

# Operating Instructions Hardware Guide



- **1** Guide to the Printer
- 2 Installing Options
- **3** Connecting the Printer Cables
- **4** Configuration
- 5 Paper and Other Media
- 6 Replacing Consumables
- **7** Cleaning 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 the Safety Information before using the machine.

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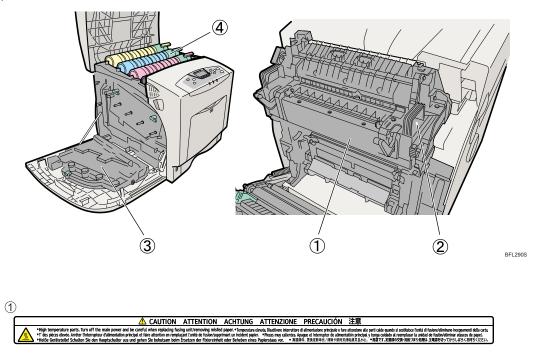
The proper names of the Windows operating systems are as follows:

\* ∏he product name of Windows<sup>®</sup> 95 is Microsoff<sup>®</sup> Windows<sup>®</sup> 95.

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- \* The product names of Windows Server 2003 R2 are as follows: Microsoft<sup>®</sup> Windows Server<sup>®</sup> 2003 R2 Standard Edition Microsoft<sup>®</sup> Windows Server<sup>®</sup> 2003 R2 Enterprise Edition Microsoft® Windows Server® 2003 R2 Datacenter Edition
- \* The product names of Windows NT 4.0 are as follows: Microsoft<sup>®</sup> Windows NT<sup>®</sup> Workstation 4.0 Microsoft<sup>®</sup> Windows NT<sup>®</sup> Server 4.0

# Positions of WARNING and CAUTION Labels

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



High temperature parts, Turn off the main power and be careful when replacing fusing unit/removing misfed paper.



The inside of this printer becomes very hot. Do not touch parts labelled "A" (indicating a hot surface). Touching these parts will result in burns.



Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame.

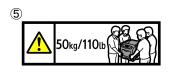


Do not incinerate spilled toner or used toner. Toner dust is flammable and might ignite when exposed to an open flame.

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.





The printer weights approximately 50 kg (110 lb.).

Four people are required to move the printer. Hold the inset grips located on both sides, and

then lift it slowly. Lifting it carelessly or dropping it may cause an injury.

# **Manuals for 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, connecting it to a computer, and installing its driver.

#### Hardware Guide (This manual)

Contains information about paper and procedures such as installing options, replacing consumables, responding to error messages, and resolving jams.

#### Software Guide

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

#### Security Guide

Contains information for administrators of the printer. It explains security functions that the administrators can use to prevent data tampering or unauthorized use of the printer. Also refer to this manual for the procedure for registering an administrator, as well as setting user and administrator authentication.

#### **UNIX Supplement**

For "UNIX Supplement", please visit our Web site or consult an authorized dealer.

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

#### Note

• Manuals provided are specific to machine types.

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# How to Read This Manual

## Symbols

This manual uses the following symbols:

## **WARNING**

- Indicates important safety notes.
- Ignoring these notes could result in serious injury or death. Be sure to read these notes. They can be found in the "Safety Information".

# 

- Indicates important safety notes.
- Ignoring these notes could result in moderate or minor injury, or damage to the machine or to property. Be sure to read these notes. They can be found in the "Safety Information".

### Comportant 🖸

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.

## **Vote**

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 that appear on the machine's display panel.

[]

Indicates the names of keys on the machine's control panel.

# **Model-Specific Information**

In this manual, the following symbols indicate information that relates to a specific printer model.

 220-240V

This indicates information about the 220 to 240 V model printer.

Read if you have purchased this model.

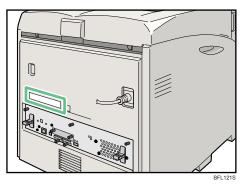
### 120V

This indicates information about the 120 V model printer.

Read if you have purchased this model.

Note

• Check the label on the rear of the printer to identify the printer's model.



• Dimensions in this manual are given in two units of measure: metric and inch. If your printer is the 220 to 240 V model, refer to the metric units. If your printer is the 120 V model, refer to the inch units.

# 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
Memory Unit Type G 128 MB	SDRAM module
Memory Unit Type G 256 MB	SDRAM module
Gigabit Ethernet Board Type A	Gigabit Ethernet board
<b>120V</b> IEEE 802.11a/g Interface Unit Type L	Wireless LAN interface unit
<b>220-240V</b> IEEE 802.11a/g Interface Unit Type M	Wireless LAN interface unit
220-240V IEEE 802.11 Interface Unit Type P	Wireless LAN interface unit
Bluetooth Interface Unit Type 3245	Bluetooth interface unit
IEEE 1284 Interface Board Type A	IEEE 1284 interface board
Camera Direct Print Card Type E	Camera direct print card
HDD Encryption Unit Type C	HDD encryption unit
Data Overwrite Security Unit Type K	Data overwrite security unit
Data Storage Card Type A	Data storage card
Printer Hard Disk Drive Type 420	Hard disk drive
VM Card Type H	VM card
Paper Feed Unit Type 4000	Paper feed unit

## **Vote**

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

## Reference

• p.203 "Specifications"

# Installing the Operating Instructions

The CD-ROM "Manuals" provided with this printer contains HTML version Operating Instructions. Follow the instructions below to install it.

### Comportant 🗋

- System Requirements:
  - Windows 95/98/Me, 2000/XP/Vista, Windows Server 2003/2003 R2, or Windows NT 4.0
  - 800  $\times$  600 or higher monitor resolution
- Web Browsers:
  - Microsoft Internet Explorer 4.01 SP2 or later
  - Netscape 6.2 or later
- 1. Quit all applications currently running.
- 2. Insert the CD-ROM "Manuals" into the CD-ROM drive.

The installer starts.

Auto Run may not work under certain operating system settings. In this case, launch "Setup.exe" in the CD-ROM root directory.

- 3. Select an interface language, and click [OK].
- 4. Click [Install manuals].
- 5. Follow the instructions on the screen to complete the installation.
- 6. Click [Finish] when the installation is complete.
- 7. Click [Exit].

#### Note

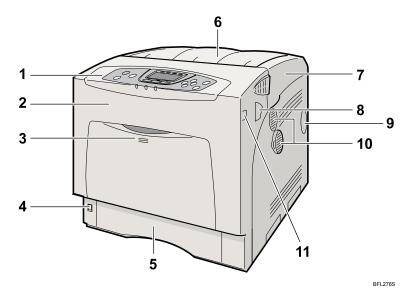
- The CD-ROM "Manuals" contains two versions of the manuals: a standard version and a simpler version. Select the appropriate version for your operating environment.
- To delete an installed manual, on the [Start] menu, click [All Programs], then [Product Name], and then uninstall the data.
- If you are using an incompatible Web browser and the simplified version of the Operating Instructions
  is not automatically displayed, open the folder "\MANUALLANG \ (language) \ (manual name) \
  unv" on the CD-ROM "Manuals", and then double-click on "index.htm".

# 1. Guide to the Printer

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

# **Exterior: Front View**

This section explains names and functions of the parts on the front and right side of the printer.



#### 1. Control Panel

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

#### 2. Front Cover

Open the front cover to replace the fusing unit or transfer roller, or to remove jammed paper.

The front cover can be opened in two ways:

To replace the fusing unit or roller, pull the levers marked "A" on either side of the printer. To remove jammed paper, press the button marked "Z" on the right side of the printer.

#### 3. Bypass Tray

Up to 100 sheets of plain paper can be loaded.

#### 4. Power Switch

Use this switch to turn the power on and off.

#### 5. Tray 1

Up to 550 sheets of plain paper can be loaded.

#### 6. Standard Tray

Output is stacked here with the print side down.

#### 7. Top Cover

Open this cover when replacing the toner.

#### 8. Front Cover (A) Open Levers

#### 9. Intake Port

#### 10. Ventilator

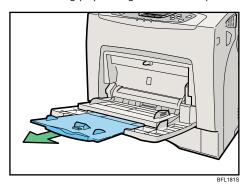
Releases heat from internal components to prevent overheating. Malfunctions occur if the vent is blocked or obstructed.

The dustproof filter needs to be replaced regularly for proper maintenance.

#### 11. Front Cover (Z) Open Button

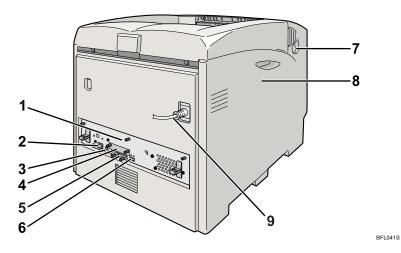
#### Note

• When setting paper larger than A5<sup>d</sup>, pull out the paper extender as shown.



# **Exterior: Rear View**

This section explains names and functions of the parts on the rear side of the printer.



#### 1. Controller Board

Slide this out to install options such as the memory unit or printer hard disk. Plug cables such as the USB cable and Ethernet cable into their connectors.

#### 2. Ethernet Port

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

#### 3. USB Port

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

#### 4. Optional Interface Board Slot

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

#### 5. SD Card Slots

Install SD cards in these slots. There are two slots.

When you use the SD card, use the right slot.

#### 6. USB Host Port

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

#### 7. Front Cover (A) Open Levers

8. Left Cover

Open this cover when replacing the photo conductor unit (PCU), intermediate transfer unit or waste toner bottle.

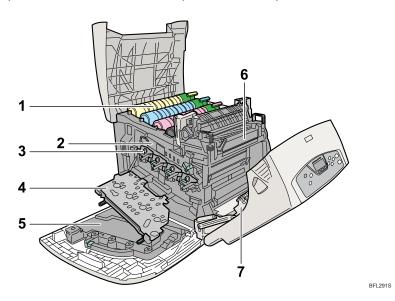
#### 9. Power Cable

 $\fbox{220-240V}$  The power cable is separated. Connect the power cable to the printer.

**120V** The power cable is fixed to the back side.

# Interior

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



#### 1. Toner

From the left, the toner is installed in the order of black (K), yellow (Y), cyan (C), and magenta (M). Replace the relevant toner when the following messages appear:

• "Add toner<K,C,M,Y>."

#### 2. Intermediate Transfer Unit

Replace the intermediate transfer unit when the following messages appear:

• "Replace IntTrans Unit."

#### 3. Photo Conductor Unit

From the left, the photo conductors are installed in the order of yellow (Y), cyan (C), magenta (M), and black (K). Replace the relevant photo conductor unit when the following messages appear:

- "Replace PCU:Black."
- "Replace PCU:Colour."

#### 4. Inner Cover

Open this cover when replacing the photo conductor unit or 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. Fusing Unit

Replace the fusing unit when the following messages appear:

1

• "Replace Maintenance Kit."

Replace the fusing unit and the transfer roller together.

#### 7. Transfer Roller

Replace the transfer roller when the following messages appear:

• "Replace Maintenance Kit."

Replace the transfer roller and the fusing unit together.

## Note

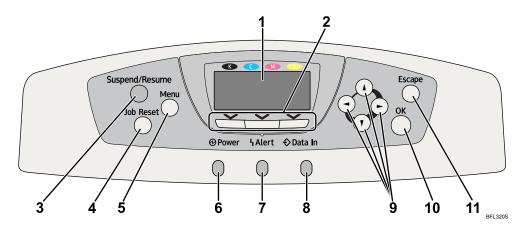
• For details about the messages which appear on the screen to prompt you to replace the units, see "Error and Status Messages Appears on the Control Panel".

### Reference

• p.173 "Error and Status Messages Appears on the Control Panel"

# **Control Panel**

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



#### 1. 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.

#### 2. Selection Keys

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

Example: In the initial screen, when the instruction "press [option]" appears in this manual, press the left selection key.

#### 3. [Suspend/Resume] key

Press this key to suspend a print job. This key remains lit while the job is suspended. To resume the job, press this key again.

#### 4. [Job Reset] Key

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

#### 5. [Menu] Key

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

#### 6. Power Indicator

Remains lit while the power is on. It is unlit when the power is off or while the printer is in energy saver mode.

#### 7. Alert Indicator

Lights up in red or yellow when a printer error occurs.

Red: printing is not possible/possible but print quality cannot be ensured.

Yellow: printer requires maintenance, such as replacing consumables, shortly.

Follow the instructions that appear on the display.

#### 8. Data In indicator

Blinks when the printer is receiving data from a computer. The Data In indicator is lit if there is data to be printed.

1

### 9. Scroll Keys

Press to move the cursor in each direction.

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

#### 10. [OK] Key

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

#### 11. [Escape] Key

Press this key to return to the previous condition on the display.

# **Display Panel**

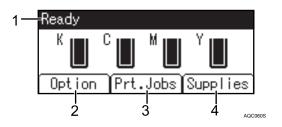
This section explains configuration using the initial screen of the display panel.

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 status of options installed in the printer.

3. [Prt.Jobs]

Press to display print jobs sent from a computer.

4. [Supplies]

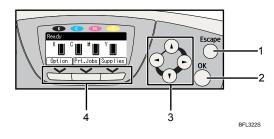
Press to display the menu of supplies for the printer.

### Note

- Toner levels are displayed by default. To turn off the toner level display, select [Maintenance] →
   [General Settings] → [Display Supply Info] → [Off].
- Adjust the brightness if the screen is dark.

## **Reading the Display and Using Keys**

This section explains how to read the display and using the selection key for the initial display.



#### 1. [Escape] key

Cancels an operation or returns to the previous display.

#### 2. [OK] key

Confirms settings and setting values, or moves to the next menu level.

#### 3. Scroll keys

Move the cursor in each direction.

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

#### 4. Selection keys

Correspond to the function items shown on the bottom line of the display.

When this manual instructs you to "press [Option]", press the left selection key.

1. Guide to the Printer

# 2. 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.

# 

• Before installing options, the machine should be turned off and unplugged for at least an hour. Components inside the machine become very hot, and can cause a burn if touched.

## Order of Option Installation

When installing multiple options, the following order is recommended:

1. Attach the paper feed unit (Paper Feed Unit Type 4000).

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

You can attach up to two paper feed units. Up to 2300 sheets of paper can be loaded in total.

2. Install the SDRAM module (Memory Unit Type G 128MB/256MB).

Install the expansion memory in the controller board slot.

There are two types of memory units, 128 MB and 256 MB.

- 3. Install the hard disk drive (Printer Hard Disk Drive Type 420).
- 4. Install the optional interface board.

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

5. Insert SD card options.

Install the security unit (HDD Encryption Unit Type C, Data Overwrite Security Unit Type K, Data Storage Card Type A), the camera direct print card (Camera Direct Print Card Type E), or the VM card (VM Card Type H).

Insert these units into the SD card slot on the controller board.

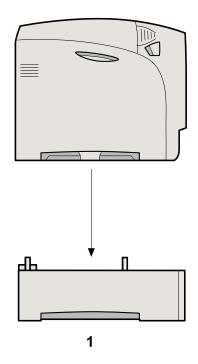
If you want to use two or more SD cards that can be inserted in the same slot, contact your sales and service representative.

### Where to Install Options

Install options in the locations shown in the following illustrations.

2

#### **External options**

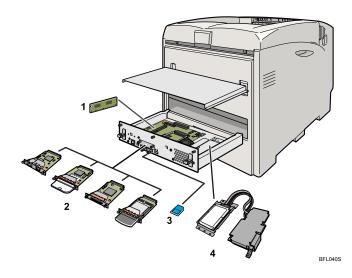


BFL190S

1. Paper feed unit

Loads up to 550 sheets of paper. Up to three paper feed units, can be installed on the printer. Installed tray units are identified as "Tray 2", "Tray 3", and "Tray 4". For details about attaching the paper feed units, see "Attaching the Paper Feed Unit".

#### Interior



2

#### 1. SDRAM module

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

#### 2. Optional interface boards

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

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

#### 3. SD card options

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

#### 4. Hard disk drive

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

#### **Note**

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

#### Reference

- p.28 "Attaching the Paper Feed Unit"
- p.31 "Installing the SDRAM Module"
- p.35 "Installing the Hard Disk"
- p.41 "Installing the Interface Units"
- p.50 "Installing SD Card Options"
- p.203 "Specifications"

### Cautions When Re-installing the Controller Board

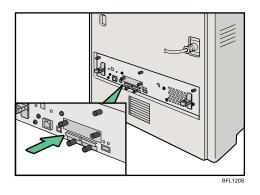
This section describes handling the controller board when installing options.

If you slide out the controller board to install the SDRAM module, the user account enhance unit, or the printer hard disk, carefully follow the instruction below to re-install the controller board.

#### 🚼 Important

- The following may occur if the controller board is not correctly installed:
  - 1. All control panel indicators are lit.
  - 2. No control panel indicators are lit.
  - 3. The "SC670" error message appears on the display.

Re-install the controller board into the printer by pushing the bottom center area of the board, as shown in the illustration.

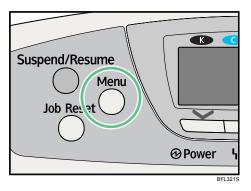


# **Turning off the Power**

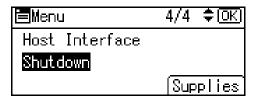
This section explains how to turn off the printer's power.

### 🔂 Important

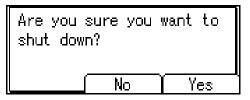
- Do not turn off the main power switch before following the shutdown procedure shown here. Doing so can result in damage to the hard disk or memory, leading to malfunction.
- 1. Press the [Menu] key.



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, then turn off the main power switch.

Note

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

# **Attaching the Paper Feed Unit**

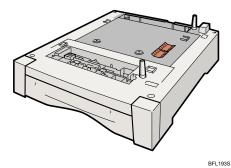
## 

- The printer weights approximately 50 kg (110 lb.). When moving the printer, use the inset grips on both sides, and lift slowly. The printer will break or cause injury if dropped.
- Lifting the paper feed unit carelessly or dropping it may cause injury.
- To prevent the machine toppling and causing injury, place it on stable, strong, and level table.

### 🔂 Important

- Up to three paper feed units can be attached to the printer.
- When three paper feed units are installed, they are detected as "Tray 2", "Tray 3", and "Tray 4", starting from the upper unit.
- The printer should always be lifted by at least four people.
- Before using the new paper feed unit, you must make settings in the printer driver.
- Check the printer nameplate to confirm the model code.
- 1. Check the package contains the following:

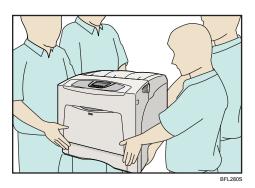
Paper Feed Unit (including a paper tray)



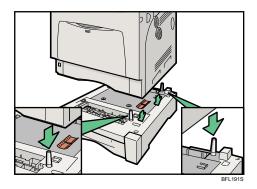
2. Turn off the power, and then unplug the power cable.

