



Operating Instructions Hardware Guide



-
- 1** Guide to the Printer
 - 2** Setting Up the Printer
 - 3** Installing Options
 - 4** Connecting the Printer
 - 5** Configuration
 - 6** Loading Paper
 - 7** Maintaining the Printer
 - 8** Adjusting the Printer
 - 9** Troubleshooting
 - 10** Removing Misfed Paper
 - 11** Appendix

Read this manual carefully before you use this machine and keep it handy for future reference. For safe and correct use, be sure to read "Safety Information" before using the machine.

Introduction

This manual contains detailed instructions and notes on the operation and use of this machine. For your safety and benefit, read this manual carefully before using the machine. Keep this manual in a handy place for quick reference.

Do not copy or print any item for which reproduction is prohibited by law.

Copying or printing the following items is generally prohibited by local law:

bank notes, revenue stamps, bonds, stock certificates, bank drafts, checks, passports, driver's licenses.

The preceding list is meant as a guide only and is not inclusive. We assume no responsibility for its completeness or accuracy. If you have any questions concerning the legality of copying or printing certain items, consult with your legal advisor.

Important

Contents of this manual are subject to change without prior notice.

In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

For good print quality, the manufacturer recommends that you use genuine toner from the manufacturer.

The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your office products.

Some illustrations in this manual might be slightly different from the machine.

Certain options might not be available in some countries. For details, please contact your local dealer.

TABLE OF CONTENTS

How to Read This Manual.....	6
Symbols.....	6
Model-Specific Information.....	7
Positions of WARNING and CAUTION Labels.....	8
Power Switch Symbols.....	9
Manuals for This Printer.....	10
List of Options.....	11
Operating Instructions.....	12
Reading the HTML Manuals on the CD-ROMs.....	12
Reading the HTML Manuals That You Install on the Computer.....	12

1. Guide to the Printer

Exterior: Front View.....	15
Exterior: Rear View.....	17
Interior.....	19
Control Panel.....	21
Display Panel.....	23

2. Setting Up the Printer

Printer Setup Procedure.....	25
Place to Install.....	26
Unpacking.....	30
Turning the Printer's Power On and Off.....	36
Turning on the Power.....	36
Turning off the Power.....	38
Selecting the Display Language.....	42
Test Printing.....	43

3. Installing Options

Available Options.....	45
Order of Option Installation.....	45
Where to Install Options.....	45
Attaching the Paper Feed Unit.....	48
Installing the Memory Expansion Units.....	51
Installing the SDRAM Module.....	51
Installing the Hard Disk.....	54

Installing the Interface Units.....	57
Installing the Gigabit Ethernet Board.....	57
Installing the Wireless LAN Interface Board.....	60
Installing the IEEE 1284 Interface Board.....	62
Installing the SD Memory Card Options.....	65

4. Connecting the Printer

Ethernet Cable Connection.....	69
Reading the LED Lamps.....	72
USB Cable Connection.....	73
Digital Camera Connection.....	74
Parallel Cable Connection.....	77

5. Configuration

Ethernet Configuration.....	79
Specifying an IP Address (No DHCP).....	80
Receiving an IP Address Automatically (DHCP).....	82
Configuring Network Settings When Using NetWare.....	84
Setting the Ethernet Speed.....	85
Wireless LAN Configuration.....	88
Setting the SSID.....	90
Confirming Wireless Network Connectivity.....	91
Cautions When Using a Wireless LAN.....	92
Setting Security Method of Wireless LAN.....	93
Setting a WEP Key.....	93
Setting WPA.....	94
Configuring IEEE 802.1X.....	98
Installing a Site Certificate.....	98
Installing Device Certificate.....	98
Enabling SSL.....	99
Setting Items of IEEE 802.1X for Ethernet.....	100
Setting Items of IEEE 802.1X for Wireless LAN.....	102

6. Loading Paper

Supported Paper for Each Tray.....	105
Symbols.....	105

Standard Paper Feed Tray.....	105
Optional Paper Feed Tray.....	106
Bypass Tray.....	107
Supported Paper Types.....	108
Plain Paper.....	108
Middle Thick.....	108
Thick Paper.....	108
Thin Paper.....	109
Letterhead.....	110
Label Paper.....	110
Coated Paper (Glossy).....	110
Coated Paper (Glossy: Thick).....	110
Coated Paper (Matted).....	111
Coated Paper (Matted: Thick).....	111
Special Paper.....	112
Preprinted Paper.....	112
Color Paper.....	112
Recycled Paper.....	113
Cardstock.....	113
Bond Paper.....	113
Envelopes.....	114
Storing Paper.....	115
Non-Recommended Paper Types.....	116
Print Area.....	117
Loading Paper in Trays.....	119
Loading Paper into a Standard or Optional Paper Feed Tray.....	119
Loading Paper onto Bypass Tray.....	132
Loading Envelopes.....	139
Loading Envelopes onto Bypass Tray.....	139
Printing on Fixed-Orientation Paper.....	143
Registering Unique Names to Paper Types.....	145
Registering Names to Paper Types.....	145
Setting User Paper Types to Trays.....	145

Printing Using Registered Paper Types.....	146
--	-----

7. Maintaining the Printer

Replacing the Print Cartridge.....	147
Replacing the Waste Toner Bottle.....	154
Replacing the Intermediate Transfer Unit.....	161
Replacing the Maintenance Kit.....	172
Cautions When Cleaning.....	179
Cleaning the Toner Density Sensor.....	180
Cleaning the Friction Pad and the Paper Feed Roller.....	182
Cleaning the Registration Roller and the Paper Tray.....	185

8. Adjusting the Printer

Adjusting the Color Registration.....	189
Correcting the Color Gradation.....	191
Setting the Gradation Correction Value.....	191
Viewing the Gradation Correction Sheet.....	194
Resetting the Gradation Correction Value to the Initial Value.....	195
Adjusting Printing Position.....	197

9. Troubleshooting

Error and Status Messages Appear on the Control Panel.....	201
Status Messages (in alphabetical order).....	201
Alert Messages (in alphabetical order).....	202
Panel Tones.....	208
Printer Does Not Print.....	209
Checking the Port Connection.....	210
Other Printing Problems.....	212
When You Cannot Print Properly.....	212
Paper Misfeeds Occur Frequently.....	215
The printed image is different from the image on the computer.....	217
When Printer is Not Functioning Properly.....	219
Additional Troubleshooting.....	222

10. Removing Misfed Paper

When Paper is Jammed.....	225
Paper Misfeed Message (A).....	227

Misfeed Tray 1.....	227
Misfeed Bypass Tray.....	229
Paper Misfeed Message (B).....	231
Paper Misfeed Message (Y).....	234
Paper Misfeed Message (Z).....	235

11. Appendix

Moving and Transporting the Printer.....	237
Moving the Printer in a Short Distance.....	238
Consumables.....	239
Print Cartridge.....	239
Waste Toner Bottle.....	240
Intermediate Transfer Unit.....	240
Maintenance Kit.....	241
Specifications.....	242
Mainframe.....	242
Options.....	245
Trademarks.....	249
INDEX	251

How to Read This Manual

Symbols

This manual uses the following symbols:

 **Important**

Indicates points to pay attention to when using the machine, and explanations of likely causes of paper misfeeds, damage to originals, or loss of data. Be sure to read these explanations.

 **Note**

Indicates supplementary explanations of the machine's functions, and instructions on resolving user errors.

 **Reference**

This symbol is located at the end of sections. It indicates where you can find further relevant information.

[]

Indicates the names of keys on the machine's display or control panels.

 **Region A** (mainly Europe and Asia)

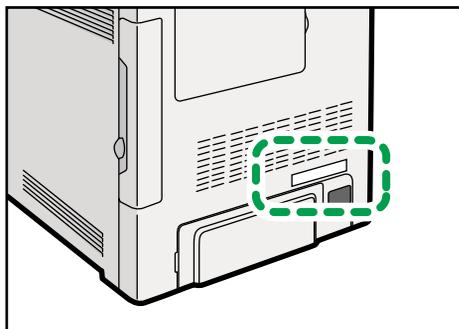
 **Region B** (mainly North America)

Differences in the functions of Region A and Region B models are indicated by two symbols. Read the information indicated by the symbol that corresponds to the region of the model you are using. For details about which symbol corresponds to the model you are using, see "Model-Specific Information".

Model-Specific Information

This section explains how you can identify the region your machine belongs to.

There is a label on the rear of the machine, located in the position shown below. The label contains details that identify the region your machine belongs to. Read the label.



CBK001

The following information is region-specific. Read the information under the symbol that corresponds to the region of your machine.

 **Region A** (mainly Europe and Asia)

If the label contains the following, your machine is a region A model:

- CODE XXXX -22, -27
- 220-240V

 **Region B** (mainly North America)

If the label contains the following, your machine is a region B model:

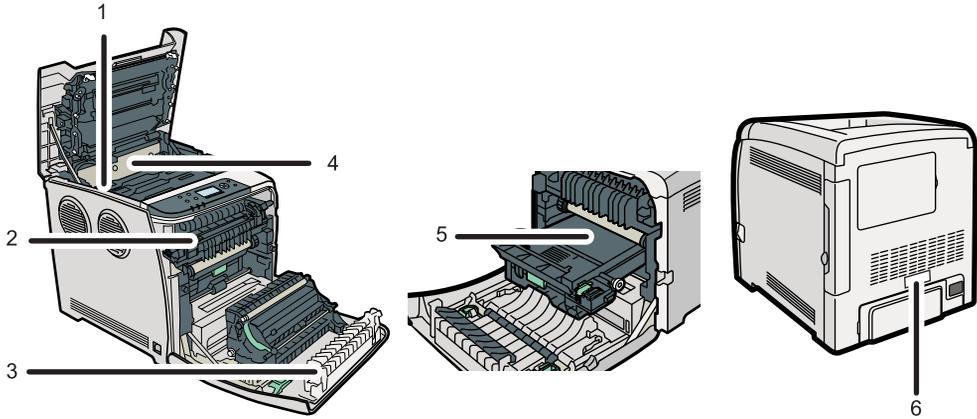
- CODE XXXX -17, -51
- 120 V

Note

- Dimensions in this manual are given in two units of measure: metric and inch. If your machine is a Region A model, refer to the metric units. If your machine is a Region B model, refer to the inch units.

Positions of WARNING and CAUTION Labels

This machine has labels for ⚠WARNING and ⚠CAUTION at the positions shown below. For safety, please follow the instructions and handle the machine as indicated.



CBK002



Do not incinerate spilled toner or used toner. Toner dust is flammable and might ignite when exposed to an open flame.

Disposal should take place at an authorized dealer or an appropriate collection site.

If you dispose of the used toner containers yourself, dispose of them according to local regulations.

Keep toner (used or unused) and toner containers out of reach of children.

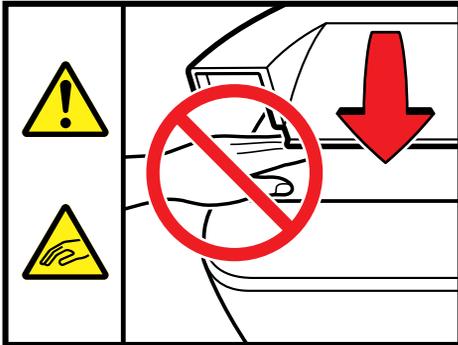


The inside of this printer becomes very hot. Do not touch parts with this label (indicating a hot surface).



The inside of this printer becomes very hot. Do not touch parts with this label (indicating a hot surface).

4



CBK008

Be careful not to trap your fingers when opening or closing the top cover.

5



CBK009

Do not incinerate spilled toner or used toner. Toner dust is flammable and might ignite when exposed to an open flame.

Disposal should take place at an authorized dealer or an appropriate collection site.

If you dispose of the used toner containers yourself, dispose of them according to local regulations.

Keep toner (used or unused) and toner containers out of reach of children.

6



CBK010

The printer weighs approximately 29 kg (64.0 lb.). When moving the printer, use the inset grips on both sides, and lift slowly in pairs.

Power Switch Symbols

The meanings of the symbols for the switches on this machine are as follows:

- I : POWER ON
- O : POWER OFF

Manuals for This Printer

Read this manual carefully before you use this printer.

Refer to the manuals that are relevant to what you want to do with the printer.

★ Important

- Media differ according to manual.
- The printed and electronic versions of a manual have the same contents.
- Adobe Acrobat Reader/Adobe Reader must be installed in order to view the manuals as PDF files.
- A Web browser must be installed in order to view the html manuals.

Safety Information

Contains information about safe usage of this printer.

To avoid injury and prevent damage to the printer, be sure to read this.

Quick Installation Guide

Contains procedures for removing the printer from its box, and connecting it to a computer.

Hardware Guide (This manual)

Contains information about paper; names and functions of the parts of this printer; and procedures such as installing options, replacing consumables, responding to error messages, and resolving jams.

Driver Installation Guide

Contains procedures for installing the printer driver. This manual is included on the driver CD-ROM.

Software Guide

Contains information about using this printer, its software, and its security functions.

Security Guide

This manual is for administrators of the printer. It explains security functions that you can use to prevent unauthorized use of the printer, data tampering, or information leakage. Be sure to read this manual when setting the enhanced security functions, or user and administrator authentication.

VM Card Extended Feature Settings Web Reference

Contains information about setting up the extended features settings using Web Image Monitor.

UNIX Supplement

Contains information about the usage of commands to operate this printer.

To obtain the "UNIX Supplement", visit our Web site or consult an authorized dealer.

This manual includes explanations of functions and settings that might not be available on this printer.

This manual is provided in English only.

List of Options

This section provides a list of options for this printer, and how they are referred to as in this manual.

Option List	Referred to as
Paper Feed Unit TK1010	Paper feed unit
Hard Disk Drive Option Type C320	Hard disk
Memory Unit Type G 256 MB	SDRAM module
Memory Unit Type I 512 MB	SDRAM module
Gigabit Ethernet Board Type A	Gigabit Ethernet board
 Region B IEEE 802.11a/g Interface Unit Type L	Wireless LAN interface unit
 Region A IEEE 802.11a/g Interface Unit Type M	Wireless LAN interface unit
IEEE 1284 Interface Board Type A	IEEE 1284 interface board
Camera Direct Print Card Type H	Camera direct print card
Data Overwrite Security Unit Type L	Data overwrite security unit
HDD Encryption Unit Type D	HDD encryption unit
SD Card for NetWare Printing Type F	NetWare card
VM CARD Type O	VM card

Note

- For details about the specifications of each option, see "Specifications".

Reference

- p.242 "Specifications"

Operating Instructions

This section explains how to use HTML format manuals.

Reading the HTML Manuals on the CD-ROMs

This section describes how to read the HTML manuals on the supplied manual CD-ROMs.

1. **Insert the CD-ROM into the CD-ROM drive of your computer.**
2. **Select a language and a product, and then click [OK].**
3. **Click [Read HTML manuals].**
4. **Click the title of manual you want to read.**

The browser opens, and then the manual appears.

Note

- The browsers we recommend are Internet Explorer 6 or later, Firefox 3.5 or later, and Safari 4.0 or later.
- Non-recommended browsers can display the simplified manual only.
- If you are using an earlier or non-recommended browser and the simplified version of the documentation does not appear automatically, open `index.htm`, which can be found in the following folder on the CD-ROM: `MANUAL_HTML\LANG\{language}\{manual}\unv`
- Depending on your computer's operating environments, you can select the HTML manual from the following two versions:
 - Standard version
 - Simplified version
- If you want to read the HTML manuals on a Macintosh, insert the CD-ROM into the CD-ROM drive, and then click [Read HTML manuals].
- If JavaScript is disabled or unavailable in your browser, you will not be able to search or use certain buttons in the HTML documentation.

Reading the HTML Manuals That You Install on the Computer

This section describes how to install and read the HTML manuals on your computer.

For easy access, we recommend you install the manuals on your computer.

1. **Insert the CD-ROM into the CD-ROM drive of your computer.**
2. **Select a language and a product, and then click [OK].**
3. **Click [Install manuals].**

4. Install the HTML manuals following the on-screen instructions.

5. When the installation is complete, click [Finish].

6. Click [Exit].

7. Open the HTML manuals that you installed.

When opening the manuals from an icon, double-click the manual icon on the desktop. When opening the manuals from the [Start] menu, point to [All Programs] (Windows 2000: [Programs]), and then [Product Name].

8. Click the title of the manual you want to read.

Note

- You need administrator permissions to install the manuals. Log in as an Administrators group member.
- The system requirements for installing the manuals are as follows:
 - Operating system: Windows 2000/XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2
 - Minimum display resolution: 800 × 600 pixels
- If you cannot install a manual, copy the "MANUAL_HTML" folder to your computer's hard drive, and then run "Setup.exe".
- To delete an installed manual, on the [Start] menu, click [All Programs] (Windows 2000: [Programs]), then [Product Name], and then uninstall the data.
- Depending on the settings made during installation, menu folder names may differ.

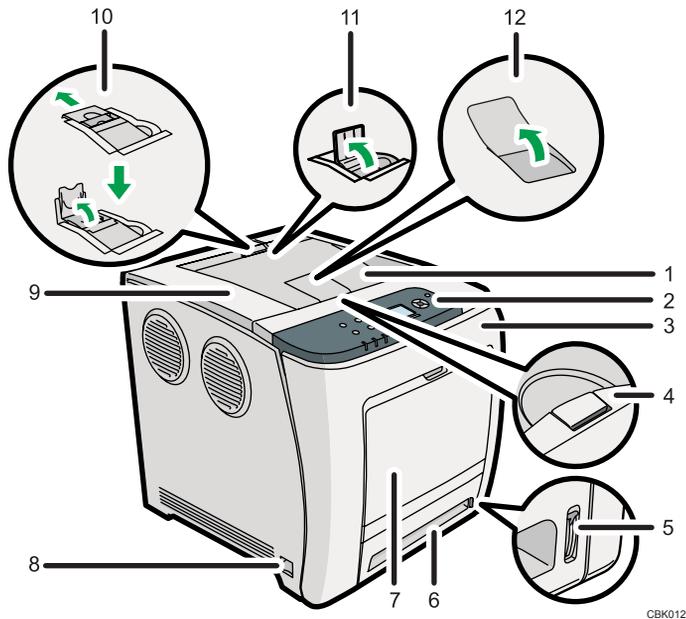


1. Guide to the Printer

This chapter explains the names and functions of the printer's components.

Exterior: Front View

This section introduces the names and functions of the parts on the front and left sides of the printer.



1. Standard Tray

Output is stacked here with the print side down.

2. Control Panel

Contains keys for printer control and a display that shows the printer status.

3. Front Cover

Open this cover to when replacing the waste toner bottle etc. or removing jammed paper.

Pull the right side lever to open the front cover.

4. Top Cover Open Lever

Pull this lever upward to open the top cover.

5. Remaining Paper Indicator

Indicates the approximate amount of paper remaining in the tray.

6. Standard Paper Feed Tray (Tray 1)

Up to 500 sheets of plain paper can be loaded.

7. Bypass Tray

Up to 100 sheets of plain paper can be loaded.

8. Power Switch

Use this switch to turn the power on and off.

9. Top Cover

Open this cover to replace the print cartridge.

10. Stop Fence (Legal-size prints)

Raise the rear fence (by pulling it in the direction of the arrow) to stop Legal-size prints falling behind the printer.

11. Stop Fence (A4/Letter-size prints)

Raise the front fence to stop A4/Lettersize prints falling behind the printer.

12. Standard Tray Extension

Use this to support sheets that come out curled after they are printed.

Flip open the extension by pushing down on the end that is toward the rear of the printer.

Note

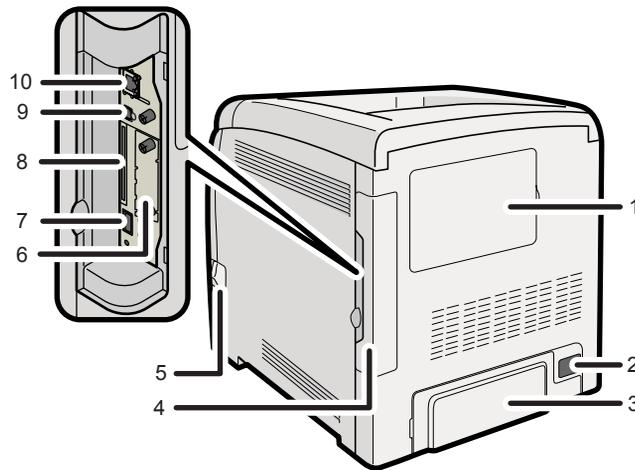
- For details about the messages which appear on the screen to prompt you to replace the units, see "Error and Status Messages Appear on the Control Panel".

Reference

- p.201 "Error and Status Messages Appear on the Control Panel"

Exterior: Rear View

This section introduces the names and functions of the parts on the rear and right sides of the printer.



CBK013

1. Memory Cover

Remove this cover to install the additional SDRAM module and hard disk (optional).

2. Power Connector

Connect the power cord to the printer here. Insert the other end of the cable into a nearby wall outlet.

3. Rear Cover

Remove this cover when you load paper larger than A4 in the paper tray.

4. Cable Cover

Remove this cover to install the optional interface units and the SD card, and to connect various cables.

5. Front Cover Open Lever

Pull this lever to open the front cover.

6. Optional Interface Board Slot

Insert an optional Wireless LAN interface unit, Gigabit Ethernet board, or IEEE 1284 interface board in this slot.

7. USB Port A

Use a USB cable to connect the printer to a digital camera.

8. SD Card Slots

Remove the cover and install SD cards here. Install the data overwrite security unit, NetWare card or camera direct print card in the upper slot. Install the VM card or HDD encryption unit in the lower slot.

9. USB Port B

Use a USB cable to connect the printer to a computer.

10. Ethernet Port

Use a network interface cable to connect the printer to the network.

Note

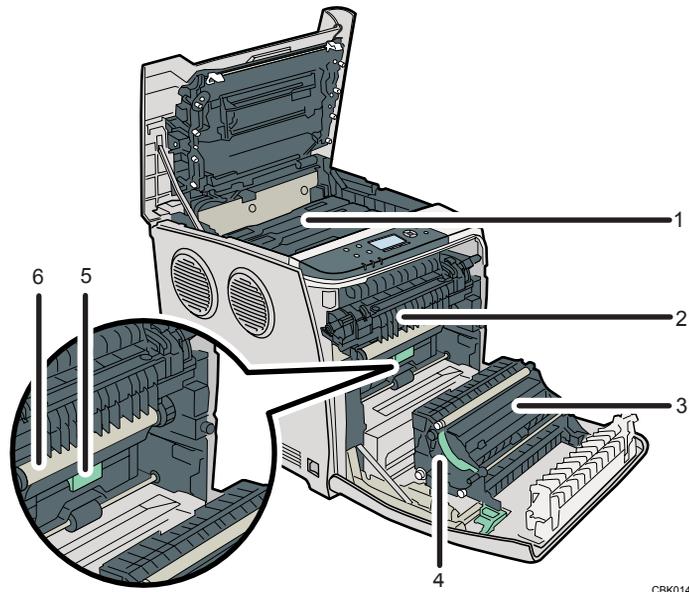
- For details about the messages which appear on the screen to prompt you to replace the units, see "Error and Status Messages Appear on the Control Panel".

Reference

- p.201 "Error and Status Messages Appear on the Control Panel"

Interior

This section introduces the names and functions of the parts inside of the printer.



1. Print Cartridge

Loads from the printer rear, in the order of cyan (C), magenta (M), yellow (Y), and black (K).

If the following message appears on the control panel, replace the print cartridge:

- "Replcmnt Requird: Print Cart"

2. Fusing Unit

If the following message appears on the control panel, replace the fusing unit:

- "Replacmnt Rqrd:Fusing Unit"

3. Transcription Roller

If the following message appears on the control panel, replace the transcription roller, which is included with the fusing unit:

- "Replacmnt Rqrd:Fusing Unit"

4. Paper Transfer Unit

Remove this unit when replacing the waste toner bottle, intermediate transfer unit.

5. Waste Toner Bottle

Collects toner that is wasted during printing.

If the message which prompts you to replace it appears on the display, replace the waste toner bottle.

- "Waste Toner Bottle full"

6. Intermediate Transfer Unit

If the following message appears on the control panel, replace the intermediate transfer unit:

- "Replacemnt Requird:InfTrans"

Note

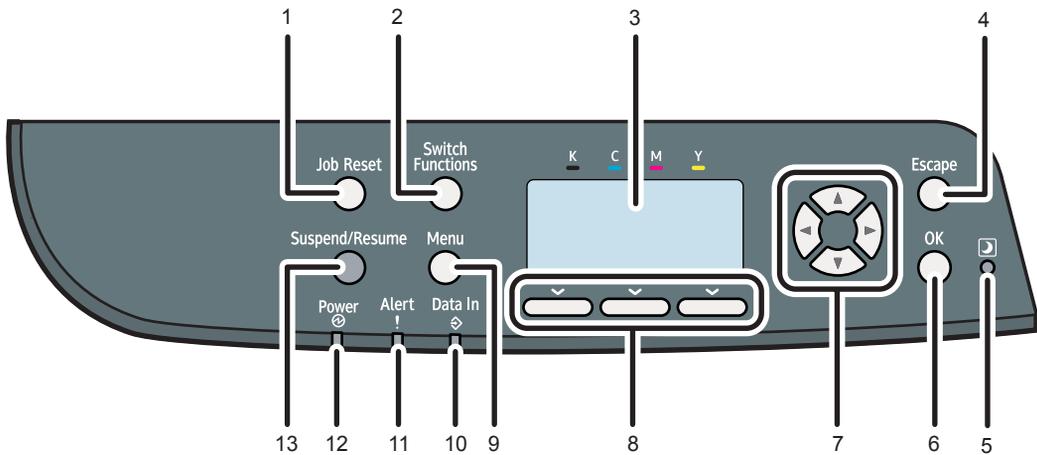
- For details about the messages which appear on the screen to prompt you to replace the units, see "Error and Status Messages Appears on the Control Panel".

Reference

- p.201 "Error and Status Messages Appear on the Control Panel"

Control Panel

This section explains names and usage of the parts of the control panel.



CBK015

1. [Job Reset] Key

When the printer is online, press this key to cancel an ongoing print job.

2. [Switch Functions] Key

Press this key to switch between the operation screen of the printer function and the function screens of the extended features currently in use.

3. Display

Displays current printer status and error messages.

Entering energy saver mode turns off the back light. For details about energy saver mode, see Software Guide.

4. [Escape] Key

Press this key to cancel an operation or return to the previous display.

5. Light Sensor

Contains the light sensor used by the ECO Night Sensor function. For details about how to use this function, see "Setting the ECO Night Sensor".

6. [OK] Key

Use this key to confirm settings, or setting values, or move to the next menu level.

7. Scroll Keys

Press these keys to move the cursor in each direction.

When the [▲][▼][◀][▶] keys appear in this manual, press the scroll key of the same direction.

8. Selection Keys

Correspond to the function items at the bottom line on the display.

Example: When this manual instructs you to press [Option], press the selection key on the left below the initial screen.

9. [Menu] Key

Press this key to configure and check the current printer settings.

10. Data In Indicator

Flashes when the printer is receiving data from a computer. The data in indicator is lit if there is data to be printed.

11. Alert Indicator

Lights up or flashes when a printer error occurs.

Steady red: printing is not possible, or is possible but print quality cannot be ensured.

Flashing yellow: the printer will soon require maintenance or a replacement consumable such as print cartridge.

Follow the instructions that appear on the display.

12. Power Indicator

Lights up when the printer is ready to receive data from a computer. Flashes when the printer is warming up or receiving data. It is unlit when the power is off or while the printer is in energy saver mode.

13. [Suspend/Resume] Key

Press this to suspend the print job currently being processed. The indicator remains lit as long as the job is suspended.

To resume the job, press this key again. Resumption of a suspended job will occur automatically when the time specified in [Auto Reset Timer] elapses (default: **60 seconds**).

For details about the [Auto Reset Timer] setting, see "Making Printer Settings Using the Control Panel", Software Guide.

Reference

- p.39 "Setting the ECO Night Sensor"

Display Panel

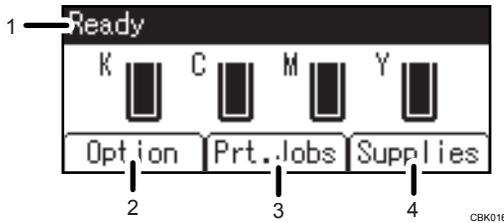
This section explains configuration using the initial screen of the display panel.

The items are highlighted when selected.

★ Important

- Do not touch the display panel.

The following screen appears when you turn on the printer.



1. Operational Status or Messages

Displays the printer status or the messages.

2. [Option]

Press to display the following items:

- Form Feed
- Error Log

3. [Prt.Jobs]

Press to display print jobs sent from a computer.

4. [Supplies]

Press to display the information of supplies for the printer.

↓ Note

- [Prt.Jobs] is displayed only when the hard disk is installed in the printer.
- By default, the remaining amount of toner is displayed. To not display the remaining amount of toner, press the [Menu] key, and then select [Maintenance] on the display. Select [General Settings], then [Display Supply Info], and then select [Off].
- Adjust the brightness if the screen is dark. To adjust the display contrast, press the [Menu] key, and then select [Maintenance] on the display. Select [General Settings] and then [Display Contrast].

2. Setting Up the Printer

This chapter explains how to set up and configure the printer for operation.

Printer Setup Procedure

Use the following procedure to set up the printer.

2

1. Select a suitable location for your printer.

For details, see p.26 "Place to Install"

2. Take the printer out of its box, and then remove the protective materials and adhesive tape.

For details, see p.30 "Unpacking"

3. Load paper in the standard paper feed tray.

For details, see p.119 "Loading Paper in Trays"

4. Turn the printer power on.

For details, see p.36 "Turning the Printer's Power On and Off"

5. Select the language used on the display.

For details, see p.42 "Selecting the Display Language"

6. Print a test page.

For details, see p.43 "Test Printing"

7. Connect the printer to your network.

For details, see p.69 "Connecting the Printer"

8. Configure the printer's network settings.

For details, see p.79 "Configuration"

9. Install the printer driver.

For details, see Driver Installation Guide.

Place to Install

The printer's location should be carefully chosen because environmental conditions greatly affect its performance.

WARNING

- Do not use any frequencies other than those that match the specifications shown. Doing so could result in fire or electric shock.

WARNING

- Do not use any power sources other than those that match the specifications shown in "Safety Information". Doing so could result in fire or electric shock.

WARNING

- Do not use multi-socket adaptors. Doing so could result in fire or electric shock.

WARNING

- Do not use extension cords. Doing so could result in fire or electric shock.

WARNING

- Do not use power cords that are damaged, broken, or modified. Also, do not use power cords that have been trapped under heavy objects, pulled hard, or bent severely. Doing so could result in fire or electric shock.

WARNING

- Touching the prongs of the power cable's plug with anything metallic constitutes a fire and electric shock hazard.

WARNING

- The supplied power cord is for use with this machine only. Do not use it with other appliances. Doing so could result in fire, electric shock, or injury.

WARNING

- It is dangerous to handle the power cord plug with wet hands. Doing so could result in electric shock.

⚠ WARNING

- If the power cord is damaged and its inner wires are exposed or broken, contact your service representative for a replacement. Use of damaged power cords could result in fire or electric shock.

⚠ WARNING

- Be sure to locate the machine as close as possible to a wall outlet. This will allow easy disconnection of the power cord in the event of an emergency.

⚠ WARNING

- Do not use flammable sprays or solvents in the vicinity of this machine. Doing so could result in fire or electric shock.

⚠ CAUTION

- Keep the machine away from humidity and dust. Otherwise a fire or an electric shock might occur.

⚠ CAUTION

- Do not place the machine on an unstable or tilted surface. If it topples over, an injury might occur.

⚠ CAUTION

- Make sure the room where you are using the machine is well ventilated and spacious. Good ventilation is especially important when the machine is used heavily.

⚠ CAUTION

- Be sure to disconnect the plug from the wall outlet and clean the prongs and the area around the prongs at least once a year. Allowing dust to build up on the plug constitutes a fire hazard.

⚠ CAUTION

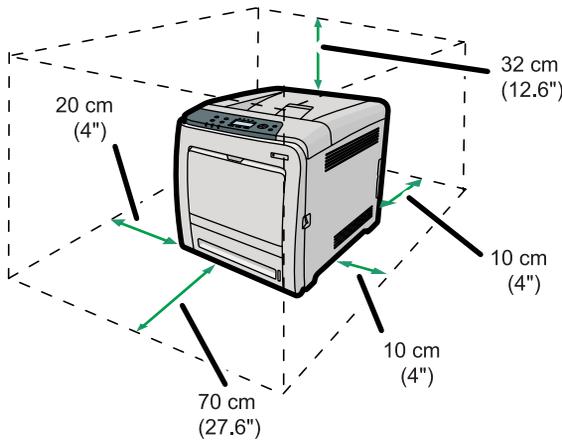
- Machine sound levels exceeding [Sound Power Level (Black and White)] > 63 dB (A) are not suitable for desk work environments, so place the machine in another room.

⚠ CAUTION

- When new, electrical devices containing volatile materials will normally release emissions into the air of their vicinity. For this reason, for the first few days after installation of a new device, strong ventilation inside the room where it is placed is necessary.

Space Required for Installation

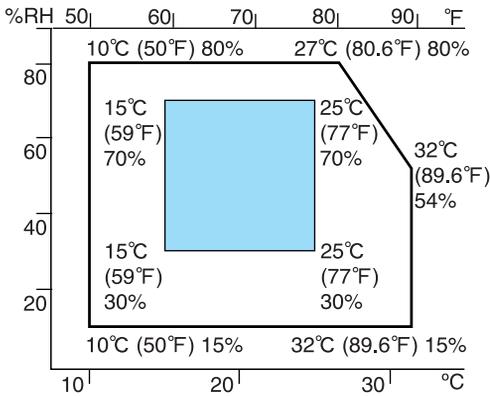
The recommended (or minimum) space requirements are as follows:



CBK018

Optimum Environmental Conditions

Permissible and recommended temperature and humidity ranges are as follows:



CBK019

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

Note

- The printer must be level within 3 mm, 0.2" from both front to rear and left to right.
- When you use this printer for a long time in a confined space without good ventilation, you may detect an odd smell. To keep the workplace comfortable, we recommend you keep it well ventilated.

Environments to Avoid

Do not use the printer in the following environments:

Important

- Areas exposed to direct sunlight or strong light

- Dusty areas
- Areas with corrosive gases
- Areas that are excessively cold, hot, or humid
- Areas directly exposed to currents of hot, cold, or room-temperature air from air conditioners
- Areas directly exposed to radiant heat from heaters
- Locations near air conditioners, heaters, or humidifiers
- Locations near other electronic equipment
- Locations subject to frequent strong vibration

Power Source

Connect the power cord to a power source of the following specification:

 **Region A** (mainly Europe and Asia)
220 - 240 V, 50/ 60 Hz, 6 A or more

 **Region B** (mainly North America)
120 V, 60 Hz, 11 A or more

Unpacking

To protect it from shock and vibration during transit, this printer comes packaged in cushioning foam and secured with tape. Remove these protective materials after bringing the machine to where it will be installed.

WARNING

- Keep the polythene materials (bags, etc.) supplied with this machine away from babies and small children at all times. Suffocation can result if polythene materials are brought into contact with the mouth or nose.

WARNING

- Do not incinerate toner (new or used) or toner containers. Doing so risks burns. Toner will ignite on contact with naked flame.

CAUTION

- Do not crush or squeeze toner containers. Doing so can cause toner spillage, possibly resulting in dirtying of skin, clothing, and floor, and accidental ingestion.

CAUTION

- Keep toner (used or unused) and toner containers out of reach of children.

CAUTION

- If toner or used toner is inhaled, gargle with plenty of water and move into a fresh air environment. Consult a doctor if necessary.

CAUTION

- If toner or used toner gets into your eyes, flush immediately with large amounts of water. Consult a doctor if necessary.

CAUTION

- If toner or used toner is swallowed, dilute by drinking a large amount of water. Consult a doctor if necessary.

CAUTION

- Be careful not to trap your fingers when opening or closing the top cover.

⚠ CAUTION

- When lifting the machine, use the inset grips on both sides. The printer could break or cause an injury if dropped.

★ Important

- Removed tape is dirty. Be careful not to let it touch your hands or clothes.
- Do not grip on the tray area when lifting the printer.
- Do not allow paper clips, staples, or other small metallic objects to fall inside the printer.
- Keep the uncovered print cartridge away from direct sunlight.
- When you use this printer for the first time, use the four print cartridges supplied with the printer.

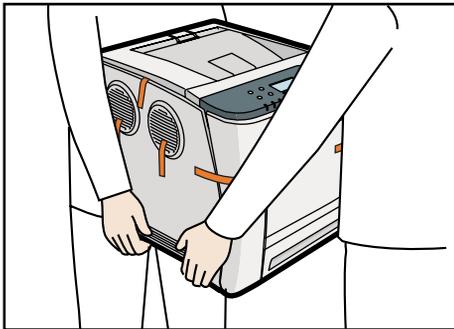
↓ Note

- Print cartridge (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.

1. Remove the plastic bag.

2. Lift the printer with two people by using the inset grips on both sides of the printer.

Leave the tape holding the paper feed tray and cover in place while moving the printer. Lower the machine slowly and carefully to prevent trapping your hands.



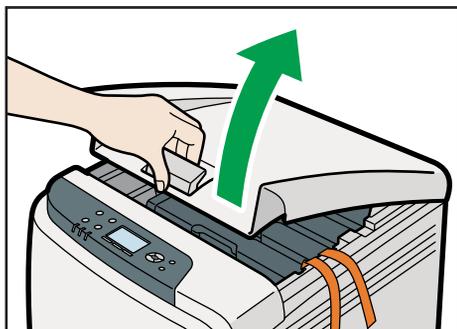
CBK199

When moving the printer, do not hold on the following parts as doing so could cause a malfunction:

- The handle onto the standard paper feed tray.
- The underside of the bypass tray.

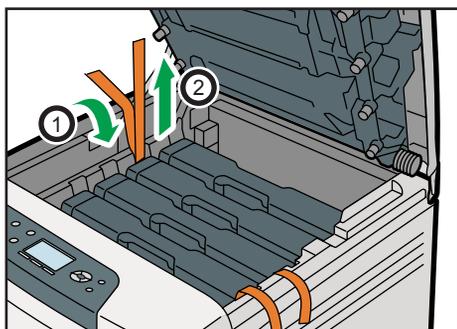
3. Remove the adhesive tape.

4. Pull up top cover open lever to open the top cover.

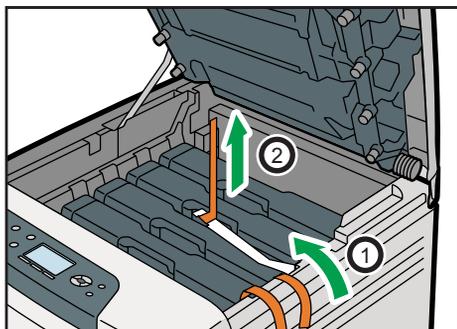


CBK200

5. Remove the adhesive tape.



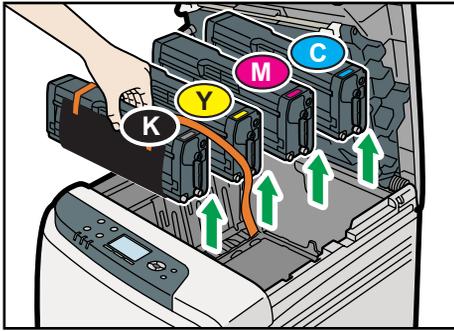
CBK029



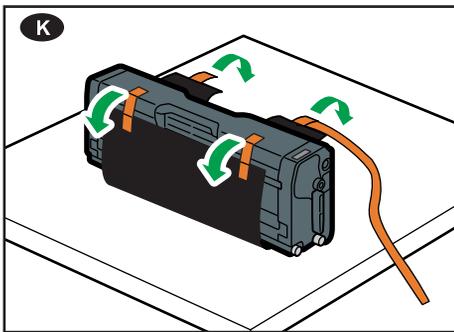
CBK238

6. Take each print cartridge out.

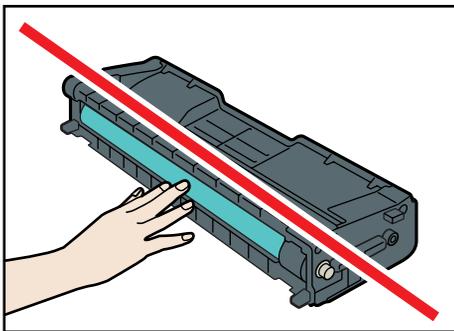
Gripping its center, carefully pull the print cartridge upward and out.



When taking out the black print cartridge, be sure to place it on a flat surface, and then remove the protection sheet also.

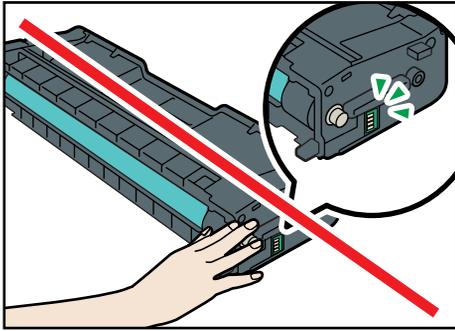


Do not touch the print cartridge's photo conductor unit.

