

**Model:
BRG-P1w
Machine Code:
J034**

Field Service Manual

8 January, 2013

Safety Instructions, Conventions

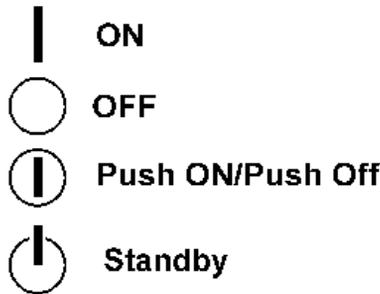
For your safety, please read this manual carefully before you service the machine. Always keep this manual handy for future reference.

Safety Information

Always obey these safety precautions when using this product.

Switches and Symbols

Where symbols are used on or near switches on machines for Europe and other areas, the meaning of each symbol conforms with IEC60417.



_onOff

Responsibilities of the Customer Engineer

Maintenance

Maintenance shall be done only by trained customer engineers who have completed service training for the machine and all optional devices designed for use with the machine.

Installation

The main machine and options can be installed by either the customer or customer engineer. The customer or customer engineer must follow the installation instructions described in the operating instructions.

Reference Material for Maintenance

Maintenance shall be done with the special tools and the procedures prescribed for maintenance of the machine described in the reference materials (service manuals, technical bulletins, operating instructions, and safety guidelines for customer engineers).

★ Important

- Use only consumable supplies and replacement parts designed for use with the machine.

Before Installation, Maintenance

Shipping and Moving the Machine

CAUTION

- Work carefully when lifting or moving the machine. If the machine is heavy, two or more customer engineers may be required to move the machine without causing injury (muscle strains, spinal injuries, etc.) or damage to the machine if it is dropped or tipped over.
- Personnel working around the machine should always wear proper clothing and footwear. Never wear loose fitting clothing or accessories (neckties, loose sweaters, bracelets, etc.) or casual footwear (slippers, sandals, etc.) when lifting or moving the machine.
- Always unplug the power cord from the power source before you move the machine. Before you move the machine, arrange the power cord so it will not fall under the machine.

Power

WARNING

- Always turn the machine off and disconnect the power plug before doing any maintenance procedure.
- After turning the machine off, power is still supplied to the main machine and other devices. To prevent electrical shock, switch the machine off, wait for a few seconds, then unplug the machine from the power source.
- Before you do any checks or adjustments after turning the machine off, work carefully to avoid injury.
- After removing covers or opening the machine to do checks or adjustments, avoid touching electrical components or moving parts (gears, timing belts, etc.).
- After turning the machine on with any cover removed, keep your hands away from electrical components and moving parts.
- Never touch the cover of the fusing unit, gears, timing belts, etc.

Installation, Disassembly, and Adjustments

CAUTION

- After installation, maintenance, or adjustment, always check the operation of the machine to make sure that it is operating normally. This ensures that all shipping materials, protective materials, wires and tags, metal brackets, etc., (attached to protect the machine during shipping), have been removed and that no tools remain inside the machine.

-
- Never use your fingers to check moving parts that are causing spurious noise. Never use your fingers to lubricate moving parts while the machine is operating.

Special Tools

CAUTION

- Use only standard tools approved for machine maintenance.
- For special adjustments, use only the special tools and lubricants described in the service manual. Using tools incorrectly, or using tools that could damage parts, could damage the machine or cause injuries.

During Maintenance

General

CAUTION

- Before you begin a maintenance procedure always switch the machine off.
- Disconnect the power plug from the power source.
- Allow the machine to cool for at least 10 minutes.
- Avoid touching the components inside the machine that are labeled as hot surfaces.

Safety Devices

WARNING

- Never remove any safety device (a fuse, thermistor, etc.) unless it requires replacement. Always replace a safety device immediately.
- Never do any procedure that defeats the function of any safety device. Modification or removal of a safety device (fuse, thermistor, etc.) could cause a fire and personal injury. After removal and replacement of any safety device, always test the operation of the machine to ensure that it is operating normally and safely.
- For replacement parts use only the correct fuses, thermistors, circuit breakers, etc. rated for use with the machine. Using replacement devices not designed for use with the machine could cause a fire and personal injuries.

Organic Cleaners

CAUTION

- During cleaning never use any organic cleaners (alcohol, etc.) other than those described in the service manual.
- Make sure the room is well ventilated before using any organic cleaner. Always use organic solvents in small amounts to avoid breathing the fumes and becoming nauseous.
- Switch the machine off, unplug it, and allow it to cool before doing preventive maintenance.
- To avoid fire or explosion, never use an organic cleaner near any component that generates heat.
- Wash your hands thoroughly after cleaning parts with an organic cleaner to avoid contamination of food, drinks, etc.

Power Plug and Power Cord

CAUTION

- Before servicing the machine (especially when responding to a service call), always make sure that the power plug has been inserted completely into the power source. A partially inserted plug could generate heat (due to a power surge caused by high resistance) and cause a fire or other problems.
- Always check the power plug and make sure that it is free of dust and lint. Clean it if necessary. A dirty plug can generate heat and cause a fire.
- Inspect the entire length of the power cord for cuts or other damage. Replace the power cord if necessary. A frayed or otherwise damaged power cord can cause a short circuit which could lead to a fire or personal injury from electrical shock.
- Check the length of the power cord between the machine and power supply. Make sure the power cord is not coiled or wrapped around any object such as a table leg. Coiling the power cord can cause excessive heat to build up and could cause a fire.
- Make sure that the area around the power source is free of obstacles so the power cord can be removed quickly in case of an emergency.
- Make sure that the power cord is grounded (earthed) at the power source with the ground wire on the plug.
- Connect the power cord directly into the power source. Never use an extension cord.
- When you disconnect the power plug from the power source, always pull the plug, not the cable.

After Installation Servicing

Disposal of Used Items

WARNING

- Ink is flammable. Never attempt to incinerate empty ink cartridges.

CAUTION

- Always dispose of used items in accordance with the local laws and regulations regarding the disposal of such items.
- To protect the environment, never dispose of this product or any kind of waste from consumables at a household waste collection point. Dispose of these items at one of our dealers or at an authorized collection site.

Points to Confirm with Operators

At the end of installation or a service call, instruct the user about use of the machine. Emphasize the following points.

- Show operators how to remove jammed paper and troubleshoot other minor problems by following the procedures described in the operating instructions.
- Point out the parts inside the machine that they should never touch or attempt to remove.
- Confirm that operators know how to store and dispose of consumables such as ink cartridges, ammonia water, paper, etc.
- Make sure that all operators have access to an operating instruction manual for the machine.
- Confirm that operators have read and understand all the safety instructions described in the operating instructions.
- Demonstrate how to turn off the power and disconnect the power plug (by pulling the plug, not the cord) if any of the following events occur:
 1. Something has spilled into the product.
 2. Service or repair of the product is necessary.
 3. The product cover has been damaged.
- Caution operators about removing paper fasteners around the machine. They should never allow paper clips, staples, or any other small metallic objects to fall into the product.

Safety Instructions for Ink Cartridges

Accidental Exposure To Ink

CAUTION

- If ink gets on the skin, wash the affected area immediately with soap and cold running water.
- If ink gets into the eyes, immediately flush the eyes with cold running water. If there are signs of irritation or other problems, seek medical attention.
- If ink is swallowed, drink a strong solution of cold water and table salt to induce vomiting. Seek medical attention immediately.
- Ink is difficult to remove from fabric. Work carefully to avoid staining clothing when performing routine maintenance or replacing cartridges.

Handling and Storing Ink Cartridges

WARNING

- Ink is flammable. Never store ink cartridges in a location where they will be exposed to high temperature or an open flame.

CAUTION

- Always store ink cartridges out of the reach of children.
- Always store ink cartridges in a cool, dry location that is not exposed to direct sunlight.

Ink Cartridge Disposal

CAUTION

- Attach the caps to empty ink containers for temporary storage to avoid accidental spillage.
- Return empty ink cartridges to a local dealer who can accept such items for collection and recycling or disposal.
- If the customer decides to dispose of empty ink cartridges, make sure that they are disposed of in accordance with local laws and regulations.

Safety Instructions for Batteries

CAUTION

- Always replace a lithium battery on a PCB with the same type of battery prescribed for use on that board.

- Replacing a lithium battery with any type other than the one prescribed for use on the board could lead to an explosion or damage to the PCB.
- Never discard used batteries by mixing them with other trash.
- Remove used batteries from the work site and dispose of them in accordance with local laws and regulations regarding the disposal of such items.

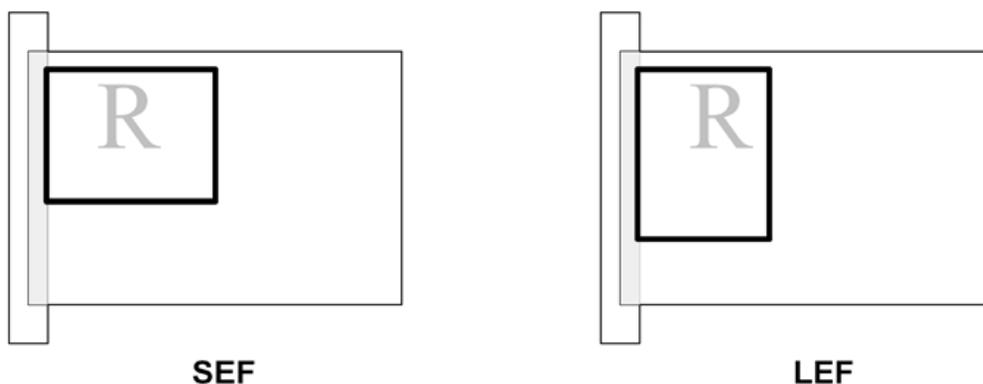
Conventions Used in this Manual

Symbols and Abbreviations

This manual uses several symbols.

Symbol	What It Means
	Clamp
	Clip ring
	Connector
	E-ring
	FFC (Flat Film Connector)
	Hook
	Pointer (cross-reference to another manual section)
	Screw
	Spring
	Standoff
	Timing Belt

This manual uses the following abbreviations.



Throughout this service manual, "SEF" denotes "Short Edge Feed" and "LEF" denotes "Long Edge Feed".

Machine Name

Printer Name	Model No.
BRG-P1w	J034

- The J034 is equipped with the ZICO controller.
- The NIC is mounted on the CTL board.
- The J034 does not support PCL.

Warnings, Cautions, Notes

In this manual, the following important symbols and notations are used.

WARNING

- A Warning indicates a potentially hazardous situation. Failure to obey a Warning could result in death or serious injury.

CAUTION

- A Caution indicates a potentially hazardous situation. Failure to obey a Caution could result in minor or moderate injury or damage to the machine or other property.

Important

- Obey these guidelines to avoid problems such as mis-feeds, damage to originals, loss of valuable data and to prevent damage to the machine

Note

- This information provides tips and advice about how to best service the machine.

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1. Product Information

Specifications

1

See "Appendices" for the following information:

- Printer Engine
- Supported Paper Sizes
- Control Boards

Overview

1

Before You Begin...

What This Manual Contains

This Service Manual covers J034 model of this printer series. This is a brief summary of the differences between J034 and that of base machine J028.

J028

The NIC is mounted on the CTL board.

This model is PCL compatible.

J034

The NIC is mounted on the CTL board.

This model is not PCL compatible.

This table below compares the J034 model with that of base machine J028. The size and number of components differ in some cases but their basic design and function are almost the same. The removal procedures described in the manual apply to this model.

	J028	J034
Main Components		
Print Heads	x2	
Maint. Unit	Common	
Ink Supply Unit	Common	
Ink Collector Unit	Common	
Ink Cartridges	S size, M size	
Horizontal Encoder Film	Common	
Duplex	Std	Std
Wireless LAN	No	No
PCBs		
CTL Board*1	FIGO	ZICO

	J028	J034
PSU	Common This depends on the territory in which it will be used. Europe and Asia: 200V board North America: 100V board	
Supply Unit Board	Common	
Carriage Unit Board	Common	
Operation Panel	Black	
Covers		
Right Front Door	Product Name Printed on Each	
Other Covers	The right, left, and duplex unit covers are black. All other covers are white.	
Options		
Multi Bypass	Yes (J313)	Yes (J315)
PFU	Yes (J312)	Yes (J314)

* 1 The NIC is mounted on the CTL board of the J028/J034.

Printer Models and Options

This manual describes the following printer model and options.

No.	Name	Ricoh Name
J034	BRG-P1w	Aficio SG 7100DN(SG 7100DN)
J314	Paper Feed Unit	Paper Feed Unit TK1190
J315	Multi Bypass Tray	Multi Bypass Tray BY1050

The electrical components and mechanisms that drive this printer and that of base machine are nearly identical. However, you should note these differences about options:

- The Paper Feed Unit TK1190 (J314) is an optional paper tray that holds 250 sheets. Only one paper feed unit can be attached (comprising two drawers together with the standard Tray 1).

Print Cartridges

The following print cartridges can be used with the J034.

Name	Comments
Starter Ink Cartridge (K)* ¹	These are the starter cartridges shipped with the machine. These are used to initialize ink supply when the machine is installed and then discarded.
Starter Ink Cartridge (C) * ¹	
Starter Ink Cartridge (M) * ¹	
Starter Ink Cartridge (Y) * ¹	
Print Cartridge GC 41K	These are medium-size cartridges.
Print Cartridge GC 41C	
Print Cartridge GC 41M	
Print Cartridge GC 41Y	
Print Cartridge GC 41KL* ²	These are small-size cartridges.
Print Cartridge GC 41CL* ²	
Print Cartridge GC 41ML* ²	
Print Cartridge GC 41YL* ²	

*¹: Always use the starter cartridges shipped with the machine to initialize ink supply at installation. Never install used ink cartridges to initialize ink supply at installation.

*²: L = Low

↓ Note

- The large-size cartridges are supplied only for the Japan domestic models.

Ink Collector Unit

The ink collector unit is installed on the right side of the machine behind the right front door below the ink supply unit.

Collector	Comment
Ink Collector Unit IC 41	Ink Collector Unit for all models.

Main Machine

Front View

1



j0271009

1. Top cover

Open to see inside the printer if a jam occurs.

2. Operation panel

Operation keys and the 2-line LCD. The operation panel can be raised and set in the upright position if the printer is placed at a height where it is difficult to reach.

3. Ink cartridges (K), (C), (M), (Y)

Supply ink to the print heads.

4. Ink collector unit

Pull out the ink collector unit when it needs to be replaced, or before servicing the printer.

5. Right front cover

Covers the ink cartridges and the ink collector. Open only when installing or replacing Ink cartridges, or when pulling out the ink collector unit. Otherwise, this door should remain closed. A small switch detects when this cover is open and closed. The door must be closed for the printer to operate.

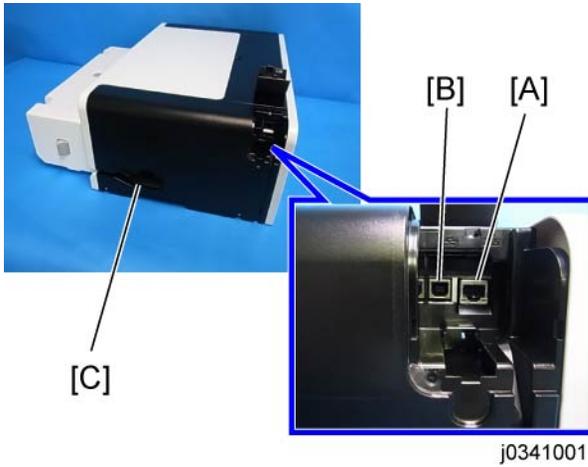
6. Paper cassette (Standard Tray 1)

This is the standard tray that holds paper fed to the machine.

7. Paper output tray and extension

Holds paper that has exited the printer. Pull out the output tray extension when printing on paper longer than A4 or LTR.

Left View



A: Ethernet port

The port for the ethernet cable. The NIC is mounted on the controller board.

B: USB port

This is the connection point for the USB cable from the PC.

C: Power inlet

The connection point for the power cord. Use only the detachable power cord provided with the printer. Make sure you ground (earth) the head of the plug at the power source.

Rear View



1. Rear cover

2. Duplex unit

The duplex is standard for the J034 (it is not an option). It is easily detached and re-attached. A small switch detects the presence or absence of the duplex unit.

3. Bypass tray connection point

This is the connection point for an optional multi bypass tray.

Options

1

External Options: J034



j0341002

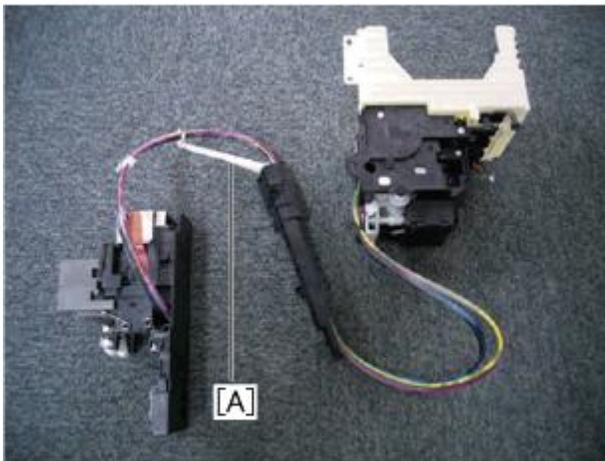
The Paper Feed Unit TK1190 (J314) [A] is used with the J034 only. Only one paper feed units can be installed.

The Multi Bypass Tray BY1050 (J315) [B] can be used with the J034 only.

Guidance for Differences between J034 and that of the base machine

Ink Tube Stay

The J034 model adds the ink tube support stay [A] between the carriage and the ink supply unit so that the large size papers can be printed smoothly. However, this stay requires no additional steps for the replacement. Pay extra attention to remove the carriage unit (➡ p.129) from the main machine to avoid damaging to this stay.



j0341024

Paper Transport Belt Unit

For supporting the large size papers, The J034 machine's width is increased consequently. This changes some replacement procedures. Regarding as the paper transport belt unit (➡ p.96 "Transport Belt"), the following procedures are changed.

- The carriage unit should be removed before removing the belt unit.
- The number of the pressure plate's screws becomes 4.
- The number of the pressure plate's springs becomes 6.

Rollers

The Pickup roller and the connecting roller removing procedures are also changed in some parts.

The Paper Feed Roller

- The two e-rings should be released to remove the pressure rollers that pinch the paper feed roller (👉 p.123).

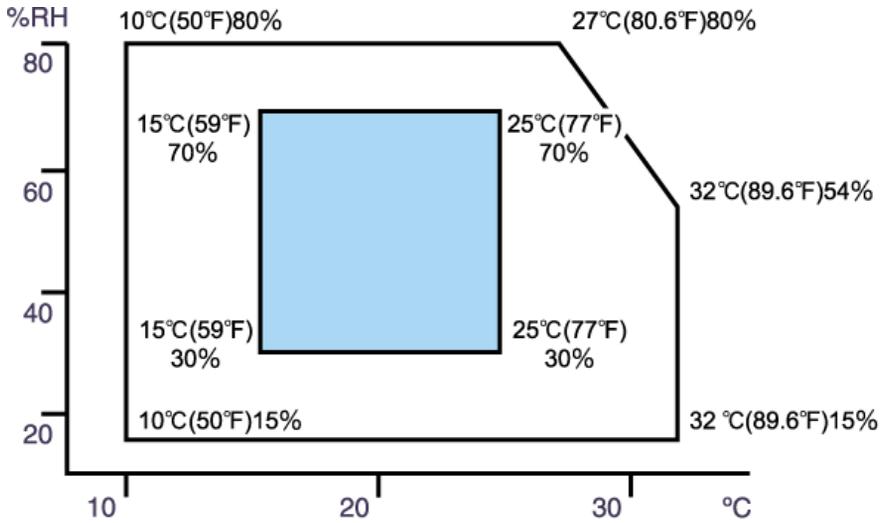
The Connecting Roller

- The ink level sensor should be removed to pull out the right side of the connecting roller shaft (👉 p. 126 "Connecting Rollers") from the main machine.

2. Installation

Preparation

Environment



j0270001

- White area: Permissible Range
- Blue area: Recommended Range

Set up the machine in a location that meets these minimum requirements:

Temperature Range:	10°C to 32°C (50°F to 89.6°F)
Humidity Range:	15% to 80% RH
Ambient Illumination:	Less than 2,000 Lux (never expose to direct sunlight).

Choosing a Location

1. Always install the machine:
 - On a sturdy, level surface.
 - Where it will not become damp.
2. Make sure the machine is never exposed to:

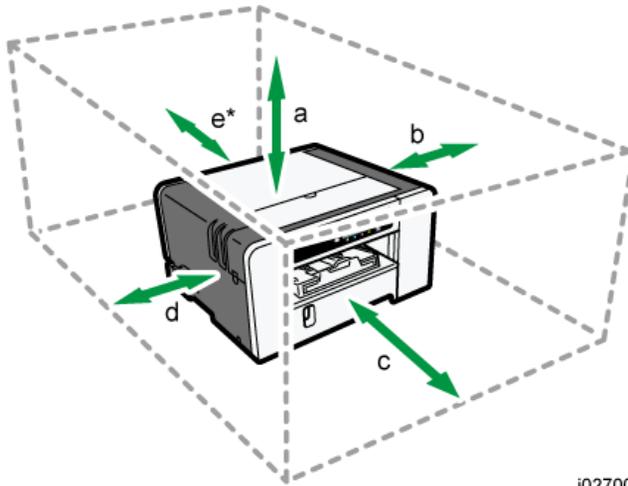
- Extreme changes from low to high temperature or high to low temperature.
 - Cold or cool air directly from an air conditioner.
 - Heat from a space heater.
3. Never install the machine in areas near:
- Dust, lint, or corrosive fumes.
 - Strong vibration.
4. Do not use the machine at any location higher than 2,500 m (8,200 ft) above sea level.
5. Set up and use the machine on a sturdy, level surface.
- Place a carpenter's level on the machine front-to-back, and side-to-side and confirm that it is level.
 - Variations between the front/back and left/right level readings should be less than 2 degrees.

Required Software Environment

Software	<ul style="list-style-type: none"> • Microsoft Windows XP/Vista/Windows 7 • Microsoft Windows Server 2003/2003 R2/2008/2008 R2 • Mac OS X 10.5 Leopard and later versions* 1
Hardware	<ul style="list-style-type: none"> • PC/AT-compatible computer with USB or network interface • Macintoshes that are PowerPC G3 or higher with USB port or network port • Macintoshes that are Intel Core Duo or higher with USB port or network port • 80-100 MB of HDD space available

* 1: Mac driver included on CD-ROM (The supported languages are English, French, German and Japanese.).

Minimum Space Requirements



j0270002

a.	At least 26 cm (10.3 inches)
b.	At least 3 cm (1.2 inches)
c.	At least 45 cm (17.8 inches)
d.	At least 10 cm (4.0 inches)
e* 1.	At least 13 cm (5.2 inches)

* 1 A clearance of 30 cm (11.9 inches) is necessary if the multi bypass tray is attached.

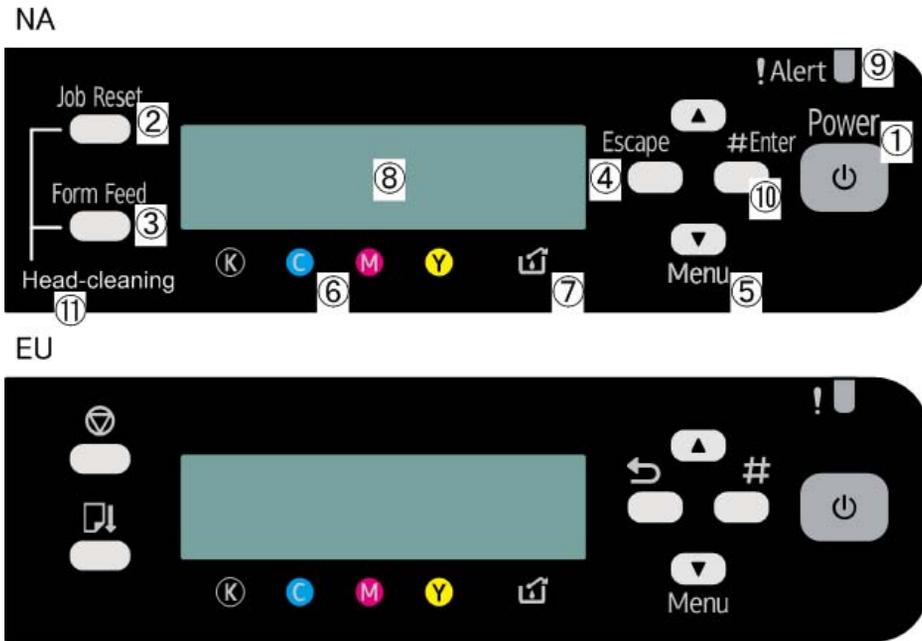
Power Source

J034

North America	100-120 V: 50/60 Hz 1.2 A (when fully equipped)
Europe	220-240 V: 50/60 Hz 0.6 A (when fully equipped)

Using the Operation Panel

Here is a brief description of how to use the keys on the printer operation panel. This information is provided as a quick summary of important information described in the Operating Instructions.



j0270003

Key Summary Table

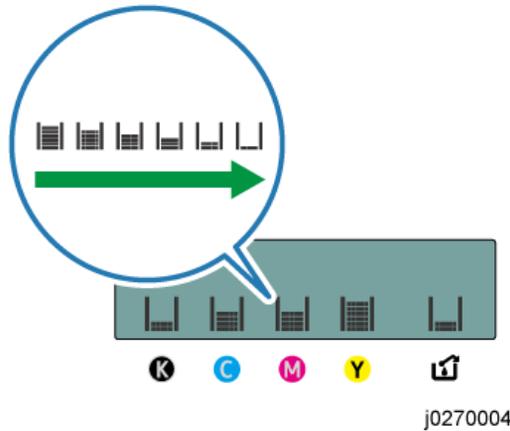
	Key/Indicator	What It Does
1	Power	Press this key to turn the power on. To turn the power off, press and hold down this key for one second. Blinks when the printer is receiving data from a computer or if there is data to be printed.
2	Job Reset	When the machine is online, press this key to cancel an ongoing print job.
3	Form Feed	When the printer is offline, push to print all the data in the printer buffer. If there is a paper jam, press this key according to the displayed error message and remove the jammed paper.
4	Escape	Push to restore the display to the previous condition.

	Key/Indicator	What It Does
5	▲ ▼/Menu	[▲], [▼/Menu]: Increase or decrease values on the display when making settings. [▼/Menu]: When the printer is in standby mode, press [▼/Menu] key to enter the user menu.
6	Cartridge replacement indicator	Show the ink levels of the print cartridges.
7	Waste ink full indicator	Show the waste ink levels of the ink collector unit.
8	Display	Shows the current printer status and error messages.
9	Alert indicator	The symbol appears in the LCD when an error occurs. <ul style="list-style-type: none"> • Red indicator illuminating: Indicates an error that requires the operator or service representative to deal with. Printing stops. • Red indicator flashing: An alert message appears. Follow the instruction that appears in the display.
10	#Enter	Push to execute the menu item on the display.
11	No-Fuss Head Cleaning	When the machine is in standby mode, press the [Job Reset] and [Form Feed] keys at the same time to perform head cleaning for all colors.

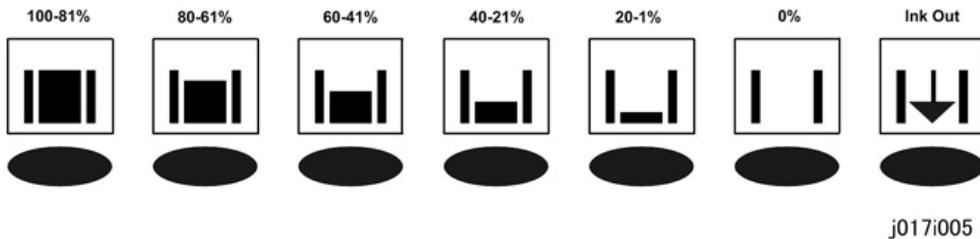
Printer Display Summary

Operation Panel: Cartridge replacement indicator

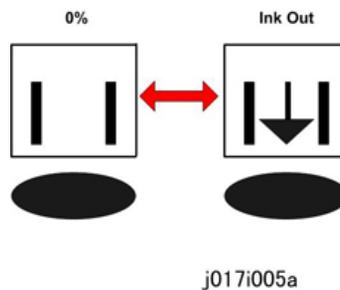
2



The printer shows a multi-level dynamic display that keeps the operator informed about the status of the ink levels in the tanks. The example below for Black (K) shows the progression in the display from full on the left to completely empty on the right.



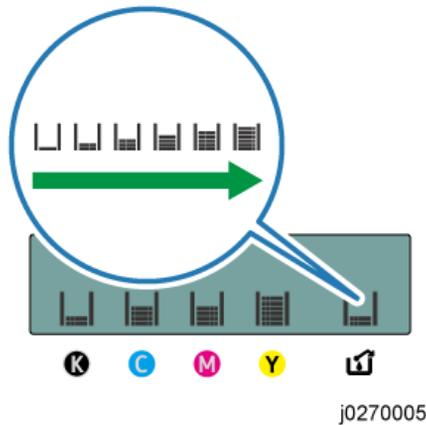
A software count determines when the ink cartridge has less than 20% ink remaining. The 0% and Ink Out display begin flashing alternately at 3 sec. intervals. This is the near-end alert.



When the cartridge is empty the machine issues the ink-end alert and printing stops.

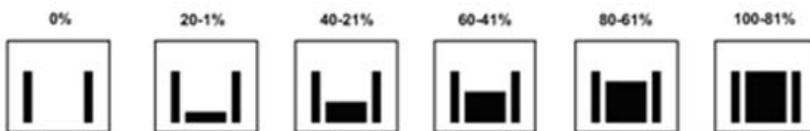
The operator can continue printing by pressing [Form Feed] on the operation panel. The printer will continue to print until the print head ink tank is empty. However, in this operation mode the machine cannot perform print head maintenance.

Operation Panel: Waste Ink Full Indicator



The amount of waste ink in the ink collector unit is indicated on a six-step scale, namely 0, 20, 40, 60, 80, and 100%. It is reset to 0% if a new ink collector unit is installed. If it reaches 100%, printing cannot be done. A message prompting the user to replace the unit appears on the panel display. A message prompting the user to replace the ink collector unit appears also if it is not mounted.

The amount of waste ink can be displayed also on the Status Monitor and Web Image Monitor.



j0270023

On the other hand, "Ink C.U. Space" in the machine's menu on the control panel displays the available storage space left in the ink collector unit. (It is reset to 100% if a new ink collector unit is installed.)

Display Menu Summary

Here is a summary of the function menus. Items needed for printer maintenance or troubleshooting are marked in the left column with an asterisk (*).

User Menu Mode

Menu/Menu Item	Function
Counter	<p>Displays or prints the number of pages printed in B&W, full color, and Economy Color.</p> <p>Note: Changing Bit SW 5 modifies the display:</p> <ul style="list-style-type: none"> Setting Bit SW 5-6 to "0" switches the Economy Color display off. The default setting for Bit SW 5-6 is "1". Mono and Economy Color are both displayed.
Show Counter	Displays the counters on the LCD ("Black", "Color")
Print	Prints the "Page Counter" report that lists: the machine serial number, Total Full Color, Total Mono Color, Total Economy Color, and Total Duplex. It also lists Coverage information for full color, mono, and Economy Color.
Paper Input	
Paper Type	Specifies type of paper loaded in the paper tray.
Tray Paper Size	<p>Specifies size of paper to be loaded in the paper tray.</p> <p>Note: The setting of Bit SW6-7 determines whether hidden functions (hidden paper sizes A5 SEF, B6 SEF) are displayed:</p> <ul style="list-style-type: none"> 0: No A5 SEF, B6 SEF display (default) 1: A5 SEF, B6 SEF displayed
Aut. Tray Select	Specify that the paper tray be automatically selected. The paper tray will automatically be selected according to the paper size and paper type. Tray 1 (the standard paper cassette) is the default. "Tray 2" and "Tray 3" appear only if the paper feed unit(s) is attached. "Bypass Tray" appears only if the bypass tray is attached.
Tray Priority	You can specify the prioritized paper tray. This setting appears only if the paper feed unit or multi bypass tray is attached.
List/Test Print	

Menu/Menu Item	Function
Config.Page(*)	Prints information that tells you the current configuration of the printer. <ul style="list-style-type: none"> • System Reference. Lists printer version, attached options, name of print language, amount of ink remaining for each ink cartridge. • Paper Input. Lists the specified Tray Priority setting and the Paper Input menu settings. • Host Interface, Interface Information. Lists the settings of the Host Interface menu
Color Demo Page	Prints a color sample.
Error Log	Prints list of most recent errors.
PCL Config. Page	Lists current PCL configuration
Maintenance	
Nozzle Check(*)	Prints the cross-hatch test pattern so you can visually confirm whether inks are ejecting correctly from the print head.
Head-cleaning(*)	Cleans the print head. Clean the print head when certain colors are missing or printing faintly. Head cleaning consumes ink.
Head-flushing(*)	Cleans the print head more thoroughly than "Head-cleaning". Flushing consumes more ink. Use this function only after "Head-cleaning" fails to solve the problem.
Head Position(*)	Adjusts the alignment of the print head if the Nozzle Check test pattern shows broken vertical lines, or if printed images are blurred.
Adj. Paper Feed(*)	Adjusts the paper feed setting if the Nozzle Check test pattern shows horizontal misalignment, or if printed images appear uneven.
Registration	Adjusts the print starting point for each paper tray. Use the Nozzle Check test pattern as reference.
Date/Time	Allows setting current date/time.
Key Repeat	Enables/disables repetition of a key pushed and held down on the operation panel.

Menu/Menu Item	Function
Dry-delay (Exit)	To prevent spoiling of printed copies, select a print delivery interval to allow them to dry. The interval must be long enough to allow a sheet to dry. You can specify an interval between 1 and 20 seconds. Default: [Off]
Dry-delay (Dup)	Pauses printing to allow first side of duplex print to dry before printing second side of same page. Note: Supported by the J028/J029 only.
Paper Feed Test(*)	Feeds and ejects 1 blank sheet of paper to remove moisture inside the machine.
De-condensation(*)	Feeds and ejects 3 blank sheets of paper to remove moisture inside the machine.
System	
Prt. Err Report	Prints error report.
Auto Continue	Determines how the printer handles a print job when the specified paper size and type is not loaded in the tray. Off: The job does not print if the specified paper size/type is not loaded in the tray. The job will execute once the specified paper size/type is loaded. On: The job prints even if the specified paper size/type is not loaded in the tray.
Sub Paper Size	Determines whether to print on A4 paper if LT size paper is specified in the printer driver, and vice versa. Default: Off
Energy Saver	Switches the energy saving function on/off. When this function is on, the printer will automatically shut down some of its functions automatically after it remains idle for the prescribed amount of time. The "E. Saver Timer" can be set for 5, 15, 30, 35, 60 min. Once the printer enters the energy save mode, it will require some time to recover full operation once it receives a print job.
Notify by Email	Determines whether a notification is sent to a specified email address when a printer error occurs. Be sure to cycle the printer off/on after doing this setting.

Menu/Menu Item	Function
Memory Usage	Frame Priority, Font Priority
Unit of Measure	Determines the units of measure ("mm" or "in.") Default: mm
Page Size	Allows selection of page size.
Paper Type	Plain Paper, IJ Plain Paper, Glossy Paper, Thick Paper, Postcard, Inkjet Postcard, Envelope
Preprinted Ppr.	Off, On
Copies	Allows selection of number of copies: 1 to 999.
Blank Pg. Print	On (Prints), Off (Does Not Print)
Tray Switching	Off (Does Not Switch Trays), On (Switches Trays)
Uni-direct Ppt.	Env. Selector: On, Auto Detect, Always
Density	Dark, Light, Standard
Color Mode	Color, Economy Color, Black and White
Recycl. Ppr. Mode	Off, On
Pg Recov. Error	Specify whether or not [Page Recovery Error] is reported. Default: [Display]
Ink C.U. Space	Displays the current status of ink collector unit. The number means the amount of space remaining. (100% means the unit is empty.)
Ppr. Size Error	This function enables the printer to notify users if the paper in the tray does not match the paper size specified in the [Paper Input] menu. Default: [Display]
Host Interface	
I/O Timeout	Determines how long the printer waits for the interface to respond. After the specified time elapses, the printer can receive data from another interface. If the specified time is too short, a timeout might occur while a data transfer is in progress. If this occurs, the print job will be interrupted by a new job from another interface. Default: 15 sec.

Menu/Menu Item	Function	
Network Setup	Use to do the network settings.	
	Setting	Default
	Machine Name	Display only
	Host Name	Display only
	Domain Name	Display only
	IPv4 DNS	ServerAddress 1 and 2 0.0.0.0
	IPv4 DDNS	On
	DHCP	Off
	IPv4 Address	11.22.33.44
	Pv4 Subnet M	0.0.0.0
Network Setup	Pv4 Gateway. Ad	0.0.0.0
	IPv6 DDNS	On
	IPv6 DNS	ServerAddress 1 and 2 ::
	DHCPv6	Off
	IPv6 Statlss Ad	On
	IPv6 Address	Manual Config Ad MnCfgAd PrfxLen
	IPv6 Gateway.Ad.	0:0:0:0:0:0:0:0
	Active Protocol	IPv4: Active IPv6: Active HTTP (IPv4): Active HTTP (IPv6): Active Web: Active

Menu/Menu Item	Function	
Network Setup	IPsec	Off
	MAC Address	Display only
	Ethernet Speed	Auto Select
	Prmt SNMPv3 Com	Cleartext
	Pmt SSL/TLS Com	IPv4: Active IPv6: Active
	Restore Default	---
USB Setting	<p>Two settings are available:</p> <ul style="list-style-type: none"> • USB Speed. <ul style="list-style-type: none"> • Auto: 480 Mbps or 12 Mbps automatically adjusted • Full Speed: 12 Mbps fixed <p>Default: Auto. Normally, this setting does not require changing.</p> <ul style="list-style-type: none"> • Port Setting. <ul style="list-style-type: none"> • Specifies communication settings for a USB connection. • Default: Off 	
Language	<p>You can select which language the menu is displayed in.</p> <p>The "Language" menu will be displayed in English.</p> <ul style="list-style-type: none"> • NA model Japanese, English, French, German, Italian, Spanish, Dutch, Norwegian, Danish, Swedish, Portuguese, Finnish (Default: English) • EU/Asia model Same as above plus: Czech, Polish, Hungarian 	

Access to menus during an error

In previous models, menus could not be accessed during an error. However, this model allows access to user menus by pressing the [▼/Menu] key.

However, functions that require printing, such as the printing of the counter, cannot be executed during an error.

example:

- Counter. The counts can be displayed but not printed.

- List/Test Print. No selections are available.

Even without computers, you can specify settings, such as the time and date, on the machine's control panel.

 **Note**

- Menus could not be accessed while the printer is busy.

Installation

These machines and all peripherals are installed by the customer.

The installation procedures are described in the operating instruction manuals issued to the customer with purchase of the main machine or peripheral unit.

Important Information

Make sure that the customers understand the following points about moving, storing, and using the printer.

Checklist Before Moving the Printer

1. Turn the printer off. Disconnect the power cord.

★ Important

- **Never disconnect the power cord without first turning off the printer.**
2. To lift the printer, grip it at the center of each side by the hand recesses provided.
 3. Never grip the duplex unit on the back of the printer.
 4. Make sure the covers and trays are closed. Secure them with tape. Attach the tape at the same area you removed at the time of installation.
 5. Disconnect the power cord. Tape the power cord to the back of the printer.
 6. Remove all paper in the feed trays.
 7. Do a test print to confirm that the printer operates correctly after you move it to another location. Do the cleaning procedures with the printer driver, if necessary.
 8. The ink cartridges should remain in the printer. It is not necessary to remove the before transporting the printer. However, ink must be purged from the print head tanks before the printer is transported. (See procedure below.)

★ Important

- **To avoid ink spillage, always hold the printer level when you move it.**
- **Work carefully to avoid dropping it or colliding with other objects in the work area.**

If the Printer Is Not Used Frequently...

1. Turn the power off, disconnect the USB cable, and unplug the power cord.
2. To prevent the print nozzles from drying out, periodically print something.
3. Turn the printer on for a few minutes once a month.
4. After storage or a long period of disuse, use the printer driver to print a nozzle check text pattern and clean the print head nozzles if necessary.

3. Preventive Maintenance

PM Table

There are no PM Parts in this machine.

Service Call Procedures

The procedures listed below should be done by the service technician. For more details about how to do these procedures, please refer to "Cleaning Procedures".

Description	At Service Call, or As Required
External Covers	Damp cloth.
Connecting Rollers, Paper Feed Roller	Damp cloth. Rotate the roller freely as you clean it.
Friction Pad	Damp cloth. This is the cork friction pad on the front edge of the standard paper cassette.
Maintenance Unit	Damp cloth. Always use a tightly wrapped damp cloth to remove the ink that has hardened around the suction cap and wiper blade when you replace the ink collector unit.
Printer Operation, Print Quality	Print a Nozzle Check Pattern and check the results. Clean the print heads if necessary. For more, see "Print Head Cleaning and Adjustment" in section "4. Replacement and Adjustment".
Transport Belt	Slightly damp cloth. Then dry cloth. Important: To protect the surface of the transport belt, never use alcohol or any other type of organic solvent.
Horizontal Encoder Strip	Clean linen cloth, dampened with alcohol. Do not use cotton, tissue paper, any material that could shred and leave fibers.
Vertical Encoder Wheel	Clean linen cloth, dampened with alcohol. Do not use cotton, tissue paper, any material that could shred and leave fibers.

4. Replacement and Adjustment

Before Replacing Parts

Removal Table

The swap-and-repair system is used for this printer. The table below lists the level of difficulty for replacement of each item.

Level 1: No Tools Required

	Component	Comments
1	Duplex Unit	Standard. Back of machine
2	End Fence	Inside paper cassette
3	Ink Cartridge	Front
4	Ink Collector Unit	Front
5	Paper Cassette	Standard
6	Paper Output Tray	On top of paper cassette
7	Right Front Cover	Front
8	Port Cover	Left side

4

Level 2: Replaced by Service Technician

	Component	Difficulty: Low, Medium, High
1	Canopy Cover	Low
2	Top Cover	Low
3	Rear Cover	Low
4	Right Cover	Low
5	Left Cover	Low
6	Front Cover	Low
7	Connecting Rollers	Low

	Component	Difficulty: Low, Medium, High
8	Front Cover	Low
9	High Voltage Power Supply (HVPS)	Low
10	Maintenance Unit	Low
11	OPU (Operation Panel Unit)	Low
12	PSU	Low
13	Vertical Encoder Sensor	Low
14	Vertical Encoder Wheel	Low
15	Vertical Motor	Low
16	Controller Board	Medium
17	Cooling Fan	Medium
18	Right Ink Sump	Medium
19	2nd Registration Sensor	High
20	Carriage Unit	High
21	Friction Pad	High
22	Horizontal Motor	High
23	Transport Belt	High
24	Air Purge Detection Switch	Low
25	Drive Switching Position Sensor	High
26	Maintenance Unit Control Sensor	High
27	Drive Switching Motor	High
28	Drive Motor (DC Motor)	High
29	Temperature/Humidity Sensor	High
30	Paper End Sensor	High
31	Paper Feed Roller	High
32	Charge Roller	Medium

Level 3: Require precision adjustment at factory (Not Replaced in this Field)

	Component	Comments
---	None	---

Required Tools

This is a list of tools needed to service the machines. These tools are used to keep the print heads from drying out during long periods of storage following machine repair. (The ink is purged and fresh cleaning liquid is supplied.)

Item	Description	Qty	Unique or Common
1	Ink Cartridge K Cleaning Assy	1	U
2	Ink Cartridge C Cleaning Assy	1	U
3	Ink Cartridge M Cleaning Assy	1	U
4	Ink Cartridge Y Cleaning Assy	1	U
5	Special Cloth 10 pcs/bag	1	C (PG-C1)

Note

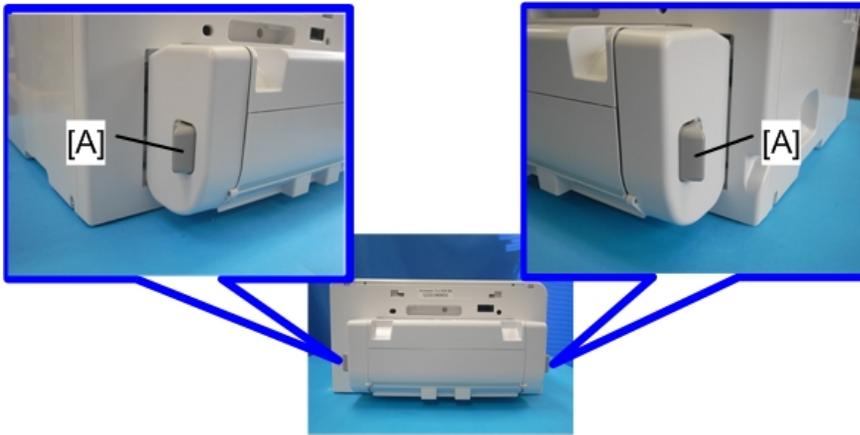
- Parts 1 to 4 are used at the Repair Center.

Common Procedures

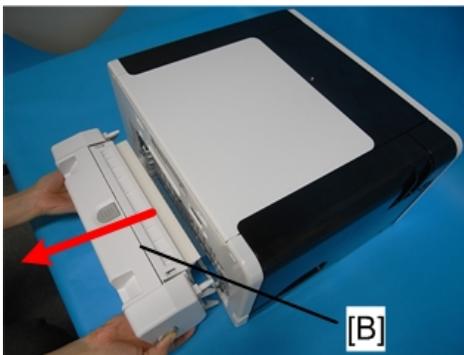
Simple Removals

Duplex Unit

4



j0271043



j0271044

1. Push and hold the left and right release tabs [A] together to unlock the duplex unit [B].
2. Pull the duplex unit out of the machine.

Reinstallation

- The duplex unit must be installed in the machine at all times. The machine will not operate without the duplex unit installed.
- The locks on either end of the duplex unit lock automatically when the unit is attached to the back of the printer.

Ink Collector Unit

Before you begin:

Never remove the ink collector unit unless it requires replacement. A message will appear and tell you that the ink collector unit needs to be replaced.

- You will need a self-sealing plastic bag to hold the ink collector unit.
- When you dispose of the used ink collector unit always obey the local laws and regulations regarding the disposal of such items.

At any time you can determine if the ink collector unit needs to be replaced.

⚠ CAUTION

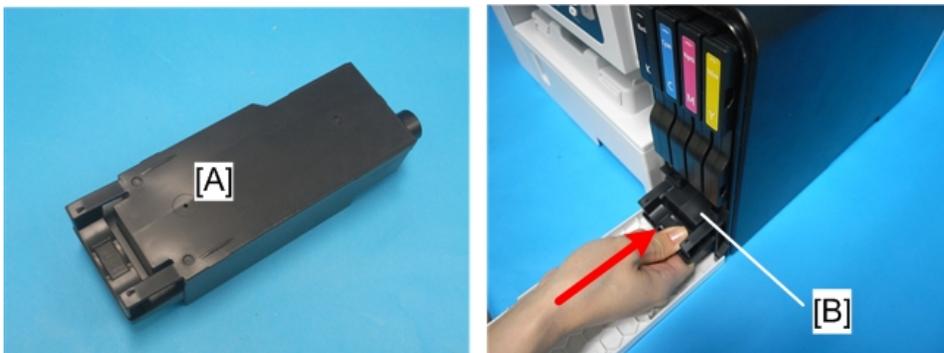
- Never attempt to clean and re-use an ink collector unit.

To remove the ink collector unit:



j0271045

1. Gently touch the right front cover to release and open it.
2. Pull the ink collector unit [A] out.



j0271046

3. The ink collector [A] is completely enclosed to prevent leakage.
4. If you are replacing the ink collector unit, insert the new one.

5. Push in the ink collector [B] until you hear it snap and lock in place.
6. Close the right front cover.

Note

- The ink collector unit has an internal ID chip that automatically resets the counter for the ink collector unit. No SP adjustment is required.

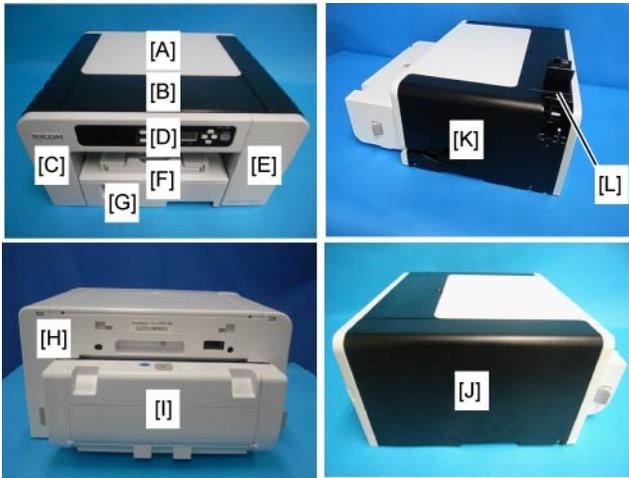
7. Discard the used ink collector unit.

Important

- Obey the local laws and regulations regarding disposal of items like the full ink collector unit.
- Never attempt to open and clean a full ink collector unit and use it again.

Covers

Cover Names



j0271047a

[A]	Top Cover	
[B]	Canopy Cover	
[C]	Front Cover	Brand Logo attached
[D]	Operation Panel	
[E]	Right Front Cover	Product Logo attached
[F]	Output Tray	

[G]	Paper Cassette	
[H]	Rear Cover	
[I]	Duplex Unit	
[J]	Right Cover	
[K]	Left Cover	
[L]	Port Cover * 1	No screws, tabs only.

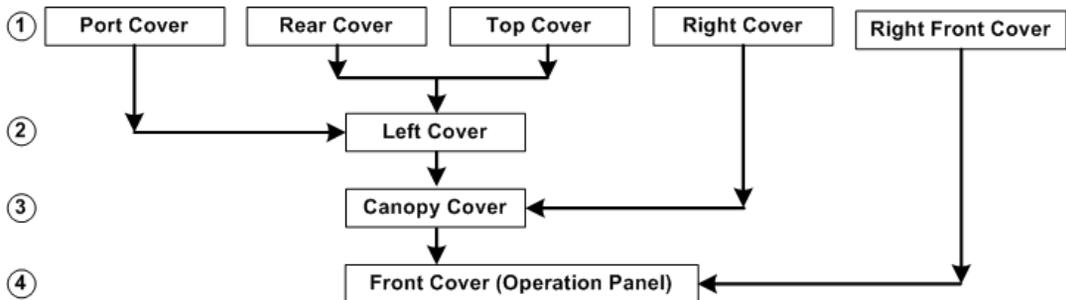
* 1 This picture is a shot that is taken with the port cover opened because of the easily view.

4

Order of Removal Cover

It is very important that you understand how to remove and reinstall the covers before doing replacement procedures. Here is a general summary of the order of removal.

Order Of Cover Removal

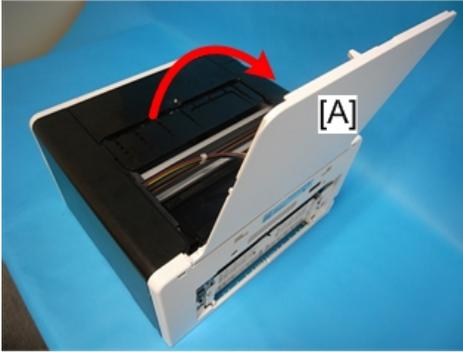


j0270006

Rear Cover, Top Cover

Preparation

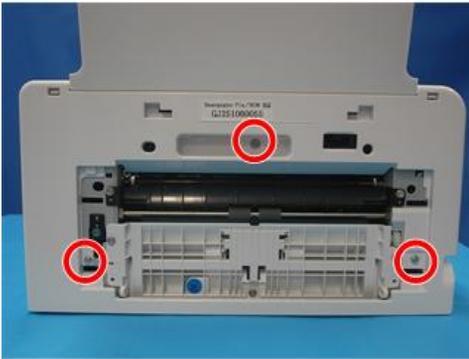
- If you are servicing the J034 with one paper feed unit attached, remove the printer from the top of the paper feed unit. The rear cover cannot be removed with the printer mounted on a PFU.
 - Duplex unit (📄 p.48)



j0271012

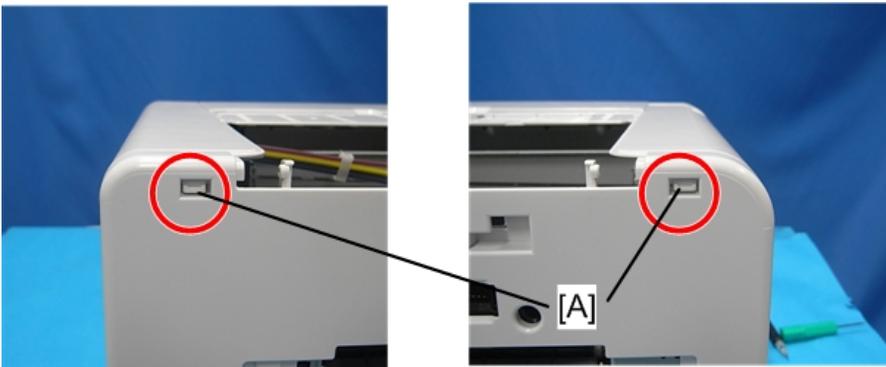
4

1. Raise the top cover [A].



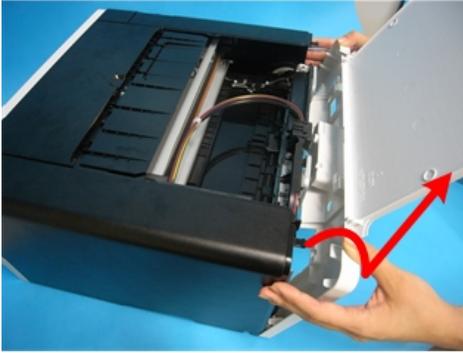
j0271013

2. 3 screws ( x 3).



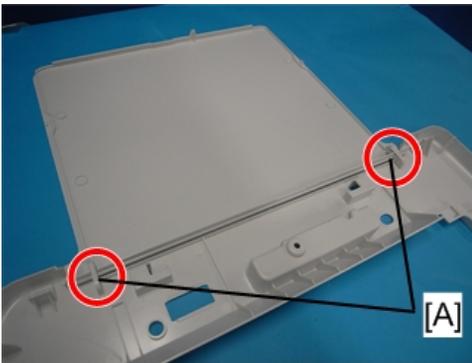
j0271014

3. Press the tabs [A] on the top left and top right of the rear cover to detach the top of the rear cover.



j0271015

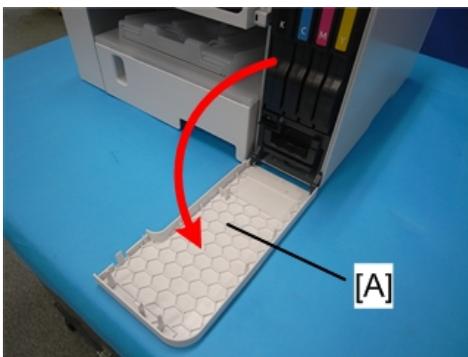
4. Slide the rear cover up to detach its bottom.



j0271016

5. Disengage the top cover latch [A].

Right Front Cover



j0271017

1. Open the right front cover [A].



j0271018

4

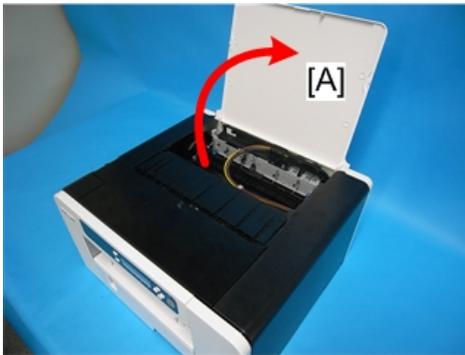
2. Disengage the latch.

