redial/Pause
8. Feed Switch	18. 2	30. Coded Dial
9. Menu	19. 3	31. Black Start
	20. 4	32. Color Start
	21. 5	33. Stop/Reset

- 3) Open the scanner unit. The color pattern is displayed on the LCD

Red	Black	White	Cyan
Green	White	Black	Magenta
Blue	Black	White	Yellow

- 4) Press the ON/OFF button to exit the button and LCD test, and return to the service mode menu selection.

## (11) PTT Parameter mode

### 11-1) FAX PTT parameter mode

Enter the PTT parameter mode from the user mode, but not from the service mode.

How to enter the PTT parameter mode:

- 1) In the user mode, press the SCAN button to enter the scan mode.
- 2-a) Press #, 9, 7, 6, 9, # to enter the PTT parameter mode.
- 2-b) Press #, 9, 7, 6, 8, # to print the PTT parameter setting value.

How to finalize the data:

Press the OK button to finalize the data and press the Stop/Reset button to save the data.

How to finish the PTT parameter mode:

Press the ON/OFF button to save the specified data in the EEPROM and turn off the machine.

### 11-2) How to enter the PTT parameter mode

1. In the user mode, press the SCAN button to enter the scan mode and press #, 9, 7, 6, 9, #.
2. The following message is displayed on the LCD.

PTT PRAMETER  
#1 BIT SWITCH

BIT SWITCH menu

3. Each time the right or left arrow key is pressed, the menu is changed.

PTT PRAMETER  
#2 NUMERIC PARAM.

NUMERIC PARAM. menu

PTT PRAMETER  
#3 FAX TYPE

Note: Not used in servicing.

PTT PRAMETER  
#4 NCU

Note: Not used in servicing.

PTT PRAMETER  
#5 PTT SPECIAL

Note: Not used in servicing.

PTT PRAMETER  
#6 FAX TEST

Note: Not used in servicing.

4. Press the OK button after ?g#1 BIT SWITCH?h or ?g#2 NUMERIC PARAM.?h is displayed to enter each mode.

### 11-3) #1 BIT SWITCH

1. After entering the #1 BIT SWITCH menu, the following screen will be displayed.

PTT PRAMETER #1 BIT SWITCH SW#01 00000000
---

2. Each time the OK button is pressed, the SW# is changed from 01 to 20.  
Be careful not to enter the SW numbers which are not used in servicing.  
The SW numbers which are used in servicing: SW#01, 02, 03, 04, 05, 06, 07, 10, 11, 13  
The SW numbers which are not used in servicing (as of August 2007): SW#08, 09, 12, 14-20
3. Since each SW# has 8bit information, use the right or left arrow key to move the cursor to the bit to be specified and enter the setting value (1 or 0).  
Bit7 -> 00000000 <- bit0  
After entering the setting value (1 or 0), press the OK button to finalize it. See the G3 Facsimile Service Data Service Handbook for the definition and description of each bit of the SW#.  
English: QY8-13BC-010  
Japanese: QY8-12B6-020<>
4. After finalizing the setting value of each bit of the SW#, press the Stop/Reset button.
5. Press the ON/OFF button.

### 11-4) #2 NUMERIC PARAM.

1. After entering the #2 NUMERIC PARAM. menu, the following screen will be displayed.

PTT PRAMETER #2 NUMERIC PARAM 01: 00000
---

2. Each time the OK button is pressed, the SW# is changed from 01 to 60.  
Be careful not to enter the SW numbers which are not used in servicing.  
The SW numbers which are used in servicing:  
SW#01, 02, 04 to 09, 16 to 24, 26, 27, 30, 31, 41, 42  
The SW numbers which are not used in servicing (as of August 2007):  
SW#03, 10 to 15, 25, 28, 29, 32 to 40, 43 to 60
3. Use the right or left arrow key or numeric keypad to enter the setting value.  
(The selection of the setting value varies depending on the item.)
4. After entering the setting value, press the OK button to finalize it. See the G3 Facsimile Service Data Service Handbook for the definition and description of each bit of the SW#.  
English: QY8-13BC-010  
Japanese: QY8-12B6-020
5. After finalizing the setting value of each SW#, press the Stop/Reset button.
6. Press the ON/OFF button.

### 11-5) How to confirm the setting value

Output and confirm the PTT parameter as follows.

1. In the user mode, press the SCAN button to enter the scan mode, then press #, 9, 7, 6, 8, #.
2. PTT PARAMETER is printed automatically.

See the G3 Facsimile Service Data Service Handbook for the definition and description of each bit of the SW#.