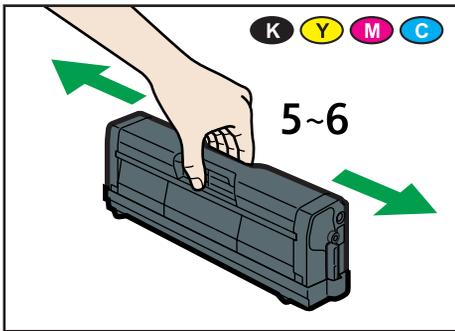


Do not touch a metal part.

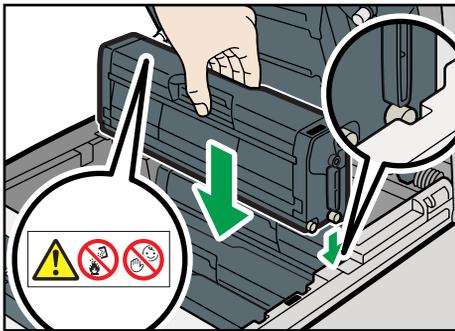
2



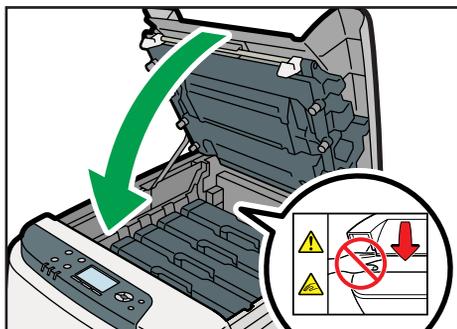
7. Hold the print cartridge and shake it from side to side five or six times.



8. Check the toner color and location correspond, and then carefully insert the print cartridge vertically.



9. Close the top cover with both hands carefully. Be careful not to trap your fingers.



CBK034

Turning the Printer's Power On and Off

This section explains the procedures for turning the printer's power on and off.

⚠ WARNING

- It is dangerous to handle the power cord plug with wet hands. Doing so could result in electric shock.

★ Important

- Do not turn off the power switch before following the shutdown procedure shown here. Doing so can result in damage to the hard disk or memory, leading to malfunction.
- Do not physically disturb the printer while printing is in progress. Doing so may damage the printer.

Turning on the Power

Use this procedure to turn on the printer's power.

★ Important

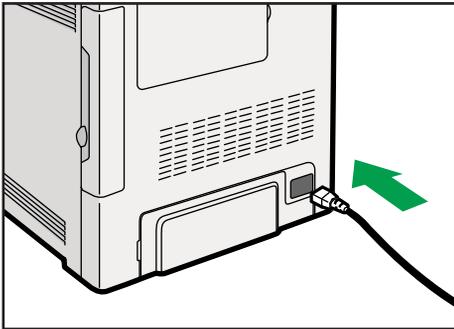
- Make sure the power cord is plugged securely into the wall outlet.
- Turn the power switch off when plugging and unplugging the power plug.
- Do not turn off the power switch until initializing is completed. Doing so results in malfunction.

1. Make sure the power switch is set to "○ Off".



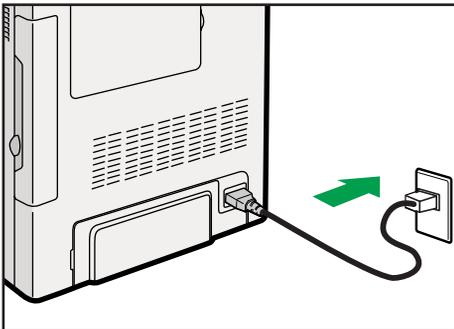
CBK236

2. Plug in the power cable.



CBK046

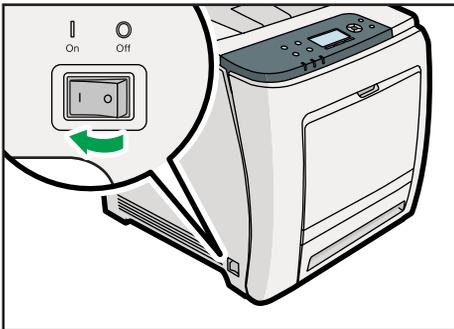
3. Insert the plug of the power cord into the wall socket securely.



CBK047

4. Turn the power switch to "I On".

The power indicator on the control panel lights up.



CBK048

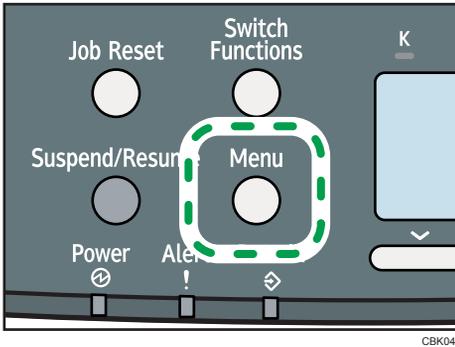
↓ Note

- Wait until "Ready" appears on the display panel.
- The printer may make a noise while initializing. This noise does not indicate a malfunction.

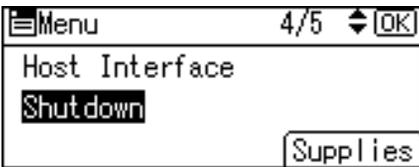
Turning off the Power

Use this procedure to turn off the printer's power.

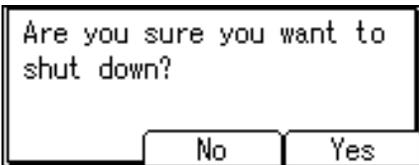
1. Press the [Menu] key.



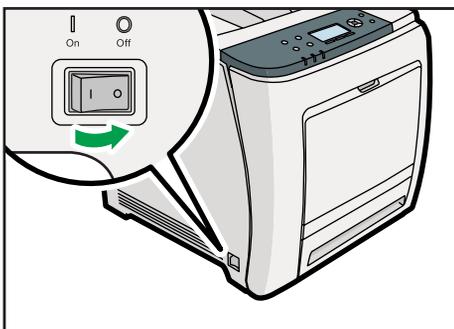
2. Press the [▼] or [▲] key to select [Shutdown], and then press the [OK] key.



3. Press [Yes].



4. Wait until a screen prompting you to turn off the main power appears, and then turn the power switch to "○ Off".



Note

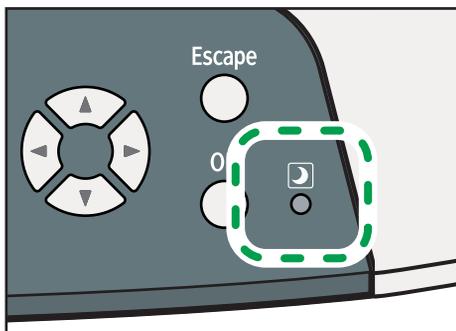
- Even if you follow the shutdown procedure, the printer might not shutdown in the following cases:
 - If it is communicating with external devices.
 - If the hard disk is active.
 - If the printer's cover is opened.

2**Setting the ECO Night Sensor**

This printer can detect the brightness of ambient light and automatically power down if the level it detects is below a specified minimum. Use the following procedure to configure the settings, the default setting is inactive.

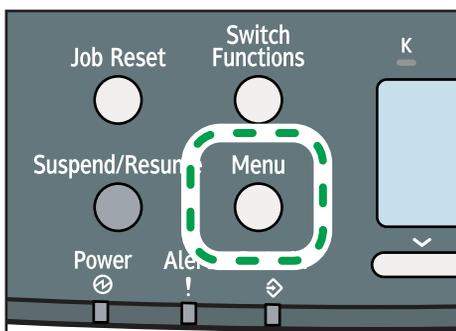
Important

- This feature will not work if a print error or paper jam occurs, or if the paper runs out.
- This feature detects the level of ambient light with its light sensor. The light sensor is located in the position shown below. Do not place objects on the light sensor. Doing so will cause the sensor to shut down the printer, even if the ambient light level is high.



CBK261

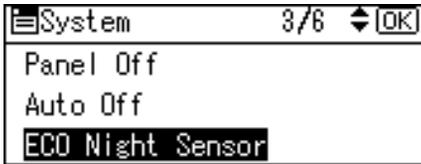
1. Press the [Menu] key.



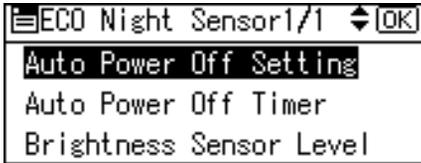
CBK049

2. Press the [▼] or [▲] key to select [System], and then press the [OK] key.

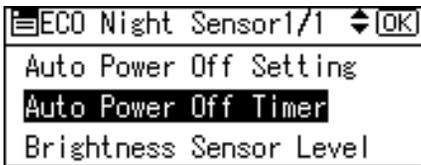
3. Press the [▼] or [▲] key to select [ECO Night Sensor], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Auto Power Off Setting], and then press the [OK] key.



5. Press the [▼] or [▲] key to select [Active], and then press the [OK] key.
6. Under [Auto Power Off Timer], specify how long the printer is to wait before it powers down.



7. Under [Brightness Sensor Level], select the minimum level of ambient light that the printer must detect in order to stay powered.



You can set the light sensor to one of five sensitivity thresholds. "Level 5 (Dim)" is the highest sensitivity threshold. Selecting this level will cause the sensor to trigger at the smallest decrease in ambient light. Selecting a lower level will cause the sensor to trigger at progressively lower levels of ambient light.

- Level 5 (Dim)
(equivalent to a building interior at sunset: approximately 75.0 lx)
- Level 3 (Dark)
(equivalent to a cinema during a screening: approximately 2.4 lx)
- Level 1 (Very Dark)
(equivalent to a moonlit night: approximately 0.4 lx)

8. Press the [Menu] key to return to the initial screen.

 **Note**

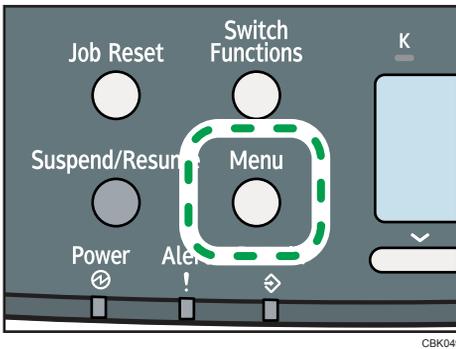
- Turn on the main power switch to restart the printer whose main power has been turned off by ECO Night Sensor function.

Selecting the Display Language

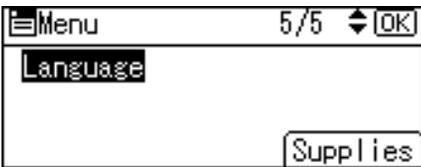
Select a language using the procedure described here. The message in the selected language will appear on the display.

2

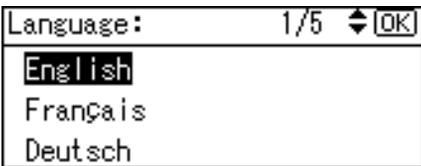
1. Press the [Menu] key.



2. Press the [▼] or [▲] key to select [Language], and then press the [OK] key.



3. Press the [▼] or [▲] key to select the preferred language, and then press the [OK] key.



4. Press the [Menu] key to return to the initial screen.

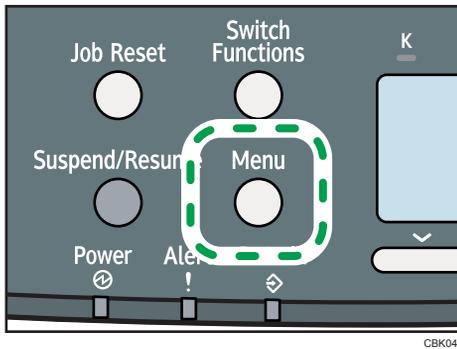
↓ Note

- The default setting is English.

Test Printing

Print a test print in order to verify that the printer is working normally. Test printing checks printer performance only; it does not test the connection to the computer.

1. Press the [Menu] key.



2

2. Press the [▼] or [▲] key to select [List/Test Print], and then press the [OK] key.



3. Press the [▼] or [▲] key to select [Config. Page], and then press the [OK] key.

The configuration page will be printed.



4. Press the [Menu] key to return to the initial screen.

Note

- If printing is not normal, check to see if an error message appears on the display. If there is an error message, see "Troubleshooting".

Reference

- p.201 "Troubleshooting"

3. Installing Options

This chapter explains how to install various options for this printer.

Available Options

By installing options, you can improve printer performance and expand the available features.

CAUTION

- Before installing or removing options, always disconnect the power cord plugs from the wall outlet and allow time for the main unit to fully cool. Failing to take these precautions could result in burns.

3

Order of Option Installation

When installing multiple options, the following order is recommended:

1. Attach the paper feed unit.

Attach the paper feed unit to the bottom of the printer.

You can attach up to one paper feed unit. Up to 1 100 sheets of paper can be loaded in total.

2. Install the SDRAM module.

There are two types of memory units, 256 MB and 512 MB.

3. Install the hard disk.

4. Install the optional interface board.

Install the optional Gigabit Ethernet board, Wireless LAN interface unit, or IEEE 1284 interface board in the slot.

5. Insert SD card options.

Install the data overwrite security unit, NetWare card, camera direct print card, VM card, or HDD encryption unit.

Insert these units into the SD card slot.

If you want to use two or more SD cards that can be inserted in the same slot, contact your sales and service representative.

Where to Install Options

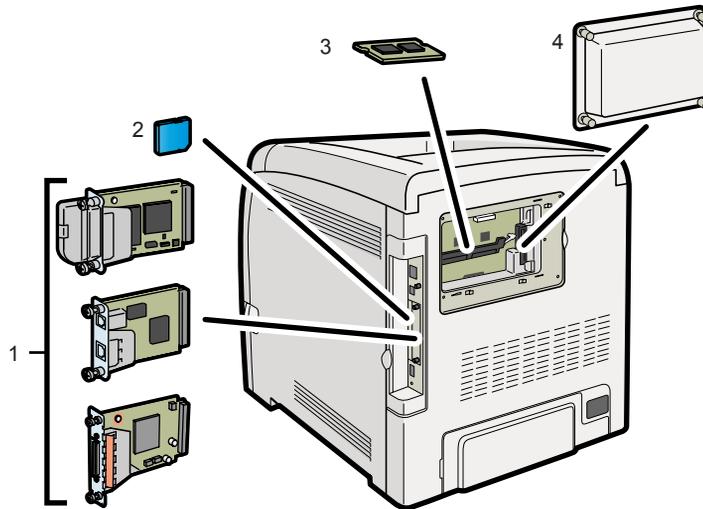
Install options in the locations shown in the following illustrations.

External options

- Paper feed unit

Loads up to 500 sheets of paper. Up to one paper feed unit can be installed on the printer. Installed tray unit is identified as "Tray 2". For details about attaching the paper feed unit, see "Attaching the Paper Feed Unit".

Internal options



CBK052

1. Optional interface boards

- Wireless LAN interface unit
- Gigabit Ethernet board
- IEEE 1284 interface board

For details about installing these options, see "Installing the Interface Units".

2. SD card options

For details about installing these options, see "Installing the SD Memory Card Options".

3. SDRAM module

For details about this option, see "Installing the SDRAM Module".

4. Hard disk

For details about this option, see "Installing the Hard Disk".

↓ Note

- For details about the specifications of each option, see "Specifications".

📖 Reference

- p.48 "Attaching the Paper Feed Unit"
- p.51 "Installing the SDRAM Module"
- p.54 "Installing the Hard Disk"
- p.57 "Installing the Interface Units"

- p.65 "Installing the SD Memory Card Options"
- p.242 "Specifications"

Attaching the Paper Feed Unit

WARNING

- If the machine topples, or if a cover or other part gets broken, you must turn the power switch to off and disconnect the power cord plug from the wall outlet. Then contact your service representative and report the problem. Do not use the machine. Doing so could result in fire or electric shock.

3

CAUTION

- The printer weighs approximately 29 kg (64.0 lb.). When moving the printer, use the inset grips on both sides, and lift slowly. The printer will break or cause injury if dropped.

CAUTION

- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, take care that the power cord is not damaged under the machine. Failing to take these precautions could result in fire or electric shock.

CAUTION

- Do not place the machine on an unstable or tilted surface. If it topples over, an injury might occur.

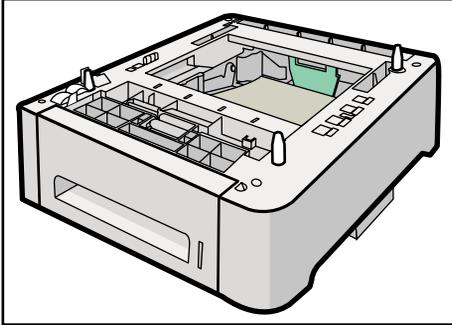
CAUTION

- Lifting the paper feed unit carelessly or dropping it may cause injury.

Important

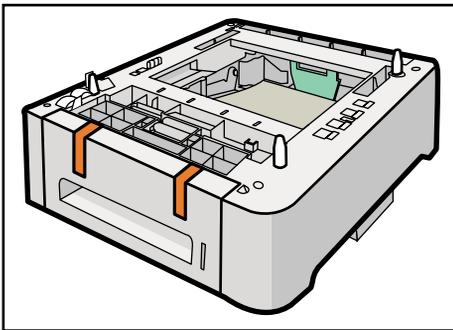
- When one paper feed unit is installed, this detected as "Tray 2".
- The printer should always be lifted by two people.
- After a new paper feed unit has been installed, the driver settings might need to be reconfigured. For details, see "Making Option Settings for the Printer", Driver Installation Guide.
- Tray 1 is required to print using the optional paper feed unit. Without Tray 1, paper jams will occur.
- Do not grip on the tray area when lifting the printer.

1. Check the package contains the following:
Paper Feed Unit (including a paper tray)



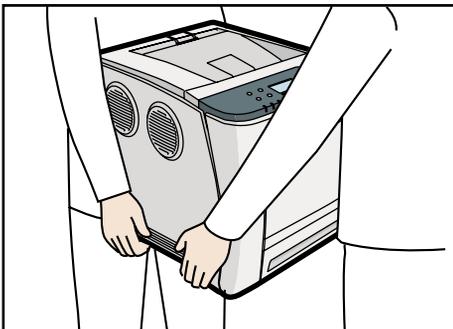
CBK054

2. Turn off the printer's power switch, and then unplug the printer's power cord from the wall outlet.
3. Remove the adhesive tape from the optional paper feed unit.



CBK055

4. Lift the printer using the inset grips on both sides of the printer.

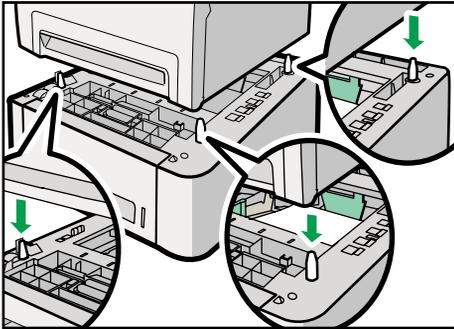


CBK027

When moving the printer, do not hold on the following parts as doing so could cause a malfunction:

- The handle onto the standard paper feed tray.
- The underside of the bypass tray.

5. There are three upright pins on the optional paper feed unit. Align them with the holes on the underside of the printer, and then carefully lower the printer.



6. After installing the option, print the configuration page to confirm the installation.

Note

- When moving the printer, remove the paper feed unit.
- After finishing the installation, you can check whether the paper feed unit is properly installed by printing the configuration page from the [List/Test Print] menu. If the paper feed unit is properly installed, "Tray 2" will appear for "Attached Equipment" on the configuration page.
- If the paper feed unit is not installed properly, reinstall it following this procedure. If you cannot install it properly even after attempting reinstallation, contact your sales or service representative.
- If the print area is not centered correctly, adjust the printing position for the optional paper feed unit. For details, see "Adjusting Printing Position".
- For details about printing the configuration page, see "Test Printing".
- For details about loading paper onto the paper tray, see "Loading Paper in Trays".

Reference

- p.43 "Test Printing"
- p.119 "Loading Paper in Trays"
- p.197 "Adjusting Printing Position"

Installing the Memory Expansion Units

⚠ CAUTION

- Do not touch the inside of the controller board compartment. It may cause a machine malfunction or a burn.

Installing the SDRAM Module

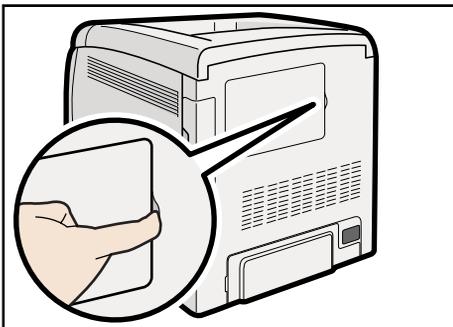
3

⚠ CAUTION

- Before installing the memory unit, turn off the printer's power switch and unplug the power cable. After installing the memory unit, be sure to close the memory cover, and then turn the printer back on. Do not turn on the printer before closing the memory cover.

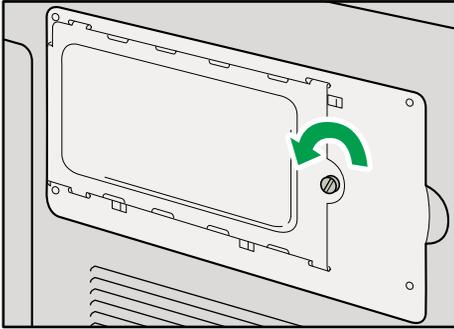
★ Important

- Before touching the SDRAM module, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the SDRAM module.
 - Do not subject the memory unit to physical shocks.
 - The printer comes equipped with 384 MB of memory. This can be expanded to a maximum of 768 MB.
 - After a new memory unit has been installed, the driver settings might need to be reconfigured. For details, see "Making Option Settings for the Printer", Driver Installation Guide.
1. Turn off the power, and then unplug the power cable.
 2. Remove the memory cover.



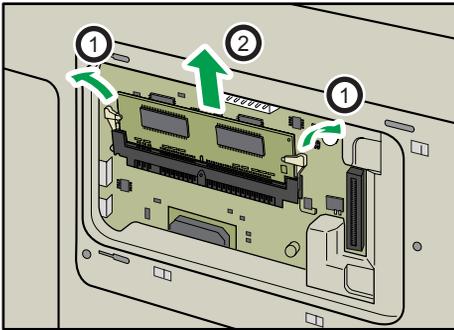
CBK057

3. Loosen the screw securing the inner cover by using a coin.



CBK058

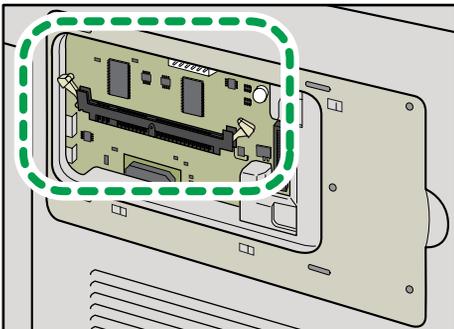
4. Push the levers on both ends of the slot outward (①), and then remove the default module (②).



CBK243

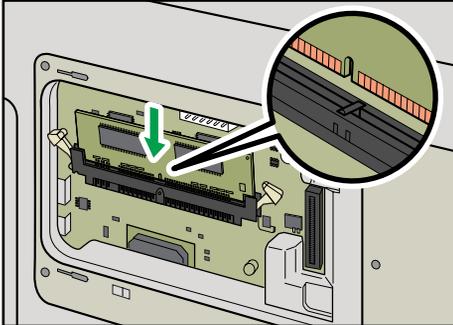
Install a new SDRAM module.

5. Be sure to install the memory unit as shown.



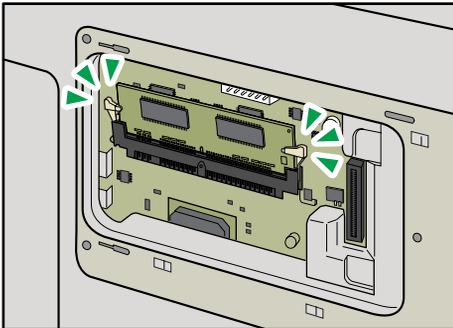
CBK059

6. To install the recommended memory, align the notch of the recommended memory with the protruding part of the vacant slot, and then carefully insert the module at an angle.



CBK060

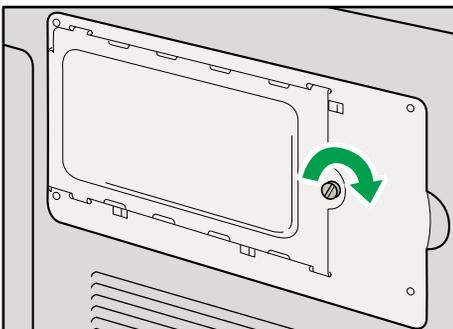
7. Keeping the module at an angle, press it down until it clicks into place.



CBK061

To install the optional hard disk, use the "Install the Hard Disk" procedure, which follows this procedure.

8. Attach the inner cover, and then fasten the screw.



CBK062

9. Attach the memory cover.
10. After installing the option, print the configuration page to confirm the installation.

Note

- After finishing the installation, you can check the memory unit is properly installed: Print the configuration page from the [List/Test Print] menu. If it is installed properly, the memory capacity will appear under "Total Memory" on the configuration page.
- The table below shows the total SDRAM module capacities.

Standard	Extended	Total
256 + 128 MB	256 MB	512 MB
256 + 128 MB	512 MB	768 MB

- If the memory unit is not properly installed, repeat this procedure. If you cannot install it properly even after reinstallation, contact your sales or service representative.
- For details on printing the configuration page, see "Test Printing".

Reference

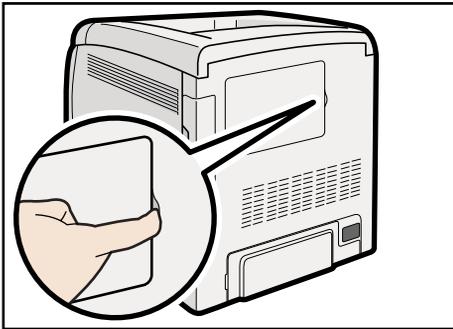
- p.43 "Test Printing"
- p.54 "Installing the Hard Disk"

Installing the Hard Disk

Important

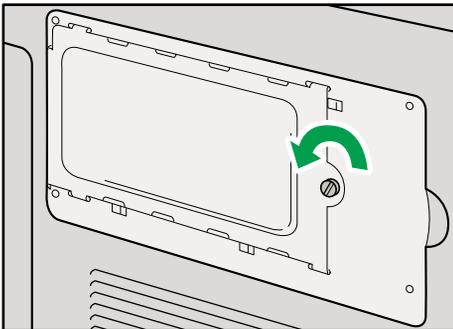
- Before touching the hard disk, touch something metal to discharge any static electricity. Static electricity can damage the hard disk.
- Do not subject the hard disk to physical shocks.
- Install the hard disk carefully if the SDRAM module is already installed. If the hard disk comes into contact with the SDRAM module, the SDRAM module may be damaged.
- After a new hard disk has been installed, the driver settings might need to be reconfigured. For details, see "Making Option Settings for the Printer", Driver Installation Guide.

1. Turn off the power, and then unplug the power cable.

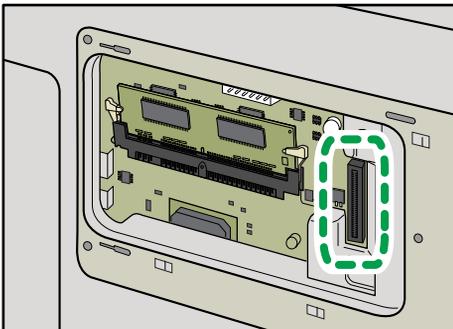
2. Remove the memory cover.

CBK057

3

3. Loosen the screw securing the inner cover by using a coin.

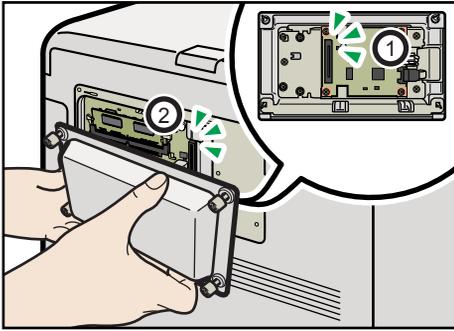
CBK058

4. Be sure to install the hard disk as shown.

CBK247

5. Align the connector of the hard disk (①) with the connector on the board of the printer (②), and then carefully push in the hard disk until it can go no further.

If tightening the screw is difficult, loosen the screw, adjust its position, and then try tightening it again.



CBK201

3

Be sure to set the hard disk parallel with the printer.

Note

- After finishing installation, you can check the hard disk is properly installed: Print the configuration page from the [List/Test Print] menu. If it is installed properly, you will see "Hard Disk" for "Device Connection" on the configuration page.
- If the hard disk is not properly installed, repeat this procedure. If you cannot install it properly even after reinstallation, contact your sales or service representative.
- For details on printing the configuration page, see "Test Printing".

Reference

- p.43 "Test Printing"

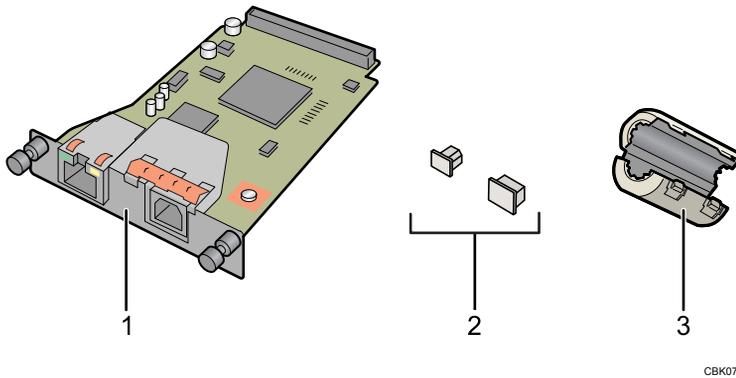
Installing the Interface Units

Installing the Gigabit Ethernet Board

★ Important

- The printer's Ethernet and USB ports are not available when the Gigabit Ethernet board is installed in to the printer. Use the Ethernet and USB ports on the Gigabit Ethernet board.
- Before beginning work, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the Gigabit Ethernet board.
- Do not subject the Gigabit Ethernet board to physical shocks.

1. Check the contents of the package.

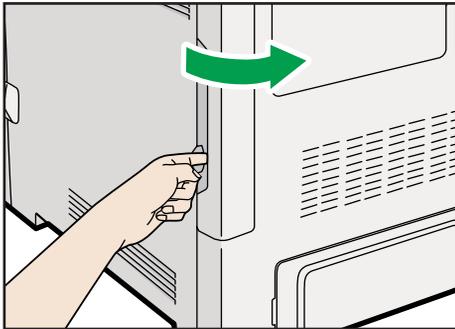


1. Gigabit Ethernet Board
2. Protective caps (one each for the Ethernet port and the USB port)
3. Ferrite core

Design of the ferrite core varies according to printer model.

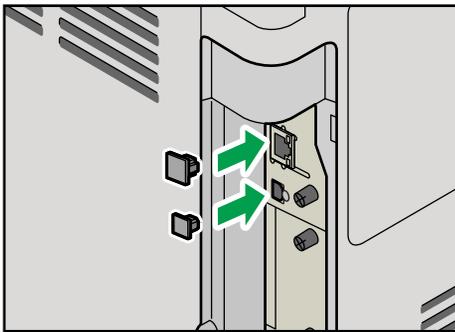
2. Turn off the power, and then unplug the power cord.

3. Remove the cable cover.



CBK233

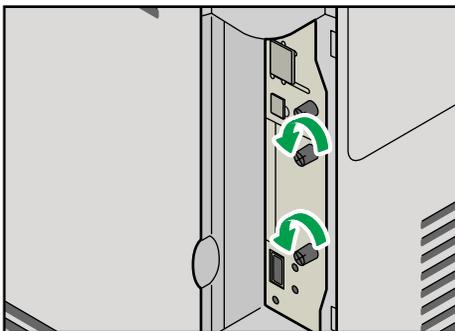
4. Disconnect the cables from the Ethernet port and the USB port of the printer, and cover each port with its protective cap.



CBK072

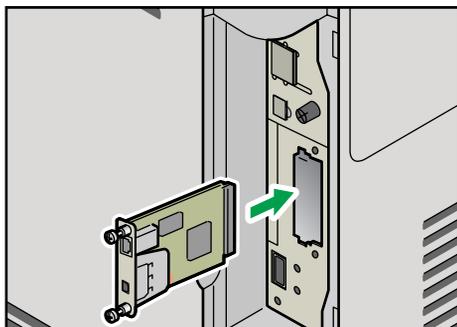
5. Remove the two screws and remove the cover of the slot in which the Gigabit Ethernet board is installed.

The removed cover is not used when the interface unit is installed.



CBK073

6. Fully insert the Gigabit Ethernet board.

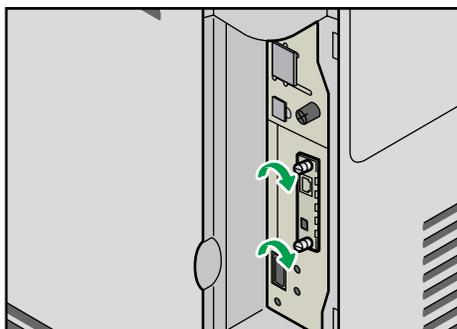


CBK074

3

7. Tighten the two screws to secure the Gigabit Ethernet board.

Check the Gigabit Ethernet board is connected firmly to the interface board slot.



CBK075

Connect the cable to the Gigabit Ethernet board. For details see "Ethernet Cable Connection".

↓ Note

- Confirm that the Gigabit Ethernet board was correctly installed by printing the configuration page. If it is correctly installed, "Gigabit Ethernet" will appear for "Device Connection" on the configuration page.
- If the board was not installed properly, repeat the procedure from step 5. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.
- For details about printing the configuration page, see "Test Printing".
- Before using the Gigabit Ethernet board, you must configure settings from the printer control panel. For details, see "Ethernet Configuration".

📖 Reference

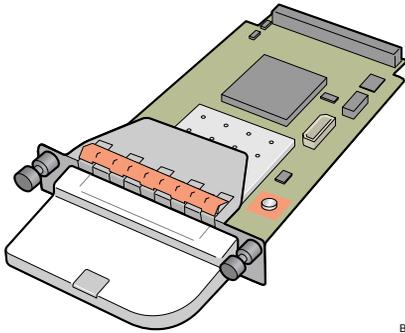
- p.43 "Test Printing"
- p.69 "Ethernet Cable Connection"
- p.79 "Ethernet Configuration"

Installing the Wireless LAN Interface Board

★ Important

- Before beginning work, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the unit.
- Do not subject the unit to physical shocks.

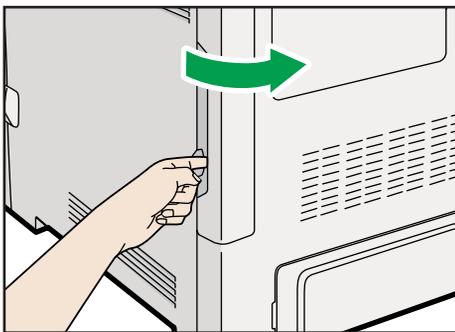
1. Check the contents of the package.



BFL301S

3

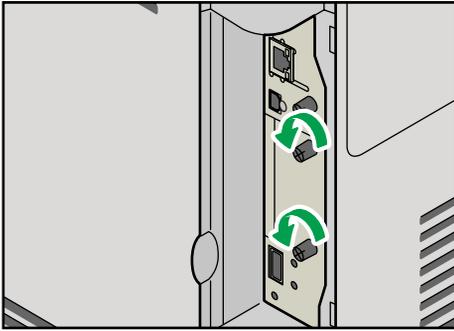
2. Turn off the power, and then unplug the power cord.
3. Remove the cable cover.



CBK233

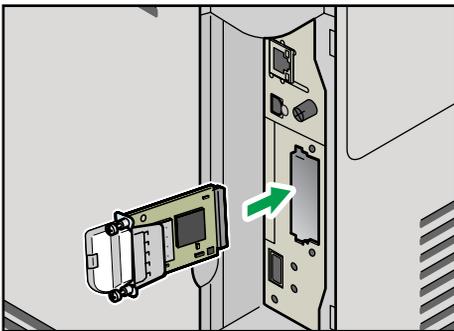
4. Remove the two screws and remove the cover of the slot in which the Wireless LAN interface board is installed.

The removed cover is not used when the interface board is installed.



CBK255

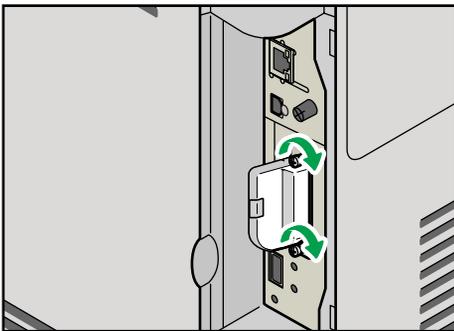
5. Fully insert the Wireless LAN interface board.



CBK078

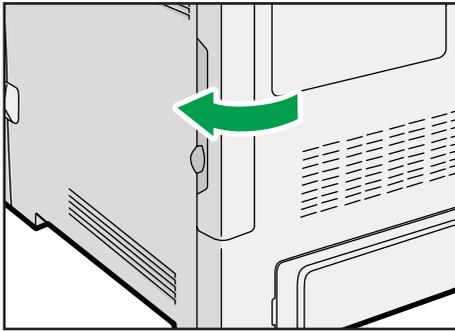
6. Tighten the two screws to secure the interface board.

Check the Wireless LAN interface board is connected firmly to the interface board slot.



CBK079

7. Attach the cable cover.



CBK235

Note

- Confirm that the interface board was correctly installed by printing the configuration page. If it is correctly installed, "Wireless LAN" will appear for "Device Connection" on the configuration page.
- If the board was not installed properly, repeat the procedure from step 4. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.
- For details about printing the configuration page, see "Test Printing".
- Before using the Wireless LAN interface board, you must configure settings from the printer control panel. For details, see "Wireless LAN Configuration".

Reference

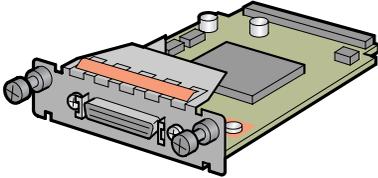
- p.43 "Test Printing"
- p.88 "Wireless LAN Configuration"

Installing the IEEE 1284 Interface Board

Important

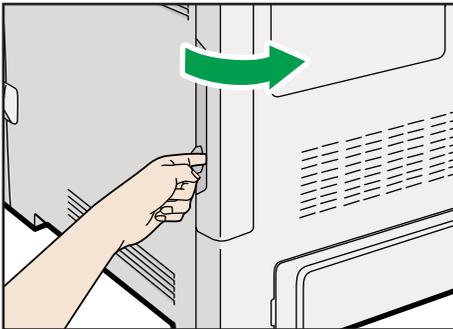
- Before beginning work, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the IEEE 1284 interface board.
- Do not subject the IEEE 1284 interface board to physical shocks.
- For connection to the IEEE 1284 interface board, use a half pitch 36-pin interface cable.

1. Check the contents of the package.



BFL302S

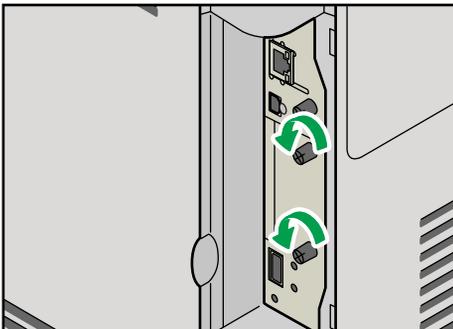
2. Turn off the power, and then unplug the power cord.
3. Remove the cable cover.



CBK233

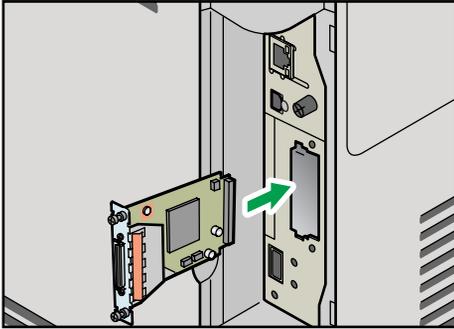
4. Remove the two screws and remove the cover of the slot in which the 1284 interface board is installed.

The removed cover is not used when the 1284 interface board is installed.



CBK255

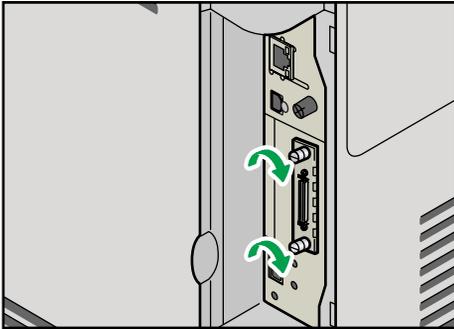
5. Fully insert the IEEE 1284 interface board.



CBK082

6. Tighten the two screws to secure the interface board.

Check the IEEE 1284 interface board is connected firmly to the interface board slot.



CBK083

Note

- Confirm that the IEEE 1284 interface board was correctly installed by printing the configuration page. If it is correctly installed, "Parallel Interface" will appear for "Device Connection" on the configuration page.
- If the board was not installed properly, repeat the procedure from step 4. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.
- For details about printing the configuration page, see "Test Printing".

Reference

- p.43 "Test Printing"

Installing the SD Memory Card Options

This section explains how to install the following SD memory cards: the camera direct print card, data overwrite security unit, HDD encryption unit, NetWare card, and VM card.