3. Remove the orange fastening tapes from the paper feed unit.

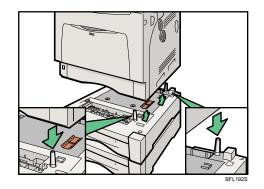
- ENUMBER
- 4. Lift the printer using the inset grips on both sides of the printer.



5. Align the printer with the two upright pins on the paper feed unit and then lower the printer slowly.



When installing two or three units, first connect the units to each other (using the same procedure as described below), and then connect them as a single unit to the printer.



### 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", "Tray 3", and "Tray 4" 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.
- For details about printing the configuration page, see "Test Printing", Quick Installation Guide.
- For details about loading paper onto the paper tray, see "Loading Paper".
- For details about adjusting the printing position, see "Adjusting Printing Position".

### Reference

- p.105 "Loading Paper"
- p.169 "Adjusting Printing Position"

# Installing the Memory Expansion Units

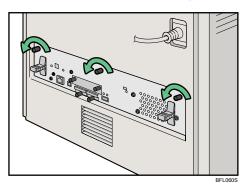
# 

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

## Installing the SDRAM Module

#### 🔂 Important

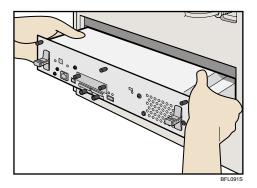
- Before touching the SDRAM module, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the SDRAM module.
- Do not subject the memory unit to physical shocks.
- The printer comes equipped with 256 MB of memory. This can be expanded to a maximum of 512 MB.
- Before using the new memory unit, you must configure settings in the printer driver.
- 1. Turn off the power, and then unplug the power cable.
- 2. Loosen the three screws securing the controller board.



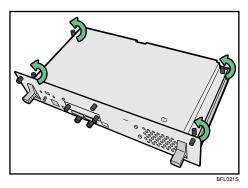
The screws cannot be fully removed.

- BLuos
- 3. Grasp the handles and carefully pull out the controller board.

Using both hands, slide the controller board completely out.



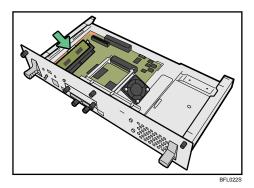
4. Place the controller board on a flat surface, and then loosen the four screws to remove the cover.



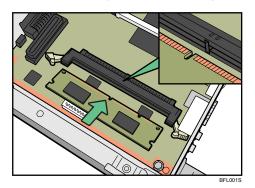
The screws cannot be fully removed.

5. Be sure to install the SDRAM module as shown.

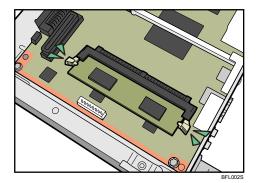
If the hard disk drive is already installed, temporarily remove the hard disk board unit.



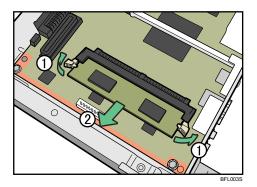
6. Align the notch of the SDRAM module with the protrusion in the memory slot, then press the module at an angle into the memory slot.



7. Push in the SDRAM module firmly until it clicks into place.

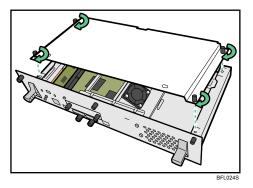


8. When replacing the SDRAM module, press down the levers on both sides (①) to remove the default module (②).

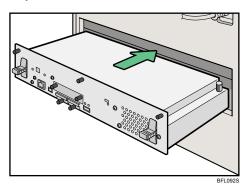


Install a new SDRAM module.

- 9. To install other options on the controller board, follow the appropriate installation procedure (s), and then screw down the controller board cover.
- 10. Fasten the four screws to attach the cover.



11. Align the controller board with the left and right rails, and then push it carefully in, until it stops.



The printer may malfunction if the controller board is not properly installed.

12. Fasten the controller board to the printer using the three screws.

# **Vote**

- 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.

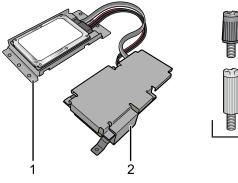
Standard	Extended	Total
256MB	128MB	384MB
256MB	256MB	512MB

- 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 about on printing the configuration page, see "Test Printing", Quick Installation Guide.

# Installing the Hard Disk

## Comportant 🗋

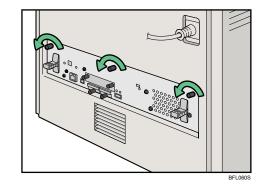
- Before touching the hard disk drive, touch something metal to discharge any static electricity. Static electricity can damage the hard disk drive.
- Do not subject the hard disk drive to physical shocks.
- Install the hard disk carefully if the SDRAM module is already installed. If the hard disk comes in contact with the SDRAM module, the SDRAM module may become damaged.
- Before using the new hard disk drive, be sure to make the settings in the printer driver.
- 1. Check the package contains the followings:



й й й й й й й й й й й й й й й в в 1345

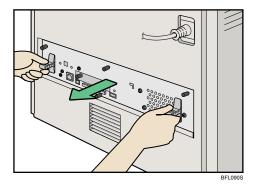
1. Hard Disk Drive Unit

- 2. Hard Disk Board Unit
- 3. Six Screws
- 2. Turn off the power, and then unplug the power cable.
- 3. Loosen the three screws securing the controller board.

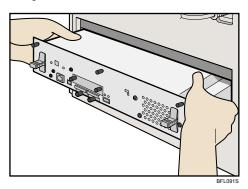


The screws cannot be fully removed.

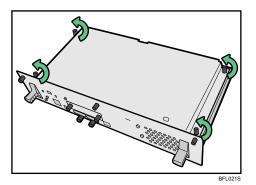
4. Grasp the handles and carefully pull out the controller board.



Using both hands, slide the controller board completely out.

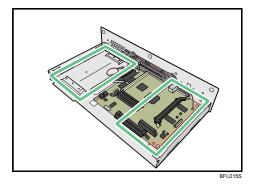


5. Place the controller board on a flat surface, and then loosen the four screws to remove the cover.

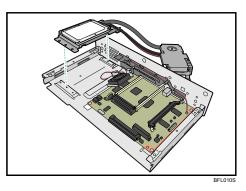


The screws cannot be fully removed.

6. Be sure to install the hard disk drive unit as shown.

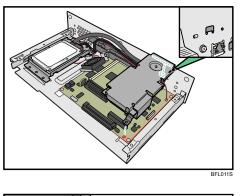


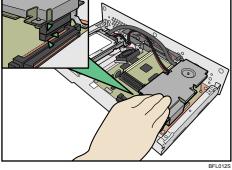
7. Align the hard disk drive unit with the protrusion on the controller board, and then carefully set the hard disk drive unit onto the controller board.



8. Hook the edge of the hard disk board unit into the protrusion on the controller board, and then push on the hard disk board unit until the connector is fully covered.

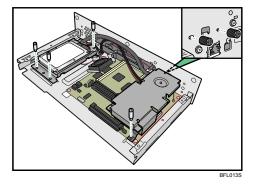
Make sure the hard disk board unit is set horizontally against the controller board.



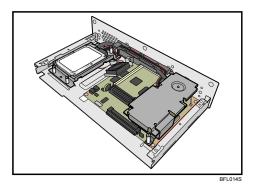


9. Use the screws supplied with the hard disk drive to secure the two units to the controller board.

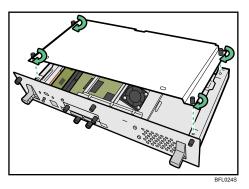
Use the two shorter screws attached to the rear of the controller board.



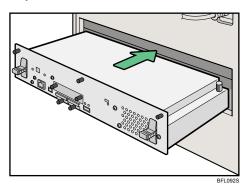
10. Place the flat cable and the power cable in the groove on the controller board. Place the flat cable in the inner rail, and the power cable in the outer rail.



- To install other options on the controller board, follow the appropriate installation procedure (s), and then screw down the controller board cover.
- 12. Fasten the four screws to attach the cover.



13. Align the controller board with the left and right rails, and then push it carefully in, until it stops.



The printer may malfunction if the controller board is not properly installed.

14. Fasten the controller board to the printer using the three screws.

# **Note**

• After finishing the installation, you can check the hard disk is properly installed: Print the configuration page from the [List/Test Print] menu.

- Confirm that the hard disk drive was correctly installed by printing the configuration page. If it is correctly installed, "Hard Disk Drive" will appear for "Device Connection" on the configuration page.
- If the hard disk drive is not properly installed, repeat this procedure. If you cannot install it properly even after reinstallation, contact your sales or service representative.
- For details about on printing the configuration page, see "Test Printing", Quick Installation Guide.

# Installing the Interface Units

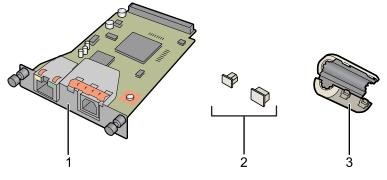
# Installing the Gigabit Ethernet Board

# 

• Do not touch inside the controller board compartment. Doing so may cause a machine malfunction or a burn.

## 🔁 Important

- The printer's Ethernet and USB ports are not available when the Gigabit Ethernet board is attached 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.



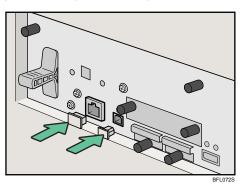
BFL310S

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

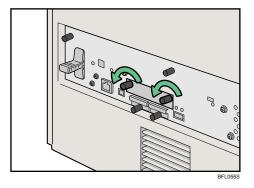
Design of the ferrite core varies according to printer model.

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

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

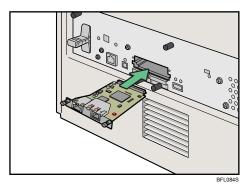


4. Loosen the two screws and remove the cover of the Gigabit ethernet board installation unit.



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

5. Fully insert the Gigabit ethernet board.



6. Tighten the two screws to secure the Gigabit ethernet board.

Check the Gigabit ethernet board is connected firmly to the controller board.

## Note

- Confirm that the Gigabit Ethernet board was correctly installed by printing the configuration page. If
  it is correctly installed, "Gigabit Ethernet & USB 2.0" will appear for "Device Connection" on the
  configuration page.
- If the board was not installed properly, repeat the procedure from step 2. 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", Quick Installation Guide.
- Before using the Gigabit Ethernet board, you must configure settings from the printer control panel. For details, see "Ethernet Configuration".

## Reference

• p.61 "Ethernet Configuration"

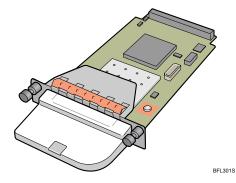
# Installing the Wireless LAN Interface Board

# 

• Do not touch inside the controller board compartment. Doing so may cause a machine malfunction or a burn.

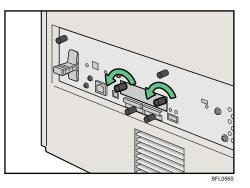
#### Coloritant 🔁

- 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.



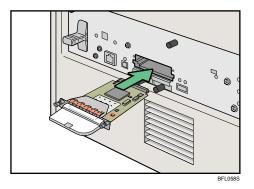
2. Turn off the power, and then unplug the power cable.

3. Loosen the two screws and remove the cover of the Wireless LAN interface board installation unit.



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

4. Fully insert the Wireless LAN interface board.



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

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

Vote

- 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 **2**. 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", Quick Installation Guide.
- Before using the Wireless LAN interface board, you must configure settings from the printer control
  panel. For details, see "Wireless LAN Configuration".

#### Reference

• p.72 "Wireless LAN Configuration"

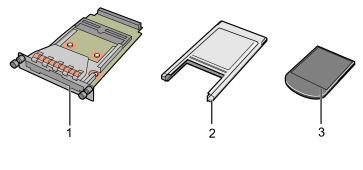
# Installing the Bluetooth Interface Unit

# 

• Do not touch inside the controller board compartment. Doing so may cause a machine malfunction or a burn.

# Comportant 🔁

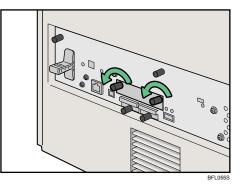
- When using the printer with the Bluetooth interface unit installed, Bluetooth needs to be installed on the computer.
- Before beginning work, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the Bluetooth interface unit.
- Do not subject the unit to physical shocks.
- 1. Check the contents of the package.



BFL314S

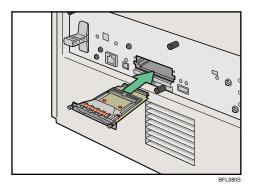
- 1. Interface Unit
- 2. Card Adapter
- 3. Card
- 2. Turn off the power, and then unplug the power cable.

3. Loosen the two screws and remove the cover of the Bluetooth interface unit installation unit.

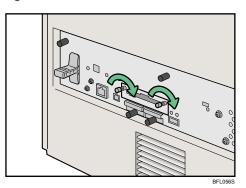


The removed cover is not used when installing the interface unit.

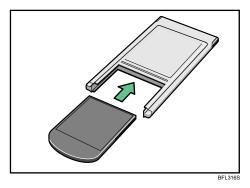
4. Fully insert the Bluetooth interface unit.



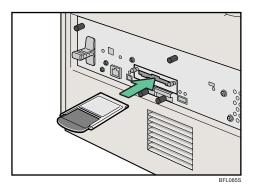
5. Tighten the two screws to secure the interface unit.



6. Attach the card to the card adapter. Attach them so that the label on both the card and adapter is facing up.



7. With the label side facing left, slowly push the card adapter into the interface unit until it stops.



# Note

- Confirm that the Bluetooth interface unit was correctly installed by printing the configuration page. If it is correctly installed, "Bluetooth" will appear for "Device Connection" on the configuration page.
- If the board was not installed properly, repeat the procedure from step **2**. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.
- For details, see the operating instructions included with the Bluetooth interface unit.
- For details about printing the configuration page, see "Test Printing", Quick Installation Guide.

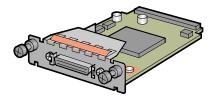
# Installing the IEEE 1284 Interface Board

# 

• Do not touch inside the controller board compartment. Doing so may cause a machine malfunction or a burn.

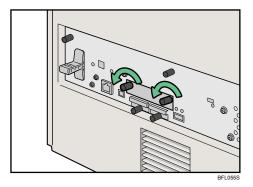
## Comportant 🗋

- 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.



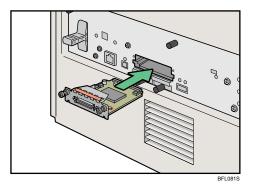
BFL302S

- 2. Turn off the power, and then unplug the power cable.
- 3. Loosen the two screws and remove the cover of the 1284 interface board installation unit.



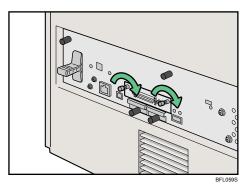
The removed cover is not used when installing the 1284 interface board.

4. Fully insert the IEEE 1284 interface board.



Confirm that the IEEE 1284 interface board is firmly connected to the controller board.

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



#### 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 **2**. 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", Quick Installation Guide.

# **Installing SD Card Options**

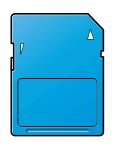
This section explains how to install the following SD cards: a data overwrite security unit, data storage card, camera direct print card, HDD encryption unit, and VM card.

# 

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

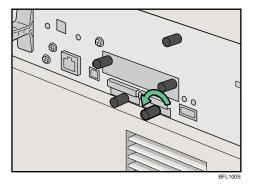
## Colored Important

- Do not subject the card to physical shocks.
- Use the right slot for the SD card.
- 1. Check the contents of the package.



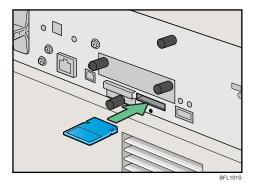
BFL308S

- 2. Turn off the power, and then unplug the power cable.
- 3. Remove the cover of the controller board's right SD card slot.

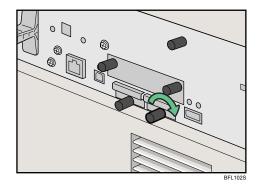


2

4. Carefully insert the SD card, until the card clicks into place.



5. Reattach the cover over the SD card. Fasten the screw to secure the cover.



# **Vote**

- 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: [Memory Erase Status] appears on the top level menu.
  - HDD encryption unit: [Machine Data Encryption] appears in [Security Options].
- 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", Quick Installation Guide.

2. Installing Options

# 3. Connecting the Printer Cables

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 available.

# 

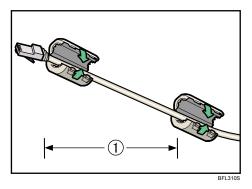
• Properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet emission limits.

# 🔁 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. Attach one ferrite core at the printer end of the Ethernet cable, and then attach the other ferrite core about 10 cm (4 inches) (①) from this core.



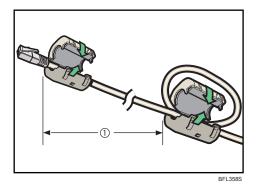
- 2. Connect the Ethernet cable to the Ethernet port that is located on the left side of the printer.

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

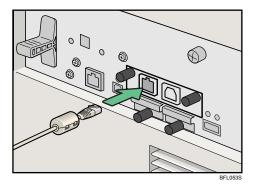
#### Connecting to the Ethernet port of the Gigabit Ethernet board

1. Attach two ferrite cores to the Ethernet cable.

Attach the core supplied with the printer to the connector end, and the one supplied with the Gigabit Ethernet board about 10 cm (4 inches) from the connector end (1), making a loop as shown.



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



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

# **Note**

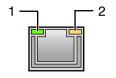
- For details about configuring the network environment, see "Ethernet Configuration".
- For details about attaching the gigabit ethernet board, see "Installing the Gigabit Ethernet Board".

# Reference

- p.61 "Ethernet Configuration"
- p.41 "Installing the Gigabit Ethernet Board"

# **Reading the LED Lamps**

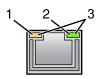
#### **Standard Ethernet port**



BFL363S

- 1. Green: turns on when the printer is properly connected to the network.
- 2. Yellow: turns on when 100BASE-TX is in use. It turns off when 10BASE-T is in use.

#### **Optional Gigabit Ethernet board**



BFL364S

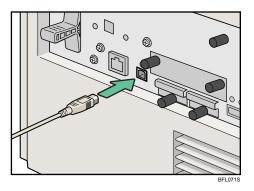
- 1. Yellow: turns on when 100BASE-TX is in use.
- 2. Green: turns on when 10BASE-T is in use.
- 3. Both the green and yellow lamps are lit when 1000BASE-T is in use.