English: QY8-13BC-010  
Japanese: QY8-12B6-020

1.050  
PRAM 14.1

\*\*\*\*\*  
\*\*\* PTT PARAMETER \*\*\*  
\*\*\*\*\*

## #1 BIT SW

SW01 --- 00000000	SW06 --- 00000000	SW11 --- 00000100	SW16 --- 00000000
SW02 --- 00000000	SW07 --- 00000000	SW12 --- 00010000	SW17 --- 00000000
SW03 --- 00000000	SW08 --- 00000000	SW13 --- 00000000	SW18 --- 00000000
SW04 --- 00000100	SW09 --- 00100001	SW14 --- 00110000	SW19 --- 00000000
SW05 --- 00101010	SW10 --- 10000000	SW15 --- 00000000	SW20 --- 00000000

## #2 NUMERIC PARAM.

01: 0	13: 150	25: 58	37: 2	49: 5632
02: 10	14: 100	26: 60	38: 45	50: 4480
03: 10	15: 4	27: 44	39: 60	51: 0
04: 10	16: 100	28: 8	40: 30	52: 0
05: 15	17: 0	29: 6	41: 120	53: 0
06: 12	18: 200	30: 0	42: 350	54: 0
07: 5500	19: 100	31: 0	43: 0	55: 0
08: 3500	20: 0	32: 10	44: 0	56: 0
09: 1300	21: 200	33: 25	45: 2	57: 0
10: 600	22: 4	34: 2	46: 1000	58: 0
11: 60	23: 44	35: 2	47: 18	59: 0
12: 600	24: 10	36: 10	48: 6	60: 0

## #3 FAX TYPE ---- U. S. A.

## #4 NCU

1. TONE/PULSE	2. DIAL TONE 1	3. DIAL TONE 2	4. BUSY TONE
		--- 00000000	--- 10000000
01: --- 39	01: --- 10	01: --- 350	01: --- 0
02: --- 780	02: --- 80	02: --- 90	02: --- 18
03: --- 90	03: --- 14	03: --- 10	03: --- 60
04: --- 180	04: --- 120	04: --- 0	04: --- 18
05: --- 1	05: --- 12	05: --- 0	05: --- 60
06: --- 3	06: --- 7	06: --- 0	06: --- 12
	07: --- 130	07: --- 5	07: --- 3
	08: --- 4	08: --- 3	08: --- 3

5. REORDER TONE	6. AUTO RX	7. CNG DETECT
--- 10000000		
01: --- 0	01: --- 10	01: --- 40
02: --- 18	02: --- 60	02: --- 60
03: --- 32	03: --- 10	03: --- 85
04: --- 18	04: --- 120	04: --- 40
05: --- 82	05: --- 1100	05: --- 64
06: --- 12	06: --- 0	06: --- 5
07: --- 3	07: --- 2	07: --- 2
08: --- 3	08: --- 13	08: --- 70
	09: --- 84	