3. Remove the right front cover.

Right Cover

Preparation

- Duplex unit (p.48)
- Right front cover (See above)



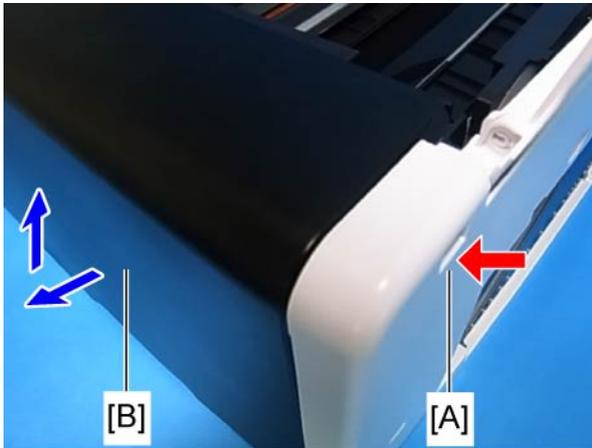
j0271019

1. Raise the top cover [A].



j0341004

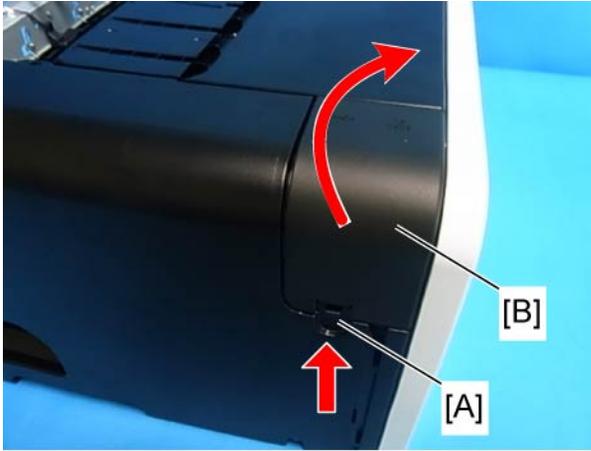
2. 2 screws ( x 2).



j0341005

3. Pressing the tab [A] on the rear cover, lift the right cover [B] to detach it.

Port Cover



j0341006

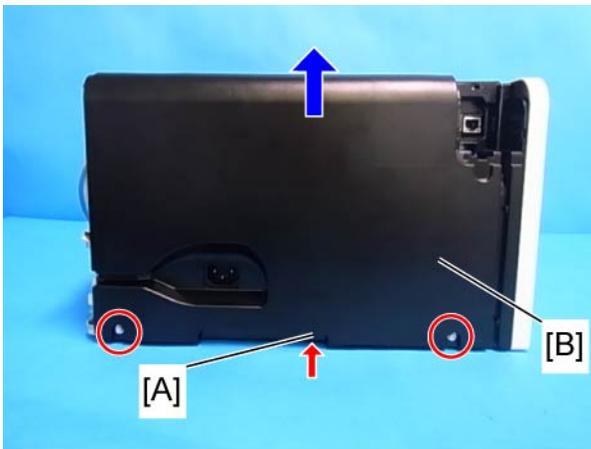
1. Pressing the tab [A], detach the port cover [B].

When you detach the left cover, detach the port cover in advance.

Left Cover

Preparation

- Duplex unit (p.48)
- Port cover (See above)
- Rear cover (p.51 "Rear Cover, Top Cover")
- Top cover (p.51 "Rear Cover, Top Cover")



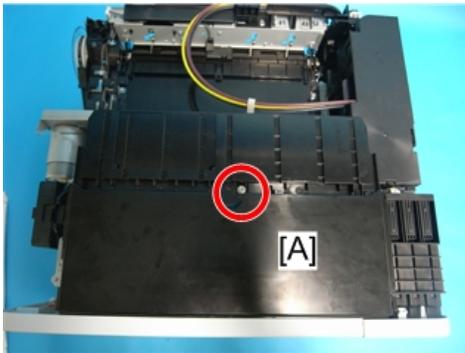
j0341007

1. 2 screws ( x2).
2. Holding the cover's center bottom [A], lift the cover [B] to detach it.

Canopy Cover

Preparation

- Duplex unit ( p.48)
- Rear cover ( p.51 "Rear Cover, Top Cover")
- Top cover ( p.51 "Rear Cover, Top Cover")
- Right cover ( p.54)
- Left cover ( p.56)



j0271025

1. Remove the screw ( x1).
2. Remove the canopy cover [A].

Front Cover, Operation Panel Board

Preparation

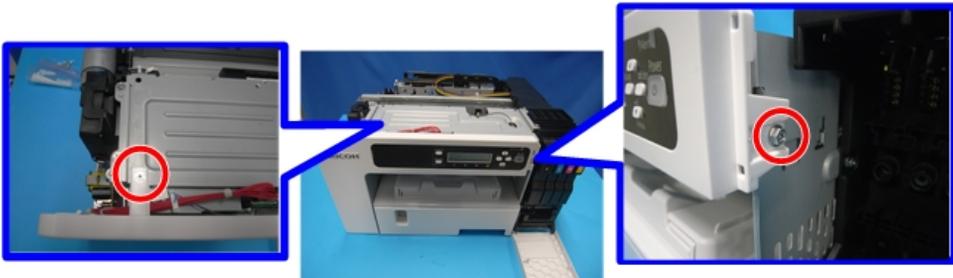
- Duplex unit ( p.48)
- Rear cover ( p.51 "Rear Cover, Top Cover")
- Top cover ( p.51 "Rear Cover, Top Cover")
- Right cover ( p.54)
- Left cover ( p.56)
- Canopy cover (See above)



j0271026

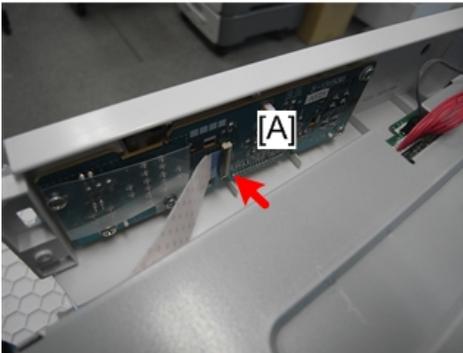
4

1. Open the right front cover.
2. Remove the ink cartridges.



j0271027

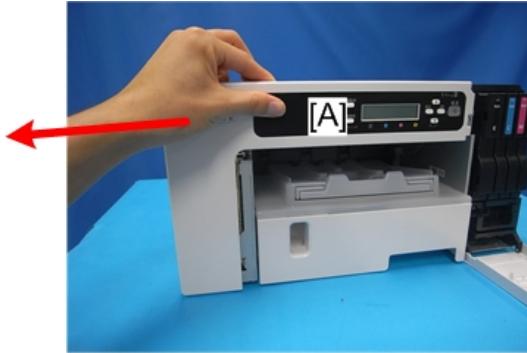
3. Remove the screws ( x2).



j0271028

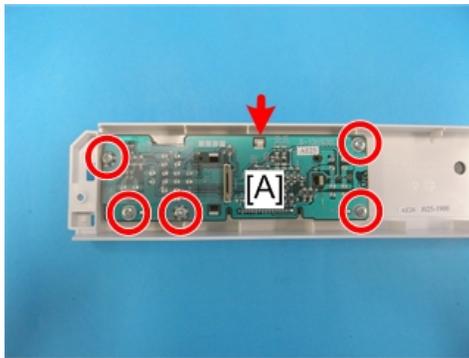
4. The operation panel board [A] is located behind the front cover.

5. Release the clip fastening the flexible flat cable (FFC) and detach the cable from the board.



j0271029

6. Slide the front cover [A] to the left to detach it.



j0271030

7. Release the tabs and detach the operation panel board [A] ( x5,  x1).

Re-assembly

Here are some points you should always check before re-attaching the covers.

Operation Panel

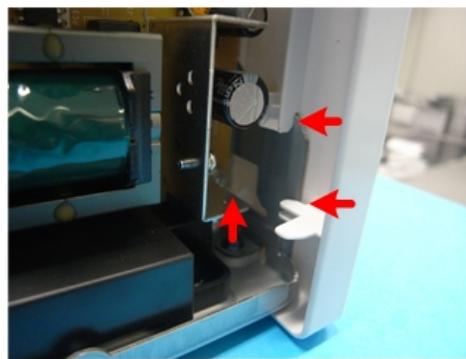
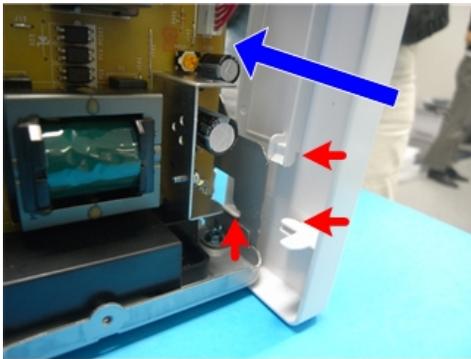
1. Make sure that the blue band of the FFC edge connector [A] is facing up.



j0271031

- The blue band must be facing up when you reconnect the FFC to the operation FFC connector.
- If the FFC is twisted and connected with the blue band facing down, the printer will not operate.

Front Cover

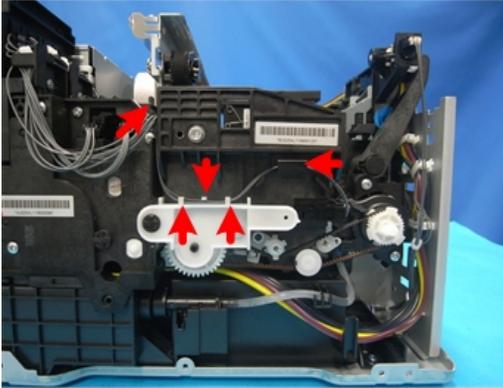


j0271032

1. Align the tabs (three points) on the left bottom of the front cover with the machine's frame and slide the cover to attach it.

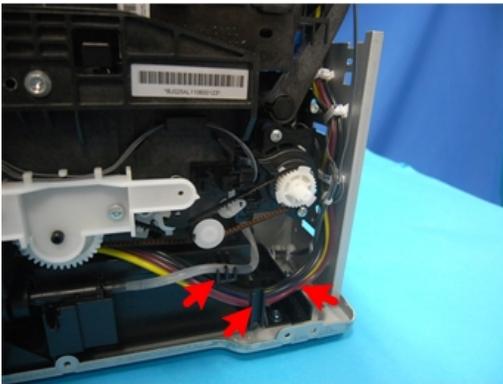
Right Cover

1. Check that the harness and ink tube are secured.



j0271033

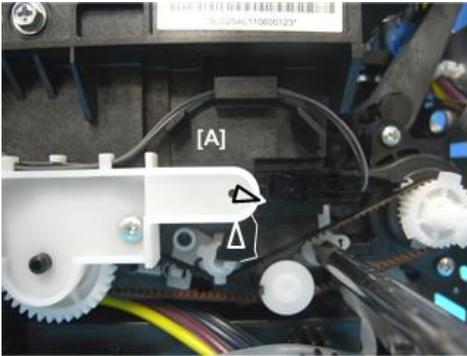
- Be sure to secure the harness with the tabs (at five points).



j0271034

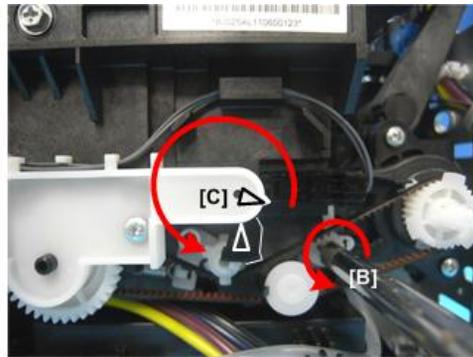
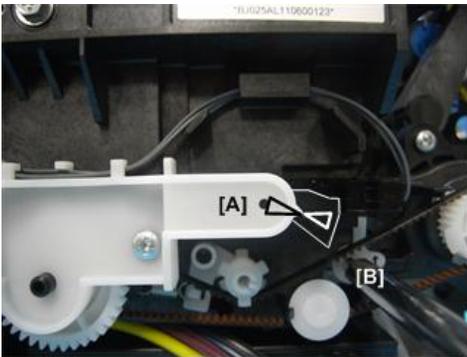
- Be sure to secure the ink tube with the tabs (at three points).

2. Check the maintenance unit [A].



j0271035

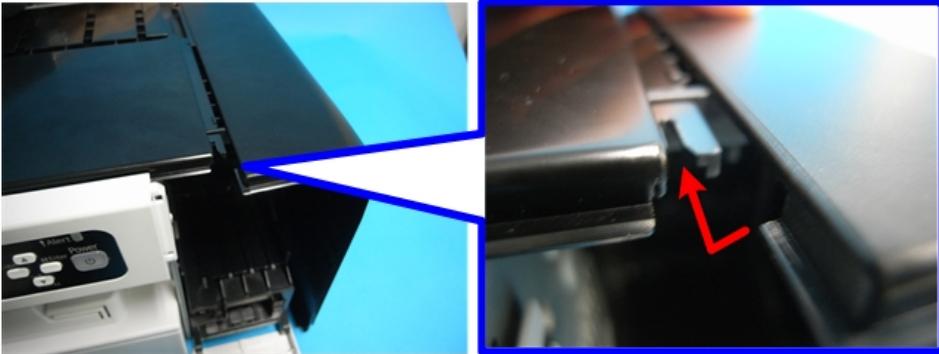
- If the triangles are not aligned as shown above, this means the print head is locked and ready for operation. You can re-attach the right cover.



j0271036

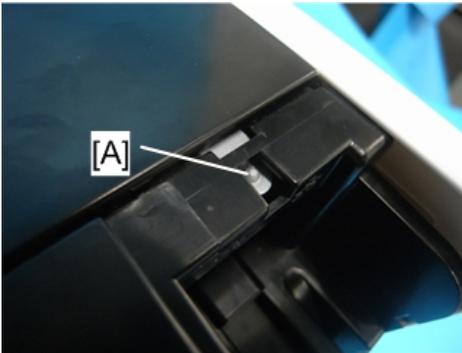
- If the triangles are aligned tip-to-tip as shown at [A], this means the carrier is unlocked (not ready for operation) and can be moved manually.
- Insert a screwdriver at [B], turn it counter-clockwise to rotate the lower triangle around until it is at [C]. This locks the carrier for normal operation.

3. Check the connection with the front cover.



j0271037

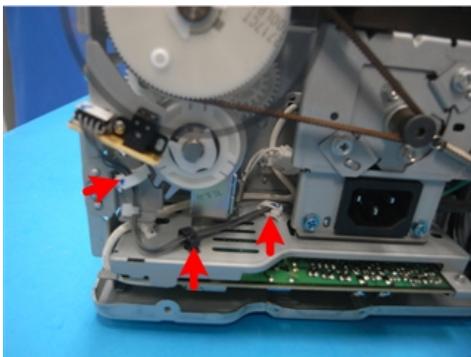
- As shown above, slide the right cover along the guide rail on the front cover to attach it.



j0271038

- Align the slit on the right cover with the projected part [A] on the machine's frame to secure the cover.

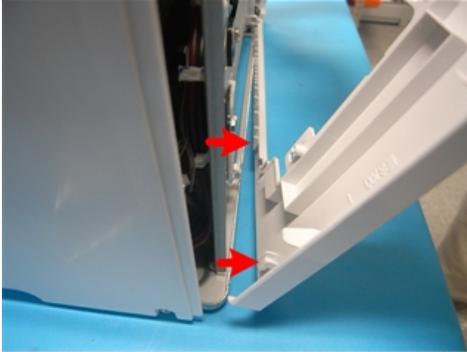
Left Cover



j0271039

1. Check that the harness is secured with the clamps (at three points).

Rear Cover



j0271040

4

1. Engage the tabs on the rear cover in the brim of the machine's frame and attach the rear cover.

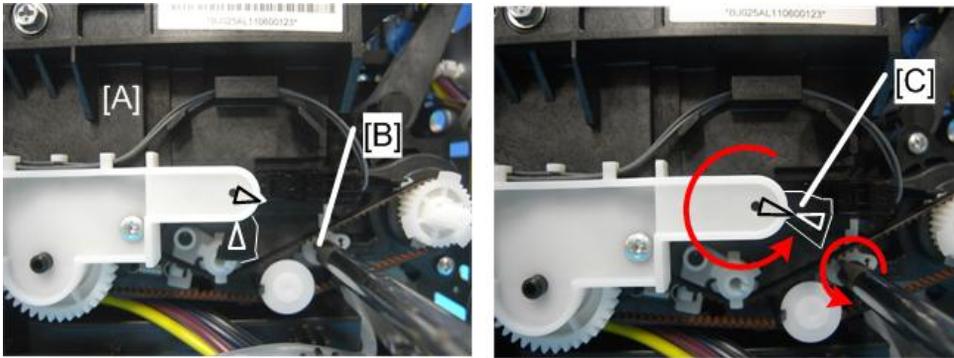


j0271041

2. After attaching the rear cover, check that the tabs [A] on the top left and top right are engaged.

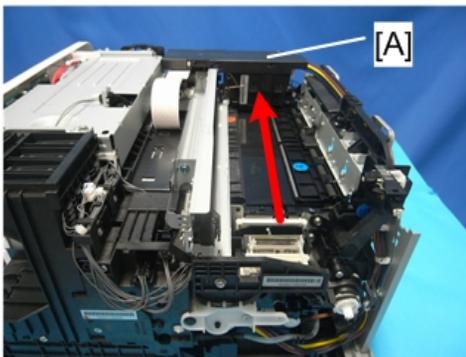
Unlocking, Moving the Carriage

Many maintenance and some cleaning procedures require that you unlock the carriage and push it completely to the left side or center of the printer. Follow this procedure whenever you are instructed to unlock the carriage.



j0271042

1. The right cover (p.54)
2. Look at the maintenance unit [A] and locate the two triangles.
3. Insert the tip of a screwdriver into the hole [B] and turn it counter-clockwise to rotate the lower triangle up to the other triangle [C] until they are aligned.
4. When the triangles are aligned, the carriage is unlocked.



j0271048

5. Push the carriage [A] completely to the left.
6. After completing the procedure:
 - You must lock the carriage unit again.
 - Insert the screwdriver into the side of the maintenance unit, rotate it counter-clockwise to move the lower triangle down until it is below the upper triangle.
 - When the triangles are not aligned, the carriage is locked.
 - Always make sure that the carriage is locked before you re-attach the right cover.

Maintenance Unit, Right Ink Sump

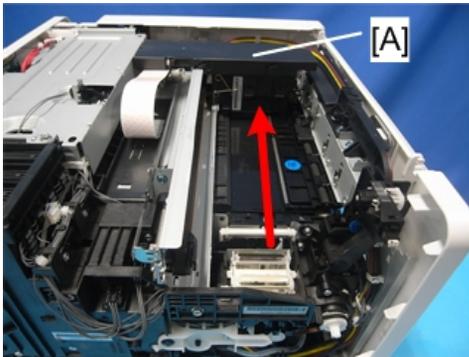
Maintenance Unit

Preparation

- Duplex unit (🔧 p.48)
- Top Cover (🔧 p.51 "Rear Cover, Top Cover")
- Canopy Cover (🔧 p.57)
- Right Cover (🔧 p.54)
- Spread several sheets of thick paper (not cloth) where you can set the unit after it has been removed.
- Unlock the carriage (🔧 p.64 "Unlocking, Moving the Carriage")

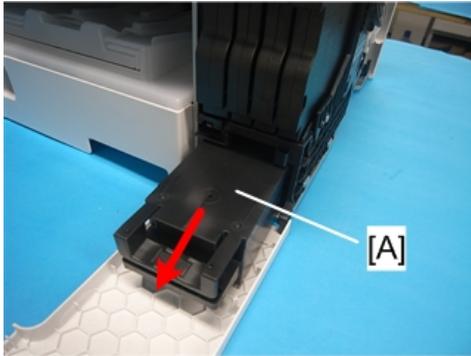
★ Important

- The bottom edges of the maintenance unit are covered with ink.
- Avoid touching the bottom of the maintenance unit.



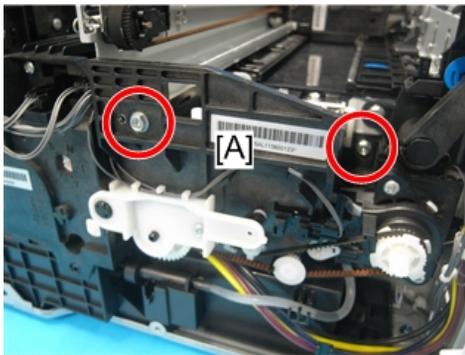
j0271049

1. Push the carriage [A] to the left side of the machine.



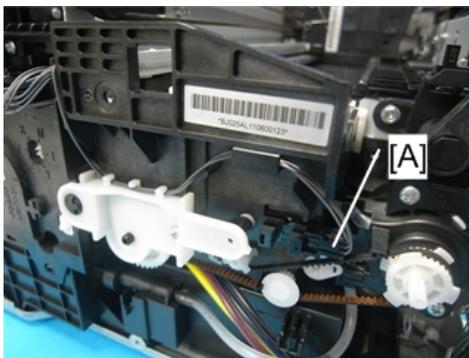
j0271050

2. Open the right front cover and pull out the ink collector [A] about half-way (You do not need to remove it.).



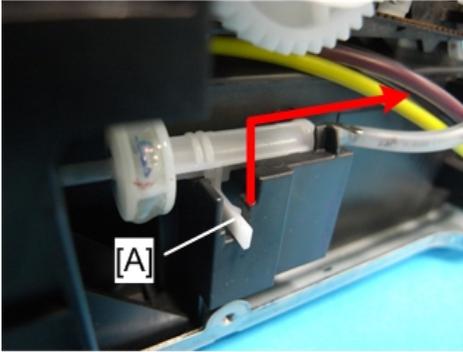
j0271051

3. Remove screws of maintenance unit [A] ( x 2).



j0271052

4. Disconnect maintenance unit sensor [A] ( x 1).



j0271053

4

5. Release the lock [A], and then remove the injector.

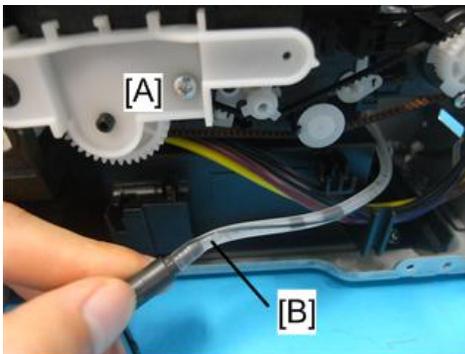


j0271054

6. Pull the maintenance unit and injector out of the printer and lay them on some paper.

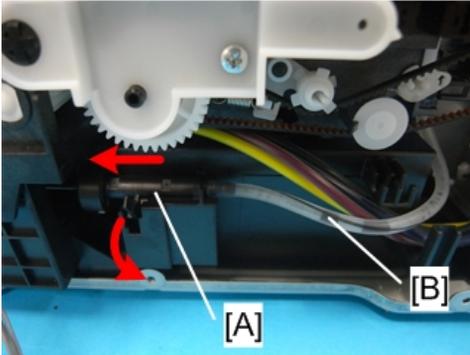
- Handle the maintenance unit carefully.
- The bottom of the unit is covered with ink. Place it on a piece of clean paper (not cloth).
- Never touch the bottom of the unit.

Re-installation



j0271055

1. Re-install the top of the maintenance unit [A] first.
2. Check the tubing [B] between the needle and the bottom of the maintenance unit.
3. Make sure that the line on the tube is straight and not bent. This confirms that the tubing is not twisted.
4. If the tubing is twisted, remove the maintenance unit and make sure that the tubing is straight before re-installing the top half of the maintenance unit.



j0271056

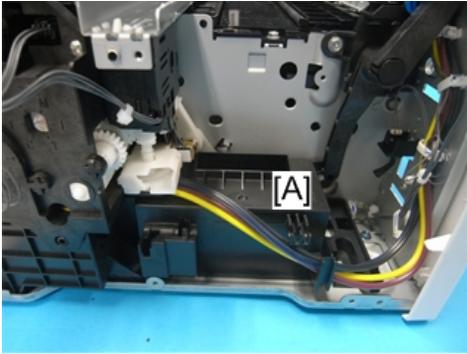
5. Set the needle [A] in its cradle and slowly insert it into the hole on the left.
6. Slowly push the ink collector into the machine and close the right front cover.
7. Check the line on the tubing [B] again to make sure that the tubing is straight and not twisted.
8. Print the Nozzle Check Pattern and perform print head cleaning if necessary.

Right Ink Sump

Normally the right ink sump never requires replacement.

Preparation

- Duplex unit (📖 p.48)
- Top cover (📖 p.51 "Rear Cover, Top Cover")
- Canopy cover (📖 p.57)
- Right cover (📖 p.54)
- Maintenance unit (📖 p.66)



j0271057

4

1. The right ink sump [A] is located below and to the left of the maintenance unit (shown removed in the photo above.)



j0271058

2. 1 screw ( x 1)
3. Pull the right ink sump aside to expose the ink tubes, and then remove the right ink sump using its handles.



j0271060

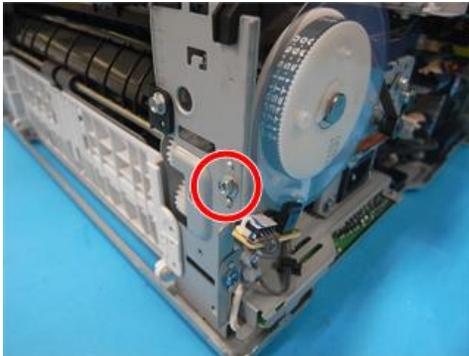
4. After re-installing the maintenance unit, execute manual cleaning.

Encoders

Vertical Encoder Wheel

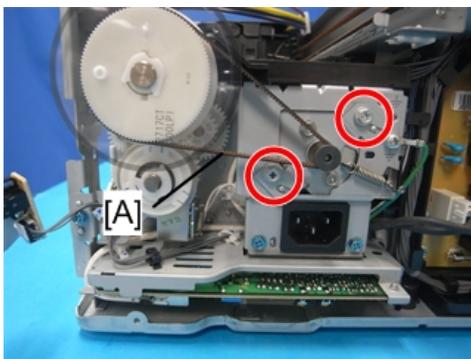
Preparation

- Duplex unit (🔧 p.48)
- Canopy cover (🔧 p.57)
- Rear cover (🔧 p.51 "Rear Cover, Top Cover")
- Top cover (🔧 p.51 "Rear Cover, Top Cover")
- Left cover (🔧 p.56)



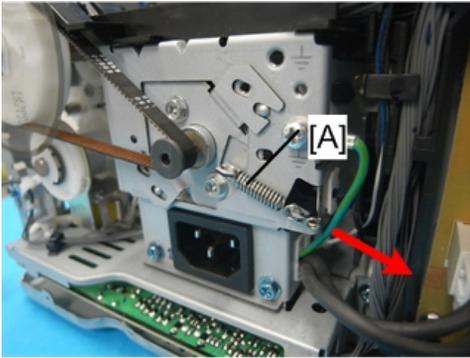
j0271061

1. Remove screw (🔧 x1).



j0271062

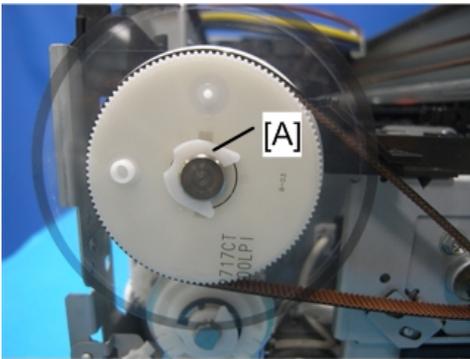
2. Remove screws (🔧 x2) to release tension on the belt [A].



j0271063

4

3. The tension spring [A] (🔩 x1).



j0271064

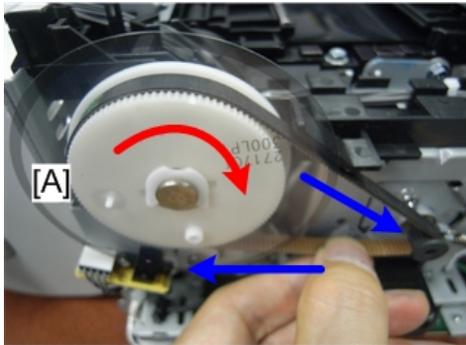
4. Use a pair of needle-nose pliers to remove C-clip [A] (🔗 x1).
5. Carefully insert the tip of a long, thin screwdriver behind the drive wheel.
6. Nudge the wheel slight to the front and remove the wheel with the vertical encoder attached.



j0271065

7. Handle the vertical encoder carefully. Never touch the edges of the wheel.

Reinstallation



j0271197

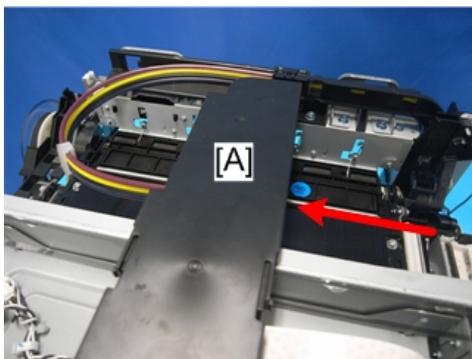
- When reinstalling the vertical encoder wheel [A], turn the wheel slowly while pressing in slightly until it snaps into the correct position.
- After attaching the timing belt, move the belt by hand to check that the wheel rotates smoothly.

4

Horizontal Encoder Strip

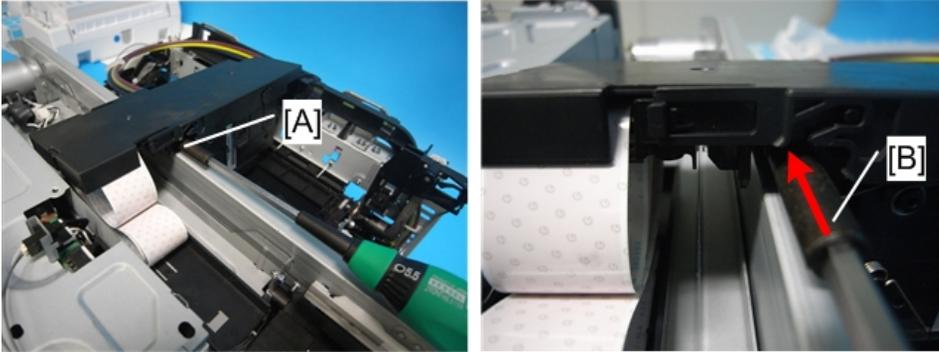
Preparation

- Duplex unit (📖 p.48)
- Rear cover (📖 p.51 "Rear Cover, Top Cover")
- Left cover (📖 p.56)
- Right cover (📖 p.54)
- Unlock the carriage (📖 p.64 "Unlocking, Moving the Carriage")



j0271066

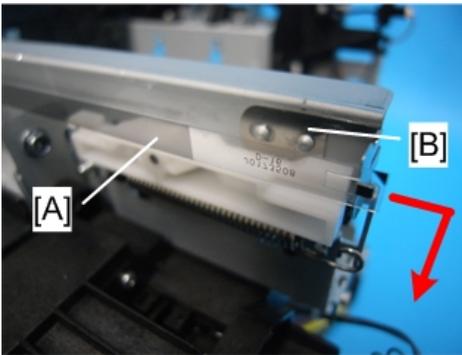
1. Push the carriage unit [A] to the center.



j0271226

4

2. Insert the driver [B] in [A] between the guide rail and carriage, and then lift the carriage unit. This is necessary for engaging the horizontal encoder strip into the sensor's recess without making contact.

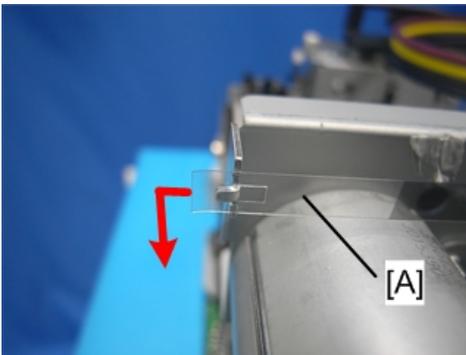


j0271067

3. On the right, pull the right end of the encoder strip [A] and disconnect it.

★ Important

- The encoder strip has a small metal bracket [B] attached to the end of the encoder strip. Be sure to remove this with the strip so it does not fall down into the machine.



j0271068

- On the left, disconnect the left end of the strip [A].

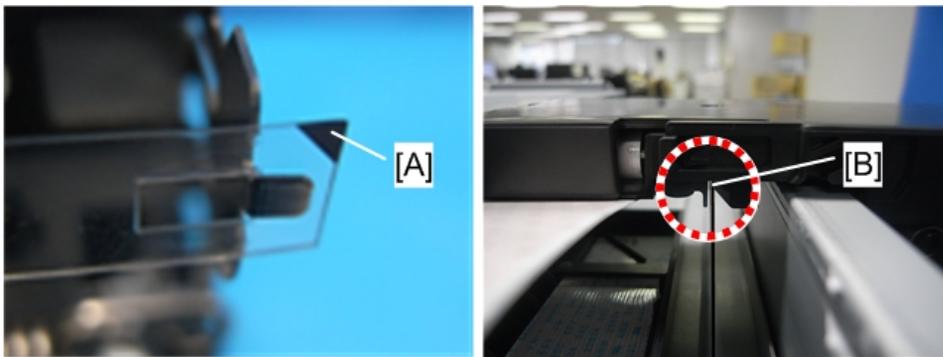
Note

- If the sensor for reading the horizontal encoder strip is stained, clean the sensor when you replace the strip.

Reinstallation

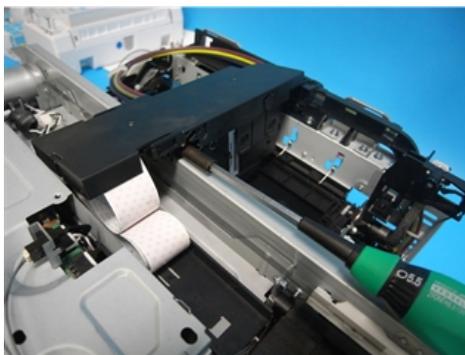
Important

- If you have removed the strip or if you are replacing the strip with a new one:



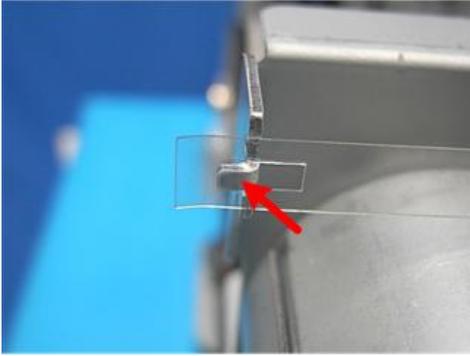
j0271069

- Hold the encoder strip with the black triangle [A] facing up.
- Pass the strip through the gap [B] of the sensor inside the carriage.



j0271232

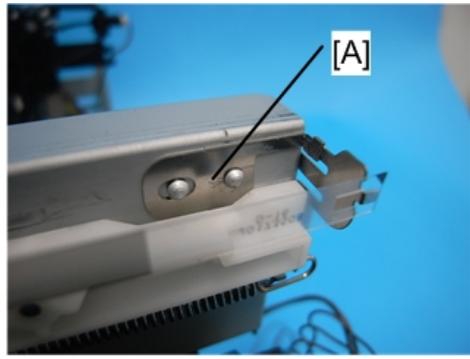
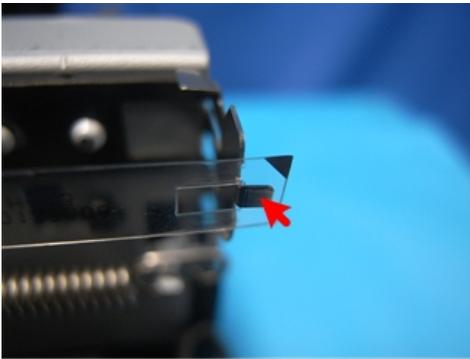
- Lifting the carriage, mount the new horizontal encoder strip.



j0271070

4

2. First, hook the strip's left end to the tab.

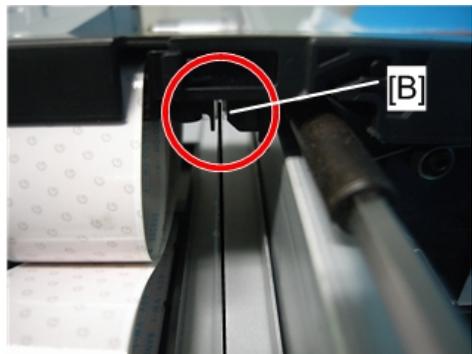
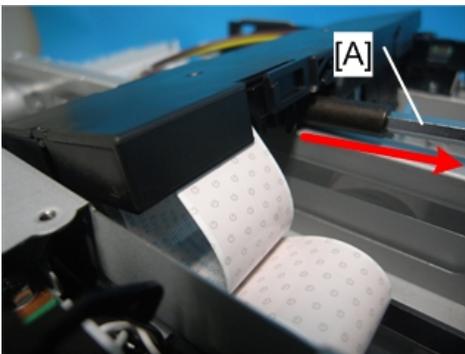


j0271071

3. Next, stretch to straighten the strip and hook the strip's right end to the tab.

★ Important

- Make sure the black triangle is facing up.
- You must re-attach the extension bracket [A].



j0271228

4. Pull out the driver [A], and then place the carriage back to its original position. Make sure that the horizontal encoder strip is engaged in the sensor's recess [B].

Boards

PSU

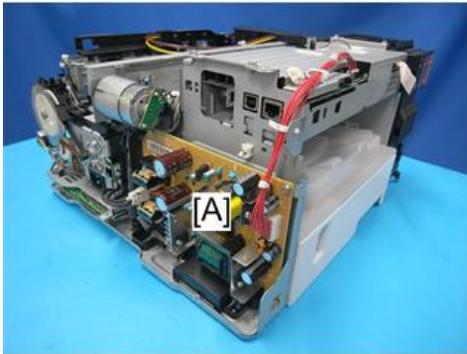
★ Important

- Always replace a PSU with the PSU designed for the machine.

Preparation

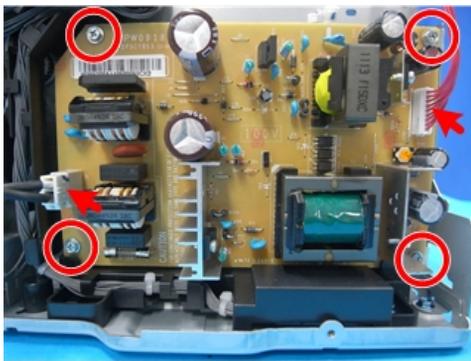
- Duplex unit (🔧 p.48)
- All covers (🔧 p.50)
- Fan, Fan bracket (🔧 p.91 "Fan")

4



j0271072

1. The PSU [A] is on the left front corner of the printer.



j0271073

2. The PSU (🔧 x 2, 🔧 x 4).

↓ Note

- There are two types of PSU. Before mounting the PSU, check the voltage indicated on the board.

- 100V : For NA
- 200V : For EU, Aaia

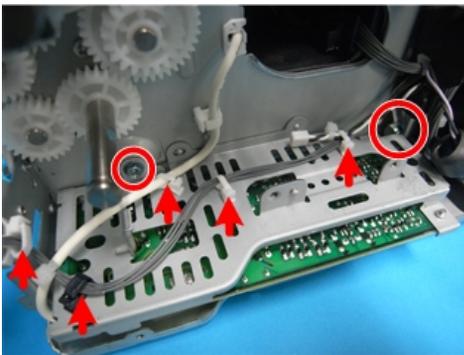


j0271074

HVPS

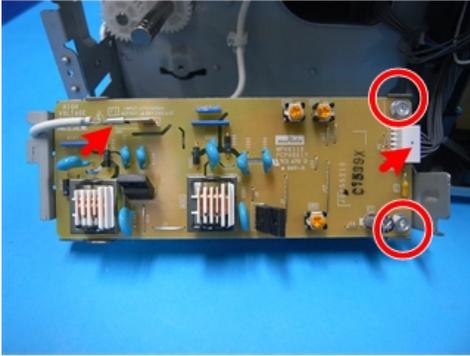
Preparation

- Duplex unit (🔧 p.48)
- Canopy cover (🔧 p.57)
- Top cover (🔧 p.51 "Rear Cover, Top Cover")
- Rear Cover (🔧 p.51)
- Left Cover (🔧 p.56)
- Feed clutch (🔧 p.93)
- Vertical motor (🔧 p.88)
- Vertical encoder wheel (🔧 p.71)



j0271075

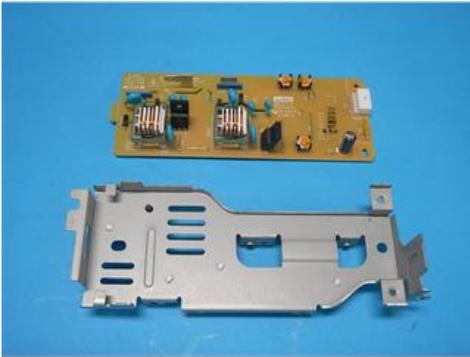
1. Turn the HVPS over together with its cover (🔧 x 2, 📦 x 5).



j0271076

4

2. Remove the HVPS from its cover ( x 2,  x 1, bayonet x 1).



j0271077

Printer Engine CTL Board

Before Replacement

Before replacing the control board you should always print Service Summary and an Engine Summary Chart.

 **Important**

- You will need these reports to refer to previous settings that may require resetting.

To print the Service Summary

1. Enter the Service Menu.
2. Select "Bit Switch"> [] or [/Menu]> "Service Summary"> [#Enter].
3. "Press # to Start"> [#Enter].

To print the Engine Summary Chart:

Do **SP5-990-002** (Print SMC). (Printing requires about 2 minutes.)

1. Confirm that paper is loaded in the paper tray.
2. Enter the Service Menu.

```
SYSTEM Ver. nnn
Service Menu
```

3. [/Menu]> "Engine Main."> [#Enter].

```
SP No.
5990002
```

4. Using [] or [/Menu], enter "5990002".

```
PRINT SMC
5990002
```

5. Press [#Enter].

```
PRINT SMC
EXEC
```

6. Press [#Enter].

```
OK?
```

7. Press [#Enter].

- Wait for the report to print (it does not start immediately).
- Printing requires about 2 min.

8. Exit the Service Menu, and switch the machine off.

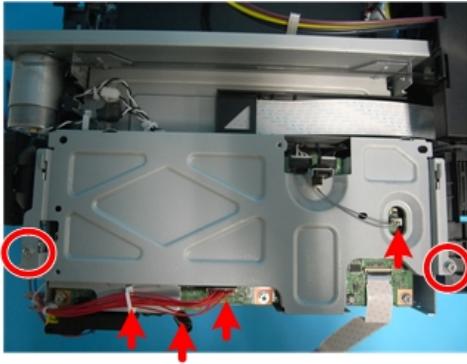
Note

- For more details about these reports, please refer to Section "5. System Maintenance Reference".

CTL Board Replacement

Preparation

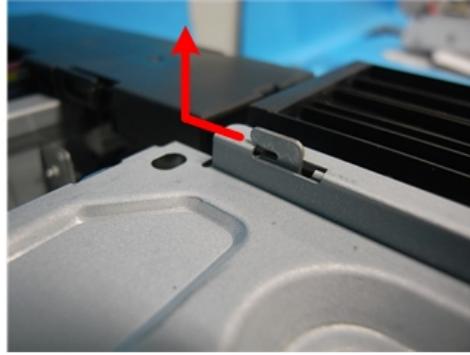
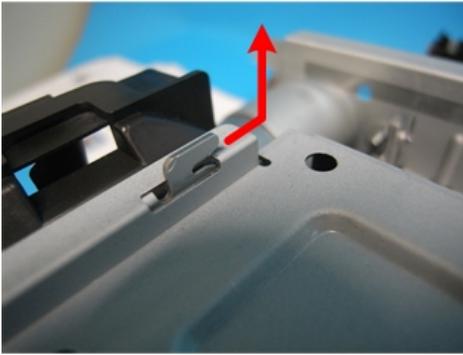
- Duplex unit ( p.48)
- All covers ( p.50)
- Pull out all Ink cartridges.



j0271078

4

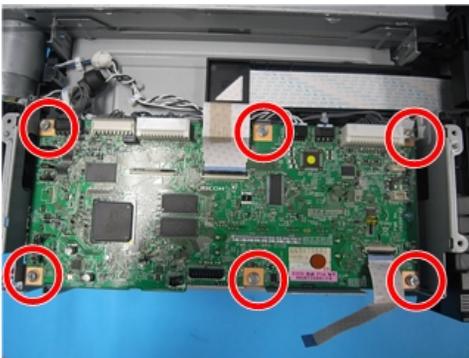
1. The CTL board cover (🔩 x 3, 🛠 x 2, 📌 x 1).



j0271208

↓ **Note**

- Slide the cover, and then remove it. Make sure that the carriage is in the home position. Otherwise, the cover is blocked by the carriage.



j0271079

2. The CTL board (🔩 x all, 📏 x all, 🛠 x 6).

After Replacement

After replacing the CLT board, you need to specify the serial number, PnP code, and destination, and then initialize the VMRAM. Be sure to perform this in the order of (1) specifying the serial number, (2) specifying the PnP code and destination, and (3) initializing the VMRAM.

(1) Serial number

1. Switch the machine on.
2. Enter the SP mode.
3. Select "Service Menu">"Serial No. Edit."> [#Enter].

0000000000
—

4. Enter the machine serial number.
 - Press [▲] or [▼/Menu] to move the cursor vertically, press [#Enter] to select the digit you want to change (among 11 digits), press [▲] or [▼/Menu] to change the character, and then and then press [#Enter] to confirm the entry. The confirmed entry appears on the upper row of the display.
5. After completing the entry, press [Escape].
6. Exit the SP mode.

(2) PnP code, Destination

1. Enter the SP mode.
2. Select "Engine Maint."> [#Enter].

SP No.
5907001

3. Enter "5907001"> [#Enter].

Plug & Play
5907001

4. Press [#Enter].

Plug & Play
—

0	Japan
---	-------

1	Ricoh
3	LANIER
4	SAVIN
6	NRG

5. Select the PnP code.> [#Enter]> [Escape]> [Escape].

SP No. 5807001

6. Enter "5807001"> [#Enter].

0	Japan
1	NA
2	EU

7. Select the destination> [#Enter]> [Escape].

8. Exit the SP mode.

(3) Initializing the NVRAM

1. Enter the SP mode.

2. Select "Engine Maint."> [#Enter].

SP No. 5831001

3. Enter "5831001"> [#Enter].

4. Press [#Enter].

5. Press [#Enter].

OK?

6. Press [#Enter].

7. Exit the SP mode.

8. Turn the machine off, and then turn it on again.

Changing destination and PnP code influences the following settings:

Destination

Settings	NA		EU		AS	
	Spec.	Value	Spec.	Value	Spec.	Value
Paper Size	LT: SEF	166	A4:SEF	133	A4:SEF	133
Time Zone	GMT-5	7	GMT 0	12	GMT 0	12
mm /inch	inch	1	mm	0	mm	0
Page Size	LT: SEF	166	A4:SEF	133	A4:SEF	133
Density	Dark	6	Standard	4	Standard	4
Form Line	60	60	64	64	64	64
Summer Time Setting	Enable	1	Enable	1	Disable	0
Month to Start the Summer Time	Mar.	3	Mar.	3	Oct.	10
The Number of Times the Summer Time Started	2nd	1	Final (4 or 5)	4	Final (4 or 5)	4
Time to Start the Summer Time	2:00 AM	2	0:00 AM	0	2:00 AM	2
Month to Finish the Summer Time	Nov.	11	Oct.	10	Mar.	3
The Number of Times the Summer Time Finished	1st	0	Final (4 or 5)	4	1st	0
Time to Finish the Summer Time	2:00 AM	2	1:00 AM	1	0:00 AM	0

PnP code

Settings	Ricoh		LANIER		SAVIN		NRG	
	Spec.	Value	Spec.	Spec.	Value	Value	Spec.	Value
Language	English (UK)	2						
DHCPv4	Enable	1	Enable	1	Enable	1	Enable	1
SNMPv1 Community Name 2.	admin	admin	admin	admin	admin	admin	admin	admin

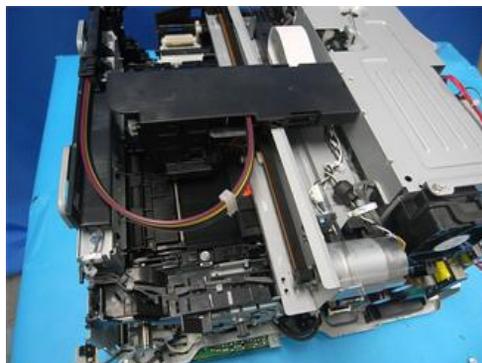
Motors

Horizontal Motor

Preparation

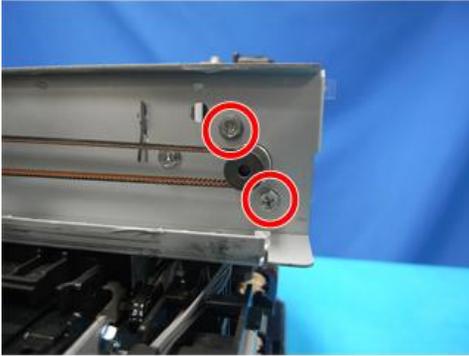
- Duplex unit (📖 p.48)
- Top cover (📖 p.51 "Rear Cover, Top Cover")
- Canopy cover (📖 p.57)
- Rear cover (📖 p.51 "Rear Cover, Top Cover")
- Left cover (📖 p.56)
- Right cover (📖 p.54)
- Vertical encoder wheel (📖 p.71)
- Fan, Fan bracket (📖 p.91 "Fan")
- Unlock carriage unit (📖 p.64 "Unlocking, Moving the Carriage")

4



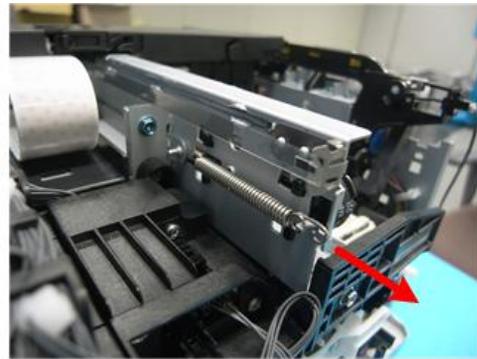
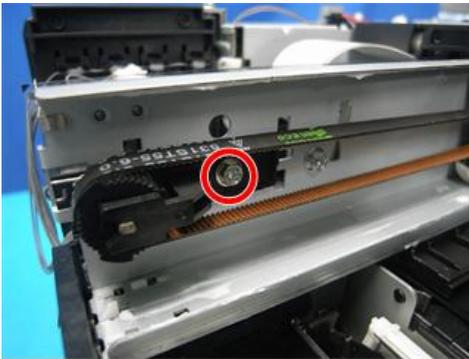
j0271080

1. Push the carriage to the center.



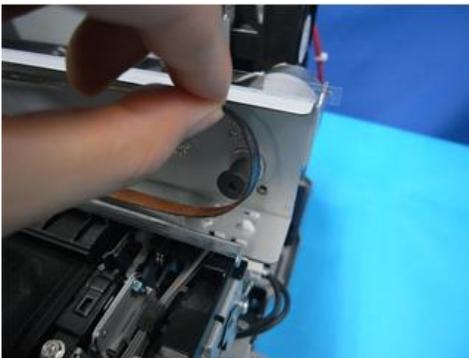
j0271081

2. Remove the screws at the right end ( x 2).



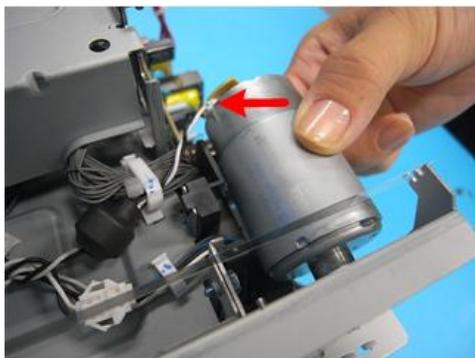
j0271082

3. Remove the screw at the left end, loosen the belt's tension, and then remove the spring. ( x 1,  x 1)



j0271083

4. Remove the timing belt on the right end.



j0271084

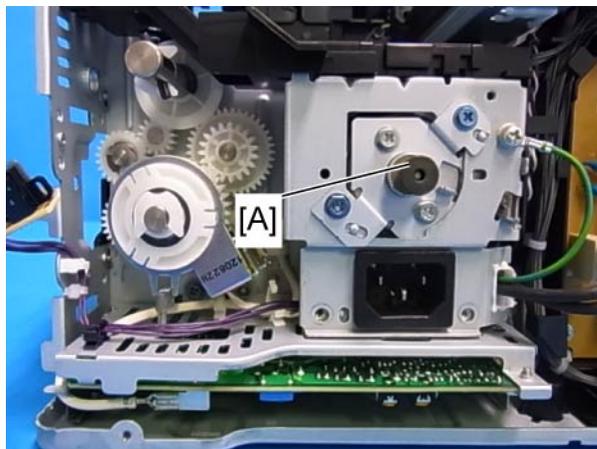
4

5. The horizontal motor ( x 1).

Vertical Motor

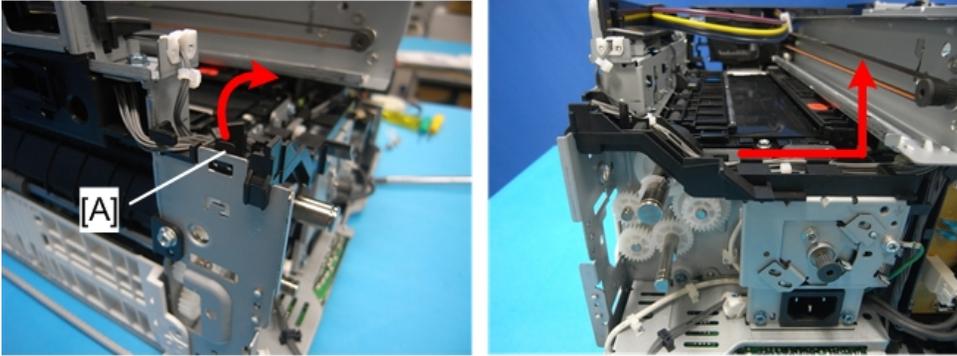
Preparation

- Duplex unit ( p.48)
- Rear cover ( p.51 "Rear Cover, Top Cover")
- Top cover ( p.51 "Rear Cover, Top Cover")
- Canopy cover ( p.57)
- Left cover ( p.56)
- Vertical encoder wheel ( p.71)



j0341008

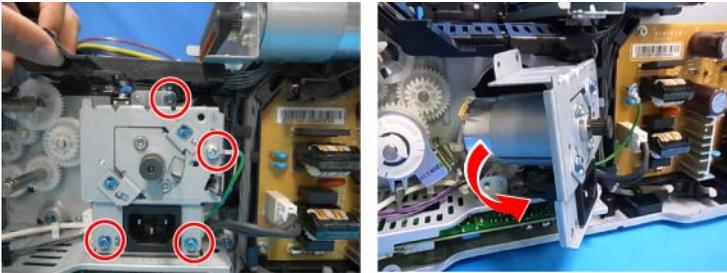
1. The vertical motor [A] is on the left side of the machine, behind the left frame.



j0271086

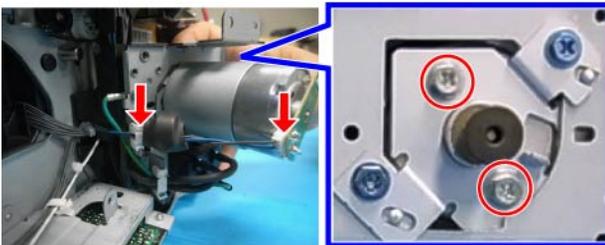
- Unhook the harness holder [A], and then lift it while sliding it to the right. Make sure to expose the screw holes.