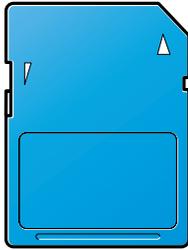
CAUTION

- Keep SD memory cards out of reach of children. If a child swallows an SD memory card, consult a doctor immediately.

Important

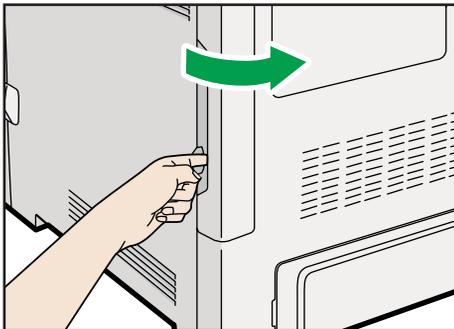
- Do not subject the card to physical shocks.
- The VM card is optional to use it, the optional 512 MB SDRAM module must be installed.

1. Check the contents of the package.



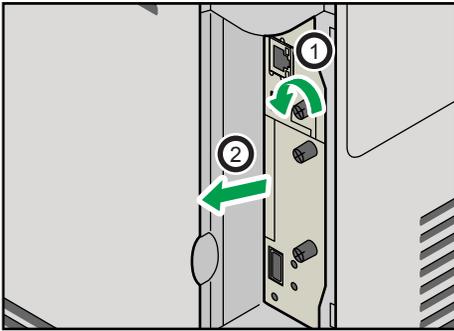
BFL308S

2. Turn off the power, and then unplug the power cord.
3. Remove the cable cover.

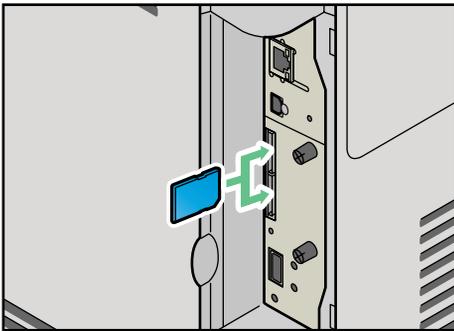


CBK233

4. Remove the one screw, and then carefully remove the cover of the SD card slot.



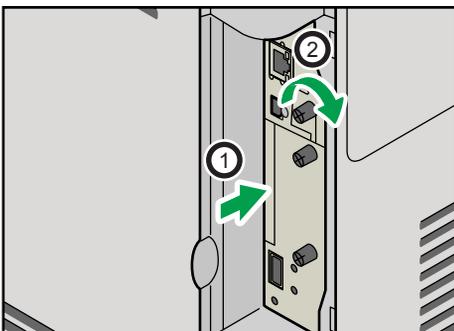
5. Carefully push in the SD card (notched corner upward and leading), until it clicks into place.



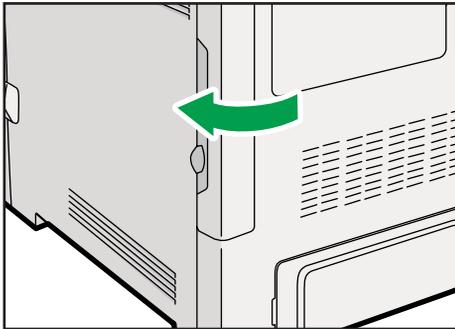
Insert the SD card in the appropriate slot as follows:

- Upper slot: Camera direct print card, Data overwrite security unit, NetWare card
- Lower slot: HDD encryption unit, VM card

6. Reattach the cover over the SD card. Fasten the one screw to secure the cover.



7. Attach the cable cover.



CBK235

↓ Note

- Do not touch the card while the printer is in use. It may come loose, even if pushed only slightly. The slot cover must be reattached.
- You can confirm that the SD card was installed correctly by checking the control panel menu. Depending on the SD card, certain menu items appear on the display.
 - Data overwrite security unit: Set [Auto Erase Memory Setting] under [Security Options] to [On], and then check [Memory Erase Status].
 - HDD encryption unit: Make sure [Machine Data Encryption] appears in [Security Options] is displayed. Depending on settings, [Machine Data Encryption] might not appear. For details about how to confirm this setting, consult your administrator.
- Confirm that the camera direct print card was correctly installed by printing the configuration page. If the camera direct print card is installed properly, "PictBridge" will appear for "Attached Equipment" in "System Reference".
- If the card is not installed properly, repeat the procedure from the beginning. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.
- For details about printing the configuration page, see "Test Printing".

📖 Reference

- p.43 "Test Printing"

4. Connecting the Printer

This chapter explains how to connect network and USB cables.

Ethernet Cable Connection

Prepare a hub and other network devices, and connect the Ethernet cable to the printer.

Connect 10BASE-T or 100BASE-TX cable to the printer's Ethernet port. For 1000BASE-T, the optional Gigabit Ethernet board is required.

CAUTION

- A network interface cable with a ferrite core must be used for RF interference suppression.

CAUTION

- For users outside the United States of America: properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet emission limits.

CAUTION

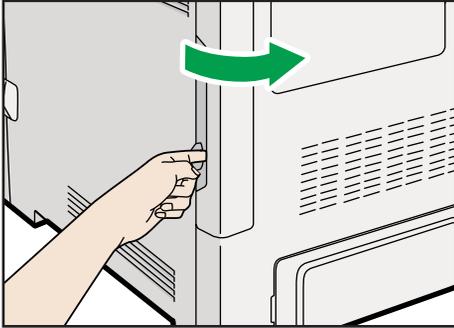
- For users in the United States of America: properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet FCC emission limits.

Important

- An Ethernet cable is not supplied with this printer. Select your cable according to the network environment.
- The printer's Ethernet and USB ports are not available when the Gigabit Ethernet board is attached to the printer.

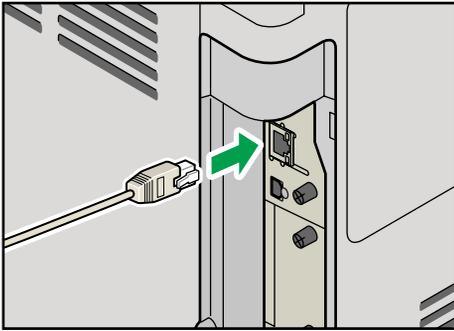
Connecting to the standard Ethernet port

1. Remove the cable cover.



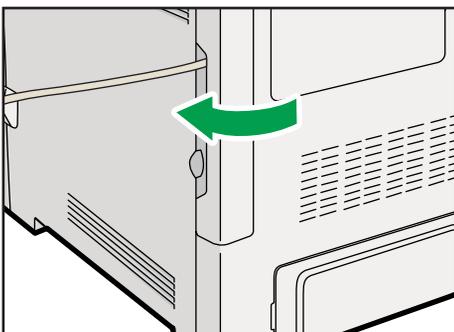
CBK233

2. Connect the Ethernet cable to the Ethernet port.



CBK088

3. Connect the other end of the cable to the network, for example using a hub.
4. Attach the cable cover.

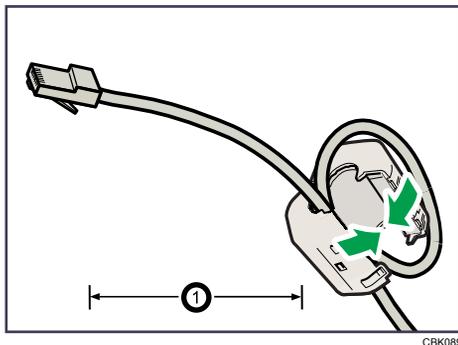


CBK234

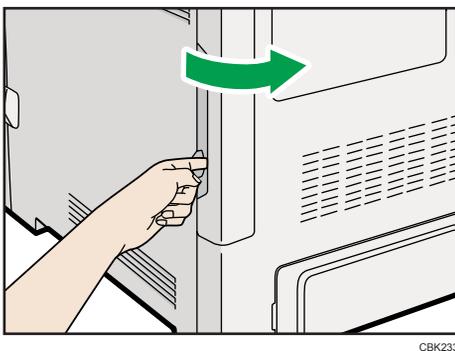
Connecting to the Ethernet port of the Gigabit Ethernet board

1. Attach the ferrite core to the Ethernet cable.

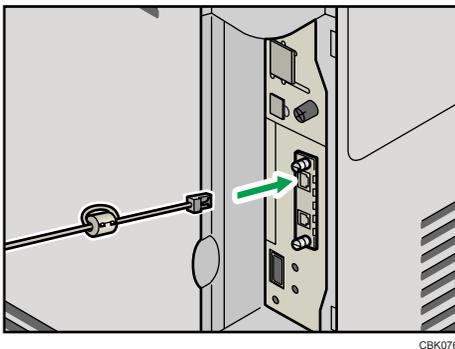
Attach the other ferrite core about 10 cm (4 inches) (①) from this core making a loop as shown.



2. Remove the cable cover.



3. Connect the Ethernet cable to the Ethernet port of the Gigabit Ethernet board.



4. Connect the other end of the cable to the network, for example using a hub.

↓ Note

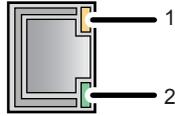
- For details about configuring the network environment, see "Ethernet Configuration".
- For details about installing the Gigabit Ethernet board, see "Installing the Interface Units".

📖 Reference

- p.57 "Installing the Interface Units"
- p.79 "Ethernet Configuration"

Reading the LED Lamps

Standard Ethernet port



CBK090

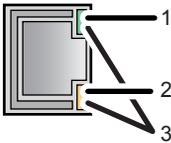
1. Yellow indicator

If the printer is connected to a 100BASE-TX Ethernet, the yellow indicator will be lit. This indicator will be unlit if the printer is connected to a 10BASE-T Ethernet.

2. Green indicator

If the printer is connected to a 10BASE-T Ethernet or 100BASE-TX Ethernet, the green indicator will be lit.

Optional Gigabit Ethernet board



CBK091

1. Green indicator

If the printer is connected to a 10BASE-T Ethernet, the green indicator will be lit. This indicator will be unlit if the printer is connected to a 100BASE-TX Ethernet.

2. Yellow indicator

If the printer is connected to a 100BASE-TX Ethernet, the yellow indicator will be lit. This indicator will be unlit if the printer is connected to a 10BASE-T Ethernet.

3. Green and yellow indicators

If the printer is connected to a 1000BASE-T Ethernet, both indicators will be lit.

USB Cable Connection

⚠ CAUTION

- For users outside the United States of America: properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet emission limits.

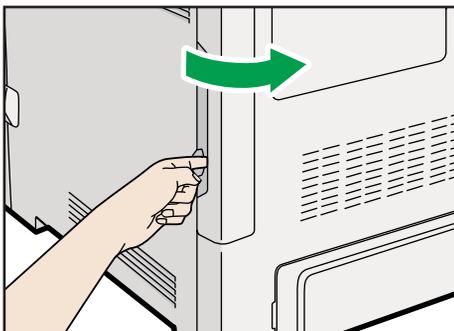
⚠ CAUTION

- For users in the United States of America: properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet FCC emission limits.

★ Important

- USB connection is possible under Windows 2000/XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, and Mac OS X 10.3.3 or later.
- A USB cable is not supplied with this printer. Select your cable according to the computer.
- USB connection with a Macintosh is only possible via the printer's USB port.

1. Remove the cable cover.

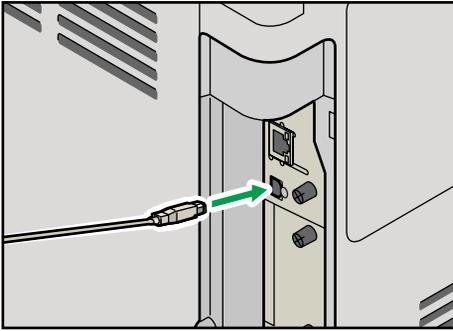


CBK233

2. Connect the USB cable to the printer.

- **Connecting the USB cable to the standard USB port B**

Connect the smaller connector of the USB cable to the standard USB port B on the left side of the printer.

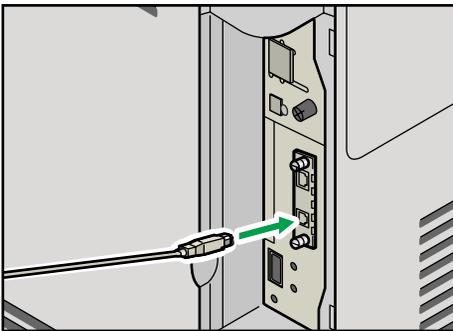


CBK095

- **Connecting the USB cable to the Gigabit Ethernet board USB port**

Connect the smaller connector of the USB cable to the USB port of the Gigabit Ethernet board.

4



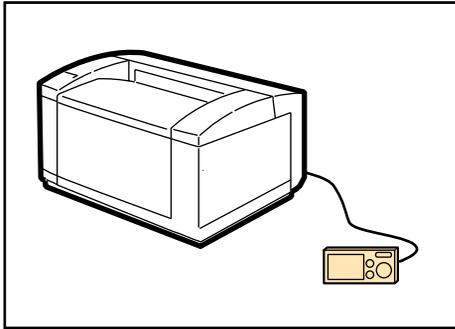
CBK093

- 3. Connect the opposite end's flat connector to the desired device such as your computer's USB interface, or a USB hub.**

The printer is now connected to the computer. The Plug and Play screen appears on the computer display. For details, see "Installing the Printer Driver Using USB", Driver Installation Guide.

Digital Camera Connection

This printer supports direct printing, which allows you to print images taken with a digital camera by connecting the camera directly to the printer. The following describes how to connect the printer to a digital camera.

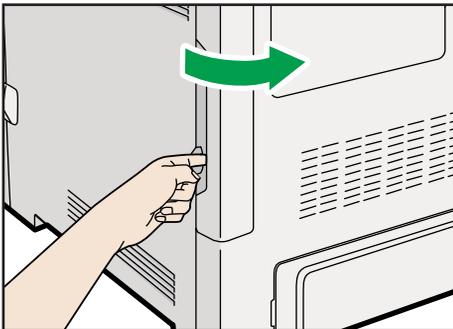


CBK094

★ Important

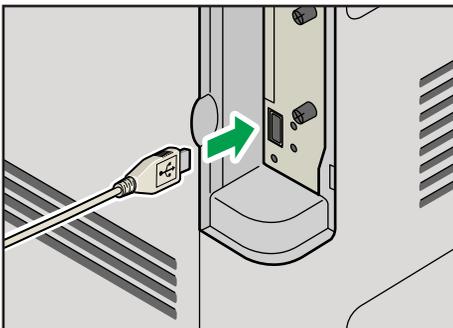
- This function requires the camera direct print card.
- Use the USB cable bundled with your digital camera.
- Make sure your digital camera supports PictBridge.

1. Confirm that the printer is turned on.
2. Remove the cable cover.



CBK233

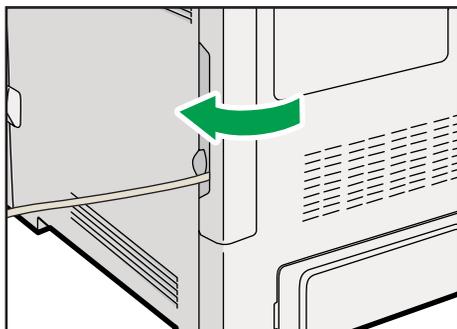
3. Connect the USB cable to the standard USB port A on the printer and to your digital camera.



CBK092

4. When a digital camera is not connected to the printer, store the USB cable in a location where it will not be damaged.

5. Attach the cable cover.



CBK237

4

Note

- For details about the printing method, see "PictBridge Printing", Software Guide.
- For details about installing the camera direct print card, see "Installing the SD Memory Card Options".

Reference

- p.65 "Installing the SD Memory Card Options"

Parallel Cable Connection

The type of cable required varies depending on the computer you are using. Make sure to use the interface cable compliant with your computer.

CAUTION

- For users outside the United States of America: properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet emission limits.

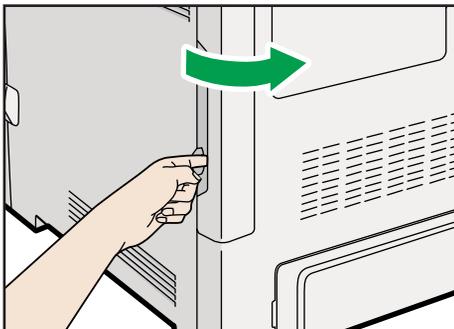
CAUTION

- For users in the United States of America: properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet FCC emission limits.

Important

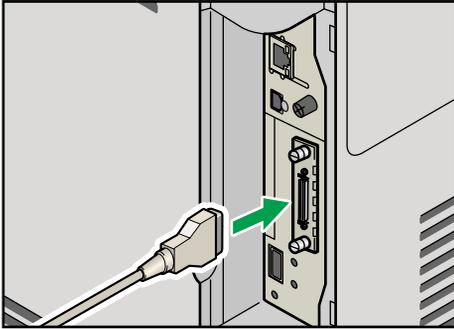
- The printer's parallel connection is a standard bidirectional interface that requires an IEEE 1284-compliant half pitch 36-pin parallel cable and host computer parallel port.
- Use shielded interface cable. Unshielded cables create electromagnetic interference.

1. Turn off the printer and computer.
2. Remove the cable cover.



CBK233

3. Connect the interface cable to the IEEE 1284 interface board.



CBK096

4

4. Connect the other end of the interface cable to your computer, and then secure the cable.

The printer is now connected to the computer. Install the printer driver. For details, see "Installing the Printer Driver Using Parallel Cable", Driver Installation Guide.

Note

- For details about installing the 1284 interface board, see "Installing the Interface Units".

Reference

- p.57 "Installing the Interface Units"

5. Configuration

This chapter explains supported network connections, and settings for the IP addresses and the Wireless LAN security.

Ethernet Configuration

Configure the following network settings according to the network interface you are using.

★ Important

- Configure the printer for the network using the control panel.
- The following table shows the control panel settings and their default values. These items appear in the [Network] under [Host Interface] menu.

Setting Name	Default
Machine IPv4 Address	<ul style="list-style-type: none">• Auto-Obtain (DHCP): On• IPv4 Address: 11.22.33.44• Subnet Mask: 0.0.0.0• Gateway Address: 0.0.0.0
IPv6 Stateless Setting	Active
IPsec	Inactive
NW Frame Type	Auto Select
Effective Protocol	<ul style="list-style-type: none">• IPv4: Active• IPv6: Inactive• NetWare: Inactive• SMB: Active• AppleTalk: Inactive
Ethernet Speed	Auto Select
IEEE802.1X Auth.(Ethernet)	Inactive
Restr.IEEE802.1X Auth.Def.	-
LAN Type	Ethernet

↓ Note

- If DHCP is in use on your network, the IP address, subnet mask, and gateway address are all set automatically.
- If the printer is already placed on a TCP/IP-capable environment, you can also use a Web browser to configure the IP address-related settings.
- Configure these setting as necessary. See Software Guide for details.

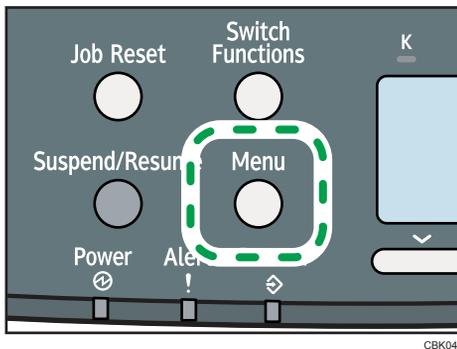
Specifying an IP Address (No DHCP)

Follow this procedure to assign a specific IP address to the printer. This is only necessary when you will use the printer on a network without DHCP, or want to prevent the printer's IP address from changing.

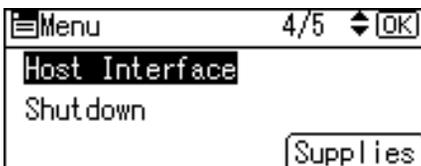
Before beginning, make sure that you know the IP address, subnet mask and gateway address that the printer will use.

5

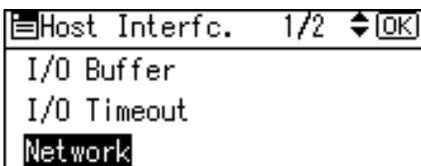
1. Press the [Menu] key.



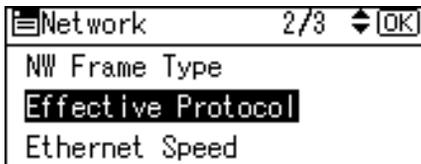
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



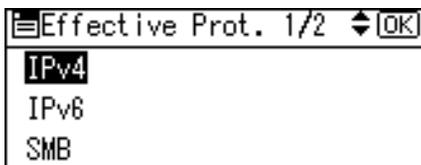
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



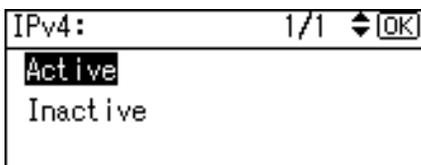
4. Press the [▼] or [▲] key to select [Effective Protocol], and then press the [OK] key.



5. Press the [▼] or [▲] key to select the appropriate network protocol, and then press the [OK] key.



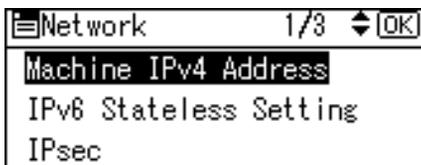
6. Press the [▼] or [▲] key to select [Active] or [Inactive], and then press the [OK] key.



Set other protocols you need to set in the same way.

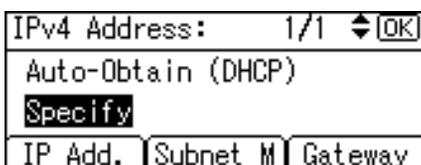
- Select [Inactive] for unused protocols.
- Enable IPv4 to use the pure IPv4 environment of NetWare5/5.1, NetWare 6/6.5.

7. Press the [Escape] key until the screen returns to the [Network] menu.
8. If you use IPv4, assign the IPv4 address to the printer. Press the [▼] or [▲] key to select [Machine IPv4 Address], and then press the [OK] key.



To get the IP address for the printer, consult your network administrator.

9. To specify the IP Address, press [IP Add.].



If you use IPv4, also assign the subnet mask and gateway address. To assign these, press [Subnet M] or [Gateway].

10. Enter the address, and then press the [OK] key.

Change the IP address from "1.1.22.33.44" to an IP address supported by your network.

11. Use the same method to assign the subnet mask and gateway address.**12. Press the [▼] or [▲] key to select [Specify], and then press the [OK] key.**

If you do not select [Specify] in this step, the address you set will not be saved.

13. Press the [Menu] key to return to the initial screen.**14. Print a configuration page to confirm the settings.****Note**

- For details about printing the configuration page, see "Test Printing".

Reference

- p.43 "Test Printing"

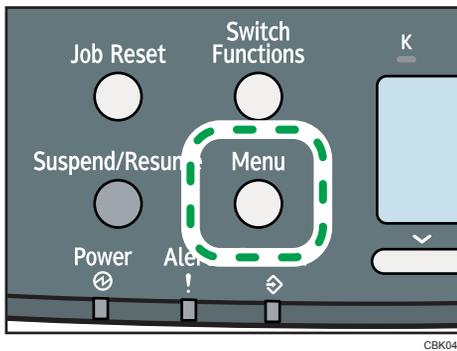
Receiving an IP Address Automatically (DHCP)

Follow this procedure to set the printer to receive an IP address automatically using DHCP. The DHCP feature is active by default, so this procedure is only required if you have changed the default settings.

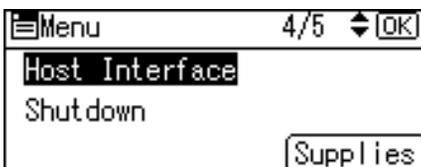
Important

- When [Auto-Obtain (DHCP)] is selected, you cannot configure the IP address, subnet mask, or gateway address.
- Consult your network administrator for information about configuring network settings.

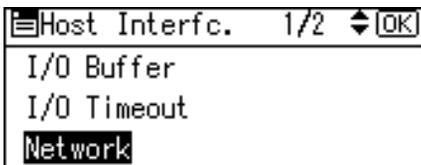
1. Press the [Menu] key.



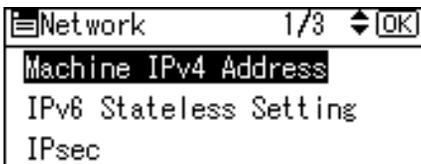
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



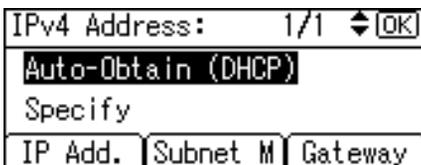
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Machine IPv4 Address], and then press the [OK] key.



5. Press the [▼] or [▲] key to select [Auto-Obtain (DHCP)], and then press the [OK] key.



The printer will automatically receive an IP address.

To check the detected addresses, press the followings:

- [IP Add.]: IP address
- [Subnet M]: Subnet Mask

- [Gateway]: Default Gateway

6. Press the [Menu] key to return to the initial screen.

7. Print a configuration page to confirm the settings.

Note

- For details about printing the configuration page, see "Test Printing".

Reference

- p.43 "Test Printing"

Configuring Network Settings When Using NetWare

To use NetWare, select the appropriate NetWare frame type from the following.

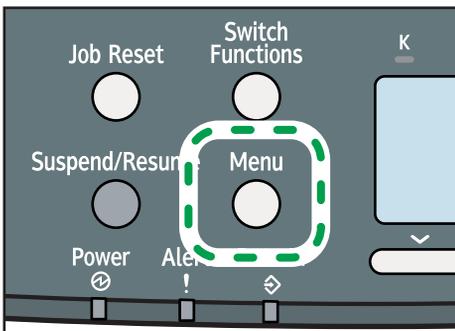
5

- Auto Select
- Ethernet II
- Ethernet 802.2
- Ethernet 802.3
- Ethernet SNAP

Important

- Usually, you can use the default (Auto Select). When you first select [Auto Select], the frame type detected by the printer is adopted. However, if your network can use more than two frame types, the printer may fail to select the correct frame type with [Auto Select] selected. In this case, select the preferred frame type.

1. Press the [Menu] key.

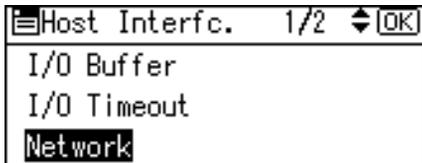


CEK049

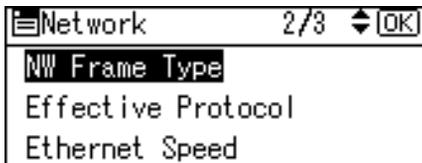
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



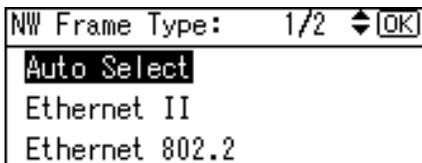
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [NW Frame Type], and then press the [OK] key.



5. Press the [▼] or [▲] key to select the frame type to use, and then press the [OK] key.



6. Press the [Menu] key to return to the initial screen.
7. Print a configuration page to confirm the settings.

↓ Note

- For details about printing the configuration page, see "Test Printing".

📖 Reference

- p.43 "Test Printing"

Setting the Ethernet Speed

You can set the speed that the printer will use for Ethernet communications. In most cases, this should be left on the default setting, [Auto Select]. This setting allows two interfaces to automatically determine the optimum speed when they are connected.

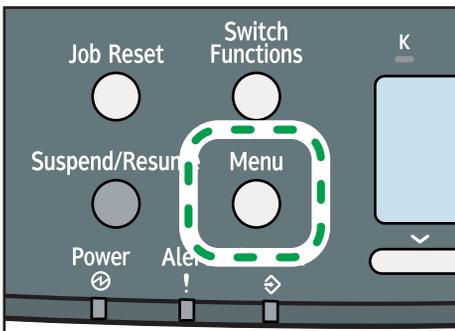
5

Router/HUB	Printer				
	[10Mbps Half Duplex]	[10Mbps Full Duplex]	[100Mbps Half Duplex]	[100Mbps Full Duplex]	[Auto Select]
10 Mbps half duplex	<input type="radio"/>	-	-	-	<input type="radio"/>
10 Mbps full duplex	-	<input type="radio"/>	-	-	-
100 Mbps half duplex	-	-	<input type="radio"/>	-	<input type="radio"/>
100 Mbps full duplex	-	-	-	<input type="radio"/>	-
auto-negotiation (auto selection)	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>

★ Important

- Connection cannot be established if the selected Ethernet speed does not match your network's transmission speed.
- The use of this feature is recommended. To use it, select [Auto Select].

1. Press the [Menu] key.

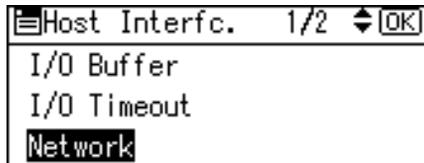


CBK049

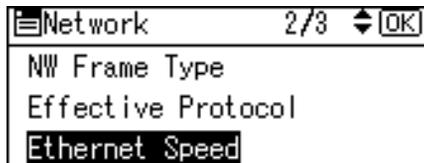
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



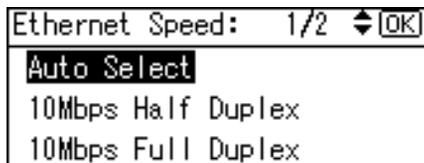
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Ethernet Speed], and then press the [OK] key.



5. Press the [▼] or [▲] key to select the Ethernet speed, and then press the [OK] key.



6. Press the [Menu] key to return to the initial screen.
7. Print a configuration page to confirm the settings.

↓ Note

- For details about printing the configuration page, see "Test Printing".

📖 Reference

- p.43 "Test Printing"

Wireless LAN Configuration

Configure the following Wireless LAN settings according to the network environment using the control panel.

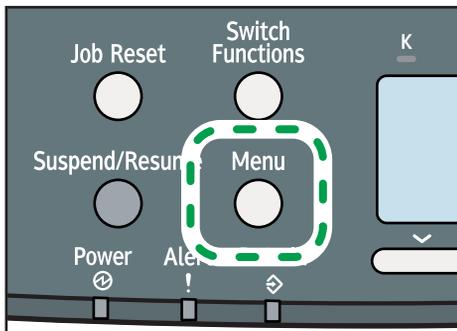
★ Important

- Ethernet and Wireless LAN cannot be used at the same time.
- To use Wireless LAN, set as follows using the control panel: press the [Menu] key, select [Host Interface], [Network], [LAN Type], and then select [Wireless LAN]. In addition, you must set the IP address, subnet mask, gateway address, DHCP, Frame Type (NW), and active protocol as explained in "Ethernet Configuration".
- The following table shows the control panel settings and their defaults. These items appear in the [Wireless LAN] under [Host Interface] menu.

5

Setting Name	Default
Communication Mode	Infrastructure Mode
SSID Setting	blank
Ad-hoc Channel	11
Security Method	Off
Wireless LAN Signal	-
Restore Defaults	-

1. Press the [Menu] key.

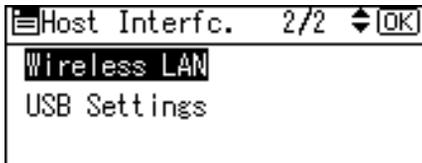


CBK049

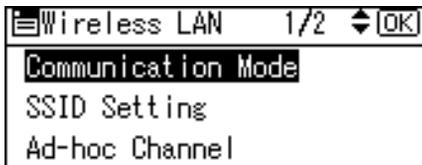
- Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



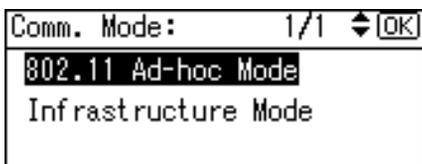
- Press the [▼] or [▲] key to select [Wireless LAN], and then press the [OK] key.



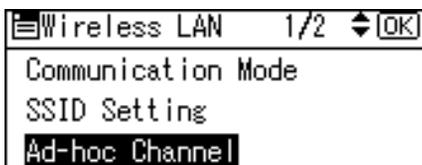
- Press the [▼] or [▲] key to select [Communication Mode], and then press the [OK] key.



- Press the [▼] or [▲] key to select the transmission mode of Wireless LAN, and then press the [OK] key.



- To communicate wirelessly with a device that does not require an SSID to be set, select [802.11 Ad-hoc Mode].
 - The transmission mode of the Wireless LAN can also be set using Web Image Monitor.
- If [802.11 Ad-hoc Mode] is selected for [Communication Mode], confirm the channel to use for transmission.
 - Press the [▼] or [▲] key to select [Ad-hoc Channel], and then press the [OK] key.



8. Press the scroll keys to select the Ad-hoc channel, and then press the [OK] key.

Ad-hoc Channel : 1/2 [Left][Right][OK]				
1	2	3	4	5
6	7	8	9	10
11	12	13	36	40

Select an Ad-hoc channel according to the IEEE 802.11 standard you are using.

- When using IEEE 802.11 b/g:
 -  **Region A** (mainly Europe and Asia)
Channels 1 to 13
 -  **Region B** (mainly North America)
Channels 1 to 11
- When using IEEE 802.11 a:
Channels 36,40,44,48

5

9. Press the [Menu] key to return to the initial screen.

10. Print a configuration page to confirm the settings.

↓ Note

- For details, see Web Image Monitor Help, and "Using Web Image Monitor", Software Guide.
- For details about printing the configuration page, see "Test Printing".

📖 Reference

- p.43 "Test Printing"

Setting the SSID

When [Communication Mode] is set to [Infrastructure Mode] or [802.11 Ad-hoc Mode], you must specify the Service Set Identifier (SSID) of the wireless access point that the printer will connect to for network access.

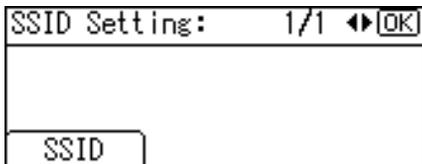
Ask your network administrator for the SSID to use.

1. In the [Wireless LAN] menu, press the [▼] or [▲] key to select [SSID Setting], and then press the [OK] key.

Wireless LAN 1/2 [Left][Right][OK]	
Communication Mode	
SSID Setting	
Ad-hoc Channel	

If an SSID has been set, you can check the current SSID setting.

2. Press [SSID], and then press [Enter].



3. Enter the characters, and then press [Accept].



You can switch among lower /upper cases and numeric characters by pressing [ABC/123].

The characters that can be used are ASCII 0 × 20-0 × 7e (32 bytes).

4. Press the [Menu] key to return to the initial screen.
5. Print a configuration page to confirm the settings.

↓ Note

- The SSID can also be set using a Web browser. For details, see Web Image Monitor Help.
- For details about printing the configuration page, see "Test Printing".

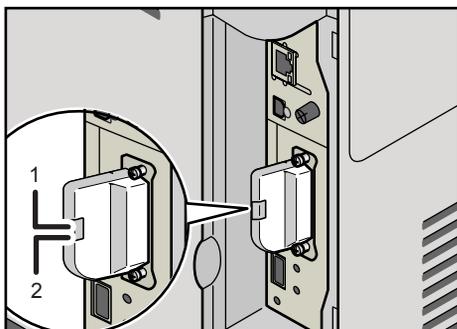
📖 Reference

- p.43 "Test Printing"

Confirming Wireless Network Connectivity

After you have installed the Wireless LAN interface unit, use the following procedure to check for Wireless LAN connectivity.

Make sure the LED on the Wireless LAN interface unit is lit.



CBK097

1. If the Wireless LAN unit is receiving power, the upper indicator will be lit green.
2. If the printer is connected to an operational network and is communicating normally, the lower indicator will be lit orange.

Cautions When Using a Wireless LAN

A Wireless LAN uses radio waves instead of cables to send and receive data. Because radio waves usually pass through walls and other obstructions, the following problems may arise if you do not configure wireless security settings.

Information leakage

Information such as IDs, passwords, credit card numbers, and e-mail content may be seen by an unauthorized 3rd party.

Unauthorized network access

- Damage to or alteration of data and/or system configurations by viruses or other malware.
- Impersonation of legitimate network users, resulting in data theft.
- Theft of sensitive or confidential data.

To minimize the possibility of these threats, it is recommended that you check the available features of this printer, wireless access points, and other equipment that uses the Wireless LAN, and configure security settings for the Wireless LAN.

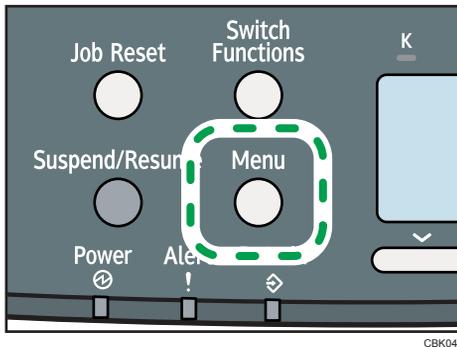
Setting Security Method of Wireless LAN

Setting a WEP Key

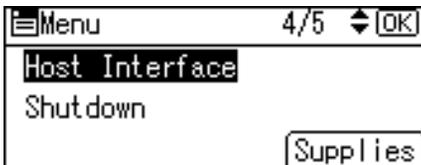
If the wireless network uses WEP to encrypt transmitted data, the corresponding WEP key must be set to the printer to allow communications with other network devices.

Ask your network administrator for the WEP key to use.

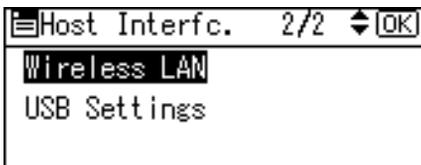
1. Press the [Menu] key.



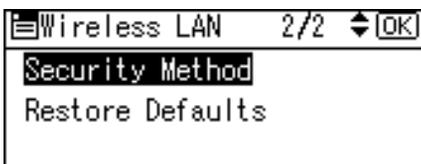
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



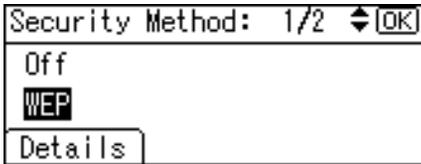
3. Press the [▼] or [▲] key to select [Wireless LAN], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Security Method], and then press the [OK] key.



5. Press the [▼] or [▲] key to select [WEP], and then press [Details].



When activating the WEP setting, you will need to enter the WEP key. If you have not entered the key, be sure to enter it.

6. Press [Enter].
7. Enter the characters, and then press [Accept].



- When entering a character, pressing [Accept] will mask it with an asterisk for security reasons.
- When using 64-bit WEP, up to 10 hexadecimal characters or five ASCII characters can be entered. When using 128-bit WEP, up to 26 hexadecimal characters or 13 ASCII characters can be used.
- Up to 10 or 26 hexadecimal characters and 5 or 13 ASCII characters can be entered.
- For ASCII character strings, uppercase and lowercase letters are differentiated, so be sure to enter characters in the required case.

8. Press the [▼] or [▲] key to select [WEP], and then press the [OK] key.
9. Press the [Menu] key to return to the initial screen.
10. Print a configuration page to confirm the settings.

↓ Note

- The WEP key can also be set using a Web browser. For details, see Web Image Monitor Help.
- For details about printing the configuration page, see "Test Printing".

📖 Reference

- p.43 "Test Printing"

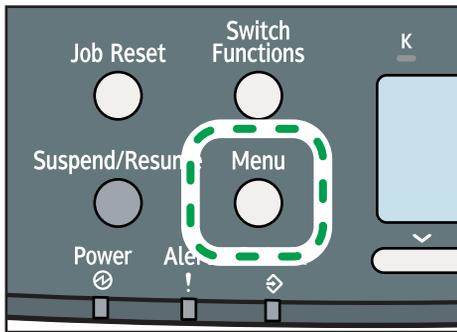
Setting WPA

In the case of using WPA on a network, activate the WPA setting to be used for communication along with WPA. Consult your network administrator for information about making authentication settings.

★ Important

- For setting WPA, installing the optional Hard disk is required.

1. Press the [Menu] key.

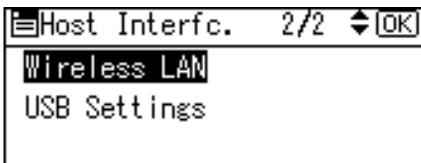


CBK049

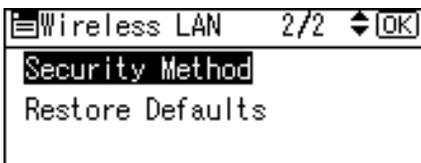
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



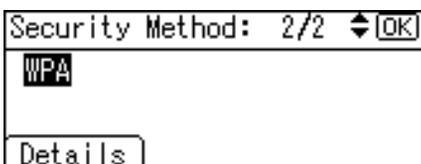
3. Press the [▼] or [▲] key to select [Wireless LAN], and then press the [OK] key.



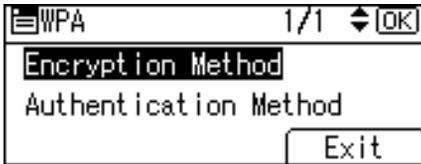
4. Press the [▼] or [▲] key to select [Security Method], and then press the [OK] key.



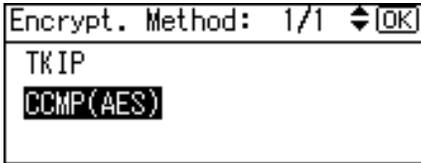
5. Press the [▼] or [▲] key to select [WPA], and then press [Details].