# **USB** Cable Connection

## C Important

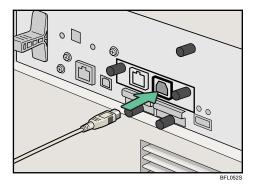
- USB connection is possible under Windows 2000/XP/Vista, Windows Server 2003/2003 R2, Mac OS 9.x, and Mac OS X.
- USB connection with Mac OS is only possible via the printer's USB port, not the Gigabit Ethernet board's USB port.
- A USB cable is not supplied with this printer. Select your cable according to the computer.
- 1. Connect the USB cable to the printer.
  - Connecting the USB cable to the standard USB port

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



• 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.

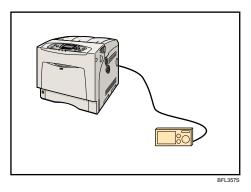


2. Connect the opposite end's flat connector to the desired device such as your computer's USB interface, or a USB hub.

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", Software Guide for details.

# **Digital Camera Connection**

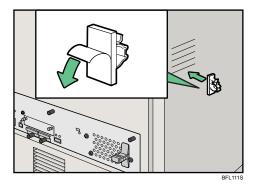
This printer supports direct printing, which allows you to print images taken with a digital camera by connecting the camera directly to the printer. The following describes how to connect the printer to a digital camera.



## Comportant 🗋

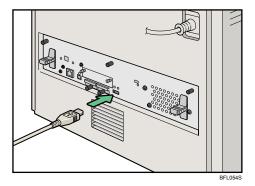
- This function requires the Camera direct print card.
- Use the USB cable bundled to your digital camera.
- The Camera direct print card is supplied with a hook onto which you can hang the cable.
- Make sure your digital camera supports PictBridge.
- 1. Confirm that the printer and digital camera are turned on.
- 2. Attach the hook on the back of the printer near the USB connection slot.

Attach the hook where it will not interfere with printer operation and access.

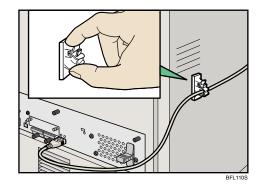


3. Check the printer and the digital camera are both switched on.

4. Connect the digital camera to the printer.



- 5. Connect the other connector of the USB cable to the digital camera.
- 6. Secure the USB cable using the hook.



# **Vote**

- For details about the printing method, see "PictBirdge Printing", Software Guide.
- For details about attaching the Camera Direct Print card, see "Installing the SD Memory Card Options".

# Reference

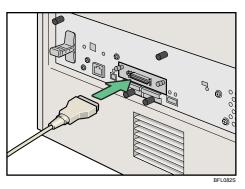
• p.50 "Installing SD Card Options"

# **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.

Coloritant 🔁

- The printer's parallel connection is a standard bidirectional interface that requires an IEEE 1284compliant 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. Connect the interface cable to the IEEE 1284 interface board.



**3.** 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 "Preparation

for Printing", Software Guide.

#### **Vote**

• For details about attaching the 1284 interface board, see "Installing the IEEE 1284 Interface Board".

#### 🖪 Reference 🔵

• p.47 "Installing the IEEE 1284 Interface Board"

3. Connecting the Printer Cables

# 4. 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. You can use SmartDeviceMonitor for Admin or a Web browser to configure IP address-related settings in a TCP/IP-capable environment.

# Contract 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 [Host Interface] menu.

Setting Name	Default
Machine IPv4 Address	<ul> <li>DHCP: On</li> <li>IPv4 Address: 11.22.33.44</li> <li>Subnet Mask: 0.0.0.0</li> <li>Gateway Address: 0.0.0.0</li> </ul>
IPv6 Stateless Setting	Active
IP Sec	Inactive
NW Frame Type	Auto Select
Effective Protocol	<ul> <li>IPv4: Active</li> <li>IPv6: Inactive</li> <li>NetWare: Active</li> <li>SMB: Active</li> <li>AppleTalk: Active</li> </ul>
Ethernet Speed	Auto Select
IEEE802.1X Auth.(Ethernet)	Inactive
Restr.IEEE802.1X Auth.Def	[Yes] or [No].
LAN Type	Ethernet

#### Note

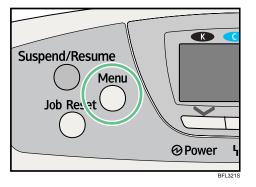
- If DHCP is in use on your network, the IP address, subnet mask, and gateway address are all set automatically.
- Configure these setting as necessary. See Software Guide for details.

# 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.

1. Press the [Menu] key.



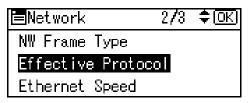
2. Press the [♥] or [▲] key to select [Host Interface], and then press the [OK] key.

<b>⊟</b> Menu	_4/4 <b>‡</b> 0K
Host Interface	
Shutdown	
	Supplies

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



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



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

⊟Effective Prot.	1/2	<b>♦</b> (OK)
IPv4		
IPv6		
NetWare		

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

IP∨4:	1/1	\$0K)
Active		
Inactive		

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.
- 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, contact your network administrator.

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

IPv4 Address:	1/1	‡OK)	
Auto-Obtain (DHCP)			
Specify			
IP Add. Subnet	M Gar	teway	

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

#### 10. Press the [♥] or [▲] to Enter the address, and then press the [OK] key.

Press the [▼] or [▲] key to enter the left-most entry field of the address. After entering the left field, press the [▶] key, and then you can enter the next field. After completing entry of the all fields, press the [OK] key.

Change the IP address from "11.22.33.44" 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.

IPv4 Address:	1/1 ‡OK		
Auto-Obtain (DHCP)			
Specify			
IP Add. Subnet	M Gateway		

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", Quick Installation guide.

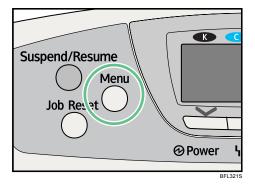
# Receiving an IP Address Automatically (DHCP)

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.

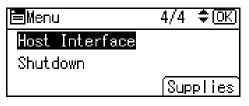
#### 🚼 Important 🔅

- When DHCP is selected, you cannot configure settings for the following items:
  - IP Address
  - Subnet Mask
  - 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.

⊟Host Interfc.	1/2	\$ (OK)
I/O Buffer		
I/O Timeout		
Network		

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

∎Network	1/3 <b>≑</b> ⊙K)	
Machine IPv4 Ad	ddress	
IPv6 Stateless Setting		
IPsec		

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

IPv4 Address:	1/1	<b>♦</b> (OK)
Auto-Obtain (DHCP)		
Specify		
IP Add. Subnet	M Gar	teway

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.

## **Vote**

• For details about printing the configuration page, see "Test Printing", Quick Installation guide.

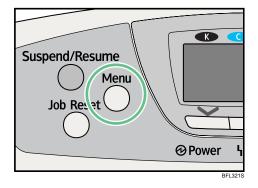
# Configuring Network Settings When Using NetWare

If you use NetWare, select the appropriate NetWare frame type. Select one of the items below as necessary.

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

#### Comportant 1

- 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.



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

<b>⊟</b> Menu	4/4	\$ОК
Host Interface		
Shutdown		
	Sup	plies

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

⊟Host Interfc.	1/2	≑ОК)
I/O Buffer		
I/O Timeout		
Network		

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

Network	2/3	\$ <u>OK</u>
NW Frame Type		
Effective Protocol		
Ethernet Speed		

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

NW Frame Type:	1/2	\$OK)
Auto Select		
Ethernet II		
Ethernet 802.2		

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

#### Vote

• For details about printing the configuration page, see "Test Printing", Quick Installation Guide.

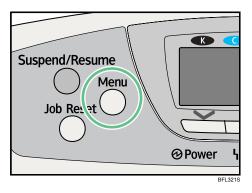
# Setting the Ethernet Speed

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.

	Printer				
Router/HUB	[10Mbps Half Duplex]	[10Mbps Full Duplex]	[100Mbps Half Duplex]	[100Mbps Full Duplex]	[Auto Select]
10 Mbps half duplex	0	-	-	-	0
10 Mbps full duplex	-	0	-	-	-
100 Mbps half duplex	-	-	0	-	0
100 Mbps full duplex	-	-	-	0	-
auto- negotiation (auto selection)	Ο	-	0	-	0

# 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.



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

<b>⊟</b> Menu	4/4	‡OK
Host Interface		
Shutdown		
	Sup	plies

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

⊟Host Interfc.	1/2	≑ОК)
I/O Buffer		
I/O Timeout		
Network		

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

Network	2/3	‡OK)
NW Frame Type		
Effective Protocol		
Ethernet Speed		

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

Ethernet Speed: 1/2	(€ОК
Auto Select	
10Mbps Half Duplex	
10Mbps Full Duplex	

- 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", Quick Installation Guide.

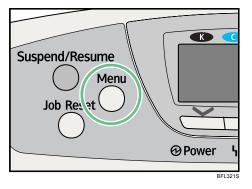
# Enabling IEEE802.1X Authentication

Follow this procedure to enable IEEE802.1X Authentication.

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• To use IEEE802.1X Authentication, connect this machine to an authentication enabled port. If you do not, the authentication will fail.

1. Press the [Menu] key.



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

<b>≝</b> Menu	4/4 ‡OK
Host Interface	
Shutdown	
	Supplies

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

⊟Host Interfc.	1/2	(¢
I/O Buffer		
I/O Timeout		
Network		

4. Press the [♥] or [▲] key to select [IEEE802.1X Auth.(Ethernet)], and then press the [OK] key.

∎Network	3/3	\$OK)
IEEE802.1X Auth.	(Ethe	ernet)
Restr.IEEE802.1>	( Auth	n.Def.
LAN Type		

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

IEEE802.1X	Auth.:	1/1	‡OK)
Active			
Inactive			

- 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", Quick Installation Guide.

4

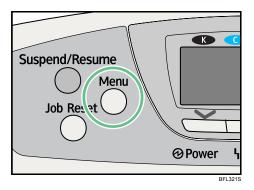
## **Wireless LAN Configuration**

Configure the printer to use Wireless LAN. The following table shows the control panel settings and their defaults. These items appear in the [Host Interface] menu.

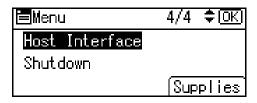
Setting Name	Default
Communication Mode	Infrastructure Mode
Ad-hoc Channel	11
SSID Setting	blank
Security Method	Off

#### • Note

- Ethernet and Wireless LAN cannot be used at the same time.
- To use Wireless LAN, set the following using the control panel: press the [Menu] key, and then select [Host Interface], [Network], [LAN Type], and then select [Wireless LAN]. In addition, set the IP address, subnet mask, gateway address, DHCP, Frame Type (NW), and active protocol as explained in "Ethernet Configuration".
- 1. Press the [Menu] key.



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



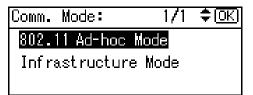
3. Press the [♥] or [▲] key to select [Wireless LAN], and then press the [OK] key.

⊟Host Interfc.	2/2	\$ОК
Wireless LAN		
USB Speed		

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

₩ireless LAN 1/2	¢0K)
Communication Mode	
SSID Setting	
Ad-hoc Channel	

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



- The transmission mode of Wireless LAN can also be set using the Web Image Monitor. For details, see Web Image Monitor help, and "Configuring the Network Interface Board Using Web Browser", Software Guide.
- 6. If [802.11 Ad-hoc Mode] is selected for [Communication Mode], confirm the channel to use for transmission.
- 7. Press the [♥] or [▲] key to select [Ad-hoc Channel], and then press the [OK] key.



Press the [♥], [▲], [◀], or [▶] key to select the appropriate channel, and then press the [OK] key.

Ad-ho	c Chan	nel:	1/2 •	► OK
1	2	3	4	5
6	7	8	9	10
11	12	13	36	40

4

- 9. Press the [Menu] key to return to the initial screen.
- 10. Print a configuration page to confirm the settings.

Note

• For details about printing the configuration page, see "Test Printing", Quick Installation Guide.

#### 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 the network administrator for the SSID to use.

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

₩ireless LAN 1/2	(¢
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].

SSID Setting:	1/1	♦OK)
SSID		

3. Press the [♥], [▲], [◀], or [▶] key to enter characters, and then press [Accept].

	�®K
8bcdefghijkl	mnopq
rstuvwxyz0	_ & []
ABC/123 (Helete	Accept

You can switch among upper/lower cases, numeric codes, and symbols by pressing [ABC/123]. The characters that can be used are ASCII 0  $\times$  20-0  $\times$  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 the Web Image Monitor Help, and "Configuring the Network Interface Board Using Web Browser", Software Guide.
- For details about printing the configuration page, see "Test Printing", Quick Installation Guide.

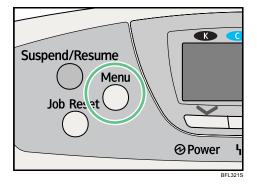
## Setting Security Method of Wireless LAN

## Setting a WEP Key

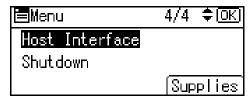
If the wireless network uses WEP to encrypt transmitted data, the corresponding WEP key must be set to the printer to allow communications with other network devices.

Ask the network administrator for the WEP key to use.

1. Press the [Menu] key.



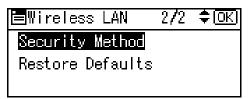
2. Press the [♥] or [▲] key to select [Host Interface], and then press the [OK] key.



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

⊟Host Interfc.	2/2	\$OK
Wireless LAN		
USB Speed		

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



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

Security Method:	1/2	‡OKI
Off		
WEP		
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. A confirmation message appears. Press [Enter].

Enter WEP	(Encryption	)
Key.		
Hex:10/26		
ASCII:5/13	: Digits Er	ter

7. Press the [♥], [▲], [◀], or [▶] key to enter characters, and then press the [OK] key.

	� (OK)
8bcdefshijklu	mnopq
rstuvwxyz0	_ & []
ABC/123 (Polioto	Accept

- When entering a character, pressing [OK] will mask it with an asterisk for security reasons.
- When using 64-bit WEP, up to 10 hexadecimal characters or five ASCII charasters 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. When all characters have been entered, press [Accept].



- 9. Press the [Menu] key to return to the initial screen.
- 10. Print a configuration page to confirm the settings.

Note

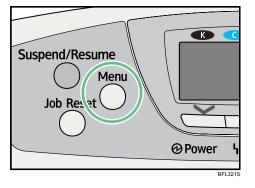
- The WEP key can also be set using a Web browser. For details, see the Web Image Monitor Help.
- For details about printing the configuration page, see "Test Printing", Quick Installation Guide.

#### 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.

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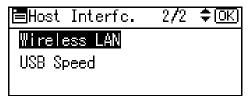
- For setting WPA, installing the optional HDD or the optional Data Storage Card is required.
- 1. Press the [Menu] key.



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.

⊟Wireless LAN	2/2	‡OK)
Security Method		
Restore Defaults		

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

Security	Method:	2/2	¢0K
WPA			
Details	)		
Details			

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

∎ WPA	171	(¢
Encryption Method		
Authentication Me	thoc	l
	E	xit

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

Encrypt.	Method:	1/1	(СК)
TKIP			
CCMP(AE	S)		

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.

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

<b>E</b> WPA	1/1	‡OK)
Encryption Metho	d	
Authentication M	ethod	
	E	xit

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

Auth. Method:	1/2	¢ (0K)
WPA-PSK		
WPA		
WPA2-PSK		

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.

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

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

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



12. Press the [▲] or [▼] key to enter the Pre-Shared Key, and then press the [OK] key.



- 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.
- 13. When all characters have been entered, press [Accept].

****_		�OK
<u>a</u> bcdef	ghijk∣	mnopq
rstuvw	ху <b>г0.</b> -	_ & 🛙
ABC/123	Delete	Accept

Wait for two seconds. The display returns to the [Authentication Method] menu.

14. Press [Exit].

<b>e</b> wpa	1/1	(¢
Encryption Metho	od	
Authentication N	lethoo	J
	E	xit

15. Check [WPA] is selected, and then press the [OK] key.

Security I	Method:	2/2	¢ ⊡K
WPA			
Details			

- 16. Press the [Menu] key to return to the initial screen.
- 17. Print a configuration page to confirm the settings made.

Note

• For details about printing the configuration page, see "Test Printing", Quick Installation Guide.

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## **Configuring WPA/WPA2**

WPA/WPA2 uses an authentication server to provide greatly enhanced security compared to WPA-PSK/ WPA2-PSK.

WPA/WPA2 can be configured using Web Image Monitor's administrator mode. You can select four types of EAP authentication method: EAP-TLS, LEAP, EAPTTLS and PEAP. Note that each EAP authentication method has different configuration settings and authentication procedures.

Types and requirements of certificates are as follows:

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

#### 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)

#### 🚼 Important

- To set WPA/WPA2, you must enable SSL.
- To set WPA/WPA2, you must use Web Image Monitor.

#### Installing a Site Certificate

1. Access the authentication server and obtain the CA certificate.

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

- 2. Start your Web browser.
- 3. Enter "http://(printer's address)/" in the address bar of a Web browser.
- 4. Enter your user name and password, and then click [Login].

For details about the login user name and password, consult your administrator.

- 5. Click [Configuration].
- 6. [Site Certificate] in the "Security" area.
- Click [Browse] on the "Site Certificate to Import" window, and then select the CA certificate you obtained.
- 8. Click [Import].
- **9.** Click [OK].
- 10. Click [Logout].
- 11. Close the Web browser.

#### Installing Device Certificate

Depending on the settings of your choice, certain steps in the following procedure may not be required.

- 1. Start your Web browser.
- 2. Enter "http://(printer's address)/" in the address bar of a Web browser.
- Enter your user name and password, and then click [Login].
   For details about the login user name and password, consult your administrator.
- 4. Click [Configuration].
- 5. Click [Device Certificate] in "Security" area.
- 6. Check [Certificate 1] or [Certificate 2] on the "Device Certificate" window, and then click [Request].
- Enter appropriate "Common Name" and "Country Code" on "Certificate Information" page, and then click [OK].
- 8. "Updating..." appears. Wait for about 2 minutes, and then click [OK].
- Click [Details], shown in the "Device Certificate" window as the memo pad icon for "Requesting".
- Select all, and then copy the entire "Text for Requested Certificate" text that is displayed in the "Certificate Status" window.
- 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.

- 12. Click [Certificate 1] or [Certificate 2] on "Device Certificate" window, and then click [Install]. If you have selected [Certificate 1] in step 6, click [Certificate 1] in this step. If you have selected [Certificate 2] in step 6, click [Certificate 2] in this step.
- Using a text editor, open the CA signified certificate downloaded in step 11, and then copy over all the text.
- 14. In the [Install Certificate] window, paste all the text copied into the CA signified certificate.
- 15. Click [OK].
- "Updating..." appears. Wait for about one or two minutes, and then click [OK]. Check that the "Device Certificate" shows "Installed".
- 17. Click [Certificate 1] or [Certificate 2] on "Certification", and then click [OK].