4

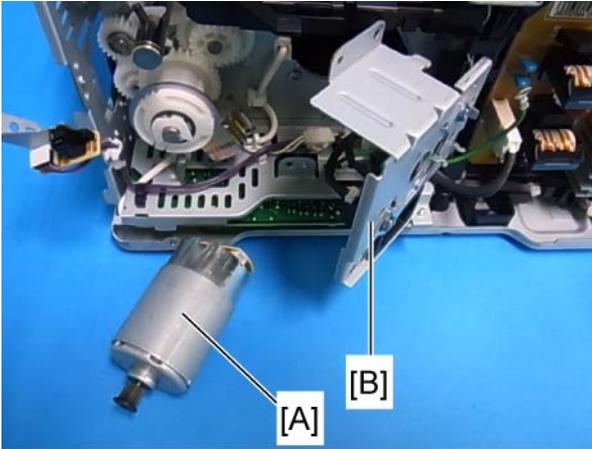


j0341009

- Open the AC inlet's bracket as shown ( x 3, grounding screw x 1).



j0341010



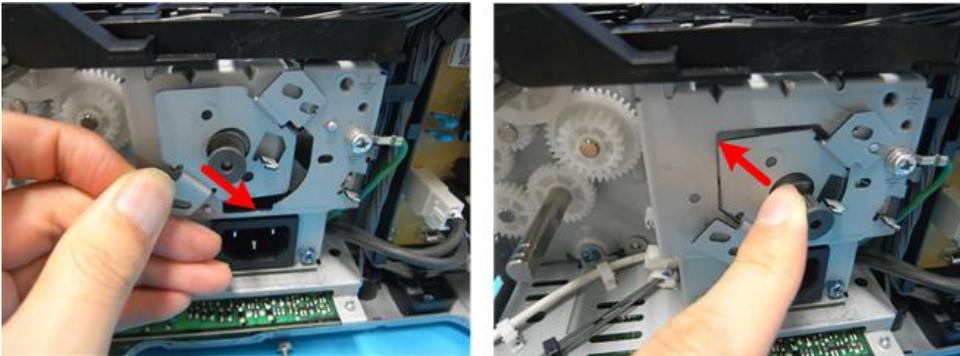
j0341011

4

4. Remove the vertical motor [A] from the AC bracket [B] (🔪 x 1, 🛠️ x 1, 🔩 x 2).

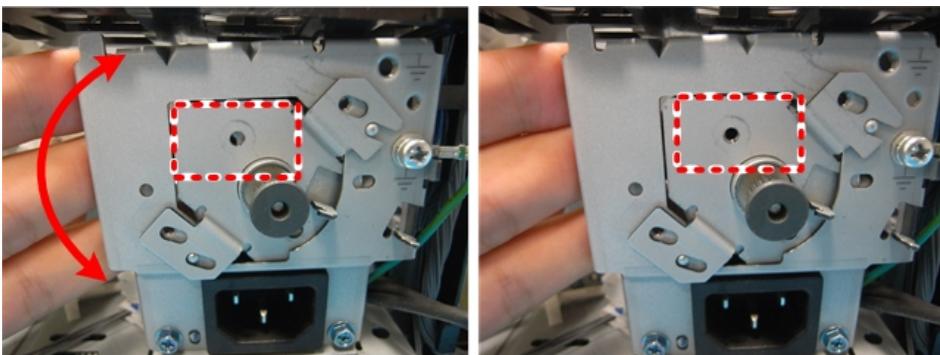
Re-installation (when the motor bracket is removed.):

When you attach the parts, attach the motor bracket afterward.



j0271091

1. As shown, slide the right bottom part in, and then slide the left top part in.



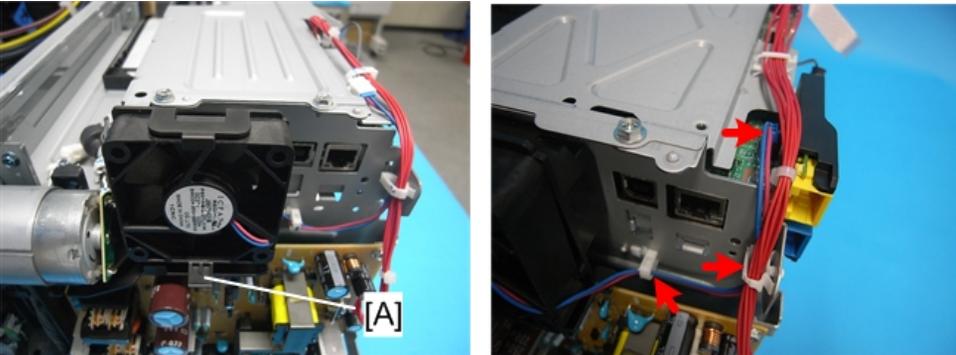
j0271092

2. After sliding the motor bracket in, slowly adjust the motor position to align the screw holes, and then reassemble the parts.

Fan

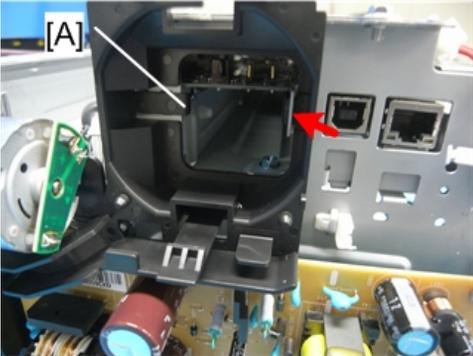
Preparation

- Duplex unit (p.48)
- All covers (p.50)



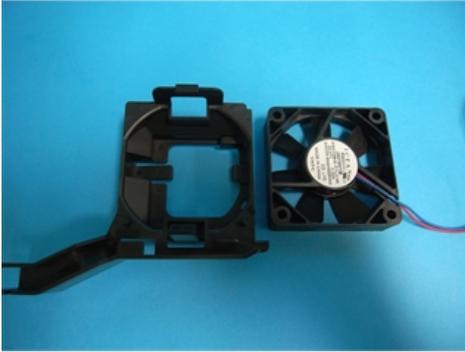
j0271093

1. Pressing the tab [A], remove the fan from its bracket (x 1).



j0271094

2. Pressing the tab [A], remove the bracket (x 1).



j0271095

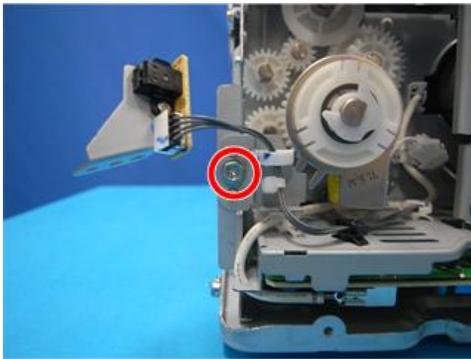
Clutches

Feed Clutch

Preparation

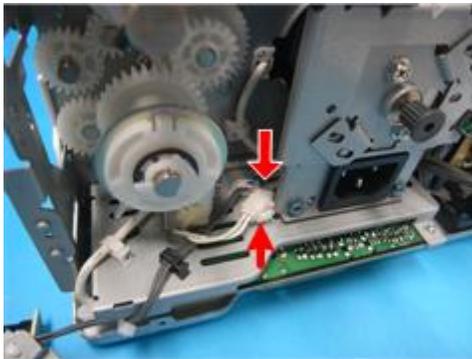
- Duplex unit (🔧 p.48)
- Vertical encoder wheel (🔧 p.71)
- Top cover (🔧 p.51 "Rear Cover, Top Cover")
- Canopy cover (🔧 p.57)
- Rear cover (🔧 p.51 "Rear Cover, Top Cover")
- Left cover (🔧 p.56)

4



j0271096

1. Remove the screw (🔧 x 1).

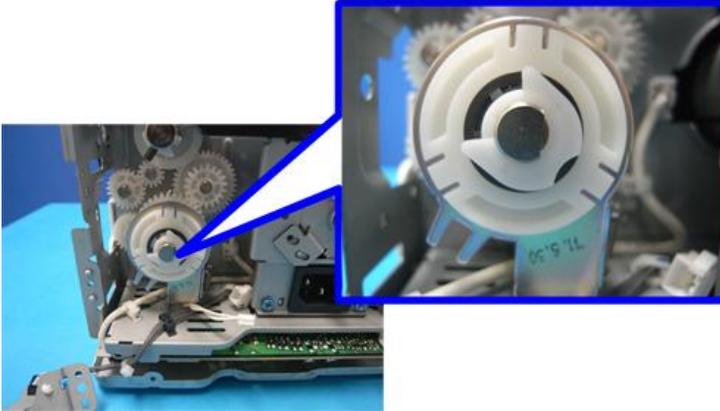


j0271097a

2. Disconnect 1 connector and release 1 clamp (🔌 x 1, 🗑️ x 1).

↓ **Note**

- If the connector cannot be removed because it is behind the AC bracket, open the AC bracket.



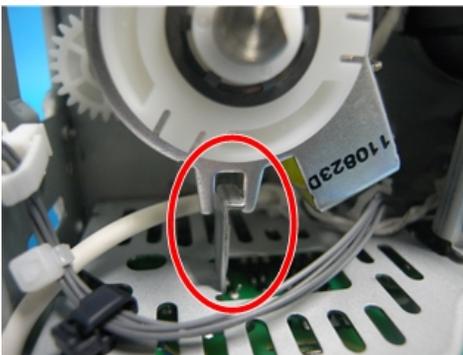
j0271098

3. Remove the feed clutch (Ⓒ x 1).



j0271099

Re-installation



j0271209

1. Fasten the clutch with the machine's protruding part positioned between the clutch guides.

Transport Belt

Transport Belt, Charge Roller, Pressure Plate, Pressure Rollers

Preparation

- Duplex unit (🔧 p.48)
- Rear cover (🔧 p.51 "Rear Cover, Top Cover")
- Top cover (🔧 p.51 "Rear Cover, Top Cover")
- Canopy cover (🔧 p.57)
- Right cover (🔧 p.54)
- Left cover (🔧 p.56)
- Front cover (🔧 p.57 "Front Cover, Operation Panel Board")
- 2nd registration sensor (🔧 p.107)
- Bypass drawer connector (🔧 p.117)
- Vertical encoder wheel (🔧 p.71)
- Carriage unit (🔧 p.129)

4



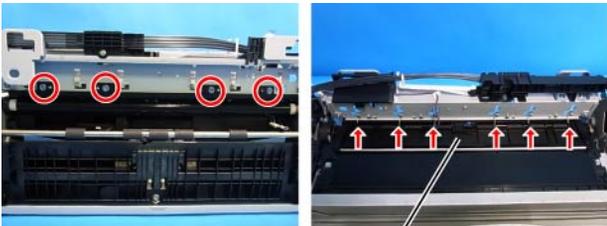
j0271138

1. Open the charge roller cover (🔧 x 2).

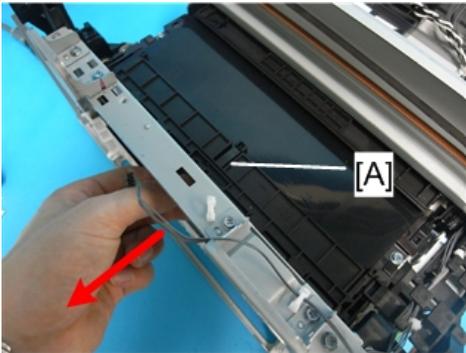


j0271139

2. Take out the charge roller and the cover ( x 1).

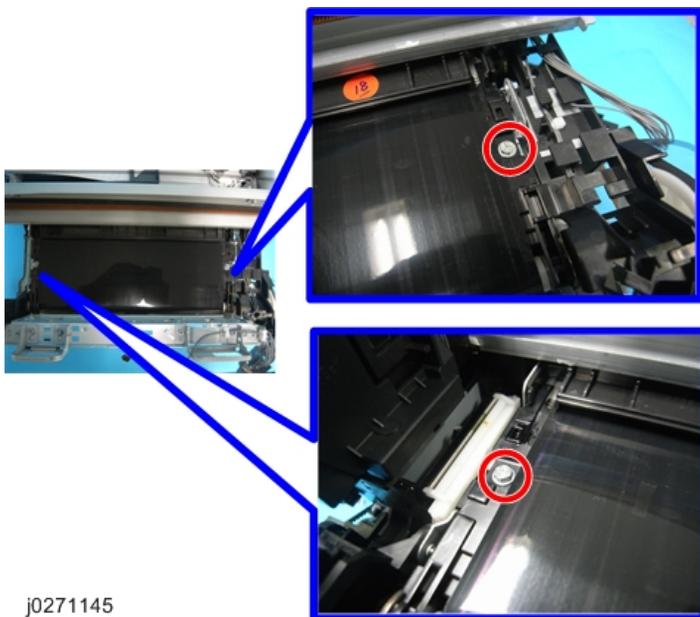


j0341012



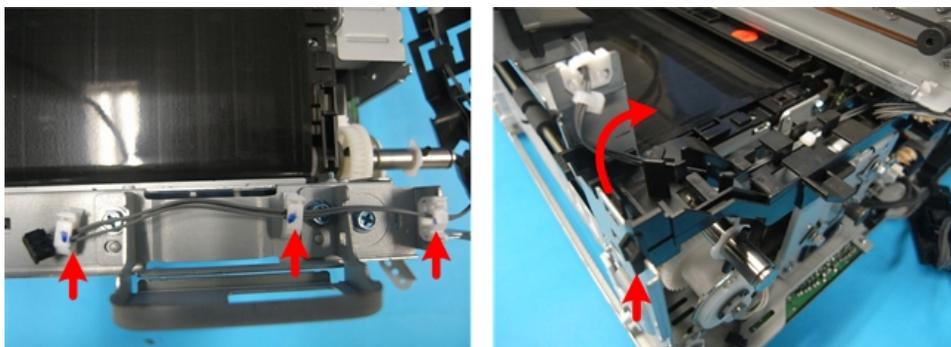
j0271144

3. Pull the pressure plate [A] out to remove it ( x 4,  x 6).



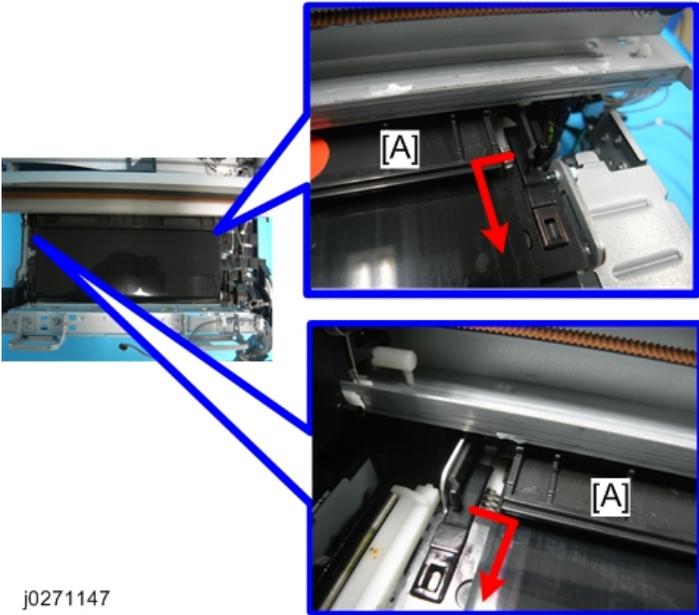
j0271145

4. The transport belt screws ( x 2).



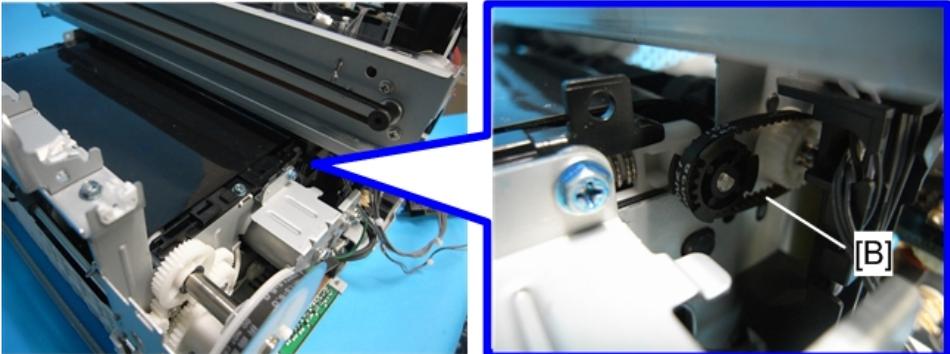
j0271146

5. The harness holders ( x 3,  x 1).



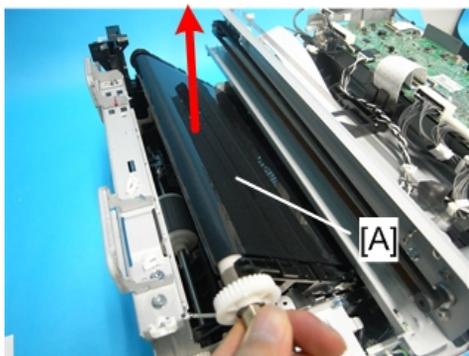
j0271147

6. Remove the exit guide [A] from the main machine (▼ x 2).



j0271148

7. The timing belt [B] (⊙ x 1).



j0271211

4

8. The transport belt [A].



j0271149

Sensors, Switches

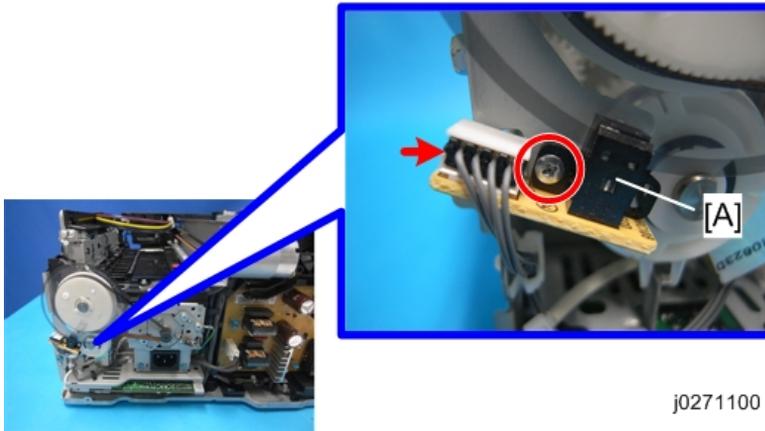
Vertical Encoder Sensor

Preparation

- Duplex unit (🔧 p.48)
- Top cover (🔧 p.51 "Rear Cover, Top Cover")
- Rear cover (🔧 p.51 "Rear Cover, Top Cover")
- Left cover (🔧 p.56)
- Canopy cover (🔧 p.57)

★ Important

- Work carefully to avoid bending or scratching the edge of the vertical encoder wheel.



1. The vertical encoder sensor is near the left rear corner of the machine below the vertical encoder wheel.
2. Remove the vertical encoder sensor [A] (🔧 x1, 📦 x1).

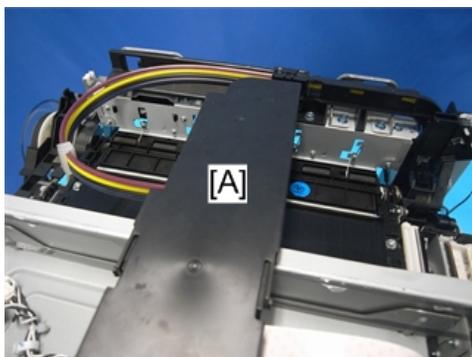


j0271101

Ink Level Sensor

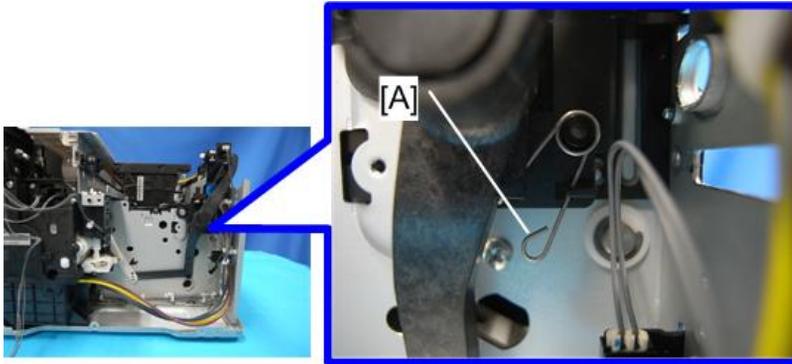
Preparation

- Duplex unit (➡ p.48)
- Rear cover (➡ p.51 "Rear Cover, Top Cover")
- Top cover (➡ p.51 "Rear Cover, Top Cover")
- Right cover (➡ p.54)
- Maintenance unit (➡ p.66)
- Right ink sump (➡ p.69)
- Unlock the carriage (➡ p.64 "Unlocking, Moving the Carriage")

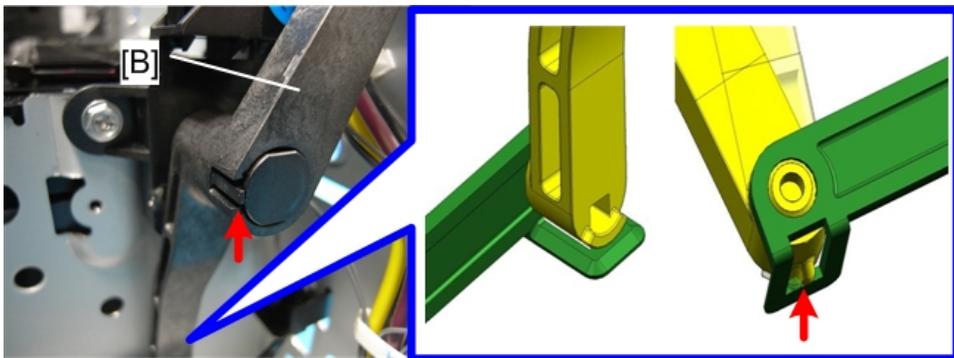


j0271102

1. Push the carriage unit [A] to the center.

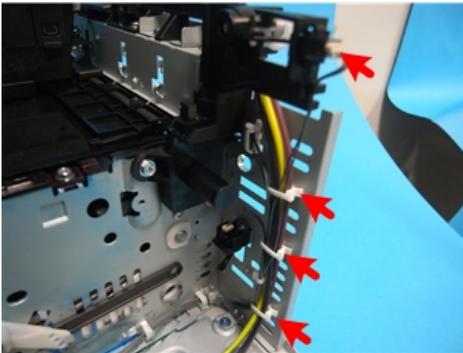


j0271103



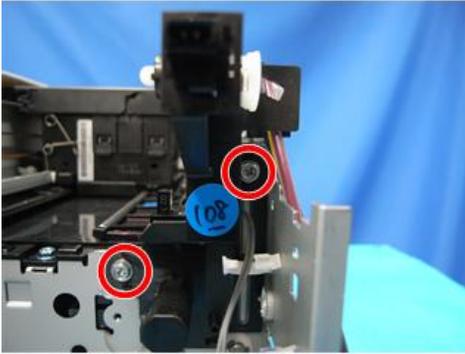
j0271104

2. Remove the spring [A], and then remove the air release lever [B] (▼ x 2).



j0271105

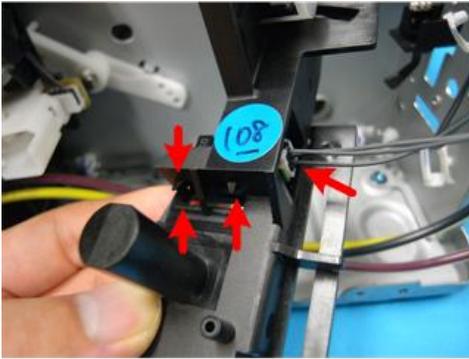
3. Remove the clamps holding the ink tubes, remove the connector, and then move the ink tubes aside to expose the screw holes (⏏ x 1, ⏏ x 3).



j0271106

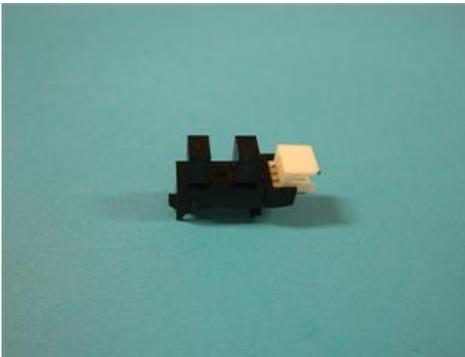
4

4. Remove the screws ( x2).



j0271107

5. Remove the ink level sensor ( x1,  x3).

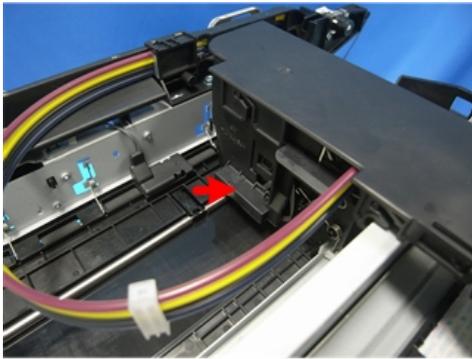


j0271108

1st Registration Sensor

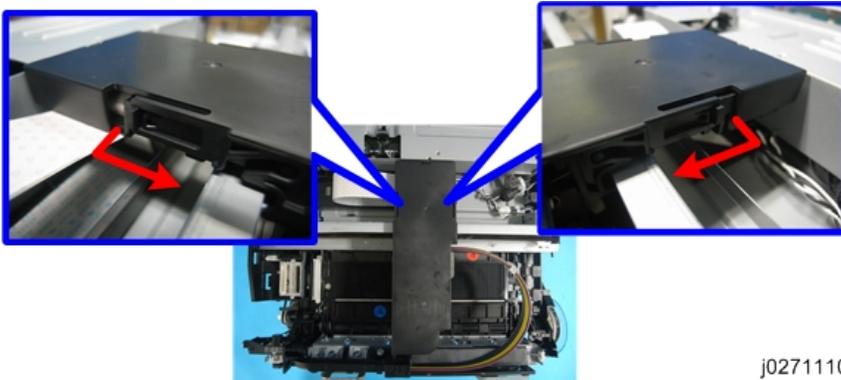
Preparation

- Duplex unit (📄 p.48)
- Rear cover (📄 p.51 "Rear Cover, Top Cover")
- Top cover (📄 p.51 "Rear Cover, Top Cover")
- Right cover (📄 p.54)
- Left cover (📄 p.56)
- Canopy cover (📄 p.57)
- Unlock the carriage (📄 p.64 "Unlocking, Moving the Carriage")



j0271109

1. The 1st registration sensor is located on the side of the carriage unit.
2. Push the carriage to the center.



j0271110

3. Remove the carriage top cover.

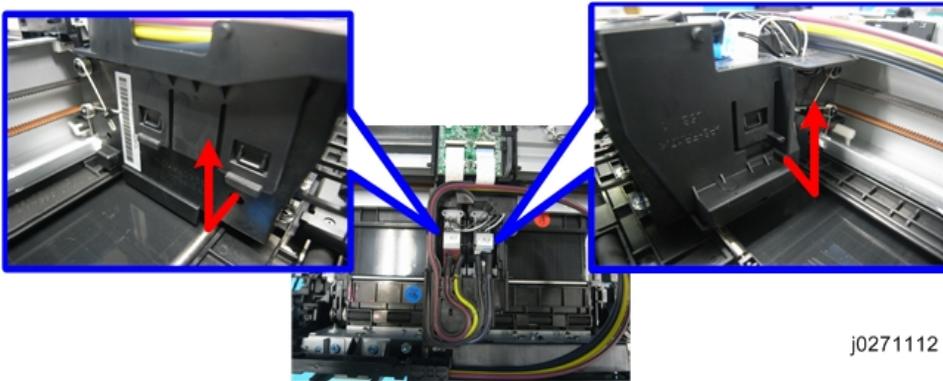


j0271111

4

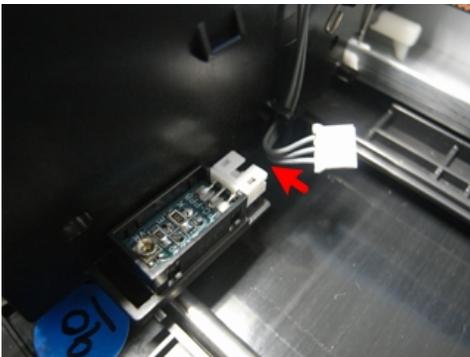
4. Disconnect the ink tubes.

Before you disconnect the ink tubes, squeeze their connecting parts with fingers or radio pliers to empty their contents into the print head tanks, so as to prevent the ink from dropping.



j0271112

5. Remove the carriage side cover.



j0271113

6. Remove the 1st Registration Sensor (☐ x 1, ▽ x 2).

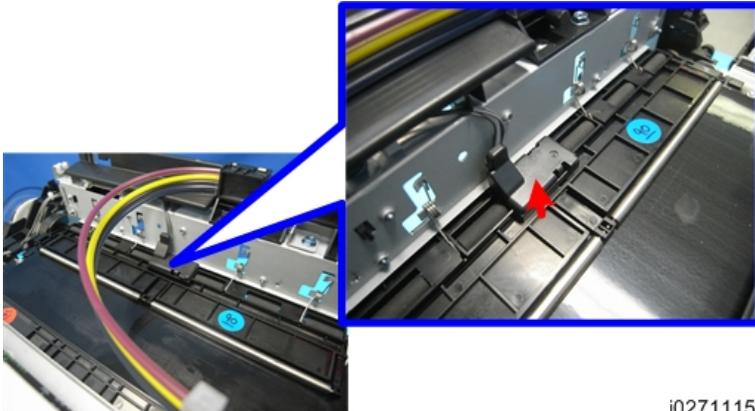


j0271114

2nd Registration Sensor

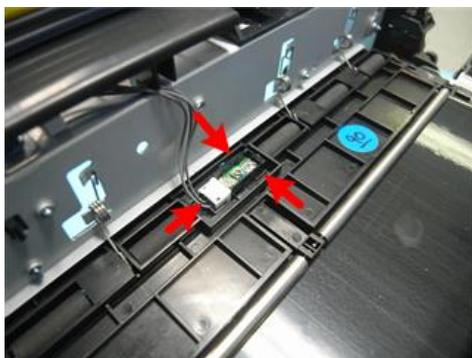
Preparation

- Duplex unit (p.48)
- Rear cover (p.51 "Rear Cover, Top Cover")
- Top cover (p.51 "Rear Cover, Top Cover")
- Right cover (p.54)
- Left cover (p.56)



j0271115

1. The 2nd registration sensor is located on the pressure plate.
2. The sensor cover (x 2)



j0271117

4

3. Remove the 2nd registration sensor (🔧 x 1, 🔧 x 3).

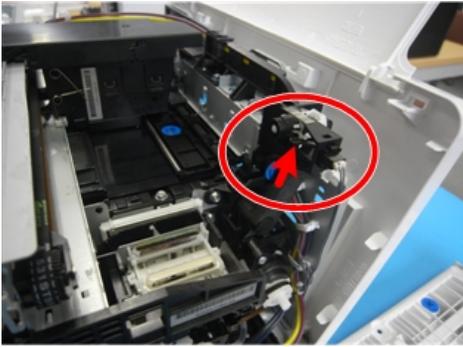


j0271116

Air Purge Detection Switch

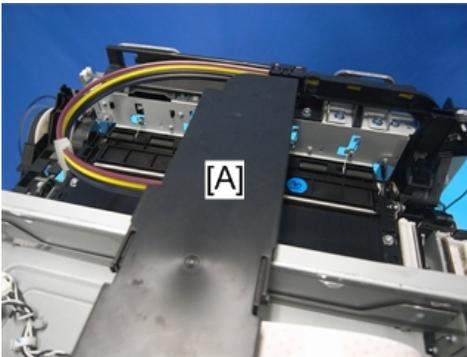
Preparation

- Duplex unit (🔧 p.48)
- Rear cover (🔧 p.51 "Rear Cover, Top Cover")
- Top cover (🔧 p.51 "Rear Cover, Top Cover")
- Right cover (🔧 p.54)
- Unlock the carriage (🔧 p.64 "Unlocking, Moving the Carriage")



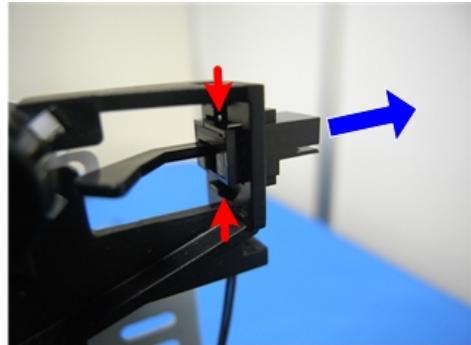
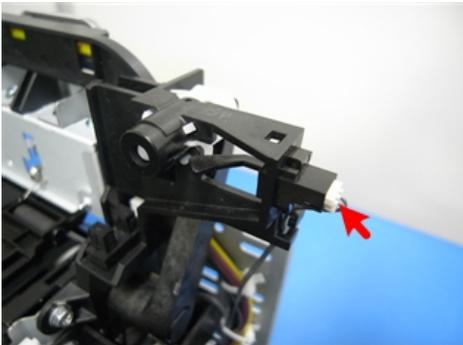
j0271175

1. The air purge detection switch is located at the recess of the carriage home position.



j0271102

2. Push the carriage unit [A] to the center.



j0271176

3. Remove the air purge detection switch (⏏ x1, ⏏ x2).



j0271177

4

Top Cover Switch

Preparation

- Duplex unit (🔧 p.48)
- Rear cover (🔧 p.51 "Rear Cover, Top Cover")
- Top cover (🔧 p.51 "Rear Cover, Top Cover")
- Right cover (🔧 p.54)
- Left cover (🔧 p.56)

1. The top cover switch is located on the CTL board.



j0271119

2. Remove the switch (🔧 x 1, 🔧 x 2).

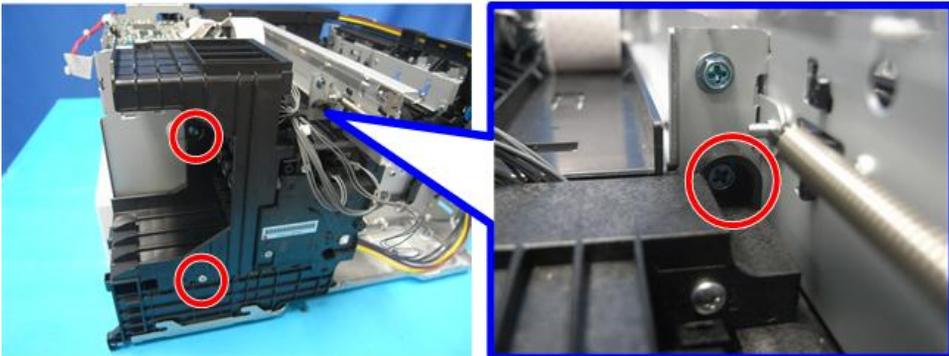


j0271120

Right Front Cover Switch

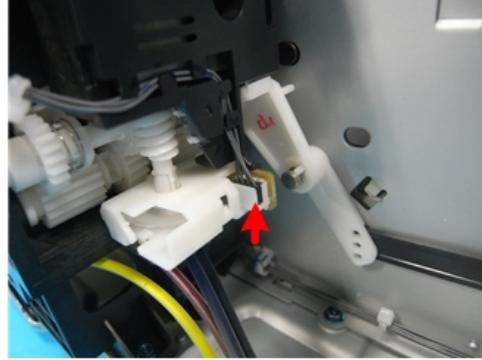
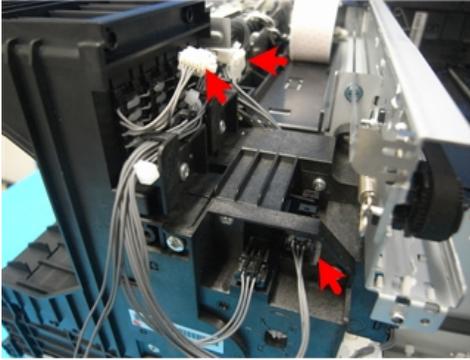
Preparation

- Duplex unit (🔧 p.48)
 - All covers (🔧 p.50)
 - Maintenance unit (🔧 p.66)
 - Right ink sump (🔧 p.69)
 - Pull out all Ink cartridges.
1. Push the carriage to the left side of the machine.



j0271121

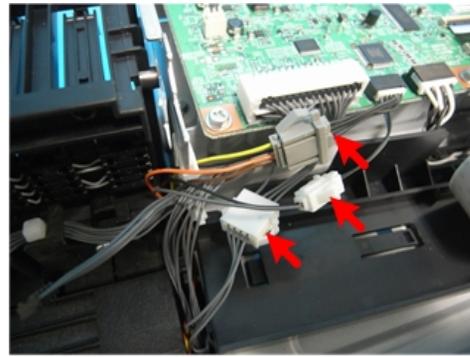
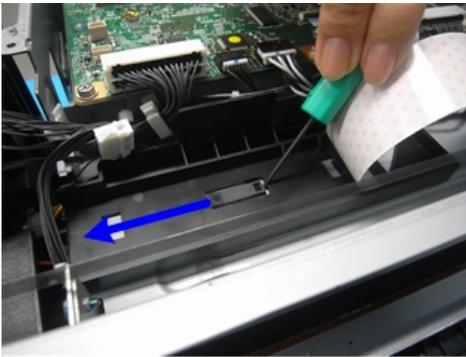
2. Remove the screws (🔧 x 3).



j0271122

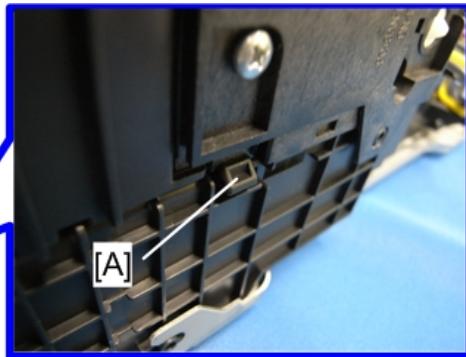
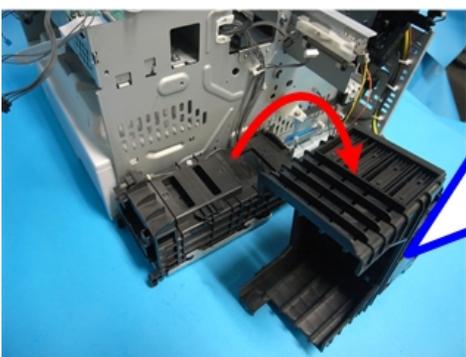
4

3. Remove the connectors (🔌 x 3, 🖨️ x 1).



j0271123

4. Unfasten the FFC holder, and then remove the connectors at the bottom of the CTL board (🔌 x 3).



j0271124

5. Check that all connectors connected to the ink supply unit have been disconnected, and then remove the ink supply unit (it is not necessary to disconnect the ink tubes). Before you remove the unit, release the lock [A].



j0271125

6. The right front cover switch (📎 x 1, 📎 x 2).



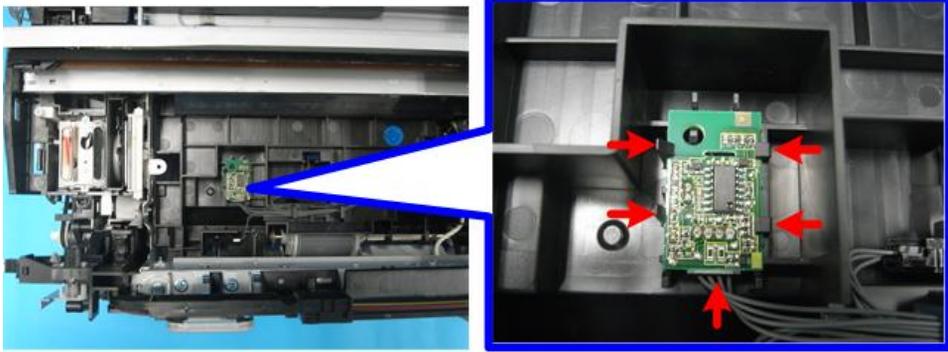
j0271126

7. After re-installing the maintenance unit, execute manual cleaning.

Temperature/Humidity Sensor

Preparation

- Duplex unit (📎 p.48)
- All covers (📎 p.50)
- 2nd registration sensor (📎 p.107)
- Bypass drawer connector (📎 p.117)
- Vertical encoder wheel (📎 p.71)
- Transport belt (📎 p.96)



j0271150

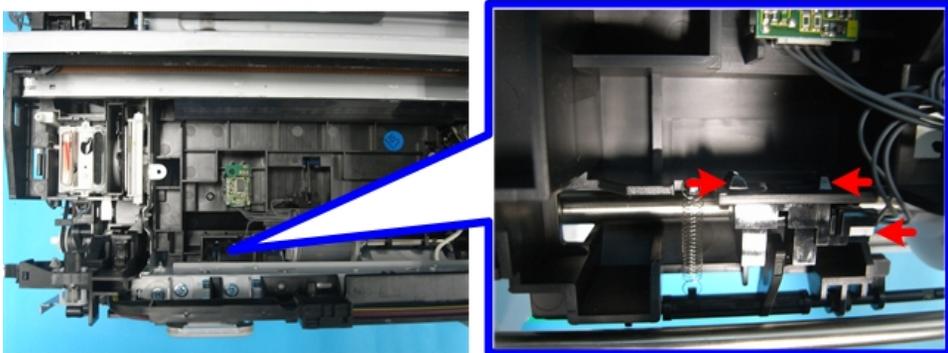
4

1. The temperature/humidity sensor (🔧 x 1, 🔩 x 4).

Trailing Edge Sensor

Preparation

- Duplex unit (🔧 p.48)
- All covers (🔧 p.50)
- 2nd registration sensor (🔧 p.107)
- Bypass drawer connector (🔧 p.117)
- Vertical encoder wheel (🔧 p.71)
- Transport belt (🔧 p.96)



j0271151

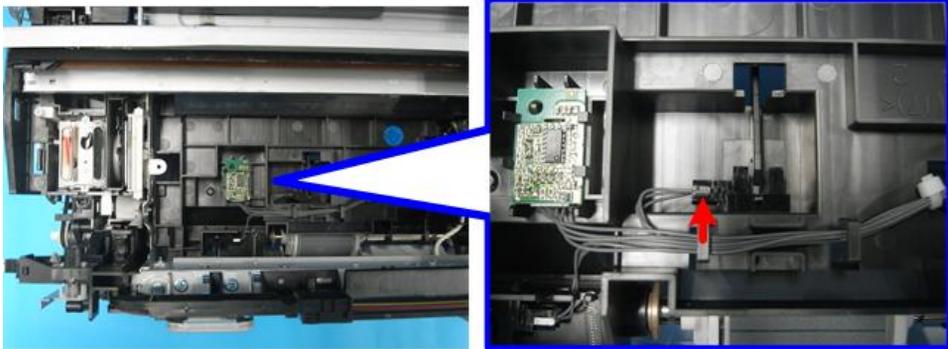
1. Remove the trailing edge sensor (🔧 x 1, 🔩 x 3).

Paper End Sensor

Preparation

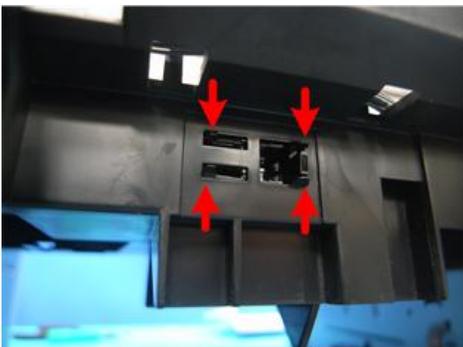
- Duplex unit (📄 p.48)
- All covers (📄 p.50)
- 2nd registration sensor (📄 p.107)
- Bypass drawer connector (📄 p.117)
- Vertical encoder wheel (📄 p.71)
- Transport belt (📄 p.96)
- Feed Clutch (📄 p.93)
- Paper feed roller (📄 p.123)

4



j0271152

1. Remove the paper end sensor (📄 x 1, 🔧 x 4).



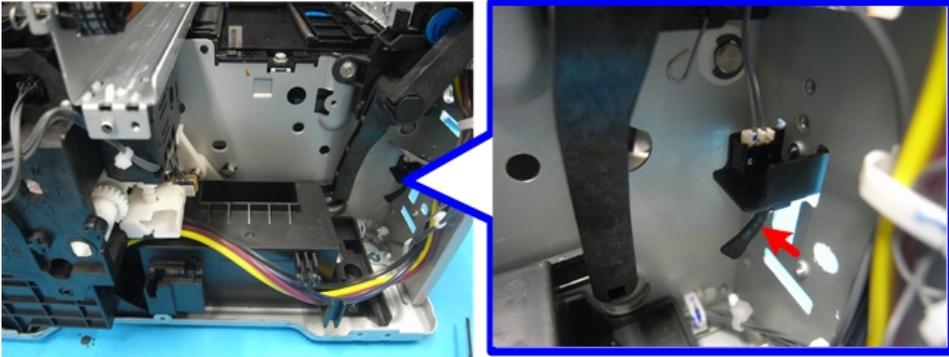
j0271153

2. The hooks can be exposed by removing the paper feed roller.

Duplex Unit Set/Cover Open Switch

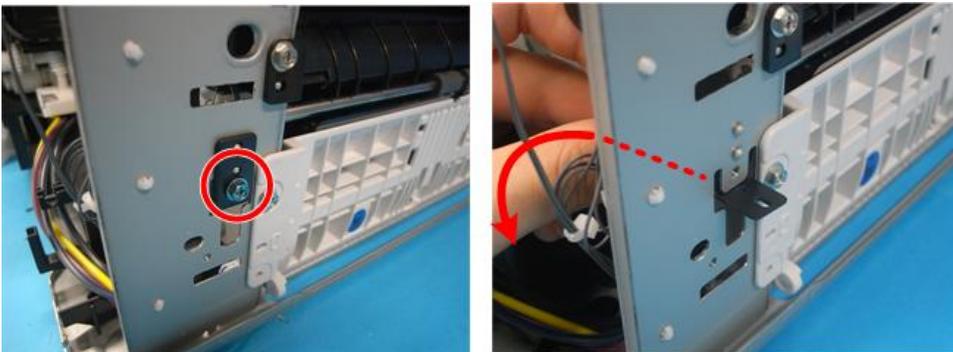
Preparation

- Duplex unit (🔧 p.48)
 - Rear cover (🔧 p.51 "Rear Cover, Top Cover")
 - Top cover (🔧 p.51 "Rear Cover, Top Cover")
 - Right cover (🔧 p.54)
 - Left cover (🔧 p.56)
 - Canopy cover (🔧 p.57)
 - Maintenance unit (🔧 p.66)
1. Push the carriage to the center.



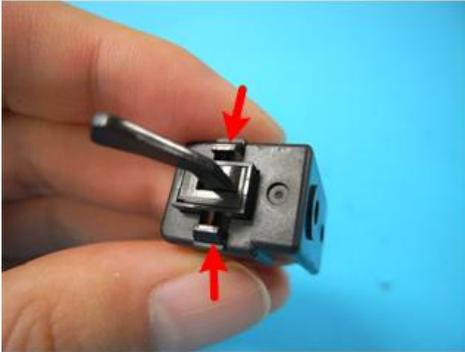
j0271127

2. The duplex unit set switch is located at the machine's right rear corner.
3. Remove the connector (🔧 x 1).



j0271128

4. Remove the bracket at the rear side (🔧 x 1).



j0271129

5. Separate the bracket and switch (▼ x 2).



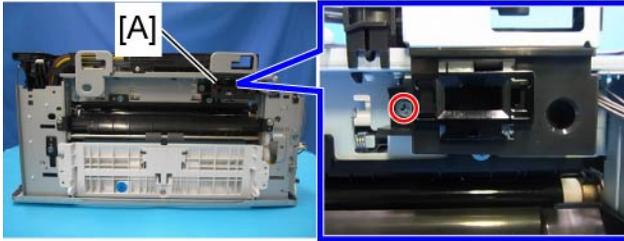
j0271130

6. After re-installing the maintenance unit, execute manual cleaning.

Bypass Drawer Connector

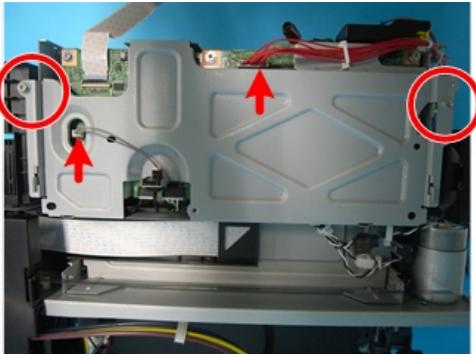
Preparation

- Duplex unit (📄 p.48)
- Rear cover (📄 p.51 "Rear Cover, Top Cover")
- Top cover (📄 p.51 "Rear Cover, Top Cover")
- Fan, Fan bracket (📄 p.91 "Fan")
- Vertical motor (📄 p.88)



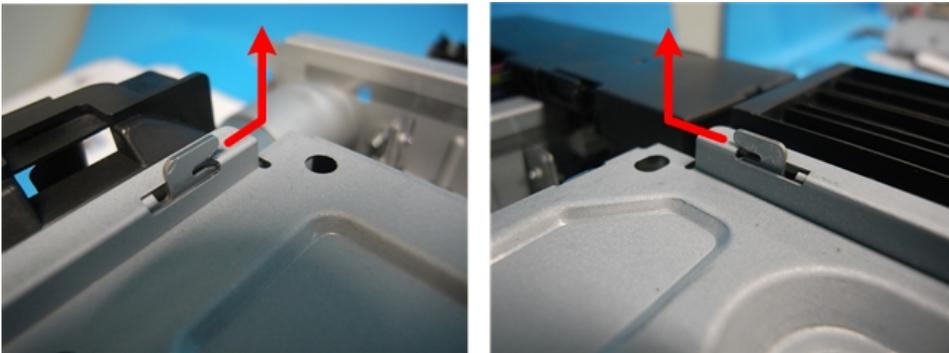
j0341013

1. The bypass drawer connector bracket [A] ( x 1)



j0271132

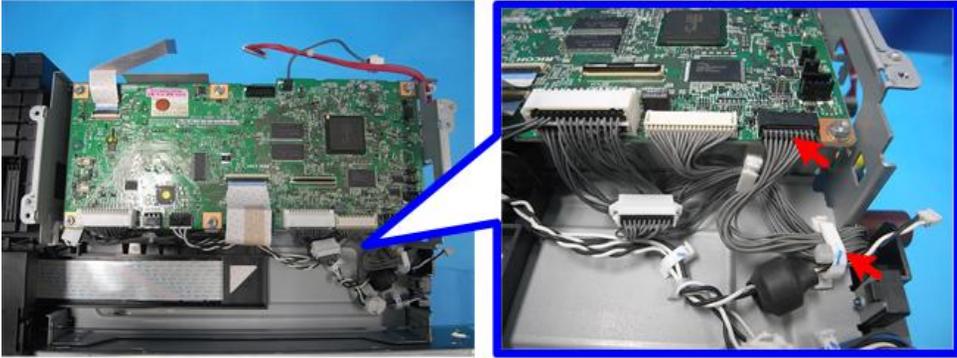
2. The CTL board cover ( x 2,  x 2).



j0271208

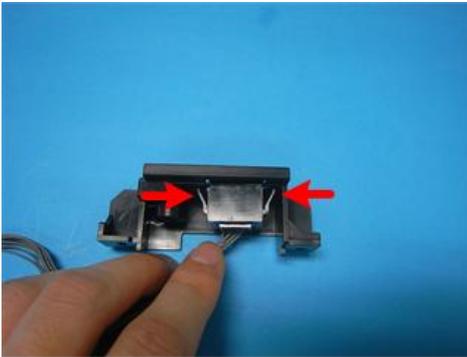
 **Note**

- Slide the cover, and then remove it. Make sure that the carriage is in the home position. Otherwise, the cover is blocked by the carriage.



j0271133

3. The multi bypass tray connectors (🔌 x 1, 📏 x 1).



j0271134

4. Separate the drawer connector and its bracket (🔌 x 2).



j0271135

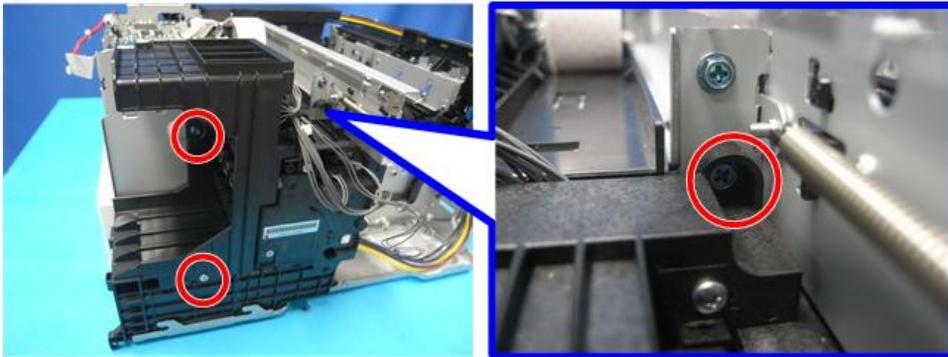
Drive Switching Module and Ink Supply Unit

The drive motor, drive switching motor, drive switching position sensor, maintenance unit control sensor and ink supply unit are coupled with and mounted in the drive switching module.

Preparation

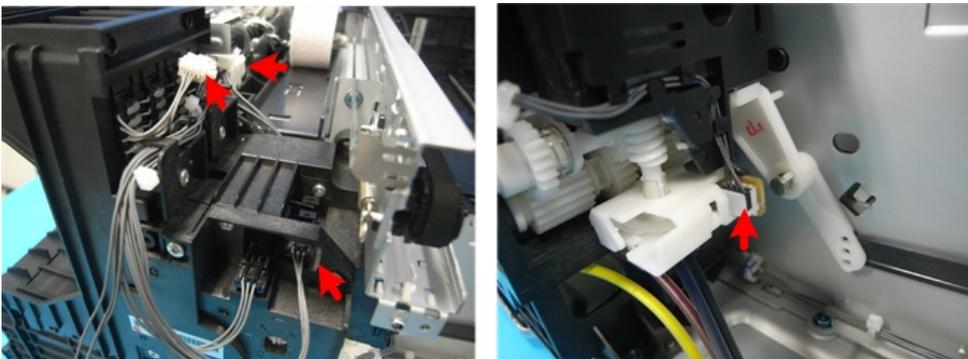
- Duplex unit (🔧 p.48)
- All covers (🔧 p.50)
- Maintenance unit (🔧 p.66)
- Pull out all Ink cartridges.
- Carriage unit (🔧 p.129)
- Control board cover (🔧 p.80 "Printer Engine CTL Board")

4



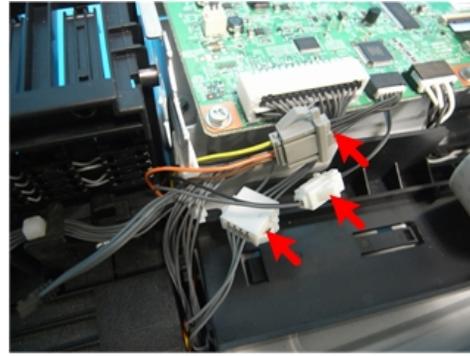
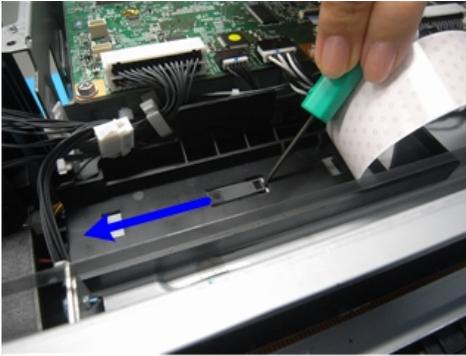
j0271121

1. 3 screws (🔧 x 3)



j0271122

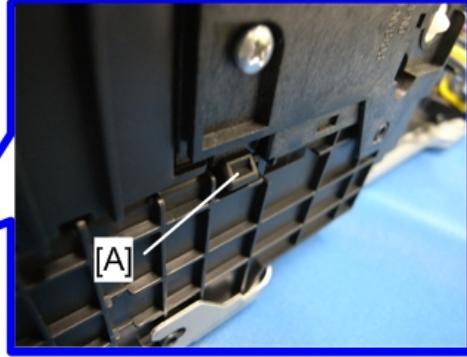
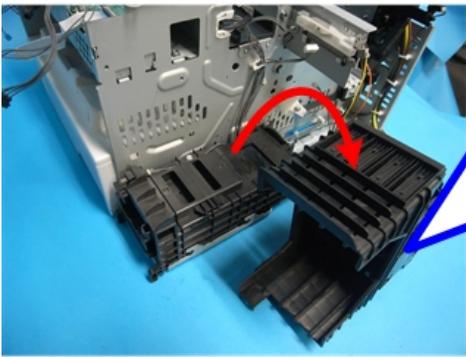
2. 3 connectors and 1 clamp (🔧 x 3, 🔧 x 1)



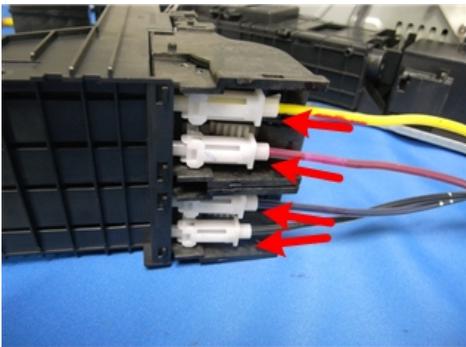
j0271123

3. Unfasten the FFC holder, and then remove the connectors at the bottom of the CTL board (🔧 x 3).

4

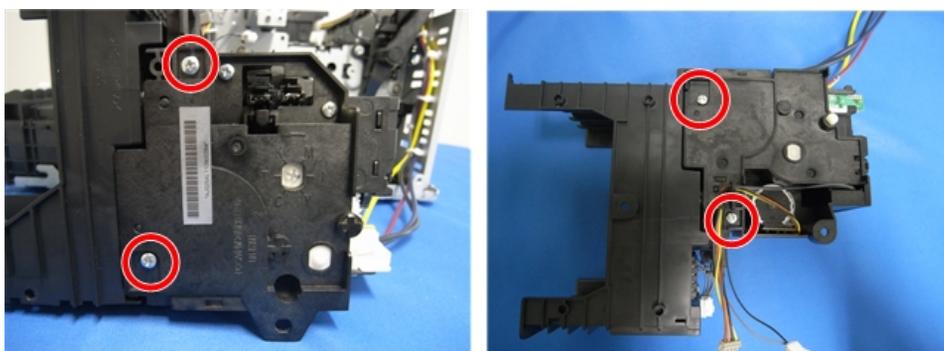


j0271124



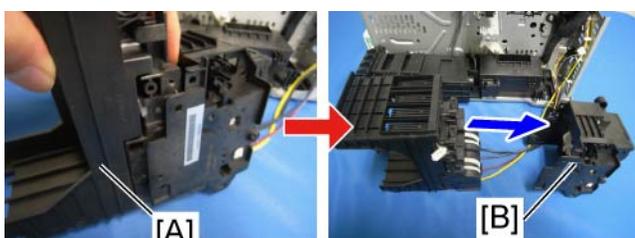
j0271178

4. Check that all connectors connected to the ink supply unit have been disconnected and then, remove the ink supply unit (Do not disconnect the ink tubes. Check that they are connected properly.) Before you remove the unit, release the lock [A].



j0271179

4



j0271180a

5. Separate the ink supply unit [A] and drive switching module [B] ( x 4).

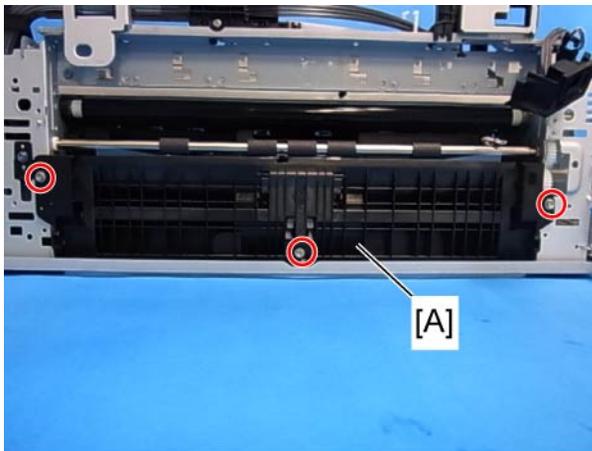
Rollers

Paper Feed Roller

Preparation

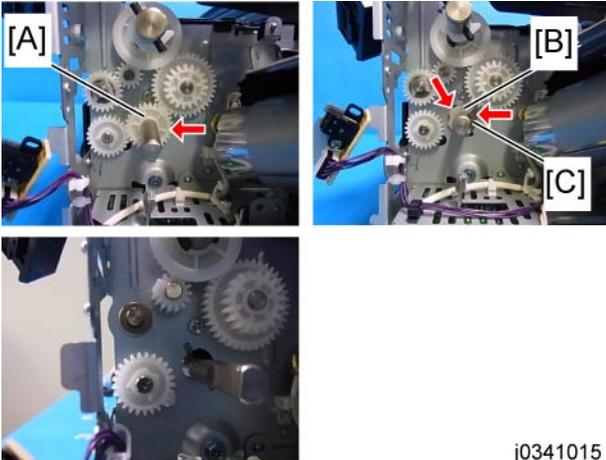
- Duplex unit (🔧 p.48)
- All covers (🔧 p.50)
- Feed clutch (🔧 p.93)
- Bypass drawer connector (🔧 p.117)
- Charge roller (🔧 p.96 "Transport Belt, Charge Roller, Pressure Plate, Pressure Rollers")
- Vertical encoder wheel (🔧 p.71)
- Pull out the Paper cassette.