6. Press the [▼] or [▲] key to select [Encryption Method], and then press the [OK] key.



7. Press the [▼] or [▲] key to select encryption method, and then press the [OK] key.



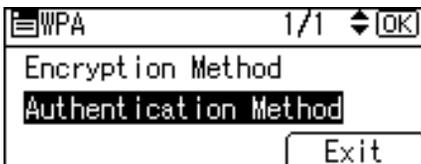
Consult your network administrator for information about making encryption settings.

Encryption settings are as follows:

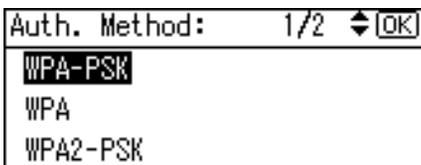
- [TKIP]
 - Uses the same algorithm as RC4, but further reduces vulnerability using methods such as key mixing.
- [CCMP(AES)]
 - Increases security using AES (Advanced Encryption Standard).

The display returns to the [WPA] menu.

8. Press the [▼] or [▲] key to select [Authentication Method], and then press the [OK] key.



9. Press the [▼] or [▲] key to select authentication settings, and then press the [OK] key.



Authentication settings are as follows:

- [WPA-PSK]
 - Performs authentication using an encryption key (a Pre-Shared Key) that is shared by the access point and client.
- [WPA]

WPA uses CA certificates and a RADIUS server to provide secure wireless communication.

- [WPA2-PSK]

As with WPA-PSK, authenticate using the encryption key (a Pre-Shared Key) shared by the access point and client. Enter Pre-Shared Key using between 8 and 63 ASCII characters.

- [WPA2]

WPA2 is an expanded version of WPA that fully supports IEEE 802.11i.

Wait for two seconds, the display returns to the [WPA] menu.

10. If [WPA] or [WPA2] is selected in step 9, a confirmation message appears. Press [OK].

Wait for two seconds. The display returns to the [WPA] menu, proceed to step 15.

11. If [WPA-PSK] or [WPA2-PSK] is selected in step 9, a confirmation message appears. Press [Enter].

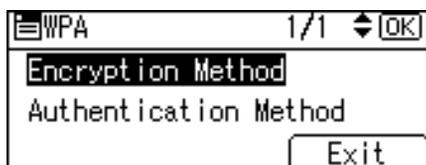
12. Enter the Pre-Shared Key, and then press [Accept].



- When entering a character, pressing [OK] will mask it with an asterisk for security reasons.
- Enter the Pre-Shared Key using between 8 and 63 ASCII characters.
- Uppercase and lowercase letters are differentiated, so be sure to enter characters in the required case.
- Wait for two seconds. The display returns to the [Authentication Method] menu.

13. Press the [Escape] key.

14. Press [Exit].



15. Press the [▼] or [▲] key to select [WPA], and then press the [OK] key.

16. Press the [Menu] key to return to the initial screen.

17. Print a configuration page to confirm the settings.

Note

- For details about printing the configuration page, see "Test Printing".

Reference

- p.43 "Test Printing"

Configuring IEEE 802.1X

IEEE 802.1X can be configured using Web Image Monitor's administrator mode. You can select four types of EAP authentication method: EAP-TLS, LEAP, EAP-TTLS and PEAP. Note that each EAP authentication method has different configuration settings and authentication procedures.

Types and requirements of certificates are as follows:

EAP Types Requiring a "Site Certificate"

EAP-TLS, EAP-TTLS, PEAP (Necessary except LEAP)

EAP Types Requiring a "Site Certificate" and a "Device Certificate"

EAP-TLS, PEAP (Phase 2 is for TLS only)

If a certificate is required, configure all settings after installing the certificate.

5

Installing a Site Certificate

Access the authentication server and obtain the CA certificate.

Methods of obtaining certificates differ according to the operating system you are using.

1. Log in to Web Image Monitor as an administrator.
2. In the menu area, click [Configuration].
3. Under "Security", click [Site Certificate].
4. Click [Browse] on the "Site Certificate to Import" window, and then select the CA certificate you obtained.
5. Click [Import].
6. Check that the imported certificate's [Status] shows "Trustworthy".
If [Site Certificate Check] shows [Active], and the [Status] of the certificate shows [Untrustworthy], communication might not be possible.
7. Click [OK].
8. Click [Logout].
9. Quit the Web Image Monitor.

Installing Device Certificate

1. Log in to Web Image Monitor as an administrator.
2. In the menu area, click [Configuration].
3. Under "Security", click [Device Certificate].
4. Click [Certificate 2] on the "Device Certificate" window, and then click [Request].

5. Enter appropriate "Common Name" and "Country Code" on "Certificate Information" page, and then click [OK].
6. "Updating..." appears. Wait for about 2 minutes, and then click [OK].
7. Click [Details], shown in the "Device Certificate" window as the memo pad icon for "Requesting".
8. Select all, and then copy the entire "Text for Requested Certificate" text that is displayed in the "Certificate Status" window.
9. Access the certificate authority server, and then obtain the CA signified certificate using the text copied into "Text for Requested Certificate" windows.
Obtaining the certificate differs depending on the environment you want to use.
10. Click [Certificate 2] on "Device Certificate" window, and then click [Install].
11. Using a text editor, open the CA signified certificate downloaded in step 11, and then copy over all the text.
12. In the [Enter Certificate Request] window, paste all the text copied into the CA signified certificate.
13. Click [OK].
14. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
15. Check that the "Device Certificate" shows "Installed".
16. Click [Certificate 2] on "Certification", and then click [OK].
17. Click [Logout].
18. Quit Web Image Monitor.

Note

- If you request two certificates simultaneously, the certificate authority might not display either certificate. Click [Cancel Request] to cancel the request.
- You can select [Certificate 1-4] in the "Device Certificate" window. Note that if you select [Certificate 1] in the "Device Certificate" window, you must select "Certificate 1" in the "IEEE 802.1X" drop down menu in the "Certification" window.
- Click [Cancel Request] to cancel the request for the server certificate.
- If "Not found" appears after clicking [OK] in steps 6 and 14, wait one or two minutes, and then click [Refresh].

Enabling SSL

After installing the device certificate in the machine, enable the SSL setting.

This procedure is used for a self-signed certificate or a certificate issued by a certificate authority.

1. Log in to Web Image Monitor as an administrator.
2. In the menu area, click [Configuration].
3. Under "Security", click [SSL/TLS].
4. Click [Active] for the protocol version used in "SSL/TLS".
5. Select the encryption communication mode for "Permit SSL/TLS Communication".
6. Click [OK].
The SSL setting is enabled.
7. Click [OK].
8. Click [Logout].
9. Quit the Web Image Monitor.

Note

- If you set "Permit SSL/TLS Communication" to [Ciphertext Only], enter " https://(the machine's IP address or host name)/" to access the machine.

Setting Items of IEEE 802.1X for Ethernet

1. Log in to Web Image Monitor as an administrator.
2. In the menu area, click [Configuration].
3. Under "Security", click [IEEE 802.1X].
4. In "User Name", enter the user name set in the RADIUS server.
5. Enter the domain name in "Domain Name".
6. Select "EAP Type". Configurations differ according to the EAP Type.

EAP-TLS

- Make the following settings according to the operating system you are using:
 - Select [On] or [Off] in "Authenticate Server Certificate".
 - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
 - Enter the host name of the RADIUS server on "Server ID".
 - Select [On] or [Off] in "Permit Sub-domain".

LEAP

- Click [Change] in "Password", and then enter the password set in the RADIUS server.

EAP-TTLS

- Click [Change] in "Password", and then enter the password set in the RADIUS server.
- Click [Change] in "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- Select [CHAP], [MSCHAP], [MSCHAPv2], [PAP], or [MD5] in "Phase 2 Method".

Certain methods might not be available, depending on the RADIUS server you want to use.

- Make the following settings according to the operating system you are using:
 - Select [On] or [Off] in "Authenticate Server Certificate".
 - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
 - Enter the host name of the RADIUS server in "Server ID".
 - Select [On] or [Off] in "Permit Sub-domain".

PEAP

- Click [Change] in "Password", and then enter the password set in the RADIUS server.
If [TLS] is selected for "Phase 2 Method", you do not need to specify a password.
- Click [Change] on "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- Select [MSCHAPv2] or [TLS] in "Phase 2 Method".

When you select [TLS], you must install "IEEE 802.1X Client Certificate".

- Make the following settings according to the operating system you are using:
 - Select [On] or [Off] in "Authenticate Server Certificate".
 - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
 - Enter the host name of the RADIUS server on "Server ID".
 - Select [On] or [Off] in "Permit Sub-domain".

7. Click [OK].
8. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
9. In the menu area, click [Configuration].
10. Under "Interface", click [Interface Settings].
11. Select [Active] in "Ethernet Security".
12. Click [OK].
13. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
14. Click [Logout].
15. Quit the Web Image Monitor.

↓ Note

- If there is a problem with settings, you might not be able to communicate with the printer. To identify the problem, print a network summary.
- If you cannot identify the problem, reset the printer interface to normal, and then repeat the procedure from the beginning.

Setting Items of IEEE 802.1X for Wireless LAN

1. Log in to Web Image Monitor as an administrator.
2. In the menu area, click [Configuration].
3. Under "Security", click [IEEE 802.1X].
4. In "User Name", enter the user name set in the RADIUS server.
5. Enter the domain name in "Domain Name".
6. Select "EAP Type". Configurations differ according to the EAP Type.

EAP-TLS

- Make the following settings according to the operating system you are using:
 - Select [On] or [Off] in "Authenticate Server Certificate".
 - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
 - Enter the host name of the RADIUS server on "Server ID".
 - Select [On] or [Off] in "Permit Sub-domain".

LEAP

- Click Change in "Password", and then enter the password set in the RADIUS server.

EAP-TTLS

- Click [Change] in "Password", and then enter the password set in the RADIUS server.
- Click [Change] in "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- Select [CHAP], [MSCHAP], [MSCHAPv2], [PAP], or [MD5] in "Phase 2 Method".
Certain methods might not be available, depending on the RADIUS server you want to use.
- Make the following settings according to the operating system you are using:
 - Select [On] or [Off] in "Authenticate Server Certificate".
 - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
 - Enter the host name of the RADIUS server in "Server ID".
 - Select [On] or [Off] in "Permit Sub-domain".

PEAP

- Click [Change] in "Password", and then enter the password set in the RADIUS server.
If [TLS] is selected for "Phase 2 Method", you do not need to specify a password.
- Click [Change] on "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- Select [MSCHAPv2] or [TLS] in "Phase 2 Method".
When you select [TLS], you must install "IEEE 802.1X Client Certificate".
- Make the following settings according to the operating system you are using:

- Select [On] or [Off] in "Authenticate Server Certificate".
 - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
 - Enter the host name of the RADIUS server on "Server ID".
 - Select [On] or [Off] in "Permit Sub-domain".
7. Click [OK].
 8. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
 9. In the menu area, click [Configuration].
 10. Under "Interface", click [Wireless LAN Settings].
 11. Select [Wireless LAN] in "LAN Type".
 12. Select [Infrastructure Mode] in "Communication Mode".
 13. Enter the alphanumeric characters (a-z, A-Z, or 0-9) in [SSID] according to the access point you want to use.
 14. Select [WPA] in "Security Method".
 15. Select [TKIP] or [CCMP (AES)] in "WPA Encryption Method" according to the access point you want to use.
 16. Select [WPA] or [WPA2] in "WPA Authentication Method".
 17. Click [OK].
 18. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
 19. Click [Logout].
 20. Quit the Web Image Monitor.

Note

- If there is a problem with settings, you might not be able to communicate with the printer. To identify the problem, print a network summary.
- If you cannot identify the problem, reset the printer interface to normal, and then repeat the procedure from the beginning.

6. Loading Paper

This chapter explains the paper sizes and types supported by this printer, and how to load paper into the paper trays.

Supported Paper for Each Tray

The tables in this section provide details of the sizes, types, feed directions, and maximum number of sheets of paper that can be loaded in each of the printer's trays.

Symbols

	In this manual	On the display
Short-edge feed direction	☐↑ (Feed direction)	A4☐ 8 1/2 × 11☐

Note

- All paper must be set vertically, regardless of the paper size.

Standard Paper Feed Tray

Paper types	Plain Paper, Middle Thick, Thick Paper 1, Thick Paper 2, Thin Paper, Letterhead, Label Paper, Coated Paper (Glossy), Coated Paper (Matted), Special Paper 1, Special Paper 2, Preprinted Paper, Color Paper, Recycled Paper
Paper sizes requiring manual settings	The following sizes are supported, but they must be selected using the control panel. For details about paper size settings, see "Setting a paper size by using the control panel". A4☐, A5☐, B5 JIS☐, 8 1/2" × 14" (Legal)☐, 8 1/2" × 13" (Foolscap)☐, 8 1/2" × 11" (Letter)☐, 8 1/4" × 13" (Folio)☐, 8" × 13" (F/GL)☐, 7 1/4" × 10 1/2" (Executive)☐, 16K☐, Custom Size
Custom paper size	The following custom sizes are supported, but they must be selected using the control panel. For details about custom size paper settings, see "Specifying custom size paper for standard paper feed tray". <ul style="list-style-type: none"> Approximately 148 - 216 mm (5.83 - 8.50 inches) in width Approximately 210 - 356 mm (8.27 - 14.01 inches) in length

Paper weight	60 to 163 g/m ² (16 to 43 lb.)
Paper capacity	500 sheets (80 g/m ² , 20 lb.) Do not load the paper so that the top of the stack exceeds the limit mark inside the tray.

Note

- Duplex printing on paper that is longer than 297 mm will be slower than duplex printing on paper that is shorter.

Reference

- p.128 "Setting a paper size by using the control panel"
- p.129 "Specifying custom size paper for standard paper feed tray"

Optional Paper Feed Tray

6

Paper types	Plain Paper, Middle Thick, Thick Paper 1, Thin Paper, Letterhead, Preprinted Paper, Color Paper, Recycled Paper
Paper sizes requiring manual settings	The following sizes are supported, but they must be selected using the control panel. For details about paper size settings, see "Setting a paper size by using the control panel". A4, 8 1/2" x 11" (Letter)
Paper weight	60 to 105 g/m ² (16 to 28 lb.)
Paper capacity	500 sheets (80 g/m ² , 20 lb.) Do not load the paper so that the top of the stack exceeds the limit mark inside the tray.

Reference

- p.128 "Setting a paper size by using the control panel"

Bypass Tray

Paper types	Plain Paper, Middle Thick, Thick Paper 1, Thick Paper 2, Thick Paper 3, Thin Paper, Letterhead, Label Paper, Coated Paper (Glossy), Coated Paper(Glossy:Thick), Coated Paper (Matted), Coated Paper (Matted:Thick), Cardstock, Special Paper 1, Special Paper 2, Special Paper 3, Bond Paper, Preprinted Paper, Color Paper, Recycled Paper, Envelope
Paper sizes requiring manual settings	The following sizes are supported, but they must be selected using the control panel. For details about paper size settings, see "Specifying standard size paper for bypass tray". A4, A5, A6, B5 JIS, B6 JIS, 8 1/2" x 14" (Legal), 8 1/2" x 13" (Foolscap), 8 1/2" x 11" (Letter), 8 1/4" x 13" (Folio), 8" x 13" (F/GL), 7 1/4" x 10 1/2" (Executive), 5 1/2" x 8 1/2" (Half Letter), 4 1/8" x 9 1/2" (Com 10), 3 7/8" x 7 1/2" (Monarch), C5 Env., C6 Env., DL Env., 16K, Custom Size
Custom paper size	The following custom sizes are supported, but they must be selected using the control panel. For details about custom size paper settings, see "Specifying custom size paper for the bypass tray". <ul style="list-style-type: none"> Approximately 64 - 216 mm (2.52 - 8.50 inches) in width Approximately 125 - 1260 mm (4.93 - 49.60 inches) in length
Paper weight	60 to 220 g/m ² (16 to 59 lb.)
Paper capacity	100 sheets (80 g/m ² , 20 lb.) Do not load the paper so that the top of the stack exceeds the paper guides on the bypass tray.

Note

- When printing on custom size paper that has a width of 89 mm or less, use paper that is no more than 210 mm in length.
- Duplex printing on paper that is longer than 297 mm will be slower than duplex printing on paper that is shorter.

Reference

- p.134 "Specifying standard size paper for the bypass tray"
- p.135 "Specifying custom size paper for the bypass tray"

Supported Paper Types

The tables in this section provide details of the paper types supported by this printer. Use these tables when specifying a tray's paper settings and take note of the information under "Notes".

Plain Paper

Paper weight	66 to 74 g/m ² (18 to 20 lb.)
Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [No Display (Plain Paper)] > the [OK] key
Paper type setting using the printer driver	[Plain & Recycled] or [Plain (66 to 74 g/m ²)]
Supported input tray	Any input tray can be used.
Duplex printing	Supported
Note	<ul style="list-style-type: none"> • Tray 1: 500 • Tray 2 (Paper feed unit): 500 • Bypass Tray: 100

Middle Thick

Paper weight	75 to 90 g/m ² (20 to 24 lb.)
Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Middle Thick] > the [OK] key
Paper type setting using the printer driver	[Middle Thick (75 to 90 g/m ²)]
Supported input tray	Any input tray can be used.
Duplex printing	Supported

Thick Paper

Paper weight	91 to 220 g/m ² (24 to 59 lb.)
--------------	---

Paper type setting using the control panel	<ul style="list-style-type: none"> • The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Thick Paper 1] > the [OK] key • The [Menu] key > [Paper Input] > [Paper Type: Tray 1] or [Paper Type: Bypass Tray] > [Thick Paper 2] > the [OK] key • The [Menu] key > [Paper Input] > [Paper Type: Bypass Tray] > [Thick Paper 3] > the [OK] key <ul style="list-style-type: none"> • [Thick Paper 1]: 91 to 105 g/m² (24 to 28 lb.) • [Thick Paper 2]: 106 to 163 g/m² (28 to 43 lb.) • [Thick Paper 3]: 164 to 220 g/m² (44 to 59 lb.)
Paper type setting using the printer driver	<ul style="list-style-type: none"> • [Thick Paper 1]: [Thick 1 (91 to 105 g/m²)] • [Thick Paper 2]: [Thick 2 (106 to 163 g/m²)] • [Thick Paper 3]: [Thick 3 (164 to 220 g/m²)]
Supported input tray	<p>[Thick Paper 1]: Any input tray can be used.</p> <p>[Thick Paper 2]: Tray 1 and Bypass tray.</p> <p>[Thick Paper 3]: Bypass tray.</p>
Duplex printing	Not supported
Note	Printing is slightly slower than when using plain paper.

Thin Paper

Paper weight	60 to 65 g/m ² (16 to 17 lb.)
Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Thin Paper] > the [OK] key
Paper type setting using the printer driver	[Thin (60 to 65 g/m ²)]
Supported input tray	Any input tray can be used.
Duplex printing	Supported

Letterhead

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Letterhead] > the [OK] key
Paper type setting using the printer driver	[Letterhead]
Supported input tray	Any input tray can be used.
Duplex printing	Not supported

Label Paper

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Label Paper] > the [OK] key
Paper type setting using the printer driver	[Labels]
Supported input tray	This paper type can be printed only from the tray 1 and bypass tray.
Duplex printing	Not supported

Coated Paper (Glossy)

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Coated Paper (Glossy)] > the [OK] key
Paper type setting using the printer driver	[Coated Paper: Gloss Print]
Supported input tray	This paper type can be printed only from the tray 1 and bypass tray.
Duplex printing	Supported

Coated Paper (Glossy: Thick)

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: Bypass Tray] > [Coated Paper(Glossy:Thick)] > the [OK] key
--	--

Paper type setting using the printer driver	[Coated (Glossy: Thick Paper)]
Supported input tray	This paper type can be printed only from the bypass tray.
Duplex printing	Not supported
Note	Printing is slightly slower than when using plain paper.

Coated Paper (Matted)

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Coated Paper (Matted)] > the [OK] key
Paper type setting using the printer driver	[Coated (Matted)]
Supported input tray	This paper type can be printed only from the tray 1 and bypass tray.
Duplex printing	Supported

6

Coated Paper (Matted: Thick)

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: Bypass Tray] > [Coated Paper(Matted:Thick)] > the [OK] key
Paper type setting using the printer driver	[Coated (Matted: Thick Paper)]
Supported input tray	This paper type can be printed only from the bypass tray.
Duplex printing	Not supported
Note	Printing is slightly slower than when using plain paper.

Special Paper

Paper type setting using the control panel	<ul style="list-style-type: none"> The [Menu] key > [Paper Input] > [Paper Type: Tray 1] or [Paper Type: Bypass Tray] > [Special Paper 1] or [Special Paper 2] > the [OK] key The [Menu] key > [Paper Input] > [Paper Type: Bypass Tray] > [Special Paper 3] > the [OK] key
Paper type setting using the printer driver	[Special 1], [Special 2], [Special 3]
Supported input tray	[Special Paper 1], [Special Paper 2]: Tray 1 and bypass tray. [Special Paper 3]: Bypass tray.
Duplex printing	<ul style="list-style-type: none"> [Special Paper 1], [Special Paper 2]: Supported [Special Paper 3]: Not supported
Note	When you cannot print successfully with other paper type settings, set special paper.

6

Preprinted Paper

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Preprinted Paper] > the [OK] key
Paper type setting using the printer driver	[Preprinted]
Supported input tray	Any input tray can be used.
Duplex printing	Supported

Color Paper

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Color Paper] > the [OK] key
Paper type setting using the printer driver	[Color]
Supported input tray	Any input tray can be used.

Duplex printing	Supported
-----------------	-----------

Recycled Paper

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: (tray name)] > [Recycled Paper] > the [OK] key
Paper type setting using the printer driver	[Recycled] or [Plain & Recycled]
Supported input tray	Any input tray can be used.
Duplex printing	Supported

Cardstock

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: Bypass Tray] > [Cardstock] > the [OK] key
Paper type setting using the printer driver	[Cardstock]
Supported input tray	This paper type can be printed only from the bypass tray.
Duplex printing	Not supported

6

Bond Paper

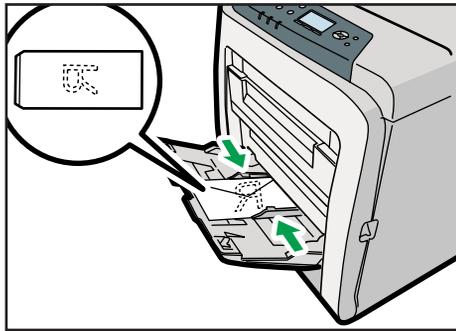
Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: Bypass Tray] > [Bond Paper] > the [OK] key
Paper type setting using the printer driver	[Bond]
Supported input tray	This paper type can be printed only from the bypass tray.
Duplex printing	Not supported

Envelopes

Paper type setting using the control panel	The [Menu] key > [Paper Input] > [Paper Type: Bypass Tray] > [Envelope] > the [OK] key
Paper type setting using the printer driver	[Envelope]
Supported input tray	This paper type can be printed only from the bypass tray.
Duplex printing	Not supported
Note	<ul style="list-style-type: none"> • Check there is no air in the envelopes before loading. • Load only one size and type of envelope at a time. • Some kinds of envelope might cause misfeeds, wrinkles or print poorly. • Print quality on envelopes may be uneven if parts of an envelope have differing thicknesses. Print one or two envelopes to check print quality. • In a hot and humid environment, the envelope might be output creased or improper printing quality. • The number of envelopes that can be printed in one minute is approximately half that of Plain Paper 1. • Paper can be loaded only up to the lower of the two paper limit marks of the bypass tray. • If printed envelopes come out badly creased, load the envelopes in the opposite direction. Also, configure the printer driver to rotate the print object 180 degrees. • Environmental factors can degrade the print quality on both recommend and non-recommended envelopes. • After printing, envelopes sometimes have creases along their long edges and toner smear on their unprinted sides. Their print images might also be blurred. When printing large, black-solid areas, striping can occur as a result of the envelopes overlapping.

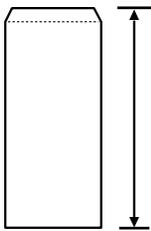
↓ Note

- To load envelopes that open along the long edge, set the flap edge against the left paper guide. If the flap of the envelope is folded closed, set the flap edge flush against the left paper guide. If the flap of the envelope is open, set the envelope with the tip of the open flap against the left paper guide.



CBK099

- To correctly specify the length of an envelope whose flap opens along its short edge, be sure to include the open flap when measuring.



ASH125S

Storing Paper

Take care when storing paper. Improperly stored paper might result in poor print quality, paper misfeeds, or printer damage. Recommendations are as follows:

- Avoid storing paper in humid areas.
- Avoid exposing paper to direct sunlight.
- Store on a flat surface.
- Keep paper in its original package until time to use it.

Non-Recommended Paper Types

★ Important

- Do not use the following types of paper:

- Ink-jet printer paper
- GelJet special paper
- Bent, folded, or creased paper
- Curled or twisted paper
- Wet paper
- Paper that is dry enough to emit static electricity
- Paper that has already been printed onto, except a preprinted letterhead paper.

Malfunctions are especially likely when using paper printed on by other than a laser printer (e.g. monochrome and color copiers, ink-jet printers, etc.)

- Surface-processed paper (excluding specified paper)
- Special paper, such as thermal paper and carbon paper
- Paper whose weight is heavier or lighter than the limitation
- Perforated paper
- Adhesive label paper on which glue or base paper is exposed
- Paper with clips or staples
- Dirty or damaged paper
- OHP transparencies

↓ Note

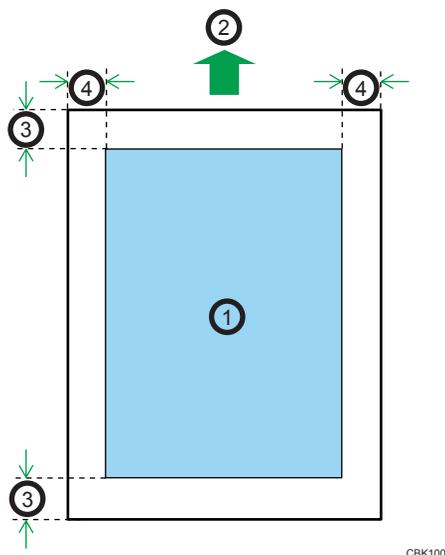
- Even if paper is adequate for the printer, poorly stored paper can cause paper misfeeds, print quality degradation, or malfunctions.

Print Area

This section describes the area of a page that is available for printing. Be sure to set the print margins correctly by the application.

The following diagram shows the print area for this printer.

Paper

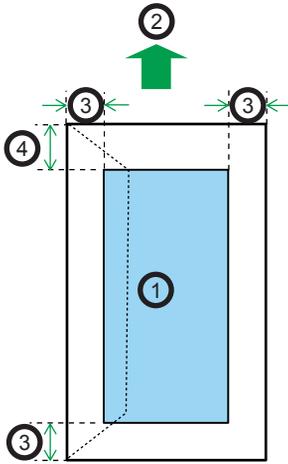


- ① Print area
- ② Feed direction
- ③ Approx. 4.2 mm (0.2 inches)
- ④ Approx. 4.2 mm (0.2 inches)

↓ Note

- The print area may vary depending on the paper size, printer language and printer driver settings.
- To print on paper that is over 900 mm (35.5 inches) in length, set the top margin to at least 4.2 mm (0.2 inches), the right and left margin to at least 10 mm (0.4 inches), and the bottom margin to at least 10 mm (0.4 inches).

Envelope



CBK101

- ① Print area
- ② Feed direction
- ③ Approx. 10 mm (0.4 inches)
- ④ Approx. 15 mm (0.6 inches)

↓ Note

- The print area may vary depending on the paper size, printer language and printer driver settings.

Loading Paper in Trays

This section describes how to load paper into the paper feed tray or onto the bypass tray.

Loading Paper into a Standard or Optional Paper Feed Tray

The following explains loading procedure for the standard paper feed tray.

WARNING

- Do not put your hands inside the printer when the input tray is removed. Some internal parts become hot and are a burn hazard.

CAUTION

- Do not pull out the paper tray forcefully. If you do, the tray might fall and cause an injury.

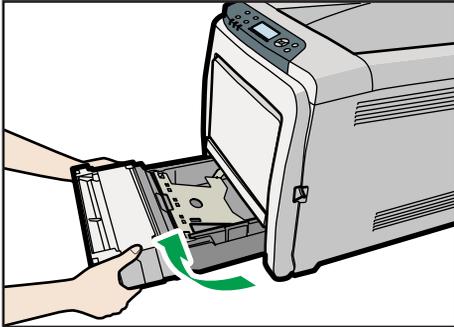
CAUTION

- Take care to avoid cutting your hands when loading paper.

Important

- Make sure paper is not stacked higher than the upper limit mark inside the paper feed tray. Excessive stacking can cause paper jams.
- Do not mix different types of paper in the same paper tray.
- After loading paper in the tray, specify the paper type and size using the control panel. This printer does not automatically detect the size of paper loaded in a tray. Make sure the paper size and type is selected using the control panel.
- If the bypass tray is open, close it before pulling out Tray 1.
- Do not move the side paper guides forcefully. Doing so can damage the tray.
- Do not move the end paper guide forcefully. Doing so can damage the tray.
- When inserting the tray, make sure it is not slanted. Inserting it at a slant can damage the printer.
- Curled paper may jam, straighten curled paper before loading.
- When loading paper, take care not to touch the surface of the paper.

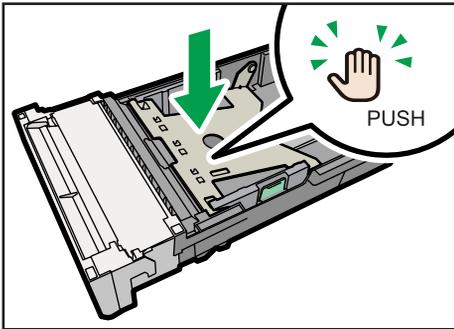
1. Lift and pull Tray 1 carefully, and then pull it out with both hands.



CBK035

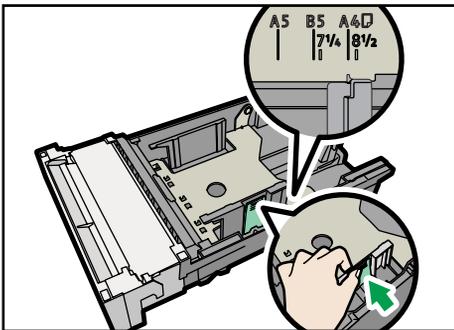
Place the tray on a flat surface.

2. Push the metal plate down until it clicks into place to lock.



CBK036

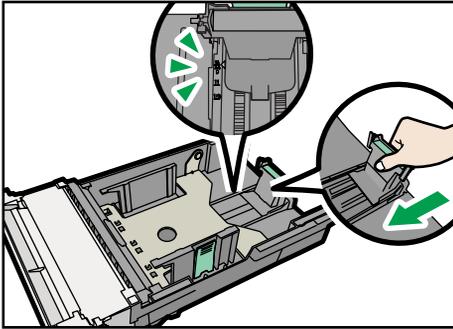
3. Pinch the clip on the side paper guide and slide it to match the standard size.



CBK207

When loading custom size paper, position the paper guide slightly wider than the actual paper size.

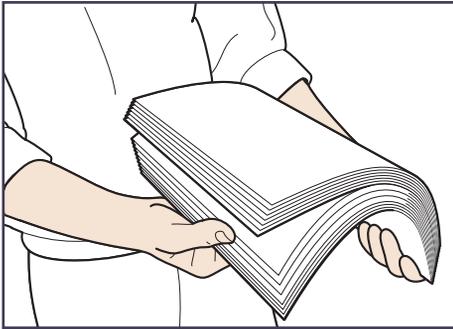
4. Pinch the front end paper guide and slide it inward to match the standard size.



CBK208

When loading custom size paper, position the paper guide slightly wider than the actual paper size.

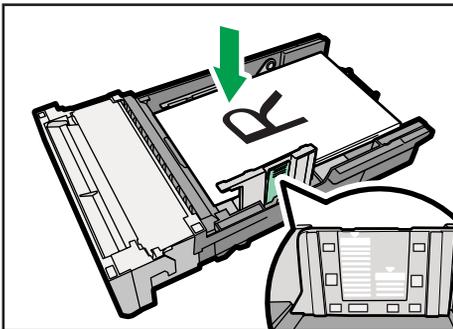
5. Fan the paper before loading paper in the tray.



CBK254

6. Load the new paper stack print side up.

Make sure paper is not stacked higher than the upper limit (upper line) marked inside the tray.

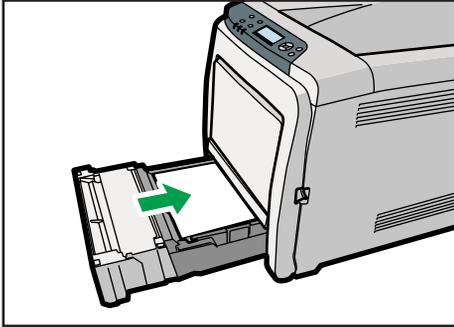


CBK041

Slide the guides inward, until they are flush against the paper's sides.

Make sure the paper is not stacked higher than the projection on the side paper guides.

7. Hold the tray with both hands, slide it along the rails of the printer body, and then push it straight in.



CBK045

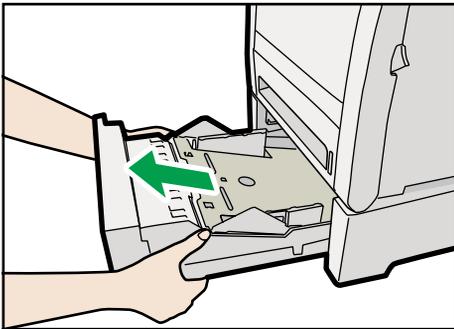
To avoid paper jams, make sure the tray is securely inserted.

Loading paper in the optional paper feed tray

6

The following example explains the loading procedure for the optional paper feed tray.

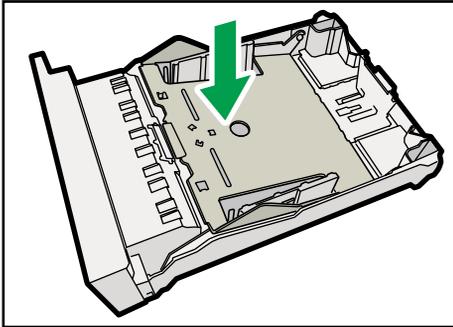
1. Lift and pull the optional paper feed unit, and then hold the tray with both hands, and then pull it out.



CBK226

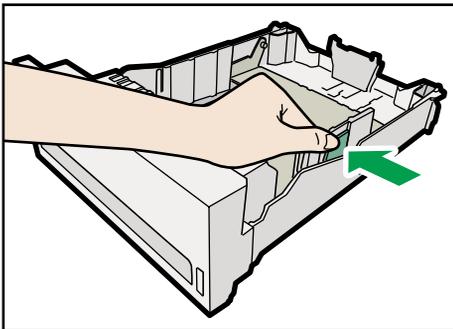
Place the tray on a flat surface.

2. Press down on the bottom plate until it clicks.



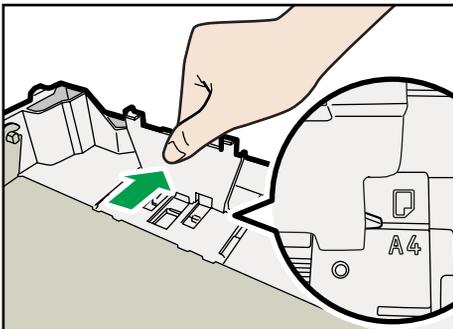
CBK227

3. Pinch the clips on the side paper guide, and then adjust the guide to the paper size.



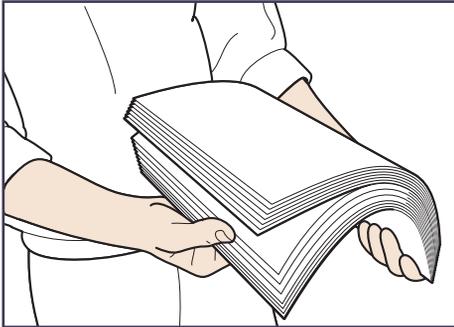
CBK228

4. Pinch the clip on the end paper guide and align the arrow with the paper size.



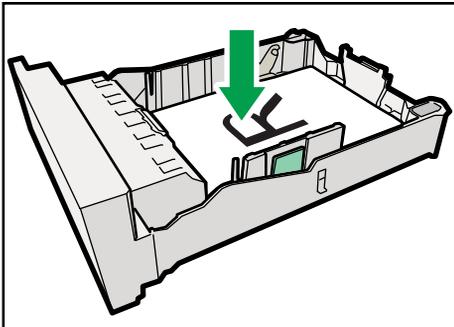
CBK229

5. Fan the paper before loading paper in the tray.



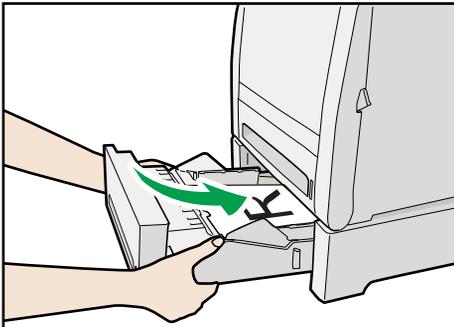
CBK254

6. Load the new paper stack print side up.



CBK230

7. Lift and slide the tray, then push it all the way in. Push the tray firmly to avoid a paper jam.



CBK231

Loading legal size paper

This section describes how to load legal size paper into the printer.

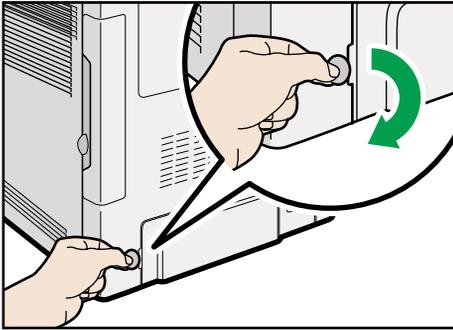
The same procedure applies to A4 paper or larger.

★ Important

- Do not move the side paper guide forcefully. Doing so can damage the tray.

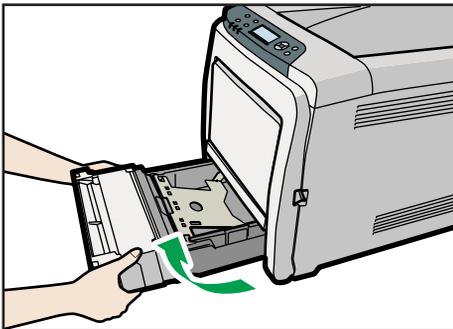
- Do not move the end paper guide forcefully. Doing so can damage the tray.
- When inserting the tray, make sure it is not slanted. Inserting it at a slant can damage the printer.

1. Remove the rear cover using a coin.



CBK102

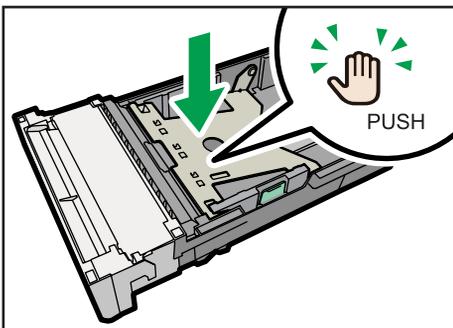
2. Pull Tray 1 carefully, then hold it with both hands and pull it out.



CBK035

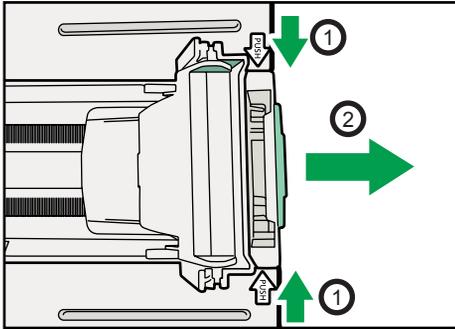
Place the tray on a flat surface.

3. Push the metal plate down until it clicks into place to lock.



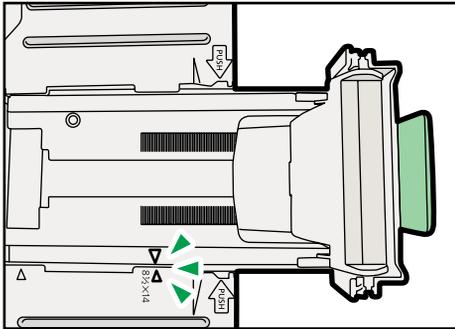
CBK036

4. Pinch the extender in the "PUSH" direction, and then pull out the extender until it stops (you will hear a click).



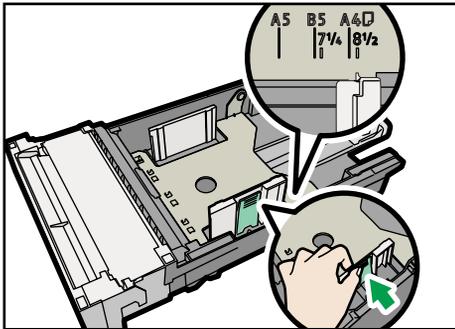
CBK103

After extension, make sure the arrows on the extender and tray are aligned.



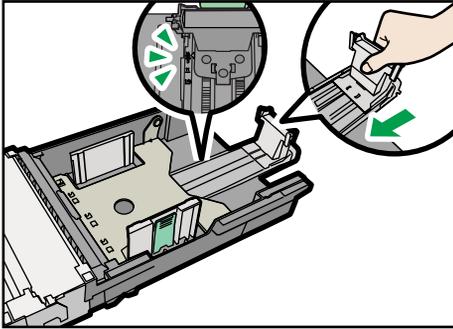
CBK104

5. Pinch the clip on the side paper guide, and then slide it to match the legal paper size.



CBK105

- Pinch the front end paper guide and slide it inward to match the legal paper size.