If you have selected [Certificate 1] in step **6**, click [Certificate 1] in this step. If you have selected [Certificate 2] in step **6**, click [Certificate 2] in this step.

- 18. Click [Logout].
- 19. Close the Web browser.

#### Note

- If you request two certificates simultaneously, the certificate authority might not display either certificate. Click [Cancel Request] to cancel the request.
- Click [Cancel Request] to cancel the request for the server certificate.
- If "Not found" appears after clicking [OK] in steps **8** and **16**, wait one or two minutes, and then click [Refresh].

#### Setting Items of WPA/WPA2

- 1. Start your Web browser.
- 2. Enter "http://(printer's address)/" in the address bar of a Web browser.
- Enter your user name and password, and then click [Login].
   For details about the login user name and password, consult your administrator.
- 4. Click [Configuration], and then click [Wireless LAN Settings] in the "Interface" area.
- 5. Select [Infrastructure Mode] in "Communication Mode".
- 6. Enter the alphanumeric characters (a-z, A-Z, or 0-9) in [SSID] according to the access point you want to use.
- 7. Select [WPA] in "Security Method".
- 8. Select [TKIP] or [CCMP (AES)] in "WPA Encryption Method" according to the access point you want to use.
- 9. Select [WPA] or [WPA2] in "WPA Authentication Method".
- 10. In "User Name", enter the user name set in the RADIUS server.
- 11. Enter the domain name in "Domain Name".
- 12. 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 the client certificate you want to use in "WPA Client Certificate Status".
  - 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

- Select [MSCHAPv2] or [TLS] in "Phase 2 Method".
- When you select [TLS], select the client certificate you want to use in "WPA Client Certificate Status".
- When you select [MSCHAPv2],
  - click [Change] in "Password", and then enter the password set in the RADIUS server.
  - click [Change] on "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- 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".
- 13. Click [OK].
- 14. Click [Logout].
- 15. Close the Web browser.

#### Note

- You can select [Certificate 1] or [Certificate 2] 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 802.11a" drop down menu in the "Certification" window.
- 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.

4. Configuration

# 5. Paper and Other Media

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

## Supported Paper for Each Tray

This section describes the paper size, feed direction, and the maximum amount of paper that can be loaded into each paper tray in this printer.

### Symbols

In this manual	On the display	Paper feed direction
D↑ (Feed direction)	A4 8 <sup>1</sup> / <sub>2</sub> × 11	Short-edge feed direction

Note

- Be careful of the paper feed direction when loading paper. The direction is determined for each paper size.
- If you want to change the default setting, contact your sales or service representative.

## Standard Paper Tray and Paper Feed Unit Trays

#### Standard paper tray

#### Automatically selected paper sizes

**220-240V** A4D, A5D, A6D, 8  $^{1}/_{2}$  " × 14 " (Legal)D, 8  $^{1}/_{2}$  " × 11 " (Letter)D, 7  $^{1}/_{4}$  " × 10  $^{1}/_{2}$  " (Executive)D

 $\begin{array}{|c|c|c|c|c|c|} \hline 120V & 8^{1}/_{2} \\ \hline & 8^{1}/_{2} \\ \hline & 8^{1}/_{2} \\ \hline & 8^{1}/_{2} \\ \hline & 9^{1}/_{2} \\ \hline & 9^{1}/_{2}$ 

#### Paper sizes requiring manual setting

220-240V

Metric version	Inch version
Ф, 16КФ	8 $1/2$ " × 13" (Foolscap) $D$ , 8 $1/4$ " × 13" (Folio) D, 8 " × 13" (F/GL) $D$ , 5 $1/2$ " × 8 $1/2$ " (Half Letter) $D$ , 4 $1/8$ " × 9 $1/2$ " (Com10) $D$ , 3 $7/8$ " × 7 $1/2$ " (Monarch) $D$ Custom size: 3.94" to 8.50" in width, 5.83" to 14.00" in length

120V

Metric version	Inch version
A5 <sup>D</sup> , B5 JIS <sup>D</sup> , A6 <sup>D</sup> , B6 JIS <sup>D</sup> , C5 Env. <sup>D</sup> , C6	8 $\frac{1}{2}$ " × 13 " (Foolscap) $\mathbf{D}$ , 8 $\frac{1}{4}$ " × 13 " (Folio)
Env. <sup>D</sup> , DL Env. <sup>D</sup> , 16K <sup>D</sup>	$\mathbf{D}$ , 8 " × 13 " (F/GL) $\mathbf{D}$ , 4 $\frac{1}{8}$ " × 9 $\frac{1}{2}$
Custom size: 100 to 216 mm in width, 148 to	" (Com 10) $\mathbf{D}$ , 3 $\frac{7}{8}$ " × 7 $\frac{1}{2}$ " (Monarch) $\mathbf{D}$
355.6 mm in length	Custom size: 3.94 " to 8.50 " in width, 5.83 " to 14.00 " in length

### Paper feed unit trays

#### Automatically selected paper sizes

 $\begin{array}{|c|c|c|c|c|c|} \hline 120V & 8^{1}/_{2} \\ \hline & 8^{1}/_{2} \\ \hline & 8^{1}/_{2} \\ \hline & 8^{1}/_{2} \\ \hline & 9^{1}/_{2} \\$ 

### Paper sizes requiring manual setting

220-240V

Metric version	Inch version
B5 JIS <sup>D</sup> , B6 JIS <sup>D</sup> , C5 Env. <sup>D</sup> , C6 Env. <sup>D</sup> , DL Env. D, 16K <sup>D</sup> Custom size: 100 to 216 mm in width, 210 to 355.6 mm in length	8 $\frac{1}{2}$ " × 13 " (Foolscap) $\overline{D}$ , 8 $\frac{1}{4}$ " × 13 " (Folio) $\overline{D}$ , 8 " × 13 " (F/GL) $\overline{D}$ , 5 $\frac{1}{2}$ " × 8 $\frac{1}{2}$ " (Half Letter) $\overline{D}$ , 4 $\frac{1}{8}$ " × 9 $\frac{1}{2}$ " (Com10) $\overline{D}$ , 3 $\frac{7}{8}$ " × 7 $\frac{1}{2}$ " (Monarch) $\overline{D}$ Custom size: 3.94 " to 8.50 " in width, 8.27 " to 14.00 " in length

120V

Metric version	Inch version
A5 <sup>D</sup> , B5 JIS <sup>D</sup> , B6 JIS <sup>D</sup> , C5 Env. <sup>D</sup> , C6 Env. <sup>D</sup> , DL Env. <sup>D</sup> , 16K <sup>D</sup> Custom size: 100 to 216 mm in width, 210 to 355.6 mm in length	8 $\frac{1}{2}$ " × 13 " (Foolscap) $\square$ , 8 $\frac{1}{4}$ " × 13 " (Folio) $\square$ , 8 " × 13 " (F/GL) $\square$ , 4 $\frac{1}{8}$ " × 9 $\frac{1}{2}$ " (Com 10) $\square$ , 3 $\frac{7}{8}$ " × 7 $\frac{1}{2}$ " (Monarch) $\square$ Custom size: 3.94 " to 8.50 " in width, 8.27 " to 14.00 " in length

## **Bypass Tray**

#### Paper sizes requiring manual setting

The following sizes are supported, but they must be selected using the control panel. For details about paper size settings, see "Bypass Tray".

The custom size must be selected using the control panel or the printer driver. For details about setting on the control panel, see "Bypass Tray".

For details about setting on the printer driver, see the printer driver Help.

Metric version	Inch version
A4 <sup>D</sup> , B5 JIS <sup>D</sup> , A5 <sup>D</sup> , B6 JIS <sup>D</sup> , A6 <sup>D</sup> , C5 Env. D, C6 Env.D, DL Env.D, 16K <sup>D</sup> Custom size: 70 to 216 mm in width, 139.7 to 900 mm in length	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) , 5 $1/2$ " × 8 $1/2$ " (Half Letter) , 4 $1/8$ " × 9 $1/2$ " (Com10) , 3 $7/8$ " × 7 $1/2$ " (Monarch) Custom size: 2.76 " to 8.50 " in width, 5.50 " to 35.43 " in length

#### Reference

• p.114 "Bypass Tray"

Paper Weight and Capaci	ty	acity	Capo	and	ight	We	per	Pa
-------------------------	----	-------	------	-----	------	----	-----	----

Tray	Supported paper weight	Supported capacity (Plain paper)
Tray 1	52 to 216 g/m <sup>2</sup> (14 to 57 lb.)	550 sheets (80 g/m <sup>2</sup> , 20 lb.)
Tray 2, Tray 3, Tray4	52 to 216 g/m <sup>2</sup> (14 to 57 lb.)	550 sheets (80 g/m <sup>2</sup> , 20 lb.)

Tray	Supported paper weight	Supported capacity (Plain paper)
Bypass tray	52 to 216 g/m <sup>2</sup> (14 to 57 lb.)	100 sheets (80 g/m <sup>2</sup> , 20 lb.)

## • Note

• Do not load the paper so that the top of the stack exceeds the under limit mark inside the tray.

## **Paper Recommendations**

This section describes loading and storing paper, details of each type of paper, and the printable area. Configure the settings depending on the type of paper you are using.

#### 🔁 Important

• Print quality cannot always be guaranteed for all types of paper that are sold at stores.

### **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.

## Types of Paper and Other Media

This section describes the types of paper and the settings they require.

The following table shows you the control panel settings that correspond to the printer driver's paper type settings.

Printer driver setup	Paper thickness	Printer setup	Supported paper feeding tray	Duplex printing
[Plain (60 - 105 g/m2)]	60.2 to 90.2 g/ m <sup>2</sup> (16 to 24lb.)	[Plain Paper 1]	Any input tray can be used.	Supported
[Plain (60 - 105 g/m2)]	90.2 to 104.7g/ m <sup>2</sup> (24 to 28lb.)	[Plain Paper 2]	Any input tray can be used.	Supported
[Thick 1 (105 - 157 g/m2)]	104.7 to 157 g/ m <sup>2</sup> (28 to 42 lb.)	[Thick Paper 1]	Any input tray can be used.	Supported
[Thick 2 (157 - 216 g/m2)]	157 to 216 g/m <sup>2</sup> (42 to 58 lb.)	[Thick Paper 2]	Any input tray can be used.	Not supported
[Thin (52 - 60 g/ m2)]	52 to 60.2 g/m <sup>2</sup> (14 to 16 lb.)	[Thin Paper]	Any input tray can be used.	Not supported

Printer driver setup	Paper thickness	Printer setup	Supported paper feeding tray	Duplex printing
[OHP Transparency]	_	[OHP (Transparency)]	Any input tray can be used.	Not supported
[Letterhead]	-	[Letterhead 1] *1 [Letterhead 2] *1 [Letterhead 3] *1	Any input tray can be used.	Supported
[Labels]	-	[Label Paper 1] *1 [Label Paper 2] *1 [Label Paper 3] *1	Any input tray can be used.	Not supported
[Glossy]	-	[Glossy Paper 1] *1 [Glossy Paper 2] *1 [Glossy Paper 3] *1 [Glossy Paper 4] *1	Any input tray can be used.	Supported
[Coated Paper]	-	[Coated Paper 1] *1 [Coated Paper 2] *1 [Coated Paper 3] *1 [Coated Paper 4] *1	Any input tray can be used.	Not supported
[Special 1]	-	[Special Paper 1]	Any input tray can be used.	Supported
[Special 2]	-	[Special Paper 2]	Any input tray can be used.	Supported
[Special 3]	-	[Special Paper 3]	Any input tray can be used.	Supported

Printer driver setup	Paper thickness	Printer setup	Supported paper feeding tray	Duplex printing
[Color]	-	[Colour Paper]	Any input tray can be used.	Supported
[Bond]	-	[Bond Paper]	Any input tray can be used.	Supported
[Preprinted]	-	[Preprinted Paper]	Any input tray can be used.	Supported
[Recycled]	-	[Recycled Paper]	Any input tray can be used.	Supported
[Cardstock]	-	[Cardstock]	Any input tray can be used.	Supported
[Envelope]	-	[Envelope 1] *1 [Envelope 2] *1 [Envelope 3] *1 [Envelope 4] *1	Any input tray can be used.	Not supported

\*1 If the printing result is badly wet or smudged, change the setting on the printer's control panel.

## Plain paper

	60.2 to 104.7 g/m <sup>2</sup> (16 to 28 lb.)
Paper thickness	• [Plain Paper 1]: 60.2 to 90.2 g/m <sup>2</sup> (16 to 24 lb.)
	• [Plain Paper 2]: 90.2 to 104.7 g/m <sup>2</sup> (24 to 28 lb.)
	Make the following two settings using the control panel:
Printer setup	<ul> <li>Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [No Display (Plain Paper)].</li> </ul>
	<ul> <li>Press the [Menu] key, Select [Maintenance], [General Settings], and then select [Plain Paper Setting]. Select the tray you want to set, and then select [Plain Paper 1] or [Plain Paper 2].</li> </ul>
Printer driver setup	<ul> <li>[Plain Paper 1]: Click [Plain (60 - 105 g/m2)] in the [Paper Type:] list.</li> </ul>

	<ul> <li>[Plain Paper 2]: Click [Plain (60 - 105 g/m2)] in the [Paper Type:] list.</li> </ul>	
Supported paper feeding tray	Any input tray can be used.	
Paper capacity	<ul> <li>Tray 1: 550</li> <li>Tray 2, Tray 3, Tray 4 (Paper feed unit): 550</li> <li>Bypass Tray: 100</li> <li>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.</li> </ul>	
Duplex printing	Supported	
Additional cautions	When printing on the reverse side of plain paper that is already printed on, select [Paper Type: (tray name)] → [Plain: Dup.Back] from using control panel or printer driver.	

## Thick paper

Paper thickness	<ul> <li>104.7 to 216 g/m<sup>2</sup></li> <li>[Thick Paper 1]: 104.7 to 157 g/m<sup>2</sup> (28 to 42 lb.)</li> <li>[Thick Paper 2]: 157 to 216 g/m<sup>2</sup> (42 to 58 lb.)</li> </ul>	
Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Thick Paper 1] or [Thick Paper 2].	
Printer driver setup	<ul> <li>[Thick Paper 1]: Click [Thick 1 (105 - 157 g/m2)] in the [Paper Type:] list.</li> <li>[Thick Paper 2]: Click [Thick 2 (157 - 216 g/m2)] in the [Paper Type:] list.</li> </ul>	
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.	
Duplex printing	<ul><li>[Thick Paper 1]: Supported</li><li>[Thick Paper 2]: Not supported</li></ul>	
Additional cautions	• Print speed is slightly slower than when using plain paper.	

<ul> <li>When printing on the reverse side of thick paper that is already printed on, select [Paper Type: (tray name)] → [Thick 1: Dup.Back] or [Thick 2: Dup.Back] using control panel or printer driver.</li> </ul>

## Thin paper

Paper thickness	52 to 60.2 g/m <sup>2</sup> (14 to 16 lb.)
Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Thin Paper].
Printer driver setup	Click [Thin (52 - 60 g/m2)] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Not supported

### **OHP** transparencies

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [OHP (Transparency)].
Printer driver setup	Click [OHP Transparency] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used.
Paper capacity	<ul> <li>Tray 1: 100</li> <li>Tray 2, Tray 3, Tray 4 (Paper feed unit): 100</li> <li>Bypass Tray: 100</li> <li>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.</li> </ul>
Duplex printing	Not supported
Additional cautions	<ul> <li>Print speed for OHP transparencies is slower than for plain paper.</li> </ul>

• Due to switching modes, the printer will be on standby for thirty or forty seconds after the job was received.
<ul> <li>We recommend that you use a 4000 ANSI lumen or brighter overhead projector to project OHP transparencies.</li> </ul>

## Letterhead

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Letterhead].
Printer driver setup	Click [Letterhead] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Supported
Letterhead setup	<ul> <li>Default: [Letterhead 1]</li> <li>If the printing result is badly wet or smudged, change the setting on the printer's control panel as the following:</li> <li>Press the [Menu] key, select [Maintenance], [General Settings], and then select [Letterhead Setting]. Select one from [Letterhead 1], [Letterhead 2], or [Letterhead 3]. The greater number corresponds to the thicker setting. The one of these items is normally detected automatically according to the paper type you set. It is not necessary to change this setting when the printing result has no problem.</li> </ul>

## Label paper

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Label Paper].
Printer driver setup	Click [Labels] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.

Duplex printing	Not supported
	Default: [Label Paper 2] If the printing result is badly wet or smudged, change the setting on the printer's control panel as the following:
Label paper setup	<ul> <li>Press the [Menu] key, select [Maintenance], [General Settings], and then select [Label Paper Setting]. Select one from [Label Paper 1], [Label Paper 2], or [Label Paper 3]. The greater number corresponds to the thicker setting. The one of these items is normally detected automatically according to the paper type you set. It is not necessary to change this setting when the printing result has no problem.</li> </ul>

## Glossy paper

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Letterhead].
Printer driver setup	Click [Glossy] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Supported
Glossy paper setup	<ul> <li>Default: [Glossy Paper 3]</li> <li>If the printing result is badly wet or smudged, change the setting on the printer's control panel as the following:</li> <li>Press the [Menu] key, select [Maintenance], [General Settings], and then select [Glossy Paper Setting]. Select one from [Glossy Paper 1], [Glossy Paper 2], [Glossy Paper 3], or [Glossy Paper 4]. The greater number corresponds to the thicker setting. The one of these items is normally detected automatically according to the paper type you set. It is not necessary to change this setting when the printing result has no problem.</li> </ul>

## Coated paper

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Coated Paper].
Printer driver setup	Click [Coated Paper] in the [Paper Type] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Not supported
Coated paper setup	<ul> <li>Default: [Coated Paper 2]</li> <li>If the printing result is badly wet or smudged, change the setting on the printer's control panel as the following:</li> <li>Press the [Menu] key, select [Maintenance], [General Settings], and then select [Coated Paper Setting]. Select one from [Coated Paper 1], [Coated Paper 2], [Coated Paper 3], or [Coated Paper 4]. The greater number corresponds to the thicker setting. The one of these items is normally detected automatically according to the paper type you set. It is not necessary to change this setting when the printing result has no problem.</li> </ul>

## Special paper

Special paper standard	When you cannot print successfully with other paper type settings, set special paper.
Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Special Paper 1], [Special Paper 2], or [Special Paper 3].
Printer driver setup	Click [Special 1],[ Special 2], or [Special 3] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Supported

## Color paper

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Colour Paper].
Printer driver setup	Click [Color] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Supported

## Bond paper

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Bond Paper].
Printer driver setup	Click [Bond] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Supported

## **Preprinted paper**

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Preprinted Paper].
Printer driver setup	Click [Preprinted] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Supported

## **Recycled** paper

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Recycled Paper].
Printer driver setup	Click [Recycled] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Supported

## Cardstock

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Cardstock].
Printer driver setup	Click [Cardstock] in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Supported

## Envelopes

Printer setup	Press the [Menu] key, Select [Paper Input], [Paper Type: (tray name)], and then select [Envelope].
Printer driver setup	Click [Envelope], in the [Paper Type:] list.
Supported paper feeding tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (♥) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides inside it.
Duplex printing	Not supported

Envelope setup	Default: [Envelope 1]
	If the printing result is badly wet or smudged, change the setting on the printer's control panel as the following:
	<ul> <li>Press the [Menu] key, select [Maintenance], [General Settings], and then select [Envelope Setting]. Select one from [Envelope 1], [Envelope 2], [Envelope 3], or [Envelope 4]. The greater number corresponds to the thicker setting. The one of these items is normally detected automatically according to the paper type you set. It is not necessary to change this setting when the printing result has no problem.</li> </ul>
	• 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.
	• Load envelopes print side down on the bypass tray.
	• Load envelopes print side up in the input tray or optional paper feed unit.
	• Check there is no air in the envelopes before loading.
Additional cautions	• For better print quality, we recommend the right, left, top, and bottom print margins to be at least 20 mm (0.8 ") each.
	• Load only one size and type of envelope at a time.
	<ul> <li>Before loading envelopes, flatten their leading edges (the edge going into the printer) by running a pencil or ruler across them.</li> </ul>
	<ul> <li>Some kinds of envelope might cause misfeeds, wrinkles or print poorly.</li> </ul>
	<ul> <li>Print quality on envelopes may be uneven if parts of an envelope have differing thicknesses. Print one or two envelopes to check print quality.</li> </ul>
	• In a hot and humid environment, the envelope might be output creased or improper printing quality.