4



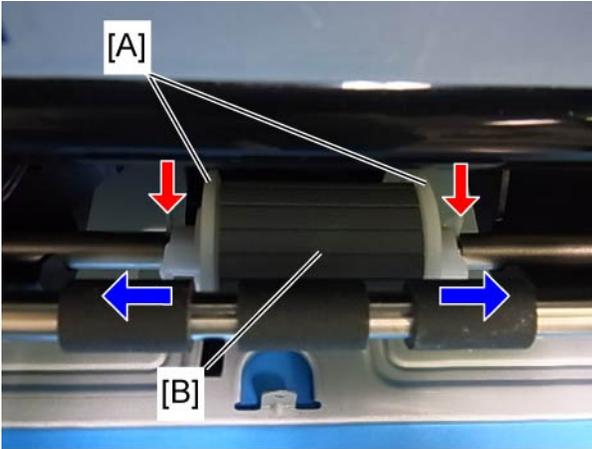
j0341014

1. The guide board [A] (🔧 x 3)



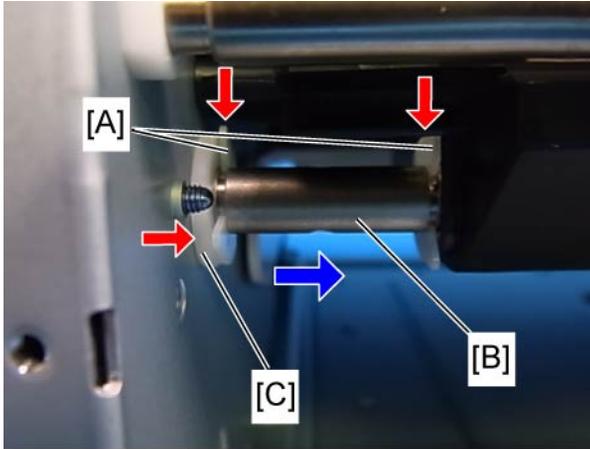
j0341015

2. 1 gear [A], 1 E-ring [B], and 1 bushing [C] (Gear x 1,  x 1, bushing x 1)



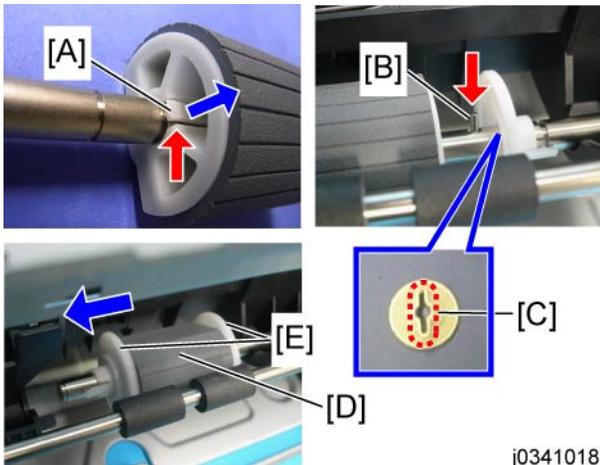
j0341016

3. Release the press rollers [A] from the feed roller [B] ( x 2).



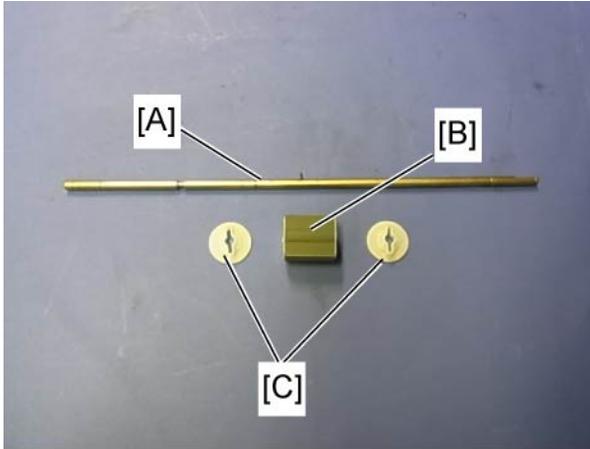
j0341017

4. Remove 2 E-rings [A] from the right end of feed roller shaft [B] (⊗ x 2).
5. Pull the feed roller shaft [B] out from the right end and remove 1 bushing [C] (Bushing x 1).



j0341018

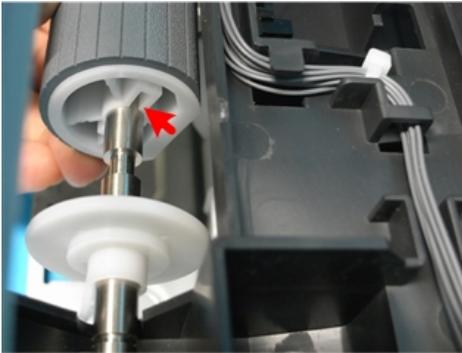
6. The paper feed roller [D] has a hook [A] on it. This is locked when the hook is engaged in the rod's groove. Unhook the hock and slide the roller to remove from the shaft.
7. Remove the press roller [E] at the right side from the shaft, and then remove the feed roller [D] of the left side from it. After that, align the fixing pin [B] and notch [C] on another press roller and remove it form the shaft.



j0341019

8. Pull the paper feed roller shaft [A] out from the left side of main machine and remove the entire paper feed roller [B] and 2 press rollers [C].

Re-installation



j0271218

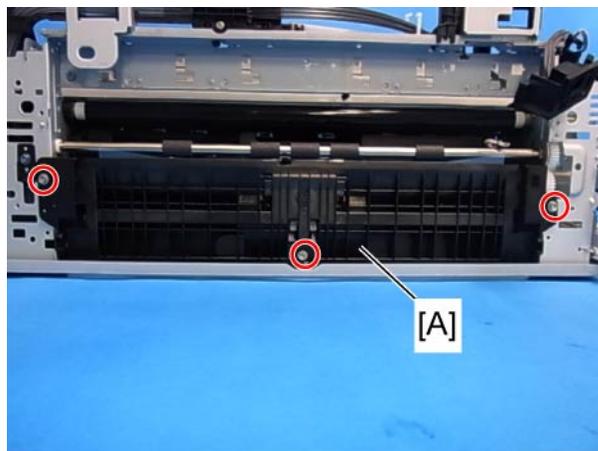
1. When you mount the paper feed roller into the shaft, mount the side with the fixing pin's guide first.

Connecting Rollers

Preparation

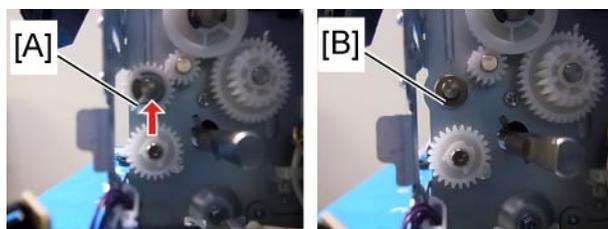
- Duplex unit (p.48)
- All covers (p.50)
- Feed clutch (p.93)
- Bypass drawer connector (p.117)
- Vertical encoder wheel (p.71)
- Charger roller (p.96 "Transport Belt, Charge Roller, Pressure Plate, Pressure Rollers")

- Ink level sensor (p.102)
- Pull out the Paper cassette.



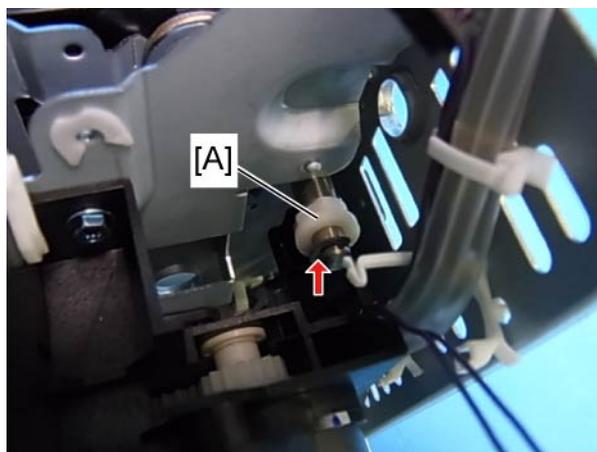
j0341014

1. The guide board [A] (x 3)



j0341020

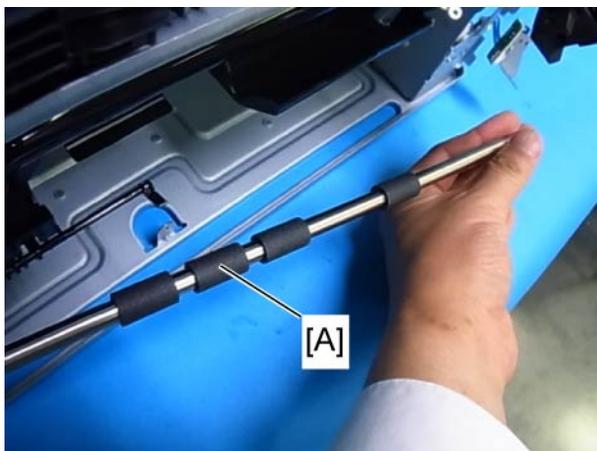
2. Remove the gear [A] and the bushing [B] on the left side (x 1)



j0341021

3. Remove the bushing [A] on the opposite side (right side) (x 1).

4



j0341022

4. Pull the connecting rollers and the shaft [A] out from the right side of main machine and remove it.



j0341023

Carriage Unit

Replacing the Carriage Unit

Accessories

Check the items in the carriage replacement kit with the list below.

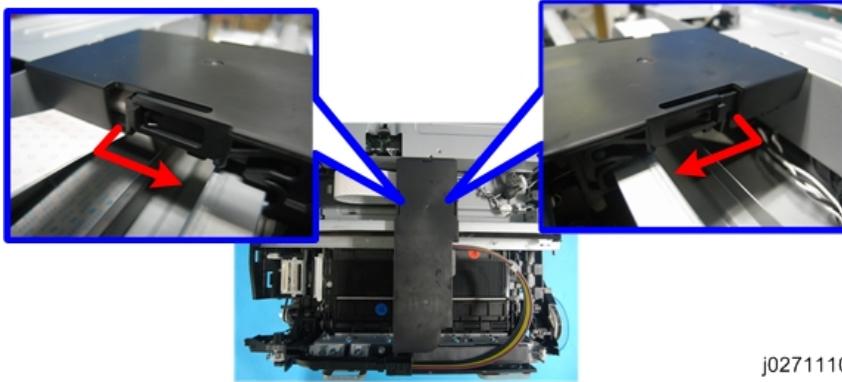


J0271196

	Item	Qty
[1]	Carriage Unit	1
[2]	Ink Cartridges	4
[3]	Ink Collector Unit	1

Preparation

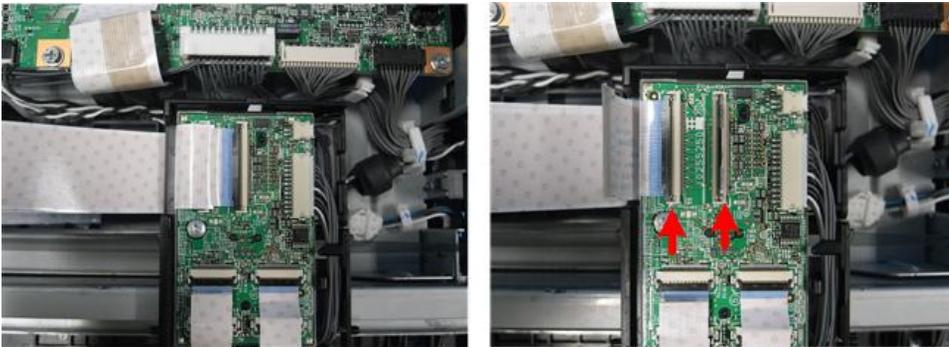
- Turn the machine power off.
- All covers (🔧 p.50)
- Maintenance unit (🔧 p.66)
- CTL board cover (🔧 p.80)
- Pull out all Ink cartridges.
- Horizontal encoder strip (🔧 p.73)



j0271110

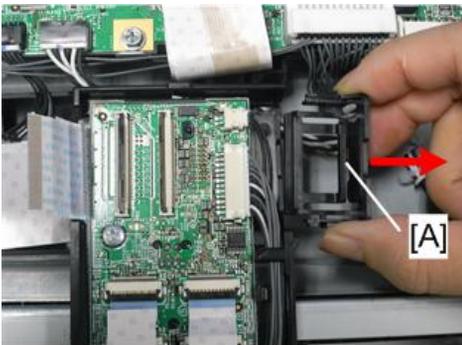
4

1. Push the carriage to the center, and then remove the top cover.



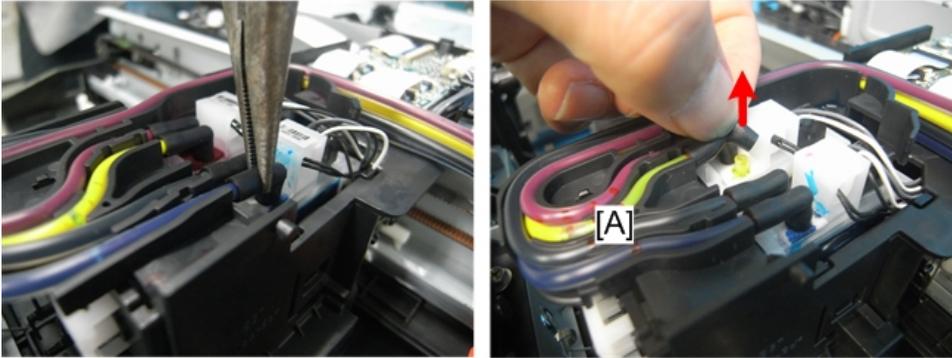
j0271154

2. Remove the FFC from the board ( x2).



j0271155

3. Remove the FFC holder [A], and then release the FFC from the carriage.

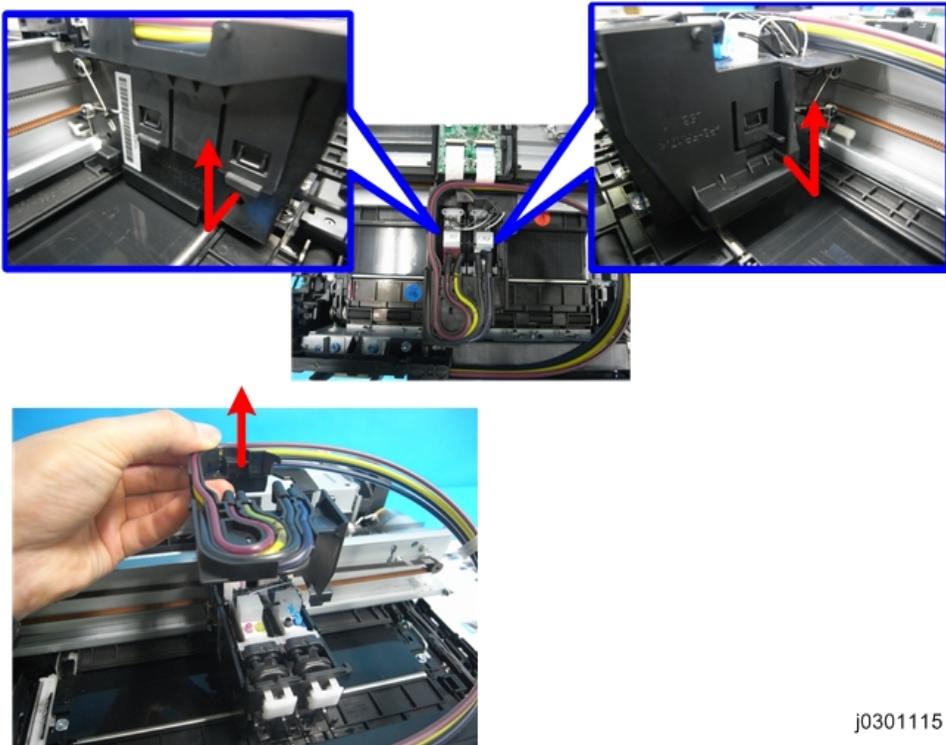


j0301116

4. Disconnect the ink tubes.

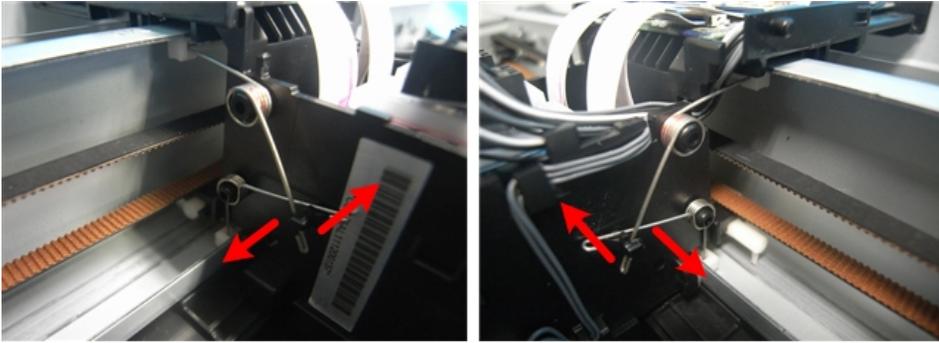
⬇ Note

- Before you disconnect the ink tubes, squeeze their connecting parts with fingers or radio pliers to empty their contents into the print head tanks, so as to prevent the ink from dropping.
- Make sure not to pull the ink tubes out of the tube guide [A].



j0301115

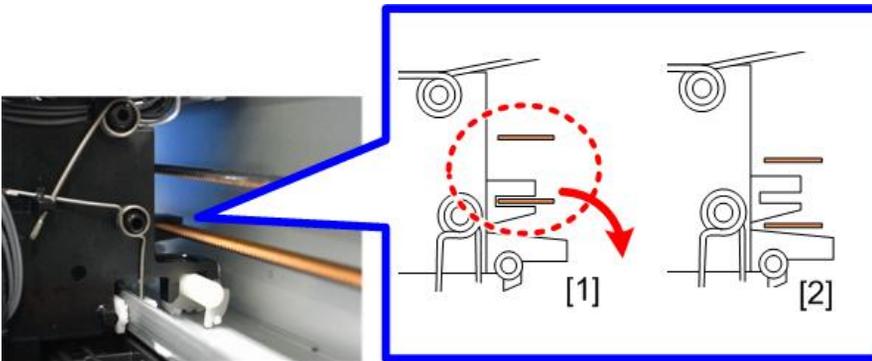
5. Remove the carriage side cover.



j0301117

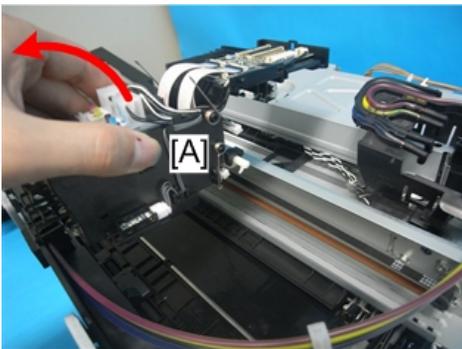
4

6. Unfasten the carriage unit to make it ready to be removed from the guide rail.



j0271157

7. Release the carriage from the timing belt. Make sure the top [1] and bottom [2] of the belt are disengaged from the carriage.



j0301118

8. Remove the carriage unit [A].

Note

- Place the carriage on a sheet of paper to prevent ink stains.

9. Mount the new carriage, and then attach the side cover with ink tubes.

Note

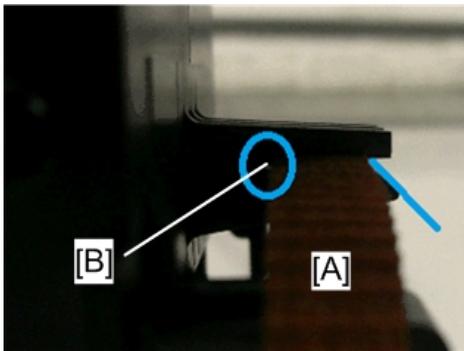
- Before you re-assemble the printer, be sure to read through the "Re-installation" tips described in the next section.
10. After re-assembling the printer, do the SP settings for after carriage replacement. (See "After Replacing the Carriage" at the end of this section.)

Re-installation

Engaging the carriage to the timing belt

If the carriage is insufficiently engaged to the timing belt, the movement of the carriage becomes disordered, resulting in problems such as fat or blurred printed text.

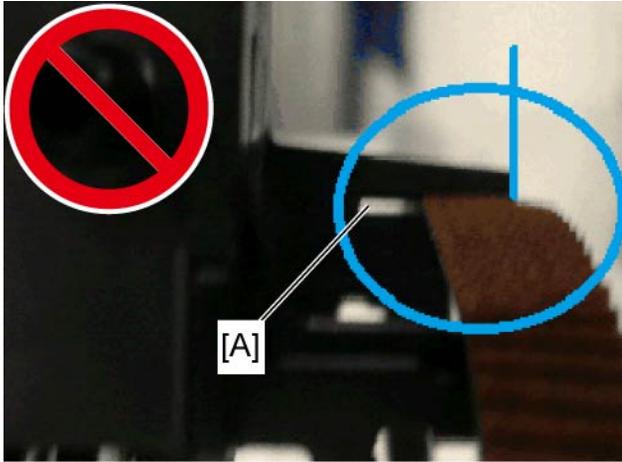
Correct engagement



j0301100

To prevent defective printing, engage the carriage to the timing belt [A] with the belt inserted into the carriage's engaged part thoroughly so that there is no clearance between the carriage and belt [B].

Incorrect engagement (likely to cause a malfunction)

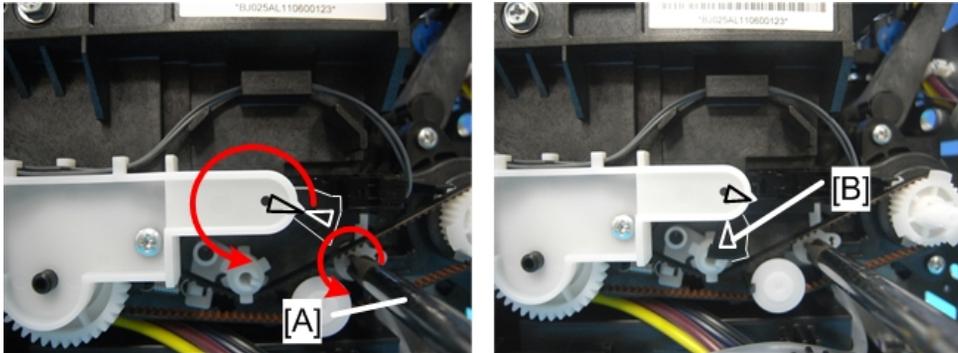


j0301101a

There is a clearance between the carriage and belt [A] and the belt protrudes from the tip of the engaged part.

Lock the Carriage

Make sure the carriage is locked before re-attaching the machine covers.



j0271162

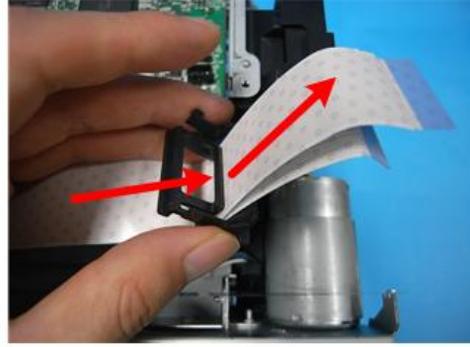
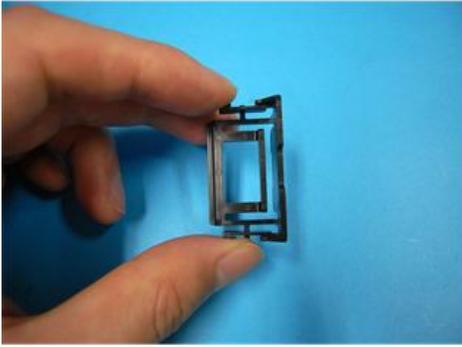
1. Turn the screwdriver [A] counter-clockwise to rotate the triangle.
2. Stop rotating when the triangle is at the lock position [B].

⬇ Note

- Never rotate the screwdriver clockwise.

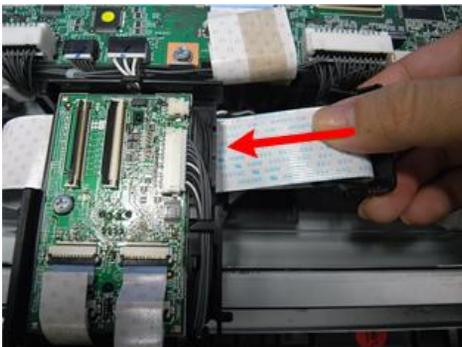
FFC Installation

To prevent the FFC from arching too much, store part of it in the holder.



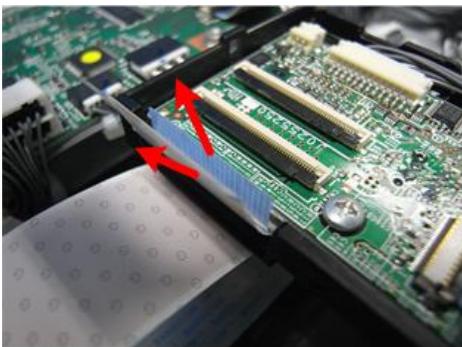
j0271163

1. Pass the FFC through the holder's slit.



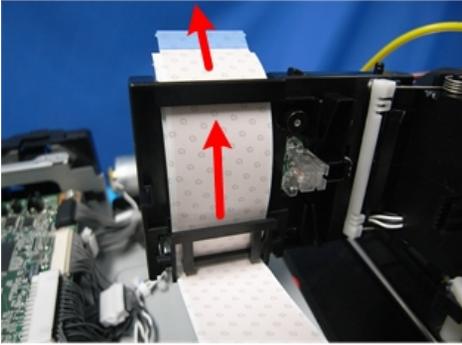
j0271164

2. Fold the holder and attach it to the carriage.



j0271165

3. Pull the FFC out from the other side.



j0271166

4. When stored correctly, it will be as shown.

4

After Replacing the Carriage

1. With the machine OFF, open the right front door.

★ Important

- The right front door must be open before you switch the machine on.
- With the right front door open, the printer will not perform auto maintenance (this can waste ink).

2. Switch the machine on.
3. Enter the Service Menu.
4. [▲] or [▼] "Printer Setting"> [OK].
5. [▲] or [▼] "Engine Setting"> [OK].
6. Enter "3009002"> [OK].
7. Press [OK].
8. Press [OK].
9. Press [OK].
10. Exit the Service Menu.
11. Switch the machine off.
12. Replace the four ink cartridges with new ones (provided).
13. Replace the ink collector unit (new one provided).

★ Important

- You must replace the ink cartridges and the ink collector unit with the ones provided.
- If you do not replace them, the machine will issue an error and prompt you to install the new ink cartridges or collector unit.

14. After you have installed the new ink cartridges and the ink collector unit, close the right front cover.
15. Switch the machine on.
16. Wait for the machine to fill the print head ink tanks. This may take about 7 minutes.

After filling the print head ink tanks, check and adjust the carriage unit settings.

1. Press [User Tools].
2. Select "Maintenance"> "Nozzle Check Pattern"> [OK].
 - Print the Nozzle Check Pattern. Clean and flush the print heads if required.
3. Select "Head Position Adjust"> [OK].
 - Adjust all resolutions; "High Speed", "Standard", "High Quality", and "Envelope".
4. Select "Adjust Paper Feed"> [OK].
 - Adjust the paper feed setting.
5. Select "Registration"> [OK].
 - Adjust all trays; "Tray 1", "Tray 2", "Tray 3", and "Bypass".
6. Select "Printer Features"> [OK]> "List/Test Print"> [OK].
7. Print the color demo page and a system summary.
 - Select "Color Sample" to print the color fish pattern.
 - On the same level of the menu, select "Config. Page" and press [OK]. Confirm that all the settings have been initialized.
8. Press [Escape] until you see the "Ready" message.

This completes the carriage replacement procedure.
9. Switch the machine off.

Print Head Cleaning and Adjustment

You can see the image adjustment features on the "Maintenance" menu of the machine operation panel.

Note

- The test prints and adjustments described in this section can also be done with the printer driver. For more details about doing these test prints and adjustments with the printer driver, please refer to the User Guide.

Preparing for Test Printing

1. Make sure an A3 size or a DLT size paper is loaded in the machine.
2. Make sure the machine is ready to print.

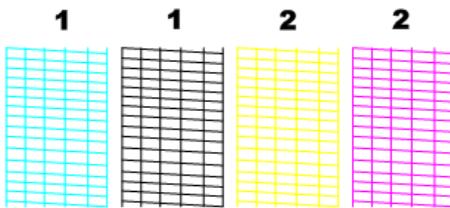
Nozzle Check

Nozzle Check Pattern

Do this procedure to print the Nozzle Check test pattern. Look at the pattern to determine if the printer is operating properly or not.

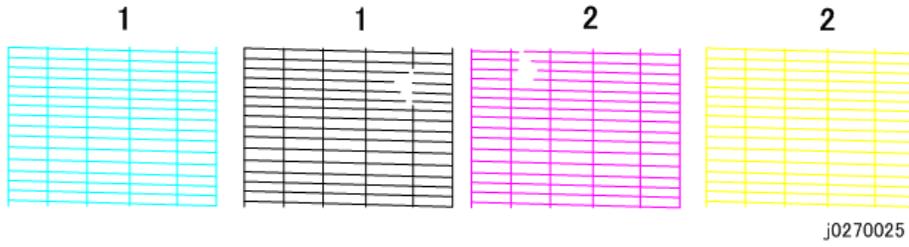
1. Push [▼/Menu], select "Maintenance", and push [#Enter].
2. Select "Nozzle Check" and press [#Enter]. The Nozzle Check pattern prints.
3. Examine the Nozzle Check pattern for broken lines or white patches. The first sample below is normal, the second sample shows white patches.

Normal Pattern



j0270024

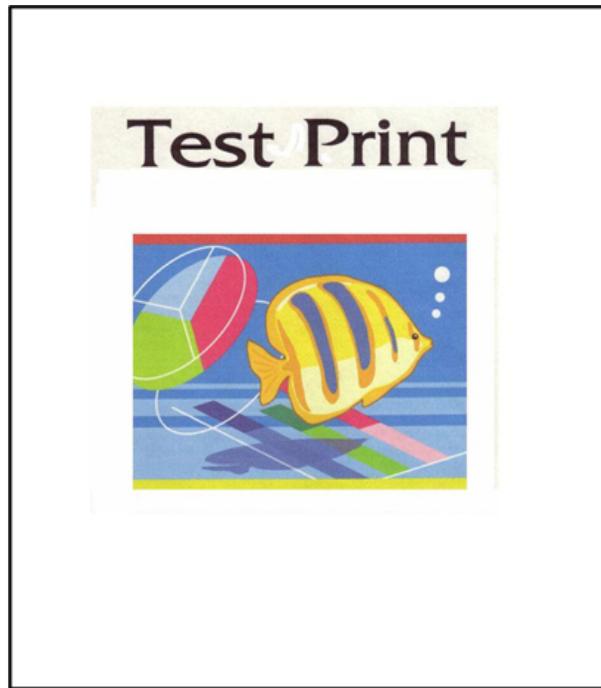
Abnormal Pattern



Color Demo Print

The color demo (Test Print) is printed from the printer operation panel to demonstrate the color quality of the printer.

1. At the "Ready" prompt press [▼/Menu]> select "List/Test Print"> [#Enter].
2. Select "Color Demo Page"> [#Enter].



Print Head Cleaning

★ Important

- **Print head cleaning consumes ink. Do this procedure only if you see a problem in the Nozzle Check test pattern.**

1. Check the ink level indicator in the printer driver or the operation panel display to determine if the ink cartridge is empty.
2. Print a Nozzle Check test pattern.
3. Look at the Nozzle Check pattern to determine which nozzles are blocked.

↓ Note

- If one or more color is missing, is extremely faint, or shows broken lines, this tells you where there is a blockage.
4. Confirm that the envelope selector is forward.
 5. [▼/Menu] > "Counter"
 6. [▼/Menu] or [▲] > "Maintenance" > [#Enter] > "Nozzle Check"
 7. [▼/Menu] or [▲] > "Head-cleaning" > [#Enter] > "All Heads"
 8. [▼/Menu] or [▲] > Select the print heads to be cleaned: "All Heads" (all print heads), "Head 1" (Cyan/Black), "Head 2" (Yellow/Magenta) > [#Enter]

★ Important

- **Do not try to start another procedure and never switch the machine off while head-cleaning is in progress.**
9. [Escape] > To the previous level.
 10. Print another Nozzle Check test pattern and check the result.
 11. If the Nozzle Check test pattern is normal, the procedure is finished.

-or-

If there is still a problem in the Nozzle Check pattern, repeat this procedure and print another Nozzle Check pattern. Do the procedure again if the results are still not satisfactory.

If three consecutive Nozzle Check pattern prints and head-cleanings do not solve the problem, then flush the print heads. (See procedure below.)

★ Important

- **Head flushing consumes ink. Do not flush the print heads unless three head cleanings have failed to correct the problem.**

Print Head Flushing

Flushing the print heads consumes much more ink than print head cleaning. Do not flush the print heads until you have done the print head cleaning procedure (see above) at least three times.

1. Confirm that the envelope selector is forward.
2. [▼/Menu]> "Counter"
3. [▼/Menu] or [▲] > "Maintenance" > [#Enter]> "Nozzle Check"
4. [▼/Menu] or [▲] > "Head-flushing"> > [#Enter]> "All Heads"
5. [▼/Menu] or [▲] > Select the print heads to be flushed: "All Heads" (all print heads), "Head 1" (Cyan/Black), "Head 2" (Yellow/Magenta) > [#Enter]

Do not start any other operation until cleaning stops.

★ Important

- Do not try to start another procedure and never switch the machine off while head-flushing is in progress.
6. [Escape] > to return to the previous level.
 7. Print another Nozzle Check test pattern and check the result.
 8. If the Nozzle Check test pattern is normal, the procedure is finished.
 - If there is still a problem in the Nozzle Check pattern, allow the machine to remain idle for 10 minutes and repeat the procedure.
 - If the problem persists, allow the machine to remain idle for 8 hours, and then flush the print heads again.

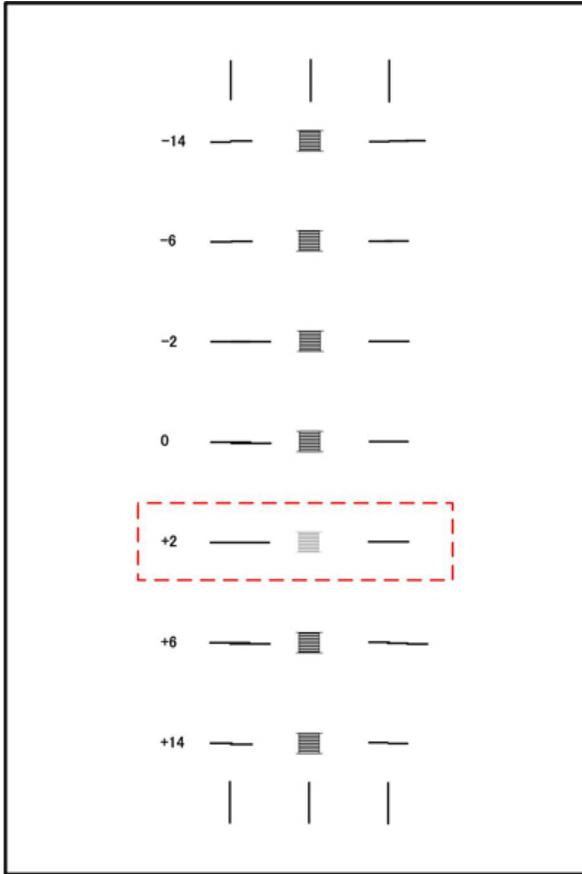
Adjust Paper Feed

Print the 'Adjust Paper Feed Test Pattern' and do this adjustment if you see broken horizontal lines, patchy images, or white lines printed at regular intervals.

1. [▼/Menu]> "Maintenance"> [#Enter].
2. [▼/Menu] or [▲] > "Adj. Paper Feed"> [#Enter]> "Pr. Test Print".
3. [#Enter]. The test pattern prints.

Do not start any other operation until printing stops.

4. Check the printed numbers and patterns.



j017t009

- The adjustment value appears to the left of the lightest gray square with straight horizontal lines on both sides.
- If this number is "+2", for example, then the adjustment value is "+2".
- If horizontal lines beside the gray square are broken, look at where the lines are broken in the opposite direction.
- For example, if the "+2" square is the lightest gray square and the "+6" lines are broken, then the best adjustment value is between "+3" and "+5".

5. [▼/Menu]> "Adjustment"> [#Enter].
6. Press [▼/Menu] or [▲] until the number of the pattern that you selected in Step 4 appears.
7. [#Enter]. This completes the adjustment.
8. Push [▼/Menu] to leave the menu mode.

Head Position

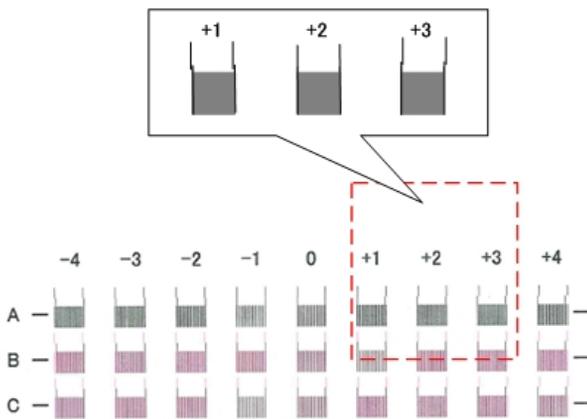
The print head is out of position if you see these:

- Broken vertical lines
- Blurred, smeared or streaked colors

Do the following procedure to correct these problems.

1. [▼/Menu]> "Counter"
2. [▼/Menu] or [▲] > "Maintenance"> [#Enter]> "Nozzle Check".
3. [▼/Menu] or [▲] > "Head Position"> [#Enter]> "Select "Pr. Test Pattern"
4. [#Enter]> [▼/Menu] or [▲] > "High Speed", "Standard", "High Quality", or "Envelope Print"> [#Enter]. The test pattern prints.

Do not start any other operation until printing stops.



j0271198

5. Look at the patterns and determine which is the best.
 - The best pattern is the gray square with straight vertical lines on both sides.
 - The pattern setting is read as a matrix value from the pattern. For example, if the best pattern is in column "+2", line "A", the entry for adjustment will be "A" then "+2"
6. [▼/Menu]> "Adjustment"> [#Enter].
7. [▼/Menu] or [▲] > Select same setting selected for "Pr. Test Pattern" in Step 4 ("High Speed", "Standard", "High Quality", or "Envelope Print")> [#Enter].
8. [▼/Menu] or [▲] > Select the letter of the line of the best pattern noted in Step 5> [#Enter].
9. [▼/Menu] or [▲] > Select the number of the line of the best pattern noted in Step 5> [#Enter]. This completes the adjustment.
10. Push [Escape] to leave the Menu mode.

Registration

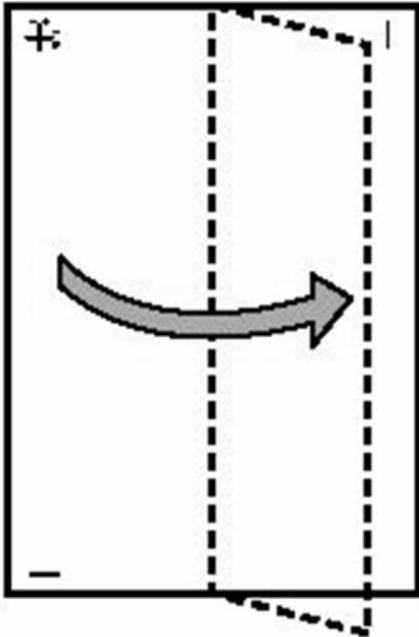
Do this procedure to adjust the print start position. The print start position is the point at the upper left corner of each sheet where printing begins. This procedure can be done for all the paper feed sources: Tray 1 (Standard), Multi-Bypass Tray (Option).

1. [▼/Menu]> "Counter">
2. [▼/Menu] or [▲]> "Maintenance"> [#Enter].
3. [▼/Menu] or [▲]> "Registration"> [#Enter]> "Pr. Test Sheet"
4. [#Enter]> [▼/Menu] or [▲]>"Tray1", "Tray2", "Tray3", or "Bypass".

Note

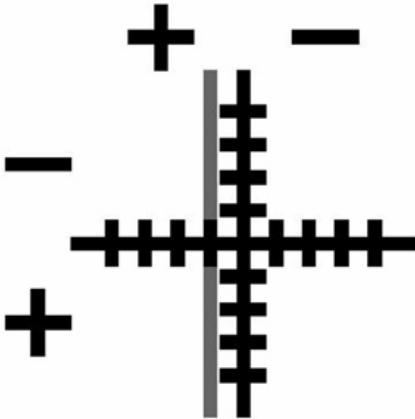
- "Tray 2" appear only if the optional paper feed unit is attached.
 - "Bypass" appears only if the bypass tray unit is attached.
5. [#Enter]> [▼/Menu] or [▲]> "Plain Paper" or "Glossy Paper".
 6. [#Enter]. The test pattern for Registration prints.

Do not start any other operation until printing stops.



j017t011

7. Fold the printed sheet in half lengthwise as shown.
8. Hold the corner of the folded paper in front of a light and look at the cross-pattern overlapping the single vertical line below.
9. Determine the 1st adjustment for the Read Direction.



j107t012

- The adjustment value in the Read Direction is the difference between the single vertical line and cross vertical line.
 - If the difference is one calibration mark on the "+" side, for example, the adjustment is +1.0.
10. Fold the sheet in half widthwise.
 11. Determine the 2nd adjustment for the Feed Direction. The value read after folding the sheet widthwise, is the adjustment value for the Feed Direction.
 12. [▼/Menu] or [▲] > "Adjustment" > [#Enter].
 13. [▼/Menu] or [▲] > Select the paper tray > [#Enter].
 14. [▼/Menu] or [▲] > Select the paper type > [#Enter].
 15. Enter the adjustment for the Read Direction determined in Step 9 and push [#Enter].
 16. Enter the adjustment for the Feed Direction determined in Step 11 and push [#Enter]. This completes the adjustment.
 17. Push [▼/Menu] to leave the Menu mode.

Note

- The "Plain", and "Glossy" are provided because the sensor timing for each medium is different.

Cleaning

The responsibility of the service technician is limited because this machine is adjusted for optimum performance at the factory before it is shipped.

Return the printer to the repair center or replace the machine if a serious problem occurs.

There are no parts that require scheduled maintenance or replacement. However, the service technician should do the procedures described in this section when a service call is requested.

Here is a summary of the procedures described in this section.

Description	At Service Call (or When Necessary)
External Covers	Damp cloth.
Connecting Rollers	Damp cloth.
Friction Pad	Damp cloth. This is the cork friction pad on the front edge of the standard paper cassette (Tray 1).
Printer Operation, Print Quality	Print a Nozzle Check Pattern and check the results. Clean the print heads if necessary.
Ink Collector Unit	A message on the printer operation panel prompts you to replace the ink collector unit after it has become full.
Maintenance unit	Damp cloth (use water). Always use a tightly wrapped damp cloth to remove the ink that has hardened around the suction cap and wiper blade when you replace the ink collector unit.
Horizontal Encoder Strip	Clean linen cloth, dampened with alcohol. Do not use cotton, tissue paper, any material that could shred and leave fibers.
Horizontal Encoder Sensor	Damp cloth.
Vertical Encoder Wheel	Clean linen cloth, dampened with alcohol. Do not use cotton, tissue paper, any material that could shred and leave fibers.

Maintenance Unit Cleaning

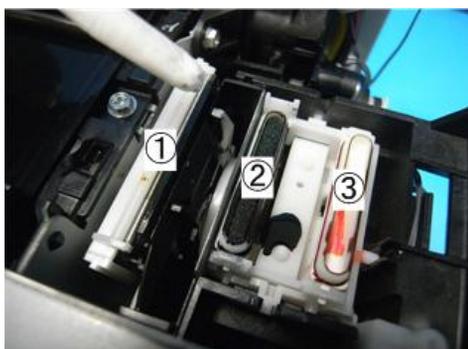
Preparation

- Duplex unit (📖 p.48)
- Top Cover (📖 p.51 "Rear Cover, Top Cover")
- Canopy Cover (📖 p.57)

- Right Cover (🔧 p.54)
 - Spread several sheets of thick paper (not cloth) where you can set the unit after it has been removed.
 - Unlock the carriage (🔧 p.64 "Unlocking, Moving the Carriage")
1. Wrap the tip of a screwdriver or similar tool with a piece of finely woven cloth which is slightly damp.

★ Important

- The damp cloth prevents scratches on the suction cup. A scratched suction cup could cause poor print quality.
- Never use tissue or cotton, or any other such of material to wrap the tip of the screwdriver. Such material will contaminate the maintenance unit with loose fiber.



j0271167

2. Use the wrapped tip of the screwdriver to clean inside and around the blade (1) , air vent (2) and suction cap (3).

Clean the vent and cap carefully to avoid:

- Damaging the movable feeler inside the right air vent.
- Damaging the fragile lip of the suction cap.

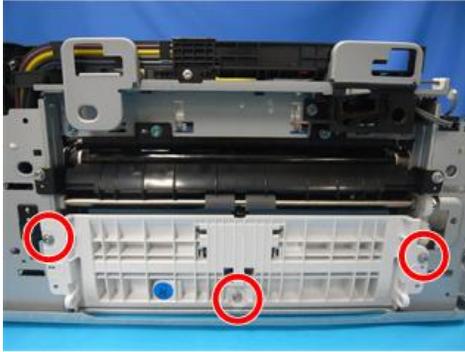
★ Important

- Never insert the tip of the screwdriver into the right air vent or suction cap.

Connecting Rollers Cleaning

Preparation

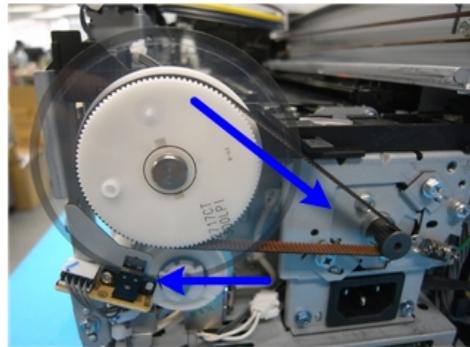
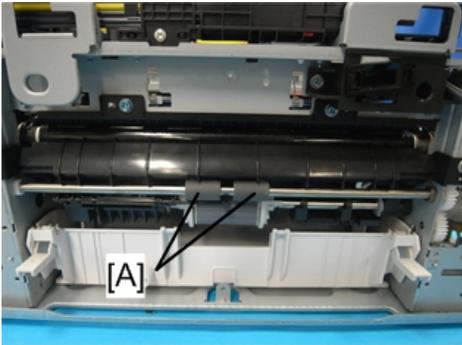
- Duplex unit (🔧 p.48)
- Rear cover (🔧 p.51 "Rear Cover, Top Cover")
- Top cover (🔧 p.51 "Rear Cover, Top Cover")
- Left cover (🔧 p.56)



j0271136

4

1. Remove the guide board ( x 3).



j0271137

2. Move the timing belt by hand to rotate the connecting rollers [A] as you wipe it with a dry cloth.

Transport Belt Cleaning

Preparation

- Duplex unit ( p.48)
- Left cover ( p.56)
- Rear cover ( p.51 "Rear Cover, Top Cover")
- Top cover ( p.51 "Rear Cover, Top Cover")



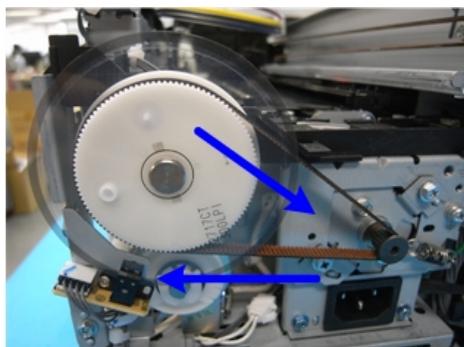
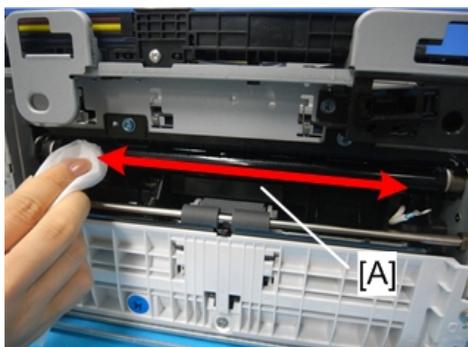
j0271138

1. Open the charge roller cover ( x 2).



j0271139

2. Take out the charge roller and the cover ( x 1).



j0271140

3. Move a clean, slightly damp cloth from side to side to clean the transport belt [A].

★ Important

- Do not use tissue, cotton or any other material that may leave fibers on the surface of the transport belt.
- Use a slightly damp cloth moistened with clean water.

- **Never use alcohol, or any other solvent to clean the belt.**
4. Move the timing belt by hand to rotate the wheel far enough to expose the next section of the transport belt.
 5. Repeat Steps 4 and 6 until the entire surface of the belt has been wiped clean.

Friction Pad Cleaning

Preparation

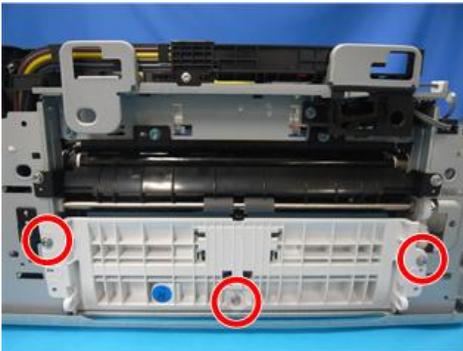
- Duplex unit (🔧 p.48)

4



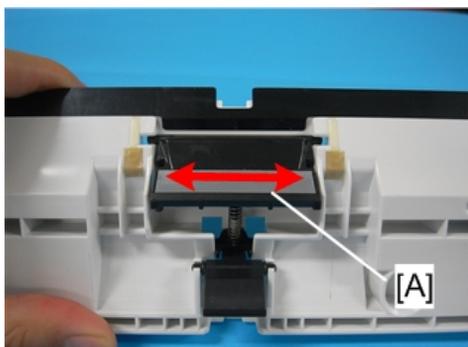
j0271141

1. The friction pad is located behind the guide board.



j0271136

2. The guide board (🔧 x 3).



j0271142

3. Use a damp cloth to clean the surface of the friction pad [A].

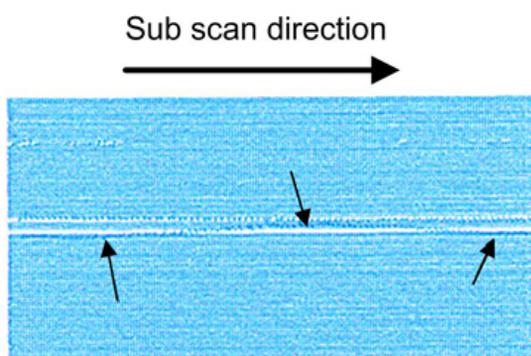
4

Horizontal Encoder Strip Cleaning

Clean the horizontal encoder strip if the following conditions occur:

- Vertical white lines on an image
- Double image
- Broken vertical lines
- JAM 14

Sample image of horizontal white lines



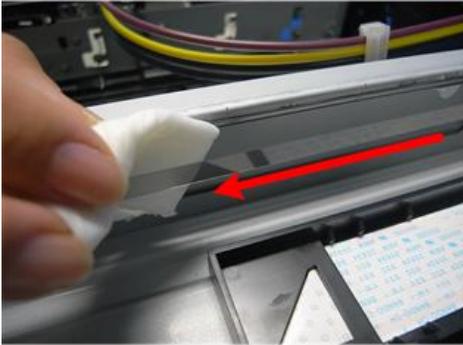
j017r140

Cleaning procedure

Preparation

- Duplex unit (📄 p.48)
- Left cover (📄 p.56)

- Rear cover (📖 p.51 "Rear Cover, Top Cover")
 - Top cover (📖 p.51 "Rear Cover, Top Cover")
 - Canopy cover (📖 p.57)
 - Unlock the carriage (📖 p.64 "Unlocking, Moving the Carriage")
1. Push the carriage to the left side of the printer.



j0271168

2. Dampen a small piece of clean linen cloth with a small amount of alcohol.

★ Important

- **Never use cotton, soft tissue, or any other type of material that could shred and leave fibers on the encoder film strip.**

3. Gently wipe the horizontal encoder strip always from **right to left** in one direction.

★ Important

- **To avoid bending the spring plate on the left end of the encoder strip, always wipe the strip from right to left. The horizontal encoder strip is fragile.**
- **Never apply excessive tension to the horizontal encoder strip when cleaning it.**

4. Push the carriage unit to the right with your hand.
5. Repeat the procedure to clean the left side of the encoder strip.
6. Lock the carriage.
7. Turn on the machine.
8. Confirm that the machine is in standby mode and ready to operate.

★ Important

- **Switch on the printer immediately after cleaning to ensure that the carriage returns to the right side of the machine and caps the print heads.**
- **If this is not done immediately, the print heads may dry out.**

9. Do the "Nozzle Check" after cleaning, and then check the patterns for missing or broken lines.
10. Do "Print Head Cleaning" if the pattern is not satisfactory.

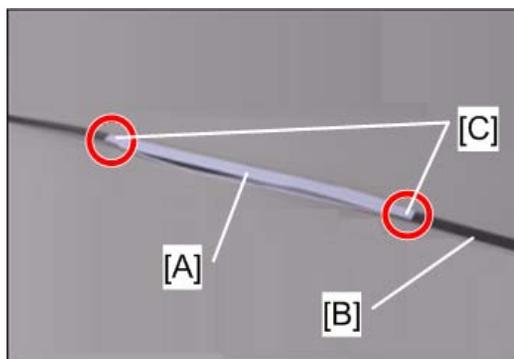
11. Do "Print Head Flushing" if the pattern is not satisfactory, even after three print head cleanings.
12. Do "Print-Head Flushing" and print another Nozzle Check Pattern.
13. If the Nozzle Check Pattern is still not satisfactory after flushing the print heads, replace the horizontal encoder strip.