◀ <3-3. Adjustment / Settings, (7) and (11)> ▶ ▲



3-4. Verification Items

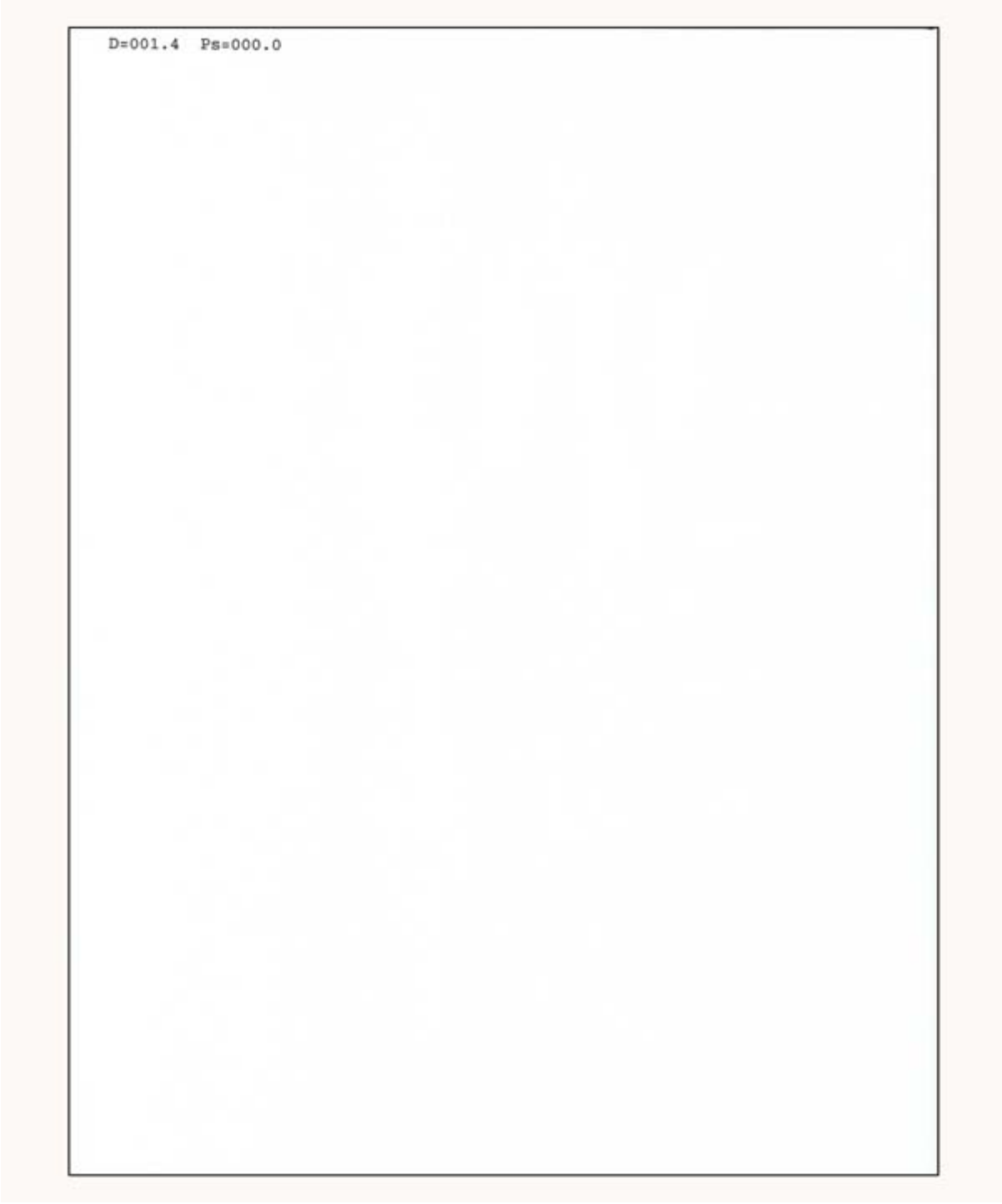
(1) Service test print

<Service test print sample>



(2) Ink absorber counter value print

<Print sample>



◀<3-4. Verification Items>▶▶



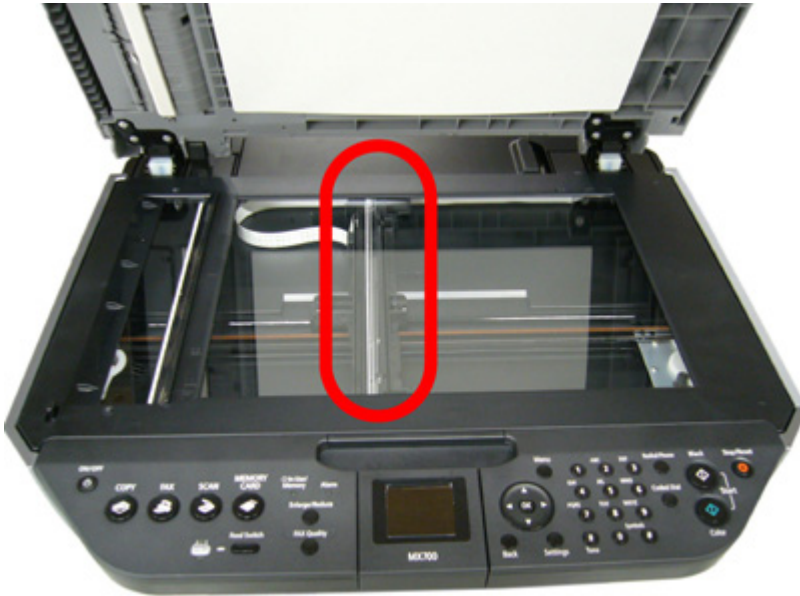
## 4. MACHINE TRANSPORTATION

This section describes the procedures for transporting the machine for returning after repair, etc.

- 1) Be sure to transport the machine after moving the CIS unit (Scanner Carriage Unit) to the appropriate position. If the machine whose CIS unit is in the home position (inappropriate position) is vibrated or dropped when it is transported, the scanner flat cable may be jammed/damaged and the scanner may become out of work.

### <Procedure>

After finishing the service mode correctly, the CIS unit automatically moves to the appropriate position.



Appropriate CIS unit position at transportation

- 2) Keep the print head and ink tanks installed in the carriage.

If the print head is removed from the machine and left alone by itself, ink (the pigment-based black ink in particular) is likely to dry. For this reason, keep the print head installed in the machine even during transportation.

- 3) Turn off the machine to securely lock the carriage in the home position. (When the machine is turned off, the carriage is automatically locked in place.)

This is to prevent the carriage from moving and applying stress to the carriage flexible cable, or causing ink leakage, during transportation.



If the print head must be removed from the machine and transported alone, attach the protective cap (used when the packing was opened) to the print head (to protect the print head face from damage due to shocks).

### ◀ <4. MACHINE TRANSPORTATION> ▶