## Paper Not Supported by This Printer

#### Comportant 🖸

- Do not use the following types of paper:
  - Ink-jet printer paper
  - GelJet special paper

5

- 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 on

Misprints are especially likely when using paper printed on by printers other than a laser printer (e.g. monochrome and color copiers, ink-jet printers, etc.) Refrain from printing on the side on which nothing is printed.

- 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

#### Note

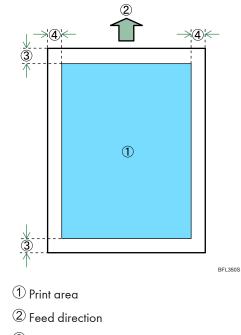
• Even if paper is adequate for the printer, poorly stored paper can cause paper misfeeds, print quality degradation, or malfunctions.

#### **Print Area**

This section describes the area of a page that is available for printing.

The following diagram shows the print area for this printer.

#### Paper

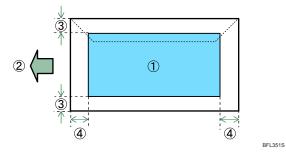


- ③ Approx. 4.2 mm (0.17 inches)
- (4) Approx. 4.2 mm (0.17 inches)

#### **Vote**

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

#### Envelope



- 1 Print area
- 2 Feed direction
- <sup>3</sup> Approx. 4.2 mm (0.17 inches)
- (4) Approx. 4.2 mm (0.17 inches)

5

## • Note

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

## **Loading Paper**

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

## 

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

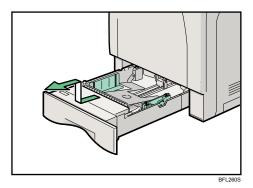
### Standard Tray or Paper Feed Unit Trays

The following example explains loading procedure for the standard tray (Tray 1). The same procedure can be used for the optional paper feed unit.

The same procedure can be used for all trays. Tray 1 is used as an example.

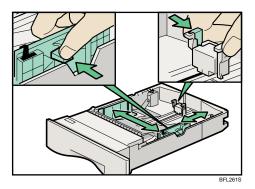
#### C Important

- Make sure paper is not stacked higher than the upper limit mark inside the paper tray. Paper misfeeds might occur.
- Do not mix different types of paper in the same paper tray.
- During printing, do not open or close the printer covers or bypass tray, or pull out or push in the paper tray.
- The default of tray 1 is as follows:
- 220-240V A4
- 120V 8<sup>1</sup>/<sub>2</sub> " × 11 " (Letter) □
- 1. Slowly slide out the paper tray (Tray 1), until it stops. Then, lift the front of the tray slightly, and then pull the tray completely out.

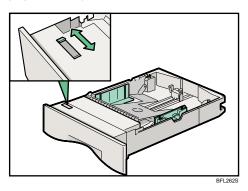


Place the tray on a flat surface.

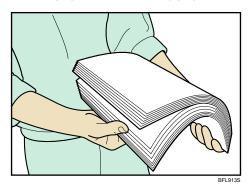
2. Pinch the green clips on the side guide and the end guide, and then adjust the guides to the paper size being loaded.



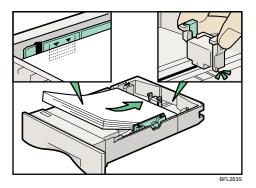
3. Slide the green switch on the front of the tray to the type of paper to be loaded. When loading paper of 75 g/m<sup>2</sup>, 20 lb., or thicker, slide the switch to the right.



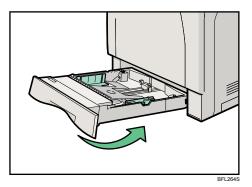
4. Fan the paper before loafing paper in the tray.



5. Load the new paper stack print side up, making sure the paper is flush against the paper guides. Adjust the paper guides to close any gaps.



6. Lift the front of the paper tray (Tray 1), and slowly slide the paper tray back in, until it stops. Make sure the tray is fully inserted to prevent a paper misfeed.



### Note

• For details about paper types supported by the printer, see "Types of Paper and Other Media".

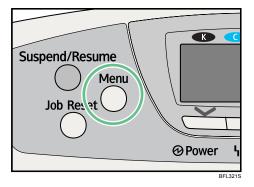
### Reference

• p.91 "Types of Paper and Other Media"

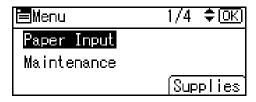
### Setting a paper size by using the control panel

To load paper whose size cannot be selected automatically, set the paper size on the control panel. Follow the procedure described below to set the paper size.

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 Size: (tray name)], and then press the [OK] key. For example, [Paper Size: Tray 1] is selected for Tray 1 as shown.

<b>E</b> Paper	Input	1/5	\$ <u>OK</u>
Paper S	ize:Bypa:	ss Tra	iy
Paper S	ize:Tray	1	
Paper S	ize:Tray	2	

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

P.Size:Tray1	2 <b>/4 &lt;\$►</b> OK
7%a×10% 🕞	5½×8½ 🕞
4%×9½ 🕞	3%×7½ 🕞
A4 🕞	A5 💭

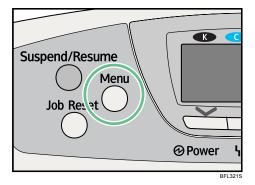
5. Press the [Menu] key to return to the initial screen.

### Setting the paper size automatically

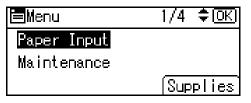
#### 🚼 Important

• If you specify the paper size using the control panel, and want to return the settings to load paper size automatically, load paper into the paper tray, and follow this procedure.

1. Press the [Menu] key.



2. 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.
 For example, [Paper Size: Tray 1] is selected for Tray 1 as shown.

EPaper Input	-1 <b>/</b> 5 ‡OK
Paper Size:Bypas	ss Tray
Paper Size:Tray	1
Paper Size:Tray	2

4. Press the [♥], [▲], [▶], or [◀] key to select [Auto Detect], and then press the [OK] key.

P.Size:Tray1	1/4 💠 OK
Auto Detect	8½×14 🕞
8½×13 🕞	8½×11 🕞
84×13 🕞	8 × 13 🕞

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

### Note

- Some paper sizes are not selected automatically. Check the followings, depending on the printer model:
- 220-240V
- Paper sizes not selected automatically for Tray 1 are:

- B5 JISD, B6 JISD, C5 Env.D, C6 Env.D, DL Env.D, 16KD, 8  $^{1}/_{2}$ " × 13 " (Foolscap)D, 8  $^{1}/_{4}$ " × 13 " (Folio)D, 8 " × 13 " (F/GL)D, 5  $^{1}/_{2}$ " × 8  $^{1}/_{2}$ " (Half Letter)D, 4  $^{1}/_{8}$ " × 9  $^{1}/_{2}$ " (Com10)D, 3  $^{7}/_{8}$ " × 7  $^{1}/_{2}$ " (Monarch)D
- Paper sizes not selected automatically for optional paper feed unit are:
- B5 JISD, B6 JISD, C5 Env.D, C6 Env.D, DL Env.D, 16KD, 8 1/2" × 13 " (Foolscap)D, 8 1/4" × 13 " (Folio)D, 8 " × 13 " (F/GL)D, 5 1/2" × 8 1/2" (Half Letter)D, 4 1/8" × 9 1/2" (Com10)D, 3 7/8" × 7 1/2" (Monarch)D
- 120V
- Paper sizes not selected automatically for Tray 1 are:
- A5□, B5 JIS□, A6□, B6 JIS□, C5 Env.□, C6 Env.□, DL Env.□, 16K□, 8<sup>1</sup>/<sub>2</sub>"×13" (Foolscap)□, 8<sup>1</sup>/<sub>4</sub>"×13" (Folio)□, 8"×13" (F/GL)□, 4<sup>1</sup>/<sub>8</sub>"×9<sup>1</sup>/<sub>2</sub>" (Com10)□, 3<sup>7</sup>/<sub>8</sub>"×7<sup>1</sup>/<sub>2</sub>" (Monarch)
   □
- Paper sizes not selected automatically for optional paper feed unit are:
- A5□, B5 JIS□, B6 JIS□, C5 Env.□, C6 Env.□, DL Env.□, 16K□, 8<sup>1</sup>/<sub>2</sub>"×13" (Foolscap)□, 8<sup>1</sup>/<sub>4</sub>"×13" (Folio)□, 8"×13" (F/GL)□, 4<sup>1</sup>/<sub>8</sub>"×9<sup>1</sup>/<sub>2</sub>" (Com10)□, 3<sup>7</sup>/<sub>8</sub>"×7<sup>1</sup>/<sub>2</sub>" (Monarch)
- For details about the available paper size, see "Supported Paper for Each Tray".

### Reference

• p.87 "Supported Paper for Each Tray"

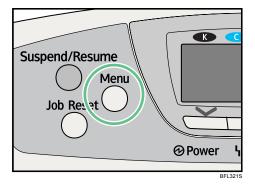
### Specifying custom size paper for standard tray and the paper feed unit

This section describes how to load custom size paper into trays 1 to 4.

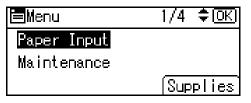
### 😭 Important

- When printing on custom size paper, 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.
   Do not make settings using the control panel if you have already made settings using the printer driver.
   However, when printing with a printer driver other than the RPCS printer driver, you must configure the settings using control panel.
- The following is the range of paper sizes that can be loaded in each type of the paper trays:
  - Tray 1: 100 216 mm (3.94 8.5 in.) in width and 148 355.6 mm (5.83 14 in.) in length.
  - Optional paper feed unit (Tray 2, Tray 3): 100 216 mm (3.94 8.5 in.) in width and 210 355.6 mm (8.27 14 in.) in length.
- The printer cannot print from applications that do not support custom size paper.

1. Press the [Menu] key.



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



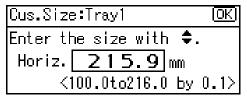
Press the [▼] or [▲] key to select [Paper Size: (tray name)], and then press the [OK] key.
 For example, [Paper Size: Tray 1] is selected for Tray 1 as shown.

🚍 Paper Input	1/5	(¢
Paper Size:Bypas	ss Tra	UV I
Paper Size:Tray	1	
Paper Size:Tray	2	

4. Press the [♥] or [▲] key to select [Custom Size], and then press the [OK] key.

P.Size:Tray1	4/4 💠 OK
16K 🖵	Custom Size

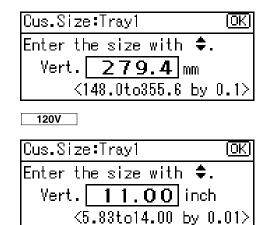
Press the [▼] or [▲] key to enter the horizontal value, and then press the [OK] key.
 220-240V



120V

Cus.Size:Tray1	<u>OK</u>
Enter the size with 🗘	
Horiz. 8.50 inch	
<3.94to8.50 by O.	.01>

Press the [▼] or [▲] key to enter the vertical value, and then press the [OK] key.
 220-240V

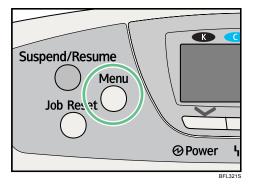


7. Press the [Menu] key to return to the initial screen.

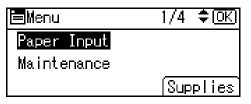
### Specifying a paper type for standard tray and the paper feed unit

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

 Plain Paper, Recycled Paper, Special Paper 1, Special Paper 2, Special Paper 3, Colour Paper, Letterhead, Preprinted Paper, Label Paper, Bond Paper, Cardstock, OHP (Transparency), Envelope, Thick Paper 1, Thick Paper 2 (157 - 216 g/m<sup>2</sup>), Thin Paper, Plain: Dup.Back (reverse side of plain paper), Thick 1: Dup.Back (reverse side of thick paper), Thick 2: Dup.Back (reverse side of thick paper), Coated Paper, Glossy Paper 1. Press the [Menu] key.



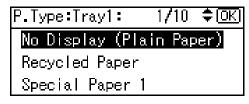
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



Press the [▼] or [▲] key to select [Paper Type: (tray name)], and then press the [OK] key.
 For example, [Paper Type: Tray 1] is selected for Tray 1 as shown.

🖿 Paper Input	3/5	‡OK)
Paper Type:Tray	1	
Paper Type:Tray	2	
Paper Type:Tray	3	

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 wet or smudged with the [Plain Paper] setting, Make the following settings using the control panel:
  - Select [Plain Paper] for the paper type according to the procedure above.

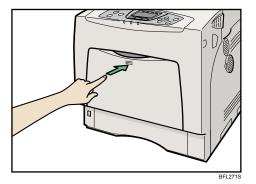
- Press the [Menu] key select [Maintenance], [General Settings], and [Plain Paper]. Select the tray you want to set, and then select [Plain Paper 1] or [Plain Paper 2].
- The following paper types cannot be printed on both sides:
  - Special Paper, Label Paper, Cardstock, OHP (Transparency), Thick Paper 2 (157 216 g/m<sup>2</sup>, Thin Paper, Plain:Dup.Back (reverse side of plain paper), Thick1:Dup.Back (reverse side of thick paper), Thick2:Dup.Back

### **Bypass Tray**

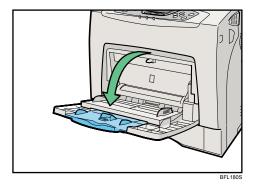
This section explains how to load paper into the bypass tray and change paper size.

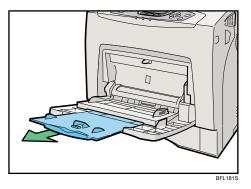
🔁 Important 🔵

- 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 with 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.
- 1. Press the mark in the centre of the bypass tray.



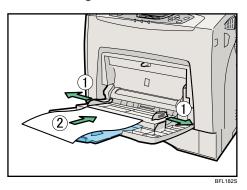
Open the bypass tray.



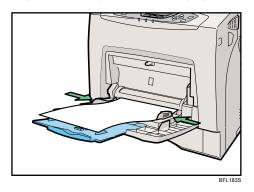


2. If you load A5 or larger size paper, pull out the bypass tray extension, and then flip it open.

3. Slide the side guides outward, and then load paper print side down, until it stops.



4. Adjust the side guides to fit the paper width.

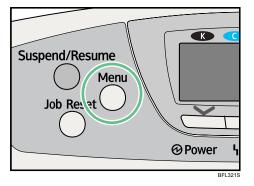


### Specifying standard size paper for the bypass tray

### Comportant 🗋

• This describes how to load standard size paper into the bypass tray.

1. Set the paper size using the control panel. Press the [Menu] key.



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

<b>⊟</b> Menu	1/4 ‡OK
Paper Input	
Maintenance	
	Supplies

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

<b>E</b> Paper	Input	1/5	\$ОК
Paper	Size:Bypas:	s Tra	IJ
Paper	Size:Tray	1	
Paper	Size:Tray :	2	

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

P.Size:Bypass	2 <b>/4 &lt;\$►</b> OK
55×85 🕞	4%×9½ 🕞
3∛×7½ 🕞	A4 🕞
A5 💭	A6 🖵

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

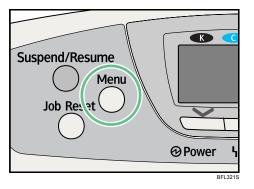
### Note

- To load thick paper, OHP transparencies, or envelopes, make settings for thick paper, envelope, or OHP transparencies using the control panel and printer driver.
- The number of pages that can be loaded in the bypass tray differs depending on paper type. Make sure paper is not stacked above the paper guides inside the bypass tray.

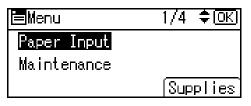
### Specifying custom size paper for the bypass tray

### 🚼 Important

- When loading custom size or special paper, specify the paper size using the control panel and printer driver.
- Paper sizes between 140 900 mm in length and 70 216 mm in width can be loaded in the bypass tray. However, the printer can be set to print on paper up to 680 mm in length when using the RPCS printer driver, 677 mm when using the PS3 printer driver, and 432 mm when using the PCL printer driver.
- The custom paper size selected using the printer driver overrides that selected using the control panel. Do not configure settings using the control panel if you have already made settings using the printer driver. However, when printing with a printer driver other than the RPCS printer driver, you must configure the settings using the control panel.
- You cannot print on custom size paper with an application that does not support the custom size setting.
- 1. Press the [Menu] key.