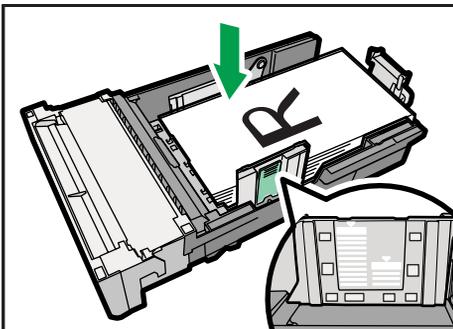
CBK107

- Fan the paper before loading paper in the tray.



CBK254

- Load the new paper stack print side up.



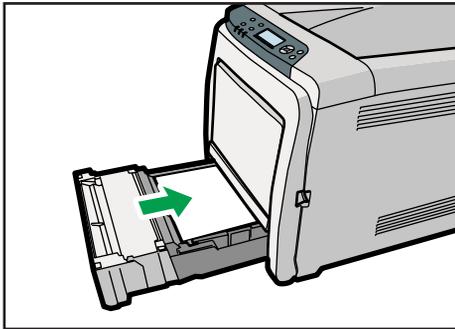
CBK109

Make sure paper is not stacked higher than the upper limit (upper line) marked inside the tray.

Slide the guides inward until they are flush against the paper's sides.

Make sure the paper is not stacked higher than the projection on the side paper guides.

9. Carefully push Tray 1 straight into the printer.



CBK045

To avoid paper jams, make sure the tray is securely inserted.

Note

- To reinsert the extender, you might have to push it with moderate force.
- For details about paper types supported by the printer, see "Supported Paper Types".

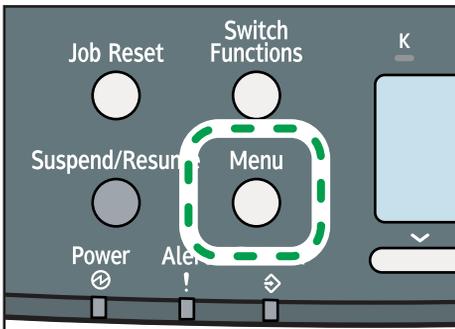
Reference

- p.108 "Supported Paper Types"

Setting a paper size by using the control panel

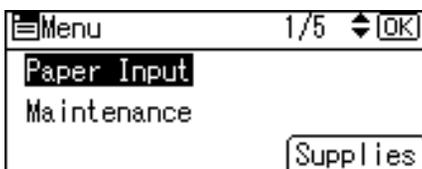
Follow the procedure described below to set the paper size.

1. Press the [Menu] key.



CBK049

2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.

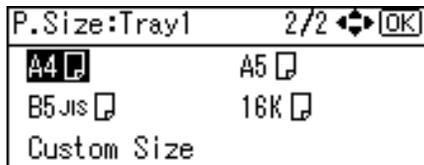


3. Press the [▼] or [▲] key to select [Paper Size: (tray name)], and then press the [OK] key.

In the illustration below, [Paper Size: Tray 1] is selected for Tray 1.



4. Select the paper size you want to set using the scroll keys, and then press the [OK] key.



5. Press the [Menu] key to return to the initial screen.

Note

- For details about paper types supported by the printer, see "Supported Paper Types".

Reference

- p.108 "Supported Paper Types"

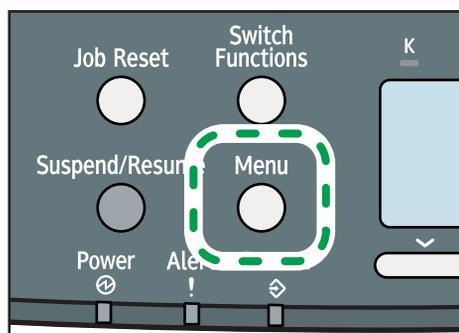
Specifying custom size paper for standard paper feed tray

This section describes how to load custom size paper into tray 1.

Important

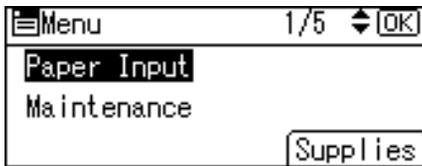
- When printing on custom size paper, specify the paper size using the control panel and printer driver.
- The printer cannot print from applications that do not support custom size paper.

1. Press the [Menu] key.



CBK049

- Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



- Press the [▼] or [▲] key to select [Paper Size: (tray name)], and then press the [OK] key.
In the illustration below, [Paper Size: Tray 1] is selected for Tray 1.

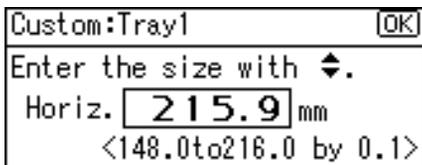


- Select [Custom Size] using the scroll keys, and then press the [OK] key.

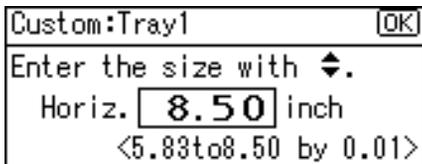


- Enter the horizontal value, and then press the [OK] key.

 **Region A** (mainly Europe and Asia)

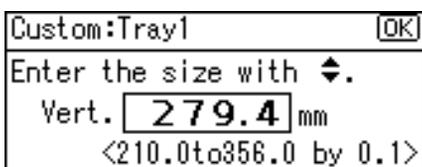


 **Region B** (mainly North America)

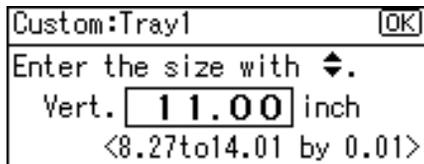


- Enter the vertical value, and then press the [OK] key.

 **Region A** (mainly Europe and Asia)



Region B (mainly North America)

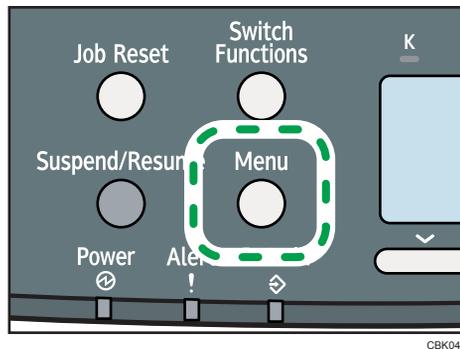


7. Press the [Menu] key to return to the initial screen.

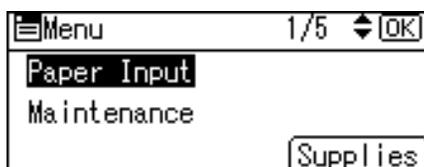
Specifying a paper type for standard or optional paper feed tray

This section describes how to specify a paper type. You can improve printer performance by selecting the optimum paper type for the tray.

1. Press the [Menu] key.



2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.

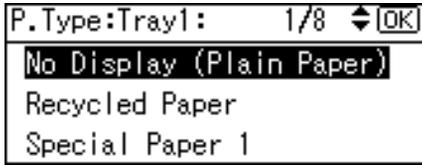


3. Press the [▼] or [▲] key to select [Paper Type: (tray name)], and then press the [OK] key.

In the illustration below, [Paper Type: Tray 1] is selected for Tray 1.



4. Press the [▼] or [▲] key to select the paper type that is loaded, and then press the [OK] key.



About two seconds later, the display returns to the Paper Input screen.

5. Press the [Menu] key to return to the initial screen.

↓ Note

- If the printing result is badly smudged, change the setting on the printer's control panel. For details, see "Supported Paper for Each Tray".

📖 Reference

- p.105 "Supported Paper for Each Tray"

6

Loading Paper onto Bypass Tray

This section explains how to load paper onto the bypass tray and change paper size.

★ Important

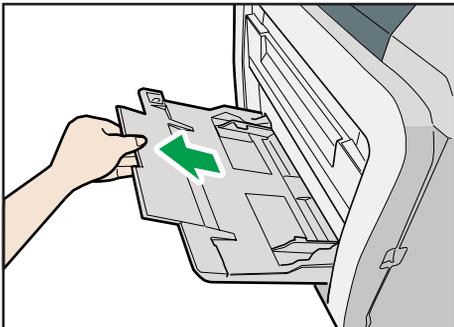
- Shuffle paper before loading the stack onto the tray, so multiple sheets are not fed in together.
- Set the size and direction of the loaded paper on the control panel or in the printer driver. Make sure the settings do not conflict. Otherwise, the paper may jam or the print quality may be affected.
- Load paper with the print side down and in the short-edge feed direction.
- Specify the paper size and type using the control panel. This printer does not automatically detect the size of paper loaded in a tray. Make sure the paper size and type is selected using the control panel.
- During printing, do not open or close the printer covers or bypass tray, or pull out or push in the paper tray.

1. Hold the middle part of the bypass tray and pull it toward you.



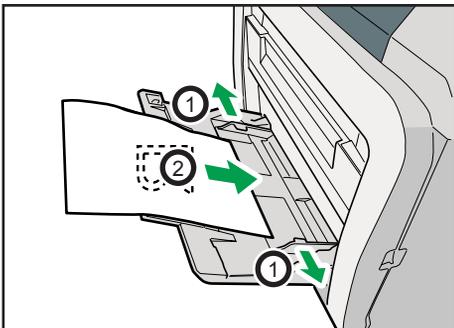
CBK112

If you load legal or longer size paper, pull out the bypass tray extension.



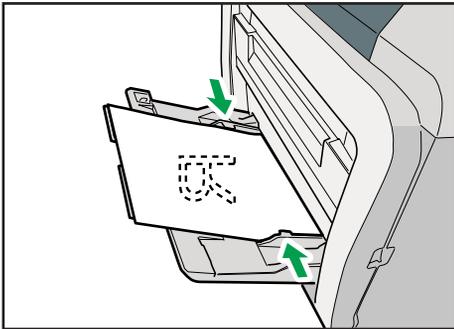
CBK114

2. Slide the paper guide both sides outward, and then load paper print side down, until it stops.



CBK115

3. Adjust the paper guide both sides to fit the paper width.



CBK116

Note

- When loading paper on the bypass tray, make sure the stack does not exceed the limit mark on the inner side of the paper guides. For details about the thicknesses of different paper types, see "Supported Paper Types".

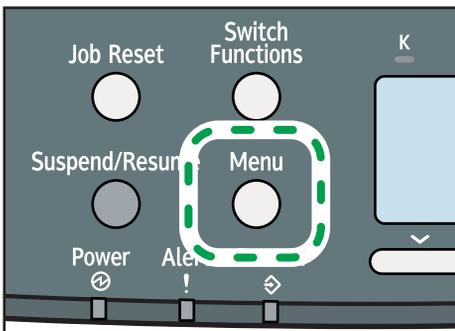
Reference

- p.108 "Supported Paper Types"

Specifying standard size paper for the bypass tray

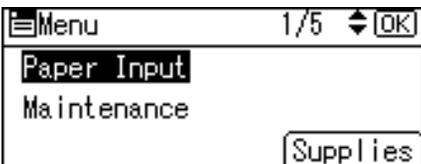
This section describes how to specify standard paper size for the bypass tray using the control panel.

1. Press the [Menu] key.



CBK049

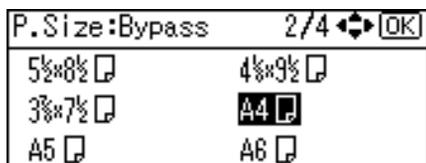
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



3. Press the [▼] or [▲] key to select [Paper Size:Bypass Tray], and then press the [OK] key.



4. Select the paper size you want to set using the scroll keys, and then press the [OK] key.



5. Press the [Menu] key to return to the initial screen.

Note

- After specifying the paper size, specify a paper type using the control panel and printer driver. For details on specifying a paper type using the control panel, see "Specifying a paper type for the bypass tray".
- The number of pages that can be loaded on the bypass tray differs depending on paper type.

Reference

- p.137 "Specifying a paper type for the bypass tray"

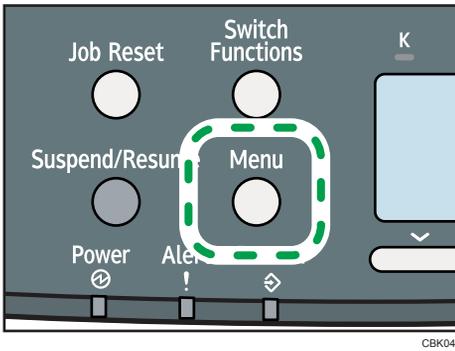
Specifying custom size paper for the bypass tray

This section describes how to specify custom paper size for the bypass tray using the control panel.

Important

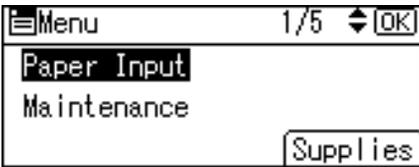
- When loading custom size specify the paper size using the control panel or printer driver.
- The custom size paper selected using the printer driver overrides that selected using the control panel, so do not make settings using the control panel if you have already made settings using the printer driver.
- When [Machine Setting(s)] is selected for [Tray Setting Priority] under [Machine Modes] in [Print Settings], any settings made using the printer's control panel have priority over any settings made using the printer driver.
- You cannot print on custom size paper with an application that does not support the custom size setting.
- To print on paper with a width of less than 90 mm, select [Active] for [Bypass Print: 64-90 mm] in [System] menu.

1. Press the [Menu] key.

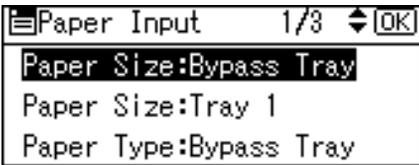


CEK049

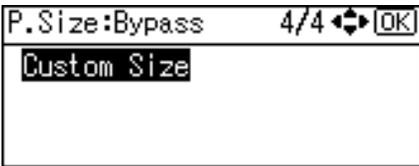
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



3. Press the [▼] or [▲] key to select [Paper Size:Bypass Tray], and then press the [OK] key.

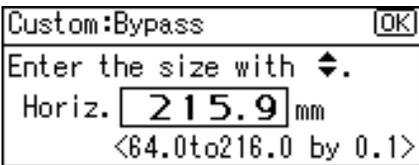


4. Select [Custom Size] using the scroll keys, and then press the [OK] key.



5. Enter the horizontal value, and then press the [OK] key.

 **Region A** (mainly Europe and Asia)



 **Region B** (mainly North America)

Custom:Bypass [OK]
 Enter the size with \updownarrow .
 Horiz. inch
 <2.52to8.50 by 0.01>

6. Enter the vertical value, and then press the [OK] key.

Region A (mainly Europe and Asia)

Custom:Bypass [OK]
 Enter the size with \updownarrow .
 Vert. mm
 <125.0to1260.0 by 0.1>

Region B (mainly North America)

Custom:Bypass [OK]
 Enter the size with \updownarrow .
 Vert. inch
 <4.93to49.60 by 0.01>

7. Press the [Menu] key to return to the initial screen.

Note

- After specifying the paper size, specify a paper type using the control panel and printer driver. For details on specifying a paper type using the control panel, see "Specifying a paper type for the bypass tray".
- For details about the printer driver, see the printer driver Help.

Reference

- p.137 "Specifying a paper type for the bypass tray"

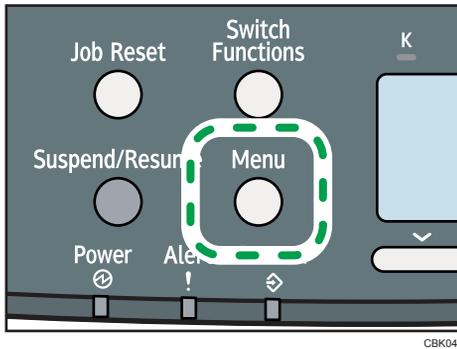
Specifying a paper type for the bypass tray

This section describes how to specify a paper type.

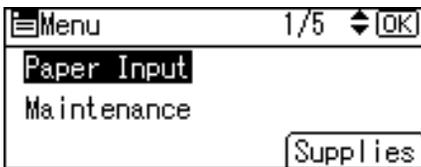
Important

- After loading paper on the tray, specify the paper type using the control panel or printer driver.
- The paper type selected using the printer driver overrides that selected using the control panel, so do not make settings using the control panel if you have already made settings using the printer driver.
- When [Machine Setting(s)] is selected for [Tray Setting Priority] under [Machine Modes] in [Print Settings], any settings made using the printer's control panel have priority over any settings made using the printer driver.

1. Press the [Menu] key.



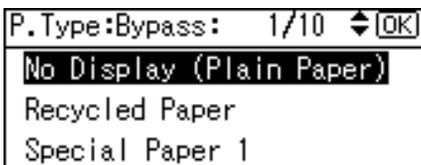
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



3. Press the [▼] or [▲] key to select [Paper Type:Bypass Tray] and then press the [OK] key.



4. Press the [▼] or [▲] key to select the paper type you want to use, and then press the [OK] key.



5. Press the [Menu] key to return to the initial screen.

Note

- If the printing result is badly smudged, change the setting on the printer's control panel. For details, see "Supported Paper for Each Tray".

Reference

- p.105 "Supported Paper for Each Tray"

Loading Envelopes

Make sure to check if the envelopes to be used are supported by this printer.

★ Important

- Check there is no air in the envelopes before loading.
- Load only one size and type of envelope at a time.
- Before loading envelopes, flatten their leading edges (the edge going into the printer) by running a pencil or ruler across them.
- Some kinds of envelope might cause misfeeds, wrinkles or print poorly.
- Print quality on envelopes may be uneven if parts of an envelope have differing thicknesses. Print one or two envelopes to check print quality.
- In a hot and humid environment, the envelope might be output creased or improper printing quality.

Loading Envelopes onto Bypass Tray

6

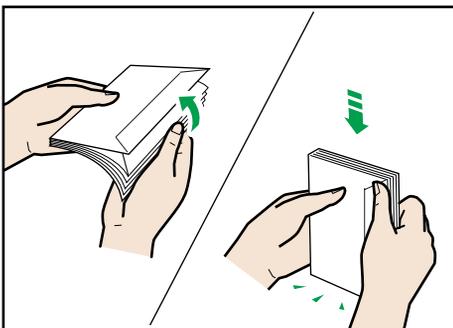
This section explains how to load envelopes onto the bypass tray and change paper size.

1. Hold the middle part of the bypass tray and pull it toward you.



CBK112

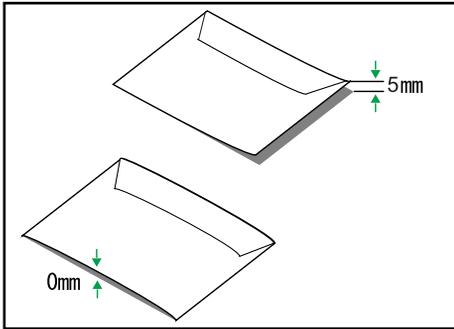
2. Fan envelopes, and then align their edges before loading.



CBK239

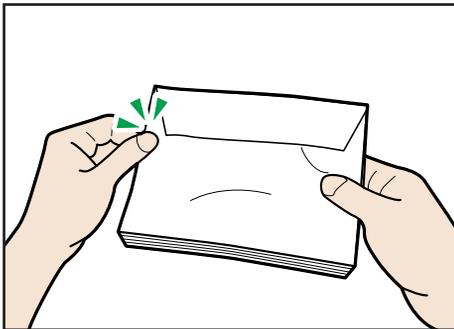
When fanning envelopes, make sure the envelope flaps are not stuck together. If they are stuck together, separate them.

Before loading envelopes, flatten them out so that their curl does not exceed that shown in the illustration below.



CBK240

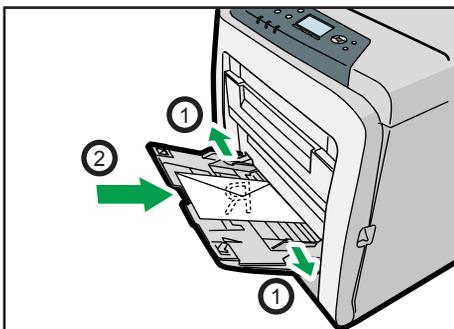
If the curl is severe, flatten out the envelopes using your fingers, as shown in the illustration below.



CBK241

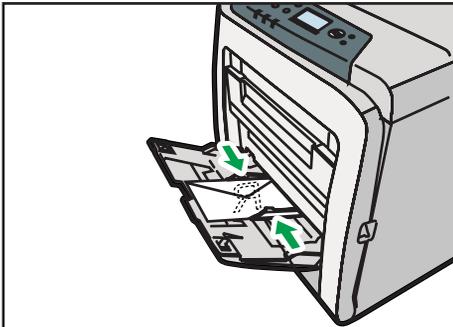
If envelopes are severely curled after printing, flatten them by bending them back against the curl.

3. Set the envelope in bypass tray with the printing side facing down.



CBK117

- Adjust the paper guide both sides to fit the envelope width.

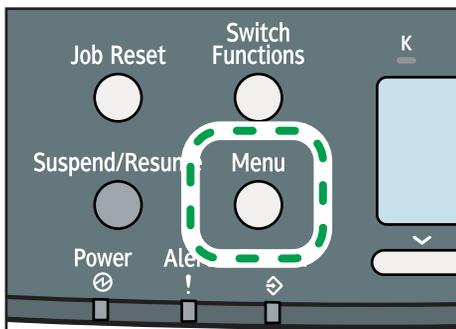


CBK118

Specifying envelope size for the bypass tray

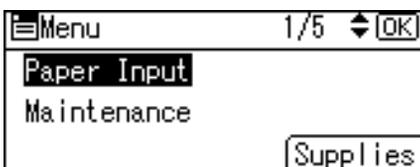
This section describes how to specify envelope size for the bypass tray using the control panel.

- Press the [Menu] key.



CBK049

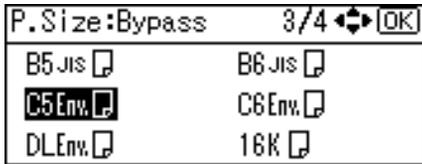
- Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



- Press the [▼] or [▲] key to select [Paper Size:Bypass Tray], and then press the [OK] key.



4. Select the envelope type using the scroll keys, and then press the [OK] key.



5. Press the [Menu] key.

The display returns to the initial screen.

Note

- Confirm that the top of the stack is not higher than the limit mark on the side guides.
- Do not push the stack of envelopes with too much force.
- Confirm that the edges of envelopes fit under the side guides.
- For details about paper types supported by the printer, see "Supported Paper Types".

Reference

- p.108 "Supported Paper Types"

Printing on Fixed-Orientation Paper

This section explains how to print on paper whose orientation and printing side are unchangeable (letterhead paper, for example).

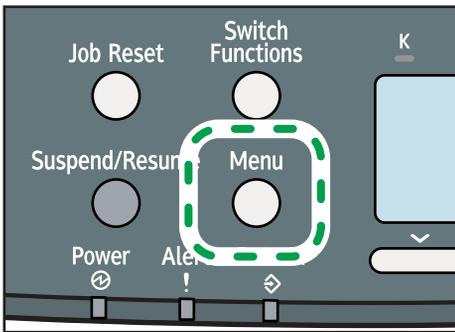
When loading paper with a fixed orientation, such as letterhead or letter paper, misprints may occur.

The following table shows the printout result according to the combination of paper feed direction and letterhead settings in the control panel and PCL printer driver.

Paper Orientation	Paper trays 1 - 2		Bypass Tray	
	Letterhead Setting [On]	Letterhead Setting [Off]	Letterhead Setting [On]	Letterhead Setting [Off]
1-sided print ☞	ABC	ABC	VBC	CBA

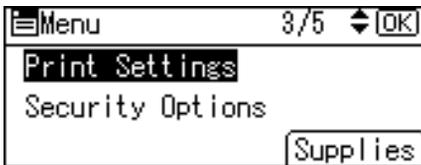
To make sure documents are printed correctly, follow the procedure to configure the print settings.

1. Press the [Menu] key.

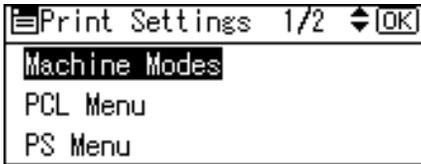


CBK049

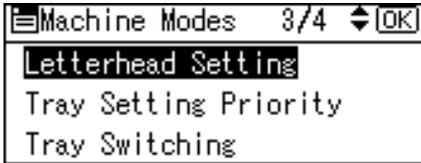
2. Press the [▼] or [▲] key to select [Print Settings], and then press the [OK] key.



3. Press the [▼] or [▲] key to select [Machine Modes], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Letterhead Setting], and then press the [OK] key.



5. Select one of the following settings, and then press the [OK] key.

On (Always)	The printer always prints on paper that has a fixed orientation
Auto Detect	The printer will print on paper that has a fixed orientation only when [Letterhead] is specified as the paper type in the printer driver's settings.
Off	The printer will print on paper in a fixed orientation, regardless of the specified paper type or the printer driver's settings.

6. Press the [Menu] key to return to the initial screen.

Registering Unique Names to Paper Types

You can register a unique name to a paper type using Web Image Monitor. The name you register should reflect the paper's type or usage, as this will make recognizing the paper type easier.

★ Important

- This function can be used when the printer is operating in a network, and bidirectional communication is enabled.
- This function cannot be used with the printer driver's [Manage Preset List] function.
- The printer's logs do not record names of user paper types.

Registering Names to Paper Types

★ Important

- The printer driver might not display the paper type name correctly if it is registered using an unsupported language.
- The control panel might not display the paper type name correctly if it is registered using non-alphanumeric characters (i.e., other than a-z, A-Z, or 0-9).

1. Log in to Web Image Monitor as an administrator.
2. Click [Configuration].
3. Click [User Paper Type] in the [Device Settings] area, and then change the settings as necessary.

The screen for selecting [User Paper Type] appears.

4. Enter a descriptive name for easier recognition in Paper Name.
5. Select a suitable paper type from the Paper Type list.
6. Click [OK].
7. Click [Logout].
8. Quit the Web Image Monitor.

↓ Note

- You can register up to eight user paper types.

Setting User Paper Types to Trays

Before printing, set the paper registered on the user paper type to the paper tray, and then set the paper type already registered. Paper types can be set either from Web Image Monitor or from the printer's control panel.

1. Log in to Web Image Monitor as an administrator.
2. Click [Configuration].
3. Click [Paper] in the [Device Settings] area.
4. Set the paper tray you want to use as a user paper type, and then select the registered paper type.
5. Click [OK].
6. Click [Logout].
7. Quit the Web Image Monitor.

Printing Using Registered Paper Types

Select a registered paper type to print onto.

1. Select your application's print command.
2. On the tab in the properties dialog box that appears, select a registered paper type under [Paper Type:].
3. Execute the print command.

The preregistered settings are applied and print is performed.

↓ Note

- For details about printer driver settings, see the printer driver Help.

7. Maintaining the Printer

This chapter explains how to replace consumables, and clean the printer.

Replacing the Print Cartridge

WARNING

- Do not incinerate toner (new or used) or toner containers. Doing so risks burns. Toner will ignite on contact with naked flame.

WARNING

- Keep the polythene materials (bags, gloves, etc.) supplied with this machine away from babies and small children at all times. Suffocation can result if polythene materials are brought into contact with the mouth or nose.

CAUTION

- Keep toner (used or unused) and toner containers out of reach of children.

CAUTION

- If toner or used toner is inhaled, gargle with plenty of water and move into a fresh air environment. Consult a doctor if necessary.

CAUTION

- If toner or used toner gets into your eyes, flush immediately with large amounts of water. Consult a doctor if necessary.

CAUTION

- If toner or used toner is swallowed, dilute by drinking a large amount of water. Consult a doctor if necessary.

CAUTION

- When removing jammed paper or replacing toner, avoid getting toner (new or used) on your clothing. If toner comes into contact with your clothing, wash the stained area with cold water. Hot water will set the toner into the fabric and make removing the stain impossible.

⚠ CAUTION

- When removing jammed paper or replacing toner, avoid getting toner (new or used) on your skin. If toner comes into contact with your skin, wash the affected area thoroughly with soap and water.

⚠ CAUTION

- Be careful not to trap your fingers when opening or closing the top cover.

★ Important

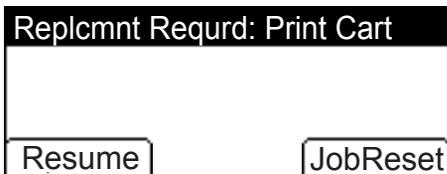
- Actual printable numbers vary depending on image volume and density, number of pages printed at a time, paper type and size, and environmental conditions such as temperature and humidity. Toner quality degrades over time. Early replacement of the print cartridge might be necessary. Therefore, we recommend you always keep a new print cartridge ready.
- The print cartridge might need to be replaced even if there is toner remaining in it. This is due to depletion or wear of other components.
- Do not allow paper clips, staples, or other small metallic objects to fall inside the printer.
- Do not expose the print cartridge without its cover to direct sunlight for a long time.
- When removing print cartridge, be careful not to drop it.
- Store print cartridges in a cool dark place.

↓ Note

- If print cartridge are not changed when necessary, printing will become impossible. We recommend keeping a stock of print cartridge.
- Print cartridge (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.

Replace the print cartridge if the following message appears on the display:

"Replcmnt Requird: Print Cart"



While [Resume] is displayed, you can resume printing simply by pressing [Resume]. Approximately 50 pages can be printed (this number can vary depending on the environmental conditions). If prints appear dirtied, replace the print cartridge.

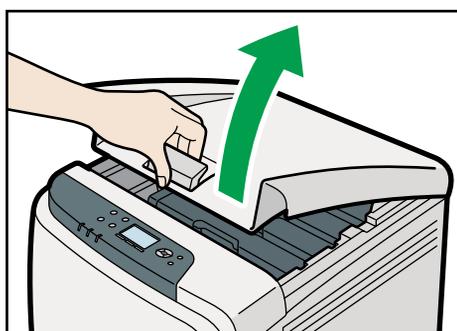
- If cyan, magenta, or yellow toner runs out, you can print in black and white using black toner. Change the color mode setting to [Black and White] using the printer driver.
- If black toner runs out, you cannot print in black and white or color until the black print cartridge is replaced.

When the following message appears on the display, the print cartridge should be replaced soon. Prepare a new print cartridge.

"Repl Soon:Prt.Cart. :(color)"



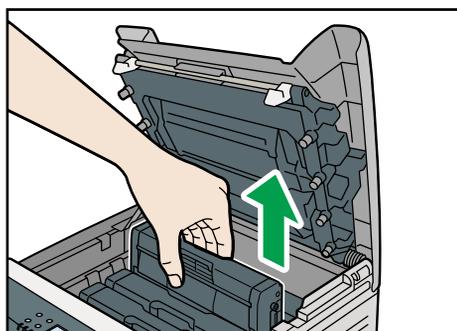
1. Pull up top cover open lever to open the top cover.



CBK028

From the rear, the print cartridges are installed in the order of cyan (C), magenta (M), yellow (Y), and black (K).

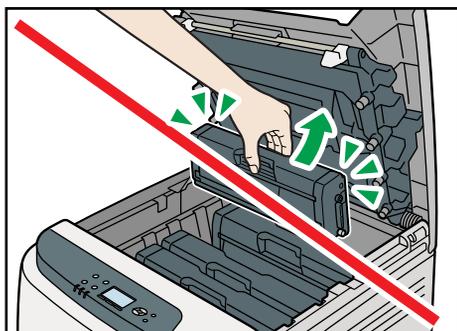
2. Gripping its center, carefully pull the print cartridge upward and out.



CBK122

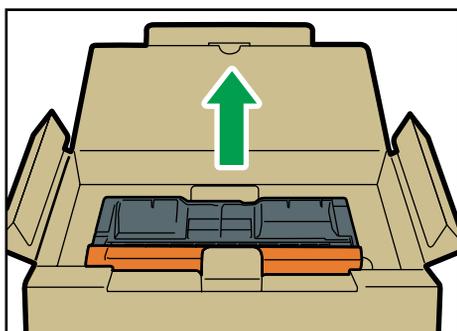
- Do not shake the removed print cartridge. Remaining toner may leak.
- Place the old print cartridge on paper or some other material to avoid dirtying your workspace.
- Color is labeled on each print cartridge.

When removing print cartridges, be careful not to touch the Laser Scanning Unit on the underside of the upper cover.



CBK121

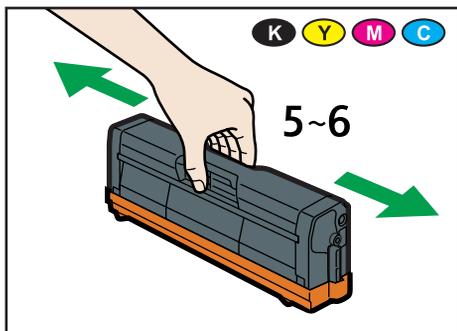
3. Take the new print cartridge out of the box, and then take it out of the plastic bag.



CBK123

7

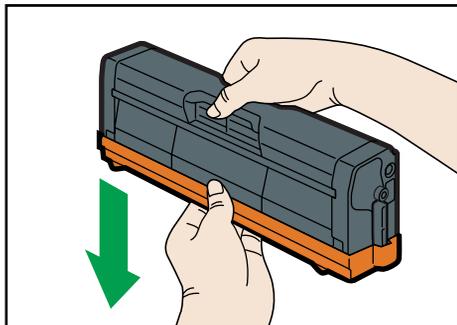
4. Hold the print cartridge and shake it from side to side five or six times.



CBK251

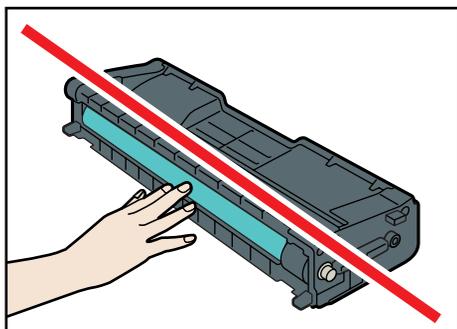
Even distribution of toner within the bottle improves print quality.

5. Remove the cover from the print cartridge.



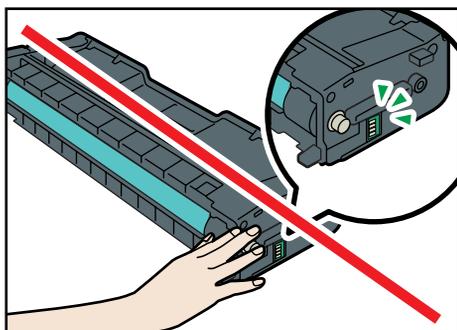
CBK124

Do not touch the print cartridge's photo conductor unit.



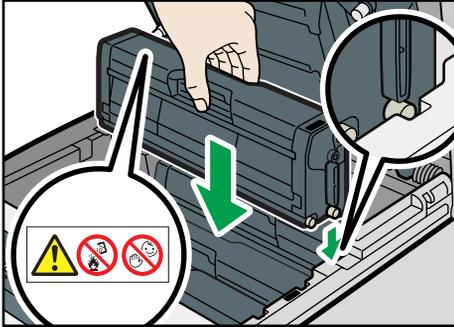
CBK026

Do not touch a metal part.



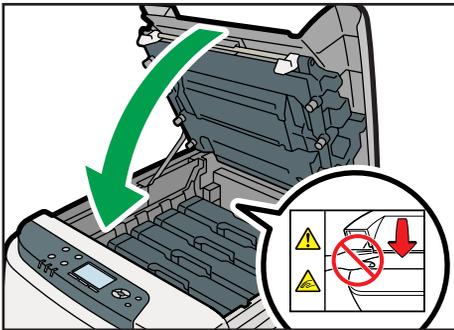
CBK250

6. Check the toner color and location correspond, and carefully insert the print cartridge vertically.



CBK033

7. Close the top cover with both hands carefully. Be careful not to trap your fingers.

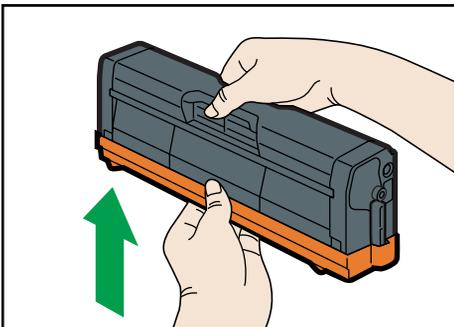


CBK034

Wait while the toner loads.

To avoid malfunction, do not turn off the power while "Please wait." appears on the display.

8. Put the cover that you removed in step 5 on the old print cartridge. Then, put the old print cartridge into the bag, and then put it into the box.



CBK125

Note

- Make sure to cover the old print cartridge with the protective cover for recycling and environmental purposes.

- Comply with the print cartridge Recycling Program, whereby used print cartridges are collected for processing. For details, ask your sales or service representative.

Replacing the Waste Toner Bottle

WARNING

- Do not incinerate toner (new or used) or toner containers. Doing so risks burns. Toner will ignite on contact with naked flame.

WARNING

- Keep the polythene materials (bags, gloves, etc.) supplied with this machine away from babies and small children at all times. Suffocation can result if polythene materials are brought into contact with the mouth or nose.

WARNING

- Wait for 30 minutes or more after disconnecting the power plug before removing the paper transfer unit.

CAUTION

- Keep toner (used or unused) and toner containers out of reach of children.

CAUTION

- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.

Important

- Waste toner bottles cannot be reused.
- Purchasing and storing extra waste toner bottles is recommended.
- If the bypass tray is open, close it before pulling out Tray 1.
- When removing the waste toner bottle, make sure not to tilt it.
- Keep the waste toner bottle horizontal as you take it out.
- Make sure that the paper transfer unit is installed. If the paper transfer unit is not installed, install it before turning the power on.
- Cooperate with the waste toner bottle Recycling Program, whereby used waste toner bottles are collected for recycling.
- Before removing the waste toner bottle from the printer, spread paper or some other material around the area to keep toner from dirtying your workspace.

Replace the waste toner bottle if the following message appears on the display:

 Waste Toner Bottle full"

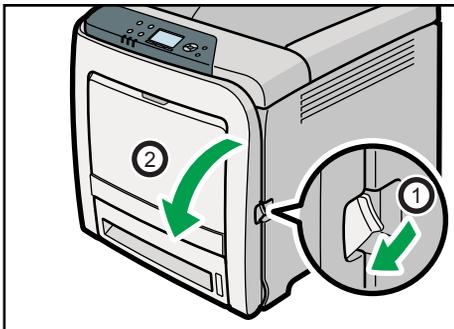


When the following message appears on the display, the waste toner bottle should be replaced soon. Prepare a new Waste Toner Bottle.

"Waste Toner almost full"

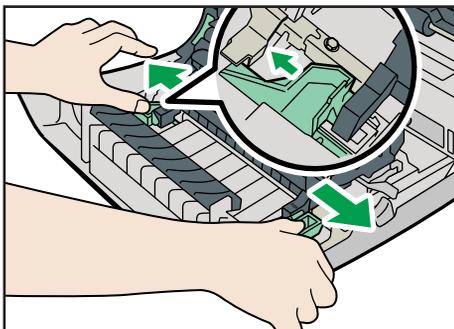


1. Pull front cover open lever, and then open the front cover with both hands carefully.



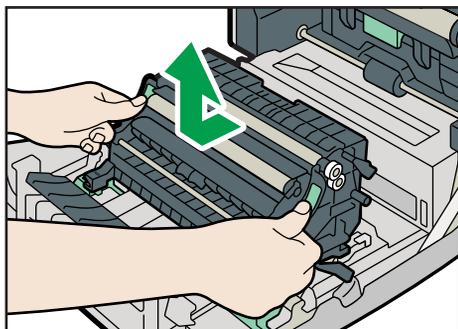
CBK130

2. Slide both levers on the front cover outward.



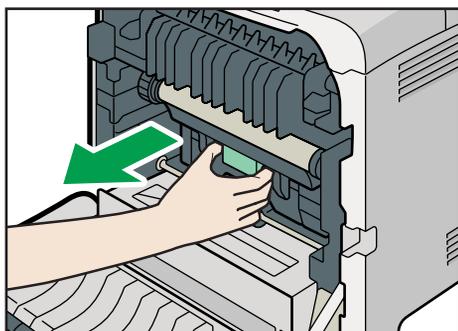
CBK131

3. Hold both ends of the paper transfer unit, and then lift it up.



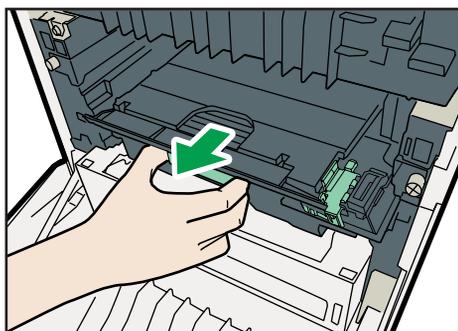
CBK132

4. Hold the center of the waste toner bottle, and then carefully pull it out horizontally.

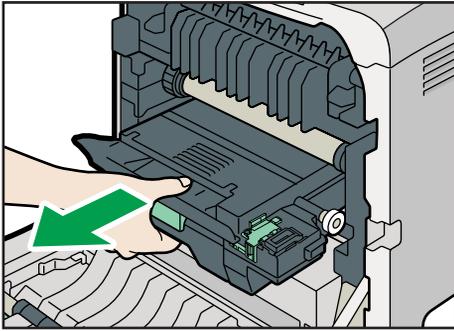


CBK133

5. Pull the waste toner bottle halfway out, grab the bottle, and then pull it straight out.

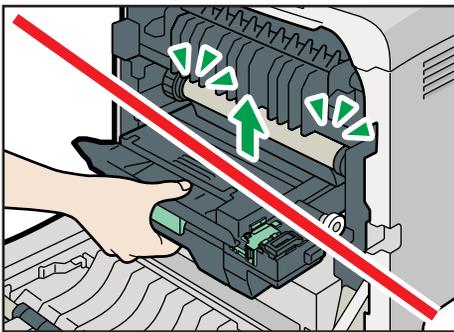


CBK134



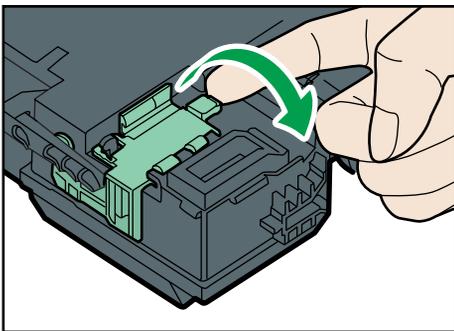
CBK135

To prevent the waste toner bottle touching the intermediate transfer unit, do not lift the bottle while pulling it out.