Horizontal Encoder Sensor Cleaning (TBA)

This section explains how to clean the encoder sensor when you replace the horizontal encoder strip.

Preparation

- Duplex unit (📖 p.48)
 - Left cover (📖 p.56)
 - Rear cover (📖 p.51 "Rear Cover, Top Cover")
 - Top cover (📖 p.51 "Rear Cover, Top Cover")
 - Canopy cover (📖 p.57)
 - Unlock the carriage (📖 p.64 "Unlocking, Moving the Carriage")
1. Remove the old horizontal encoder strip.
 2. Wipe the surface of the old horizontal encoder strip with a clean alcohol-dampened cloth.



j0271229

3. Paste two cleaning felts [A] on both sides of the strip [B] at the center.

⬇ Note

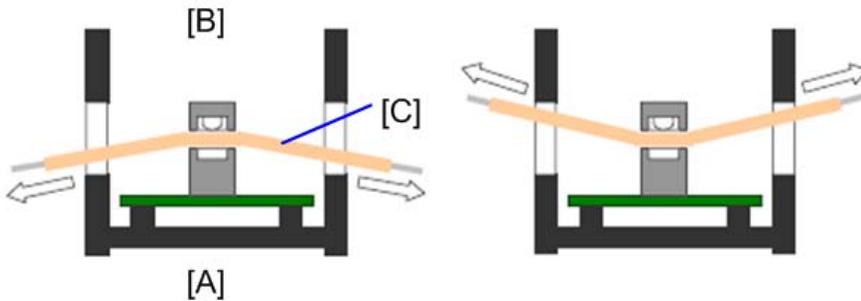
- There are double-sided adhesive tapes [C] at both ends of each cleaning felt
- Make sure that the cleaning felts are straightened.

4. Dampen the felts with alcohol.

⬇ Note

- Make sure that the adhesive tapes on the ends of the felts stay free of alcohol.

5. Insert the strip with the felt into the horizontal encoder sensor in the carriage.



j0271230

4

[A] Machine's front

[B] Machine's rear

[C] Cleaning felt

6. Holding the felt against the front or rear part of the sensor's recess, move the strip back and forth to wipe off the stain.

Note

- Wipe each of the front and rear parts back and forth a few times.
- Shift the stripe with the felt horizontally a few times to completely wipe off the stain.
- The cleaning is over if the felt does not become stained by ink any more.

7. After completing the cleaning, mount the new horizontal encoder strip to the machine.

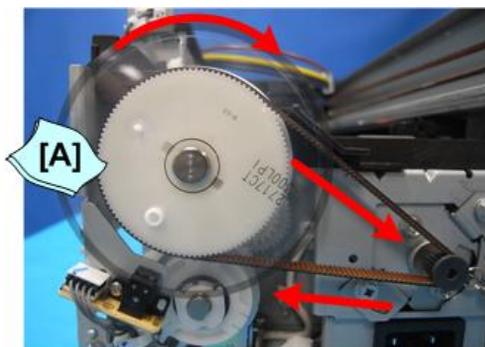
Vertical Encoder Wheel Cleaning

Clean the vertical encoder wheel if the following problems occur:

- Horizontal banding
- Mis-aligned text, images

Preparation

- Duplex unit (📄 p.48)
- Canopy cover (📄 p.57)
- Rear cover (📄 p.51 "Rear Cover, Top Cover")
- Top cover (📄 p.51 "Rear Cover, Top Cover")
- Left cover (📄 p.56)



j0271169

1. Dampen a small piece of clean linen cloth with a small amount of alcohol.

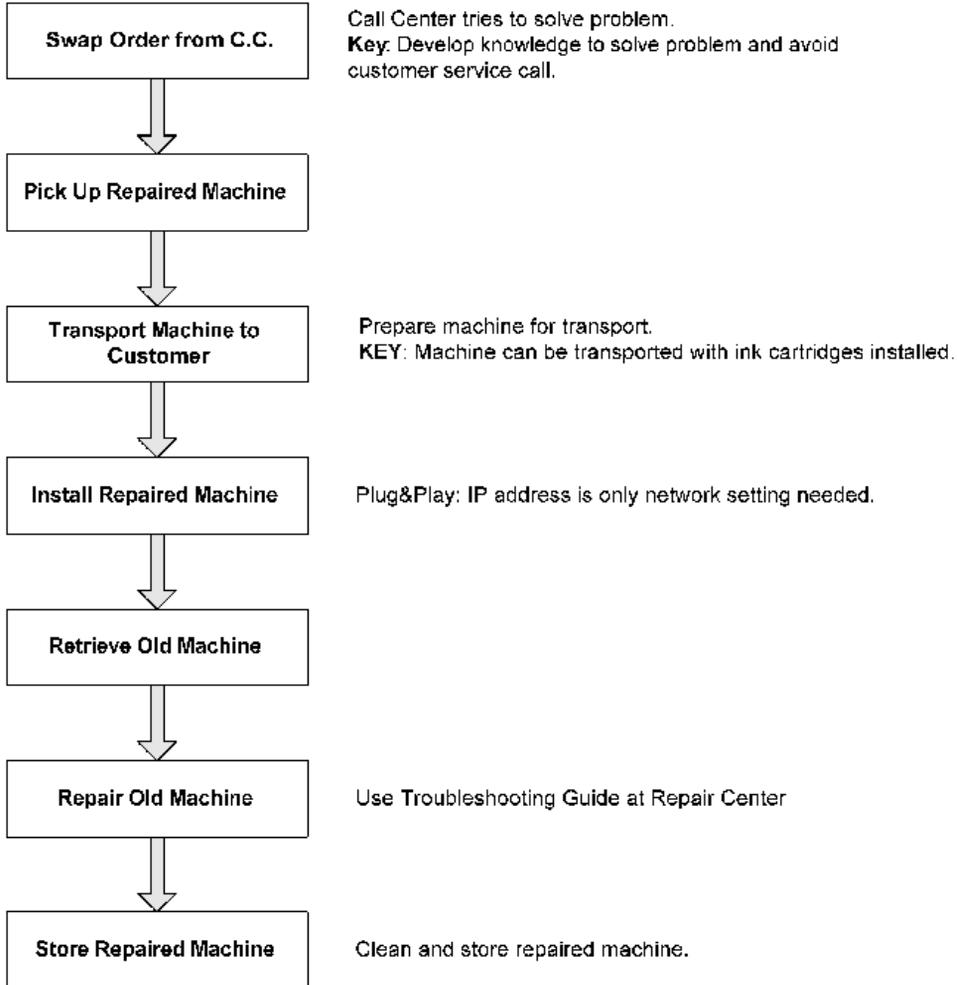
★ Important

- **Never use cotton, soft tissue, or any other type of material that could shred and leave fibers on the encoder wheel.**
2. Hold the dampened cloth [A] at the edge on both sides of the wheel.
 3. Move the timing belt by hand to rotate the encoder wheel as you wipe it with a dry cloth.
 4. Continue to rotate the wheel through at least 2 or 3 full turns so the entire edge of the wheel is clean.
 5. Re-attach covers and turn on the machine.
 6. Confirm that the machine is in standby mode and ready to operate.
 7. Do the "Nozzle Check" after cleaning, and then check the patterns.
 8. Do "Print Head Cleaning" if the pattern is not satisfactory.
 9. Do "Print Head Flushing" if the pattern is not satisfactory, even after three print head cleanings.
 10. Do "Print-Head Flushing" and print another Nozzle Check Pattern.
 11. If the Nozzle Check Pattern is still not satisfactory after flushing the print heads, replace the vertical encoder wheel.

Refurbishing

Swap and Repair Flow

4



J011E107

Before Shipping from Customer Site to Repair Center

Check Point	Comment
Box Proper Side Up	Keep the box with the top up and bottom down. Do not tilt the box more than 45 degrees from the horizontal.
Ink Collection Tank	Check the ink collection tank to confirm that it is not leaking. Insert a paper towel between the tank and cover to prevent leakage during transport. Confirm that the paper towel is removed after the machine is set up.
Machine Cover	Cover the machine with a plastic bag. This prevents spillage if the ink cartridges leak.
Ink Cartridges	Return the ink cartridges to the customer.
Options	Return all options (PFU, Bypass Tray, etc.) to customer.

4

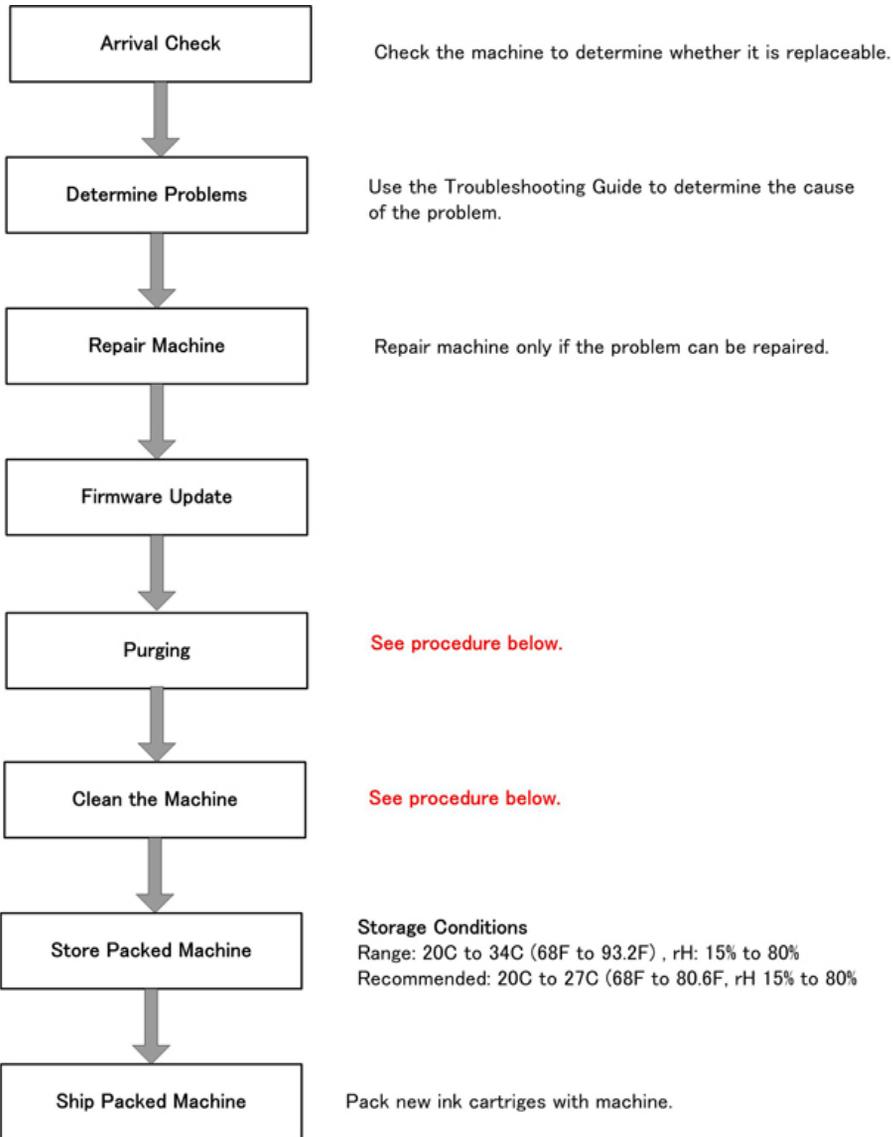
What You Need

The following items and equipment are required for packing the machine before shipping.

- Boxes
- Vinyl Bag
- InstaPak Kit or InstaPak Quick Kit
- Ink Cartridges

Production Name	Ink Cartridges Needed
J034	C, M, Y, K: Starter Cartridges

Refurbishing Flow



j011e108

Purging

Cleaning cartridges that contain liquid cleaner will be provided as service parts. These cleaning cartridges will be used in the field to purge ink paths, print head, sub tanks, and nozzles. Do this procedure to clean the print heads before storing the repaired printer for one month or longer.

★ Important

- This procedure should be done at the Repair Center before storing a repaired printer until it can be reused. This procedure is not intended for use at the job site for the customer.

Preparation

You will need an ink collection tank and four cleaning cartridges.

- The ink collection tank must be replaced after cleaning. Before you start the cleaning procedure, make sure that an ink collection tank is available.
 - Four cleaning cartridges, one for each ink tank.
1. Turn the printer on.
 2. When the printer enters standby mode, enter the Service Menu.
 3. Select "2. ENGINE MAINTENANCE".
 4. Select "3009001" and push [Enter].
 5. When you see "WASHING" push [Execute].
 6. Open the ink cartridge cover, remove the ink cartridges, replace them with the cleaning cartridges, and close the ink cartridge cover.
 7. Confirm that "WASHING" and "EXEC" are still displayed, then push [Enter].
 8. When you see "OK?" push [Enter].
 - "RUNNING" displays while the cleaning sequence executes.
 - When cleaning is finished, the display returns to "WASHING" and "EXEC"

↓ Note

- If the "Alert" lamp lights red, this indicates that an error has occurred. At this step you cannot see the error displayed on the printer operation panel.
 - Complete the procedure to return to standby mode, read the number of the error displayed to determine the cause of the error.
9. Press [Escape] to return to the "2. ENGINE MAINTENANCE" display.
 10. Select "3. END" and push [Enter] to return to standby.
 11. Switch the printer off.
 12. Remove the cleaning cartridges and store the printer.
 - The initial ink fill counter resets at the end of washing. The next time the ink cartridges are installed and the printer is switched on, the initial filling sequence will begin.
 - Do not install the ink cartridges and turn the printer on again after washing until you are ready to use or service the printer again.
 13. Remove the ink collection tank.
 14. Insert a new ink collection tank.
 15. Do "3008003" to reset the software counter for the new ink collection tank.

Clean the Machine

These are general guidelines for cleaning and maintenance.

Item	Action
External Covers	Clean with damp cloth.
Paper Feed Rollers, Connecting Rollers	Clean with damp cloth.
Right Ink Sump	Clean with damp cloth.
Friction Pad (Paper Trays)	Clean with damp cloth.
Ink Collection Tank	Replace then reset counter with SP3-008-003

5. System Maintenance Reference

Service Program Mode

See "Appendices" for the following information:

- Service Mode
- Engine Maintenance SP Mode
- Bit Switch Settings
- SP Mode Service Tables

SP Mode Service Tables

SP Table Key

Notation	What It Means	
[range/ default /step/units]	Example: [-127 to +128/ 4.5 /1/0.1 mm].	
	-127 to +128	Range
	4.5	Default
	1	Screen increments
	0.1 mm	Unit change for every screen increment.

5

Here is a summary of common terms and abbreviations used in the SP code descriptions.

Term	What It Means
DFU	Denotes "Design or Factory Use". Do not change this value.
DNA This Series (J027/J028/J029)	Does not Apply. Applies to a machine of another GEIJET series, not J027/J028/J029.
DOM	"Domestic" market only (Japan)
EUA	Europe/Asia
EXP	"Export" markets (North America, Europe, Asia)
FA	"Factory Adjusted". The default setting is set at the factory or service center.
FU	Future Use. These SP codes appear but they are not enabled at this time.
This Series Only	Applies to the J027/J028/J029 only.
LE	Leading Edge
LE/TE	Leading Edge/Trailing Edge
LEF	Long Edge Feed (paper feeds sideways with the long edge feeding first)

Term	What It Means
Main Scan	This refers to printing horizontally across the width of an SEF (portrait) page.
NA	North America
SEF	Short Edge Feed (paper feeds lengthways with the short edge feeding first)
Sub Scan	This is printing vertically down the length of an SEF (portrait) page.
TE	Trailing Edge

SP3-XXX

5

Reset and Restoration Settings

3-008-001	RST:INIT CNT:F	Reset Initial Tank Fill Count to Manufacturing Operation Count
		Resets the initial fill counter to the initial factory setting (-2).
3-008-002	RST:INIT CNT:A	Reset Initial Tank Fill Count to Factory Shipping
		Resets the initial fill counter to the initial factory setting before shipping (-1).
3-008-003	RST:WASTE:RC	Reset Ink Collector Count/Flag: Right Ink Collector unit
		Resets the ink flag and ink counter for the right Ink Collector unit.
3-008-004	RST:WASTE:R	Reset Ink Collector Count/Flag: Right Ink Sump
		Resets the ink counter for the right ink sump.
3-008-005	RST:FACT	Restore Factory Default Setting
		Resets and threshold settings and user adjusted values.

Maintenance, Replacement

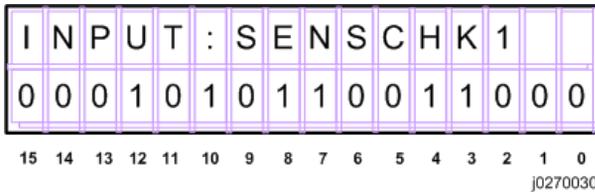
3-009-001	WASHING	Execute Auto Washing
	Executes the automatic flushing procedure.	
3-009-002	CARRIAGE CHANGE	After Carriage Replacement
	Execute this SP after replacing the carriage unit.	

SP5-XXX

Input Check: Sensors

5

5-804-004	INPUT:SENSCHK1	Check Input Sensors
	Use this SP to display the on/off status of each sensor and switch. The status of each sensor (0, 1) is displayed on the 2nd line of the display.	



No.	Meaning	No.	Meaning
0	Top Cover Switch	8	Paper Feed Unit (Tray 2) Relay Sensor
1	Not Used	9	Paper End Sensor (Tray 1)
2	Not Used Duplex Unit Set Sensor	10	Paper End Sensor (Tray 2)
3	Multi Bypass Set Sensor	11	Paper End Sensor (Tray 3)
4	Paper Feed Unit (Tray 2) Set Detection	12	Not Used
5	1st Registration Sensor	13	Ink Level Sensor (Feeler)
6	2nd Registration Sensor	14	Maintenance HP Sensor
7	Trailing Edge Sensor	15	Right Front Cover Switch

Input Check: Sensors

5-804-005	INPUT:SENSCHK2	Check Input Sensors
	Use this SP to display the on/off status of each sensor. The status of each sensor (0, 1) is displayed on the 2nd line of the display.	

I	N	P	U	T	:	S	E	N	S	C	H	K	2		
0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

j0270031

No.	Meaning
0	USB Connection Detection
1	GJ10 Option Detection
2	Not Used
3	Not Used
4	Not Used
5	Paper Feed Unit (Tray 3) Set Detection
6	Paper Feed Unit (Tray 3) Relay Sensor
7	Paper Feed Unit (Tray 2/Tray3) Rear Cover
8	HRB Fuse Blown Detection

Input Check: Temperature and Humidity

5-804-006	INPUT CHK HTEMP	Display Print Head Temperature
	Displays the temperature reading of the print head temperature sensor. Units: 0.1 °C	
5-804-007	INPUT CHK HUTMP	Display Temperature/Humidity Sensor Reading: Temperature

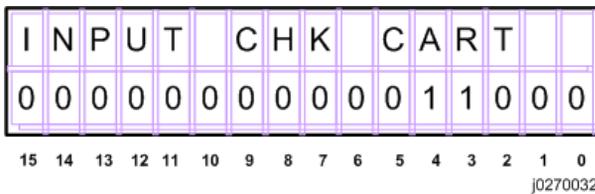
	Use this SP to display the temperature reading of temperature/humidity sensor. Units: 0.1 °C	
5-804-008	INPUT CHK HUM1	Display Temperature/Humidity Sensor Reading: Humidity
	Use this SP to display the humidity reading of temperature/humidity sensor. Units: 0.1%	

Input Check: Air

5-804-009	INPUT CHK AIR1	Tank 1: Analog
5-804-010	INPUT CHK AIR2	Tank 2: Analog
5-804-011	INPUT CHK AIR3	Tank 3: Analog
5-804-012	INPUT CHK AIR4	Tank 4: Analog
	Use this SP to display the analog reading of the air sensor in print head tank.	

Input Check: Ink Cartridge Set Sensors

5-804-015	INPUT CHK CART	Display Status of Ink Cartridge Set Sensors
	Use this SP to display the status of the cartridge set sensors for each ink cartridge. The status of each sensor is assigned to a column in the 2nd line of the operation panel display as shown below.	



No.	Meaning	No.	Meaning
0	K Ink Cartridge Set	8	M Ink Cartridge Refill
1	K Ink Cartridge New	9	Y Ink Cartridge Set
2	K Ink Cartridge Refill	10	Y Ink Cartridge New

No.	Meaning	No.	Meaning
3	C Ink Cartridge Set	11	Y Ink Cartridge Refill
4	C Ink Cartridge New	12	Not Used
5	C Ink Cartridge Refill	13	
6	M Ink Cartridge Set	14	
7	M Ink Cartridge New	15	

Input Check: Ink Cartridge Levels

5-804-016	INPUT CHK RES:Y	Yellow Ink Cartridge
5-804-017	INPUT CHK RES:M	Magenta Ink Cartridge
5-804-018	INPUT CHK RES:C	Cyan Ink Cartridge
5-804-019	INPUT CHK RES:K	Black Ink Cartridge
	Use this SP to display the amount of ink that remains in each ink cartridge. Units: %	

5

Print an Engine Maintenance Summary

5-990-002	PRINT SMC	
	Use this SP to print an engine maintenance summary. You need at least 6 sheets of paper to do this print. It will take at least 3 minutes before the print will start.	

SP7-XXX

Display Count: Machine Total

7-001-001	INIT CNT:A	This counter operates from the initial ink filling after the machine's arrival.
	This total counter starts from "-1", which indicates the flag before the machine's installation.	

7-001-002	LIFE TOTAL CNT	Normal Total Counter
	This total counter starts from "0".	

Display Count: User Cleaning

7-002-001	USER CL CNT:H1	Print Head 1 (C / K)
7-002-002	USER CL CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the total number of print head cleanings executed from the printer driver and from the printer operation panel.	

5

Display Count: User Flushing

7-002-005	USER RF CNT:H1	Print Head 1 (C / K)
7-002-006	USER RF CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the total number of print head flushings executed from the printer driver and from the printer operation panel.	

Date Display SC Log

7-014-003	SC CODE1	Log 1: Previous
7-014-004	SC CODE2	Log 2: Previous-1
7-014-005	SC CODE3	Log 3: Previous-2
7-014-006	SC CODE4	Log 4: Previous-3
7-014-007	SC CODE5	Log 5: Previous-4
	<p>Use this SP to display the SC code history.</p> <ul style="list-style-type: none"> • The occurrences of SC codes are stored in the order 1, 2, 3, 4, 5. • Duplicate occurrences of SC codes are not recorded (each SC code recorded only once). 	

Display Total Count: SC Log

7-014-008	SC COUNT1	Log 1: Previous
7-014-009	SC COUNT2	Log 2: Previous-1
7-014-010	SC COUNT3	Log 3: Previous-2
7-014-011	SC COUNT4	Log 4: Previous-3
7-014-012	SC COUNT5	Log 5: Previous-4
	Use this SP to display the number of times SC codes have been issued. The occurrences of SC codes are stored in the order 1-5.	

Display Jam Log

7-014-013	JAM CODE1	Log 1: Previous
7-014-014	JAM CODE2	Log 2: Previous-1
7-014-015	JAM CODE3	Log 3: Previous-2
7-014-016	JAM CODE4	Log 4: Previous-3
7-014-017	JAM CODE5	Log 5: Previous-4
7-014-018	JAM CODE6	Log 6: Previous-5
7-014-019	JAM CODE7	Log 7: Previous-6
7-014-020	JAM CODE8	Log 8: Previous-7
7-014-021	JAM CODE9	Log 9: Previous-8
7-014-022	JAM CODE10	Log 10: Previous-9
	Use this SP to display the jam code history. The occurrences of jam codes are stored in the order 1-10	

Display Total Count: Jam Log

7-014-023	JAM COUNT1	Log 1: Previous
7-014-024	JAM COUNT2	Log 2: Previous-1

7-014-025	JAM COUNT3	Log 3: Previous-2
7-014-026	JAM COUNT4	Log 4: Previous-3
7-014-027	JAM COUNT5	Log 5: Previous-4
7-014-028	JAM COUNT6	Log 6: Previous-5
7-014-029	JAM COUNT7	Log 7: Previous-6
7-014-030	JAM COUNT8	Log 8: Previous-7
7-014-031	JAM COUNT9	Log 9: Previous-8
7-014-032	JAM COUNT10	Log 10: Previous-9
	Use this SP to display the number of times jam codes have been issued. The occurrences of jam codes are stored in the order 1-10.	

Status Reports

Four reports can be printed to tell you what you know to need about the machine for setting and servicing. This section shows you how to print these reports:

- Page Counter
- Configuration List
- Service Summary
- Engine Summary Chart

The System Summary contains the base system information. The Service Summary also contains not only the base system information but includes other information such as Bit Switch settings, etc. The Service Summary is the more comprehensive report and is only two pages long (the same length as the System Summary.)

Here is a quick reference list that tells what type information is found in each report.

Item	Report Name	
Bit Switch		Service Summary
BRAND NAME	System Summary	Service Summary
Host Interface	System Summary	Service Summary
Interface Information	System Summary	Service Summary
Language	System Summary	Service Summary
Log Data		Service Summary
Maintenance	System Summary	Service Summary
Maintenance Adjustment		Service Summary
Secondary Counter		Service Summary
Duplex Counter		Service Summary
Total Full Color	Page Counter	Service Summary
Total Black	Page Counter	Service Summary
Total Economy Color	Page Counter	Service Summary
Total Black+Economy Color	Page Counter	Service Summary
Coverage Count.	Page Counter	Service Summary

Item	Report Name	
Cartridge Use Number		Service Summary
Manual Maintenance Counter		Service Summary
FAX No	Page Counter	Service Summary
Paper Input	System Summary	Service Summary
Printer Log		Service Summary
Serial No.	Page Counter	
Service Menu		Service Summary
System	System Summary	Service Summary
System Reference	System Summary	Service Summary

1. Page Counter

* ***** ***** *****		
Page Counter	Date	Time
	<u>21/12/2011</u>	<u>21:00:32</u>
Serial No	BCP00000028	
Total Full Color	00000000	
Total Black	00000000	
Total Economy Color	00000000	
Total Black+Economy	00000000	
Total Duplex	00000000	
Coverage Count.		
Full Color Coverage	00000000	
Black Coverage	00000000	
Black+Economy Color Cover.	00000000	
FAX No.	(Not used)	

j0270026

The counter lists the number of prints. The print totals do not include the number of test patterns that have been printed. The counter keeps totals for these items:

- **Date, Time.** The date is displayed DD/MM/YY, the time is 24-hour time hh:mm:ss.
- **Total Full Color.** The total number of sheets printed with in color.
- **Total Mono Color.** The total number of sheets printed in monochrome.
- **Total Duplex.** The total number of sheets printed on both sides.

1. [▼/Menu]> "Counter"> [#Enter]> "Show Counter"
2. [▼/Menu] or [▲]> "Print"> [#Enter]>"Press # Key"> [#Enter]

↓ Note

- A printed single-sided sheet counts as "1".
- A printed double-sided sheet counts as "2".
- The counter limit is 99,999.

2. Config. List

The System Summary lists information about the configuration of the machine.

★ Important

- This report does not show the log data. To see the log data, print Service Summary.

System Summary	
	Date
	21/12/2011
	Time
	21:00:32
BRAND NAME	Aficio SG7100DNw
System Reference	
Machine ID	PBC0000028
Pages Printed	000020
Total RAM	16777216 byte
System Version	1.0.0
NV Version	0.31
UPD Version	0.03
Connection Equipment	NIC
Printer Language	RPCS
Ink Remaining:	
Black	40%
	40%

j0270027a

To print the Service Summary:

1. Confirm that paper is loaded in the paper tray.
2. [▼/Menu]> "Counter"> [▲] or [▼/Menu]> "List/Test Print".
3. [#Enter]> "Config. Page"> [#Enter]> "Processing..."

3. Service Summary

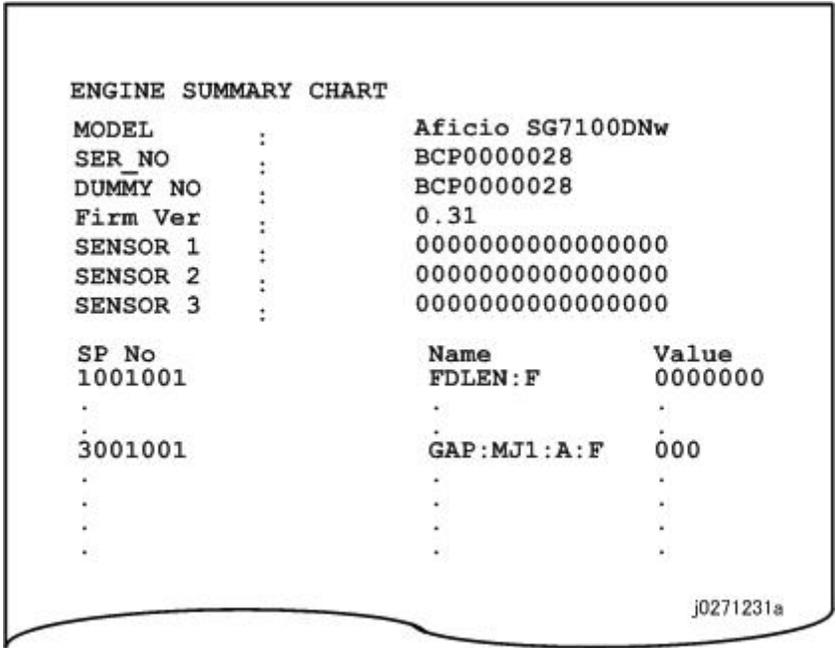
Service Summary		
	Date	Time
	21/12/2011	21:00:32
BRAND NAME	Aficio SG7100DNw	
System Reference		
Machine ID	BPC0000028	
Pages Printed	000020	
Total RAM	16777216 byte	
System Version	1.0.0	
NV Version	0.31	
Total Mono Color Cartridge Use Number		
Black	00000	00001
Cyan	00000	00001
Magenta	00000	00001
Yellow	00000	00001
Manual Maintenance Counter		
Head-cleaning	<H1>	<H2>
Flushing	00000	00001

j0270028a

1. Enter the Service Menu.
2. [#Enter]> "Bit Switch"> [▲] or [▼/Menu]> "Service Summary"
3. [#Enter]> "Press # to Start"> [#Enter]

4. Engine Summary Chart

The Engine Summary Chart lists all the current SP code settings.



To print the Engine Summary Chart:

1. Confirm that paper is loaded in the paper tray. (The report is about 6 pages long.)
2. Enter the Service Menu.

```

SYSTEM Ver. nnn
Service Menu
    
```

3. [▼/Menu]> "Engine Maint."

```

SP No.
5990002
    
```

4. Using [▲] or [▼/Menu], enter "5990002".

```

PRINT SMC
5990002
    
```

5. [#Enter].

```

PRINT SMC
EXEC
    
```

6. [#Enter].

OK?

7. [#Enter].
 - Wait for the report to print (it does not start immediately).
 - Printing requires about 2 min.
8. Exit the Service Menu, and switch the machine off.
9. [Power] to switch the machine on.

Here is a brief summary of what is listed in the Engine Summary Chart.

Heading	Meaning
MODEL	Number of the Printer Model
SER_NO	Printer Serial Number
DUMMY_NO	
Firm Ver	Version number of the firmware in the printer
SENSOR 1	See details below.
SENSOR 2	
SENSOR 3	
SP No, Name, Value	SP number, name, value of current setting

Sensor 1: Input Sensors (1 of 2)

The status of these sensors are also displayed by SP5-804-004.

No.	Meaning	No.	Meaning
0	Top Cover Switch	8	Paper Feed Unit (Tray 2) Relay Sensor
1	Not Used	9	Paper End Sensor (Tray 1)
2	Duplex Unit Set Sensor	10	Paper End Sensor (Tray 2)
3	Multi Bypass Set Sensor	11	Not Used
4	Paper Feed Unit (Tray 2) Set Detection	12	Not Used
5	1st Registration Sensor	13	Ink Level Sensor (Feeler)
6	2nd Registration Sensor	14	Maintenance HP Sensor

No.	Meaning	No.	Meaning
7	Trailing Edge Sensor	15	Right Front Cover Switch

Sensor 2: Input Sensors (2 of 2)

The status of these sensors are also displayed by SP5-804-005.

No.	Meaning
0	USB Connection Detection
1	GJ10 Option Detection
2	Jam Wheel Cover Switch
3	Tray 1 Cover
4	Not Used
5	Not Used
6	Not Used
7	Paper Feed Unit (Tray 2) Rear Cover
8	HRB Fuse Blown Detection

Sensor 3: Ink Cartridge Sensors

The status of these sensors are also displayed by SP5-804-015.

No.	Meaning	No.	Meaning
0	K Ink Cartridge Set	8	M Ink Cartridge Refill
1	K Ink Cartridge New	9	Y Ink Cartridge Set
2	K Ink Cartridge Refill	10	Y Ink Cartridge New
3	C Ink Cartridge Set	11	Y Ink Cartridge Refill
4	C Ink Cartridge New	12	Not Used
5	C Ink Cartridge Refill	13	
6	M Ink Cartridge Set	14	
7	M Ink Cartridge New	15	

Firmware Updates

Operating Environment and Other Requirements

If the machine is connected to computers by network peer-to-peer or directly via a single USB cable, successful updates are guaranteed.

Supported Operating Systems

- Windows XP
- Windows XP (x64)
- Windows Vista
- Windows Vista (x64)
- Windows 7
- Windows 7 (x64)
- Windows Server 2003
- Windows Server 2003 (x64)
- Windows Server 2008
- Windows Server 2008 (x64)

You must login as an administrator or as a user with administrator privileges.

About Printer Drivers

Printing is possible provided the printer's driver is installed.

Update Cautions

Caution 1

Before performing updates, check your computer's power options: make sure [Put the computer to sleep] is set to "Never".

To check your computer's Power Options under Windows 7 (procedures for other operating systems will differ):

1. Click the [Start] menu.
2. Click [Control Panel].
3. Click [Hardware and Sound].
4. Click [Change when the computer sleeps].
5. Make sure [Put the computer to sleep] is set to "Never".

Caution 2

During updates, make sure the machine's power is not turned off and the network or USB cable remains connected. Also, during updates, do not print any jobs or run applications that use the printer driver, Status Monitor, or SmartDeviceMonitor.

Caution 3

If the machine's power is turned off or the USB or network cable is disconnected during updates, the update will fail and must be performed again.

Caution 4

During updates, do not put the computer into [Put the computer to sleep] manually.

Caution 5

If you want to use the SmartDeviceMonitor port to update the firmware over a network, be sure to uncheck the [Use Extended Features] check box of SmartDeviceMonitor for Client.

Caution 6

During updates, do not put the computer into [Put the computer to sleep]

Bidirectional communication is not available if you are running SmartDeviceMonitor port under a 64-bit operating system. If you are using a 64-bit operating system, see "Bidirectional-Disabled", and perform the update procedure.

Firmware Update Operating Instructions

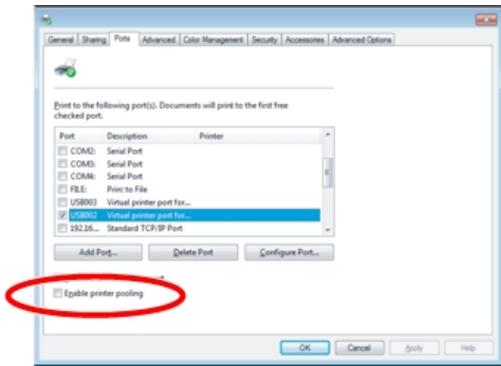
These instructions explain how to update the firmware of the machine.

Before you start the update, make sure of the following:

- The machine is in standby mode.
- No applications are running on the computer.
- The machine is connected to the computer with a USB cable or via network peer-to-peer.

Note

- Depending on the printer driver and its settings, update procedures might vary.



j0271205

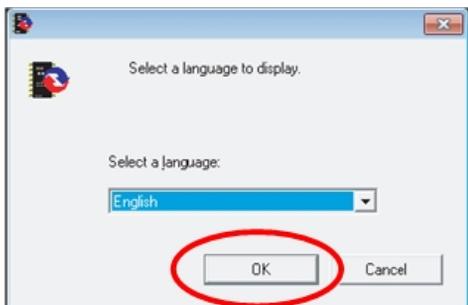
Open the properties dialog box for the machine in use and check the port status.

- If "bidirectional support" has been enabled in the printer properties dialog box:
Update the firmware by following the update procedure shown in "Bidirectional-Enabled".
- If "bidirectional support" in the printer properties dialog box has been disabled:
Update the firmware by following the update procedure shown in "Bidirectional-Disabled".
We recommend you enable bidirectional support.

5

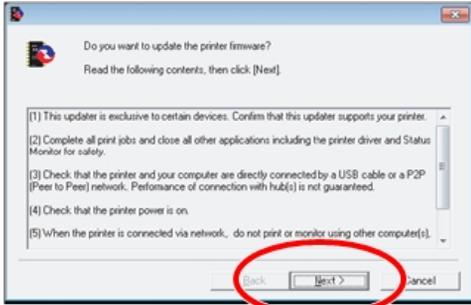
Bidirectional-Enabled

1. Double-click [Product Name_VX.XX_g_upd.exe] to start the update.
Product Name represents the machine name; VX.XX, the version.



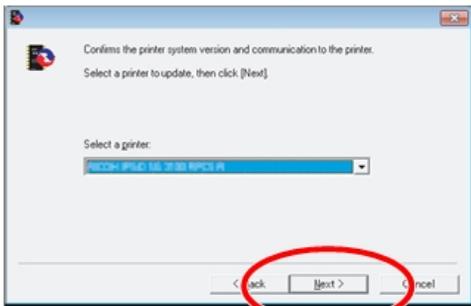
j0271199

2. Select [English], and then click [OK].



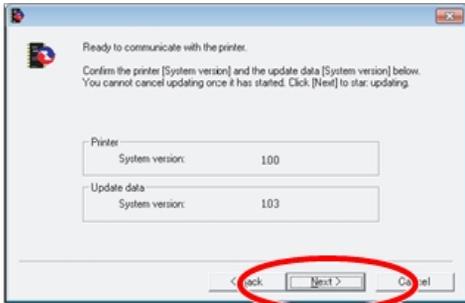
j0271200

3. The following screen appears. Check the displayed details, and then click [Next >].



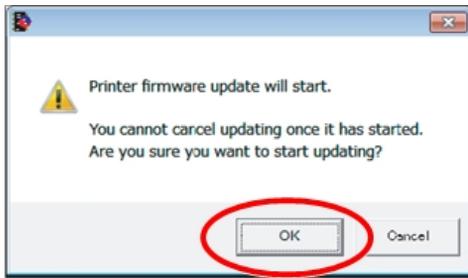
j0271201

4. Select the machine name, and then click [Next >].



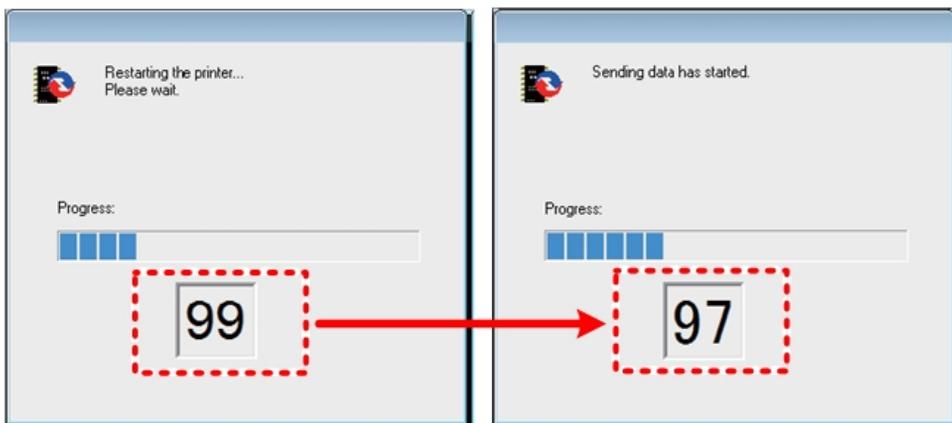
j0271206

5. Check that the system version for [Update data] is later than the system version for [Printer], and then click [Next >].



j0271202

6. Click [OK].



j0271207

7. Updating starts.
8. Do not switch the machine off while updating.
9. The machine is switched back on automatically.
10. After updating, check the version, and then click [Finish].

Bidirectional-Disabled

This section explains how to update the bidirectional-disabled printer driver.

To update the firmware when bidirectional communication is disabled, read "Update Cautions", and then check the following:

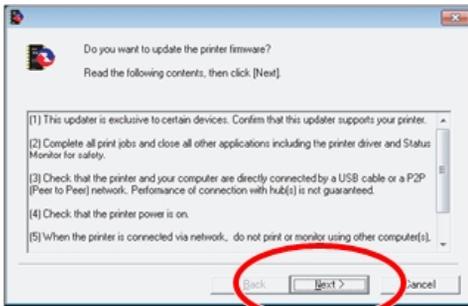
- You must be able to view the machine's control panel.
- The procedure requires you to check the machine's status on the control panel. Make sure you are able to view the machine's control panel when updating the firmware.
- Check the current firmware version and the firmware version you want to install. Take care to install only firmware versions that are later than the version that is already installed.

1. Double-click [Product Name_VX.XX_g_upd.exe] to start the update.
Product Name represents the machine name; VX.XX, the version.



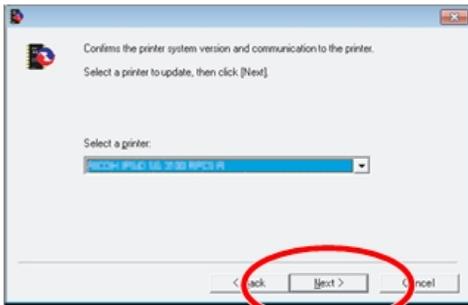
j0271199

2. Select [English], and then click [OK].



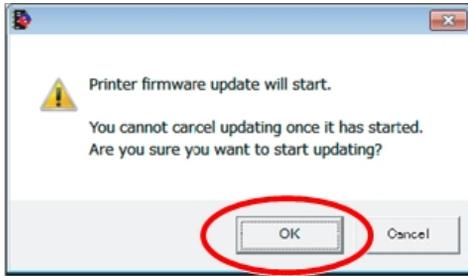
j0271200

3. The following screen appears. Check the displayed details, and then click [Next >].



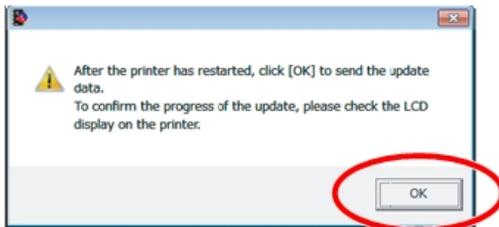
j0271201

4. Select the machine name, and then click [Next >].



j0271202

5. After checking the following, click [OK].
 - A functional machine has been selected.
 - The machine is not offline.
 - The machine is available and not currently inactive.
 - There are no remaining print jobs displayed on the task bar.
 - Check the control panel for the next step.
6. Check that the message "Waiting for Data" is displayed on the machine's control panel.



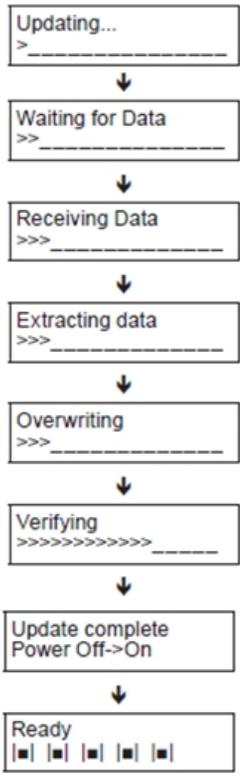
j0271203

7. Click [OK].
8. Updating starts.

Check the update progress displayed on the LCD of the machine's control panel.

When the "Ready" message appears, the machine is ready to print.

The progress of the update is displayed on the LCD of the machine's control panel in the following order.



j0271204

5

- 9. After the update, check that the new firmware version is displayed.
- 10. The update is complete.

6. Troubleshooting

Troubleshooting Guide

See "Appendices" for the following information:

- Operation Panel Display
- Operation Panel Messages
- Service Call Conditions
- Jam Codes
- Status Monitor Messages

Image Problems

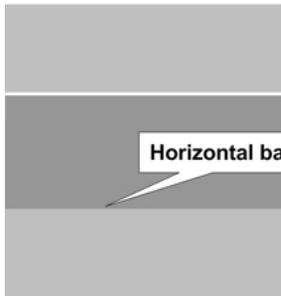
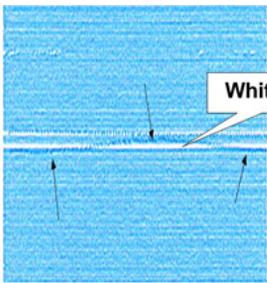
Basic Check Points and Specifications

Work environment	<p>Is there a problem at the printer location?</p> <ul style="list-style-type: none"> • Make sure that the printer is level. Place the printer in a location where it will not be subject to shaking or excessive force. • Make sure the temperature and humidity are within the acceptable ranges: Temperature: 10° C to 32°C (50°F to 89.6°F) Humidity: 15% to 80% rH
Ink cartridge	<p>Is an old print cartridge being used?</p> <ul style="list-style-type: none"> • Print cartridges should be opened before their expiration date and used within six months of being opened. Use new cartridge. • To replace all ink inside the print head tank, perform print head flushing 4 times.
	<p>Is a genuine print cartridge being used?</p> <ul style="list-style-type: none"> • Using a cartridge other than a genuine print cartridge or using a cartridge refilled with ink will lower the print quality and could cause a breakdown. • Always use a genuine print cartridge.
Paper	<p>Printing on the wrong side of the paper?</p> <ul style="list-style-type: none"> • Check which side should be printed on when using inkjet plain paper. • If you print on the wrong side, the quality of the printing may be lower and the inside of the printer may get dirty.
	<p>Are you using damp paper?</p> <ul style="list-style-type: none"> • Paper can absorb moisture in a humid environment. • Damp paper tends to curl more. This can interfere with paper transport inside the printer and result in poor image quality.
	<p>Is the paper too thick or too thin?</p>

	<ul style="list-style-type: none"> • Check the paper specifications to be sure that the paper is within the range of paper thickness allowed for the printer. • The print heads can abrade extremely thick or thin paper and cause smears and running.
Driver settings	Is the driver setting correct for the paper size?
	<ul style="list-style-type: none"> • Open the printer driver. • Make sure that the paper size setting in the printer driver is correct for the paper in use. • Check the settings in the "Print On:" list in the Printer Properties dialog box.
	Is the driver setting correct for the paper type?
	<ul style="list-style-type: none"> • Open the printer driver. • Make sure that the paper type setting in the printer driver is correct for the paper in use. • Check the settings in the "Print On:" list in the Printer Properties dialog box.
	Have the print quality settings been made?
	<ul style="list-style-type: none"> • Open the printer driver • In the "Select Print Quality:" box, check and set the "Quality Priority" and "Speed Priority" settings for the job.
Application	Does the same problem occur with other applications?
	<p>Confirm whether the problem occurs with only one application or with other applications as well.</p> <ul style="list-style-type: none"> • If the problem does not occur with another application use that application to do the print job. • If the problem occurs with the same file using other applications, try saving the file under a different name and then printing out this renamed file.
Firmware	Has the firmware in the machine been updated to the latest version?
	If not, update the firmware to the latest version.

Problems and Solutions

White lines, horizontal banding



j017t021

1. Are nozzles clogged?

Print out the nozzle check pattern and check if any of the nozzles are clogged. If there is a blockage, start the cleaning procedure for the print head(s) in question.

Note: In some cases, this will only solve the problem temporarily. If the problem persists, clean the maintenance unit.

Cleaning Sequence To Solve the Problem:

1. Nozzle check
2. Head cleaning
3. Nozzle check
4. Leave the machine 5 to 10 minutes
5. Do Steps 2, 3 twice
6. Head flushing
7. Nozzle check
8. Leave the machine 8 hours
9. Nozzle check

2. Are all adjustments correct?

Check and adjust the paper feed.

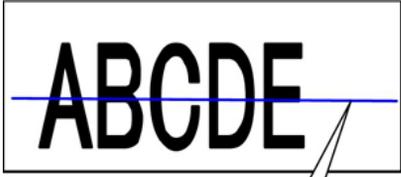
3. If none of the above work

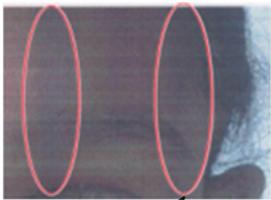
Note: If the operator prints out an image comprised mainly of photos or solid filled areas , horizontal lines may still appear on the printouts after performing the recommended action.

The machine needs to be repaired.

- Ink built-up in maintenance unit, or maintenance unit failed. Clean or replace maintenance unit.
- Vertical encoder wheel dirty or damaged. Clean or replace vertical encoder wheel
- Print head failed. Replace the carriage unit.

Horizontal lines on the margin

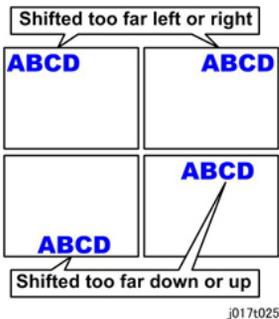
 <p>Horizontal lines on margin</p> <p>j017t022</p>	<p>1. No action</p>
	<p>Due to print head failure, the machine needs to be swapped. It cannot be repaired. Replace the carriage unit.</p>

<p>Vertical lines, vertical banding</p>	
 <p>Vertical lines/banding</p>  <p>White lines/banding</p> <p>j017t023</p>	<p>1. Are all adjustments correct?</p> <p>Check and adjust the head position.</p>
	<p>2. If none of the above work</p> <p>The machine needs to be repaired.</p> <ul style="list-style-type: none"> • The horizontal encoder sheet may be dirty, damaged, or installed incorrectly. • Clean or replace horizontal encoder strip.

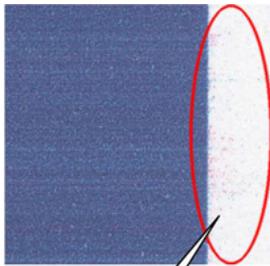
- Image blurred, misaligned
- Poor color, uneven density
- Double printing

<p>Blurred</p> <p>Misaligned</p> <p>Poor color</p> <p>Uneven density</p> <p>Double printing</p> <p>Misaligned printing</p> <p>j017t024</p>	<p>1. Is the envelope lever set forward at the standard position?</p> <p>Pull the lever forward to the standard position.</p> <p>2. Are the nozzles clogged?</p> <p>Print out the nozzle check pattern and check if any of the nozzles are clogged. If there is a blockage, start the cleaning procedure for the print head(s) in question.</p> <p>Note: In some cases, this will only solve the problem temporarily. If the problem persists, clean the maintenance unit.</p> <p>Cleaning Sequence To Solve the Problem:</p> <ol style="list-style-type: none"> 1. Nozzle check 2. Head Cleaning 3. Nozzle check 4. Leave the machine 5 to 10 minutes 5. Do Steps 2, 3 twice 6. Head flushing 7. Nozzle check 8. Leave the machine 8 hours 9. Nozzle check <p>3. Are all the adjustments correct?</p> <p>Check paper feed and adjust as necessary.</p> <p>4. If none of the above work</p> <p>The machine needs to be repaired:</p> <ul style="list-style-type: none"> • Horizontal encoder strip dirty, damaged. Clean or replace horizontal encoder strip. • Carriage cover over the 1st registration sensor is loose, missing or damaged. Attach the cover correctly or replace it.
--	--

Misaligned printing

	<p>1. Is the envelope lever set forward at standard position?</p>
	<p>Set the envelope lever to standard position.</p>
	<p>2. Is the paper set correctly?</p>
	<p>Reset the side fence and end fence.</p>
	<p>3. Are all the adjustments correct?</p>
<p>Check registration and adjust as necessary.</p>	
<p>4. Check inside the machine.</p> <ul style="list-style-type: none"> • Rotate the transfer belt manually. • Check to see if there are any paper fragments or ink on the belt surface. • If you see anything on the belt, feed a blank sheet through the machine in de-condensation mode to clean the belt. 	
<p>5. If none of the above work</p> <p>The machine needs to be repaired:</p> <ul style="list-style-type: none"> • Horizontal encoder strip is dirty or damaged. Clean or replace horizontal encoder strip. • Vertical encoder wheel dirty or damaged. Clean or replace vertical encoder wheel. • Carriage cover missing or damaged. Re-attach or replace carriage cover. • Transfer belt dirty or damaged. Clean transfer belt. • Replace the carriage unit. 	

Ink scatter



Scattered ink dots

j017t026

1. Is the enabler lever set forward at standard position?

Pull the lever forward to the standard position.

2. Are the ink nozzles clogged?

Print out the nozzle check pattern and check if any of the nozzles are clogged. If there is a blockage, start the cleaning procedure for the print head(s) in question.

Note: In some cases, this will only solve the problem temporarily. If the problem persists, clean the maintenance unit.

Cleaning Sequence To Solve the Problem:

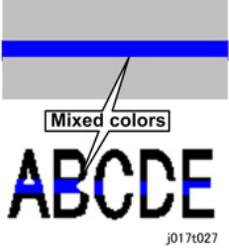
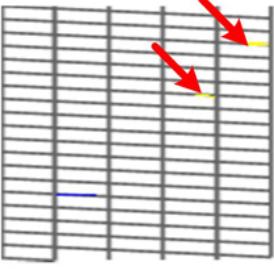
1. Nozzle check
2. Head Cleaning
3. Nozzle check
4. Leave the machine 5 to 10 minutes
5. Do Steps 2, 3 twice
6. Head flushing
7. Nozzle check
8. Leave the machine 8 hours
9. Nozzle check

3. If none of the above work

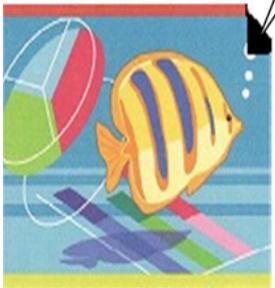
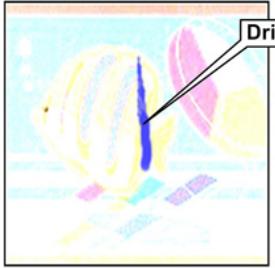
The machine needs to be repaired:

- Replace maintenance unit. Ink build-up or maintenance unit may have failed.
- Replace the carriage unit.

Mixed colors

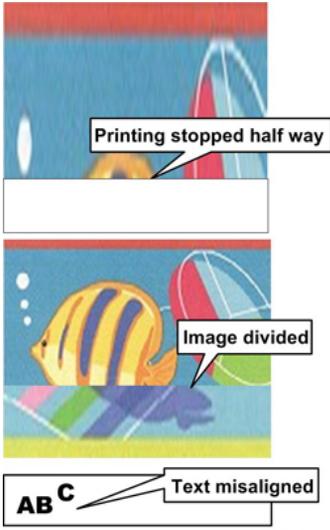
 <p>Mixed colors ABCDE j017t027</p>	<h3>1. Are the ink nozzles clogged?</h3>
	<p>Print out the nozzle check pattern and check if any of the nozzles are clogged. If there is a blockage, perform the cleaning procedure on the print head(s) in question. If any of the lattice patterns show ink mixing (e.g., yellow ink appears on the lattice pattern for black), perform cleaning on the print head for that lattice pattern.</p>
	 <p>j017t033</p> <p>Note: In some cases, this will only solve the problem temporarily. If the problem persists, clean the maintenance unit.</p>
	<h3>2. If none of the above work</h3>
	<p>The machine needs to be repaired:</p> <ul style="list-style-type: none"> • Replace the maintenance unit. Ink has built up or the unit has failed.