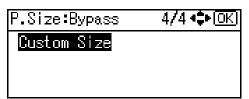
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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

<b>E</b> Paper	Input	1/5	(€
Paper S	lize:Bypass	Tra	.y
Paper S	Size:Tray 1		
Paper S	Size:Tray 2		

4. Press the [♥] or [▲] key to select [Custom Size], and then press the [OK] key.



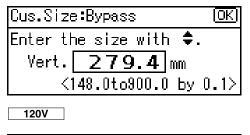
Press the [▼] or [▲] key to enter the horizontal value, and then press the [OK] key.
 220-240V

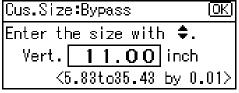
Cus.Size	e:Bypass	(OK)
Enter th	ne size with 🗘.	
Horiz.	215.9 mm	
۰	(70.0to216.0 by )	0.1>

120V

Cus.Size:Bypass	(OK)
Enter the size with 🗘.	
Horiz. 8.50 inch	
<2.76to8.50 by 0	.01>

Press the [▼] or [▲] key to enter the vertical value, and then press the [OK] key.
 220-240V





By pressing the key, the value increases or decreases by 0.1 mm. By pressing and holding the key, the value varies by 1 mm.

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

Note

• For details about the printer driver, see the printer driver Help.

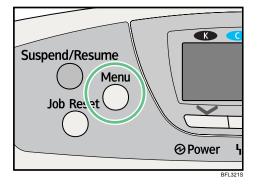
### Specifying a paper type for the bypass tray

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

 Plain Paper, Recycled Paper, Special Paper 1, Special Paper 2, Special Paper 3, Colour Paper, Letterhead, Preprinted Paper, Label Paper, Bond Paper, Cardstock, OHP (Transparency), Envelope, Thick Paper 1, Thick Paper 2, Thin Paper, Plain: Dup.Back (reverse side of plain paper), Thick 1: Dup.Back, Thick 2: Dup.Back, Coated Paper, Glossy Paper

Comportant 🗋

- Be sure to select the paper type when you load labels, thick paper, envelopes, or OHP transparencies in the bypass tray.
- The paper type selected using the printer driver overrides that selected using the control panel.
- 1. Press the [Menu] key.



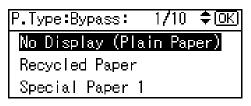
2. Press the [♥] or [▲] key to select [Paper Input], and then press the [OK] key.

∎Menu	1/4 <b>≑</b> OK)
Paper Input	
Maintenance	
	Supplies

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

EPaper Input	2/5	‡OK)
Paper Size:Tray	3	
Paper Size:Tray	4	
Paper Type:Bypa	ss Tra	i.y

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



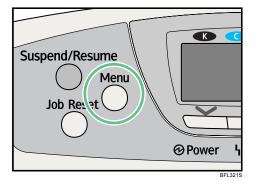
5. Press the [Menu] key to return to the initial screen.

- If the printing result is wet or smudged with the [Plain Paper] setting, Make the following settings using the control panel:
  - Select [Plain Paper] for the paper type according to the procedure above.
  - Press the [Menu] key select [Maintenance], [General Settings], and [Plain Paper]. Select the tray you want to set, and then select [Plain Paper 1] or [Plain Paper 2] for the bypass tray's paper type.
- The following paper types cannot be printed on both sides:
- Special Paper, Labels (adhesive label paper), Cardstock, OHP (transparency), Thick Paper 2 (157 216 g/m<sup>2</sup>, Thin Paper, Plain:Dup.Back (reverse side of plain paper), Thick1:Dup.Back (reverse side of thick paper), Thick2:Dup.Back

### Switching between Paper Trays

When paper of the same size is loaded in both the standard tray and the paper feed unit (option), and when [Auto Tray Select] is set with the printer driver, paper will be fed from the standard tray when you start printing. To print on paper loaded in the paper feed unit, switch the tray to be used to the paper feed unit using [Tray Priority] in the [Paper Input] Menu.

1. Press the [Menu] key.



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

Menu	1/4 ‡OK
Paper Input	
Maintenance	
	Supplies

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

🗏 Paper Input	5/5	‡OK
Tray Priority		

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

Tray Priority:	1/2	\$ОК
Tray 1		
Tray 2		
Tray 3		

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

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# 6. Replacing Consumables

This chapter explains how to replace the Photo Conductor unit, Transfer unit, Waste Toner Bottle, and Maintenance Kit.

# Adding Toner

### 

- Do not incinerate spilled toner or used toner. Toner dust is flammable and might ignite when exposed to an open flame.
- Do not store toner, used toner, or toner containers in a place with an open flame. The toner might ignite and cause burns or a fire.
- Disposal should take place at an authorized dealer or an appropriate collection site.

### 

- Keep toner (used or unused) and toner containers out of reach of children. If a child swallows toner, consult a doctor immediately.
- If toner or used toner is inhaled, gargle with plenty of water and move into a fresh air environment. Consult a doctor if necessary.
- If toner or used toner gets into your eyes, flush immediately with large amounts of water. Consult a doctor if necessary.
- If toner or used toner is swallowed, dilute by drinking a large amount of water. Consult a doctor if necessary.
- Avoid getting toner on your clothes or skin when removing a paper jam or replacing toner. If your skin comes into contact with toner, wash the affected area thoroughly with soap and water.
- If toner gets on your clothing, wash with cold water. Hot water will set the toner into the fabric and may make removing the stain impossible.
- Our products are engineered to meet high standards of quality and functionality. When purchasing expendable supplies, we recommend using only those specified by an authorized dealer.
- Do not open toner containers forcefully. Toner can spill, dirtying your clothes or hands, and possibly resulting in accidental ingestion.

### 🚼 Important

- When removing toner, be careful not to drop it.
- Do not forcefully push toner in.
- When handling toner, never stand them up on either end or position them upside down.
- Store toner in a cool dark place.

- 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. You may have to replace the toner prematurely. We recommend you
  prepare a new toner beforehand.
- Toner is a consumable and not covered by warranty. If there is a problem, contact the store where it was purchased.
- 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 toner is replaced.

#### When to replace the toner

If any of the toner cartridge indicators on the initial screen appear to show it is empty, replace the indicated toner cartridge.

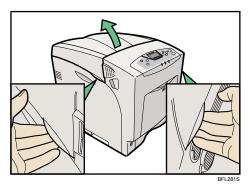
Replace the toner cartridge if the following message appears on the display:

"🖾 Add Toner: (color)"

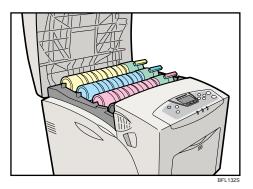
### ▲Add toner: <K,C,M,Y>

See instructions in Upper Cover. Press the Menu key to check Supplies

- A combination of one to four colors, yellow, magenta, cyan, black, appears in "(color)".
- 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 toner cartridge is replaced.
- 1. Open the top cover by grasping the left and right side handles.

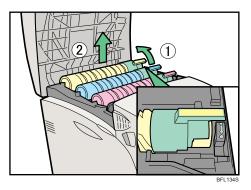


From the back, the toner is installed in the order of yellow (Y), cyan (C), magenta (M), and black (K).

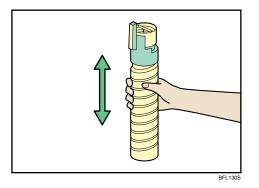


#### 2. Remove the toner you want to replace.

Turn the locking lever of the toner towards the triangle mark (0), and then lift out the toner (2).

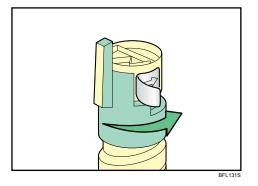


- Do not shake the removed toner. Any remaining toner may leak.
- Pull the toner out slowly and carefully to prevent leakage.
- Place the old toner on paper or some other material to avoid dirtying your workspace.
- 3. Take the new toner out of the box.
- 4. Shake the toner up and down seven or eight times.

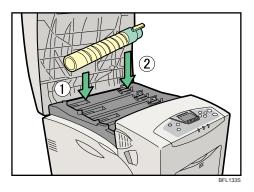


Even distribution of toner within the container improves print quality.

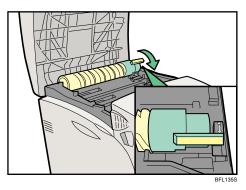
5. Remove the masking tape from the toner.



6. Install the toner. Holding the toner horizontally (①) with the locking lever on the upper side, install the toner bottom first, and then move the locking lever to the triangle mark (②).



7. Turn the locking lever to the circle mark. Pull the locking lever toward you, until it locks into place.



Do not repeatedly install and remove toner. Doing so results in toner leak.

8. Close the top cover.

Wait while the toner loads.

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

### Note

• Cooperate with the Toner Recycling Program, whereby are collected used toner. For details, consult with the dealer where you purchased the printer, or with a sales or service representative.

### **Replacing the Photo Conductor Unit**

The following procedure describes replacing the first photo conductor unit from the right. The procedure is the same for all four photo conductor units.

#### When to replace the photo conductor unit

Replace the photo conductor unit if any of the following messages appear on the display:

• "Replace PCU:Black."

### Replace PCU:Black

See instructions in Left Cover. Press the Menu key to check Supplies.

Replace the black photo conductor unit.

"Replace PCU:Colour."

### Replace PCU:Colour

See instructions in Left Cover. Press the Menu key to check Supplies.

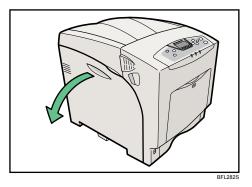
Replace the three color photo conductor units.

The color photo conductor units (yellow, cyan, and magenta) are supplied as a single item.

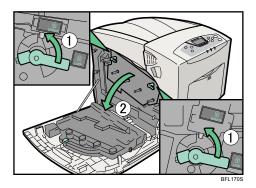
### 🚼 Important

- Exposure to light reduces photo conductor unit performance. Replace the unit as quickly as possible.
- Do not pull out the photo conductor unit quickly or with force as it may fall.
- Take care that nothing comes into contact with the top surface of the photo conductor unit.
- When holding the photo conductor unit, grab the green grip on the left and the handle on the front together. Do not move the photo conductor unit by only grabbing the grip. Doing so may damage the grip.
- Place no objects on the front or inner cover.
- 1. Turn off the power, and then unplug the power cable.

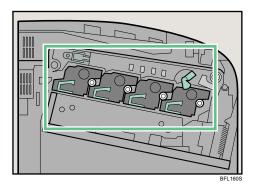
2. Carefully open the left cover.



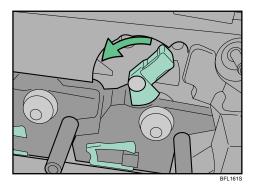
3. Turn the two green levers counterclockwise (①), and then slowly open the inner cover (②).



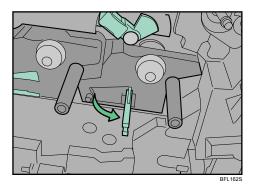
The photo conductor units are installed as shown. From the right, the units are attached in the order of black (K), magenta (M), cyan (C), and yellow (Y).



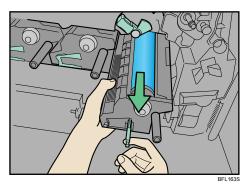
4. Remove the photo conductor unit you want to replace. Turn the green lever counterclockwise to unlock the unit. (The black photo conductor unit is used in this example.)



5. Pull out the ring pull handle of the photo conductor unit.

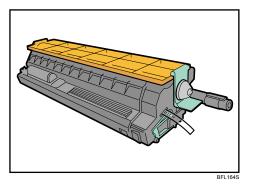


6. Hook your finger through the ring pull handle, and then slowly pull out the photo conductor unit. When you have pulled the unit half way out, support the photo conductor unit using your other hand, and then pull the unit completely out.



- Do not hold any protruding areas of the photo conductor unit. Doing so may break the photo conductor unit.
- Do not touch any protruding areas of the photo conductor unit. These may stain your hands or clothes.

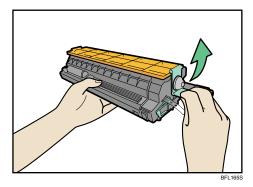
7. Take the new photo conductor unit out of the box.



For black, install one photo conductor unit; for color, install all three together.

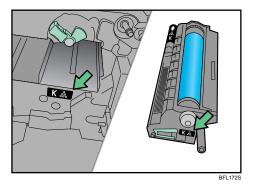
Exposure to light reduces photo conductor unit performance. Replace the unit as quickly as possible.

8. Remove the protecting cover. Do not remove the tape yet.

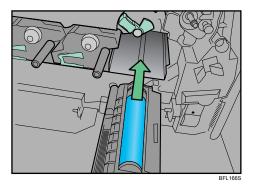


When holding the photo conductor unit, hold the green grip on the left and the handle on the front together. Do not move the photo conductor unit by only holding the grip. Doing so may damage the grip.

9. Check the installation position of the photo conductor unit. Install the unit where the colored labels correspond.

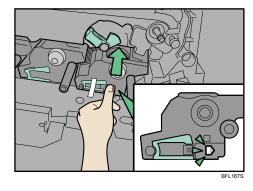


10. Install the photo conductor unit with the tape still attached. Align the tip of the photo conductor unit with the opening, and then slowly insert the unit, until it stops.

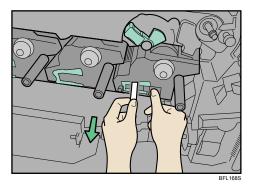


Take care that nothing comes into contact with the surface of the photo conductor unit.

 Use a finger to push the label with three green lines, and then push in the photo conductor unit, until it clicks into position. If the installation fails, the small, pentagonal window turns red.

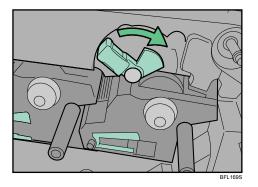


12. Hold the photo conductor unit firmly in place, and then pull out the tape.

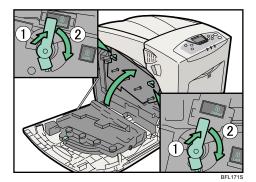


- Remember to pull out the tape. Malfunctions occur if you attempt to print while the tape is still attached.
- The removed tape is dirty. Be careful not to let it touch your hands or clothes.

13. Turn the green lever clockwise to lock the unit.



14. Close the inner cover. Lock the inner cover by pressing in (1) and then turning the two green levers clockwise (2).



- 15. Carefully close the left cover.
- 16. Plug in the power cable, and then turn on the printer.

The printer starts calibration. Wait until it stops.

Wait until "Ready" appears on the display panel.

Do not turn off the power during calibration. Doing so results in malfunction.

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## **Replacing the Intermediate Transfer Unit**

### 

 The inside of this printer becomes very hot. Do not touch parts labelled "▲" (indicating a hot surface). Touching these parts will result in burns.

### When to replace the intermediate transfer unit

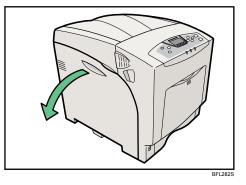
Replace the intermediate transfer unit if any of the following messages appear on the display:

"Replace IntTrans Unit."

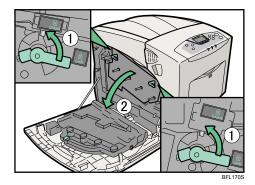
### **Replace IntTrans Unit**

See instructions in Left Cover. Press the Menu key to check Supplies.

- 1. Turn off the power, and then unplug the power cable.
- 2. Carefully open the left cover of the printer.

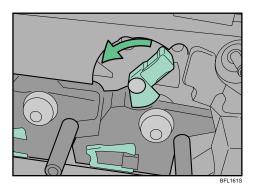


3. Turn the two green levers of the inner cover anticlockwise (①), and then slowly open the inner cover (②).

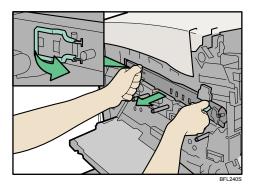


- 4. Carefully open the printer's front cover (A) by pulling the left and right side levers.

5. Turn the green lever of the transfer unit counterclockwise to unlock the unit.

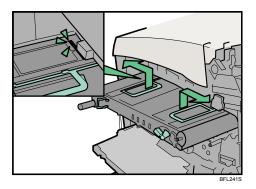


6. Pull out the handle of the transfer unit. Grasp the handle and the green lever firmly, and then slowly pull out the transfer unit, until the green line marked on the upper surface of the unit appears.

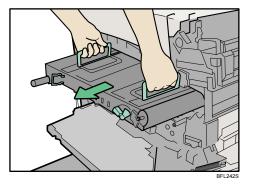


Do not touch any protruding areas on the transfer unit. These may stain your hands or clothes.

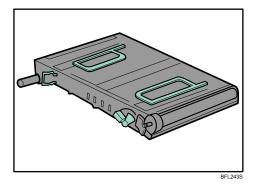
7. When the green line appears, pull up the handles on the upper surface and support the transfer unit with your other hand.

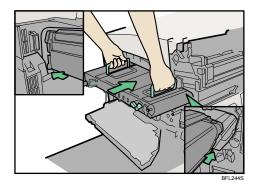


8. Grasp the raised up handles with both hands, and then pull the transfer unit completely out.



- Use both hands and both handles when you pull out the unit.
- Do not touch the belt area (underside) of the unit.
- 9. Take the new transfer unit out of its box.

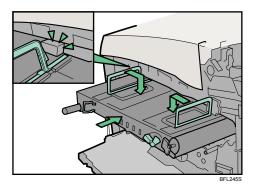




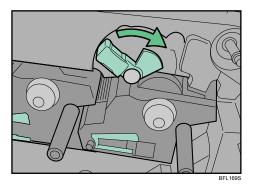
10. Hold both upper handles, and then slide the transfer unit along the guide rails into the printer.

The upper handles must be raised to insert the unit.

11. When the upper handles touch the printer body, lower the handles, and then push in the transfer unit, until it stops.

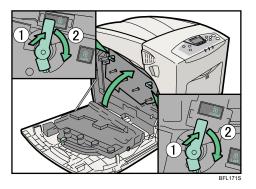


12. Turn the green lever clockwise to lock the unit.



13. Carefully close the front cover (A).

14. Close the inner cover. Lock the inner cover by pressing in (①) and then turning the two green levers clockwise (②).



- 15. Carefully close the left cover.
- 16. Plug in the power cable, and then turn on the power.

The printer starts calibration. Wait until it stops.

Wait until "Ready" appears on the display panel.

Do not turn off the power during calibration. Doing so results in malfunction.

## **Replacing the Waste Toner Bottle**

### **WARNING**

- Do not incinerate spilled or used toner. Toner dust is flammable and might ignite when exposed to an open flame.
- Dispose at an authorized dealer or an approved collection site. If you dispose of the used toner containers yourself, do so according to local regulations.

### 

- Keep toner (used or unused) and the toner containers out of reach of children. If a child swallows toner, consult a doctor immediately.
- Place no objects on the left cover when it is open.

### When to replace the waste toner bottle

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

"௴Waste Toner Bottle full"

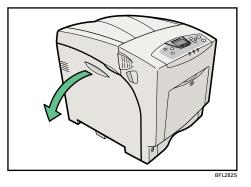
### Waste Toner Bottle full

See instructions in Left Cover. Press the Menu key to check Supplies.