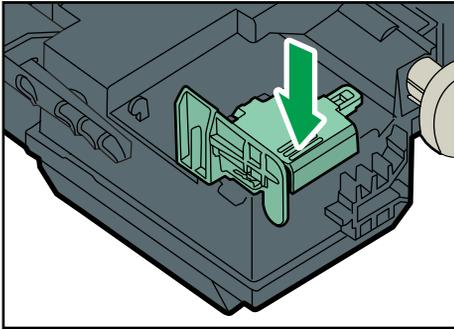


CBK136

6. Close the bottle cap.



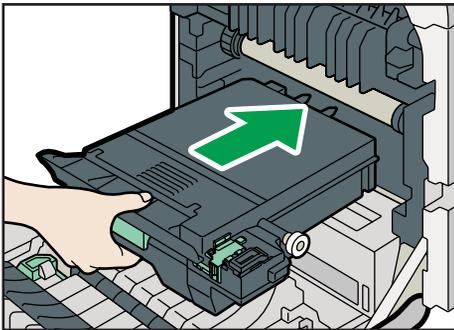
CBK160



CBK161

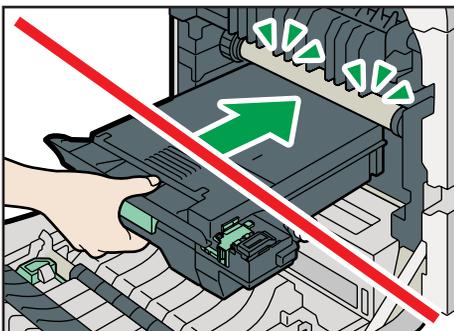
7. Hold the center of the new waste toner bottle, and then carefully insert it halfway into the printer body.

Leave the cap open.



CBK150

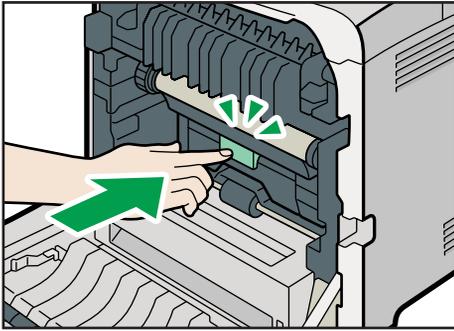
To prevent the waste toner bottle touching the intermediate transfer unit, do not lift the bottle while inserting it.



CBK151

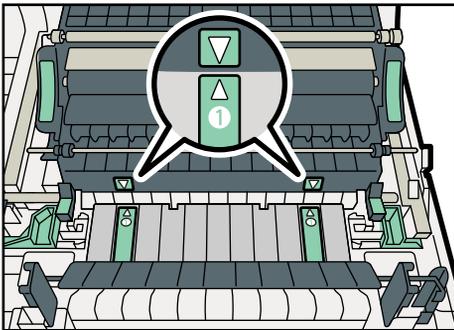
8. Push in the waste toner bottle until it clicks into place.

Push the green part all the way in.

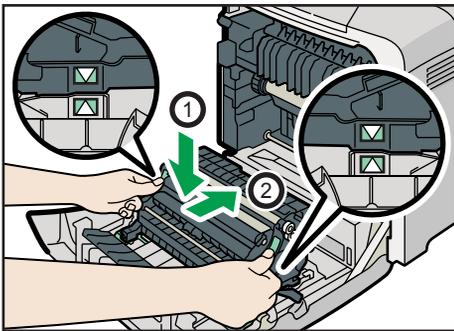


CBK152

9. Place the paper transfer unit on the front cover by aligning the ▽ mark on the paper transfer unit with the ▲ mark on the front cover.

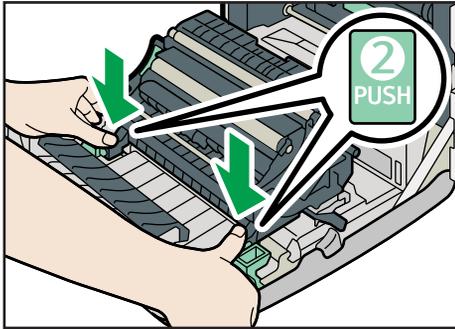


CBK153



CBK154

Then, push on the green PUSH marks until the paper transfer unit clicks into place.



CBK155

10. Close the front cover with both hands carefully.



CBK156

Replacing the Intermediate Transfer Unit

⚠ WARNING

- Wait for 30 minutes or more after disconnecting the power plug before removing the paper transfer unit.

⚠ CAUTION

- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.

★ Important

- Replace the intermediate transfer unit and transfer roller together.
- When removing the waste toner bottle, make sure not to tilt it.
- Before removing the waste toner bottle from the printer, spread paper or some other material around the area to keep toner from dirtying your workspace.

Replace the intermediate transfer unit if the following message appears on the display:

"Replacemnt Requir:IntTrans"

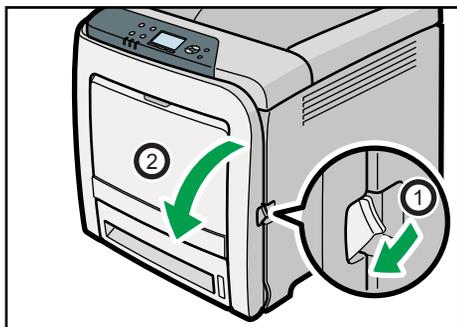


When the following message appears on the display, the intermediate transfer unit should be replaced soon. Prepare a new intermediate transfer unit.

"Replcmnt Rqrd Soon:IntTrans"

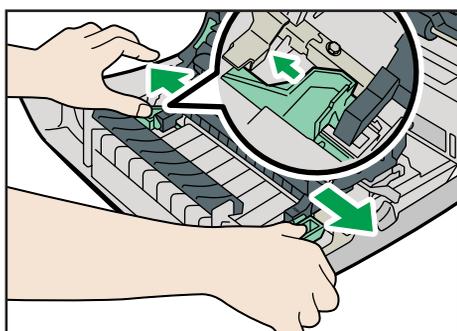


1. Pull the right side lever to open the front cover.



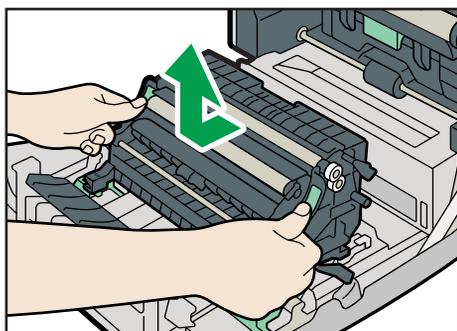
CBK130

2. Slide the lever on the front cover outwards.



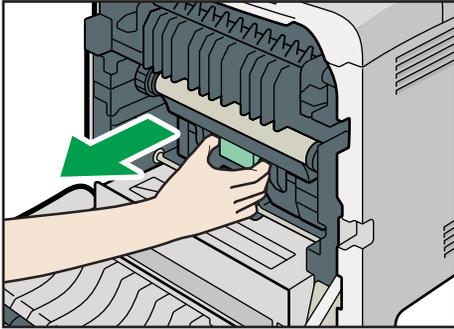
CBK131

3. Hold both ends of the paper transfer unit and lift it up.



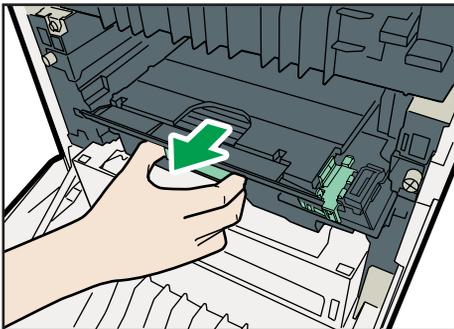
CBK132

4. Hold the center of the waste toner bottle, and then carefully pull it out horizontally.

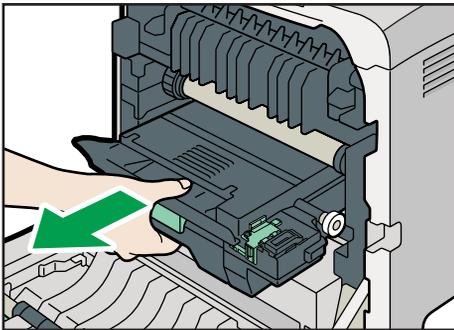


CBK133

5. Pull the waste toner bottle halfway out, grab the bottle, and then pull it straight out.

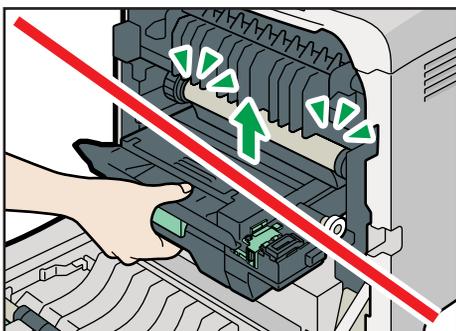


CBK134



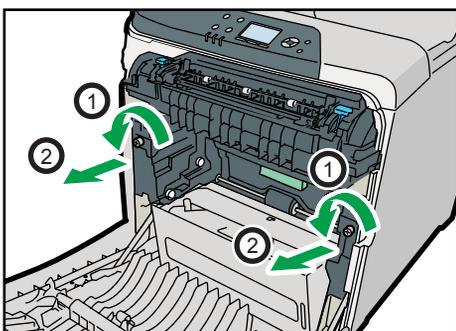
CBK135

To prevent the waste toner bottle touching the intermediate transfer unit, do not lift the bottle while pulling it out.



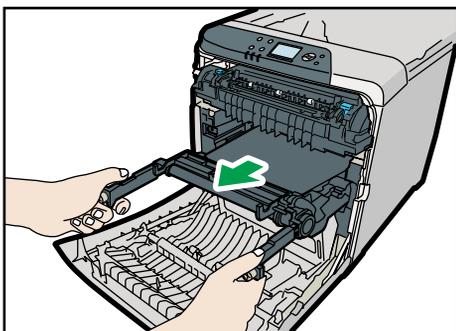
CBK136

6. Loosen the finger screws on both ends of the intermediate transfer unit.



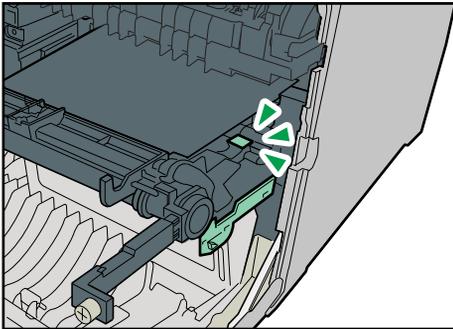
CBK137

7. Hold the finger screws of sliders, and then pull the intermediate transfer unit until it stops.

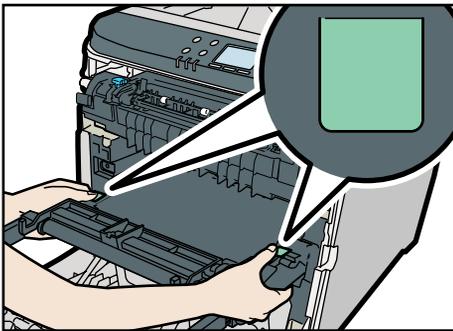


CBK138

8. Hold the green parts at both ends of the intermediate transfer unit.

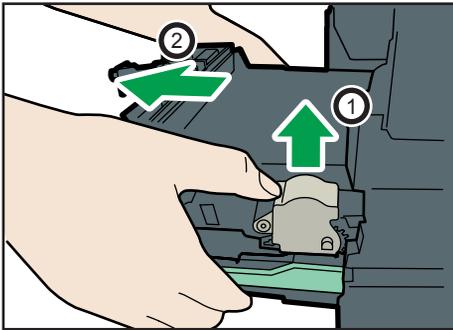


CBK139



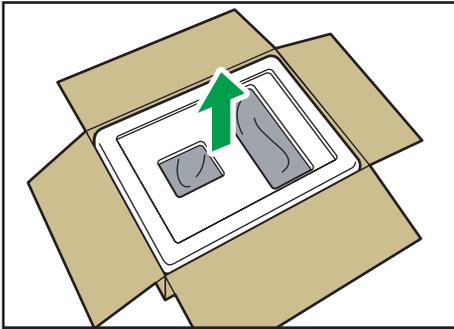
CBK140

Holding the levers on both side, carefully pull out the intermediate transfer unit.



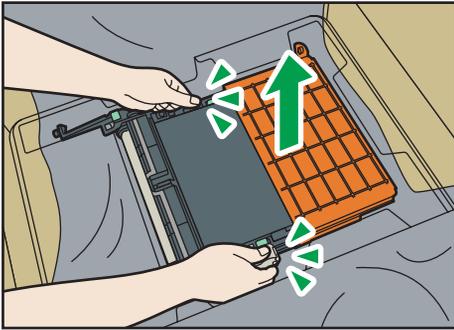
CBK141

9. Open the box containing the new intermediate transfer unit and remove the top cover.



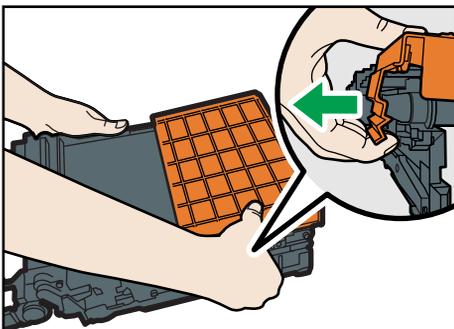
CBK143

10. Remove the covering sheet. Then, while taking care not to touch the belt area, lift the new intermediate transfer unit from its box using the grips on both sides.

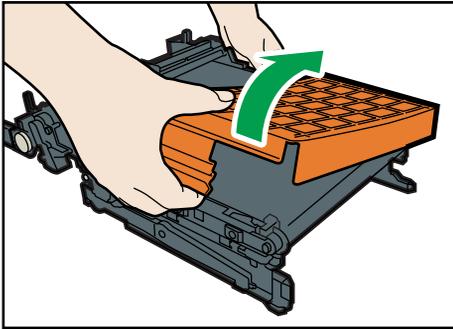


CBK144

11. While holding the frame of the intermediate transfer unit steady with one hand, use your other hand to pull the side tab outwards and then upwards to remove the attachment.

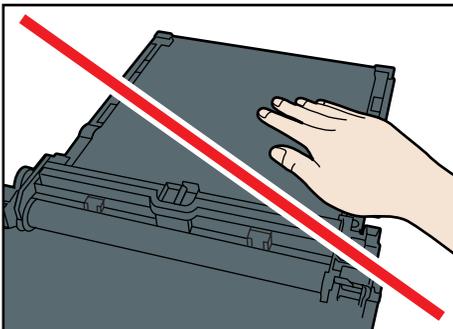


CBK145



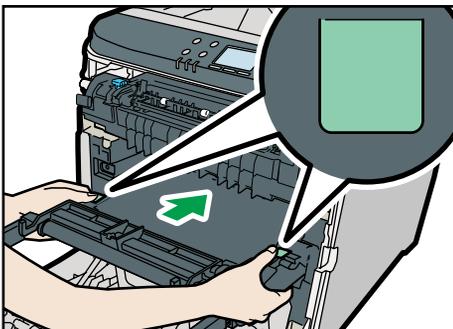
CBK146

Do not touch the transfer belt.

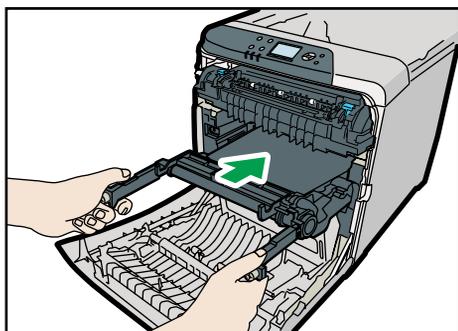


CBK129

12. Hold the intermediate transfer unit by the green parts at both ends, and then push the unit straight into the printer body until it can go no further.

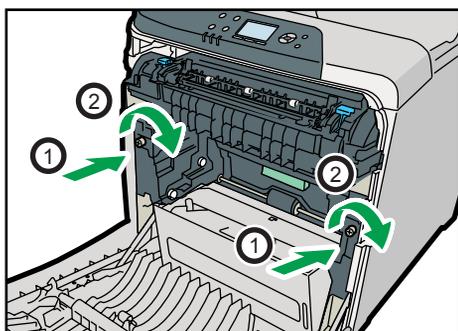


CBK252



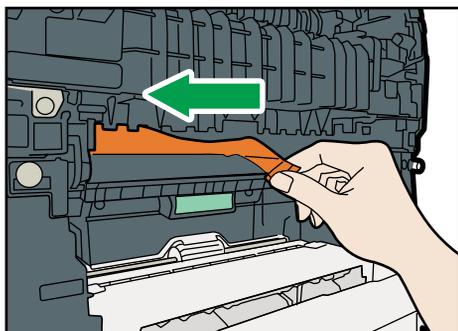
CBK147

13. Tighten the finger screws on both ends of the intermediate transfer unit.



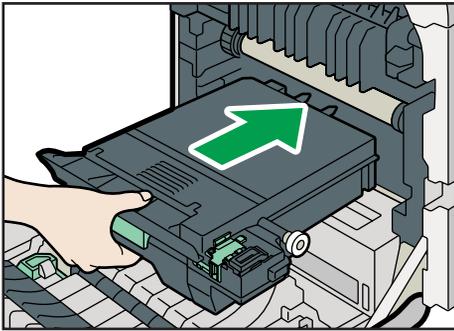
CBK148

14. Remove the transfer belt cover.



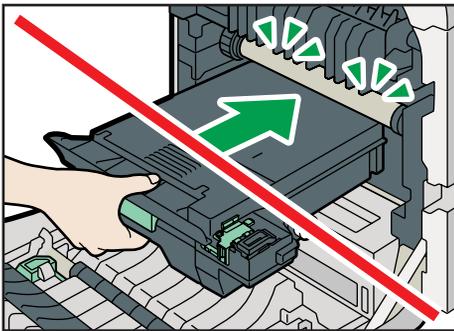
CBK149

15. Hold the center of the waste toner bottle, and then carefully insert into the printer body.



CBK150

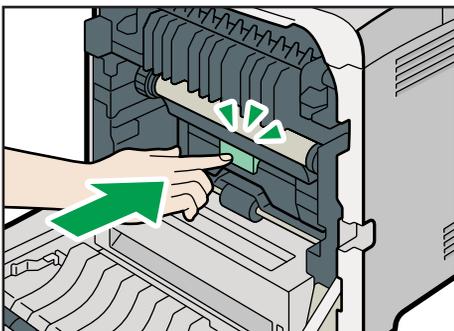
To prevent the waste toner bottle touching the intermediate transfer unit, do not lift the bottle while inserting it.



CBK151

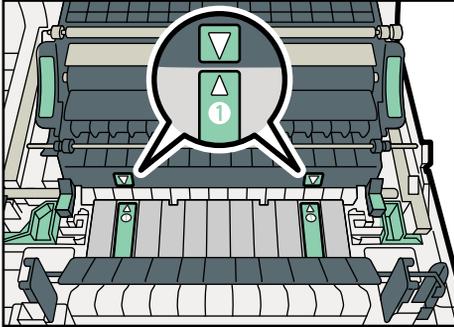
16. Push in the waste toner bottle until it clicks into place.

Push the green part all the way in.

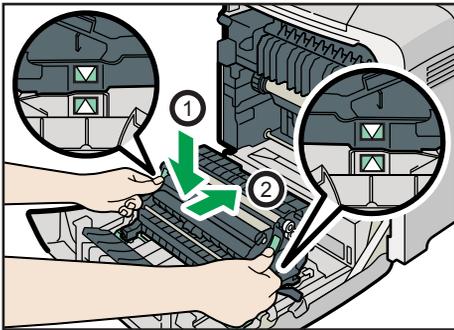


CBK152

- 17. Place the paper transfer unit on the front cover by aligning the ▽ mark on the paper transfer unit with the △ mark on the front cover.

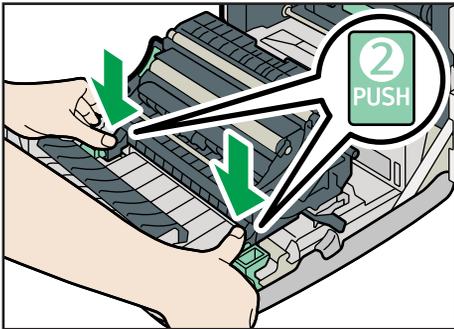


CBK153



CBK154

Then, push on the green PUSH marks until the paper transfer unit clicks into place.



CBK155

18. Close the front cover with both hands carefully.



CBK156

Replacing the Maintenance Kit

⚠️ WARNING

- When replacing the maintenance kit, turn the main power switch off and wait at least 30 minutes before proceeding with the replacement.

⚠️ CAUTION

- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.

Replace the maintenance kit if the following message appears on the display:

"Replacmnt Rqrd:Fusing Unit"



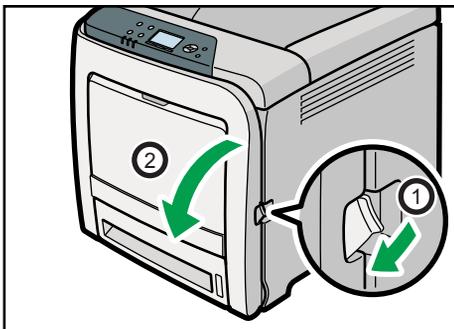
7

When the following message appears on the display, the maintenance kit should be replaced soon. Prepare a new maintenance kit.

"Repl Requird Soon:FusingUnit"

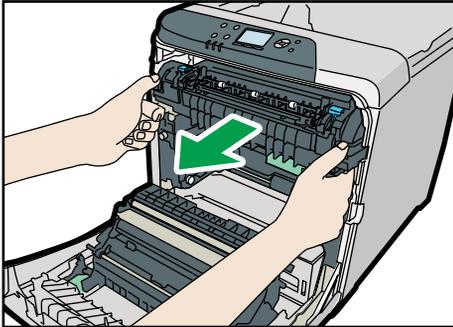


1. Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



CBK130

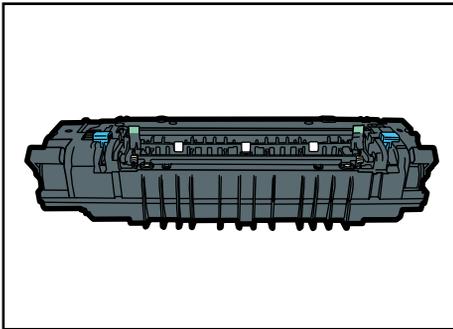
2. Hold the levers on both sides of the fusing unit and carefully pull it out.



CBK168

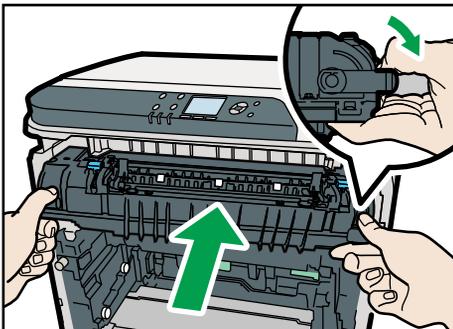
Place the old fusing unit on a flat surface.

3. Prepare a new fusing unit.



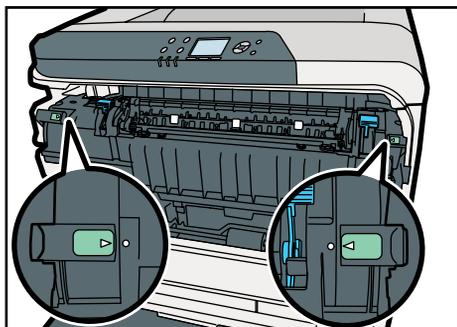
CBK169

4. While supporting both ends of the new fusing unit with your forefingers and pressing down the levers with your thumbs, carefully push the unit fully in.



CBK170

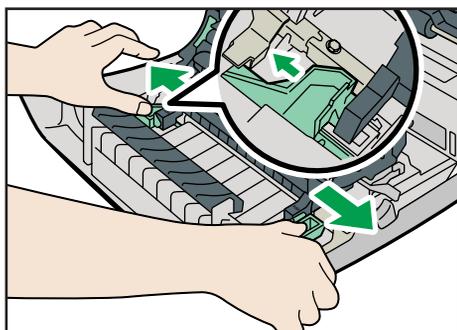
5. Make sure that the markings on the fusing unit are aligned with the markings on the levers.



CBK171

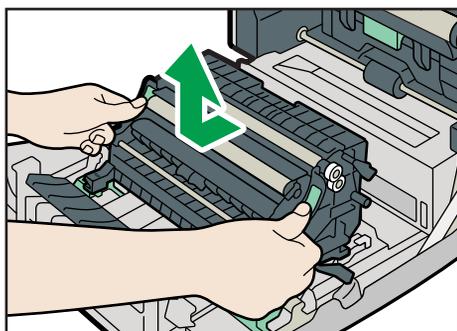
If the markings are misaligned, align them by lowering the levers and once again pushing the fusing unit fully in.

6. Slide the levers on the front cover outwards.



CBK131

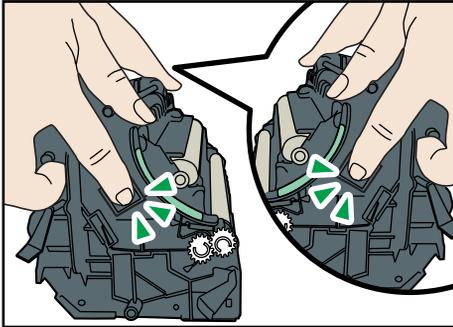
7. Hold both ends of the paper transfer unit and lift it up.



CBK132

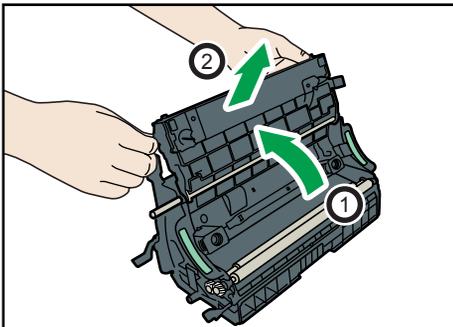
Place the paper transfer unit on a flat surface.

8. Push in the depressions on both sides of the paper transfer unit.

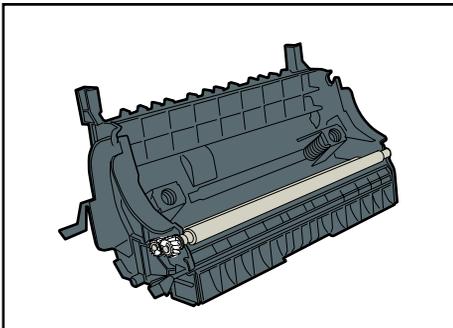


CBK172

9. Lift the transcription roller to take it out.

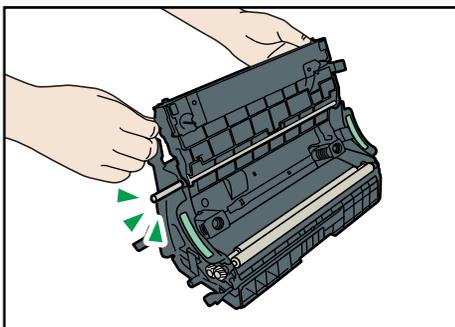


CBK173



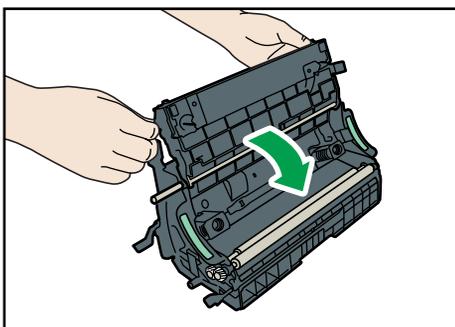
CBK174

10. Hold the new transcription roller, and match it with the paper transfer unit.

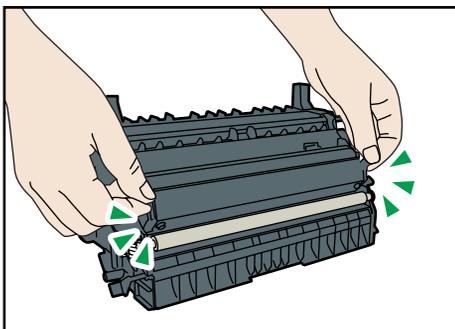


CBK175

11. Lift the transcription roller to install it.

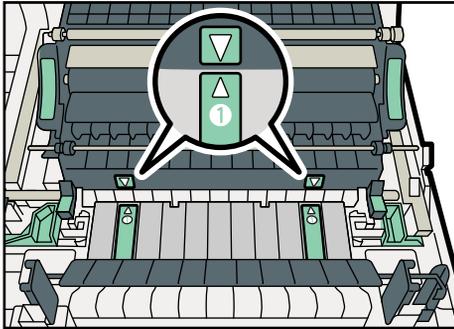


CBK178

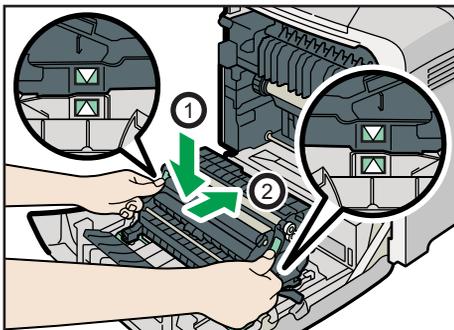


CBK179

- Place the paper transfer unit on the front cover by aligning the ▽ mark on the paper transfer unit with the ▲ mark on the front cover.

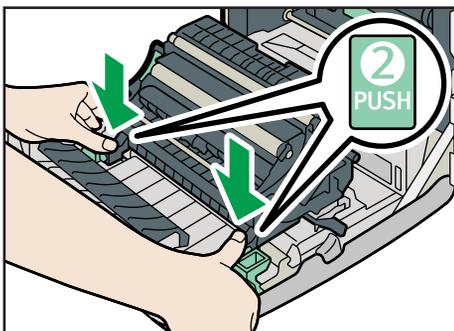


CBK153



CBK154

Then, push on the green PUSH marks until the paper transfer unit clicks into place.



CBK155

13. Close the front cover with both hands carefully.



CBK156

Cautions When Cleaning

WARNING

- Do not remove any covers or screws other than those explicitly mentioned in this manual. Inside this machine are high voltage components that are an electric shock hazard and laser components that could cause blindness. Contact your sales or service representative if any of the machine's internal components require maintenance, adjustment, or repair.
- Do not attempt to disassemble or modify this machine. Doing so risks burns and electric shock. Note again that exposure to the laser components inside this machine risks blindness.

CAUTION

- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.

CAUTION

- Be sure to disconnect the plug from the wall outlet and clean the prongs and the area around the prongs at least once a year. Allowing dust to build up on the plug constitutes a fire hazard.

CAUTION

- If the machine's interior is not cleaned regularly, dust will accumulate. Fire and breakdown can result from heavy accumulation of dust inside this machine. Contact your sales or service representative for details about and charges for cleaning the machine's interior.

Clean the printer periodically to maintain fine printing.

Dry wipe the exterior with a soft cloth. If dry wiping is not enough, wipe with a soft, wet cloth that is wrung out well. If you still cannot remove the stain or dirt, apply a neutral detergent, and then wipe over with a well-wrung wet cloth, dry wipe, and then let it dry.

Important

- To avoid deformation, discoloration, or cracking, do not use volatile chemicals, such as benzine and thinner, or spray insecticide on the printer.
- If there is dust or grime inside the printer, wipe with a clean, dry cloth.
- You must disconnect the plug from the wall outlet at least once a year. Clean away any dust and grime from the plug and outlet before reconnecting. Accumulated dust and grime pose a fire hazard.
- Do not allow paper clips, staples, or other small metallic objects to fall inside the printer.

Cleaning the Toner Density Sensor

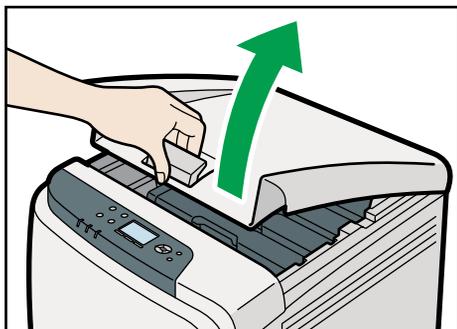
Clean the toner density sensor when the following message appears on the control panel.

"Sensor cleaning required."

CAUTION

- Be careful not to trap your fingers when opening or closing the top cover.

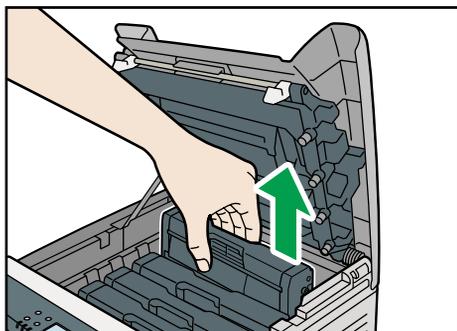
1. Pull up top cover open lever to open the top cover.



CBK028

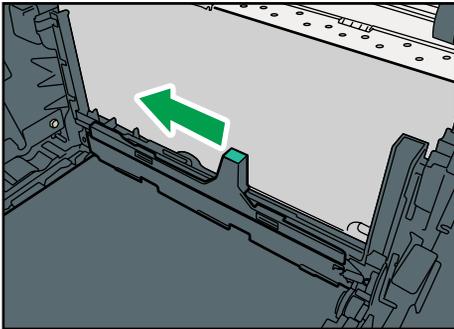
7

2. Lift out the cyan print cartridge.



CBK245

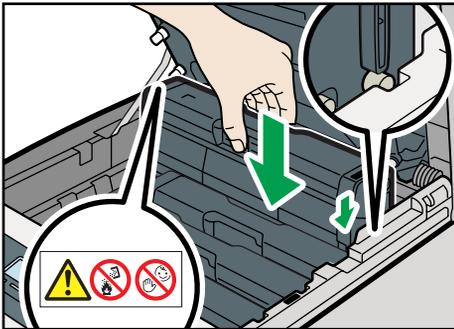
3. Slide the toner density sensor lever once to the left.



CBK180

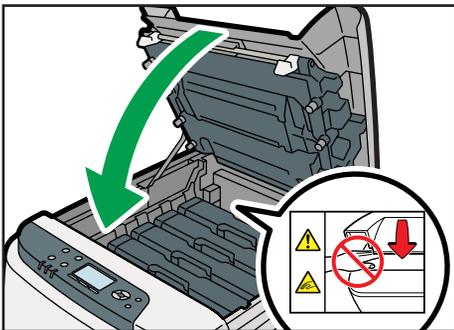
Slide the lever only once.

4. To reattach the cyan print cartridge removed in step 2. Push it all the way in carefully.



CBK246

5. Close the top cover with both hands carefully. Be careful not to trap your fingers.



CBK034

Cleaning the Friction Pad and the Paper Feed Roller

If the friction pad or paper feed roller is dirty, a multi-feed or misfeed might occur.

In this case, clean the friction pad and paper feed roller as follows:

CAUTION

- When moving the machine, hold the inset grips at both sides, and then lift the printer slowly. Lifting it carelessly or dropping it may cause an injury.

CAUTION

- When performing maintenance on the machine, always disconnect the power cord from the wall outlet.

CAUTION

- When disconnecting the power cord from the wall outlet, always pull the plug, not the cord. Pulling the cord can damage the power cord. Use of damaged power cords could result in fire or electric shock.

7

CAUTION

- Do not pull out the paper tray forcefully. If you do, the tray might fall and cause an injury.

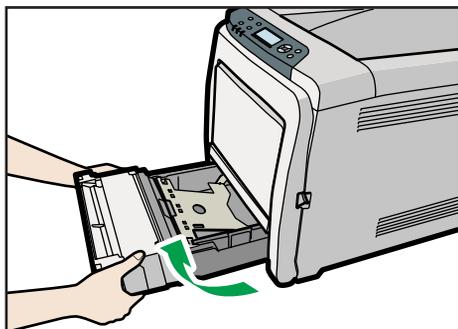
CAUTION

- Do not put your hands inside the printer when the input tray is removed. Some internal parts become hot and are a burn hazard.

Important

- Do not use chemical cleaners or organic solvents such as thinner or benzine.
1. Turn off the power switch.
 2. Pull out the plug from the socket. Remove all the cables from the printer.

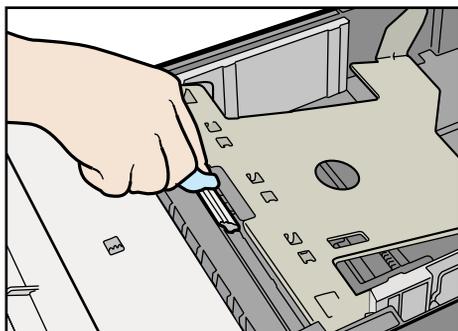
3. Lift and pull Tray 1 carefully, and then pull it out with both hands.



CBK035

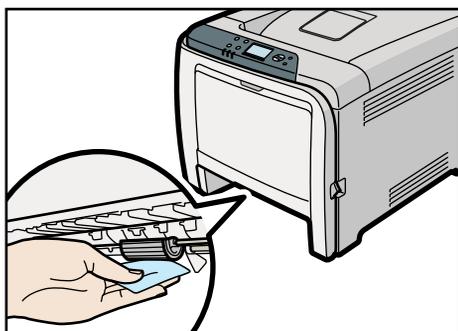
Place the tray on a flat surface. When there is paper in the tray, remove paper.

4. Wipe the friction pad with a damp cloth.



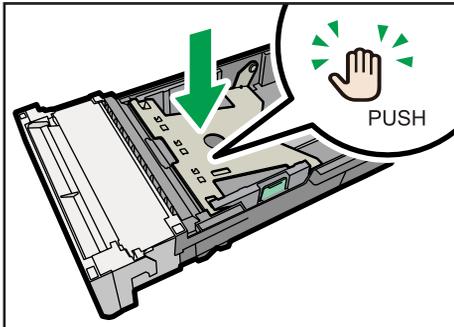
CBK181

5. Wipe the rubber part of the roller with a soft damp cloth. After that, wipe it with a dry cloth to remove the water.



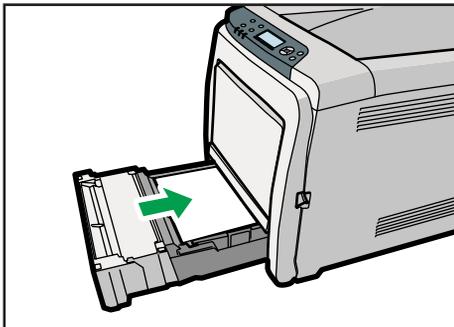
CBK182

6. Push the metal plate down until it clicks into place to lock.



CBK036

7. Slide Tray 1 along the rails, and push it carefully all the way into the printer.



CBK045

Do not slide the paper tray in with force. If you do, the front and side guides might move.

8. Insert the plug of the power cord into the wall socket securely. Connect all the interface cables that were removed.
9. Turn the power switch on.

Note

- If misfeeds or multi-feeds of paper occur after cleaning the friction pad, contact your sales or service representative.
- If the optional paper feed unit is installed, clean its friction pad and paper feed roller in the same way as those of the main paper feed unit.

Cleaning the Registration Roller and the Paper Tray

The surrounding registration roller or paper tray might get dirty with paper dust when using paper other than standard paper.

If white spots appear on the printout due to paper dust, wipe the paper tray and registration roller.

⚠ CAUTION

- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.

⚠ CAUTION

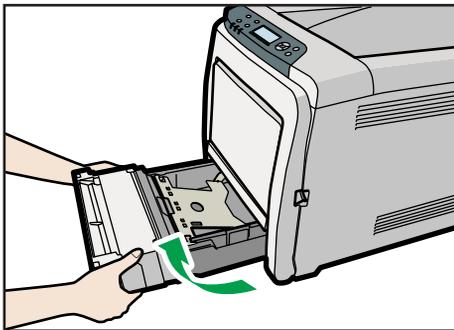
- Do not pull out the paper tray forcefully. If you do, the tray might fall and cause an injury.

⚠ CAUTION

- Do not put your hands inside the printer when the input tray is removed. Some internal parts become hot and are a burn hazard.