Output dirty, ink running

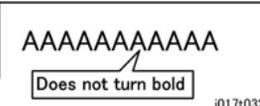
 <p>Abraded by print head</p>  <p>Bent by print head</p>  <p>Dripped ink</p> <p>j017t028</p>	<p>1. Is the envelope lever set forward at standard position?</p> <p>Pull the lever forward to the standard position.</p> <p>2. Is the paper set correctly?</p> <ul style="list-style-type: none"> • Adjust the side fences and end fence of the paper cassette • Make sure the edges of the paper are properly aligned • Make sure the paper does not have any folds • Make sure the paper exit tray has been lowered (closed) <p>3. Check inside the machine.</p> <ul style="list-style-type: none"> • Rotate the paper transport belt and check for any ink leakage or paper fragments. • Check to see if there are any paper fragments behind the carriage unit or maintenance unit. If there are, remove them if possible. After removing them, perform the cleaning procedure. <p>4. If none of the above work</p> <p>The machine needs to be repaired:</p> <ul style="list-style-type: none"> • Transport belt dirty or damaged. Clean transport belt. • Replace the carriage unit.
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<p>Light density</p>	
 <p>Low density (too light)</p> <p>j017t029</p>	<p>1. Change the driver settings.</p> <ul style="list-style-type: none"> • Disable "Economy Color" in the printer driver. • If this occurs when performing duplex jobs (as image density tends to be lighter with duplex prints on this model), try printing in simplex mode. <p>2. If none of the above work</p> <p>This is product specification.</p>

<p>Abnormal image</p>

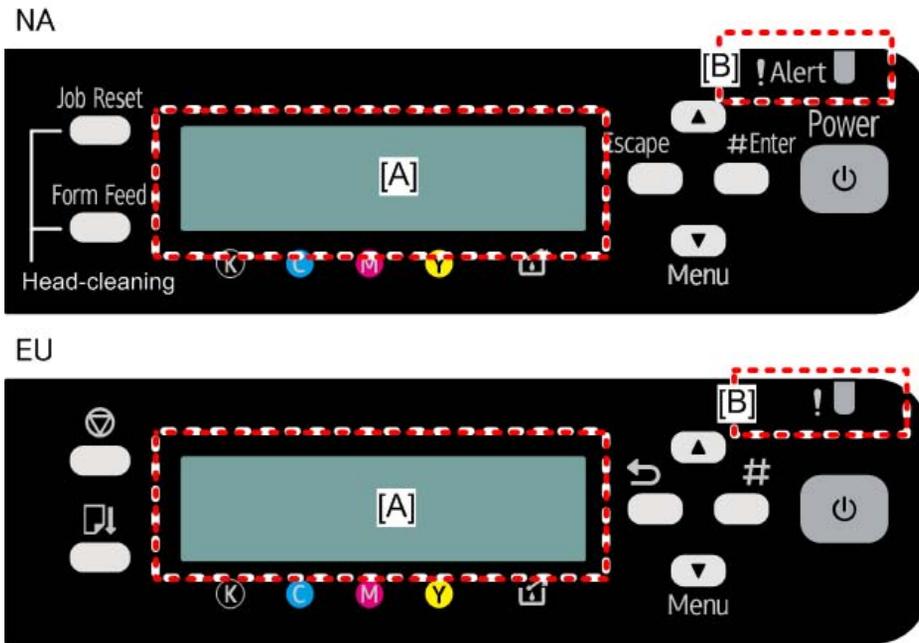
 <p>Printing stopped half way</p> <p>Image divided</p> <p>Text misaligned</p> <p>ABC</p> <p>j017t030</p>	<p>1. Check the type and condition of the paper.</p> <ul style="list-style-type: none"> • Check the paper size. • If the operator is using paper with lines already printed on it, with an image already printed on the rear side, or with holes in the paper, try printing onto blank white paper that does not have holes. <p>2. Is the ink cartridge empty, or has the printer job been canceled?</p> <ul style="list-style-type: none"> • Check the amount of ink remaining. • Confirm whether [Cancel] was pressed. This is possible from the PC in cases where the Ink End or Paper End condition has stopped the print job. <p>3. If none of the above work</p> <p>The machine needs to be repaired:</p> <ul style="list-style-type: none"> • Controller board failure, replace controller board.
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<p>Skew</p>	
 <p>Skewed image</p> <p>j017t031</p>	<p>1. Is the paper set correctly?</p> <p>Re-set the side fences and end fence of the paper cassette.</p> <p>2. Check inside the machine.</p> <p>Confirm whether there are any fragments of jammed paper still inside the machine (especially in the rear area of the paper feed tray).</p> <p>3. If none of the above work</p> <p>This is product specification.</p>

<p>Font does not get bold.</p>	
 <p>Does not turn bold</p> <p>j017t032</p>	<p>1. Printer driver settings correct?</p> <p>Check the "Bold Text Adjustment" checkbox.</p> <p>2. If none of the above work</p> <p>This is product specification.</p>

Error Codes

Operation Panel Display



j0270029

Messages follow a priority in keeping the operator informed about the status of the machine.

- The LCD [A] and Alert LED [B] are used to indicate errors.
- If two or more status messages are issued at the same time, the message with the highest priority is displayed first.
- The table below shows the priority of how status messages are displayed on the operation panel.

Error Priority Table

Priority	Error Type	Alarm LED (Red)	LCD Display
High	SC	Lighting	No. Display
	Operator Call	Lighting	Message Display
	Normal Status	Warning Condition	
Low		Diagnostic Error	

- There are two types of error display, one uses text messages and another uses numbers.

Error Classifications

Error Type	Description	Main Error
Warning Condition	The machine can print, but the warning message is issued to the operator because the machine will stop printing if the condition is left unattended and not corrected.	<ul style="list-style-type: none"> • Left ink sump near full • Ink collector unit near full • Ink low • Print head maintenance failed • Temperature out of operation range • Ink filling
Abnormal Conditions	An abnormal condition exists that prevents the machine from printing. The machine cannot print until the condition has been corrected. Once the condition has been corrected, the machine can resume printing without cycling the machine off/on. The corrective measures can be done by the operator to restore operation.	<ul style="list-style-type: none"> • Ink cartridge empty (printing possible) • Ink cartridge empty (printing not possible) • Ink end print error • Used ink cartridge • Ink collector unit full • Used ink collector unit • Paper jam • Confirmation after re-filling • Cover Open • Unit not detected • Paper jam • Print Cartridge(s) Not Detected/Cover Open • Paper size or paper type mismatch error • Paper size error • No paper present • Temperature out of operation range

Error Type	Description	Main Error
Breakdown or failure error (SC)	An abnormal condition exists indicating a breakdown that prevents the machine from printing. After the cause of the problem has been removed, the machine must be cycled off/on to restore normal operation. The machine basically requires servicing (the problem cannot be solved by the operator).	See the "Error Code" table.
Print/Data Errors	The designated print operation cannot function, or there is a print data error.	<ul style="list-style-type: none"> • Memory overrun • Work memory overrun • Data flow interruption
Diagnostic Error	The machine fails to operate due to a problem with the CTL board or a controller option.	<ul style="list-style-type: none"> • Parallel interface error • Memory error • Flash memory error

Temperature Range Errors

At power on	At power on, the printer is ready to print and Ready status is maintained	Once the machine has entered the usable temperature range that guarantees optimum operation, the machine automatically enters the Ready status.
Printing...	Operation has been interrupted to wait for the machine to resume the Ready status.	Maintains machine Ready status. The machine needs to be cycled off/on.

- Once the machine falls below or exceeds the usable temperature range, quality printing can no longer be assured so an error message will alert the operator that printing will stop until normal temperature has been restored.
- If such an error occurs, the machine should be moved to a location where ambient temperature is 10 to 32° C (50 to 89.6F).

Operation Panel Messages

1. Normal Status

No.	Message	Action
01	Loading Ink... / WAIT! N minutes	Ink being filled. "N" indicates time required for this operation. Do not touch any keys during the operation.
02	Processing...	Print job is in progress.
03	Ready	Machine is ready to print.
04	Waiting...	Printer is warming up or waiting for print job data.
05	Resetting Job...	A print job is being reset. Wait a few moments.
06	Setting Change...	Print settings are being updated. Wait a few moments.
07	Panel Locked Cannot use	You have pressed a locked key on the operation panel, so release the lock.
08	Maintenance in Process...	Print head cleaning or flushing is in progress. Wait for print head maintenance to finish.
09	Page Drying...	Being dried.
10	Cleaning Feed Belt...Wait 2min	Charge leakage is being removed.
11	Shutting down...	This appears while the machine shuts down.

2. Diagnostic Errors

No.	Message	Action
12	Hardware Problem: Ethernet Board	Ethernet error occurred. Disconnect all connected cables, and then cycle the machine off/on. If this message is displayed again, call for service.

3. Warning Errors

No.	Message	Action
13	Low Ink	Ink cartridge is almost empty. Note the color of the ink cartridge where ink supply is low, and then procure and new cartridge of the same color.

No.	Message	Action
14	Temp. alert Please wait...	Machine temperature was abnormal at power on. Wait for the "Ready" message.
15	Right Int. Unit almost full	Replace the internal unit (right ink sump).
16	Indepdnt.ink set --or-- Indepdnt.ink set / Replace Ink Crtg --or-- Indepdnt.ink set / Press # to continue	An ink tank cartridge unapproved for use with this machine has been installed. Use of ink cartridges not approved for use with this machine, or attempting to re-fill depleted ink cartridges, will diminish print quality. Always use new Ricoh ink cartridges specifically designed for use with these machines.
17	Maint. failed Press # to exit	Print head cleaning, print head flushing, or another operation failed. The machine can be released from the error by one of the following conditions. <ul style="list-style-type: none"> • When the next job request is detected • After the [#] key is pressed
18	Prepare new Ink Collector Unit	The ink collector unit is almost full. Make sure you have a new ink collector on hand. If a print cartridge starts running out of ink when the ink collector unit is almost full, the alert indicator will flash and a message informing you of the cartridge's low ink level will appear on the display. To prevent job delay due to a full ink collector unit, always have a new ink collector unit ready.

4. Operator Calls

No.	Message	Action
19	Open Front Cover / Replace Ink Crtg	Ink cartridge is empty. Replace the empty cartridge with a new one.
20	Open Front Cover / Reset Cartridge	Ink cartridge is not installed. Or, the ink cartridge is installed but not set correctly. Set the ink cartridge correctly.

No.	Message	Action
21	Cannot recover error page(s) / FormFeed to print remaining	An unprinted page still remains after recovery from a paper jam or another problem and re-starting printing. Press [Form Feed] to eject the sheet. Press [Job Reset] to delete any data remaining from the previous job.
22	Top Cover is open /Close Top Cover	The top cover is open. Check and close the top cover.
25	Cannot use High Temp./ Power Off On	Machine temperature is high and has exceeded the high temperature range for normal operation. Re-locate the machine to a location within the temperature range and wait for the machine to acquire room temperature.
26	Cannot use Low Temp./Power Off On	Machine temperature is low and has fallen below the low temperature range for normal operation. Re-locate the machine to a location within the temperature range and wait for the machine to acquire room temperature.
27	Ink depleted / Used Ink Ctrrdge	A used print cartridge has been installed. Install a new print cartridge.
28	Used Ink Collect Unit is set/ Replace Ink Collector Unit	A used ink collector unit has been installed. Install a new ink collector unit.
29	Reset Bypass Tray correctly	Multi bypass tray unit is not set correctly. Make sure that the multi bypass tray is set correctly.
30	Load Paper:Tray 1 --or-- Load Paper:Tray #/ or Form Feed --or-- Load Ppr.:Bypass / or Form Feed	Paper has run out in the selected tray. Load paper in the selected tray. Or, press [Form Feed] and select another tray holding paper for printing. Press [Job Reset] to delete any data remaining from the previous job. The tray numbers depend on the machine model. <ul style="list-style-type: none"> The trays are designated Tray 1, 2 or Bypass.

No.	Message	Action
31	Change Setting Tray # / (paper size) (paper type)	<p>The type and/or size of paper in the selected tray do not match the type and/or size of the paper selected for the job. Replace the paper in the tray with paper of the size/type selected for the job, and then change the paper size/type on the operation panel. Or, press [Form Feed] and select another tray holding paper of the size/type selected for printing. Press [Job Reset] to delete any data remaining from the previous job. The tray numbers depend on the machine model.</p> <ul style="list-style-type: none"> The trays are designated Tray 1, 2 or Bypass.
32	Load Paper or Form Feed/ (paper size) (paper type)	<p>When using Auto Tray Select, the type and/or size of the paper in any of the paper trays does not match the type and/or size of the paper selected for the job. Replace the paper in the tray with paper of the size/type selected for the job, and then change the paper size/type on the operation panel. Or, press [Form Feed] and select another tray holding paper of the size/type selected for printing. Press [Job Reset] to delete any data remaining from the previous job. The tray numbers depend on the machine model.</p> <ul style="list-style-type: none"> The trays are designated Tray 1, 2 or Bypass.
33	Ink Collector is not set/Set the Ink Collector Unit	The replaceable ink collector unit is not set correctly. Set the ink collector unit correctly.
34	Ink Collector Unit is full/ Replace Ink Collector Unit	Ink collector unit is full. Replace the ink collector unit.
35	Right Front Cover is open / Close Right Front Cover	The right front door is open Close the right front door.
36	Open Front Cover /Replace Ink Crtg	Ink cartridge has run out for the color indicated on the operation panel display. Replace the ink cartridge for the color indicated on the operation panel display.
37	Paper Misfeed / Press Form Feed	Paper failed to feed from the specified tray. Press [Form Feed] to eject the sheet.
38	Remove Misfeed Open Top Cover/Press Form Feed, remove misfeed	Paper scraps remain in the machine, or a jammed sheet has not been removed. Press [Form Feed] to eject the sheet, and then, remove the paper from the area below the top cover.

No.	Message	Action
39	Paper Misfeed Bypass Tray/ Reset Paper	Paper has jammed in or failed to feed from the multi bypass tray. Remove the paper from multi bypass tray.
40	Paper Misfeed Tray 2/ Reset Paper	Paper has jammed in or failed to feed from Tray 2. Remove the paper from Tray 2.
41	Paper Misfeed Tray 1/ Reset Paper	Paper has jammed in or failed to feed from Tray 1. Remove the paper from Tray 1.
42	Remove Misfeed Open Top Cover / Press Form Feed, remove misfeed	Paper has jammed in or failed to feed from in the area below the top cover. Remove the paper from the area below the top cover.
43	Paper Misfeed Remove Duplex or/ Tray2 Rear Cover remove misfeed	Paper has jammed in or failed to feed from the duplex unit or feed unit of Tray 2. Remove the paper.
44	Remove Misfeed Duplex Unit/ Remove Misfeed from Duplex Unit	Paper has jammed in or failed to feed from the duplex unit. Remove the paper from the duplex unit.
45	Reset Duplex Unit correctly	The duplex unit is not mounted correctly and/or the duplex unit cover is open. Mount the duplex unit correctly and close the duplex unit cover.
46	Paper Misfeed Remove all Rear/Covers then remove misfeed	The fed paper has failed to reach the Tray 2 relay sensor. Remove the paper.
47	Paper Misfeed remove Tray 2/or Rear Covers, remove misfeed	The paper fed from Tray 2 is jammed in the Tray 2 paper path. Remove the paper.
48	Paper Misfeed remove Rear Covers, remove misfeed	The paper fed from the tray is jammed in the Tray paper path.
49	Paper Misfeed remove Tray 2 or Rear Covers, remove misfeed	The paper fed from Tray 2 is jammed in the Tray 2 paper path. Remove the paper.

5. ERR

No.	Message	Action
50	SCXXX-XX Power Off On / Call Service if error reoccurs	An error has occurred. Cycle the machine off/on. If this message is displayed again, call for service.

Service Call Conditions

SC code display patterns and how to clear them

Pattern	Display/Description	How to clear the SC code	SC call/alarm for customer support
A	An SC code appears on the control panel and the machine becomes inaccessible (Safety-related SC).	The service engineer must reset the machine. Enter the SP mode, turn the main power switch off and then back on.	Occurrence & alarm count => reports immediately.
B	When a function is selected, an SC code appears on the control panel and the machine becomes inaccessible.	The user must reset the machine. Turn the power key or the main power switch off and then back on.	Occurrence & alarm count => Turn the main power switch off and then back on. => Alarm count and reporting is performed only if it occurs again.
C	The SC code does not appear on the control panel and the machine remains accessible.	Only the logging is counted.	Occurrence => Logging count and alarm count
D	An SC code appears on the control panel and the machine becomes inaccessible (machine error SC).	The user must reset the machine. Turn the power key or the main power switch off and then back on.	Occurrence & alarm count => Turn the main power switch off and then back on. => Alarm count and reporting is performed only if it occurs again.

↓ Note

- If the usual SC code appears (pattern D), the machine automatically reboots itself. Even in the case of a usual SC, if the machine calls the customer support, it does not reboot itself. After the machine automatically reboots itself, a message reporting the rebooting appears.

- However, if an event that requires successive rebooting occurs, the machine will display the SC code without rebooting and perform logging count. If you print the service summary, the events that required successive rebooting will be displayed with asterisks.
- Automatic rebooting can be set to on/off in SP5-875-001 (Default: on).

Service Call Code Tables

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20000	D	The maintenance motor is not in the home position.
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20200	D	Failure to form negative pressure in the maintenance unit (while assessing the negative pressure in the tank)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20211	D	Failure to form negative pressure in the maintenance unit (air leak) (Tank 1 error)

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20212	D	Failure to form negative pressure in the maintenance unit (air leak) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20213	D	Failure to form negative pressure in the maintenance unit (air leak) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20214	D	Failure to form negative pressure in the maintenance unit (air leak) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20221	D	Failure to form negative pressure in the maintenance unit (nozzle/filter clogging) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20222	D	Failure to form negative pressure in the maintenance unit (nozzle/filter clogging) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20223	D	Failure to form negative pressure in the maintenance unit (nozzle/filter clogging) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20224	D	Failure to form negative pressure in the maintenance unit (nozzle/filter clogging) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20231	D	Failure to form negative pressure in the maintenance unit (insufficient suction) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20232	D	Failure to form negative pressure in the maintenance unit (insufficient suction) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20233	D	Failure to form negative pressure in the maintenance unit (insufficient suction) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20234	D	Failure to form negative pressure in the maintenance unit (insufficient suction) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20241	D	Failure to form negative pressure in the maintenance unit (failure to release air (due to ink intrusion, etc.)) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20242	D	Failure to form negative pressure in the maintenance unit (failure to release air (due to ink intrusion, etc.)) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20243	D	Failure to form negative pressure in the maintenance unit (failure to release air (due to ink intrusion, etc.)) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20244	D	Failure to form negative pressure in the maintenance unit (failure to release air (due to ink intrusion, etc.)) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20251	D	Failure to form negative pressure in the maintenance unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20252	D	Failure to form negative pressure in the maintenance unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20253	D	Failure to form negative pressure in the maintenance unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20254	D	Failure to form negative pressure in the maintenance unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20300	D	Failure to form negative pressure in the ink supply unit (while assessing the negative pressure in the tank)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20311	D	Failure to form negative pressure in the ink supply unit (air leak) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20312	D	Failure to form negative pressure in the ink supply unit (air leak) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20313	D	Failure to form negative pressure in the ink supply unit (air leak) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20314	D	Failure to form negative pressure in the ink supply unit (air leak) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20321	D	Failure to form negative pressure in the ink supply unit (failure send ink by the pump) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20322	D	Failure to form negative pressure in the ink supply unit (failure send ink by the pump) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20323	D	Failure to form negative pressure in the ink supply unit (failure send ink by the pump) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20324	D	Failure to form negative pressure in the ink supply unit (failure send ink by the pump) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20331	D	Failure to form negative pressure in the ink supply unit (failure to release air (due to ink intrusion, etc.)) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20332	D	Failure to form negative pressure in the ink supply unit (failure to release air (due to ink intrusion, etc.)) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20333	D	Failure to form negative pressure in the ink supply unit (failure to release air (due to ink intrusion, etc.)) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20334	D	Failure to form negative pressure in the ink supply unit (failure to release air (due to ink intrusion, etc.)) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20351	D	Failure to form negative pressure in the ink supply unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20352	D	Failure to form negative pressure in the ink supply unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20353	D	Failure to form negative pressure in the ink supply unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20354	D	Failure to form negative pressure in the ink supply unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20400	D	The drive switching motor is not in the home position.
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20501	D	Drive motor error (error in the motor drive period) [during maintenance operation]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20502	D	Drive motor error (error in the motor output) [during maintenance operation]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20503	D	Drive motor error (error in the motor's direction of rotation) [during maintenance operation]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20601	D	Drive motor error (error in the motor drive period) [during maintenance operation]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20602	D	Drive motor error (error in the motor output) [during ink supply]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20603	D	Drive motor error (error in the motor's direction of rotation) [during ink supply]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20701	D	Drive motor error (error in the motor drive period) [during air release]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20702	D	Drive motor error (error in the motor output) [during air release]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20703	D	Drive motor error (error in the motor's direction of rotation) [during air release]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
21000	D	Failure to detect the signal from the horizontal encoder
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
21100	D	Horizontal encoder error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28000	D	Air sensor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28111	D	Ink supply timeout error (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28112	D	Ink supply timeout error (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28113	D	Ink supply timeout error (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28114	D	Ink supply timeout error (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28221	D	Air detection frequency error (Print Head 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28222	D	Air detection frequency error (Print Head 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28223	D	Air detection frequency error (Print Head 1, 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
29201	D	Auto washing error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
29500	D	Air release error (Air purge detection switch error or air release lever error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
49002	D	The right ink sump is full.
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
52000	D	Vertical motor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57000	D	Error: charge leak
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57001	D	Power Pack failure
		The machine detects the power pack (PSU or HVPS) error.
		Defective power pack
		Turn the main power switch off and then back on. Replace the PSU or HVPS.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57100	D	Print head thermal sensor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57300	D	Humidity sensor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57301	D	Thermal sensor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57302	D	Power harness error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57400	D	KAKA correction error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
58000	D	37V power detection timeout
		The machine cannot detect 37V power from the power supply within a designated time.
		Defective PSU
		Turn the main power switch off and then back on. Replace the PSU.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
63701	D	IF Tracking information error
		The machine asserts the tracking information of the interface.
		Interface failure CTL board error
		Turn the main power switch off and then back on. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
63702	D	IF Tracking information error
		The machine asserts the tracking information of the interface.
		Interface failure CTL board error
		Turn the main power switch off and then back on. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
82300	D	Self-diagnostic error: NIC
		This appears if sum value error occurs three times in a row during the attempt to read the Mac address stored in the EEPROM when turning the power on.
		EEPROM (NV memory) error EEPROM (NV memory) connection error CTL board error
		Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
84000	D	EEPROM access error
		This appears if reading of the data stored in the EEPROM fails or writing on the EEPROM fails.
		EEPROM (NV memory) error EEPROM (NV memory) connection error CTL board error
		Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
85300	B	IEEE802 No Card Error
		The machine can not recognize the inserted Bluetooth device properly.
		The Bluetooth device is connected improperly or failed. CTL board error
		Turn the main power switch off and then back on. Insert the Bluetooth device properly. Replace the blue tooth device. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
85400	B	IEEE802 Card Out
		The machine detects a disconnection of the Bluetooth device.
		The Bluetooth interface unit was removed while the machine was turned on.
		Turn off the main power switch, and then confirm that the Bluetooth interface unit was installed correctly. And then, turn on the main power switch again.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
85500	B	IEEE802 Card Error
		The Bluetooth device can be accessed, but an error was detected.
		The Bluetooth device is failed or out of support.
		The USB connector or cable failure
		Turn the main power switch off and then back on. Make sure that the Bluetooth connection is good. Replace the Bluetooth device. Replace USB cable or connector.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
89900	D	Software performance error
		If the processing program shows abnormal performance and the program is abnormally ended, this SC is issued.
		CTL board defective Software defective
		Turn the main power switch off and then back on. Update the firmware on the CTL board. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
91505	A	The external controller function abnormal
		The applications for the external controller fail or writing on the EEPROM fails. The external equipment fails.
		Firmware uploading failure EEPROM (NV memory) error EEPROM (NV memory) connection error CTL board error The external equipment error
		Update the firmware. Replace the external equipment. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
93200	D	Thermal error in the DRV circuit
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
93300	D	HRB fuse blown
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
93400	D	HRB version not matching
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
93500	D	The maximum number of sheets that can be printed by the prototype control board has been exceeded.
		Turn the main power switch off and then back on.

Jam Codes

6

Depending on the paper jam location, the branch number (-xx) is displayed to identify the paper jam location more precisely. The JAM code does not appear on the machine's panel display. Check it on the printer driver's Status Monitor.

Here is a list of jam codes and what they mean. A separate list is provided for each machine.

Jam Codes

In the tables below "Action 1" and "Action 2" have the following meanings:

- Action 1. To be performed by the user on site, or at the service center to see if these simple procedures solve the problem.
- Action 2. To be performed by the service technician at the Service Center. These procedures are for the user at the work site.

Jam 1	Paper Feed Jam (Tray 1: Paper Cassette)
Message	Paper Misfeed Remove Tray 1 and reset the paper. If there is any paper that is jammed remove it.
Cause	Paper slipped, paper cassette not set correctly.
Details	The registration sensor detected the leading edge of the paper, but the trailing edge sensor failed to detect the trailing edge of the paper fed from the printer paper tray within the prescribed time.

Action 1	<ul style="list-style-type: none"> • Check how paper is loaded in the tray. • Remove paper, fan paper to remove static cling, and re-load. • Reduce or increase the amount of paper loaded. • Check and reset the position of the end fence. • Confirm that the paper is not curled. • Confirm that the type of paper can be used with the printer. • Confirm that the paper cassette is installed correctly. (Remove the cassette and set it again). • If another paper cassette is available, use the extra cassette.
Action 2	<ul style="list-style-type: none"> • Replace friction pad. • Replace paper feed clutch. • Replace paper cassette unit.

Jam 2	Paper Feed Jam (Tray 2: PFU)
Message	Paper Misfeed Remove Tray 2 and reset the paper. If there is any paper that is jammed remove it.
Cause	<ul style="list-style-type: none"> • Paper slick (non-feed) • Paper tray was not set properly.
Details	The registration sensor detected the leading edge of the paper from the paper cassette, but the trailing edge sensor failed to detect the trailing edge of the paper within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Remove the cassette • Remove remaining paper. • Re-set the cassette correctly.
Action 2	<ul style="list-style-type: none"> • Replace paper feed clutch in Tray 2. • Replace paper cassette. • Replace Tray 2.

Jam 3	Duplex Unit Jam
Message	Paper Misfeed Open Duplex Unit Cover or pull out Duplex Unit, then remove the jammed paper.

Cause	Ink has wrinkled or curled the paper
Details	The trailing edge sensor failed to detect the trailing edge of the paper after it was fed to the duplex unit for duplex/inverted printing within the prescribed time.
Action 1	<ul style="list-style-type: none"> Remove the duplex unit Remove remaining paper.
Action 2	<ul style="list-style-type: none"> Confirm that duplex unit is set correctly. Remove jammed paper, paper scraps, etc. Re-install duplex unit (the duplex unit should lock automatically on both ends). Replace duplex unit.

Jam 4	Feed Jam (Paper Remains in Duplex Unit)
Message	Paper Misfeed Press the Form Feed button.
Cause	The paper that exited duplex unit after inversion got caught.
Details	After the trailing edge sensor detected the trailing edge of the paper fed to the duplex unit for duplex/inverted printing, the paper failed to leave the trailing edge sensor within the prescribed time.
Action 1	<ul style="list-style-type: none"> Press [Form Feed] key on printer operation panel.
Action 2	<ul style="list-style-type: none"> Replace inverter guide. Replace TE sensor. Replace CTL board.

Jam 5	Transport Jam (Tray 1)
Message	Paper Misfeed Press the Form Feed button.
Cause	Paper longer than the paper selected in printer driver was loaded.
Details	After the registration sensor detected the leading edge of the paper fed from the paper cassette, the paper failed to pass the trailing edge sensor within the prescribed time.
Action 1	<ul style="list-style-type: none"> Press [Form Feed] key on printer operation panel.

Action 2	<ul style="list-style-type: none"> • Replace inverter guide. • Replace trailing edge sensor. • Replace CTL board.
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Jam 6	Paper Feed Jam (Bypass Tray)
Message	<p>Paper Misfeed</p> <p>Remove Bypass Tray and reset the paper. If there is any paper that is jammed remove it.</p>
Cause	<ul style="list-style-type: none"> • Paper slippage • Paper not loaded correctly
Details	The registration sensor did not detect the leading edge of the paper fed from the bypass tray within the prescribed time .
Action 1	<ul style="list-style-type: none"> • Remove bypass tray • Load paper correctly. • Check inside the paper for jammed paper or paper scraps.
Action 2	<ul style="list-style-type: none"> • Clean transport belt. • Replace Registration Sensors 1, 2. • Replace Multi Bypass Tray. • Replace the printer.

Jam 7	Transport Jam (Tray 2: PFU)
Message	<p>Paper Misfeed</p> <p>Press the Form Feed button.</p>
Cause	Paper longer than the paper selected in printer driver was loaded.
Details	When paper was fed from Tray 2 the paper fed but the paper failed to leave the trailing edge sensor within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Check the size of the paper loaded in the PFU • Make sure that the size of the paper selected in the printer driver matches the size of the paper loaded in the tray.

Action 2	<ul style="list-style-type: none"> • Clean transport belt. • Replace TE sensor. • Replace Tray 2.
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Jam 8	Not Used
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Jam 9	Registration Late Jam: Tray 1
Message	Paper Misfeed Press the Form Feed button.
Cause	<ul style="list-style-type: none"> • Paper feed rollers slipped, could not feed paper • Paper caught, warped in paper feed path.
Details	After the paper fed from the tray, or when the paper was inverted for duplexing, after the trailing edge sensor went ON, the registration sensor failed to detect within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Press [Form Feed] key on operation panel.
Action 2	<ul style="list-style-type: none"> • Replace registration sensor 1. • Replace trailing edge sensor 2.

Jam 10	Registration Late Jam: Tray 2 (PFU)
Message	Paper Misfeed Press the Form Feed button.
Cause	<ul style="list-style-type: none"> • Paper feed rollers slipped, could not feed paper • Paper caught, warped in paper feed path.
Details	After the paper fed from the tray, or when the paper was inverted for duplexing, after the trailing edge sensor went ON, the registration sensor failed to detect within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Press [Form Feed] key on operation panel.
Action 2	<ul style="list-style-type: none"> • Replace inverter guide. • Replace TE sensor. • Replace CTL board.

Jam 11	Registration Late Jam: Duplex Unit
Message	Paper Misfeed Press the Form Feed button.
Cause	<ul style="list-style-type: none"> • Paper feed rollers slipped, could not feed paper • Paper caught, warped in paper feed path.
Details	After the paper fed from the tray, or when the paper was inverted for duplexing, after the trailing edge sensor went ON, the registration sensor failed to detect within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Press [Form Feed] key on operation panel.
Action 2	<ul style="list-style-type: none"> • Replace inverter guide. • Replace trailing edge sensor. • Replace CTL board.

Jam 12	Not Used
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Jam 13	Not Used
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Jam 14	Carriage Jam
Message	Paper Misfeed Open the Top Cover and press the Form Feed key to remove the paper. If this does not work or pieces of paper still remain then manually remove it from the top of the machine. Also check paper is set correctly in all the paper source trays
Cause	The carriage failed to reach its target position within the prescribed time.
Details	An obstruction is blocking movement of the carriage unit.
Action 1	<ul style="list-style-type: none"> • Open the top cover. • Turn the paper feed wheel on the left side of the printer to feed out any remaining paper. • Check around the carriage unit for paper scraps or any other type of obstruction. • Make sure that the paper cassette and bypass tray are set correctly.

Action 2	<ul style="list-style-type: none"> • Clean the horizontal encoder strip. • Replace horizontal encoder strip. • Replace the horizontal encoder sensor. • Check maintenance unit, replace if necessary. • Replace carriage unit.
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Jam 15	Not Used
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Jam 16	Carriage Unit Homing Failure
Message	<p>Paper Misfeed</p> <p>Open the Top Cover and press the Form Feed key to remove the paper.</p> <p>If this does not work or pieces of paper still remain then manually remove it from the top of the machine.</p> <p>Also check paper is set correctly in all the paper source trays.</p>
Cause	Something is blocking the movement of the carriage unit.
Details	The machine detected an obstruction blocking operation of carriage unit at power ON or after jammed paper was removed.
Action 1	<ul style="list-style-type: none"> • Open the top cover and while checking for paper, turn the paper feed wheel on the left side of the printer and remove the paper. • If the paper cannot be removed easily and paper scraps remains inside the printer, remove the paper from the top cover. • Make sure that the paper cassette and bypass tray are set correctly.
Action 2	<ul style="list-style-type: none"> • Clean the horizontal encoder strip. • Replace horizontal encoder strip. • Replace the horizontal encoder sensor. • Check maintenance unit, replace if necessary. • Replace carriage unit.

Jam 17	Paper Remains Jam
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Message	<p>Paper Misfeed</p> <p>Open the Top Cover and press the Form Feed key to remove the paper.</p> <p>If this does not work or pieces of paper still remain then manually remove it from the top of the machine.</p> <p>Also check paper is set correctly in all the paper source trays.</p>
Cause	Obstruction or paper remains in the printer after a jam was removed.
Details	Paper trailing edge sensor switched on while paper was being removed.
Action 1	<ul style="list-style-type: none"> • Open the top cover and while checking for paper, turn the paper feed wheel on the left side of the printer and remove the paper. • If the paper cannot be removed easily and paper scraps remains inside the printer, remove the paper from the top cover. • Make sure that the paper cassette and bypass tray are set correctly.
Action 2	<ul style="list-style-type: none"> • Check the 1st registration sensor on the side of the carrier unit. (This sensor detects the leading edge of the paper.) • Make sure the cover on the print head unit is installed correctly. • Replace 1st registration sensor. • Replace carriage unit.

Jam 18	Condensation Error During Printing
Message	<p>Paper Misfeed</p> <p>Press the Form Feed button.</p>
Cause	A belt charge leak was detected during printing.
Details	Condensation on the belt, or there is a hole in the transfer belt.
Action 1	<ul style="list-style-type: none"> • Feed and eject 3 blank sheets to remove moisture from the belt.
Action 2	<ul style="list-style-type: none"> • [▼/Menu]> "Maintenance"> "De-condensation"> #. • Do the print job again. • If the problem occurs again, repeat Step 1. • Confirm that the work site is within the ranges for ambient temperature and humidity. (See "Installation"). • Inspect the transport belt. • If the belt is damaged the machine must be replaced.

Jam 19	TE Sensor (Main Unit) Paper Late Jam (Tray 2)
Message	Paper Misfeed Remove the Duplex Unit or the Rear Cover of the machine, and remove the paper. Or, open the Tray 2 Rear Cover and remove the paper.
Cause	The paper was wrinkled or caught in the paper feed path.
Details	Even though the paper fed from Tray 2 reached the prescribed position, the TE sensor could not detect the leading edge of the paper.
Action 1	<ul style="list-style-type: none"> Remove the duplex unit and remove any paper inside the printer. Remove the rear unit of Tray 2 and remove any paper inside the tray.
Action 2	<ul style="list-style-type: none"> Remove the duplex unit, open the rear cover and remove all remaining paper. Close the rear cover and re-install the duplex unit. Remove the rear unit of Tray 2 and remove any remaining paper. Re-install the rear unit of Tray 2.

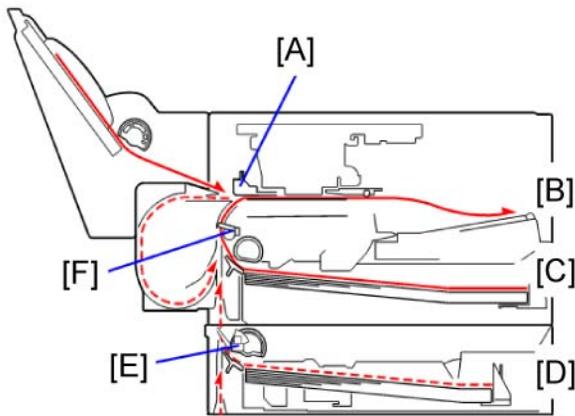
Jam 20	Not Used
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Jam 21	Not Used
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Jam 22	Paper Remains in Vertical Paper Path of Tray 2 (Failure to Remove Jam)
Message	<p>JAM22-04,05,06,07: Paper Misfeed Open the Tray 2 Rear Cover and remove the paper. Or, remove the Tray2 and remove the paper.</p> <p>JAM22-08: Paper Misfeed Open the Tray 2 Rear Cover, then remove the paper.</p> <p>JAM22-09,10,11,12,13,14,15: Paper Misfeed Open the Rear Cover of the all additional Trays and remove the paper Or, remove the all additional Trays and remove the paper.</p>
Cause	Foreign object is inside the printer, or paper remains inside the printer.

Details	The relay sensor of Tray 2 went ON while the jammed paper was being removed.
Action 1	<ul style="list-style-type: none"> Remove the rear unit of Tray 2 and remove any paper inside the tray. Make sure that the paper is stacked correctly in Tray 2 and Tray 3.
Action 2	<ul style="list-style-type: none"> Remove the rear unit of Tray 2 and remove any remaining paper. Re-install the rear unit of Tray 2. Remove Tray 2 and remove any jammed paper. Re-install the tray correctly.
Jam 23	Not Used
Jam 24	Not Used
Jam 25	Not Used
Jam 26	Not Used

Jammed paper location



j0271225a

A: 2nd registration sensor (2nd)

D: Tray 2

B: Output tray

E: Tray 2 relay sensor (T-2)

C: Tray 1

F: Trailing edge sensor (TE)

ON: Paper jam detected

--- : Paper jam not detected

Branch	Sensor			Jammed paper location
	2nd	TE	T-2	
-04	---	---	On	Paper is jammed between the Tray 2 relay sensor and trailing edge sensor. If the paper was fed from Tray 2, its trailing edge is remaining in Tray 2.
-05	On	---	On	<ol style="list-style-type: none"> 1. The paper is jammed at the 2nd registration sensor. It is not located at the trailing edge sensor. 2. The paper is jammed in between the Tray 2 relay sensor and trailing edge sensor.
-06	---	On	On	The paper is jammed in between the trailing edge sensor and 2nd registration sensor. It is also jammed at the Tray 2 relay sensor. If the paper was fed from Tray 2, its trailing edge is located before the Tray 2 relay sensor (closer to Tray 2).
-09	On	---	---	1. The paper is jammed at the 2nd registration sensor. It is not located at the trailing edge sensor or Tray 2 relay sensor.
-10	---	On	---	1. The paper is jammed in between the trailing edge sensor and 2nd registration sensor. It is not located at the Tray 2 relay sensor.
-11	On	On	---	1. The paper is located past the Tray 2 relay sensor (closer to the output tray).
-15	On	On	On	The paper is jammed in the entire paper path between Tray 2 and the 2nd registration sensor.

Status Monitor Messages

Bypass Tray Not Detected

The bypass tray unit is not mounted correctly. Mount it correctly.

Cannot recover error page(s)

The machine has failed to print some pages when it resumed printing of a job after recovering from an error. Cancel the job or print rest of the pages by Form Feed.

Cartridge/Print-head Tank Empty

One or more ink cartridges empty.

- Check the operation panel display. You will see "Ink Depleted" displayed over the indicator of the cartridge that is almost empty.
- The ink cartridge and the ink tank inside the printer head are both empty. The printer cannot be used until the empty cartridge has been replaced.

Cover Open

Any of the following covers is open.

- Top cover
- Machine rear cover
- Tray 2 rear cover

1. Check the covers.
2. Open and close them

Loading from Cartridge...

Ink is being filled from the print cartridge. Wait for the filling of the ink to finish.

Maintenance failed

Head cleaning, head flushing, or other maintenance operations have failed.

Run the maintenance again after clearing the error.

You can clear a maintenance error as follows:

- The printer receives another print job.
- Press the [#Enter] key.

Independent-supplier Cartridge

An ink tank cartridge unapproved for use with this machine has been installed. Use of ink cartridges not approved for use with this machine, or attempting to re-fill depleted ink cartridges, will diminish print quality. Always use new Ricoh ink cartridges specifically designed for use with these machines.

Ink Collector Unit Not Detected

1. Open the right front cover.
2. Confirm that the ink collector is installed.
3. Pull it out and set it again.

No Paper

The bypass tray has run out of paper or is not mounted correctly.

1. Load bypass tray,
2. Press [#Enter]

No Paper/Tray Not Detected

Any of the following paper trays has run out of paper or is not mounted correctly.

- Tray 1
 - Tray 2
1. Pull out the paper cassette.
 2. Load paper if it is empty.
1. Close the cassette and make sure that it is locks in place.

No Response From Printer

1. Make sure the printer is switched on.
2. Check the connection of the USB cable at the printer and computer.
3. Make sure "USB" is selected on the "Ports" sheet of the printer driver.

Offline

The machine is offline. By closing the menu and switching to an online status, the machine becomes able to print.

Out of Printable Temperature Range

- Room to cold or too warm?
1. Printer must be located where the temperature range is 10 to 32°C (50 to 89.6°F)
 2. Turn the printer off and allow it to cool.

Note: If humidity is higher than 54%, the high end of the temperature range will be lower. The printer will not return to standby mode until it has acclimated to the room temperature. Wait for the Power lamp to stop flashing.

Paper Misfeed

Paper is jammed. Check the jam code (JAM##-##) to solve the problem.

Paper Size Mismatch

The size of paper in the selected tray does not match the size of the paper selected for the job, or the specified Tray Paper Size setting in the Paper Input menu does not match the actual paper size.

Follow the procedure below:

- Check the paper cassette and make sure that the paper size matches the settings selected in the printer driver.
- Press the [Form Feed] key, select a paper tray containing paper of the specified size, and then print.
- Cancel the print job.

Paper Type Mismatch

The type of paper in the selected tray does not match the size of the paper selected for the job

Follow the procedure below:

- Check the paper cassette and make sure that the paper type matches the settings selected in the printer driver.
- Press the [Form Feed] key, select a paper tray containing paper of the specified type, and then print.
- Cancel the print job.

Paper Size and Type Mismatch

The type and size of paper in the selected tray does not match the type and size of the paper selected for the job, or the type and size of the paper in any of the paper trays does not match the type and size of the paper selected for the job when using Auto Tray Select.

Follow the procedure below:

- Check the paper cassette and make sure that the paper size and type matches the settings selected in the printer driver.
- Press the [Form Feed] key, select a paper tray containing paper of the specified size and type, and then print.
- Cancel the print job.

Print Cartridge(s) Not Detected/Cover Open

- The right front cover is open. Close the right front cover.
- The print cartridges are not installed or are installed incorrectly. Install the print cartridges correctly.

Printer Error

An error has occurred in the printer. An error code ("SC###-###") appears at the end of the message.

1. Cycle the printer off/on.
2. If the printer has just been moved from a cold location to a warm room, wait at least 1 hour and try again.

Replace Ink Collector Unit (Consumables)

The ink collector is full. Printing cannot continue. The ink collector must be replaced.

Unit Not Detected / Cover Open

The duplex unit is not mounted correctly and/or the duplex unit cover is open.

Mount the duplex unit correctly and close the duplex unit cover.

Make sure the latches are lock at both ends. They should lock automatically.

Used Cartridge

The installed print cartridge is empty. Printing cannot continue. Replace the ink cartridge with a new one.

Used Ink Collector Unit

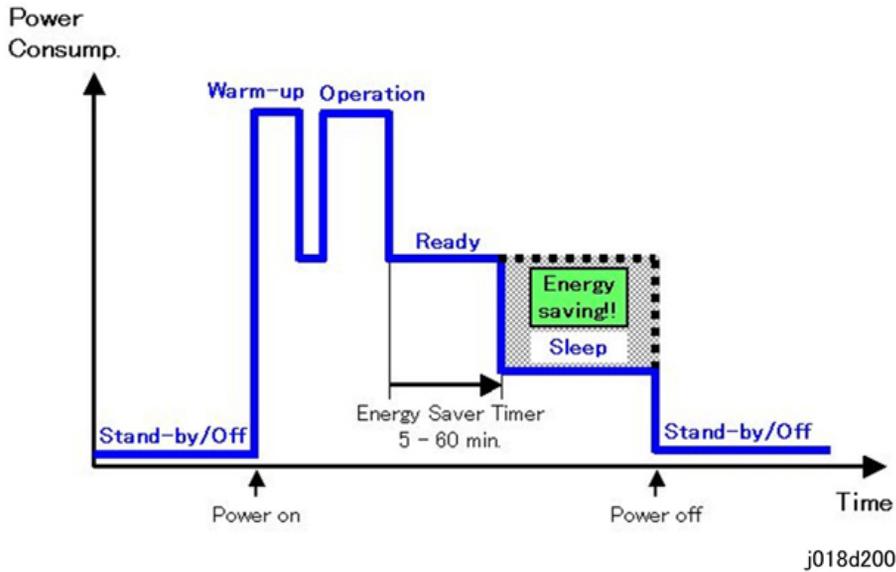
A used ink collector unit has been installed. Remove it and replace it with a new one.

7. Energy Saving

Energy Save

Energy Saver Modes

The customer should use the energy saver mode correctly to save energy and protect the environment.



The area shaded grey in this diagram represents the amount of energy that is saved.

Timer Settings

The user can set the energy saver timer:

1. [▼/Menu]> [▲] or [▼/Menu] "System"> [#Enter].
2. [▲] or [▼/Menu] > "Energy Saver"> [#Enter].
 - The default is 5 min.
 - The setting can be changed within a range of 5 to 60 min.
 - After the selected time has elapsed the machine will enter the Sleep Mode.

Return to Standby Mode

The machine returns to standby mode from energy saver mode after 2 seconds.

Recommendation

We recommend that the default settings should be kept. If the customer requests that these settings should be changed, please explain that their energy costs could increase, and that they should consider the effects on the environment of extra energy use.

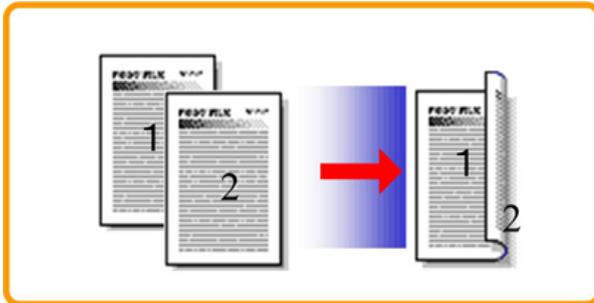
Paper Save

Effectiveness of Duplex/Combine Function

Duplexing and the combine functions reduce the amount of paper used. This means that less energy overall is used for paper production, which improves the environment.

1. Duplex:

Reduce paper volume in half!



j018d102

7

2. Combine mode:

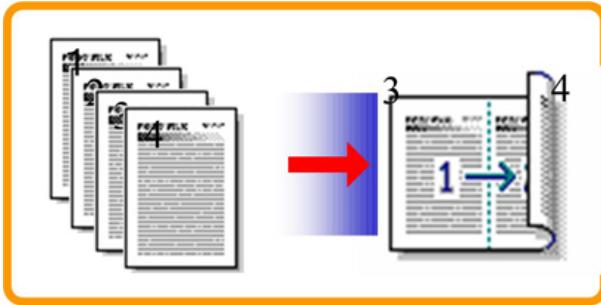
Reduce paper volume in half!



j018d100

3. Duplex + Combine:

Using both features together can further reduce paper volume by 3/4!



j018d101

To check the paper consumption, look at the total counter and the duplex counter.

The total counter counts all pages printed.

- For one duplex page, the total counter goes up by 2.
- For a duplex job of a three-page original, the total counter goes up by 3.

The duplex counter counts pages that have images on both sides.

- For one duplex page, the duplex counter goes up by 1.
- For a duplex job of a three-page original, the duplex counter will only increase by 1, even though two sheets are used.

Recommendation

Please explain these features to the customers so they can reduce their paper usage.

Duplex Mode Tables

The following table shows paper savings and how the counters increase for some simple examples of single-sided and duplex jobs

Duplex mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter	Duplex counter
1	1	1	0	1	0
2	2	1	1	2	1
3	3	2	1	3	1
4	4	2	2	4	2
5	5	3	2	5	2

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter	Duplex counter
10	10	5	5	10	5
20	20	10	10	20	10

If combine mode is used, the total and duplex counters work in the same way as explained previously. The following table shows paper savings and how the counters increase for some simple examples of duplex/combine jobs.

2 in 1 mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter	Duplex counter
1	1	1	0	1	1
2	2	1	1	1	1
3	3	2	1	2	2
4	4	2	2	2	2
5	5	3	2	3	2
10	10	5	5	5	5
20	20	10	10	10	10

Duplex + 2 in 1 mode:

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter	Duplex counter
1	1	1	0	1	1
2	2	1	1	1	1
3	3	1	2	2	2
4	4	1	3	2	2
5	5	2	3	3	3
6	6	2	4	3	3
7	7	2	5	4	4

Originals	Simplex Sheet used	Duplex Sheets used	Paper Saved	Total counter	Duplex counter
8	8	2	6	4	4
9	9	3	6	5	5
10	10	3	7	5	5
11	11	3	8	6	6
12	12	3	9	6	6

**Model:
BRG-P1w
Machine Code:
J034**

Appendices

8 January, 2013

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1. Appendix: Specifications

Specifications

Printer Engine

The following terms are used in the tables below.

- **J1.** This refers to the "JEITA J1 Chart", A4/LT size normal paper with 2% BW coverage.
- **J6.** This refers to the "JEITA J6 Chart", A4/LT size normal paper with 3.5% COLOR coverage.
- **High Speed.** This is the fastest print selection available in the printer driver. This mode minimizes the use of ink for draft prints.
- **Speed Priority.** This is the moderately fast selection available in the printer driver (quality is better than that of "High Speed").
- **Quality Priority.** This slowest selection in the printer driver but delivers the best quality print.

Quick Comparison with the base machine

		J034	J028
Resolution (max.)		3600 x 1200	3600 x 1200
Print speed	FC	28.5 ppm	29.0 ppm
	B&W		
Dimensions (w x d x h)		529 x 509 x 212.5 mm (20.8 x 20 x 8.4 in.)	399 x 436.5 x 212.5 mm (15.8 x 17.2 x 8.4 in.)
Paper capacity	Printer	250 sheets	250 sheets
	Bypass*1	100 sheets	100 sheets
	PFU	250 sheets x 1 *2	250 sheets x 2
Duplex unit		Yes*3	Yes*3
NIC		Yes*4	Yes*4
PCL supported		No	No

*1	Bypass Units J315/J313 are optional.
*2	Paper Feed Units J314/J312 are optional. J034 can only one PFU (J314) installed for a maximum paper capacity of 250 sheets.
*3	Duplex unit is standard for J034 and J028.
*4	The NIC is mounted on the CTL board.

Basic Specifications

Configuration	Desktop		
Printing Method	On-Demand piezo inlet GELJET Ink Printing Technology with pigment-base ink (4 colors)		
Resolution (dpi, bit/pixel)	Max. 3600x1200dpi equivalent		
Print Speed (Normal Paper) A4/LT			
J034	Full-page RPCS; Color: 8.5 ppm/ Mono: 10.5 ppm*1		
	Max. Speed with catalog sample RPCS; Color: 28.5 ppm/ Mono: 28.5 ppm*1		
	ISO Based speed RPCS; Color: 14.5 ppm/ Mono: 18.5 ppm*1		
*1:	With RPCS Raster driver, "Standard, Speed Priority Color": JEITA J6 Chart, Mono: JEITA J1 Chart.		
First Print Speed (A4/LT, LEF SEF, Std. Tray)	Color	RPCS Raster	Less than 8.0 sec.
	Mono	RPCS Raster	Less than 6.0 sec.
Duplex Printing (A4/LT Standard, Speed Priority)	Color	RPCS Raster	More than 8.5 ppm,
	Mono	RPCS Raster	More than 10.5 ppm
Dimensions (w x d x h) (TBD)			

J034	Stand alone	529 x 509 x 212.5 mm (20.8 x 20 x 8.4 in.)	
	With Bypass Tray only	399 x 571 x 329 mm (15.8 x 22.5 x 13.0 in.)	
	With PFU only	399 x 436.5 x 300 mm (15.8 x 17.2 x 11.9 in.)	
	With PFU and Bypass Tray	399 x 571 x 492 mm (15.8 x 22.5 x 19.4 in.)	
Weight			
J034	With consumables	13.5 kg (29.8 lb)	
	When fully equipped (TBD)	xx.x kg (xx.x lb)	
Paper Feed Capacity			
J034	Standard Cassette	250 sheets	
	Multi Bypass Tray	100 sheets	
	PFU	250 sheets x1	
	Maximum	600 sheets	
Paper Output Tray Capacity		Std. Tray(Tray 1) Face up	100 sheets
Media Type	Standard Tray	Simplex/Duplex	Plain Paper, Postcard, Inkjet Postcard
		Simplex Only	Inkjet Plain Paper, Glossy Paper, Envelope
	PFU	Simplex/Duplex	Plain Paper
		Simplex Only	Inkjet Plain Paper, Glossy Paper
	Multi Bypass	Simplex/Duplex	Plain Paper, Postcard, Inkjet Postcard
		Simplex Only	Inkjet Plain Paper, Glossy Paper, Envelope, Thick Paper (42 to 68 lb.)

Paper Weight	Standard Tray	60 to 163 g/m ² (16 LB. BOND-42 LB. INDEX)	
	Multi Bypass	60 to 256 g/m ² (16 LB. BOND-68 LB. INDEX)	
	PFU	60 to 105 g/m ² (16 LB. BOND-28 LB. BOND)	
Power Supply	NA	100 to 120V 60 Hz	
	EU/Asia	220 to 240V 50/60 Hz	
Power Consumption	Print Mode*1	J034	29 W
	Energy Saver Mode	J034 (EU/Asia)	Less than 1.5 W
		J034 (US)	Less than 1.5 W
Warm-up Time		Less than 35 sec.	

*1: Average power consumption for printing 1 min. with ISO Chart.

Options Available

J034	Multi Bypass Tray (J314) Paper Feed Unit (J315)
------	--

Ink Cartridge Yield (Target)

Medium with ISO standard *1	Black	Ave. 2,500
	Color (M, Y, C)	Ave. 2,200
Small with ISO standard *1	Black	Ave. 600
	Color (M, Y, C)	Ave. 600
Starter	Use only to initialize ink at installation.	

*1: ISO Standard: ISO/IEC 24711

Print Volume, Service Life

J034

Duty	10K prints
Monthly Volume	Ave. 600 prints Max.: 2,500
Estimated Service Life	5 years, or 150K prints

1

Operating Environment

		Area
Safety Regulation	UL60950-1	US
	CAN/CSA C22.2 No 60950-1 (c-UL)	Canada
	EN60950-1 (CE marking) (TUV)	EU
	IEC60950-1 (CB certificate)	EU, China, Oceania
EMC	FCC Part15 SubpartB	US
	IC ES-003	Canada
	EN55022, EN61000-3-2, EN61000-3-3, EN 55024	EU
	AS/NZS CISPR22 (C-tick)	AUS/NZ
Radio communication	FCC Part15 SubpartC	US
	FCC Part15 SubpartE	US
	IC RSS-210	Canada
	EN300 328 (CE marking)	EU
	EN301 489-1, EN301 489-17 (CE marking)	EU
	Australia Radiocommunication (C-tick)	AUS
EMF	EN62311 (CE marking)	EU

		Area
Environmental Regulation	RoHS Directive	EU
	REACH Regulation	EU
	EuP Directive (Lot6)	EU
	EU Battery Directive (2006/66/EC)	EU
	EU Packaging and Packaging Waste Directive (94/62/EC)	EU
	WEEE Directive	EU
	Denmark Cadmium Prohibition	Denmark
	Turkey RoHS	Turkey
	California Perchlorate Best Management Practices	US
	Vermont Mercury Regulations	US
	Model Toxics in Packaging Legislation	US
	New York City Local Law	US
	California Proposition 65	US
	Interstate Mercury Education & Reduction Legislation	US
	RECSIS	WW
Green Label	BAM	Germany
Energy Saving	Energy Star v. 1.2	WW
Sound Level	Standby	44 dB(A) or less
	Printing	60.4 dB(A) * 1
Sound Pressure Level	Standby	Less than 34 dB (A)
	Printing	52.8 dB(A)

*1 If you print on a plain paper in a J1 Chart mode

Transportation and Storage

	Storage	Transportation
J034	-30 to 43°C (-54 to 109°F) 15% to 80% RH Storage max.: 540 days	-30 to 50°C (-54 to 122°F) 15% to 90% RH
Multi Bypass Tray (J315)	-30 to 43°C (-54 to 109°F) 15% to 80% RH Storage max.: 540 days	-30 to 50°C (-54 to 122°F) 15% to 90% RH
Paper Feed Unit (J314)	-30 to 43°C (-54 to 109°F) 15% to 80% RH Storage max.: 540 days	-30 to 50°C (-54 to 122°F) 15% to 90% RH
Print Cartridges	-30 to 43°C (-54 to 109°F) 15% to 80% RH Storage max.: 540 days	-30 to 50°C (-54 to 122°F) 15% to 90% RH

* For best print quality units should be unpacked and used within 540 days of the production date and within 180 days after unpacking.

Multi Bypass Tray BY1050 (J315) Option

Paper Size	Universal adjustable Length: 127 to 1295.4 mm (5 to 51 in.) Width: 55 to 330 mm (2.17 to 13 in.)
Paper Capacity	100 sheets (80 g/m ²)
Paper Weight	60 to 256 g/m ² (16 LB. BOND-140 LB. INDEX)
Dimensions	490 x 220 x 220 mm (19.6 x 8.8 x 8.8 in.) 490 x 340 x 380 mm (19.6 x 13.6 x 15.2 in.) if the tray is extended

Weight	Less than 3.0 kg (6.6 lb.)
---------------	----------------------------

Paper Feed Unit TK1190 (J314) Option

The PFU is an option for the J034 only (it cannot be used with the other machines.)