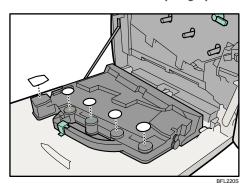
### 🔂 Important

- Waste toner bottles cannot be reused.
- Purchasing and storing extra waste toner bottles is recommended.
- 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.
- 1. Prepare a new waste toner bottle. A new waste toner bottle is supplied with six seals (including one spare) and a plastic bag.

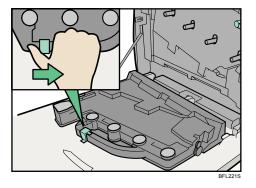
2. Carefully open the left cover.



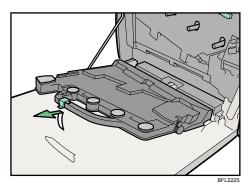
3. Use the supplied seals to avoid toner spills before removing the filled waste toner bottle. Attach the seals to the five sponge pads, allowing them to act as covers.



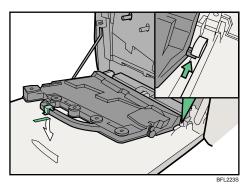
4. Slide the green lever to the unlock position.



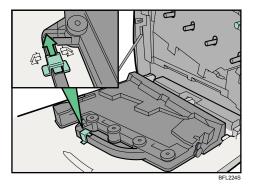
5. Lift the waste toner bottle with the seal still attached, and then remove the waste toner bottle from the left cover.



- 6. Put the waste toner bottle into the supplied plastic bag, taking to prevent toner from leaking out of the bottle, and then seal the bag.
- 7. Insert the projection part into the pivot inside the left cover, and then place the waste toner bottle in the horizontal position.



8. The green lever will slide automatically when the waste toner bottle is set.



- 9. Check the waste toner bottle is correctly locked.
- 10. Carefully close the left cover.

### **Replacing the Maintenance Kit**

### **WARNING**

• Do not risk electric shock by handling the power cord or plug with wet hands.

### 

- The inside of this printer becomes very hot. Do not touch parts labelled "△" (indicating a hot surface). Touching these parts will result in burns.
- Grip the plug, not the cord, when pulling the plug from the socket. Pulling the cord causes wear and tear that can result in fire or electric shock.
- Wait at least one hour after power off before replacing parts. Not allowing the printer to cool may result in burns.

#### When to replace the Maintenance Kit

Replace Maintenance Kit if the following messages appear on the display:

"Replace Maintenance Kit."

### Replace Maintenance Kit

See instructions in Left

Cover. Press the Menu key to check Supplies.

### **Before Replacing**

The Maintenance Kit contains parts for maintaining the printer.

Replace all the parts included in the Maintenance Kit at the same time. Replace them according to the following procedure.

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

Wait at least an hour after power off to allow internal parts to cool down before replacing the Maintenance Kit.

### 2. Check the box contains the following items:

• Friction pad × 3

For details see "Replacing the Friction Pad".

• Paper feed roller × 3

For details see "Replacing the Paper Feed Roller".

• Transfer roller

For details see "Replacing the Transfer Roller ".

Fusing unit

For details see "Replacing the Fusing Unit ".

• Dustproof filter × 2

For details see "Replacing the Dustproof Filter ".

#### Note

• If three paper feed units are installed, the Feed Roller Kit in addition to the Maintenance Kit is required to replace the paper feed roller and friction pad in every tray. For details about how to replace these, see "Replacing the Friction Pad" and "Replacing the Paper Feed Roller".

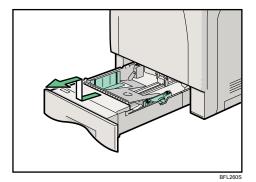
#### Reference

- p.143 "Replacing the Friction Pad"
- p.145 "Replacing the Paper Feed Roller"
- p.147 "Replacing the Transfer Roller"
- p.148 "Replacing the Fusing Unit"
- p.150 "Replacing the Dustproof Filter"

#### **Replacing the Friction Pad**

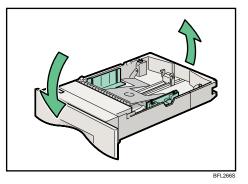
Replace all the friction pads in the tray. The following procedure shows how to replace the tray's friction pad (Tray 1).

1. Carefully slide the paper tray (Tray 1) out, until it stops. Then, lift the front slightly, and then pull the tray completely out.



6

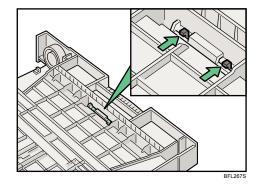
2. Remove paper from the paper tray. Place the tray upside down on a flat surface.



3. Use a pointed implement such as a ball-point pen, to carefully press down the two catches securing the friction pad.

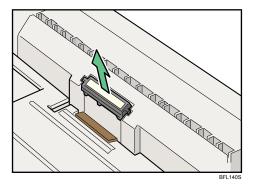
The friction pad may fall away when released. Place your hand over the friction pad while pressing the catches.

The friction pad spring may come loose. Be careful not to lose the friction pad.



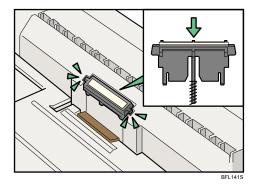
4. Turn the paper tray right way up, and remove the friction pad from the tray.

The friction pad spring may come loose. Be careful not to lose the friction pad spring.



#### 5. Insert the new friction pad in the paper tray.

Place the spring over the central prong of the new friction pad and align the friction pad with the grooves of the paper tray. Carefully pull the flexible cover in front of the friction pad. Then push down the friction pad until it clicks into place.



After pushing down the friction pad, check it is properly installed by pressing it lightly. If it is properly installed, it will spring back up.

6. Follow the same procedure to replace optional paper feed unit friction pads.

#### **Replacing the Paper Feed Roller**

Replace all feed rollers including the printer and the optional paper feed unit(s). The following procedure shows how to replace the printer's paper feed rollers.

### 

- The printer weights approximately 50 kg (110 lb.). When moving the printer, use the inset grips on both sides, and lift slowly. The printer will break or cause injury if dropped.
- Lifting the paper feed unit carelessly or dropping it may cause injury.

#### 🔁 Important

- Make sure the printer is lifted by at least four people.
- Always move the printer horizontally. Turning the printer sideways or tilting it backward or forward while moving will result in toner leakage.
- Do not put the printer on an unstable or sloped surface.

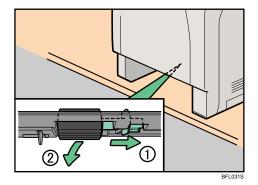
6

- 1. Move the printer to the edge of a sturdy and stable table or desk.

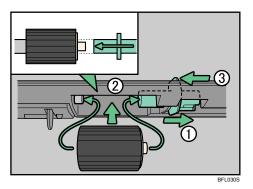
If the printer is equipped with the optional paper feed unit, do not move the printer and the unit together, they are not securely attached.

2. Slide the green lock lever to the right (1), remove the paper feed roller (2).

The illustration shows the paper feed roller installed in the printer.



3. While sliding the green lock lever to the right (①), set the new roller (②).Then, return the green lock lever to its original position (③).

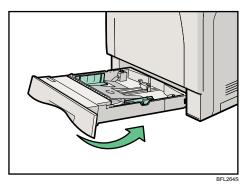


Check the green lock lever secures the roller correctly by making sure the new roller rotates smoothly.

4. If the printer has the optional paper feed unit(s) installed, follow the same procedure or remove only the additional tray to replace the paper feed roller.

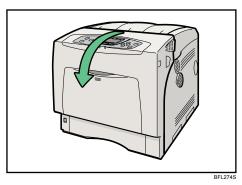
If you have two paper feed units installed, also replace both paper feed rollers.

5. Place paper in the paper trays and additional removed paper trays. Lift the front of the tray, and slide it carefully into the printer, until it stops.

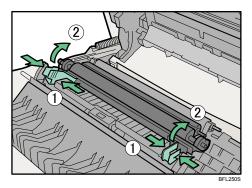


#### **Replacing the Transfer Roller**

1. Carefully open the printer's front cover (A) of by pulling left and right side levers.

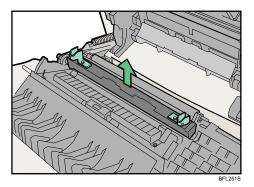


2. Pinch the green clips on both ends of the transfer roller.

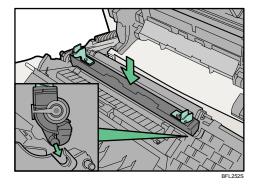


Do not touch the roller area of the transfer roller. It may stain your hands or clothes.

3. Pull out the transfer roller.



- 4. Insert the new transfer roller by placing its underside edge into the grooves shown in the illustration.
- 5. Secure the transfer roller using the green fastening clips mentioned in step 2.



The transfer roller appears insecurely set, but this is intentional.

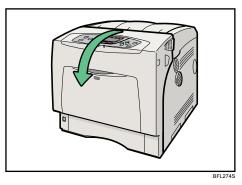
6. Close the front cover (A).

#### **Replacing the Fusing Unit**

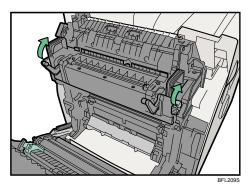
### 

• The fusing unit becomes very hot. When installing a new fusing unit, turn off the printer and wait at least an hour. before replacing the old fusing unit. Not allowing the unit to cool may result in burns.

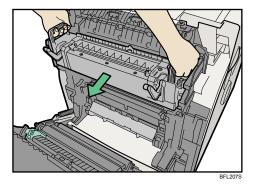
1. Slowly open the printer's front cover (A) by pulling the left and right side levers.



2. Unlock the fusing unit by lowering the fixing levers on both sides.

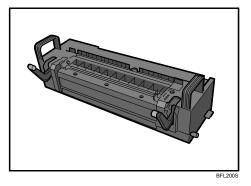


3. Pull out the fusing unit.

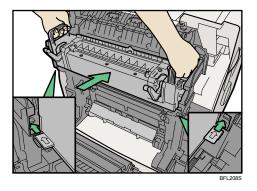


6

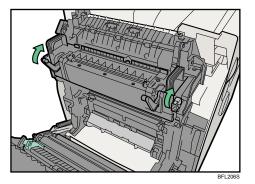
4. Prepare a new fusing unit.



5. Align the new fusing unit with the left and right rails.



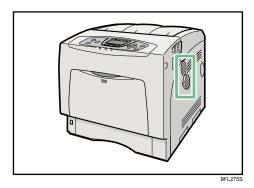
6. Push the fusing unit carefully in, until it stops. Then, pull up the fixing lever.



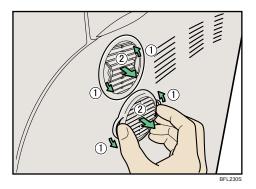
7. Close the front cover (A).

#### **Replacing the Dustproof Filter**

The dustproof filter is attached to the left side of the printer, as shown.

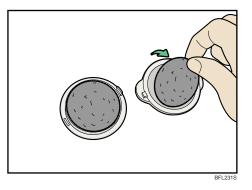


- 1. Turn off the power, and then unplug the power cable.
- 2. Use the grips on both sides to turn and then remove the dustproof filter cover.



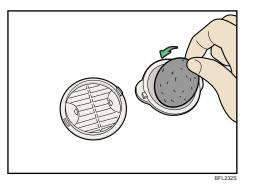
Place the removed dustproof filter cover down on a stable and level surface.

3. Carefully remove the dustproof filters attached to the filter's cover.

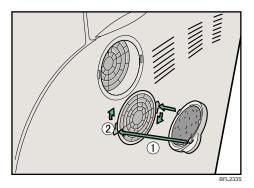


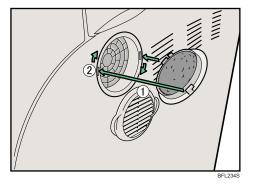
Handle removed dustproof filters with care. If you shake them, dust might scatter.

4. Attach the new dustproof filters to the covers at a time. The dustproof filters are all the same size.



5. Reattach the dustproof filter covers to the printer one at a time.





6. Plug in the power cable, and then turn on the power.

# 7. Cleaning the Printer

This chapter explains how to clean this printer.

# **Cautions When Cleaning**

### **WARNING**

- To avoid hazardous electric shock or laser radiation exposure, do not remove any covers or screws other than those specified in this manual. When the machine needs to be checked, adjusted, or repaired, contact your service representative.
- Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.

### 

• When removing misfed paper, do not touch the fusing unit because it could be very hot.

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.

#### Comportant 🔂

- 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.

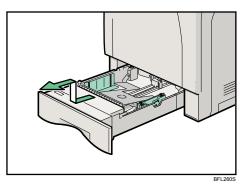
7

### **Cleaning the Friction Pads**

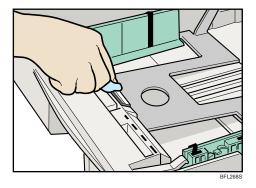
If the friction pad is dirty, multi-feeds or misfeeds might occur. In this case, clean the pad as shown below.

🚼 Important 🔵

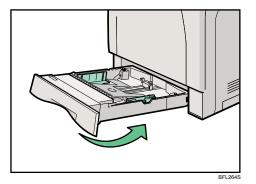
- Do not use chemical cleaner or organic solvent such as thinner or benzine.
- 1. Slowly slide the paper tray (Tray 1) out, until it stops. After that, lift the front of the tray slightly, and then pull the tray completely out.



- 2. Place the tray on a flat surface. When there is paper in the tray, remove paper.
- 3. Wipe the friction pad with a soft damp cloth. After that, wipe it with a dry cloth to remove the water.



4. Lift the front of the tray, and slide it carefully into the printer until it stops.



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

#### Note

• If misfeeds or multi-feeds of paper occur after cleaning the friction pad, contact your sales or service representative.

### **Cleaning the Paper Feed Roller**

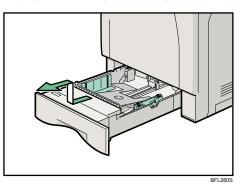
If the paper feed roller is dirty, multi-feeds or misfeeds might occur. In this case, clean the roller as shown below.

### 

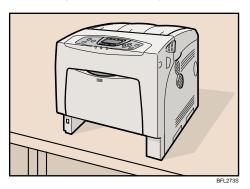
- When lifting the printer, use the grips on both sides of the printer, otherwise the printer might fall and cause personal injury.
- When you move the printer, unplug the power cord from the wall outlet to avoid a fire or an electric shock.
- When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing a fire or an electric shock.

#### 🔁 Important

- Do not use chemical cleaner or organic solvent 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. Slowly slide the paper tray (Tray 1) out, until it stops. After that, lift the front of the tray slightly, and then pull the tray completely out.



4. Move the printer to the edge of a stable table or desk.

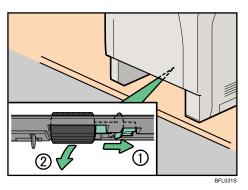


Do not put the printer on an unstable or tilted surface.

If the printer is equipped with the optional paper feed unit, do not move the printer and unit together as they are not securely attached.

When lifting the printer, confirm that the optional paper feed unit is not attached to the printer.

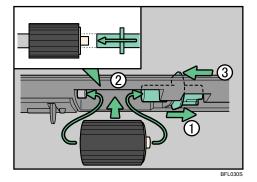
Slide the green lock lever to the right (①), so that the paper feed roller can be released (②).



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

Do not use chemical cleaner or organic solvent such as thinner or benzene.

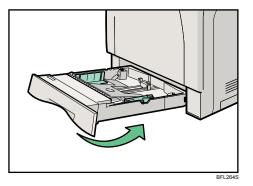
7. While sliding the green lock lever to the right (①), set the paper feed roller to its original position (②). After that, return the green lock lever to its original position (③).



Confirm that the green lock lever secures the roller correctly by confirming that the roller rotates smoothly.

7

8. Move the printer back to its original position. Lift the front of the tray, and slide it carefully into the printer until it stops.



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

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

Note

• Follow the same procedure to clean the paper feed roller of the optional paper feed unit.

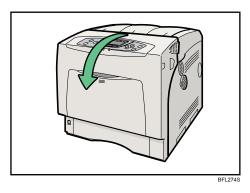
# **Cleaning the Registration Roller**

### 

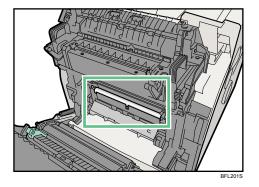
 The inside of this printer becomes very hot. Do not touch parts labelled "▲" (indicating a hot surface). Touching these parts will result in burns.

#### 🔂 Important

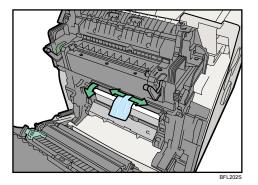
- Do not use chemical cleaners or organic solvents such as thinners or benzine.
- Do not touch the belt of the roller when cleaning.
- Clean the registration roller if dots (caused by specks of paper stuck to the roller) appear on printed OHP transparencies.
- 1. Turn off the power, and then unplug the power cable.
- 2. Carefully open the printer's front cover (A) of by pulling left and right side levers.



3. Set the registration roller as shown.



4. Clean the registration roller by applying a soft damp cloth while turning it.



- 5. Carefully close the front cover (A).
- 6. Plug in the power cable, and then turn on the power.



# 8. Adjusting the Printer

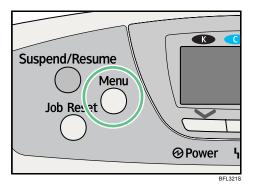
This chapter explains how to adjust the color gradations, color alignment, and print position.

# Adjusting the Color Registration

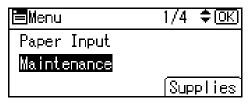
This section describes automatic color adjustment.

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.



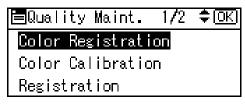
2. Press the [♥] or [▲] key to select [Maintenance], and then press the [OK] key.



3. Press the [♥] or [▲] key to select [Quality Maintenance], and then press the [OK] key.

≡Maintenance	1/1	<del>.</del> ‡ОК
Quality Maintens	псе	
General Settings	3	
Timer Settings		

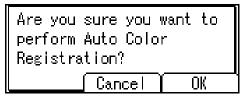
4. Press the [▼] or [▲] key to select [Colour Registration], and then press the [OK] key.



5. Select [Auto Adjust], and then Press the [OK] key.



6. Press the [OK] key.



Automatic color adjustment begins.

Automatic color adjustment takes about 50 seconds.

A confirmation message appears when 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 toner 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**

- 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.
- This requires the use of the supplied Color Calibration Sample Sheet.
- For details about how to view the gradation correction sheet, see "Correcting the Color Gradation".