★ Important

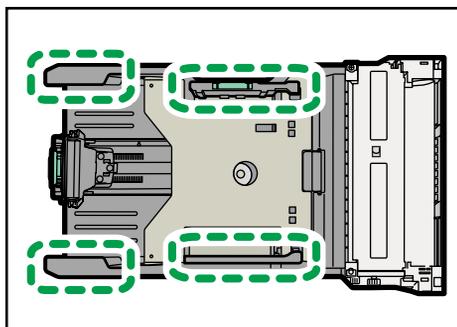
- Do not use chemical cleaners or organic solvents such as thinners or benzine.
1. Turn off the power switch.
 2. Pull out the plug from the socket. Remove all the cables from the printer.
 3. Lift and pull Tray 1 carefully, and then pull it out with both hands.



CBK035

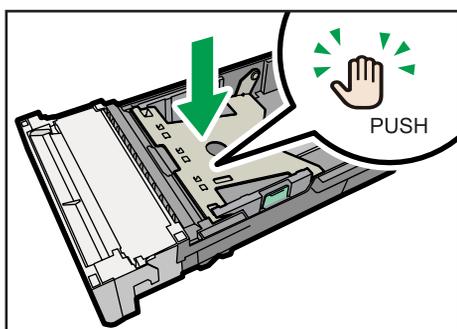
Place the tray on a flat surface. When there is paper in the tray, remove paper.

4. Wipe the inside of the paper tray with a cloth.



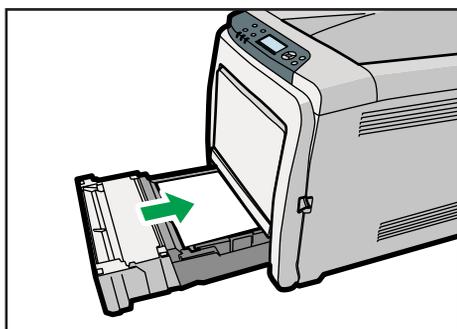
CBK184

5. Push the metal plate down until it clicks into place to lock.



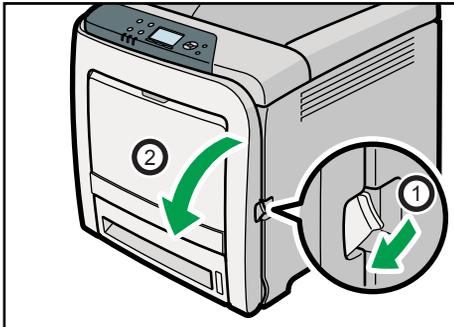
CBK036

6. Slide Tray 1 along the rails, and push it carefully all the way into the printer.



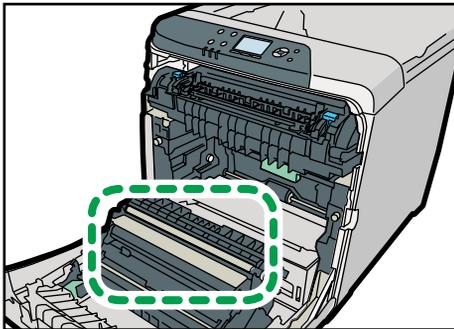
CBK045

7. Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



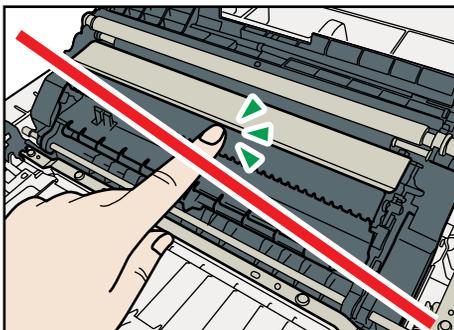
CBK130

The registration roller is set in the position shown by the illustration.



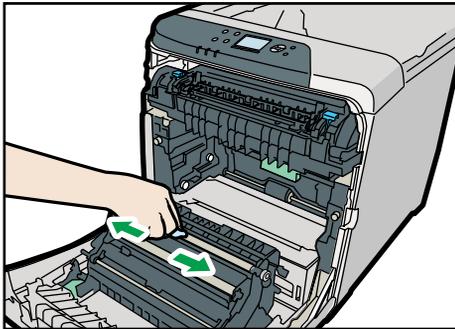
CBK185

Do not touch the transfer roller.



CBK183

8. Using a cloth, wipe the metal registration roller.



CBK232

Clean the registration roller if printed paper becomes smeared after clearing a paper jam.

9. Close the front cover with both hands carefully.



CBK156

10. Insert the plug of the power cord into the wall socket securely. Connect all the interface cables that were removed.

11. Turn on the power switch.

8. Adjusting the Printer

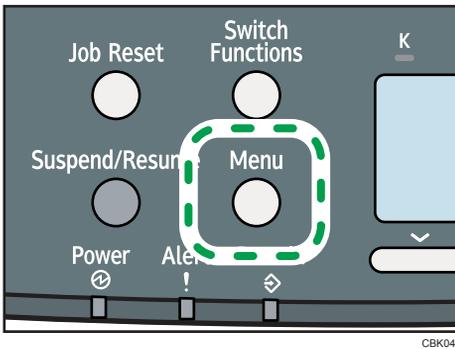
This chapter explains how to adjust the color gradations, color alignment, and print position.

Adjusting the Color Registration

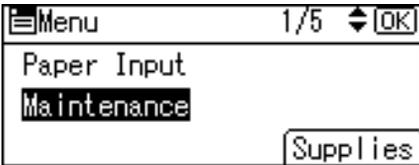
This section describes automatic color adjustment.

After moving the printer, printing on thick paper, or printing repeatedly for some time, color degradation may occur. By performing automatic color adjustment, you can restore optimum print quality.

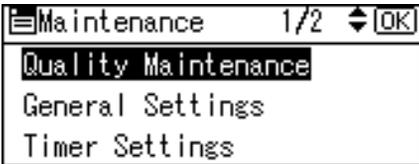
1. Press the [Menu] key.



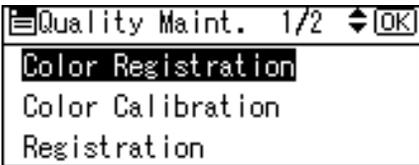
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Color Registration], and then press the [OK] key.



5. Select [Auto Adjust], and then Press the [OK] key.



6. Press [OK].

Automatic color adjustment begins.

Automatic color adjustment takes about 30 seconds.

A confirmation message appears when the adjustment is complete. Press [Exit].

7. Press the [Menu] key to return to the initial screen.

Correcting the Color Gradation

This section describes correcting the color gradation.

Color gradation during color printing can change slightly, depending on a number of factors. If you print the same file repeatedly or print cartridge was recently replaced, changes may occur in color tones. In such cases, you can obtain optimal print results by correcting the color gradation.

Corrections to color gradation are performed in the following order:

1. Print gradation correction sheet 1.
2. Adjust the parts of highlight colors.

Set the correction value.

Print the gradation correction sheet, and then check the result of the correction.

3. Print gradation correction sheet 2.
4. Adjust the parts of middle colors.

Set the correction value.

Print the gradation correction sheet, and then check the result of the correction.

5. Save the correction value.

↓ Note

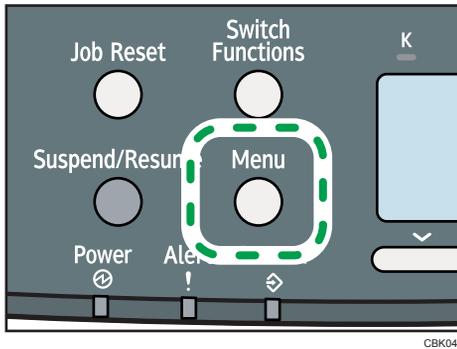
- This procedure is not necessary for general printing.
- Color deviation can occur if the machine has not been used for a long time.
- If suitable results cannot be obtained after a single operation, repeat the correction several times, as needed.
- Corrections to color gradation will be applied to all user jobs.
- Use the same type of paper when printing a run of gradation corrections. If a different type of paper is used, corrections may not be apparent.

Setting the Gradation Correction Value

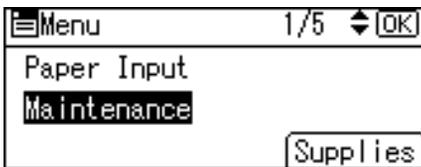
The following procedure describes adjusting the gradation correction value.

During printing, you can correct the gradation in two areas: bright part (highlight) and the medium (middle). The correction values for the highlight and the medium parts are set using [Print Test Pattern 1] and [Print Test Pattern 2] respectively.

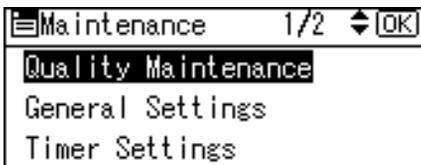
1. Press the [Menu] key.



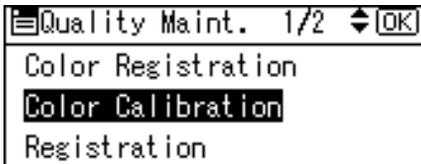
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



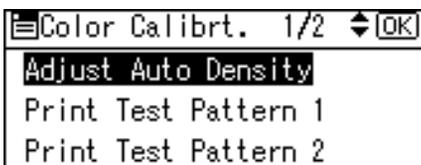
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Color Calibration], and then press the [OK] key.



5. If you want to perform only auto color adjusting, press the [▼] or [▲] key select [Adjust Auto Density], and then press the [OK] key.

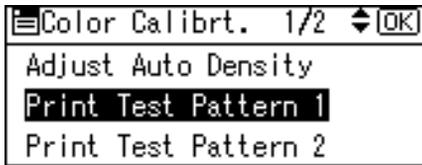


The confirmation message appears. Press [OK] to adjust Auto Density.

The confirmation message appears when complete. Press [Exit].

The display returns to the Color Calibration screen.

- In the Color Calibration menu, press the [▼] or [▲] key to select [Print Test Pattern 1] or [Print Test Pattern 2], and then press the [OK] key.



A confirmation message appears. Press [Print].

To cancel printing, press [Cancel].

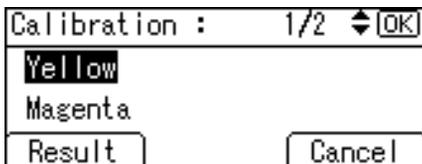
- Compare the colors printed on gradation correction sheet 1 with the colors you want to reproduce.

For details about the gradation correction sheet, see "Viewing the Gradation Correction Sheet".

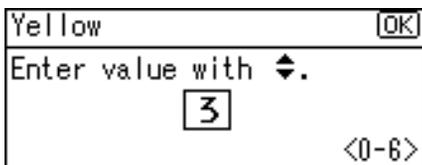
- When the selected sheet is printed, a confirmation message will appear. Press [Continue].

If you want to exit from this menu, press [Exit].

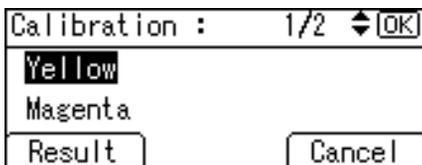
- Press the [▼] or [▲] key to select the color you want to adjust, and then press the [OK] key.



- Adjust the correction value for the selected color, and then press the [OK] key.



- Press [Result].



- Carefully look over gradation correction sheet 1, which you have just printed. Adjust the values of the colors you want to reproduce on prints so they match the colors on gradation correction sheet 1.

- After printing, press [Yes] to save the settings.

14. Select [Print Test Pattern 2] to print gradation correction sheet 2. Adjust the midtones on gradation correction sheet 2 by repeating the procedure you used to adjust the color values on gradation correction sheet 1.

15. After completing all settings, press the [Menu] key to return to the initial screen.

Reference

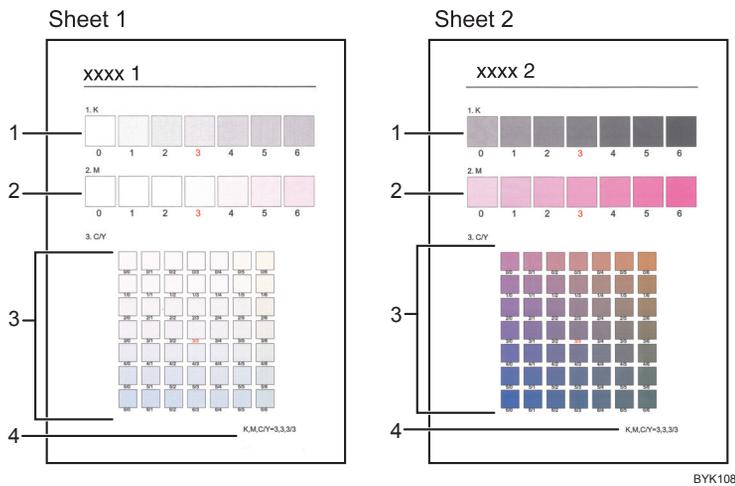
- p.194 "Viewing the Gradation Correction Sheet"

Viewing the Gradation Correction Sheet

Reading the gradation correction sheet

The printed gradation correction sheet is read as shown below.

Comparing the gradation correction sheet and correction value of each color, K (black), M (magenta), and C (cyan)/Y (yellow) determine the required gradation correction and configure settings using the control panel.



1. K (black) correction values

Used to adjust the color printed when only black toner is used. The currently set correction value is printed in red.

2. M (magenta) correction values

Used to adjust the color printed when only magenta toner is used. The currently set correction value is printed in red.

3. C (cyan)/Y (yellow) correction values

Used to correct the colors printed when cyan and yellow are used. For C/Y (cyan/yellow), the correction value is determined based on combinations of these two colors, although panel settings are configured for each color.

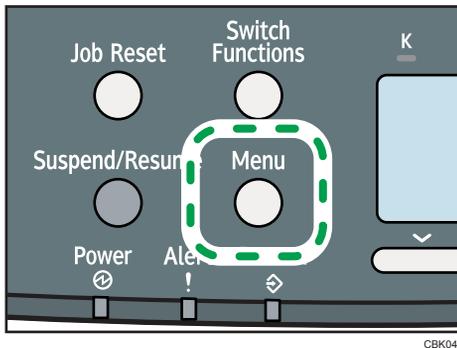
4. Setting value

The value displayed is the one currently set when the gradation correction sheet is printed. This value corresponds to the value set on the control panel.

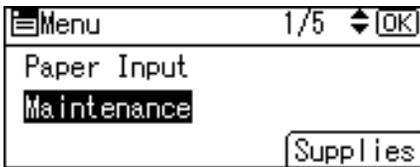
Resetting the Gradation Correction Value to the Initial Value

Reset the correction value default.

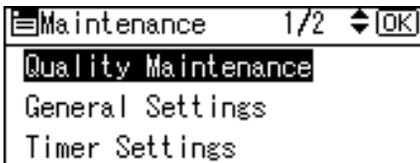
1. Press the [Menu] key.



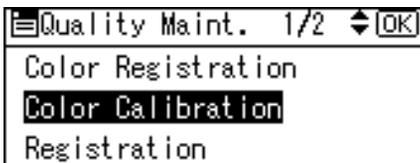
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



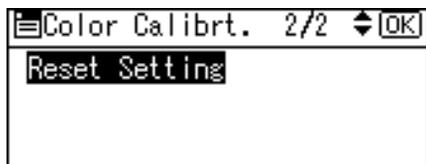
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Color Calibration], and then press the [OK] key.



5. Press the [▼] or [▲] key to select [Reset Setting], and then press the [OK] key.



A confirmation message appears.

6. Press [Yes].

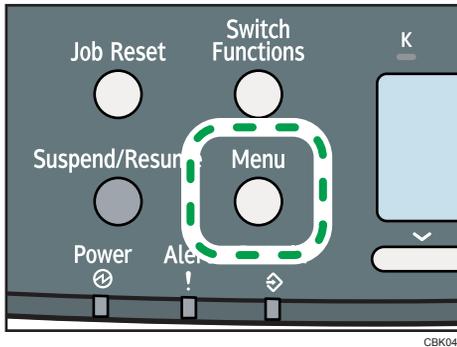
When resetting is completed, press [Exit].

7. Press [Menu] key to return to the initial screen.

Adjusting Printing Position

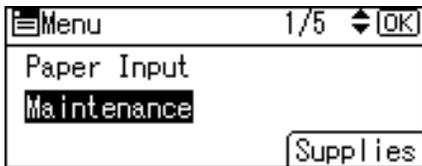
You can adjust the printing position for each tray. Only the horizontal printing position can be adjusted. "Horizontal" means perpendicular to the feed direction. Normally you do not need to update the printing position. However, updating is useful in some cases when the optional paper feed unit is installed.

1. Press the [Menu] key.

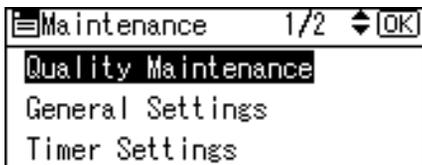


CBK049

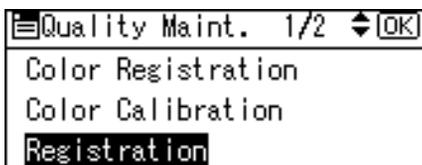
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



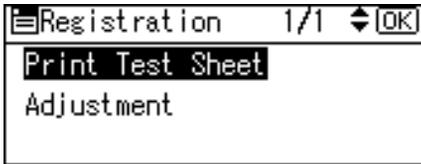
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



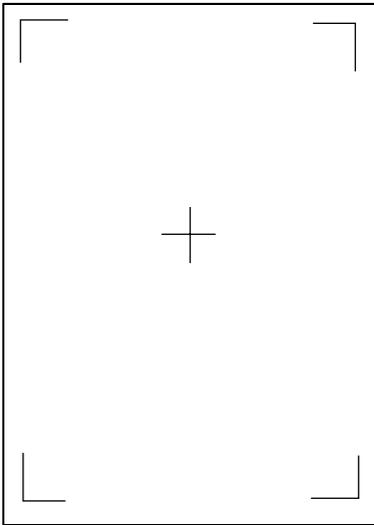
4. Press the [▼] or [▲] key to select [Registration], and then press the [OK] key.



- 5. Press the [▼] or [▲] key to select [Print Test Sheet], and then press the [OK] key.



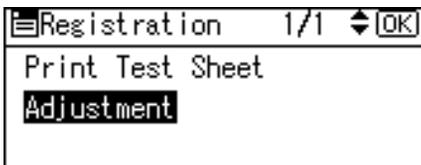
- 6. Press the [▼] or [▲] key to select the tray you want to adjust, and then press the [OK] key.
- 7. Confirm the position of the image on the test sheet, and then adjust the registration value.



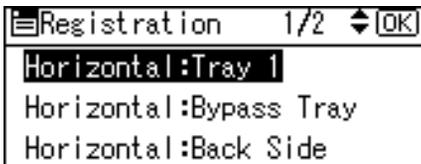
8

Use this sheet to confirm the current print position.

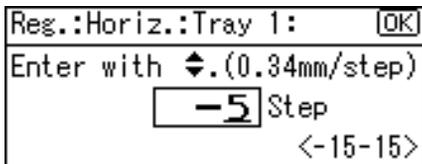
- 8. Press the [Escape] key until the screen returns to the [Registration] menu.
- 9. Press the [▼] or [▲] key to select [Adjustment], and then press the [OK] key.



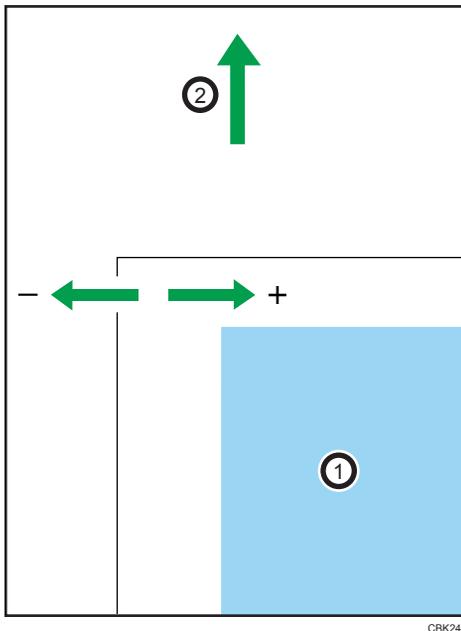
- 10. Press the [▼] or [▲] key to select the parameter you want to adjust, and then press the [OK] key.



11. Enter the value (mm), and then press the [OK] key.



Increase the value to shift the print area in the direction indicated by the "+" symbol in the diagram below. Decrease the value to shift the print area in the direction indicated by the "-" symbol.



- ①: Print Area
②: Paper Feed Direction

Pressing the [▼] or [▲] key decreases or increases the value in steps of 1.0 mm.

12. Press the [OK] key to return to the [Registration] menu.
13. Print the test sheet to confirm the adjustment result.
14. Press the [Menu] key to return to the initial screen.

9. Troubleshooting

This chapter provides solutions to common problems and it also explains how to correct unwanted print results.

Error and Status Messages Appear on the Control Panel

This section explains what the messages that appear on the control panel mean and what to do when a particular message appears.

Status Messages (in alphabetical order)

@Remote Certif. updating...

The printer is updating the @Remote certificate.

Calibrating...

The printer is calibrating the color. Wait a while.

Energy Saver Mode

The printer is in Energy Saver mode. Press any key to recover to the normal mode.

Hex Dump Mode

In Hex Dump mode, the printer receives data in hexadecimal format. Turn off the printer after printing, and then turn back on.

Job Suspended

All jobs are suspended. Turn off the printer, and turn it on again to recover.

Offline

The printer is offline and cannot print.

Please wait...

This message may appear for a few seconds. It means the printer is initializing, replenishing toner, or executing maintenance operations. Wait a while.

Printing...

The printer is printing. Wait a while.

Printing Suspended

Printing is suspended. To resume printing, press the [Suspend/Resume] key.

Ready

This is the default ready message. The printer is ready for use. No action is required.

Resetting Job...

The printer is resetting the print job. Wait a while.

Setting change...

The printer is applying the changes made to its settings. Wait a while.

Waiting for print data...

The printer is waiting for the next data to print. Wait a while.

Alert Messages (in alphabetical order)

⚠(A) Remove paper from Trays. Opn & cls Frt. Cov.

Open the front cover and remove any jammed paper. For details, see p.227 "Paper Misfeed Message (A)".

⚠(B) Open Front Cover and remove the paper.

Open the front cover and remove any jammed paper from the internal paper feed path. For details, see p.231 "Paper Misfeed Message (B)".

⚠(Y) Remove misfeed in Trays. Opn & cls Frt. Cov.

Open the front cover and remove any jammed paper. For details, see p.234 "Paper Misfeed Message (Y)".

⚠(Z) Open Front Cover and remove the paper.

Open the front cover and remove any jammed paper from the paper transfer unit. For details, see p.235 "Paper Misfeed Message (Z)".

🗑 Waste Toner almost full

The waste toner bottle is almost full. Contact your sales or service representative to obtain a new waste toner bottle.

🗑 Waste Toner Bottle full

Replace the waste toner bottle. For details, see p.154 "Replacing the Waste Toner Bottle".

@Remote Cert. update failed

Updating the @Remote certificate failed. Contact your sales or service representative.

Cannot connect=>Comm.Serv./ Check proxy user/password.

The proxy user name or password is incorrect. Check the proxy server settings, and change the user name and/or password if they are incorrect.

Cannot connect with DHCP server.(101/201)

Cannot obtain IP address from DHCP server. Consult your network administrator.

Cannot connect with NetWare print server. (107/207)

Connection with NetWare print server is unavailable.

Cannot connect with NetWare server.(106/206)

Connection with NetWare server is unavailable. Consult your network administrator.

Cannot print.

Check the file you want to print is a supported file type. Check for misfeeds and ask your network administrator for help.

Check network settings.(103/203)

The IP address setting is incorrect. Check the IP address, subnet mask, and gateway address. For details, see p.79 "Ethernet Configuration".

Classification Code Error

A classification code is not specified for the print job. Enter a classification code using the printer properties and print the document again.

For details, see "Registering Classification Codes", Software Guide.

Connect failed:WirelessCard Turn power off, check card.

Check there is a Wireless LAN board installed.

Check that it is a supported board. If it is, check it is installed correctly.

Install the correct board properly. For details, see p.57 "Installing the Interface Units".

Cover Open. Please close the indicated cover.

Close the cover indicated on the control panel.

Duplex mode is in off position for (tray name)

The duplex mode for the indicated tray is off; you can only use one-sided printing. Press [Change] to change the tray's settings, press [JobReset] to reset the job, or press [Form Feed] to force printing.

ECO Night Sensor did not turn Power Switch off. Turn switch off manually or to use, press any key.

Auto power off by the [ECO Night Sensor] function failed. Turn off the power manually, or press any key to use [ECO Night Sensor] auto power off function.

Ethernet Board Error

An error on the Ethernet board is detected. Pull out and then re-install the controller board. If the problem persists, contact your sales or service representative.

Failed to connect to server for Remote Diagnostics.

The printer cannot communicate with Remote Communication Gate. Check the connection to the Remote Server Gate.

IPv6 Address already exists Link-local Address(109/209)

The same IPv6 address already exists. Consult your network administrator.

IPv6 Address already exists Stateless Address(109/209)

The same IPv6 address already exists. Consult your network administrator.

IPv6 Address already exists Manual Config. Address (109/209)

The same IPv6 address already exists. Consult your network administrator.

Load paper in (tray name) or [Cancel] to FormFeed.

There is no paper in the specified tray. Load the specified paper in the tray, press [JobReset] to reset the job. To print from the bypass tray on paper whose width is less than 90 mm, cancel the print job, and then, under [System], set [Bypass Print: 64-90 mm] to [Active].

May have exceeded max no. of prints in output tray. Print stopped. Check the tray.

The output tray is full. Remove paper from the output tray.

Option RAM Error

The printer cannot detect an optional SDRAM module. It may be incorrectly installed.

Check if it is installed properly.

For details about installing the unit, see p.51 "Installing the Memory Expansion Units".

Parallel I/F Error

The printer's self diagnostic test failed due to a loopback error. Replace the IEEE 1284 board that caused the error. For details, see p.57 "Installing the Interface Units".

Printer Font Error.

There are problems with the printer's font file.

Contact your sales or service representative.

Problem with Hard Disk Please call service.

The printer cannot detect a hard disk. It may be incorrectly installed.

Check if it is installed properly or contact your sales or service representative.

For details about installing the unit, see p.51 "Installing the Memory Expansion Units".

Problem:Wireless board Please call service.

The printer cannot detect a Wireless LAN board failure. It may be incorrectly installed.

Check if it is installed properly or contact your sales or service representative.

For details about installing the unit, see p.57 "Installing the Interface Units".

Problem:Wireless card Please call service.

The printer cannot detect a Wireless LAN board. It may be incorrectly installed.

Check if it is installed properly or contact your sales or service representative.

For details about installing the unit, see p.57 "Installing the Interface Units".

Replacement Alert Replace Transfer Belt.

You need to replace the intermediate transfer unit. Contact your sales or service representative to obtain a new intermediate transfer unit.

See p.161 "Replacing the Intermediate Transfer Unit".

Replacemnt Requird:InfTrans

You need to replace the intermediate transfer unit. For details, see p.161 "Replacing the Intermediate Transfer Unit".

Replacmnt Rqrd:Fusing Unit

You need to replace the fusing unit. For details, see p.172 "Replacing the Maintenance Kit".

Replcmnt Requird: Print Cart

The toner has run out, or the photo conductor unit has reached the end of its service life. Replace the print cartridge. For details, see p.147 "Replacing the Print Cartridge".

Replcmnt Rqrd Soon:InfTrans

You will need to replace the intermediate transfer unit soon. Contact your sales or service representative to obtain a new unit.

Repl Requird Soon:FusingUnit

You will need to replace the fusing unit soon. Contact your sales or service representative to obtain a new unit.

Repl Soon:Prt.Cart.

The toner has almost run out, or the photo conductor unit is nearing the end of its service life. Obtain a new print cartridge.

SD Card authenticatn.failed Error recurs, call service.

Authentication from the SD card failed. Turn the power off, and then back on. If the error recurs, contact your sales or service representative.

Sensor cleaning required.

You need to clean the toner density sensor.

For details, see p.180 "Cleaning the Toner Density Sensor".

Set paper in the Bypass Tray, then press OK.

There is no paper in the bypass tray. Load paper onto the bypass tray, and then press the [OK] key.

Set the Fusing Unit correctly.

The fusing unit may not be installed correctly. Turn the printer off and re-install the fusing unit.

If the message is still displayed after re-installation, contact your sales or service representative.

For details, see p.172 "Replacing the Maintenance Kit" for fusing unit installation.

Set the Intermediate Transfer Unit correctly.

The intermediate transfer unit may not be installed correctly. Turn the printer off and re-install the intermediate transfer unit.

If the message is still displayed after re-installation, contact your sales or service representative.

For details, see p.161 "Replacing the Intermediate Transfer Unit" for intermediate transfer unit installation.

Set the Print Cartridge correctly.

The print cartridge may not be installed correctly. Turn the printer off and re-install the Print cartridge.

If the message is still displayed after re-installation, contact your sales or service representative.

For details, see p.147 "Replacing the Print Cartridge" for Print cartridge installation.

Set Waste Toner Bottle correctly.

The waste toner bottle may not be installed correctly. Turn the printer off and re-install the waste toner bottle.

If the message is still displayed after re-installation, contact your sales or service representative.

For details, see p.154 "Replacing the Waste Toner Bottle".

9

Supply order has failed.

The automatic supply order failed. The message indicates the supplies that the printer tried to order.

This NetBIOS name is already in use.(108/208)

The NetBIOS name specified for the printer is already in use by another device on the network. Consult your network administrator.

The same IPv4 Address already exists.(102/202)

The IPv4 address specified for the printer is already in use by another device on the network. Consult your network administrator.

The selected job has already been printed or deleted.

This message might appear if you print or delete a job from Web Image Monitor. Press Exit on the message screen.

USB has a problem./ Please call service.

The printer has detected a USB board failure. Turn the power off, and then on again. If the problem persists, contact your sales or service representative.

Values set for IPv6/Gateway addresses are invalid.(110/210)

The IPv6 address or gateway address is invalid. Check the network settings.

WPA Auth. incomplete.(211)

WPA authentication could not complete. Consult your network administrator.

Note

- Confirm error details by printing the Error Log. For details, see "Test Printing".

Reference

- p.43 "Test Printing"

Panel Tones

The following table explains the meaning of the various tone patterns that the printer emits to alert users about its condition.

Tone pattern	Meaning	Cause
Two long beeps.	Printer ready.	After cooling or being switched on, the printer has fully warmed up and is ready for use.
Single short beep.	Panel/screen input accepted.	A valid control panel or screen key was pressed. Single short beeps are produced only when valid keys are pressed.
Single long beep.	Job completed.	A Printer job has finished.
Four long beeps.	Printer initialized.	The screen is changing back to the initial screen after the printer came out of the energy-saving mode or was reset.
Five short beeps repeated five times.	Printer alert.	Printer requires user attention. Paper may have jammed or print cartridge may need replenishing.

9

★ Important

- Users cannot mute the printer's tone alerts. When the printer beeps to alert users of a paper jam or toner request, if the printer's covers are opened and closed repeatedly within a short space of time, the tone alert might continue, even after normal status has resumed.

Printer Does Not Print

Is the power on?

Confirm that the cable is securely plugged into both the power outlet and the printer.
Turn on the power.

Does the Alert indicator stay red?

If so, check the error message on the display and take the required action.
For details, see p.201 "Error and Status Messages Appear on the Control Panel".

Is paper loaded?

Load paper into the paper tray or onto the bypass tray.
For details, see p.119 "Loading Paper in Trays".

Can you print a configuration page?

If you cannot print a configuration page, it probably indicates a printer malfunction. Contact your sales or service representative.
For details, see p.43 "Test Printing".

Is the interface cable connected securely to the printer and the computer?

Connect the interface cable securely. If it has a fastener, fasten it securely as well.

Are you using the correct interface cable?

The type of interface cable you should use depends on the computer you use. Be sure to use the correct one.

If the cable is damaged or worn, replace it with a new one.

For details, see p.242 "Specifications".

Is the Data In indicator blinking or lit after starting a print job?

If not blinking or lit, the data is not being sent to the printer.

- If the printer is connected to the computer using the interface cable
Check the port connection setting is correct. For details about checking the port connection, see p.210 "Checking the Port Connection".
- Network Connection
Consult your network administrator.

How is the signal strength when using the Wireless LAN?

- 802.11 Ad hoc Mode
Either move to a location where the signal is good, or remove obstructions.

- Infrastructure Mode

Check the signal status in the [Wireless LAN] menu on the control panel. If the signal is poor, either move to a location where it is good, or remove obstructions.

Checking the Port Connection

When the Data in indicator does not flash or light up, check the port connection as shown below to confirm the setting.

- For a parallel port connection, the port must be set to LPT 1 or LPT 2.
 - For a USB port connection, the port must be set to USB00(n)*.
- * (n) varies depending on the number of printers connected.

Windows

Windows 2000

1. Click the [Start] button, point to [Settings], and then click [Printers].
2. Click the icon of the printer. On the [File] menu, click [Properties].
3. Click the [Ports] tab.
4. In the [Print to the following port(s)] list, confirm the correct port is selected.

Windows XP Professional or Windows Server 2003/2003 R2

1. Click the [Start] button, and then click [Printers and Faxes].
2. Click the icon of the printer. On the [File] menu, click [Properties].
3. Click the [Ports] tab.
4. In the [Print to the following port(s)] list, confirm the correct port is selected.

Windows XP Home Edition

1. Click the [Start] button, and then click [Control Panel].
2. Click [Printers and Other Hardware].
3. Click [Printers and Faxes].
4. Click the icon of the printer. On the [File] menu, click [Properties].
5. Click the [Ports] tab.
6. In the [Print to the following port(s)] list, confirm the correct port is selected.

Windows Vista or Windows Server 2008

1. Click the [Start] button, and then click [Control Panel].
2. Click [Printer].
3. Click the icon of the printer. On the [File] menu, click [Properties].
4. Click the [Ports] tab.
5. In the [Print to the following port(s)] list, confirm the correct port is selected.

Windows 7 or Windows Server 2008 R2

1. Click the [Start] button, and then click [Devices and Printers].
2. Right-click the printer icon you want to check, and then click [Printer Properties].
3. Click the [Ports] tab.
4. In the [Print to the following port(s)] list, confirm the correct port is selected.

Mac OS X

When the printer is connected to Mac OS X and the Ready indicator does not flash or light up, try the following procedures to check the port connection.

- Use [About This Mac] to check the USB information.
- Use the printer browser to check if the printer is displayed.

Using [About This Mac]

1. Click Apple Menu, and then select [About This Mac].
2. Click [More Info].
3. Under [Contents], for [Hardware], Select [USB].

Using the printer browser

1. Start [Printer Setup Utility] or [Printer Center] utility.
Under Mac OS X 10.5 or 10.6, start System Preferences and click [Print & Fax].
2. Click [Add] or [+] button.
The printer browser starts.
Confirm the printer is displayed on the browser.

Other Printing Problems

When You Cannot Print Properly

Toner smears appear on the print side of the page.

- The paper setting may not be correct. For example, you are using thick paper but the setting for thick paper might not be set.
- Check the paper settings.
- Check the printer driver's paper settings. See the printer driver Help.
- Check that the paper is not curled or bent. Envelopes can easily become curled. For details, see p.108 "Supported Paper Types"

Photo images are coarse.

- Some applications lower the resolution for making prints.
Raise the resolution in the settings of the application.

Fine dot patterns do not print.

- Change the [Dithering:] setting in the printer driver's dialog box.
For details, see the printer driver Help.

Solid lines are printed as broken lines.

- Change the [Dithering:] setting in the printer driver's dialog box.
For details, see the printer driver Help.

The whole printout is blurred.

- Using the control panel, select [System], [Anti-Humidity], and then set [Anti-Humidity Level] to [Level 2 (Medium)] or [Level 3 (Strong)].
- The paper is damp, probably due to improper storage. Use dry paper that has been stored properly.
For details, see p.108 "Supported Paper Types".
- If you select [On] for [Economy Color:] on the [Print Quality] menu in the printer properties dialog box, print will be at lower density.
For details, see the printer driver Help.
- Print cartridge is almost depleted. When the "Replcmnt Reqrud: Print Cart" / "(color)", or "Repl Soon:Prt.Cart." / "(color)" message appears on the display panel, or the toner indicator on the initial screen shows empty, replace the print cartridge with new print cartridge of the appropriate color.
For details, see p.147 "Replacing the Print Cartridge".
- Condensation may have collected. If rapid change in temperature or humidity occurs, use this printer only after it has acclimatized.

Color shift occurs.

- If the colors are not as you require them, perform [Color Registration].
For details, see p.189 "Adjusting the Color Registration".

Speckling occurs in areas of solid black print.

- Select [CMY + K] for [Gray Reproduction (Text/Line Art):] in the printer driver's dialog box.
For details, see the printer driver Help.

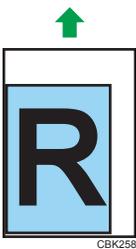
Colors are faded or missing from the bottom part of an image.

- Turn the printer off and re-install the print cartridge.
For details, see p.147 "Replacing the Print Cartridge".

White streaks or color streaks appear.

- Print cartridge is almost depleted. When the "Replcmnt Requird: Print Cart" / "(color)", or "Repl Soon:Prt.Cart." / "(color)" message appears on the display panel, or the toner indicator on the initial screen seems empty, replace the print cartridge of the displayed color.
For details, see p.147 "Replacing the Print Cartridge".
- The paper is damp. Use paper that has been stored at a suitable temperature and humidity.
Specks of paper may be attached to the registration roller. Clean the registration roller.
For details, see p.185 "Cleaning the Registration Roller and the Paper Tray".

Images are not printed in the right position.



- Adjust the printing position.
Adjust the printing position for each tray by specifying the adjustment values for [Registration] in [Quality Maintenance] under [Maintenance] using the control panel. For details, see p.197 "Adjusting Printing Position".
- Adjust the front end paper guide and both side paper guides to match the paper size. See p.119 "Loading Paper in Trays".

Images are printed at an angle.



- Adjust the front end paper guide and both side paper guides to match the paper size. See p.119 "Loading Paper in Trays".

White lines appear.



- The intermediate transfer belt is dirty.

Follow the procedure below to clean the belt:

- ① Open the top cover while the power is on.
- ② Remove all print cartridges from the printer.
- ③ Close the top cover with both hands carefully.

The printer performs cleaning automatically. The cleaning process takes approximately 10 seconds.

- ④ When cleaning finishes, open the top cover and reinsert all the print cartridges.

If this procedure does not resolve the problem, contact your sales or service representative.

Horizontal lines appear on the printed paper.

- Impact can cause lines to appear on printed paper and other malfunctions.

Protect the printer from impact at all times, especially while it is printing.

- If lines appear on prints, turn the printer off, wait a few moments, and then turn it back on again. Then, repeat the print job.

The backs of printed sheets are blemished.

- When removing a jammed sheet, the inside of the printer may have become dirtied. Print several sheets until they come out clean.

- If document size is larger than paper size, e.g. A4 document on B5 paper, the back of the next printed sheet may be dirtied.

If rubbed with your finger, it smears out.

- The setting of the paper may not be correct. For example, although thick paper is used, the setting for thick paper may not be set.
 - Check the paper settings of this printer.
For details, see p.108 "Supported Paper Types".
 - Check the paper settings of the printer driver.
For details, see the printer driver Help.
- The fusing unit is deteriorated or damaged. Replace the unit.
For details, see p.172 "Replacing the Maintenance Kit".

When printing on plain paper, white dots are obvious.

- The registration roller or the paper tray is dirty. Clean the registration roller or the paper tray.
For details, see p.185 "Cleaning the Registration Roller and the Paper Tray".

After replacing a color print cartridge, colorless dots appear in solid color printouts.

- Select "Recycled Paper" in the paper type settings.
See p.131 "Specifying a paper type for standard or optional paper feed tray" or p.137 "Specifying a paper type for the bypass tray".

Paper Misfeeds Occur Frequently

Paper jams occur frequently.

- Number of paper set in the tray exceeds the limit. Confirm that the top of the stack is not higher than the limit mark inside the tray.
For details, see p.105 "Supported Paper for Each Tray".
- There may be a gap between the front guide and the paper, or between the side guides and the paper in the paper tray. Make sure there are no gaps.
For details, see p.105 "Supported Paper for Each Tray".
- Paper is either too thick or too thin.
For details, see p.108 "Supported Paper Types".
- Paper is bent or wrinkled. Use paper that have no bents or wrinkles.
For details, see p.108 "Supported Paper Types".
- Paper has already been printed on.
For details, see p.108 "Supported Paper Types".

- Paper is damp. Use paper that has been stored properly.
For details, see p.108 "Supported Paper Types".
- When loading paper, separate paper from each other.
- The friction pad or paper feed roller or registration roller may be dirty. Clean the pertinent section as necessary. See p.182 "Cleaning the Friction Pad and the Paper Feed Roller" and p.185 "Cleaning the Registration Roller and the Paper Tray".
- The paper setting may not be correct. For example, although you are using thick paper, the setting for thick paper may not be set.
Check the printer driver's paper settings. See the printer driver Help.

Multiple pages are fed at once.