Paper Size	A3 SEF, B4 SEF, A4 SEF, B5 SEF, B6 SEF* 1, A5 SEF* 1, A5 LEF, A6 SEF, B6 SEF, LT SEF, LG SEF, DLT SEF, HLT SEF, Executive SEF, 8 1/2"x13" SEF, 8 1/4"x13" SEF, 8"x13" SEF, 8-kai SEF, 16-kai SEF	
Custom Paper Sizes	Length	210 to 432 mm (8.3 to 17 in.)
	Width	148 to 297 mm (5.8 to 11.7 in.)
Paper Capacity	Only one PFU can be installed for a maximum paper capacity of 250 sheets.	
Paper Type	Plain paper, Inkjet Plain Paper, Glossy Paper* 2	
Paper Weight	60 to 105 g/m ² (16.0 to 28.0 lb.)	
Dimensions (w x d x h)	529 x 360 x 99.5 mm (21.1 x 14.2 x 3.9 in.)	
PFU Weight	Less than 6.0 kg (13.2 lb.)	

* 1 SP mode

* 2 Glossy paper can be fed and delivered only one at a time.

Supported Paper Sizes (J034)

Type	Name	Feed	Size	Byp	T-1	PFU	F-up	Dplx
Plain Paper	A3 W	SEF	12" x 18"	N	N	N	N	N
	A3	SEF	297 x 420 mm	Y	Y	Y	Y	Y
	B4	SEF	257 x 364 mm	Y	Y	Y	Y	Y
	A4	SEF	210 x 297 mm	Y	Y	Y	Y	Y
		LEF	297 x 210 mm	N	N	N	N	N
	B5	SEF	182 x 257 mm	Y	Y	Y	Y	Y
		LEF	257 x 182 mm	N	N	N	N	N
	A5	SEF	148 x 210 mm	SP	SP	SP	SP	SP
		LEF	210 x 148 mm	Y	Y	N	Y	Y
	B6	SEF	125 x 176 mm	SP	SP	N	SP	SP
		LEF	176 x 125 mm	N	N	N	N	N
	A6	SEF	105 x 148 mm	Y	Y	N	Y	Y

Type	Name	Feed	Size	Byp	T-1	PFU	F-up	Dplx
Plain Paper	DLT	SEF	11" x 17"	Y	Y	Y	Y	Y
	LG	SEF	8 ¹ / ₂ " x 14"	Y	Y	Y	Y	N
	LT	SEF	8 ¹ / ₂ " x 11"	Y	Y	Y	Y	Y
		LEF	11" x 8 ¹ / ₂ "	N	N	N	N	N
	HLT	SEF	5 ¹ / ₂ " x 8 ¹ / ₂ "	N	N	N	N	N
		LEF	8 ¹ / ₂ " x 5 ¹ / ₂ "	Y	Y	N	Y	Y
	Exe	SEF	7 ¹ / ₄ " x 10 ¹ / ₂ "	Y	Y	Y	Y	Y
		LEF	10 ¹ / ₂ " x 7 ¹ / ₄ "	N	N	N	N	N
	F	SEF	8" x 13"	Y	Y	Y	Y	Y
	Foolscap	SEF	8 ¹ / ₂ " x 13"	Y	Y	Y	Y	Y
	Folio	SEF	8 ¹ / ₄ " x 13"	Y	Y	Y	Y	Y
	8 Kai	SEF	267 x 390 mm	Y	Y	Y	Y	Y
	16 Kai	SEF	195 x 267 mm	Y	Y	Y	Y	Y
LEF		267 x 195 mm	N	N	N	N	N	
Env	Com10	SEF	4 ¹ / ₈ " x 7 ¹ / ₂ "	Y	Y	N	Y	N
	Monarch	LEF	3 ⁷ / ₈ " x 7 ¹ / ₂ "	Y	Y	N	Y	N
	C6	LEF	114 x 162 mm	Y	Y	N	Y	N
	C5	LEF	162 x 229 mm	Y	Y	N	Y	N
	DL Env	LEF	110 x 220 mm	Y	Y	N	Y	N

Remarks:

Y	Supported
N	Not supported.
SP	Can be set by SP mode

This table shows the smallest and largest paper sizes that can be loaded in the standard tray and options.

Custom Size Range

	Min./Max Width		Min./Max. Length	
	mm	in.	mm	in.
Standard Tray	88 to 297	3.5 to 11.7	139.7 to 432	5.5 to 17
Bypass Tray	55 to 330* ¹	2.17 to 13	127 to 1295.4	5 to 51
PFU	148 to 297	5.8 to 11.7	210 to 432	8.3 to 17

*¹: A 320 x 450 mm (12.6 x 17.7 in.) paper size will feed. However, the quality of image reproduction and efficiency of paper feed cannot be guaranteed.

Operation Specifications

Printing Operation

Print Area	Plain Paper	Sides	Margin: Approx. 3 mm * 1
		Leading, Trailing Edges	Margin: Approx. 3 mm * 1
	Envelopes	Sides	Margin: Approx. 3 mm
		Leading Edge	Margin: Approx. 38 mm
		Trailing Edge	Margin: Approx. 8 mm

* 1 Under Mac OS, the margins on both sides and on the leading and trailing edges are 4.2 mm.

Printing Functions
Job Spooling, Sub Paper Size, Extended A4 Width, Registration Adjustment, Image Density Adjustment.
Driver Adjustment
Reduce/Enlarge (Scaling, Centering), Collate, Layout (n-Up), Poster, Duplex, Booklet, Booklet 2 (Magazine), Dithering, Edge Smoothing, Watermark, Form Overlay, Header/Footer, Adjust Image Position, Binding Margins, Rotate Print, Reverse Order Print, Do Not Print Blank Pages, Economy Color

Print Speed and Resolution

J034: Mono

Paper Type	Print Mode	dpi	Simplex (A4)
			RPCS Diver
Plain Paper Mode	High Speed (with Ricoh original chart)	300 x 150	More than 28.5 ppm
	High Speed	300 x 150	More than 18.5 ppm
	Speed Priority	600 x 300	More than 10.5 ppm
	Quality Priority	600 x 600	NA
	High Quality	1200x200	NA

J034: Color

Paper Type	Print Mode	dpi	Simplex (A4)
			RPCS Diver
Plain Paper Mode	High Speed (with Ricoh original chart)	300 x 150	More than 28.5 ppm
	High Speed	300 x 150	More than 14.5 ppm
	Speed Priority	600 x 300	More than 8.5 ppm
	Quality Priority	600 x 600	NA
	High Quality	1200x200	NA

Continuous Print Speed: Monochrome/Full Color

High Speed

	J034
	RPCR
Mono	More than 29.0 ppm
FC	More than 29.0 ppm

Speed Priority

	J034
	RPCR
Mono	More than 17.0 ppm
FC	More than 17.0 ppm

Control Boards

J034 (ZICO) Controller

CPU	SH2A
SoC	ZICO
RAM	SDRAM: 32MB
Program ROM	On Board: 4MB
Font ROM	None
EEPROM	4KB
Optional EEPROM slot	None
PDL	RPCS Raster
Connectivity	
Host Interface(Std)	USB 2.0 High Speed, 10BASE-T/100BASE-TX
Network Protocol	TCP/IP

MIB Support	Private: Ricoh Original Standard: RFC1213(MIB-II) RFC1514/RFC2970(Host Resource MIB) RFC1759(Printer MIB) RFC3412(MPD-MIB) RFC3413(Target-MIB, Norification-MIB) RCF3414(USM-MIB) RFC3415(VACM-MIB) RFC3584(COMMUNITY-MIB) Printer Working Group Candidate Standard 5107.1-2005 (Printer Port Monitor MIB 1.0)
Networking Operating Systems	<ul style="list-style-type: none"> • Microsoft Windows XP/Vista/Windows 7 • Microsoft Windows Server 2003/2003 R2/2008 • Mac OS X 10.5 Leopard and later versions* 1

* 1: Mac driver included on CD-ROM (The supported languages are English, French, German and Japanese.).

Print Resolution		
Controller: RPCS Raster		300x150dpi-2bit, 600x300dpi-2bit, 600x600dpi-2bit, 600x1200dpi-2bit, 1200x1200dpi-2bit Max. 3600x1200dpi equivalent
Drivers: RPCS Raster		300 x 150, 300 x 300, 600 x 300, 600 x 600, 1200 x 600, 1200 x 1200, Max.: 3600 x 1200 dpi equivalent Max. 3600x1200dpi equivalent
Language		
Operation Panel	EU Model	1.English, 2.German, 3.French, 4.Italian, 5.Spanish, 6.Dutch, 7.Swedish, 8.Danish, 9.Norwegian, 10.Portuguese, 11.Finnish, 12.Czech, 13.Hungarian, 14.Polish
	NA Model	1.English, 2. French, 3. Spanish, 4. Portuguese

Drivers	RPCS Raster (EU model)	1.English, 2.German, 3.French, 4.Italian, 5.Spanish, 6.Dutch, 7.Swedish, 8.Danish, 9.Norwegian, 10.Portuguese, 11.Russian, 12.Finnish, 13.Czech, 14.Hungarian, 15.Polish
	RPCS Raster (NA model)	1.English, 2.French, 3.Italian, 4.Spanish, 5.Dutch, 6.Swedish, 7.Danish, 8.Norwegian, 9.Portuguese, 10.Russian, 11.Finnish, 12.Czech, 13.Hungarian, 14.Polish
Test Pages	NA	1.English, 2.German, 3.French, 4.Italian, 5.Spanish, 6.Dutch, 7.Swedish, 8.Danish, 9.Norwegian, 10.Portuguese, 11.Finnish, 12.Czech, 13.Hungarian, 14.Polish
	EU	1.Japanese, 2.English, 3.French, 4.Spanish, 5.Portuguese

Interface Specifications

USB 2.0

Distance Between Devices	USB cable: 5 m (5.5 yd.)
Data Transmission Speed	480 Mbps (High Speed), 12 Mbps (Full Speed)

Ethernet

Data Transmission Speed	10 Mbps, 100 Mbps
Protocol	TCP/IP
Distance Between Devices	100 m (109 yd.)

Supported Utilities

Bundled	None
Web	The following software can be downloaded. <ul style="list-style-type: none"> Smart Device Monitor for Admin Smart Device Monitor for Client

Optional	<ul style="list-style-type: none">• Remote Communication Gate S Pro• Smart Device Monitor for Admin Accounting Report Package• Desk Top Binder Lt
----------	---

2. Appendix: SP Mode Tables

Service Mode, Engine Maintenance

There are two service modes for this machine:

- **Service Mode.** This mode is menu driven and includes important items for some adjustments as well as other important functions such as displaying the firmware version number, clearing the memory, printing reports, and so on.
- **Engine Maintenance (SP) Mode.** Consists of SP codes SP1-XXX to SP9-XXX. These are printer engine SP adjustments, primarily but not exclusively used by designers for machine adjustments.

Service Mode

Entering/Exiting Service Mode

To enter Service Mode:

1. Enter the Service Mode.
2. [#Enter]> "Bit Switch"
 - Bit Switch
 - Reset Settings
 - Service Summary
 - Version Display
 - Serial No. Edit
 - Counter Setting
 - Fax No. (Not Used)
 - E. Saver Display
 - Emergency Print
 - Maintenance
 - Wireless LAN

To Exit the Service Mode

1. Press [Escape]> "Service Menu".
 2. [▼]/Menu or [▲] > "End"> [#Enter]> Standby
- or-

If you changed a setting the machine may switch off. Press [Power] to switch the machine on again. This enables the new setting(s).

These items are available on the Service Menu.

Item	Function
Bit Switch	Bit switches 1 to 8. (Described in detail below.)
Reset Settings	<ul style="list-style-type: none"> • Initialize Sys Clears all SP code settings and restores their default settings. • Clear Counters Clears all counters.
Service Summary	Prints the Service Summary. The service summary lists information about the current status of the machine. For more details, see Section 4.
Version Display	<ul style="list-style-type: none"> • Printer Version Displays the version of the printer's engine. • WLAN Version (J029 only) Displays the version of the wireless LAN interface.
Serial No. Edit	You can display the machine's serial number and edit it.
Counter Settings	<ul style="list-style-type: none"> • Counter Display Switches the counter display on and off. • LevColor Disp Switches the level counter display on and off. • Coverage Count Switches the coverage counter on and off. • Double Count Switches double counting on and off. <p>The default setting for all these items is "Off".</p>
Fax No.	Not Used.
E. Saver Display	You can specify whether or not to display the setting to enable/disable the Energy Saver timer on the user menu.
Emergency Print	You can specify whether or not to enable the Emergency Print function.

Item	Function
Maintenance	This is the same as "Maintenance" in the user menu. You can access it also from the service menu.
Wireless LAN (J029 only)	<ul style="list-style-type: none"> • WLAN Enable You can enable/disable the wireless LAN. • Destination Specify the territory in which the machine will be used.

Engine Maintenance (SP) Mode

Entering/Exiting SP Mode

To enter SP Mode

1. Enter the Service Mode.

```
SYSTEM Ver. nnn
Service Menu
```

2. [▼/Menu] or [▲]> "Engine Maint."> [#Enter].
 - Engine Maint. allows changing the settings of individual SP codes
 - For more about individual SP code settings, refer to the tables in this section.
 - There are no settings available for the following groups: SP1-XXX, SP3-XXX, SP5-XXX, SP7XXX, SP9XXX

To exit SP mode

1. At any level in the SP mode press [Escape] to return to the first level.

```
SYSTEM Ver. nnn
Service Menu
```

2. [▼/Menu] or [▲]> "End"> [#Enter].

The machine returns to standby mode.

-or-

If you changed a setting the machine may switch off. Press [Power] to switch the machine on again. This enables the new setting(s).

Using SP Mode Menus

Entering an Engine SP Code Directly

Do this procedure to enter an SP code directly if you know the number.

1. In the service tables of this section look up the number and name of the SP code to set.

Example: Set SP1-001-003 FDLEN:OFFSET for -2.5mm

"Adjust Amount of LF Offset in Sub Scan Direction"

Range: [-128 to +127/0/1/0.1mm]

2. Enter the Service Mode.

```
SYSTEM Ver. 0.08
Service Menu
```

3. [▼/Menu] or [▲]> "Engine Maint."> [#Enter]

```
SP No.
1000000
```

4. "1" is entered at the first digit, press [#Enter] to move the cursor to the 2nd digit.
5. Press [#Enter] twice to confirm the entry of "0" in the second and third fields.
6. Press [▲] once to display "1" in the fourth field, and then press [#Enter] to confirm the entry.
7. Press [#Enter] twice to confirm the entry of "0" in the fifth and sixth fields.
8. Press [▲] once to display "1" in the seventh field, and then press [#Enter] to confirm the entry.

```
FDLEN:OFFSET
1001003
```

9. Press [#Enter].

```
FDLEN:OFFSET
_000
```

10. The first digit is blank. This is the digit for the sign (plus or minus). When this digit is empty, the value is set for plus (+) but the plus sign is not displayed.

11. [▼/Menu] or [▲]> "-000"> [#Enter]> Cursor moves to 1st zero

```
FDLEN:OFFSET
-000
```

12. [▲]> "-000"> To enter the first "0", cursor moves to 2nd "0".

13. [#Enter] x2 times> "-020"> [#Enter] To enter "2" at the 2nd zero, cursor moves to 3rd "0".
14. [▲] x5 times> "-025"> [#Enter]

```
FDLEN:OFFSET
-025
```

15. [#Enter] To save the setting.

```
SP No.
1001003
```

16. [Escape]> "Engine Maint."
17. [▼/Menu] or [▲]> "End"> [#Enter]. The machine returns to standby mode.

-or-

If you changed a setting the machine may switch off. Press [Power] to switch the machine on again. This enables the new setting(s).

Bit Switch Settings

Bit SW 1

Bit	Function	Default	Details
0	Not Used	---	---
1	Periodical straightening of the transfer belt	0	<p>The transfer belt is held under tension at all time, so its bent part around the roller may become deformed.</p> <p>To prevent it, you can have the machine turn the roller periodically to change the part of the transfer belt in contact with the roller.</p> <p>0: Straighten. 1: Do not straighten.</p>

Bit	Function	Default	Details
2	Pulling back envelopes	0	<p>You can prevent the banding caused by vibration of the envelope when its trailing edge passes through the 1st pressure rollers during printing.</p> <p>The machine first feeds the envelope until its trailing edge passes through the 1st pressure roller, pulls it back to the position to start printing, and then starts printing.</p> <p>To use this function, the following requirements must be met.</p> <p>(1) Paper tray: Tray 1 (2) Paper size: Envelope (3) Paper type: Envelope or Inkjet Envelope</p> <p>This function is available only if the duplex unit is mounted.</p> <p>0: Do not pull back envelopes. 1: Pull back envelopes.</p>
3	Not Used	---	---
4	Capping print heads after printing	0	<p>You can specify whether or not to cap print heads immediately after printing.</p> <p>If the capping is not executed immediately, it is executed nine seconds after printing by the capping timer.</p> <p>0: Cap immediately. 1: Do not cap immediately.</p>
5	Periodic sending of Gratuitous ARP packets	0	<p>You can specify whether or not to send gratuitous ARP packets at regular intervals of 60 seconds.</p> <p>This will not affect the sending of gratuitous ARP packets when detecting a linked device.</p> <p>0: Do not send gratuitous ARP packets every 60 seconds. 1: Send gratuitous ARP packets every 60 seconds.</p>
6	Not Used	---	---
7	Not Used	---	---

Bit SW 2: Not used. Do not change these settings.

Bit SW 3: Emulation

Bit	Function	Default	Details
0	Not Used	---	---
1	Not Used	---	---
2	PCL5e/5c	0	Makes the printer compatible with old HP PCL printer drivers (HP4000, HP8000, etc.)
3	Not Used	---	---
4	Not Used	---	---
5	Not Used	---	---
6	Not Used	---	---
7	Not Used	---	---

Bit SW 4. Not used. Do not change these settings.

Bit SW 5. Functions Common to All Models

Bit	Function	Default	Details
0	Not Used	---	---
1	Counter menu display for charge on printer use, printing enabled after coverage counted up.	0	This is a GW specification. 0: Does not print. 1: Prints
2	Error skip.	0	Switches error skip on/off 0: Errors skipped regardless of paper size, paper type. 1: Error skipped only for PPC.
3	Not Used	---	---
4	Not Used	---	---

Bit	Function	Default	Details
5	Counter Display	0	Switches the counter display on/off. 0: Counter not displayed. 1: Counter is displayed
6	Color Level Display	0	Switches the Level Color display on/off. 0: Color level not displayed 1: Color level displays
7	Not Used	---	---

Bit SW 6. Enable Functions for Individual Printer Models

Bit	Function	Default	Details
0	Flushing Mist Prevention	0	This switch determines whether the machine waits for a while before printing in low temperature (15°C or less). OFF: No waiting ON: Waiting until the flushing mist in low temperature goes off.
1	Not Used	---	---
2	Double-Count	0	This switch sets whether the double-count counter is printed out in the system summary. OFF: No printing ON: Printing
3	Not Used	---	---
4	Not Used	---	---
5	Not Used	---	---
6	Not Used	---	---
7	Hidden Functions	0	Determines whether hidden functions (hidden paper sizes A5 SEF, B6 SEF) are displayed. 0: No A5 SEF, B6 SEF display 1: A5 SEF, B6 SEF displayed

Bit SW 7: Not Used

Bit SW 8: GW Bit Switch

Bit	Function	Default	Details
0	Not Used	---	---
1	Design Waveform Switching	0	DFU Designates waveform switch 0: For product 1: For design
2	Speed Mode Priority	0	
3	Operation Control Mode After Printer Idle	0	
4	Maintenance Mode	0	
5	Recycled Paper Menu Display	0	This switch sets whether the recycled paper charge menu of the operational panel. 0: Not displayed 1: Displayed
6	Charge Setting for Recycled Paper	0	This switch sets whether the charge bias is selected for normal paper or recycled paper. 0: Recycled paper charge 1: Normal paper charge
7	Auto Cleaning for High Volume User	0	1: Cycling the printer off/on cancels error 976, 977 and restores operation of the printer when air is frequently detected in the print heads. 0: No message is issued for frequent air detection. Set to "0" only as a temporary setting. Be sure to reset to "1" to restore normal air detection.

SP Mode Service Tables

SP Table Key

Notation	What It Means	
[range/ default /step/units]	Example: [-127 to +128/ 4.5 /1/0.1 mm].	
	-127 to +128	Range
	4.5	Default
	1	Screen increments
	0.1 mm	Unit change for every screen increment.

Here is a summary of common terms and abbreviations used in the SP code descriptions.

Term	What It Means
DFU	Denotes "Design or Factory Use". Do not change this value.
DNA This Series (J027/J028/J029)	Does not Apply. Applies to a machine of another GEIJET series, not J027/J028/J029.
DOM	"Domestic" market only (Japan)
EUA	Europe/Asia
EXP	"Export" markets (North America, Europe, Asia)
FA	"Factory Adjusted". The default setting is set at the factory or service center.
FU	Future Use. These SP codes appear but they are not enabled at this time.
This Series Only	Applies to the J027/J028/J029 only.
LE	Leading Edge
LE/TE	Leading Edge/Trailing Edge
LEF	Long Edge Feed (paper feeds sideways with the long edge feeding first)

Term	What It Means
Main Scan	This refers to printing horizontally across the width of an SEF (portrait) page.
NA	North America
SEF	Short Edge Feed (paper feeds lengthways with the short edge feeding first)
Sub Scan	This is printing vertically down the length of an SEF (portrait) page.
TE	Trailing Edge

SP1-XXX

Paper Feed

1-001-001	FDLEN:F (FA)	Adjust Sub Scan Registration (Normal Paper)
1-001-002	FDLEN:U	
	Do this SP adjust the amount of line feed for 1 scan line. Do this setting only if the line feed amount cannot be adjusted on the user menu of the printer operation panel with "Adj. Paper Feed". [-1481620 to -1481620/FA/1/0.1 mm]	
1-001-003	FDLEN:OFFSET	Adjust Amount of LF Offset in Sub Scan Direction
	Use this SP to set the amount of line feed before the print head begins its 2nd pass during bidirectional printing. Do this SP when it is necessary to correct color offset that occurs during bi-directional printing. [-128 to +127/FA/1/0.1 mm]	

Sub Scan Registration

1-001-004	REG:FD1:NORM:F (FA)	Adjust Sub Scan Registration (Normal Paper: Tray 1)
1-001-005	REG:FD1:NORM:U	

	<p>Use this SP code to adjust writing in the sub scan registration for normal paper loaded in Tray 1. Do this setting when it is necessary to fine adjust the line feed position.</p> <p>[-128 to +127/FA/1/0.1mm]</p>	
1-001-006	REG:FD:GLOS:F (FA)	Adjust Sub Scan Registration (Glossy Paper)
1-001-007	REG:FD:GLOS:U	
	<p>Use this SP code to adjust writing in the sub scan registration for glossy paper. Do this setting when it is necessary to fine adjust the line feed position.</p> <p>[-128 to +127/FA/1/0.1mm]</p>	
1-001-008	REG:FD2:NORM:F (FA)	Adjust Sub Scan Registration (Normal Paper: Tray 2)
1-001-009	REG:FD2:NORM:U	
	<p>Use this SP code to adjust writing in the sub scan registration for normal paper loaded in Tray 2. Do this setting when it is necessary to fine adjust the line feed position.</p> <p>[-128 to +127/FA/1/0.1mm]</p>	
1-001-010	REG:FD3:NORM:F (FA)	Adjust Sub Scan Registration (Normal Paper: Tray 3)
1-001-011	REG:FD3:NORM:U	
	<p>Use this SP code to adjust writing in the sub scan registration for normal paper loaded in Tray 3. Do this setting when it is necessary to fine adjust the line feed position.</p> <p>[-128 to +127/FA/1/0.1mm]</p>	
1-001-012	REG:FDM:NORM:F (FA)	Adjust Sub Scan Registration (Normal Paper: Bypass Tray)
1-001-013	REG:FDM:NORM:U	
	<p>Use this SP code to adjust writing in the sub scan registration for normal paper loaded in Bypass Tray. Do this setting when it is necessary to fine adjust the line feed position.</p> <p>[-128 to +127/FA/1/0.1mm]</p>	
1001-014	REG:FD2:GLOS:F (FA)	Adjust Sub Scan Registration (Glossy Paper: Tray 2)
1001-015	REG:FD2:GLOS:U	

	Use this SP code to adjust writing in the sub scan registration for glossy paper loaded in Tray 2. Do this setting when it is necessary to fine adjust the line feed position. [-128 to +127/FA/1/0.1 mm]	
1001-016	REG:FD3:GLOS:F (FA)	Adjust Sub Scan Registration (Glossy Paper: Tray 3)
1001-017	REG:FD3:GLOS:U	
	Use this SP code to adjust writing in the sub scan registration for glossy paper loaded in Tray 3. Do this setting when it is necessary to fine adjust the line feed position. [-128 to +127/FA/1/0.1 mm]	
1001-018	REG:FDM:GLOS:F (FA)	Adjust Sub Scan Registration (Glossy Paper: Bypass Tray)
1001-019	REG:FDM:GLOS:U	
	Use this SP code to adjust writing in the sub scan registration for glossy paper loaded in Bypass Tray. Do this setting when it is necessary to fine adjust the line feed position. [-128 to +127/FA/1/0.1 mm]	

Carriage

1-002-001	ADJ:SIDEBORAD	Adjust Sideboard (Carriage Home Position)
	Use this SP to set the reference position for installation of the right plate. Do this SP to correct the alignment of the capping position with the carriage. [-128 to +127/FA/1/0.1 mm]	

Main Scan Registration

1-002-002	REG:TR1:NORM:F (FA)	Adjust Main Scan Registration (Normal Paper: Tray 1)
1-002-003	REG:TR1:NORM:U	
	Use this SP code to adjust writing in the main scan direction for normal paper loaded in Tray 1. Do this setting when registration does not match the image start position on the user image adjustment menu. [-128 to +127/FA/1/0.1 mm]	

1-002-004	REG:TR2:NORM:F (FA)	Adjust Main Scan Registration (Normal Paper: Tray 2)
1-002-005	REG:TR2:NORM:U	
	Use this SP code to adjust writing in the main scan direction for normal paper loaded in Tray 2. Do this setting when registration does not match the image start position on the user image adjustment menu. [-128 to +127/FA/1/0.1 mm]	
1-002-006	REG:TR3:NORM:F (FA)	Adjust Main Scan Registration (Normal Paper: Tray 3)
1-002-007	REG:TR3:NORM:U	
	Use this SP code to adjust writing in the main scan direction for normal paper loaded in Tray 3. Do this setting when registration does not match the image start position on the user image adjustment menu. [-128 to +127/FA/1/0.1 mm]	
1-002-008	REG:MAN:NORM:F (FA)	Adjust Main Scan Registration (Normal Paper: Bypass Tray)
1-002-009	REG:MAN:NORM:U	
	Use this SP code to adjust writing in the main scan direction for normal paper loaded in Bypass Tray. Do this setting when registration does not match the image start position on the user image adjustment menu. [-128 to +127/FA/1/0.1 mm]	
1-002-010	REG:TR1:GROS:F (FA)	Adjust Main Scan Registration (Glossy Paper: Tray 1)
1-002-011	REG:TR1:GROS:U	
	Use this SP code to adjust writing in the main scan direction for glossy paper loaded in Tray 1. Do this setting when registration does not match the image start position on the user image adjustment menu. [-128 to +127/FA/1/0.1 mm]	
1-002-012	REG:TR2:GROS:F (FA)	Adjust Main Scan Registration (Glossy Paper: Tray 2)
1-002-013	REG:TR2:GROS:U	
	Use this SP code to adjust writing in the main scan direction for glossy paper loaded in Tray 2. Do this setting when registration does not match the image start position on the user image adjustment menu. [-128 to +127/FA/1/0.1 mm]	

1-002-014	REG:TR3:GROS:F (FA)	Adjust Main Scan Registration (Glossy Paper: Tray 3)
1-002-015	REG:TR3:GROS:U	
	Use this SP code to adjust writing in the main scan direction for glossy paper loaded in Tray 3. Do this setting when registration does not match the image start position on the user image adjustment menu. [-128 to +127/FA/1/0.1mm]	
1-002-016	REG: MAN:GROS:F (FA)	Adjust Main Scan Registration (Glossy Paper: Bypass Tray)
1-002-017	REG: MAN:GROS:U	
	Use this SP code to adjust writing in the main scan direction for glossy paper loaded in Bypass Tray. Do this setting when registration does not match the image start position on the user image adjustment menu. [-128 to +127/FA/1/0.1mm]	

Charge Width Setting Mj1,2 : Simplex (DFU)

1-010-001	CHG:W1:EDGE:1	LE/TE: Mj1,2: ID1
1-010-002	CHG:W1:MIDL:1	MIDLL: Mj1,2: ID1
1-010-003	CHG:W1:EDGE:2	LE/TE: Mj1,2: ID2
1-010-004	CHG:W1:MIDL:2	MIDLL: Mj1,2: ID2
1-010-005	CHG:W1:EDGE:3	LE/TE: Mj1,2: ID3
1-010-006	CHG:W1:MIDL:3	MIDL: Mj1,2: ID3
1-010-007	CHG:W1:EDGE:4	LE/TE: Mj1,2: ID4
1-010-008	CHG:W1:MIDL:4	MIDL: Mj1,2: ID4

Charge Width Setting Mj3,4,5 : Simplex (DFU)

1-010-009	CHG:W1:EDGE:9	LE/TE: Mj3,4,5: ID1
1-010-010	CHG:W1:MIDL:9	MIDLL: Mj3,4,5: ID1
1-010-011	CHG:W1:EDGE:10	LE/TE: Mj3,4,5: ID2

1-010-012	CHG:W1:MIDL:10	MIDL: Mj3,4,5: ID2
1-010-013	CHG:W1:EDGE:11	LE/TE: Mj3,4,5: ID3
1-010-014	CHG:W1:MIDL:11	MIDL: Mj3,4,5: ID3
1-010-015	CHG:W1:EDGE:11	LE/TE: Mj3,4,5: ID4
1-010-016	CHG:W1:MIDL:12	MIDL: Mj3,4,5: ID4

Charge Width Setting Mj1,2 : Duplex (DFU)

1-011-001	CHG:W2:EDGE:1	LE/TE: Mj1,2: ID1
1-011-002	CHG:W2:MIDL:1	MIDL: Mj1,2: ID1
1-011-003	CHG:W2:EDGE:2	LE/TE: Mj1,2: ID2
1-011-004	CHG:W2:MIDL:2	MIDL: Mj1,2: ID2
1-011-005	CHG:W2:EDGE:3	LE/TE: Mj1,2: ID3
1-011-006	CHG:W2:MIDL:3	MIDL: Mj1,2: ID3
1-011-007	CHG:W2:EDGE:4	LE/TE: Mj1,2: ID4
1-011-008	CHG:W2:MIDL:4	MIDL: Mj1,2: ID4

Charge Width Setting Mj3,4 : Duplex (DFU)

1-011-009	CHG:W2:EDGE:9	LE/TE: Mj3,4: ID1
1-011-010	CHG:W2:MIDL:9	MIDL: Mj3,4: ID1
1-011-011	CHG:W2:EDGE:10	LE/TE: Mj3,4: ID2
1-011-012	CHG:W2:MIDL:10	MIDL: Mj3,4: ID2
1-011-013	CHG:W2:EDGE:11	LE/TE: Mj3,4: ID3
1-011-014	CHG:W2:MIDL:11	MIDL: Mj3,4: ID3
1-011-015	CHG:W2:EDGE:12	LE/TE: Mj3,4: ID4
1-011-016	CHG:W2:MIDL:12	MIDL: Mj3,4: ID4

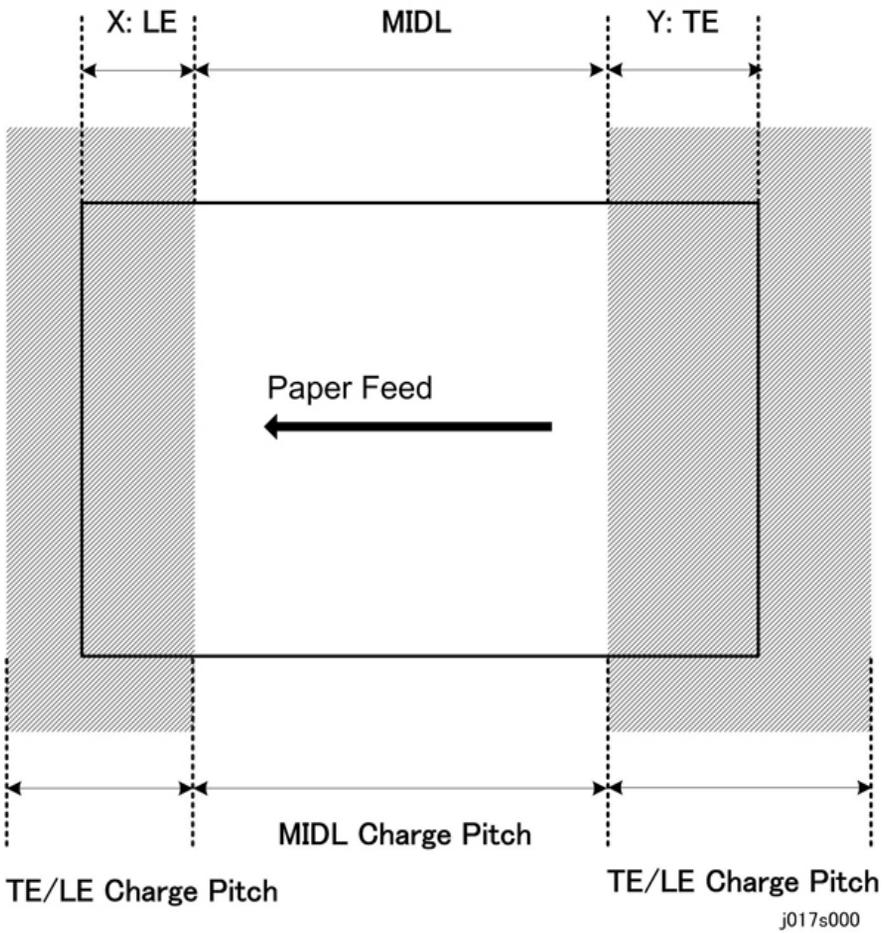
Calibrate Humidity/Temperature for Duplex (DFU)

1-012-001	CHG:TEMP:B	Calibrate Humidity Setting for Duplex
1-012-002	CHG:HUMI:B	Calibrate Temperature Setting for Duplex

Set Charge Area

2

1-012-003	CHG:AREA:EDGE:F	Set Charge of Area for LE/TE: Simplex
<p>Use this SP to set the size of the leading and trailing edges for the 1st side of paper. Do this setting when you want to adjust pitch amount of the charge applied to the leading and trailing edges for printing. The areas of the leading and trailing edges is shown below.</p> <p>[0 to 0xff/0/1/---]</p>		
1-012-004	CHG:AREA:EDGE:B	Set Charge of Area for LE/TE: Duplex
<p>Use this SP to set the size of the middle area for the 1st side of paper. Do this setting when you want to adjust pitch amount of the charge applied to the leading and trailing edges for printing. The areas of the leading and trailing edges is shown below.</p> <p>[0 to 0xff/0/1/---]</p>		
1-012-005	CHG:AREA:MIDL:F	Set Charge of Area for Middle: Simplex
<p>Use this SP to set the size of the leading and trailing edges for the 1st side of paper. Do this setting when you want to adjust pitch amount of the charge applied to the middle area for printing. The middle area is shown below.</p> <p>[0 to 0xff/0/1/---]</p>		
1-012-006	CHG:AREA:MIDL:B	Set Charge of Area for Middle: Duplex
<p>Use this SP to set the size of the leading and trailing edges for the 2nd side of paper. Do this setting when you want to adjust pitch amount of the charge applied to the middle area for printing. The middle area is shown below.</p> <p>[0 to 0xff/0/1/---]</p>		



Set Charge for Target Market

1-012-007	CHG:REGION	Set Charge for Geographic Region
-----------	------------	----------------------------------

	<p>Use the SP to set the charge for the areas listed below.</p> <p>0: Enable geographical area setting</p> <p>1: Japan</p> <p>2: NA (North America)</p> <p>3: Europe</p> <p>4: China (Mainland)</p> <p>5: China (Taiwan) "5" and "4" refer to same pitch table.</p> <p>6: Asia. "4" "5" "6" refer to same charge pitch table</p> <p>If any item other than "0" is selected that item and its setting is enabled and takes priority.</p> <p>[0 to 255/0/1/---]</p>
--	---

SP2-XXX

Not used.

SP3-XXX

Adjust Printhead Gap

3-001-001	GAP:MJ1:A:F (FA)	Drive Waveform: Mj1, Print Head: A
3-001-002	GAP:MJ1:A:U	
3-001-003	GAP:MJ1:B:F (FA)	Drive Waveform: Mj1, Print Head: B
3-001-004	GAP:MJ1:B:U	
3-001-005	GAP:MJ1:C:F (FA)	Drive Waveform: Mj1, Print Head: C
3-001-006	GAP:MJ1:C:U	
3-001-011	GAP:MJ2:A:F (FA)	Drive Waveform: Mj2, Print Head: B
3-001-012	GAP:MJ2:A:U	
3-001-013	GAP:MJ2:B:F (FA)	Drive Waveform: Mj2, Print Head: B
3-001-014	GAP:MJ2:B:U	

3-001-015	GAP:MJ2:C:F (FA)	Drive Waveform: Mj2, Print Head: C
3-001-016	GAP:MJ2:C:U	
3-001-021	GAP:MJ3:A:F (FA)	Drive Waveform: Mj3, Print Head: A
3-001-022	GAP:MJ3:A:U	
3-001-023	GAP:MJ3:B:F (FA)	Drive Waveform: Mj3, Print Head: B
3-001-024	GAP:MJ3:B:U	
3-001-025	GAP:MJ3:C:F (FA)	Drive Waveform: Mj3, Print Head: C
3-001-026	GAP:MJ3:C:U	
3-001-031	GAP:MJ4:A:F (FA)	Drive Waveform: Mj4, Print Head: A
3-001-032	GAP:MJ4:A:U	
3-001-033	GAP:MJ4:B:F (FA)	Drive Waveform: Mj4, Print Head: B
3-001-034	GAP:MJ4:B:U	
3-001-035	GAP:MJ4:C:F (FA)	Drive Waveform: Mj4, Print Head: C
3-001-036	GAP:MJ4:C:U	
3-001-041	GAP:MJ5:A:F (FA)	Drive Waveform: Mj5, Print Head: A
3-001-042	GAP:MJ5:A:U	
3-001-043	GAP:MJ5:B:F (FA)	Drive Waveform: Mj5, Print Head: B
3-001-044	GAP:MJ5:B:U	
3-001-045	GAP:MJ5:C:F (FA)	Drive Waveform: Mj5, Print Head: C
3-001-046	GAP:MJ5:C:U	

Set Print Head Rank (Wave)

3-002-001	HRANK:H1:W	Print Head 1
3-002-002	HRANK:H2:W	Print Head 2
	Use this SP to set the print head rank (wave rank) [0 to 7/FA/1/---]	

Set Print Head Rank (Voltage)

3-002-005	HRANK:H1:V	Print Head 1
3-002-006	HRANK:H2:V	Print Head 2
	Use this SP to set the print head rank (voltage rank) [0 to 7/FA/1/---]	

2

DAC Adjustment Value

3-004-001	DAC:Y1:B	Y1 Down Position
3-004-002	DAC:Y1:T	Y1 Up Position
3-004-003	DAC:Y2:B	Y2 Down Position
3-004-004	DAC:Y2:T	Y2 Up Position
	DFU	
3-004-005	DAC:C1	C1
3-004-006	DAC:C2	C2
3-004-007	DAC:X1	X1
3-004-008	DAC:X2	X2
3-004-009	DAC:C3	C3
	DFU	

Ink Consumption in the Print Cartridge

3-005-001	C:INKCONSUME:T1	Print Head Tank 1 (Cyan)
3-005-002	C:INKCONSUME:T2	Print Head Tank 2 (Black)
3-005-003	C:INKCONSUME:T3	Print Head Tank 3 (Yellow)
3-005-004	C:INKCONSUME:T4	Print Head Tank 4 (Magenta)
	Use this SP to check the ink consumption counter.	

Margin for Detecting if the Print Cartridge Has Run out of Ink

3-006-001	C:ENDMARGINE:K	K (Black)
3-006-002	C:ENDMARGINE:C	C (Cyan)
3-006-003	C:ENDMARGINE:M	M (Magenta)
3-006-004	C:ENDMARGINE:Y	Y (Yellow)
DNA This Series (J027/J028/J029)		

Set Threshold for Near-Full Alert

3-007-001	TH:WASTE:R	Software Count : Ink Collector Unit Near Full
	Use this SP to set the threshold value to trigger the near-full alert for the ink collector unit sensor. [0 to 4294967295/0/1/n]	
3-007-002	TH:WASTE:R:FULL	Software Count: Ink Collector Unit Full Alert
	Use this SP to set the threshold value of the firmware counter to trigger the full alert for the right ink collector unit sensor. [0 to 4294967295/0/1/n]	
3-007-003	TH:WASTE:L	Software Count : Ink Collector Unit Near Full
	Use this SP to set the threshold value to trigger the near-full alert for the ink collector unit sensor. [0 to 4294967295/0/1/n]	
3-007-004	TH:WASTE:L:FULL	Software Count: Ink Collector Unit Full Alert
	Use this SP to set the threshold value of the firmware counter to trigger the full alert for the right ink collector unit sensor. [0 to 4294967295/0/1/n]	
3-007-005	TH:WASTE:RF	Right Ink Sump Near-Full Threshold
	Use this SP to set the threshold value to trigger the near-full alert for the right ink sump.	
3-007-006	TH:WASTE:RF:FULL	Right Ink Sump Threshold

	Use this SP to set the threshold value of the firmware counter to trigger the full alert for the right ink sump.
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Reset and Restoration Settings

3-008-001	RST:INIT CNT:F	Reset Initial Tank Fill Count to Manufacturing Operation Count
	Resets the initial fill counter to the initial factory setting (-2).	
3-008-002	RST:INIT CNT:A	Reset Initial Tank Fill Count to Factory Shipping
	Resets the initial fill counter to the initial factory setting before shipping (-1).	
3-008-003	RST:WASTE:RC	Reset Ink Collector Count/Flag: Right Ink Collector unit
	Resets the ink flag and ink counter for the right Ink Collector unit.	
3-008-004	RST:WASTE:R	Reset Ink Collector Count/Flag: Right Ink Sump
	Resets the ink counter for the right ink sump.	
3-008-005	RST:FACT	Restore Factory Default Setting
	Resets and threshold settings and user adjusted values.	

Maintenance, Replacement

3-009-001	WASHING	Execute Auto Washing
	Executes the automatic flushing procedure.	
3-009-002	CARRIAGE CHANGE	After Carriage Replacement
	Execute this SP after replacing the carriage unit.	

SP4-XXX

Not used.

SP5-XXX

Plotter Settings

5-804-001	PLOTTER NUMBER	Plotter Machine Number Setting
	Use this SP to specify the plotter's machine number (11 digits).	
5-804-002	PLOTTER SW1	SW1(7-0bit)
5-804-003	PLOTTER SW2	SW2(15-8bit)
	DFU	

Input Check: Sensors

5-804-004	INPUT:SENSCHK1	Check Input Sensors
	Use this SP to display the on/off status of each sensor and switch. The status of each sensor (0, 1) is displayed on the 2nd line of the display.	

I	N	P	U	T	:	S	E	N	S	C	H	K	1		
0	0	0	1	0	1	0	1	1	0	0	1	1	0	0	0
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

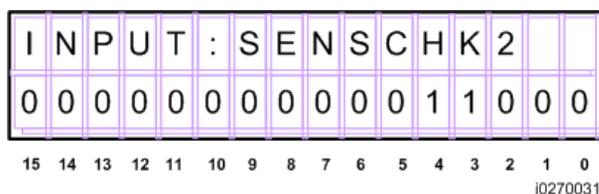
j0270030

No.	Meaning	No.	Meaning
0	Top Cover Switch	8	Paper Feed Unit (Tray 2) Relay Sensor
1	Not Used	9	Paper End Sensor (Tray 1)
2	Not Used Duplex Unit Set Sensor	10	Paper End Sensor (Tray 2)
3	Multi Bypass Set Sensor	11	Paper End Sensor (Tray 3)
4	Paper Feed Unit (Tray 2) Set Detection	12	Not Used
5	1st Registration Sensor	13	Ink Level Sensor (Feeler)
6	2nd Registration Sensor	14	Maintenance HP Sensor

No.	Meaning	No.	Meaning
7	Trailing Edge Sensor	15	Right Front Cover Switch

Input Check: Sensors

5-804-005	INPUT:SENSCHK2	Check Input Sensors
	Use this SP to display the on/off status of each sensor. The status of each sensor (0, 1) is displayed on the 2nd line of the display.	



No.	Meaning
0	USB Connection Detection
1	GJ10 Option Detection
2	Not Used
3	Not Used
4	Not Used
5	Paper Feed Unit (Tray 3) Set Detection
6	Paper Feed Unit (Tray 3) Relay Sensor
7	Paper Feed Unit (Tray 2/Tray3) Rear Cover
8	HRB Fuse Blown Detection

Input Check: Temperature and Humidity

5-804-006	INPUT CHK HTEMP	Display Print Head Temperature
	Displays the temperature reading of the print head temperature sensor. Units: 0.1°C	

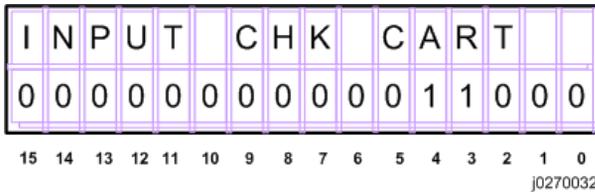
5-804-007	INPUT CHK HUTMP	Display Temperature/Humidity Sensor Reading: Temperature
	Use this SP to display the temperature reading of temperature/humidity sensor. Units: 0.1°C	
5-804-008	INPUT CHK HUM1	Display Temperature/Humidity Sensor Reading: Humidity
	Use this SP to display the humidity reading of temperature/humidity sensor. Units: 0.1%	

Input Check: Air

5-804-009	INPUT CHK AIR1	Tank 1: Analog
5-804-010	INPUT CHK AIR2	Tank 2: Analog
5-804-011	INPUT CHK AIR3	Tank 3: Analog
5-804-012	INPUT CHK AIR4	Tank 4: Analog
	Use this SP to display the analog reading of the air sensor in print head tank.	

Input Check: Ink Cartridge Set Sensors

5-804-015	INPUT CHK CART	Display Status of Ink Cartridge Set Sensors
	Use this SP to display the status of the cartridge set sensors for each ink cartridge. The status of each sensor is assigned to a column in the 2nd line of the operation panel display as shown below.	



No.	Meaning	No.	Meaning
0	K Ink Cartridge Set	8	M Ink Cartridge Refill

No.	Meaning	No.	Meaning
1	K Ink Cartridge New	9	Y Ink Cartridge Set
2	K Ink Cartridge Refill	10	Y Ink Cartridge New
3	C Ink Cartridge Set	11	Y Ink Cartridge Refill
4	C Ink Cartridge New	12	Not Used
5	C Ink Cartridge Refill	13	
6	M Ink Cartridge Set	14	
7	M Ink Cartridge New	15	

Input Check: Ink Cartridge Levels

5-804-016	INPUT CHK RES:Y	Yellow Ink Cartridge
5-804-017	INPUT CHK RES:M	Magenta Ink Cartridge
5-804-018	INPUT CHK RES:C	Cyan Ink Cartridge
5-804-019	INPUT CHK RES:K	Black Ink Cartridge
	Use this SP to display the amount of ink that remains in each ink cartridge. Units: %	

Encoder Readings

5-804-020	INPUT CHK MENC	Horizontal Encoder
	Use this SP to display the current reading of the main scan encoder.	
5-804-021	INPUT CHK SENC	Vertical Encoder
	Use this SP to display the current reading of the sub scan encoder.	

Board Temperature Sensors

5-804-022	INPUT CHK DTEMP	Drive Board Temperature Sensor
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	Displays the temperature reading of the temperature sensor in the DRV board circuits. Units: 0.1 °C	
5-804-023	INPUT CHK RCWS	Right Ink Sump Set Status
	This SP code checks the current status of the right ink sump. Displays "1" if set correctly.	
5-804-024	INPUT CHK RCWR	Right Ink Sump Capacity
	The SP code checks and displays the amount of space remaining in the right ink sump.	
5-804-025	INPUT CHK RCWC	Right Ink Sump Count
	This SP code checks and displays the software count for the right ink sump.	

Area Selection

5-807-001	Area Selection	-
	Use this SP code to specify the destination.	

Set Init Value

5-831-001	Set Init Value	-
	Use this SP code to set initial value.	

USB POWER MODE

5-844-011	USB POWER MODE	Power Interlock via USB
	Use this SP code to specify whether to enable or disable Power Interlock via USB (a function to detect if a USB cable is connected and if the power of the host computer connected via USB is on or off and switching the printer on or off accordingly).	

Installation Date / Printing Installation Date

5-849-001	Install Date	
	The date of the initial operation by the user is displayed as the installation date.	
5-849-002	InstallDate Prnt	
	Specify whether to print the installation date on the page counter and system summary.	

Print an Engine Maintenance Summary

5-990-002	PRINT SMC	
	Use this SP to print an engine maintenance summary. You need at least 6 sheets of paper to do this print. It will take at least 3 minutes before the print will start.	

SP6-XXX

Not used.

SP7-XXX

Display Count: Machine Total

7-001-001	INIT CNT:A	This counter operates from the initial ink filling after the machine's arrival.
	This total counter starts from "-1", which indicates the flag before the machine's installation.	
7-001-002	LIFE TOTAL CNT	Normal Total Counter
	This total counter starts from "0".	

Display Count: User Cleaning

7-002-001	USER CL CNT:H1	Print Head 1 (C / K)
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7-002-002	USER CL CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the total number of print head cleanings executed from the printer driver and from the printer operation panel.	

Display Count: User Flushing

7-002-005	USER RF CNT:H1	Print Head 1 (C / K)
7-002-006	USER RF CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the total number of print head flushings executed from the printer driver and from the printer operation panel.	

Display Count: Air Purges/Re-fillings After SC990

7-002-009	AOFL CNT:S:H1	Print Head 1 (C / K)
7-002-010	AOFL CNT:S:H2	Print Head 2 (Y / M)
	Use this SP to display the number of air purge/ink tank re-fillings after SC990 has occurred.	

Display Count: Air Purges/Re-fillings After Ink End

7-002-013	AOFL CNT:I:H1	Print Head 1 (C / K)
7-002-014	AOFL CNT:I:H2	Print Head 2 (Y / M)
	Use this SP to display the number of air purge/ink tank re-fillings after an ink tank has run out of ink.	

Display Count: Air Purges/Re-fillings after Excessive Ink Consumption

7-002-017	AOFL CNT:P:I:H1	Print Head 1 (C / K)
7-002-018	AOFL CNT:P:I:H2	Print Head 2 (Y / M)
	Use this SP to display the number of air-purge/ink tank re-fillings performed after excessive ink consumption.	

Display Count: Additional Air Purges/Re-fillings after Detecting Air

7-002-021	AOFL CNT:A:H1	Print Head 1 (C / K)
7-002-022	AOFL CNT:A:H2	Print Head 2 (Y / M)
	Use this SP to display the number of air-purge/ink tank re-fillings performed after air is detected in the head tank and the problem remains even after ink re-fillings.	

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Display Count: Air Purges/Re-fillings after Detecting Air

7-002-025	AOFL CNT:P:A:H1	Print Head 1 (C / K)
7-002-026	AOFL CNT:P:A:H2	Print Head 2 (Y / M)
	Use this SP to display the number of air-purge/ink tank re-fillings performed after air is detected in the head tank and the problem remains even after ink re-fillings.	

Display Count: Additional Air Purges/Re-fillings after Humidity Change

7-002-029	AOFL CNT:H:H1	Print Head 1 (C / K)
7-002-030	AOFL CNT:H:H2	Print Head 2 (Y / M)
	Use this SP to display the number of air-purge/ink tank re-fillings performed after humidity change of 15% or more and the problem remains even after ink re-fillings.	

Display Count: Air Purges/Re-fillings after Humidity Change

7-002-033	AOFL CNT:P:H:H1	Print Head 1 (C / K)
7-002-034	AOFL CNT:P:H:H2	Print Head 2 (Y / M)
	Use this SP to display the number of air-purge/ink tank re-fillings performed after humidity change of 15%.	

Display Count: Ink Circulation Sequence

7-002-037	SND LQD TUP:H1	Print Head 1 (C / K)
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7-002-038	SND LQD TUP:H2	Print Head 2 (Y / M)
	Use this SP to display the number of ink circulation sequence performed.	

Display Count: Ink Circulation Sequence after Humidity Change

7-002-041	SND LQD TUP:H:H1	Print Head 1 (C / K)
7-002-042	SND LQD TUP:H:H2	Print Head 2 (Y / M)
	Use this SP to display the number of ink circulation sequence performed if humidity change of 15% of above occurs within six hours after the last air-purge/ink tank re-filling.	

Display Count: Air Purges/Re-fillings after Feed Pump Idle Time

7-002-045	LONG PUMP AIR:H1	Print Head 1 (C / K)
7-002-046	LONG PUMP AIR:H2	Print Head 2 (Y / M)
	DNA This Series (J027/J028/J029)	

Display Count: Air Detected at Power On

7-002-049	AIR CNT:P:T1	Print Head Tank 1 (Cyan)
7-002-050	AIR CNT:P:T2	Print Head Tank 2 (Black)
7-002-051	AIR CNT:P:T3	Print Head Tank 3 (Yellow)
7-002-052	AIR CNT:P:T4	Print Head Tank 4 (Magenta)
	Use this SP to display the number of times air was detected by the air sensor a print head tank at power on.	

Display Count: Air Detection Frequency

7-002-055	AIRLEAKCHK:TH	Threshold
7-002-056	AIRLEAKCHK:TIM	Time/Date

7-002-057	AIRLEAKCHKCNT:H1	Print Head 1 (C / K)
7-002-058	AIRLEAKCHKCNT:H2	Print Head 2 (Y / M)
	<p>-055: Use this SP to specify the threshold for displaying SC282-11-13 (The default is to 17).</p> <p>-056: Use this SP to specify the period over which to count the number of air detection (The default is 10 days).</p> <p>-057, -058: Use this SP to display the number of air detection in the specified period.</p>	

Display Count: Automatic Cleanings Between Page Prints

7-002-061	ACL CNT:P:H1	Print Head 1 (C / K)
7-002-062	ACL CNT:P:H2	Print Head 2 (Y / M)
	Use this SP to display the number of automatic print head cleanings between page prints while print jobs were executing.	

Display Count: Automatic Cleanings Before Print Head Capping

7-002-065	ACL CNT:B:H1	Print Head 1 (C / K)
7-002-066	ACL CNT:B:H2	Print Head 2 (Y / M)
	Use this SP to display the number of automatic print head cleanings before print head capping.	

Display Count: Automatic Print Head Cleanings (After De-Cap Time Elapsed)

7-002-069	ACL CNT:D:H1	Print Head 1 (C / K)
7-002-070	ACL CNT:D:H2	Print Head 2 (Y / M)
	Use this SP to display the number of times the automatic print head cleaning executed triggered by time exceeded the threshold set for the de-capping time.	

Display Count: Time Length after the Last Automatic Maintenance

7-002-073	ALNMNT CNT:TM1	Idle Time 1
7-002-074	ALNMNT CNT:TM2	Idle Time 2
7-002-075	ALNMNT CNT:TM3	Idle Time 3
7-002-076	ALNMNT CNT:TM4	Idle Time 4
	DNA This Series (J027/J028/J029)	

Display Count: Ink Discharge for Maintenance after Idle Time (Small/Large)

7-002-077	ALNSPURG CNT:H1	Small Head 1
7-002-078	ALNSPURG CNT:H2	Small Head 2
7-002-081	ALNLPURG CNT:H1	Large Head 1
7-002-082	ALNLPURG CNT:H2	Large Head 2
	Use this SP to display the counter of the 7-002-073 and 7-002-074 maintenances of each print head.	

Display Count: Cleaning after Idle Time

7-002-085	ALNCL CNT:H1	Print Head 1 (C / K)
7-002-086	ALNCL CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the counter of the 7-002-075 and 7-002-076 maintenances of each print head.	

Display Count: Air Purges/Re-fillings after Idle Time

7-002-089	ALNAOFL CNT:H1	Print Head 1 (C / K)
7-002-090	ALNAOFL CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the number of air-purge/ink tank re-fillings performed after detecting air during the automatic maintenance performed after the set idle time (SP7-002-073 to 076).	

Display Count: Ink Circulation Sequence after Idle Time

7-002-093	ALNSNDLQD CNT:H1	Print Head 1 (C / K)
7-002-094	ALNSNDLQD CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the number of ink circulation sequence performed after the machine is left idle for 45 or more days.	

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Display Count: Air Purges/Re-fillings predetermined time elapsed

7-002-095	AOFL CNT:TM:H1	Print Head 1 (C / K)
7-002-096	AOFL CNT:TM:H2	Print Head 2 (Y / M)
	-	

Display Count: Tank Full: Ink Collector Unit

7-003-001	WASTE CNT:R:FULL	Ink Collector Unit
	Use this SP to display the current count for the number of times the status of the Ink Collector unit has changed from near-full to full. Note: The full threshold is 3 ml.	

Display Full Count for Right Ink Sump

7-003-002	WASTE CNT:RF:FUL	Right Ink Sump Full Count
	This SP code displays the full count for the right ink sump.	

Display Count: Mist Counter for Automatic Cleaning

7-003-003	MIST CNT:T1	Print Head Tank 1 (Cyan)
7-003-004	MIST CNT:T2	Print Head Tank 2 (Black)
7-003-005	MIST CNT:T3	Print Head Tank 3 (Yellow)
7-003-006	MIST CNT:T4	Print Head Tank 4 (Magenta)

	Use this SP to display the number of times that the swing plate of the left Ink Collector unit has made contact with the carriage.
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Display Count: Paper Dust Counter for Automatic Cleaning

7-003-009	FEED CNT:H1	Print Head 1 (C / K)
7-003-010	FEED CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the current reading of the ink mist counter that determines when to execute automatic cleaning.	

Display Count: Cap Off Time for Automatic Print Head Cleaning

7-003-013	DECAP TIME	
	Use this SP to display the de-capping time used to determine whether automatic cleaning is executed after the printer returns from idle mode.	

Display Humidity Reading Before Automatic Print Head Cleaning

7-003-014	HUMI:ACL:AL	
	Use this SP to display the temperature reading before capping operation used to determine whether automatic print head cleaning is done after the printer returns from idle mode.	

Display Count: Ink Circulation Starting Time

7-004-001	START:SNDLQD:H1	Print Head 1 (C / K)
7-004-002	START:SNDLQD:H2	Print Head 2 (Y / M)
	Use this SP to display the starting time of ink circulation sequence.	

Display Count: Pump Suspension Starting Time

7-004-005	START:PM STOP:T1	Print Head Tank 1 (Cyan)
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7-004-006	START:PM STOP:T2	Print Head Tank 2 (Black)
7-004-007	START:PM STOP:T3	Print Head Tank 3 (Yellow)
7-004-008	START:PM STOP:T4	Print Head Tank 4 (Magenta)
	DNA This Series (J027/J028/J029)	

Display Count: Time Length of Feed Pump Suspension with the Power On

7-005-001	STOP:PON PUMP:T1	Print Head Tank 1 (Cyan)
7-005-002	STOP:PON PUMP:T2	Print Head Tank 2 (Black)
7-005-003	STOP:PON PUMP:T3	Print Head Tank 3 (Yellow)
7-005-004	STOP:PON PUMP:T4	Print Head Tank 4 (Magenta)
	DNA This Series (J027/J028/J029)	

Display Count: Uncapped Time Length

7-006-001	ENV:ACL DECAPTIM	
	Use this SP to display the total time length when the maintenance unit's cap is released from the print head.	

Display Count: Need for Ink Circulation Sequence

7-007-001	JDG:LIQUID MNT	
	Use this SP to display if it is necessary to perform ink circulation sequence. Obit for Print Head 1 1 bit for Print Head 2 1: Ink circulation sequence needed 0: Ink circulation sequence not needed	

Display: Print Head Temperature during the Last Air-Purge/Ink Re-filling

7-008-001	TEMP:DIFF POS:H1	Print Head 1 (C / K)
7-008-002	TEMP:DIFF POS:H2	Print Head 2 (Y / M)
	Use this SP to display the print head temperature during the last time air-purge/ink tank re-filling was performed.	

Display: Print Head Humidity during the Last Air-Purge/Ink Re-filling

7-009-001	HUMI:DIFF POS:H1	Print Head 1 (C / K)
7-009-002	HUMI:DIFF POS:H2	Print Head 2 (Y / M)
	Use this SP to display the print head humidity during the last time air-purge/ink tank re-filling was performed.	

Display: Temperature during the Last Maintenance

7-010-001	HTEMP:FIN MNT:H1	Print Head 1 (C / K)
7-010-002	HTEMP:FIN MNT:H2	Print Head 2 (Y / M)
	Use this SP to display the temperature during the last time print head maintenance was performed.	

Display Count: Ink Discharge to the Cap for Maintenance

7-011-001	PURGE INKCNT:CAP	
	DNA This Series (J027/J028/J029)	

Display Count: Ink Discharge for Maintenance after Idle Time (Small)

7-012-001	PURGE CNT:C:H1	Print Head 1 (C / K)
7-012-002	PURGE CNT:C:H2	Print Head 2 (Y / M)
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Display Count: Ink Discharge for Maintenance after Idle Time (Small or Large)

7-012-003	PURGE CNT:C2:H1	Print Head 1 (C / K)
7-012-004	PURGE CNT:C2:H2	Print Head 2 (Y / M)
	-	

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Display Count: Ink Cartridge Replacements

7-013-001	CART CHG CNT:K	K (Black)
7-013-002	CART CHG CNT:C	C (Cyan)
7-013-003	CART CHG CNT:M	M (Magenta)
7-013-004	CART CHG CNT:Y	Y (Yellow)
	Use this SP to display the number of times the carriage has been replaced.	
7-013-005	CART RFIL CNT:K	Ink cartridge refill count: K (Black)
7-013-006	CART RFIL CNT:C	Ink cartridge refill count: C (Cyan)
7-013-007	CART RFIL CNT:M	Ink cartridge refill count: M (Magenta)
7-013-008	CART RFIL CNT:Y	Ink cartridge refill count: Y (Yellow)
	Use this SP to display the number of times the ink cartridges have been refilled.	

Display Count: Total Ink Cartridge Out

7-013-009	EMPTY CNT:C1	Ink Cartridge K (Black)
7-013-010	EMPTY CNT:C2	Ink Cartridge C (Cyan)
7-013-011	EMPTY CNT:C3	Ink Cartridge M (Magenta)
7-013-012	EMPTY CNT:C4	Ink Cartridge Y (Yellow)
	Use this SP to display the number of times that each ink cartridge has become empty.	

Display Standby Time

7-014-001	PWAIT:DATE	YY:MM:DD
	Display the total time the printer has remained in standby mode. Date Standard: 2000	

Display Operation Start Date

7-014-002	START:DATE	YY:MM:DD
	Display the total time the printer has remained in full operation. Date Standard: 2000	

Date Display SC Log

7-014-003	SC CODE1	Log 1: Previous
7-014-004	SC CODE2	Log 2: Previous-1
7-014-005	SC CODE3	Log 3: Previous-2
7-014-006	SC CODE4	Log 4: Previous-3
7-014-007	SC CODE5	Log 5: Previous-4
	Use this SP to display the SC code history. <ul style="list-style-type: none"> • The occurrences of SC codes are stored in the order 1, 2, 3, 4, 5. • Duplicate occurrences of SC codes are not recorded (each SC code recorded only once). 	

Display Total Count: SC Log

7-014-008	SC COUNT1	Log 1: Previous
7-014-009	SC COUNT2	Log 2: Previous-1
7-014-010	SC COUNT3	Log 3: Previous-2
7-014-011	SC COUNT4	Log 4: Previous-3

7-014-012	SC COUNT5	Log 5: Previous-4
	Use this SP to display the number of times SC codes have been issued. The occurrences of SC codes are stored in the order 1-5.	

Display Jam Log

2

7-014-013	JAM CODE1	Log 1: Previous
7-014-014	JAM CODE2	Log 2: Previous-1
7-014-015	JAM CODE3	Log 3: Previous-2
7-014-016	JAM CODE4	Log 4: Previous-3
7-014-017	JAM CODE5	Log 5: Previous-4
7-014-018	JAM CODE6	Log 6: Previous-5
7-014-019	JAM CODE7	Log 7: Previous-6
7-014-020	JAM CODE8	Log 8: Previous-7
7-014-021	JAM CODE9	Log 9: Previous-8
7-014-022	JAM CODE10	Log 10: Previous-9
	Use this SP to display the jam code history. The occurrences of jam codes are stored in the order 1-10	

Display Total Count: Jam Log

7-014-023	JAM COUNT1	Log 1: Previous
7-014-024	JAM COUNT2	Log 2: Previous-1
7-014-025	JAM COUNT3	Log 3: Previous-2
7-014-026	JAM COUNT4	Log 4: Previous-3
7-014-027	JAM COUNT5	Log 5: Previous-4
7-014-028	JAM COUNT6	Log 6: Previous-5
7-014-029	JAM COUNT7	Log 7: Previous-6

7-014-030	JAM COUNT8	Log 8: Previous-7
7-014-031	JAM COUNT9	Log 9: Previous-8
7-014-032	JAM COUNT10	Log 10: Previous-9
	Use this SP to display the number of times jam codes have been issued. The occurrences of jam codes are stored in the order 1-10.	

Display Total Count: Ink Fill Log

7-014-033	FILL PROGRESS1	Log 1: Previous
7-014-034	FILL PROGRESS2	Log 2: Previous-1
7-014-035	FILL PROGRESS3	Log 3: Previous-2
7-014-036	FILL PROGRESS4	Log 4: Previous-3
	Use this SP to display the number of times initial tank filling has been performed.	

Display Maintenance Log

7-014-037	LAST MNT TM1	Log 1: Previous
7-014-038	LAST MNT TM2	Log 2: Previous-1
7-014-039	LAST MNT TM3	Log 3: Previous-2
	Use this SP the total time for all maintenance executions.	

Display Maintenance Log: By Type of Maintenance

7-014-040	LAST MAINTE1	Log 1: Previous
7-014-041	LAST MAINTE2	Log 2: Previous -1
7-014-042	LAST MAINTE3	Log 3: Previous -2
	Use this SP to display the types of maintenance executed. The types of maintenance are number coded as shown below:	
	1	Maintenance at power on

	6	Maintenance idle operation
	7	Auto print head cleaning after idle time elapsed
	8	Maintenance air detection
	9	ink collector unit filling before maintenance page
	10	ink collector unit filling between maintenance pages
	11	ink collector unit filling before maintenance capping
	12	Maintenance cartridge replacement
	13	Cleaning between maintenance pages
	14	Cleanings before maintenance capping
	15	Maintenance manual cleaning
	16	Maintenance manual flushing

Display Maintenance Log: Total Count

7-014-043	LAST MNT CNT1	Log 1: Previous
7-014-044	LAST MNT CNT2	Log 2: Previous-1
7-014-045	LAST MNT CNT3	Log 3: Previous-2
	Use this SP to display the total count for all maintenance executions.	

Display: Time/Type of the Last Print Head Maintenance

7-014-046	LAST MNT TM:H1	Print Head 1 (C / K) Maintenance Time
7-014-047	LAST MNT TM:H2	Print Head 2 (Y / M) Maintenance Time
7-014-050	LAST MAINT:H1,2	Print Head 1 , 2 Maintenance Type
	Use this SP to display the time and type of the last maintenance performed to each print head.	

Display: SC Sub Code History

7-014-051	SC SUB CODE1	Log 1: Previous
7-014-052	SC SUB CODE2	Log 2: Previous-1
7-014-053	SC SUB CODE3	Log 3: Previous-2
7-014-054	SC SUB CODE4	Log 4: Previous-3
7-014-055	SC SUB CODE5	Log 5: Previous-4
	Use this SP to display SC sub code histories.	

Display: Jam Position History

7-014-056	JAM POS1	Log 1: Previous
7-014-057	JAM POS2	Log 2: Previous-1
7-014-058	JAM POS3	Log 3: Previous-2
7-014-059	JAM POS4	Log 4: Previous-3
7-014-060	JAM POS5	Log 5: Previous-4
7-014-061	JAM POS6	Log 6: Previous-5
7-014-062	JAM POS7	Log 7: Previous-6
7-014-063	JAM POS8	Log 8: Previous-7
7-014-064	JAM POS9	Log 9: Previous-8
7-014-065	JAM POS10	Log 10: Previous-9
	Use this SP to display the jam position histories.	

Display Maintenance Log: Air Purge Execution Date

7-014-066	LAST AOFLMNT TM1	Print Head 1 (C / K)
7-014-067	LAST AOFLMNT TM1	Print Head 2 (Y / M)
	Use this SP to display the date of air purge executed.	

Display Position of Tank Full Feeler for Each Print Head Tank After Air Purge

7-015-001	INIT POS:T1	Print Head Tank 1 (Cyan)
7-015-002	INIT POS:T2	Print Head Tank 2 (Black)
7-015-003	INIT POS:T3	Print Head Tank 3 (Yellow)
7-015-004	INIT POS:T4	Print Head Tank 4 (Magenta)
	Use this SP to display the detected position of the print head tank full sensor at air venting/ink filling.	

Display Normal Position for Detection of Full Print Head Tank

7-015-007	FULL POS:T1	Print Head Tank 1 (Cyan)
7-015-008	FULL POS:T2	Print Head Tank 2 (Black)
7-015-009	FULL POS:T3	Print Head Tank 3 (Yellow)
7-015-010	FULL POS:T4	Print Head Tank 4 (Magenta)
	Use this SP to display the usual position of the print tank full sensor when the ink collector unit is filled	

Display: Encoder Count Difference Between Air-Purge/Ink Re-fillings and Usual Re-fillings

7-015-013	DIFF POS:T1	Print Head Tank 1 (Cyan)
7-015-014	DIFF POS:T2	Print Head Tank 2 (Black)
7-015-015	DIFF POS:T3	Print Head Tank 3 (Yellow)
7-015-016	DIFF POS:T4	Print Head Tank 4 (Magenta)
	Use this SP to display the difference in the encoder counter in the scanning direction (1200 dpi) between air-purge/ink tank re-fillings and usual re-fillings.	

Display Count: Number of Drive Cleanings

7-015-019	DCL CNT:H1	Print Head 1 (C / K)
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7-015-020	DCL CNT:H2	Print Head 2 (Y / M)
	Use this SP to display the number of automatic print head cleanings done during printing	

2

Display Count: Ink Supply Time Up

7-015-023	DCL CNT:T1	Print Head Tank 1 (Cyan)
7-015-024	DCL CNT:T2	Print Head Tank 2 (Black)
7-015-025	DCL CNT:T3	Print Head Tank 3 (Yellow)
7-015-026	DCL CNT:T4	Print Head Tank 4 (Magenta)
	Use this SP to display the number of times near-end/end was detected by time up while ink was being supplied to the ink collector units.	

Display Count: Ink Discharge for Maintenance at the Right

7-015-029	PMNT CNT	
	Use this SP to display the number of ink discharge for maintenance performed when the carriage moves to the right end.	

Emergency Mode

7-016-001	EMERG:START	Emergency mode start time.
7-016-002	EMERG:STP:FLG	Emergency mode stop flag.
7-016-003	EMERG:CNT	Emergency mode stop count.
	-	

Display Count: Emergency Mode

7-016-004	EMERG:NUM	-
	Use this SP to display the number of emergency mode executed.	

Display Emergency Mode Log

7-016-005	EMERG:STP:TIM	Emergency mode period stop number
7-016-006	EMERG:STP:NUM	Emergency mode count stop number
7-016-007	EMERG:STP:AIR	Emergency mode air leak stop number
7-016-008	EMERG:STP:INKEND	Emergency mode ink end stop number
	-	

2

Display Count: Emergency mode print

7-016-009	EMERG:PRINT CNT	Emergency mode print count
	-	

Display: Emergency mode period stop threshold

7-016-010	EMERG:TH	Emergency mode period stop threshold
	-	

SP8-XXX

Not used.

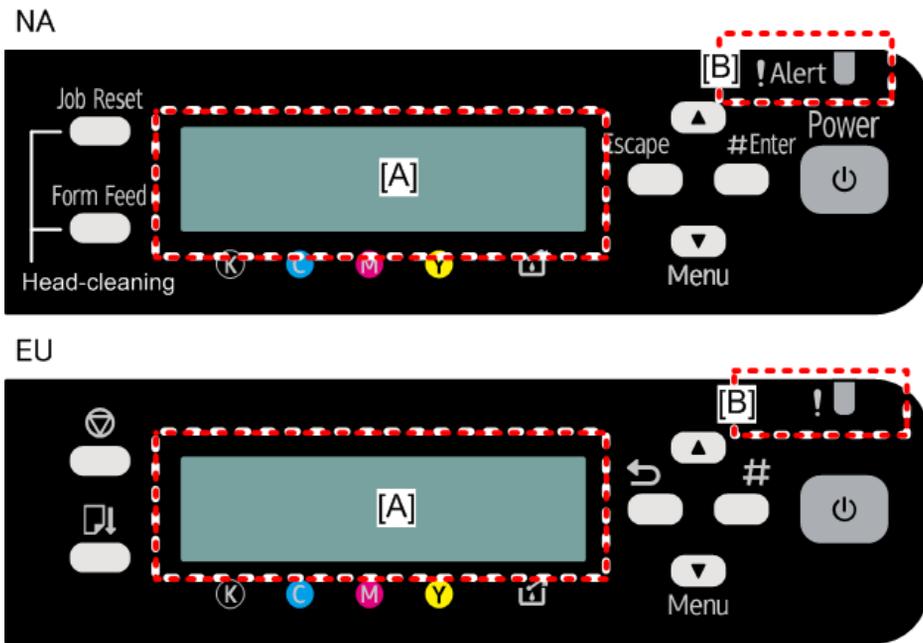
SP9-XXX

Not used.

3. Appendix: Troubleshooting Guide

Error Codes

Operation Panel Display



j0270029

Messages follow a priority in keeping the operator informed about the status of the machine.

- The LCD [A] and Alert LED [B] are used to indicate errors.
- If two or more status messages are issued at the same time, the message with the highest priority is displayed first.
- The table below shows the priority of how status messages are displayed on the operation panel.

Error Priority Table

Priority	Error Type	Alarm LED (Red)	LCD Display
High	SC	Lighting	No. Display

Priority	Error Type		Alarm LED (Red)	LCD Display
	Operator Call		Lighting	Message Display
	Normal Status	Warning Condition	Blinking	
Low		Diagnostic Error	Blinking	

- There are two types of error display, one uses text messages and another uses numbers.

3

Error Classifications

Error Type	Description	Main Error
Warning Condition	The machine can print, but the warning message is issued to the operator because the machine will stop printing if the condition is left unattended and not corrected.	<ul style="list-style-type: none"> • Left ink sump near full • Ink collector unit near full • Ink low • Print head maintenance failed • Temperature out of operation range • Ink filling

Error Type	Description	Main Error
Abnormal Conditions	An abnormal condition exists that prevents the machine from printing. The machine cannot print until the condition has been corrected. Once the condition has been corrected, the machine can resume printing without cycling the machine off/on. The corrective measures can be done by the operator to restore operation.	<ul style="list-style-type: none"> • Ink cartridge empty (printing possible) • Ink cartridge empty (printing not possible) • Ink end print error • Used ink cartridge • Ink collector unit full • Used ink collector unit • Paper jam • Confirmation after re-filling • Cover Open • Unit not detected • Paper jam • Print Cartridge(s) Not Detected/Cover Open • Paper size or paper type mismatch error • Paper size error • No paper present • Temperature out of operation range
Breakdown or failure error (SC)	An abnormal condition exists indicating a breakdown that prevents the machine from printing. After the cause of the problem has been removed, the machine must be cycled off/on to restore normal operation. The machine basically requires servicing (the problem cannot be solved by the operator).	See the "Error Code" table.
Print/Data Errors	The designated print operation cannot function, or there is a print data error.	<ul style="list-style-type: none"> • Memory overrun • Work memory overrun • Data flow interruption

Error Type	Description	Main Error
Diagnostic Error	The machine fails to operate due to a problem with the CTL board or a controller option.	<ul style="list-style-type: none"> • Parallel interface error • Memory error • Flash memory error

Temperature Range Errors

At power on	At power on, the printer is ready to print and Ready status is maintained	Once the machine has entered the usable temperature range that guarantees optimum operation, the machine automatically enters the Ready status.
Printing...	Operation has been interrupted to wait for the machine to resume the Ready status.	Maintains machine Ready status. The machine needs to be cycled off/on.

- Once the machine falls below or exceeds the usable temperature range, quality printing can no longer be assured so an error message will alert the operator that printing will stop until normal temperature has been restored.
- If such an error occurs, the machine should be moved to a location where ambient temperature is 10 to 32° C (50 to 89.6F).

Operation Panel Messages

1. Normal Status

No.	Message	Action
01	Loading Ink... / WAIT! N minutes	Ink being filled. "N" indicates time required for this operation. Do not touch any keys during the operation.
02	Processing...	Print job is in progress.
03	Ready	Machine is ready to print.
04	Waiting...	Printer is warming up or waiting for print job data.
05	Resetting Job...	A print job is being reset. Wait a few moments.

No.	Message	Action
06	Setting Change...	Print settings are being updated. Wait a few moments.
07	Panel Locked Cannot use	You have pressed a locked key on the operation panel, so release the lock.
08	Maintenance in Process...	Print head cleaning or flushing is in progress. Wait for print head maintenance to finish.
09	Page Drying...	Being dried.
10	Cleaning Feed Belt...Wait 2min	Charge leakage is being removed.
11	Shutting down...	This appears while the machine shuts down.

2. Diagnostic Errors

No.	Message	Action
12	Hardware Problem: Ethernet Board	Ethernet error occurred. Disconnect all connected cables, and then cycle the machine off/on. If this message is displayed again, call for service.

3. Warning Errors

No.	Message	Action
13	Low Ink	Ink cartridge is almost empty. Note the color of the ink cartridge where ink supply is low, and then procure and new cartridge of the same color.
14	Temp. alert Please wait...	Machine temperature was abnormal at power on. Wait for the "Ready" message.
15	Right Int. Unit almost full	Replace the internal unit (right ink sump).

No.	Message	Action
16	Indepdnt.ink set --or-- Indepdnt.ink set / Replace Ink Crtg --or-- Indepdnt.ink set / Press # to continue	An ink tank cartridge unapproved for use with this machine has been installed. Use of ink cartridges not approved for use with this machine, or attempting to re-fill depleted ink cartridges, will diminish print quality. Always use new Ricoh ink cartridges specifically designed for use with these machines.
17	Maint. failed Press # to exit	Print head cleaning, print head flushing, or another operation failed. The machine can be released from the error by one of the following conditions. <ul style="list-style-type: none"> • When the next job request is detected • After the [#] key is pressed
18	Prepare new Ink Collector Unit	The ink collector unit is almost full. Make sure you have a new ink collector on hand. If a print cartridge starts running out of ink when the ink collector unit is almost full, the alert indicator will flash and a message informing you of the cartridge's low ink level will appear on the display. To prevent job delay due to a full ink collector unit, always have a new ink collector unit ready.

4. Operator Calls

No.	Message	Action
19	Open Front Cover / Replace Ink Crtg	Ink cartridge is empty. Replace the empty cartridge with a new one.
20	Open Front Cover / Reset Cartridge	Ink cartridge is not installed. Or, the ink cartridge is installed but not set correctly. Set the ink cartridge correctly.
21	Cannot recover error page(s) / FormFeed to print remaining	An unprinted page still remains after recovery from a paper jam or another problem and re-starting printing. Press [Form Feed] to eject the sheet. Press [Job Reset] to delete any data remaining from the previous job.
22	Top Cover is open /Close Top Cover	The top cover is open. Check and close the top cover.

No.	Message	Action
25	Cannot use High Temp./ Power Off On	Machine temperature is high and has exceeded the high temperature range for normal operation. Re-locate the machine to a location within the temperature range and wait for the machine to acquire room temperature.
26	Cannot use Low Temp./Power Off On	Machine temperature is low and has fallen below the low temperature range for normal operation. Re-locate the machine to a location within the temperature range and wait for the machine to acquire room temperature.
27	Ink depleted / Used Ink Ctrrdge	A used print cartridge has been installed. Install a new print cartridge.
28	Used Ink Collect Unit is set/ Replace Ink Collector Unit	A used ink collector unit has been installed. Install a new ink collector unit.
29	Reset Bypass Tray correctly	Multi bypass tray unit is not set correctly. Make sure that the multi bypass tray is set correctly.
30	Load Paper:Tray 1 --or-- Load Paper:Tray #/ or Form Feed --or-- Load Ppr.:Bypass / or Form Feed	<p>Paper has run out in the selected tray. Load paper in the selected tray. Or, press [Form Feed] and select another tray holding paper for printing. Press [Job Reset] to delete any data remaining from the previous job. The tray numbers depend on the machine model.</p> <ul style="list-style-type: none"> The trays are designated Tray 1, 2 or Bypass.
31	Change Setting Tray # / (paper size) (paper type)	<p>The type and/or size of paper in the selected tray do not match the type and/or size of the paper selected for the job. Replace the paper in the tray with paper of the size/type selected for the job, and then change the paper size/type on the operation panel. Or, press [Form Feed] and select another tray holding paper of the size/type selected for printing. Press [Job Reset] to delete any data remaining from the previous job. The tray numbers depend on the machine model.</p> <ul style="list-style-type: none"> The trays are designated Tray 1, 2 or Bypass.

No.	Message	Action
32	Load Paper or Form Feed/ (paper size) (paper type)	<p>When using Auto Tray Select, the type and/or size of the paper in any of the paper trays does not match the type and/or size of the paper selected for the job. Replace the paper in the tray with paper of the size/type selected for the job, and then change the paper size/type on the operation panel. Or, press [Form Feed] and select another tray holding paper of the size/type selected for printing. Press [Job Reset] to delete any data remaining from the previous job. The tray numbers depend on the machine model.</p> <ul style="list-style-type: none"> The trays are designated Tray 1, 2 or Bypass.
33	Ink Collector is not set/Set the Ink Collector Unit	The replaceable ink collector unit is not set correctly. Set the ink collector unit correctly.
34	Ink Collector Unit is full/ Replace Ink Collector Unit	Ink collector unit is full. Replace the ink collector unit.
35	Right Front Cover is open / Close Right Front Cover	The right front door is open Close the right front door.
36	Open Front Cover /Replace Ink Crtg	Ink cartridge has run out for the color indicated on the operation panel display. Replace the ink cartridge for the color indicated on the operation panel display.
37	Paper Misfeed / Press Form Feed	Paper failed to feed from the specified tray. Press [Form Feed] to eject the sheet.
38	Remove Misfeed Open Top Cover/Press Form Feed, remove misfeed	Paper scraps remain in the machine, or a jammed sheet has not been removed. Press [Form Feed] to eject the sheet, and then, remove the paper from the area below the top cover.
39	Paper Misfeed Bypass Tray/ Reset Paper	Paper has jammed in or failed to feed from the multi bypass tray. Remove the paper from multi bypass tray.
40	Paper Misfeed Tray 2/ Reset Paper	Paper has jammed in or failed to feed from Tray 2. Remove the paper from Tray 2.
41	Paper Misfeed Tray 1/ Reset Paper	Paper has jammed in or failed to feed from Tray 1. Remove the paper from Tray 1.
42	Remove Misfeed Open Top Cover / Press Form Feed, remove misfeed	Paper has jammed in or failed to feed from in the area below the top cover. Remove the paper from the area below the top cover.

No.	Message	Action
43	Paper Misfeed Remove Duplex or/ Tray2 Rear Cover remove misfeed	Paper has jammed in or failed to feed from the duplex unit or feed unit of Tray 2. Remove the paper.
44	Remove Misfeed Duplex Unit/ Remove Misfeed from Duplex Unit	Paper has jammed in or failed to feed from the duplex unit. Remove the paper from the duplex unit.
45	Reset Duplex Unit correctly	The duplex unit is not mounted correctly and/or the duplex unit cover is open. Mount the duplex unit correctly and close the duplex unit cover.
46	Paper Misfeed Remove all Rear/Covers then remove misfeed	The fed paper has failed to reach the Tray 2 relay sensor. Remove the paper.
47	Paper Misfeed remove Tray 2/or Rear Covers, remove misfeed	The paper fed from Tray 2 is jammed in the Tray 2 paper path. Remove the paper.
48	Paper Misfeed remove Rear Covers, remove misfeed	The paper fed from the tray is jammed in the Tray paper path.
49	Paper Misfeed remove Tray 2 or Rear Covers, remove misfeed	The paper fed from Tray 2 is jammed in the Tray 2 paper path. Remove the paper.

5. ERR

No.	Message	Action
50	SCXXX-XX Power Off On / Call Service if error reoccurs	An error has occurred. Cycle the machine off/on. If this message is displayed again, call for service.

Service Call Conditions

SC code display patterns and how to clear them

Pattern	Display/Description	How to clear the SC code	SC call/alarm for customer support
A	An SC code appears on the control panel and the machine becomes inaccessible (Safety-related SC).	The service engineer must reset the machine. Enter the SP mode, turn the main power switch off and then back on.	Occurrence & alarm count => reports immediately.
B	When a function is selected, an SC code appears on the control panel and the machine becomes inaccessible.	The user must reset the machine. Turn the power key or the main power switch off and then back on.	Occurrence & alarm count => Turn the main power switch off and then back on. => Alarm count and reporting is performed only if it occurs again.
C	The SC code does not appear on the control panel and the machine remains accessible.	Only the logging is counted.	Occurrence => Logging count and alarm count
D	An SC code appears on the control panel and the machine becomes inaccessible (machine error SC).	The user must reset the machine. Turn the power key or the main power switch off and then back on.	Occurrence & alarm count => Turn the main power switch off and then back on. => Alarm count and reporting is performed only if it occurs again.

↓ Note

- If the usual SC code appears (pattern D), the machine automatically reboots itself. Even in the case of a usual SC, if the machine calls the customer support, it does not reboot itself. After the machine automatically reboots itself, a message reporting the rebooting appears.
- However, if an event that requires successive rebooting occurs, the machine will display the SC code without rebooting and perform logging count. If you print the service summary, the events that required successive rebooting will be displayed with asterisks.
- Automatic rebooting can be set to on/off in SP5-875-001 (Default: on).

Service Call Code Tables

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20000	D	The maintenance motor is not in the home position.
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20200	D	Failure to form negative pressure in the maintenance unit (while assessing the negative pressure in the tank)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20211	D	Failure to form negative pressure in the maintenance unit (air leak) (Tank 1 error)

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20212	D	Failure to form negative pressure in the maintenance unit (air leak) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20213	D	Failure to form negative pressure in the maintenance unit (air leak) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20214	D	Failure to form negative pressure in the maintenance unit (air leak) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20221	D	Failure to form negative pressure in the maintenance unit (nozzle/filter clogging) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20222	D	Failure to form negative pressure in the maintenance unit (nozzle/filter clogging) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20223	D	Failure to form negative pressure in the maintenance unit (nozzle/filter clogging) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20224	D	Failure to form negative pressure in the maintenance unit (nozzle/filter clogging) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20231	D	Failure to form negative pressure in the maintenance unit (insufficient suction) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20232	D	Failure to form negative pressure in the maintenance unit (insufficient suction) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20233	D	Failure to form negative pressure in the maintenance unit (insufficient suction) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20234	D	Failure to form negative pressure in the maintenance unit (insufficient suction) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20241	D	Failure to form negative pressure in the maintenance unit (failure to release air (due to ink intrusion, etc.)) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20242	D	Failure to form negative pressure in the maintenance unit (failure to release air (due to ink intrusion, etc.)) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20243	D	Failure to form negative pressure in the maintenance unit (failure to release air (due to ink intrusion, etc.)) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20244	D	Failure to form negative pressure in the maintenance unit (failure to release air (due to ink intrusion, etc.)) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20251	D	Failure to form negative pressure in the maintenance unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20252	D	Failure to form negative pressure in the maintenance unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20253	D	Failure to form negative pressure in the maintenance unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20254	D	Failure to form negative pressure in the maintenance unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20300	D	Failure to form negative pressure in the ink supply unit (while assessing the negative pressure in the tank)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20311	D	Failure to form negative pressure in the ink supply unit (air leak) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20312	D	Failure to form negative pressure in the ink supply unit (air leak) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20313	D	Failure to form negative pressure in the ink supply unit (air leak) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20314	D	Failure to form negative pressure in the ink supply unit (air leak) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20321	D	Failure to form negative pressure in the ink supply unit (failure send ink by the pump) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20322	D	Failure to form negative pressure in the ink supply unit (failure send ink by the pump) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20323	D	Failure to form negative pressure in the ink supply unit (failure send ink by the pump) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20324	D	Failure to form negative pressure in the ink supply unit (failure send ink by the pump) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20331	D	Failure to form negative pressure in the ink supply unit (failure to release air (due to ink intrusion, etc.)) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20332	D	Failure to form negative pressure in the ink supply unit (failure to release air (due to ink intrusion, etc.)) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20333	D	Failure to form negative pressure in the ink supply unit (failure to release air (due to ink intrusion, etc.)) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20334	D	Failure to form negative pressure in the ink supply unit (failure to release air (due to ink intrusion, etc.)) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20351	D	Failure to form negative pressure in the ink supply unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20352	D	Failure to form negative pressure in the ink supply unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20353	D	Failure to form negative pressure in the ink supply unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20354	D	Failure to form negative pressure in the ink supply unit (misalignment (failure to detect by the feeler) / occasional failure to release air) (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20400	D	The drive switching motor is not in the home position.
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20501	D	Drive motor error (error in the motor drive period) [during maintenance operation]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20502	D	Drive motor error (error in the motor output) [during maintenance operation]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20503	D	Drive motor error (error in the motor's direction of rotation) [during maintenance operation]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20601	D	Drive motor error (error in the motor drive period) [during maintenance operation]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20602	D	Drive motor error (error in the motor output) [during ink supply]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20603	D	Drive motor error (error in the motor's direction of rotation) [during ink supply]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20701	D	Drive motor error (error in the motor drive period) [during air release]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20702	D	Drive motor error (error in the motor output) [during air release]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
20703	D	Drive motor error (error in the motor's direction of rotation) [during air release]
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
21000	D	Failure to detect the signal from the horizontal encoder
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
21100	D	Horizontal encoder error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28000	D	Air sensor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28111	D	Ink supply timeout error (Tank 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28112	D	Ink supply timeout error (Tank 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28113	D	Ink supply timeout error (Tank 3 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28114	D	Ink supply timeout error (Tank 4 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28221	D	Air detection frequency error (Print Head 1 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28222	D	Air detection frequency error (Print Head 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
28223	D	Air detection frequency error (Print Head 1, 2 error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
29201	D	Auto washing error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
29500	D	Air release error (Air purge detection switch error or air release lever error)
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
49002	D	The right ink sump is full.
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
52000	D	Vertical motor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57000	D	Error: charge leak
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57001	D	Power Pack failure
		The machine detects the power pack (PSU or HVPS) error.
		Defective power pack
		Turn the main power switch off and then back on. Replace the PSU or HVPS.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57100	D	Print head thermal sensor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57300	D	Humidity sensor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57301	D	Thermal sensor error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57302	D	Power harness error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
57400	D	KAKA correction error
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
58000	D	37V power detection timeout
		The machine cannot detect 37V power from the power supply within a designated time.
		Defective PSU
		Turn the main power switch off and then back on. Replace the PSU.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
63701	D	IF Tracking information error
		The machine asserts the tracking information of the interface.
		Interface failure CTL board error
		Turn the main power switch off and then back on. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
63702	D	IF Tracking information error
		The machine asserts the tracking information of the interface.
		Interface failure CTL board error
		Turn the main power switch off and then back on. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
82300	D	Self-diagnostic error: NIC
		This appears if sum value error occurs three times in a row during the attempt to read the Mac address stored in the EEPROM when turning the power on.
		EEPROM (NV memory) error EEPROM (NV memory) connection error CTL board error
		Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
84000	D	EEPROM access error
		This appears if reading of the data stored in the EEPROM fails or writing on the EEPROM fails.
		EEPROM (NV memory) error EEPROM (NV memory) connection error CTL board error
		Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
85300	B	IEEE802 No Card Error
		The machine can not recognize the inserted Bluetooth device properly.
		The Bluetooth device is connected improperly or failed. CTL board error
		Turn the main power switch off and then back on. Insert the Bluetooth device properly. Replace the blue tooth device. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
85400	B	IEEE802 Card Out
		The machine detects a disconnection of the Bluetooth device.
		The Bluetooth interface unit was removed while the machine was turned on.
		Turn off the main power switch, and then confirm that the Bluetooth interface unit was installed correctly. And then, turn on the main power switch again.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
85500	B	IEEE802 Card Error
		The Bluetooth device can be accessed, but an error was detected.
		The Bluetooth device is failed or out of support.
		The USB connector or cable failure
		Turn the main power switch off and then back on. Make sure that the Bluetooth connection is good. Replace the Bluetooth device. Replace USB cable or connector.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
89900	D	Software performance error
		If the processing program shows abnormal performance and the program is abnormally ended, this SC is issued.
		CTL board defective Software defective
		Turn the main power switch off and then back on. Update the firmware on the CTL board. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
91505	A	The external controller function abnormal
		The applications for the external controller fail or writing on the EEPROM fails. The external equipment fails.
		Firmware uploading failure EEPROM (NV memory) error EEPROM (NV memory) connection error CTL board error The external equipment error
		Update the firmware. Replace the external equipment. Replace the CTL board.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
93200	D	Thermal error in the DRV circuit
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
93300	D	HRB fuse blown
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
93400	D	HRB version not matching
		Turn the main power switch off and then back on.

SC	Pattern	Error Name / Detection Criteria / Major Cause / Solution
93500	D	The maximum number of sheets that can be printed by the prototype control board has been exceeded.
		Turn the main power switch off and then back on.

Jam Codes

Depending on the paper jam location, the branch number (-xx) is displayed to identify the paper jam location more precisely. The JAM code does not appear on the machine's panel display. Check it on the printer driver's Status Monitor.

Here is a list of jam codes and what they mean. A separate list is provided for each machine.

Jam Codes

In the tables below "Action 1" and "Action 2" have the following meanings:

- Action 1. To be performed by the user on site, or at the service center to see if these simple procedures solve the problem.
- Action 2. To be performed by the service technician at the Service Center. These procedures are for the user at the work site.

Jam 1	Paper Feed Jam (Tray 1: Paper Cassette)
Message	Paper Misfeed Remove Tray 1 and reset the paper. If there is any paper that is jammed remove it.
Cause	Paper slipped, paper cassette not set correctly.
Details	The registration sensor detected the leading edge of the paper, but the trailing edge sensor failed to detect the trailing edge of the paper fed from the printer paper tray within the prescribed time.

Action 1	<ul style="list-style-type: none"> • Check how paper is loaded in the tray. • Remove paper, fan paper to remove static cling, and re-load. • Reduce or increase the amount of paper loaded. • Check and reset the position of the end fence. • Confirm that the paper is not curled. • Confirm that the type of paper can be used with the printer. • Confirm that the paper cassette is installed correctly. (Remove the cassette and set it again). • If another paper cassette is available, use the extra cassette.
Action 2	<ul style="list-style-type: none"> • Replace friction pad. • Replace paper feed clutch. • Replace paper cassette unit.

Jam 2	Paper Feed Jam (Tray 2: PFU)
Message	Paper Misfeed Remove Tray 2 and reset the paper. If there is any paper that is jammed remove it.
Cause	<ul style="list-style-type: none"> • Paper slick (non-feed) • Paper tray was not set properly.
Details	The registration sensor detected the leading edge of the paper from the paper cassette, but the trailing edge sensor failed to detect the trailing edge of the paper within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Remove the cassette • Remove remaining paper. • Re-set the cassette correctly.
Action 2	<ul style="list-style-type: none"> • Replace paper feed clutch in Tray 2. • Replace paper cassette. • Replace Tray 2.

Jam 3	Duplex Unit Jam
Message	Paper Misfeed Open Duplex Unit Cover or pull out Duplex Unit, then remove the jammed paper.

Cause	Ink has wrinkled or curled the paper
Details	The trailing edge sensor failed to detect the trailing edge of the paper after it was fed to the duplex unit for duplex/inverted printing within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Remove the duplex unit • Remove remaining paper.
Action 2	<ul style="list-style-type: none"> • Confirm that duplex unit is set correctly. • Remove jammed paper, paper scraps, etc. • Re-install duplex unit (the duplex unit should lock automatically on both ends). • Replace duplex unit.

Jam 4	Feed Jam (Paper Remains in Duplex Unit)
Message	Paper Misfeed Press the Form Feed button.
Cause	The paper that exited duplex unit after inversion got caught.
Details	After the trailing edge sensor detected the trailing edge of the paper fed to the duplex unit for duplex/inverted printing, the paper failed to leave the trailing edge sensor within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Press [Form Feed] key on printer operation panel.
Action 2	<ul style="list-style-type: none"> • Replace inverter guide. • Replace TE sensor. • Replace CTL board.

Jam 5	Transport Jam (Tray 1)
Message	Paper Misfeed Press the Form Feed button.
Cause	Paper longer than the paper selected in printer driver was loaded.
Details	After the registration sensor detected the leading edge of the paper fed from the paper cassette, the paper failed to pass the trailing edge sensor within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Press [Form Feed] key on printer operation panel.

Action 2	<ul style="list-style-type: none"> • Replace inverter guide. • Replace trailing edge sensor. • Replace CTL board.
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Jam 6	Paper Feed Jam (Bypass Tray)
Message	<p>Paper Misfeed</p> <p>Remove Bypass Tray and reset the paper. If there is any paper that is jammed remove it.</p>
Cause	<ul style="list-style-type: none"> • Paper slippage • Paper not loaded correctly
Details	The registration sensor did not detect the leading edge of the paper fed from the bypass tray within the prescribed time .
Action 1	<ul style="list-style-type: none"> • Remove bypass tray • Load paper correctly. • Check inside the paper for jammed paper or paper scraps.
Action 2	<ul style="list-style-type: none"> • Clean transport belt. • Replace Registration Sensors 1, 2. • Replace Multi Bypass Tray. • Replace the printer.

Jam 7	Transport Jam (Tray 2: PFU)
Message	<p>Paper Misfeed</p> <p>Press the Form Feed button.</p>
Cause	Paper longer than the paper selected in printer driver was loaded.
Details	When paper was fed from Tray 2 the paper fed but the paper failed to leave the trailing edge sensor within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Check the size of the paper loaded in the PFU • Make sure that the size of the paper selected in the printer driver matches the size of the paper loaded in the tray.

Action 2	<ul style="list-style-type: none"> • Clean transport belt. • Replace TE sensor. • Replace Tray 2.
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Jam 8	Not Used
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Jam 9	Registration Late Jam: Tray 1
Message	Paper Misfeed Press the Form Feed button.
Cause	<ul style="list-style-type: none"> • Paper feed rollers slipped, could not feed paper • Paper caught, warped in paper feed path.
Details	After the paper fed from the tray, or when the paper was inverted for duplexing, after the trailing edge sensor went ON, the registration sensor failed to detect within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Press [Form Feed] key on operation panel.
Action 2	<ul style="list-style-type: none"> • Replace registration sensor 1. • Replace trailing edge sensor 2.

Jam 10	Registration Late Jam: Tray 2 (PFU)
Message	Paper Misfeed Press the Form Feed button.
Cause	<ul style="list-style-type: none"> • Paper feed rollers slipped, could not feed paper • Paper caught, warped in paper feed path.
Details	After the paper fed from the tray, or when the paper was inverted for duplexing, after the trailing edge sensor went ON, the registration sensor failed to detect within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Press [Form Feed] key on operation panel.
Action 2	<ul style="list-style-type: none"> • Replace inverter guide. • Replace TE sensor. • Replace CTL board.

Jam 11	Registration Late Jam: Duplex Unit
Message	Paper Misfeed Press the Form Feed button.
Cause	<ul style="list-style-type: none"> • Paper feed rollers slipped, could not feed paper • Paper caught, warped in paper feed path.
Details	After the paper fed from the tray, or when the paper was inverted for duplexing, after the trailing edge sensor went ON, the registration sensor failed to detect within the prescribed time.
Action 1	<ul style="list-style-type: none"> • Press [Form Feed] key on operation panel.
Action 2	<ul style="list-style-type: none"> • Replace inverter guide. • Replace trailing edge sensor. • Replace CTL board.

Jam 12	Not Used
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Jam 13	Not Used
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Jam 14	Carriage Jam
Message	Paper Misfeed Open the Top Cover and press the Form Feed key to remove the paper. If this does not work or pieces of paper still remain then manually remove it from the top of the machine. Also check paper is set correctly in all the paper source trays
Cause	The carriage failed to reach its target position within the prescribed time.
Details	An obstruction is blocking movement of the carriage unit.
Action 1	<ul style="list-style-type: none"> • Open the top cover. • Turn the paper feed wheel on the left side of the printer to feed out any remaining paper. • Check around the carriage unit for paper scraps or any other type of obstruction. • Make sure that the paper cassette and bypass tray are set correctly.

Action 2	<ul style="list-style-type: none"> • Clean the horizontal encoder strip. • Replace horizontal encoder strip. • Replace the horizontal encoder sensor. • Check maintenance unit, replace if necessary. • Replace carriage unit.
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Jam 15	Not Used
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Jam 16	Carriage Unit Homing Failure
Message	<p>Paper Misfeed</p> <p>Open the Top Cover and press the Form Feed key to remove the paper.</p> <p>If this does not work or pieces of paper still remain then manually remove it from the top of the machine.</p> <p>Also check paper is set correctly in all the paper source trays.</p>
Cause	Something is blocking the movement of the carriage unit.
Details	The machine detected an obstruction blocking operation of carriage unit at power ON or after jammed paper was removed.
Action 1	<ul style="list-style-type: none"> • Open the top cover and while checking for paper, turn the paper feed wheel on the left side of the printer and remove the paper. • If the paper cannot be removed easily and paper scraps remains inside the printer, remove the paper from the top cover. • Make sure that the paper cassette and bypass tray are set correctly.
Action 2	<ul style="list-style-type: none"> • Clean the horizontal encoder strip. • Replace horizontal encoder strip. • Replace the horizontal encoder sensor. • Check maintenance unit, replace if necessary. • Replace carriage unit.

Jam 17	Paper Remains Jam
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Message	<p>Paper Misfeed</p> <p>Open the Top Cover and press the Form Feed key to remove the paper.</p> <p>If this does not work or pieces of paper still remain then manually remove it from the top of the machine.</p> <p>Also check paper is set correctly in all the paper source trays.</p>
Cause	Obstruction or paper remains in the printer after a jam was removed.
Details	Paper trailing edge sensor switched on while paper was being removed.
Action 1	<ul style="list-style-type: none"> • Open the top cover and while checking for paper, turn the paper feed wheel on the left side of the printer and remove the paper. • If the paper cannot be removed easily and paper scraps remains inside the printer, remove the paper from the top cover. • Make sure that the paper cassette and bypass tray are set correctly.
Action 2	<ul style="list-style-type: none"> • Check the 1st registration sensor on the side of the carrier unit. (This sensor detects the leading edge of the paper.) • Make sure the cover on the print head unit is installed correctly. • Replace 1st registration sensor. • Replace carriage unit.

Jam 18	Condensation Error During Printing
Message	<p>Paper Misfeed</p> <p>Press the Form Feed button.</p>
Cause	A belt charge leak was detected during printing.
Details	Condensation on the belt, or there is a hole in the transfer belt.
Action 1	<ul style="list-style-type: none"> • Feed and eject 3 blank sheets to remove moisture from the belt.
Action 2	<ul style="list-style-type: none"> • [▼/Menu]> "Maintenance"> "De-condensation"> #. • Do the print job again. • If the problem occurs again, repeat Step 1. • Confirm that the work site is within the ranges for ambient temperature and humidity. (See "Installation"). • Inspect the transport belt. • If the belt is damaged the machine must be replaced.

Jam 19	TE Sensor (Main Unit) Paper Late Jam (Tray 2)
Message	Paper Misfeed Remove the Duplex Unit or the Rear Cover of the machine, and remove the paper. Or, open the Tray 2 Rear Cover and remove the paper.
Cause	The paper was wrinkled or caught in the paper feed path.
Details	Even though the paper fed from Tray 2 reached the prescribed position, the TE sensor could not detect the leading edge of the paper.
Action 1	<ul style="list-style-type: none"> Remove the duplex unit and remove any paper inside the printer. Remove the rear unit of Tray 2 and remove any paper inside the tray.
Action 2	<ul style="list-style-type: none"> Remove the duplex unit, open the rear cover and remove all remaining paper. Close the rear cover and re-install the duplex unit. Remove the rear unit of Tray 2 and remove any remaining paper. Re-install the rear unit of Tray 2.

Jam 20	Not Used
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Jam 21	Not Used
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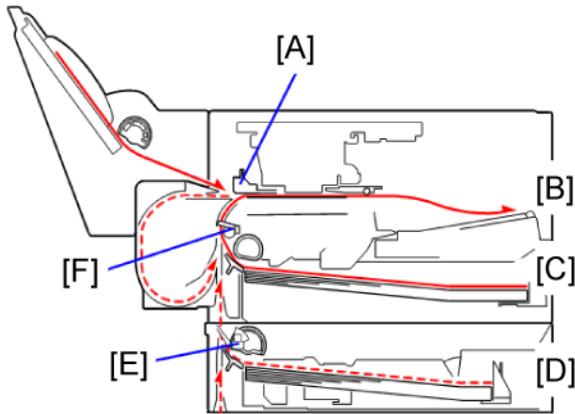
Jam 22	Paper Remains in Vertical Paper Path of Tray 2 (Failure to Remove Jam)
Message	<p>JAM22-04,05,06,07: Paper Misfeed Open the Tray 2 Rear Cover and remove the paper. Or, remove the Tray2 and remove the paper.</p> <p>JAM22-08: Paper Misfeed Open the Tray 2 Rear Cover, then remove the paper.</p> <p>JAM22-09,10,11,12,13,14,15: Paper Misfeed Open the Rear Cover of the all additional Trays and remove the paper Or, remove the all additional Trays and remove the paper.</p>
Cause	Foreign object is inside the printer, or paper remains inside the printer.

Details	The relay sensor of Tray 2 went ON while the jammed paper was being removed.
Action 1	<ul style="list-style-type: none"> Remove the rear unit of Tray 2 and remove any paper inside the tray. Make sure that the paper is stacked correctly in Tray 2 and Tray 3.
Action 2	<ul style="list-style-type: none"> Remove the rear unit of Tray 2 and remove any remaining paper. Re-install the rear unit of Tray 2. Remove Tray 2 and remove any jammed paper. Re-install the tray correctly.

3

Jam 23	Not Used
Jam 24	Not Used
Jam 25	Not Used
Jam 26	Not Used

Jammed paper location



j0271225a

A: 2nd registration sensor (2nd)

D: Tray 2

B: Output tray

E: Tray 2 relay sensor (T-2)

C: Tray 1

F: Trailing edge sensor (TE)

ON: Paper jam detected

--- : Paper jam not detected

3

Branch	Sensor			Jammed paper location
	2nd	TE	T-2	
-04	---	---	On	Paper is jammed between the Tray 2 relay sensor and trailing edge sensor. If the paper was fed from Tray 2, its trailing edge is remaining in Tray 2.
-05	On	---	On	<ol style="list-style-type: none"> 1. The paper is jammed at the 2nd registration sensor. It is not located at the trailing edge sensor. 2. The paper is jammed in between the Tray 2 relay sensor and trailing edge sensor.
-06	---	On	On	The paper is jammed in between the trailing edge sensor and 2nd registration sensor. It is also jammed at the Tray 2 relay sensor. If the paper was fed from Tray 2, its trailing edge is located before the Tray 2 relay sensor (closer to Tray 2).
-09	On	---	---	1. The paper is jammed at the 2nd registration sensor. It is not located at the trailing edge sensor or Tray 2 relay sensor.
-10	---	On	---	1. The paper is jammed in between the trailing edge sensor and 2nd registration sensor. It is not located at the Tray 2 relay sensor.
-11	On	On	---	1. The paper is located past the Tray 2 relay sensor (closer to the output tray).
-15	On	On	On	The paper is jammed in the entire paper path between Tray 2 and the 2nd registration sensor.

Status Monitor Messages

Bypass Tray Not Detected

The bypass tray unit is not mounted correctly. Mount it correctly.

Cannot recover error page(s)

The machine has failed to print some pages when it resumed printing of a job after recovering from an error. Cancel the job or print rest of the pages by Form Feed.

Cartridge/Print-head Tank Empty

One or more ink cartridges empty.

- Check the operation panel display. You will see "Ink Depleted" displayed over the indicator of the cartridge that is almost empty.
- The ink cartridge and the ink tank inside the printer head are both empty. The printer cannot be used until the empty cartridge has been replaced.

Cover Open

Any of the following covers is open.

- Top cover
- Machine rear cover
- Tray 2 rear cover

1. Check the covers.
2. Open and close them

Loading from Cartridge...

Ink is being filled from the print cartridge. Wait for the filling of the ink to finish.

Maintenance failed

Head cleaning, head flushing, or other maintenance operations have failed.

Run the maintenance again after clearing the error.

You can clear a maintenance error as follows:

- The printer receives another print job.
- Press the [#Enter] key.

Independent-supplier Cartridge

An ink tank cartridge unapproved for use with this machine has been installed. Use of ink cartridges not approved for use with this machine, or attempting to re-fill depleted ink cartridges, will diminish print quality. Always use new Ricoh ink cartridges specifically designed for use with these machines.

Ink Collector Unit Not Detected

1. Open the right front cover.
2. Confirm that the ink collector is installed.
3. Pull it out and set it again.

No Paper

The bypass tray has run out of paper or is not mounted correctly.

1. Load bypass tray,
2. Press [#Enter]

No Paper/Tray Not Detected

Any of the following paper trays has run out of paper or is not mounted correctly.

- Tray 1
- Tray 2

1. Pull out the paper cassette.
 2. Load paper if it is empty.
1. Close the cassette and make sure that it is locks in place.

No Response From Printer

1. Make sure the printer is switched on.
2. Check the connection of the USB cable at the printer and computer.
3. Make sure "USB" is selected on the "Ports" sheet of the printer driver.

Offline

The machine is offline. By closing the menu and switching to an online status, the machine becomes able to print.

Out of Printable Temperature Range

- Room too cold or too warm?
1. Printer must be located where the temperature range is 10 to 32°C (50 to 89.6°F)
 2. Turn the printer off and allow it to cool.

Note: If humidity is higher than 54%, the high end of the temperature range will be lower. The printer will not return to standby mode until it has acclimated to the room temperature. Wait for the Power lamp to stop flashing.

Paper Misfeed

Paper is jammed. Check the jam code (JAM##-##) to solve the problem.

Paper Size Mismatch

The size of paper in the selected tray does not match the size of the paper selected for the job, or the specified Tray Paper Size setting in the Paper Input menu does not match the actual paper size.

Follow the procedure below:

- Check the paper cassette and make sure that the paper size matches the settings selected in the printer driver.
- Press the [Form Feed] key, select a paper tray containing paper of the specified size, and then print.
- Cancel the print job.

Paper Type Mismatch

The type of paper in the selected tray does not match the size of the paper selected for the job

Follow the procedure below:

- Check the paper cassette and make sure that the paper type matches the settings selected in the printer driver.
- Press the [Form Feed] key, select a paper tray containing paper of the specified type, and then print.
- Cancel the print job.

Paper Size and Type Mismatch

The type and size of paper in the selected tray does not match the type and size of the paper selected for the job, or the type and size of the paper in any of the paper trays does not match the type and size of the paper selected for the job when using Auto Tray Select.

Follow the procedure below:

- Check the paper cassette and make sure that the paper size and type matches the settings selected in the printer driver.
- Press the [Form Feed] key, select a paper tray containing paper of the specified size and type, and then print.
- Cancel the print job.

Print Cartridge(s) Not Detected/Cover Open

- The right front cover is open. Close the right front cover.
- The print cartridges are not installed or are installed incorrectly. Install the print cartridges correctly.

Printer Error

An error has occurred in the printer. An error code ("SC###-###") appears at the end of the message.

1. Cycle the printer off/on.
2. If the printer has just been moved from a cold location to a warm room, wait at least 1 hour and try again.

Replace Ink Collector Unit (Consumables)

The ink collector is full. Printing cannot continue. The ink collector must be replaced.

Unit Not Detected / Cover Open

The duplex unit is not mounted correctly and/or the duplex unit cover is open.

Mount the duplex unit correctly and close the duplex unit cover.

Make sure the latches are lock at both ends. They should lock automatically.

Used Cartridge

The installed print cartridge is empty. Printing cannot continue. Replace the ink cartridge with a new one.

Used Ink Collector Unit

A used ink collector unit has been installed. Remove it and replace it with a new one.