- There may be a gap between the front end paper guide and the paper, or between the paper guides on both sides and the paper in the paper tray. Be sure to close any gaps by repositioning the guides. See p.119 "Loading Paper in Trays".
- Paper is either too thick or too thin.
For details, see p.108 "Supported Paper Types".
- Paper has already been printed on.
For details, see p.108 "Supported Paper Types".
- Number of paper set in the tray exceeds the limit. Confirm that the top of the stack is not higher than the limit mark inside the tray.
For details, see p.105 "Supported Paper for Each Tray".
- Paper is static. Use paper that has been stored properly.
For details, see p.108 "Supported Paper Types".
- When loading paper, separate paper from each other.
- The friction pad or paper feed roller may be dirty. Clean the pertinent section as necessary.
See p.182 "Cleaning the Friction Pad and the Paper Feed Roller"
- Check that paper has not been added while there is still some left in the tray.
Only add paper when there is none left in the tray.

Paper gets wrinkles.

- Paper is damp. Use paper that has been stored properly.
For details, see p.108 "Supported Paper Types".
- Paper is either too thick or too thin.
For details, see p.108 "Supported Paper Types".
- There may be a gap between the front guide and the paper, or between the side guides and the paper in the paper tray. Make sure there are no gaps.

For details, see p.105 "Supported Paper for Each Tray".

- The fusing unit is deteriorated or damaged. Replace the unit.

For details, see p.172 "Replacing the Maintenance Kit".

The printed image is different from the image on the computer

A printed image is different from the image on the computer's display.

- When you use some functions, such as enlargement or reduction, the layout of the image might be different from that displayed on the computer display.

Images are cut off, or excess pages are printed.

- If you are using paper smaller than the paper size selected in the application, use the same size paper as that selected in the application. If you cannot load paper of the correct size, use the reduction function to reduce the image, and then print.

For details, see the printer driver Help.

PDF Direct Print is not executed (PDF file is not printed).

- You must install an optional hard disk drive or set the value of [RAM Disk] in the System Menu to 2 MB or higher.

For details about [RAM Disk], see "System Menu", Software Guide.

- After adding a memory unit and setting the value of [RAM Disk] in the System Menu to 8 MB, value of [RAM Disk] returns to 0 MB if the memory unit is removed. If this happens, reset the value of [RAM Disk] to 2MB or higher.

For details about [RAM Disk], see "System Menu", Software Guide.

- When printing a PDF with a password set, set the password of the PDF file using the [Change PDF Password] menu in [PDF Menu] or Web Image Monitor. For details about [Change PDF Password], see "PDF Menu", Software Guide.

For details about Web Image Monitor, see Web Image Monitor Help.

- PDF files not allowed to be printed by the PDF file security setting cannot be printed.

- Highly compressed PDFs cannot be printed using PDF Direct Print.

Open the relevant application and print the PDF file using the printer driver.

Set the file format to standard PDF.

As a result of printing using PDF Direct Printing, characters are missing or misshapen.

- Before printing, embed the font in the PDF file to be printed.

The paper size appears on the control panel and printing is not performed with PDF Direct Print.

- When using PDF Direct Print, printout requires paper set within the PDF file. When a message indicating a paper size appears, either place the indicated size in the paper tray, or perform Form Feed.
Also, if [Sub Paper Size] in the [System] Menu is set to [Auto], printing is performed assuming letter size and A4 size to be the same size. For example, When a PDF file set to A4 size paper is printed using PDF Direct Print and letter size paper is loaded in the paper tray, the file will be printed out. This applies similarly to the opposite case.

The color of the printout is different from the color on the computer's display.

- The colors made using color toner are different from colors displayed on the display in its production system.
- If you select [On] for [Economy Color:] on the [Print Quality] menu in the printer driver's dialog box, the color gradation may appear differently.
For details, see the printer driver Help.
- Turn off the main power, and then turn it back on. If the colors are not as you require them, perform [Color Registration].
For details, see p.189 "Adjusting the Color Registration".

The color of the printout is different from the color specified.

- If a specific color is omitted, turn the printer off, wait a few moments, and then turn it back on again. If this does not solve the problem, contact your sales or service representative.

Color changes extremely when adjusted with the printer driver.

- Do not make extreme settings for the color balance on the "Print Quality" tab in the printer driver's dialog box.
Note that the sample image displayed in the printer driver is used only to show what processing will be performed, so may not match the print results.
For details, see the printer driver Help.

Color documents are printed in black and white.

- The printer driver is not set up for color printing.
For details, see the printer driver Help.
- Some applications print color files in black and white.

Solid areas, lines or text are shiny or glossy when created as a mixture of cyan, magenta, yellow.

- Select [K (Black)] for [Gray Reproduction (Text/Line Art):] in the printer driver's dialog box.
For details, see the printer driver Help.

Black gradation is not natural.

- Select [CMY + K] for [Gray Reproduction (Text/Line Art):] in the printer driver's dialog box.
For details, see the printer driver Help.

A color is missing or partially blurred.

- Paper is damp. Use paper that has been stored properly.
For details, see p.119 "Loading Paper in Trays".
- Print cartridge is almost depleted. When the "Replcmnt Requird: Print Cart" / "(color)", "Repl Soon:Prt.Cart." / "(color)" message appears on the display panel, or the toner indicator on the initial screen seems empty, replace the print cartridge of the displayed color.
For details, see p.147 "Replacing the Print Cartridge".
- Condensation may have collected. If rapid change in temperature or humidity occurs, use this printer only after it has acclimatized.

Printed text appears blurred.

If text printed using the PCL 5c or PCL6 printer driver appears blurred, select [On] for [PCL Char.Thickness Adjust] in [Machine Modes] under [Print Settings].

When Printer is Not Functioning Properly

Paper is not fed from the selected tray.

- When you are using a Windows operating system, the printer driver settings override those set using the control panel. Set the desired input tray using the printer driver.
For details, see the printer driver Help.

Prints do not stack properly.

- Paper is damp. Use paper that has been stored properly.
See p.108 "Supported Paper Types".
- Pull out the extender.
- Using the control panel, select [System], [Anti-Humidity], and then set [Anti-Humidity Level] to [Level 2 (Medium)] or [Level 3 (Strong)].
Note that the first print takes longer than subsequent prints to complete.
See the printer driver help.
- Raise the appropriate stop fence (forward fence for A4, rear fence for legal size prints).
See, p.15 "Exterior: Front View".

It takes too much time to turn on the printer.

- If the printer is turned off while it is still accessing the hard disk (for example: during file deletion), the printer will require more time to power-up the next time it is turned on. To avoid this time delay, do not turn the power off while it is in operation.

It takes too much time to resume printing.

- The data is so large or complex that it takes time to process it. If the data in indicator is blinking, the data is being processed. Just wait until it resumes.
- The printer was in the Energy Saver mode. To resume from the Energy Saver mode, the printer has to warm up, and this takes time until printing starts. To disable the Energy Saver mode, select [Off] for [Energy Saver On/Off] in the [System], [Energy Saver] menu.

It takes too much time to complete the print job.

- Photographs and other data intensive pages take a long time for the printer to process, so simply wait when printing such data.

Changing the settings with printer driver may help to speed up printing.

For details, see the printer driver Help.

- The data is so large or complex that it takes time to process it. If the data in indicator is blinking, the data is being processed. Just wait until it resumes.
- If "Waiting for print data..." appears on the display, the printer is now warming up. Wait for a while.
- The printer is adjusting the color registration. Wait for a while.

Prints fall behind the machine when they are output.

- Raise the appropriate stop fence (forward fence for A4, rear fence for legal size prints).

See, p. 15 "Exterior: Front View".

With Windows 2000/XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, attached options are not detected.

- The computer and printer are not in two-way communication. You must configure attached options in the printer properties.

For details, see the printer driver Help.

If the problem cannot be solved, contact your sales or service representative.

With Windows 2000/XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, when doing aggregate prints or bound prints.

- Check that the paper size and direction set in the [Menu] tab of the printer driver are the same as those set in the application.

If the settings are not the same, change the settings of the printer driver.

Some complex images do not print out on large custom size paper, such as paper with a length of 1260 mm.

- If the image prints out when a lower resolution is set, the printer does not have enough memory to process the image. To print the image at higher resolution, install the optional memory.

An empty tray is selected by Auto Tray Select, and the document does not print out due to out of paper error.

- If a paper tray is opened and closed while the printer is in Energy Saver mode, the printer will initialize the tray upon recovery, but the tray will not be selectable by Auto Tray Select.

To print from a paper tray that you have opened and closed while the printer was in Energy Saver mode, you must manually specify the tray as the source paper tray before printing. When the printer recovers from Energy Saver mode and completes initialization, it will then print the document from the tray you have specified.

Additional Troubleshooting

Strange noise is heard.

- If a supply was recently replaced or an option attached in the area the strange noise is coming from, check the supply or option is properly attached. If the strange noise persists, contact your sales or service representative.

No e-mail is received when an Alert occurs, and after resolving an Alert.

- Confirm [Auto E-mail Notify] is active in the [System] Menu on the Control Panel. See "System Menu", Software Guide.
- Access the printer through a Web browser, log in as an Administrator on Web Image Monitor, and then confirm the following settings in [Auto E-mail Notification]:
 - Device E-mail Address
 - Groups to Notify
 - Select Groups/Items to Notify

For details about the settings, see Web Image Monitor Help.

- Access the printer through the Web browser, log in as an Administrator on the Web Image Monitor, and then confirm the settings of the SMTP server in [E-mail]. For details about the settings, see Web Image Monitor Help.
- When the power is turned off before the e-mail is transmitted, the e-mail will not be received.
- Check the e-mail address set for the destination. Confirm the printer's operation history using Web Image Monitor's System Log menu in [Network]. If the e-mail was sent but not received, it is possible the destination was incorrect. Also check the information concerning error mail from the e-mail server.

9

The setting for [Auto E-mail Notify] on the System Menu was changed from [Off] to [On], but e-mail is not arriving.

- After changing the setting, turn the printer's power off and then back on again.

Error notification e-mail was received, but no error-solved e-mail is received.

- Check e-mail is set for sending using Web Image Monitor's [Auto E-mail Notification] at the time the error was fixed. You must click the [Edit] button of [Detailed Settings of Each Item] in [Auto E-mail Notification], and set [Notify when error:] to [Occurs & Fixed] on the displayed screen.

For details about the settings, see Web Image Monitor Help.

Alert Resolving is set for sending e-mail, but no Alert-resolved e-mail is sent.

- If the power of the printer is turned off after an alert occurs, and the alert is resolved during the time the power is off, no Alert-resolved e-mail is sent.

Alert Occurrence and Alert Resolving are set for sending e-mail, but while no Alert Occurrence mail is received, Alert-resolved e-mail is received.

- Alert-notification e-mail is not sent if the problem is resolved before sending. However, an Alert-resolved e-mail is sent.

Alert-notification level was changed, and e-mail stopped arriving.

- If an Alert-notification e-mail, set with the earlier notification level, arrives, later e-mail will not be sent, even if the notification level is changed after.

When no date information is included in sent e-mail, the mail server has a malfunction.

- Configure the setting for obtaining time information from the SNTP server. Refer to Web Image Monitor's Help to the settings.

Note

- If the printer is still not operating satisfactorily, contact your sales or service representative. Consult with the store where the printer was purchased for information about the location of sales or service representatives.

10. Removing Misfed Paper

This chapter explains how to remove misfed paper.

When Paper is Jammed

An error message appears if a paper misfeed occurs. The error message gives the location of the misfeed. Check the location and remove the paper.

CAUTION

- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.

CAUTION

- Some of this machine's internal components get very hot. For this reason, take care when removing misfed paper. Not doing so could result in burns.

CAUTION

- When removing jammed paper or replacing toner, avoid getting toner (new or used) on your clothing. If toner comes into contact with your clothing, wash the stained area with cold water. Hot water will set the toner into the fabric and make removing the stain impossible.

CAUTION

- When removing jammed paper or replacing toner, avoid getting toner (new or used) on your skin. If toner comes into contact with your skin, wash the affected area thoroughly with soap and water.

Important

- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer. This might cause a misfeed and damage the printer.
- When paper is misfed a number of times, the following are possible causes.
 - The control panel settings do not match the size or orientation of the loaded paper.
 - The paper feed roller is dirty.
- For details about cleaning the paper feed roller, see "Cleaning the Friction Pad and the Paper Feed Roller".
- Misfed paper may be covered with toner. Be careful not to get toner on your hands or clothes.
- Toner on prints made after removing misfed paper may be loose (inadequately fused). Make a few test prints until smudges no longer appear.

- Paper jams can cause pages to be lost. Check your print job for missing pages and reprint any pages that did not print out.
- Remove the paper from the bypass tray before opening the front cover.
- If a misfeed occurs when using the bypass tray, open the front cover, and then remove the misfed paper.
- If paper is still misfed after you have checked the above-mentioned causes, contact your sales or service representative.

Reference

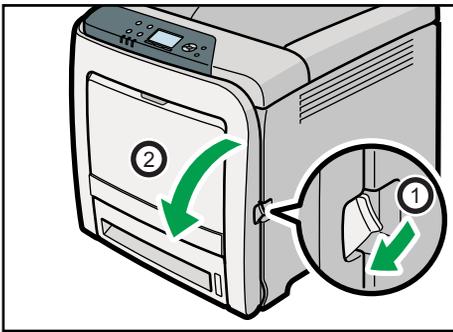
- p.182 "Cleaning the Friction Pad and the Paper Feed Roller"

Paper Misfeed Message (A)

The "Error (A) Remove paper from Trays. Opn & cls Frt. Cov." error message appears when a paper misfeed occurs in the standard paper feed tray.

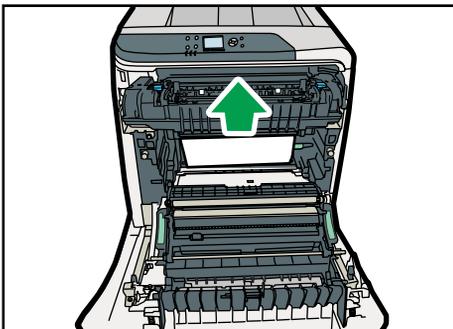
Misfeed Tray 1

1. Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



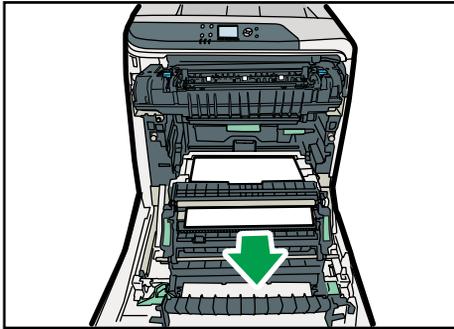
CBK130

2. Carefully pull the jammed paper upward and out.



CBK194

If paper has jammed inside the paper transfer unit, holding both sides of the paper, pull the paper carefully forward and out.



CBK195

3. Close the front cover with both hands carefully.



CBK196

Note

- Do not pull out the paper tray (Tray 1).
- If paper is jammed in Tray 2, but it is difficult to locate, pull out Tray 2 to remove it. After removing the paper, carefully push Tray 2 all the way back inside the printer.
- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error is cleared.

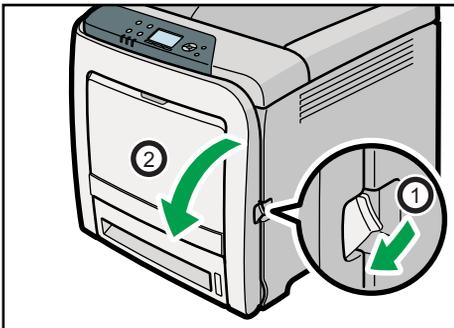
Misfeed Bypass Tray

1. Remove paper loaded in the bypass tray, and then close the bypass tray with both hands.



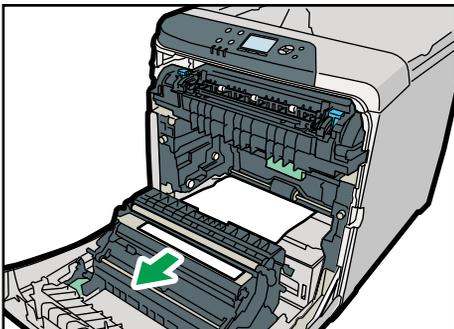
CBK197

2. Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



CBK130

3. Pull out the jammed paper carefully.



CBK198

4. Close the front cover with both hands carefully.



CBK156

↓ Note

- Be sure the Tray 1 is inserted before you open the front cover.
- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error is cleared.

Paper Misfeed Message (B)

The "8(B) Open Front Cover and remove the paper." error message appears when a paper misfeed occurs in the internal paper feed path.

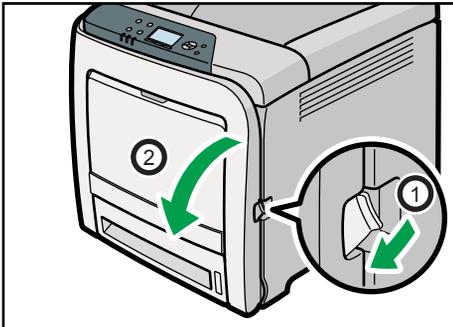
⚠ CAUTION

- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.

★ Important

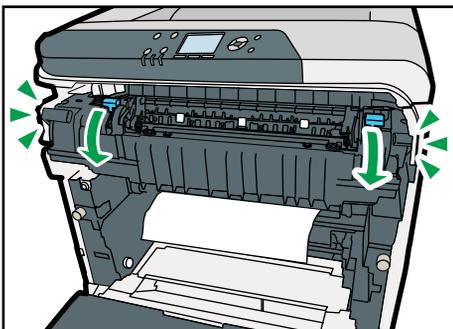
- The inside of this printer becomes very hot. Before removing paper around the fusing unit, wait until the temperature of the covers inside the fusing unit and paper transfer unit cool down.

1. Pull Front Cover Open Lever, and then open the front cover with both hands carefully.

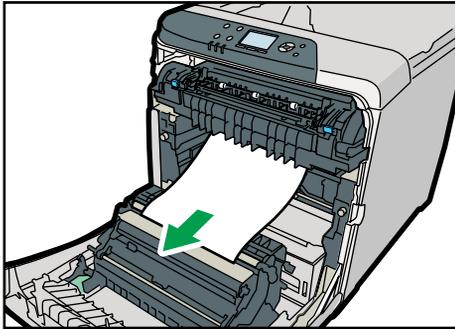


CBK130

2. Lower the blue fusing unit levers, and pull out the jammed paper carefully.



CBK191

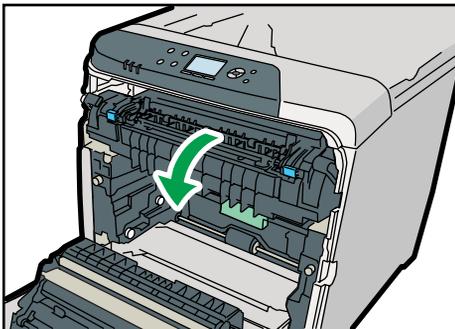


CBK192

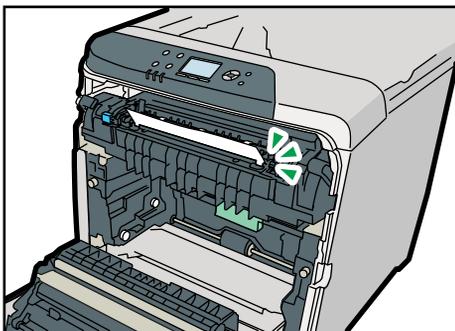
Pull the paper downward to remove it. Do not pull it upward.

If the jammed paper is visible in the output tray, lower the blue fusing unit levers, and then pull the jammed paper out of the tray.

If you cannot find the jammed paper, open the guide by lowering the guide's blue levers. Check inside the guide for the jammed paper.



CBK193



CBK244

Be sure to fully close the guide after you have checked inside it for jammed paper.

Attempting to close the front cover when the guide is still open will damage one or both of these components.

3. Close the front cover with both hands carefully.



CBK156

Note

- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error has cleared.

Paper Misfeed Message (Y)

"%r(Y) Remove misfeed in Trays. Opn & cls Frt. Cov." appears when a paper jam has occurred in Tray 2.

Open the front cover and remove the paper following the same procedure as for Tray 1.

Reference

- p.227 "Paper Misfeed Message (A)"

Paper Misfeed Message (Z)

The "8v(Z) Open Front Cover and remove the paper." error message appears when a paper misfeed occurs inside the paper transfer unit.

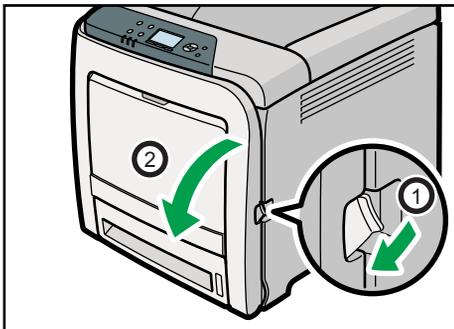
CAUTION

- Some of this machine's internal components get very hot. For this reason, take care when removing misfed paper. Not doing so could result in burns.

Important

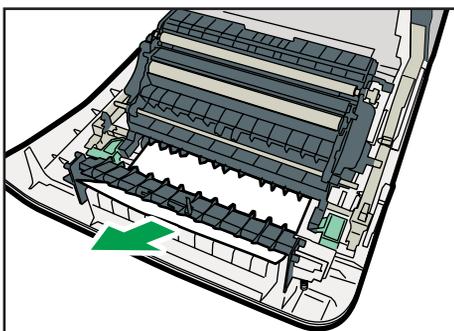
- The inside of this printer becomes very hot. Before removing paper from the area around the fusing unit, wait until both the fusing unit and the paper transfer unit have cooled down.

1. Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



CBK130

2. Carefully remove misfed paper under the paper transfer unit.



CBK196

If you cannot find the misfed paper, look inside the printer.

3. Close the front cover with both hands carefully.



CBK156

Note

- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error has cleared.

11. Appendix

This section explains maintenance and operation procedures for this printer. It also describes the specifications of the printer and its options.

Moving and Transporting the Printer

WARNING

- If the machine topples, or if a cover or other part gets broken, you must turn the power switch to off and disconnect the power cord plug from the wall outlet. Then contact your service representative and report the problem. Do not use the machine. Doing so could result in fire or electric shock.

CAUTION

- The printer weighs approximately 29 kg (64.0 lb.). When moving the printer, use the inset grips on both sides, and lift slowly in pairs. The printer will break or cause injury if dropped.

CAUTION

- When disconnecting the power cord from the wall outlet, always pull the plug, not the cord. Pulling the cord can damage the power cord. Use of damaged power cords could result in fire or electric shock.

CAUTION

- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, take care that the power cord is not damaged under the machine. Failing to take these precautions could result in fire or electric shock.

CAUTION

- When moving the printer after use, do not take out any of the toners, nor the waste toner bottle to prevent toner spill inside the printer.

Important

- Be sure to disconnect all cables from the printer before transporting it.
- The printer is a piece of precision machinery. Take care to avoid damage during transportation.
- If optional paper feed units are attached, remove them from the printer and move them separately.

Repack the printer using its original packaging for transporting.

Note

- The printer weighs approximately 29 kg (64.0 lb.).

Moving the Printer in a Short Distance

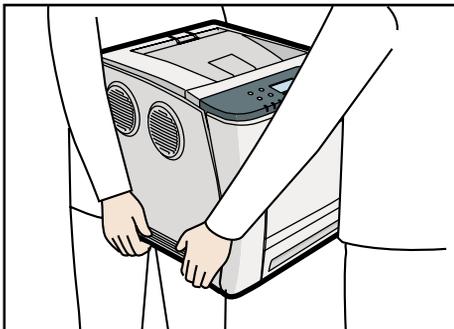
1. Be sure to check the following points:

- The power switch is turned off.
- The power cord is unplugged from the wall outlet.
- The interface cable is unplugged from the printer.

2. If any external options are attached, remove them.

See the relevant sections in this manual and reverse the steps to remove options.

3. Lift the printer with two people by using the inset grips on both side of the printer, and then move it horizontally to the place where you want to install it.



CBK027

4. If you removed options, reattach them.

For details, see the relevant sections in this manual.

Note

- Be sure to move the printer horizontally. To prevent toner from scattering, move the printer slowly.

Consumables

CAUTION

- Our products are engineered to meet the highest standards of quality and functionality. When purchasing expendable supplies, we recommend using only those specified by an authorized dealer.

Print Cartridge

Print cartridge	Average number of pages printable per cartridge ^{*1}
Black	2,500 pages
Black (High yield)	6,500 pages
Cyan	2,500 pages
Cyan (High yield)	6,000 pages
Magenta	2,500 pages
Magenta (High yield)	6,000 pages
Yellow	2,500 pages
Yellow (High yield)	6,000 pages

* 1 The printable number of pages is based on pages that are compliant with ISO/IEC 19798 and the image density set as the factory default. ISO/IEC 19798 is an international standard on measurement of printable pages, set by the International Organization for Standardization.

The number of printable pages varies depending on which of the two different types of print cartridge you have installed.

Note

- If print cartridges are not changed when necessary, printing will become impossible. We recommend keeping a stock of bottles or purchasing them soon.
- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity. Depending on the environment in which the printer is being used, a print cartridge might last only half as long as its expected life time.
- If you seldom make color prints, we recommend you set [B&W Print Priority] to [On] (under [System]).

- Print cartridges may need to be changed sooner than indicated above due to deterioration over the period of use.
- Print cartridges (consumables) are not covered by warranty. However, if there is a problem, contact the store where they were purchased.
- When you first use this printer, use the four print cartridges packaged with the printer.
- The supplied print cartridge is good for approximately 2,500 pages.
- This printer routinely performs cleaning and uses toner during operation to maintain quality.
- To prevent a cleaning malfunction, you may need to replace a print cartridge even if it is not empty.
- If the toner has run out but you urgently need to continue printing, it might be possible to continue printing for a few more pages. For details, see p.147 "Replacing the Print Cartridge".

Waste Toner Bottle

Name	Average printable number of pages ^{*1}
Waste Toner Bottle SP C310	55,000 pages

*1 A4/letter 5% test chart, 3 pages / job, printing in 50% monochrome/color.

↓ Note

- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- If the waste toner bottles are not changed when necessary, printing will become impossible. We recommend keeping a stock of bottles or purchasing them soon.

Intermediate Transfer Unit

Name	Average printable number of pages ^{*1}
Transfer Unit SP C310	90,000 pages

*1 A4/letter 5% test chart, 3 pages / job, printing in 50% monochrome/color.

↓ Note

- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.

- If the intermediate transfer unit are not changed when necessary, printing will become impossible. We recommend keeping a stock of bottles or purchasing them soon.

Maintenance Kit

Name	Average printable number of pages ^{*1}
Maintenance Kit SP C320 (includes a fusing unit and transcription roller)	90,000 pages

*1 A4/letter 5% test chart, 3 pages / job, printing in 50% monochrome/color.

↓ Note

- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- The maintenance kit are not covered by warranty. However, if there is problem, contact the store where they were purchased.

Specifications

WARNING

- The supplied power cord is for use with this machine only. Do not use it with other appliances. Doing so could result in fire, electric shock, or injury.

Mainframe

Configuration:

Desktop

Print Process:

Laser beam scanning & Electrophotographic printing

4 drums tandem method

First Print Speed:

Monochrome: 13.5 sec or less (A4  or 8 1/2 " × 11 " (Letter) , 600 × 600 dpi)

Color: 13.5 sec or less (A4  or 8 1/2 " × 11 " (Letter) , 600 × 600 dpi)

Note that if the printer has not been used for some time, there may be a short delay before the first page starts printing.

Printing Speed:

Monochrome:

- maximum 25 pages per minute (A4 )
- maximum 26 pages per minute (8 1/2 " × 11 " (Letter) )

Color:

- maximum 25 pages per minute (A4 )
- maximum 26 pages per minute (8 1/2 " × 11 " (Letter) )

Printing speed may vary depending on the setting up environment.

Resolution:

600 × 600 dpi Speed (1 bit)

600 × 600 dpi Standard (2 bits)

1200 × 1200 dpi (1 bit)

Paper Size:

For details, see p.105 "Supported Paper for Each Tray".

Paper Weight:

For details, see p.105 "Supported Paper for Each Tray".

Media Type:

For details, see p.108 "Supported Paper Types".

Paper Output Capacity:

Standard 150 sheets (80 g/m², 20 lb.)

Paper Input Capacity

Tray	Paper capacity
Standard Paper Tray	500 sheets *1
Bypass Tray	100 sheets *1
Optional Paper Feed Units	500 sheets *1

*1 Paper weight: 80 g/m² (20 lb. bond)

Power Source:

-  **Region A** (mainly Europe and Asia)
220-240 V, 50/ 60 Hz, 6 A or less
-  **Region B** (mainly North America)
120 V, 60 Hz, 11 A or less

Power Consumption:

Printing	1300 W or less
Panel Off mode	45 W or less
Auto Off mode (sleep mode)	5.5 W or less

Warm-up Time:

Less than 20 seconds (23 °C, 71.6 °F) *1

*1 When no error is occurred.

Dimensions (W × D × H):

Printer only (tray not extended): 400 × 480 × 387 mm (15.8 × 18.9 × 15.2 inches)

With Hard Disk: 400 × 502 × 387 mm (15.8 × 19.8 × 15.2 inches)

Weight:

Approximately 29 kg (64.0 lb.) (Toner included)

Noise Emission: *1

- Sound Power Level
 - Main unit only

Stand-by	Less than 39 dB (A)
Printing	B&W : Less than 61 dB (A) Color: Less than 62 dB (A)

- Complete system

Stand-by	Less than 39 dB (A)
Printing	Less than 65 dB (A)

- Sound Pressure Level *2
 - Main unit only

Stand-by	Less than 28 dB (A)
Printing	Less than 50 dB (A)

- Complete system

Stand-by	Less than 28 dB (A)
Printing	Less than 53 dB(A)

*1 The preceding measurements made in accordance with ISO7779 are actual values.

*2 Measured at the position of a bystander.

Memory:

Standard 384 MB, up to 768 MB (with the optional memory unit)

Interfaces:

Standard:

- Ethernet (10BASE-T/100BASE-TX)
- USB 2.0

To use USB 2.0, a USB computer port and cable that support USB 2.0 are required.

- USB Host

Optional:

- IEEE 802.11 a/b/g (Wireless LAN)
- Parallel (Bidirectional IEEE 1284)

- Gigabit Ethernet (1000BASE-T)

Printer Language:

PCL5c/PCL6, PS3/PDF/ PictBridge (optional)

Fonts:

PCL 5c/PCL 6:

45 fonts, 13 International fonts

PostScript 3, PDF:

80 fonts

Network:

Topology: The physical or logical layout of the nodes (devices) in a network. (10BASE-T/100BASE-TX/1000BASE-T)

Protocol: TCP/IP, IPX/SPX, AppleTalk

Options

Paper Feed Unit TK1010

Paper Size:

For details, see p.105 "Supported Paper for Each Tray".

Dimensions (W × D × H):

400 × 450 × 127 mm (15.8 × 17.8 × 5.0 inches)

Paper weight:

60 - 105 g/m² (16 - 28 lb.)

Weight:

Less than 4 kg (8.8 lb.)

Hard Disk Drive Option Type C320

Storage Capacity (Formatted):

80 GB

Note

- Storage capacity is subject to change without prior notice.

Specifications:

- Spooling print data to collate

- Spooling Sample Print/Locked Print/Hold Print/Stored Print data
- Storing log data

Memory Unit Type G 256 MB

Module Type:

DIMM (Dual-in-line Memory Module)

Memory Type:

DDR-SDRAM (Double Data Rate Synchronous Dynamic RAM)

Number of Pins:

200 pins

Memory Unit Type I 512 MB

Module Type:

DIMM (Dual-in-line Memory Module)

Memory Type:

DDR-SDRAM (Double Data Rate Synchronous Dynamic RAM)

Number of Pins:

200 pins

Gigabit Ethernet Board Type A

Interface Connector:

Ethernet (10BASE-T, 100BASE-TX, 1000BASE-T)

USB 2.0

To use USB 2.0, a USB computer port and cable that support USB 2.0 are required.

Data Transmission Speed: Ethernet: 10 Mbps, 100 Mbps, 1000 Mbps

USB: 480 Mbps (High speed: USB 2.0), 12Mbps (Full speed)

Protocol:

TCP/IP, IPX/SPX, AppleTalk

Maximum Length of Cable Between Devices:

Ethernet: 100 m

USB: 5 m

IEEE 802.11a/g Interface Unit Type M Region **A** (mainly Europe and Asia)

Transmission Specification:

Based on IEEE 802.11a/b/g (Wireless LAN)

Data Transfer Speed:

Auto select from the following speed:

1 Mbps, 2 Mbps, 5.5 Mbps, 6 Mbps, 9 Mbps, 11 Mbps, 12 Mbps, 18 Mbps, 24 Mbps, 36 Mbps, 48 Mbps, 54 Mbps

Frequency Range:

2412 to 2472 Mhz (1 to 13 Channels)

5180 to 5240 Mhz (36, 40, 44 and 48 Channels)

The channel in use might differ depending on the country.

The following channels are available : 2412 - 2462 Mhz (1-11 Channels)

Transmission Mode:

- Ad hoc
- infrastructure mode

IEEE 802.11a/g Interface Unit Type L Region **B** (mainly North America)

Transmission Specification:

Based on IEEE 802.11a/b/g (Wireless LAN)

Data Transfer Speed:

Auto select from the following speed:

1 Mbps, 2 Mbps, 5.5 Mbps, 6 Mbps, 9 Mbps, 11 Mbps, 12 Mbps, 18 Mbps, 24 Mbps, 36 Mbps, 48 Mbps, 54 Mbps

Frequency Range:

2412 to 2472 Mhz (1 to 13 Channels)

5180 to 5240 Mhz (36, 40, 44 and 48 Channels)

Transmission Mode:

- Ad hoc
- infrastructure mode

IEEE 1284 Interface Board Type A

Transmission Specification:

IEEE 1284

Required Cable:

Standard IEEE 1284-compliant Micro Centronics 36-pin cable

Trademarks

Adobe, Acrobat, Acrobat Reader, PostScript, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Apple, Macintosh, Mac OS, and Safari are trademarks of Apple Inc., registered in the U.S. and other countries.

Firefox® is a registered trademark of the Mozilla Foundation.

IPS is a trademark or registered trademark of Zoran Corporation and/or its subsidiaries in the United States or other countries.

Microsoft®, Windows®, Windows Server®, and Windows Vista® are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Monotype is a registered trademark of Monotype Imaging, Inc.

PCL® is a registered trademark of Hewlett-Packard Company.

PictBridge is a trademark.

UNIX is a registered trademark of The Open Group.

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights to those marks.

The proper names of the Windows operating systems are as follows:

- The product names of Windows 2000 are as follows:
 - Microsoft® Windows® 2000 Professional
 - Microsoft® Windows® 2000 Server
 - Microsoft® Windows® 2000 Advanced Server
- The product names of Windows XP are as follows:
 - Microsoft® Windows® XP Professional Edition
 - Microsoft® Windows® XP Home Edition
- The product names of Windows Vista are as follows:
 - Microsoft® Windows Vista® Ultimate
 - Microsoft® Windows Vista® Business
 - Microsoft® Windows Vista® Home Premium
 - Microsoft® Windows Vista® Home Basic
 - Microsoft® Windows Vista® Enterprise
- The product names of Windows 7 are as follows:
 - Microsoft® Windows® 7 Home Premium
 - Microsoft® Windows® 7 Professional

Microsoft® Windows® 7 Ultimate

Microsoft® Windows® 7 Enterprise

- The product names of Windows Server 2003 are as follows:

Microsoft® Windows Server® 2003 Standard Edition

Microsoft® Windows Server® 2003 Enterprise Edition

- The product names of Windows Server 2003 R2 are as follows:

Microsoft® Windows Server® 2003 R2 Standard Edition

Microsoft® Windows Server® 2003 R2 Enterprise Edition

- The product names of Windows Server 2008 are as follows:

Microsoft® Windows Server® 2008 Standard

Microsoft® Windows Server® 2008 Enterprise

Microsoft® Windows Server® 2008 Standard without Hyper-V™

Microsoft® Windows Server® 2008 Enterprise without Hyper-V™

- The product names of Windows Server 2008 R2 are as follows:

Microsoft® Windows Server® 2008 R2 Standard

Microsoft® Windows Server® 2008 R2 Enterprise

INDEX

A

Adding toner.....	147
Additional troubleshooting.....	222
Adjusting the color registration.....	189
Alert indicator.....	22
Alert messages.....	202
Available options.....	45

B

Bond paper.....	113
Bypass tray.....	16, 107, 119, 132, 134, 135, 137

C

Cable cover.....	17
Camera direct print card.....	65
Cardstock.....	113
CAUTION label.....	8
Cautions when cleaning.....	179
CD-ROM.....	12
Checking the port connection.....	210
Cleaning the registration roller.....	185
Coated paper (glossy thick).....	110
Coated paper (glossy).....	110
Coated paper (matted thick).....	111
Coated paper (matted).....	111
Color gradation.....	191
Color paper.....	112
Consumables.....	239
Control panel.....	15, 21
Custom size paper.....	129, 135

D

Data in indicator.....	22
Data overwrite security unit.....	65
DHCP.....	82
Digital camera connection.....	74
Display.....	21
Display panel.....	23

E

ECO night sensor.....	21, 39
Enabling SSL.....	99
Envelopes.....	114
Error message.....	201

Escape key.....	21
Ethernet.....	79
Ethernet cable connection.....	69
Ethernet configuration.....	79
Ethernet port.....	17
Ethernet speed.....	85
Exterior.....	15

F

Friction pad.....	182
Front cover.....	15
Front cover open lever.....	17
Fusing unit.....	19

G

Gigabit Ethernet board.....	57
Gradation correction sheet.....	194
Gradation correction value.....	191, 195
Guide to the printer.....	15, 17, 19, 21

H

Hard disk.....	54
HDD encryption unit.....	65
How to read this manual.....	6
HTML manuals.....	12

I

IEEE 1284 interface board.....	62, 77
IEEE 802.1X.....	98
device certificate.....	98
Enabling SSL.....	99
Ethernet.....	100
site certificate.....	98
wireless LAN.....	102
Installing options.....	45
Interface units.....	57
Interior.....	19
Intermediate transfer unit.....	19, 161, 240
IP address.....	79

J

Job reset key.....	21
--------------------	----

L

Label paper.....	110
------------------	-----

LED lamps.....	72	Paper misfeed message (B).....	231
Legal size paper.....	124	Paper misfeed message (Y).....	234
Letterhead.....	110	Paper misfeed message (Z).....	235
Light sensor.....	21	Paper size.....	134
List of options.....	11	Paper transfer unit.....	19
Loading envelopes.....	139	Paper type.....	131
Loading paper.....	119	Parallel cable connection.....	77
M		Place to install.....	26
Maintenance kit.....	172, 241	Plain paper.....	108
Manuals.....	12	Power connector.....	17
Manuals for this printer.....	10	Power indicator.....	22
Memory cover.....	17	Power switch.....	16
Menu key.....	22	Power switch symbols.....	9
Middle thick.....	108	Preprinted paper.....	112
Misfeed bypass tray.....	229	Print area.....	117
Misfeed tray 1.....	227	Print cartridge.....	19, 239
Model-specific information.....	7	Print test sheet.....	197
Moving and transporting.....	237	Printer does not print.....	209
Moving the printer a short distance.....	238	Printer set up procedure.....	25
N		Printing on fixed-orientation paper.....	143
NetWare.....	84	Printing position.....	197
Network.....	79, 88	Prt.jobs.....	23
Network setting.....	84	R	
No DHCP.....	80	Rear cover.....	17
Non-recommended paper types.....	116	Rear view.....	17
O		Recycled paper.....	113
OK key.....	21	Registration roller.....	185
Operating instructions.....	12	Remaining paper indicator.....	15
Operational status or messages.....	23	Removing the packaging materials.....	30
Option.....	23	Replacing the intermediate transfer unit.....	161
Optional interface board slots.....	17	Replacing the transfer roller.....	161
Optional paper feed tray.....	106, 122	Replacing the waste toner bottle.....	154
Order of option installation.....	45	S	
Other printing problems.....	212	Scroll keys.....	21
P		SD card slots.....	17
Panel tone.....	208	SDRAM module.....	51
Paper feed roller.....	182	Security.....	93
Paper feed unit.....	48, 119	Selecting the display language.....	42
Paper misfeed.....	225	Selection keys.....	21
Paper misfeed message (A).....	227	Setting a paper size.....	128
		Shutdown.....	36
		Special paper.....	112

Specifications.....	242
Specifying a paper type.....	137
SSID.....	90
Standard paper feed tray.....	15, 105, 119
Standard tray.....	15
Standard tray extension.....	16
Status message.....	201
Stop fence.....	16
Storing paper.....	115
Supplies.....	23
Supported paper for each tray.....	105
Supported paper types.....	108
Suspend/resume key.....	22
Switch functions key.....	21

T

Test printing.....	43
Thick paper.....	108
Thin paper.....	109
Toner.....	147
Toner density sensor.....	180
Top cover.....	16
Top cover open lever.....	15
Trademarks.....	249
Transcription roller.....	19
Transfer roller.....	161
Tray 1.....	15, 119
Tray 2.....	122
Troubleshooting.....	201
Turning off the power.....	38
Turning on the power.....	36
Turning the power On and Off.....	36

U

USB cable connection.....	73
USB port A.....	17
USB port B.....	17
User paper type.....	145, 146

V

Viewing the HTML manuals.....	12
VM card.....	65

W

WARNING label.....	8
Waste toner bottle.....	19, 154, 240
WEP key.....	93
Wireless LAN.....	88, 91, 92, 93
Wireless LAN configuration.....	88
Wireless LAN connectivity.....	91
Wireless LAN interface unit.....	60
WPA.....	94
WPA2.....	94

MEMO

MEMO

MEMO