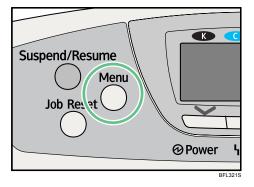
#### Reference

• p.163 "Correcting the Color Gradation"

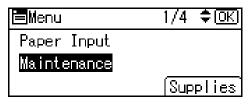
#### Setting the Gradation Correction Value

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 value for the highlight and the medium parts are set using [Print Sheet 1] and [Print Sheet 2] respectively. 1. Press the [Menu] key.



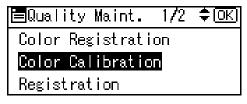
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



3. Press the [♥] or [▲] key to select [Quality Maintenance], and then press the [OK] key.

∎Maintenance	1/1	(‡ <u>OK</u>
Quality Maintena	nce	
General Settings		
Timer Settings		

4. Press the [♥] or [▲] key to select [Colour Calibration], and then press the [OK] key.



 If you want to perform only auto color adjusting, press the [♥] or [▲] key select [Adjust Auto Density], and then press the [OK] key.

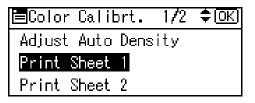
'≡Color Calibrt. 1/2	‡OK)
Adjust Auto Density	
Print Sheet 1	
Print Sheet 2	

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.

6. In the Color Calibration menu, press the [♥] or [▲] key to select [Print Sheet 1] or [Print Sheet 2], and then press the [OK] key.



The confirmation message appears. press [Print].

7. When the selected sheet is printed, the confirmation message appears. Press [Continue].

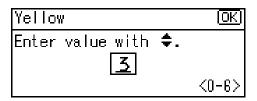
Printing complete.			
Press [Continue] to			
perform Calibration.			
Continue Exit			

If you want to exit from this menu, press [Exit].

8. Press the [♥] or [▲] key to select the color you want to adjust, and then press the [OK] key.

Calibration :	1 <b>/</b> 2 ‡ŒK
Yellow	
Magenta	
Result	Cancel

 Press the [▼] or [▲] key to adjust the correction value for the selected color, and then press the [OK] key.

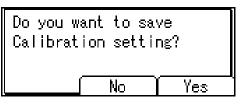


10. Press [Result].

Calibration :	1 <b>/</b> 2 ≑ <u>OK</u> I
Yellow	
Magenta	
Result	Cancel

11. Press [Print] to check the result by printing the calibration sheet.

12. After printing, press [Yes] to save the settings.



13. After completing all settings, press the [Menu] key to return to the initial screen.

#### Viewing the Color Calibration Sample Sheet and Gradation Correction Sheet

The Color Calibration Sample Sheet contains two color sample columns "sample 1" column for adjusting highlights and "sample 2" column for adjusting midtones.

The gradation correction sheet contains: "gradation correction sheet 1" for adjusting highlights and "gradation correction sheet 2" for adjusting midtones. Gradation correction sheet 1 is used for correction 1, while gradation correction sheet 2 is used for correction 2.

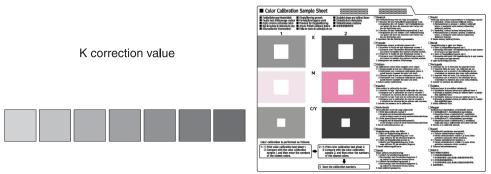
#### Color sample and correction values

The following explains how to view the color sample of the Color Calibration Sample Sheet and the correction values of the gradation correction sheet.

This explanation uses setting K (black) as an example. The setting method for M (magenta) is similar. 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 separately.

#### Vote

 Hold the correction value (0 to 6) for "K" of the correction value setting sheet over the color sample of gradation correction 1 of the Color Calibration Sample Sheet and find the corrected color closest to that of the color sample. Then, enter the corresponding number useing the operation panel. The currently set correction value is printed in red.

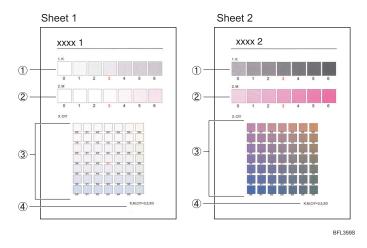


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#### Reading the gradation correction sheet

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.

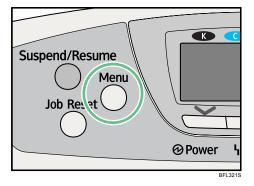
#### 4. K, M, C/Y

The numerical value set at time of gradation correction sheet printing is displayed. This corresponds to the numerical value set using the operation panel.

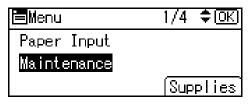
#### Resetting the Gradation Correction Value to the Initial Value

Reset the correction value default.

1. Press the [Menu] key.



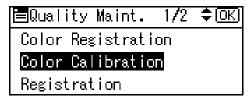
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



3. Press the [♥] or [▲] key to select [Quality Maintenance], and then press the [OK] key.

⊟Maintenance	1/1	. <del>\$</del> (ОК)
Quality Maintenance		
General Settings		
Timer Settings		

4. Press the [♥] or [▲] key to select [Colour 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].

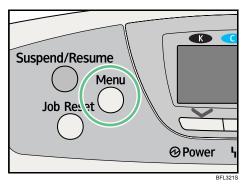
When resetting is completed, press [Exit].

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

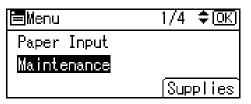
# **Adjusting Printing Position**

You can adjust the printing position registrated 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.



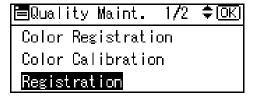
2. Press the [♥] or [▲] key to select [Maintenance], and then press the [OK] key.



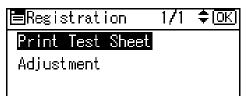
3. Press the [♥] or [▲] key to select [Quality Maintenance], and then press the [OK] key.

⊟Maintenance	1/1	(¢
Quality Mainten	апсе	
General Settings		
Timer Settings		

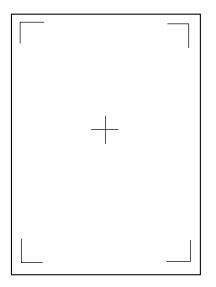
4. Press the [♥] or [▲] key to select [Registration], and then press the [OK] key.



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.

🗏 Registration	1/1	\$ОК)
Print Test Sheet		
Adjustment		

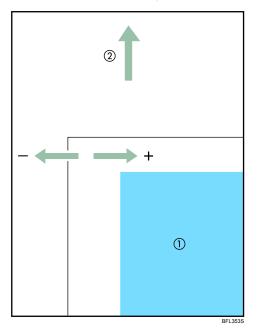
Press the [▼] or [▲] key to select the parameter you want to adjust, and then press the [OK] key.

Registration	1/2	‡OK)
Horizontal:Tray	1	
Horizontal:Tray	2	
Horizontal:Tray	3	

11. Press the [♥] or [▲] key to change the registerd value (mm).

Reg.:Horiz.:Tray 1: OK	J
Enter value with 🖨.	
-0.5	
<-5.0to5.0 by 0.1)	>

Increase the value to shift the print area in the direction indicated by the "+" symbol in the diagram below. Decrease to shift the print area in the direction indicated by the "-" symbol.



1: Print Area

2: Paper Feed Direction

Pressing the [♥] or [▲] key makes the value increase or decrease by 1.0 mm steps.

12. Press the [OK] key.

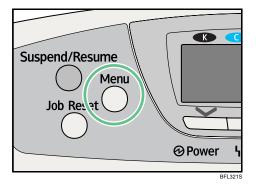
The display returns to the print area [Adjustment] menu.

- 13. Print the test sheet to confirm the adjustment result.
- 14. Press the [Menu] key to return to the initial screen.

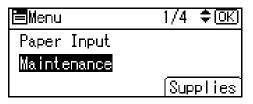
## Adjusting the Paper Type

The following procedure explains how to change the paper thickness value. You can select one of five paper thickness values for plain paper, translucent paper, and film.

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

The following paper types are selectable:

Plain Paper, Letterhead, Glossy Paper, Coated Paper, Label Paper, Envelope.

- 5. If you Select the [Plain Paper Setting], Select the tray you want to set using the [▼] or [▲] key, and then press the [OK] key.
- 6. Press the [♥] or [▲] key to select the paper setting, and then press the [OK] key.
- 7. 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 Appears 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)

#### Calibrating...

The printer is calibrating the color. Wait a while.

#### Energy Saver

The printer is in Energy Saver mode. Press any keys 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.

#### Loading toner...

The printer is loading toner. Wait a while.

#### 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 cancel the suspension, turn the printer off, wait a few moments, and then turn it back on.

#### 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 setting changing. 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)

#### Cannot connect with DHCP server.(101/201)

Cannot obtain IP address from DHCP server. Contact the 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. Contact 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 "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:Wireless Card 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.41 "Installing the Interface Units".

#### 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.

#### IPv6 Address already exists Link-local Address(109/209)

The same IPv6 address already exists. Contact your network administrator.

#### IPv6 Address already exists Stateless Address(109/209)

The same IPv6 address already exists. Contact your network administrator.

#### IPv6 Address already exists Manual Config. Address (109/209)

The same IPv6 address already exists. Contact your network administrator.

#### 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.31 "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.41 "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.41 "Installing the Interface Units".

#### Problem:Wireless board Please call service.

The printer cannot detect a wireless 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.41 "Installing the Interface Units".

#### Problem:Wireless card Please call service.

The printer cannot detect a wireless card. 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.41 "Installing the Interface Units".

#### Set the Intermediate Transfer Unit correctly.

The intermediate transfer unit may not be installed correctly. Turn the printer off and re-install the transfer unit.

If the message is still displayed after re-installation, contact your sales or service representative.

For details, see p.134 "Replacing the Intermediate Transfer Unit" for intermediate transfer unit installation.

#### This NetBIOS name is already in use.(108/208)

The NetBIOS name specified for the machine is already in use by another device on the network. Contact your network administrator.

#### The same IPv4 Address already exists.(102/202)

The IPv4 address specified for the machine is already in use by another device on the network. Contact the 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.

#### 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. Contact your network administrator.

#### Note

• Confirm error details by printing the Error Log. For details, see "List/Test Print Menu", Software Guide.

## **Panel Tones**

The following table explains the meaning of the various tone patterns that the printer used to alerts to 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/Document Server Features job has finished.
Four long beeps.	Soft alert.	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.	Strong alert.	Printer requires user attention. Paper may have jammed or toner may need replenishing.

#### Comportant 🗋

• 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.173 "Error and Status Messages Appears on the Control Panel".

#### Is paper loaded?

Load paper into the paper tray or onto the bypass tray.

For details, see p.105 "Loading Paper".

#### 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 "Test Printing", Quick Installation Guide.

#### 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.203 "Specifications".

#### Is the Data In indicator blinking or lit after starting the 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.180 "Checking the Port Connection".

#### **Network Connection**

Contact 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.

#### How is the signal strength when using Bluetooth ?

Try the following:

- Check the Bluetooth interface unit is installed properly.
- Check there are no obstructions between computer, printer and other devices.
- Change the location of the computer.
- Change the location of the printer.

#### When you use the optional Bluetooth interface unit.

#### SPP

- 1. Make sure the printer you want to use appears in the 3Com Bluetooth Connection Manager.
- 2. Make sure "Bluetooth Serial Client (COMx)" appears under Client Ports in the 3Com Bluetooth Connection Manager.
- 3. Restart the computer, this printer, and the other devices.
- 4. Make sure no wireless LAN or other Bluetooth devices are in use.

#### Note

- Interference may occur with the Wireless LAN interface board. Such interference may affect the transmission speed and other functions.
- 5. Transmissions between computers, other devices, and this printer can be blocked by obstructions. Move this printer, computers, and other devices, if necessary.

#### HCRP, BIP

- 1. Restart the computer, this printer, and other devices.
- 2. Make sure no Wireless LAN or other Bluetooth devices are in use.

#### Note

- Interference may occur with the Wireless LAN interface board. Such interference may affect the transmission speed and other functions.
- 3. Transmissions between computers, other devices, and this printer can be blocked by obstructions. Move this printer, computers and other devices, if necessary.

If printing still does not start, 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.

#### **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 USBOO(n)\*.
  - \*(n) varies depending on the number of printers connected.

#### Windows 2000

- 1. Click [Start], point to [Settings] and then click [Printers].
- 2. Click to highlight the icon of the printer. Next, on the [File] menu, click [Properties].
- 3. Click the [Port] tab.
- 4. Check the [Print to the following port] box to confirm that the correct port is selected.

#### Windows XP, Windows Server 2003/2003 R2

- 1. Access the [Printers and Faxes] folder from [Start].
- 2. Click to highlight the icon of the printer. Next, on the [File] menu, click [Properties].
- 3. Click the [Port] tab.
- 4. Check the [Print to the following port] box to confirm that the correct port is selected.

#### Windows Vista:

- 1. On the [Start] menu, click [Control Panel].
  - The [Control Panel] window appears.
- 2. Click [Printer].

The [Printers] window appears.

- 3. Right-click the icon of the printer you want to use, and then click [Properties].
- 4. Click the [Ports] tab.
- 5. Check the [Print to the following port] box to confirm that the correct port is selected.

### **Printing Problems**

#### Toner smears appear on the print side of the page.

- 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 paper settings.
- Check the printer driver's paper settings. See the printer driver Help.
- When "Replace PCU:Black." or "Replace PCU:Colour." appears on the display, replace the photo conductor unit. For details, see p.128 "Replacing the Photo Conductor Unit".
- Confirm that the paper is not curled or bent. Envelopes can be curled easily. Flatten paper before loading. For details, see p.91 "Paper Recommendations".

#### 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 "Loading Paper".
- 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 "Loading Paper".
- Paper is either too thick or too thin. For details, see p.91 "Types of Paper and Other Media".
- Paper is bent or wrinkled. Use paper that have no bents or wrinkles. For details, see p.91 "Paper Recommendations".
- Paper has already been printed on. For details, see p.91 "Types of Paper and Other Media".
- Paper is damp. Use paper that has been stored properly. For details, see p.91 "Types of Paper and Other Media".
- When loading paper, separate paper from each other.

#### Multiple pages are fed at once.

• Paper is either too thick or too thin.

For details, see p.91 "Paper Recommendations".

• Paper has already been printed on.

For details, see p.91 "Paper Recommendations".

• 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 "Loading Paper".

- Paper is static. Use paper that has been stored properly.
   For details, see p.91 "Paper Recommendations".
- When loading paper, separate paper from each other.

#### Paper gets wrinkles.

- Paper is damp. Use paper that has been stored properly.
   For details, see p.91 "Paper Recommendations".
- Paper is too thick or too thin.

For details, see p.91 "Types of Paper and Other Media".

• 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 "Loading Paper".

• The fusing unit is deteriorated or damaged. Replace the unit.

For details, see p.142 "Replacing the Maintenance Kit".

# With Windows 2000/XP/Vista or Windows Server 2003/2003 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.

#### 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.

#### A printed image is different from the image on the computer's display.

- When you use some functions, such as enlargement and reduction, the layout of the image might be different from that displayed in the computer display.
- You might have selected to replace True Type fonts with printer fonts in the printing process. To print an image similar to the image on the computer, make the settings to print out True Type fonts as an image.

For details, see the printer driver Help.

#### 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.
- If an OHP transparency or glossy paper is being used, printing takes more time to start.

 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 printt data..." appears on the display, the printer is now warming up. Wait for a while.

#### 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.

#### 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.
- When [Toner saving] is checked under the "Print Quality" tab in the printer driver's dialog box, the color gradation may appear differently.

For details, see the printer driver Help.

#### Color changes extremely when adjusted with the printer driver.

• Do not extreme settings for the color balance under the "Print Quality" tab in the printer driver's dialog box.

Please 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.

#### Photo images are coarse.

Some applications lower the resolution for making prints.

Raise the resolution in the settings for that application.

#### 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.

#### Fine dot pattern does not print.

• Change the [Dithering:] setting in the printer driver's dialog box. For details, see the printer driver Help.

# 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.

#### 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.

#### Images are printed at an angle

Confirm that the side guides of the paper tray are locked.
 If paper is not loaded correctly, it may be processed at an angle.

#### A color is missing or partially blurred.

- Paper is damp. Use paper that has been stored properly.
- For details, see p.105 "Loading Paper".
- Toner is almost depleted. When the "Out of toner" / "(color)", "Toner is almost empty." /"(color)", or "Add Toner:" message appears on the display panel, or the toner indicator on the initial screen seems empty, replace the toner of the displayed color.

For details, see p.123 "Adding Toner".

• When "Replace PCU:Black." or "Replace PCU:Colour." appears on the display, replace the photo conductor unit.

For details, see p.128 "Replacing the Photo Conductor Unit".

• Condensation may have collected. If rapid change in temperature or humidity occurs, use this printer only after it has acclimatized.

#### The whole printout is blurred.

Paper is damp. Use paper that has been stored properly.
 For details, see p.91 "Paper Recommendations".

• If you select [Toner saving] on the "Print Quality" tab in the printer properties dialog box, printing is generally less dense.

For details, see the printer driver Help.

• Toner is almost depleted. When the "Out of toner" / "(color)", or "Toner is almost empty" /"(color)" message appears on the display panel, or the toner indicator on the initial screen seems empty, replace the toner of the displayed color.

For details, see p.123 "Adding Toner".

• When the message "Replace PCU:Black." or "Replace PCU:Colour." appears, replace the photo conductor unit.

For details, see p.128 "Replacing the Photo Conductor Unit".

 Condensation may have collected. If rapid change in temperature or humidity occurs, use this printer only after it has acclimatized.

#### White streaks or color streaks appear.

• Toner is almost depleted. When the "Out of toner" / "(color)", or "Toner is almost empty" /"(color)" message appears on the display panel, or the toner indicator on the initial screen seems empty, replace the toner of the displayed color.

For details, see p.123 "Adding Toner".

• When the message "Replace PCU:Black." or "Replace PCU:Colour." appears, replace the photo conductor unit.

For details, see p.128 "Replacing the Photo Conductor Unit".

• 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.159 "Cleaning the Registration Roller".

Specks of paper may be attached to the registration roller. Clean the registration roller.

For details, see p.159 "Cleaning the Registration Roller".

#### White or color rivers appear.

• When the message "Replace PCU:Black." or "Replace PCU:Colour." appears, replace the photo conductor unit.

For details, see p.128 "Replacing the Photo Conductor Unit".

#### 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.

#### Printed pages are faint, or have white streaks.

If is flashing, toner is almost depleted. Add toner.
 For details, see p.123 "Adding Toner".

#### 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.

On the [Setup] tab of the printer driver, set [Paper type:] to [Thick 1 (105 - 157 g/m2)] or [Thick 2 (157 - 216 g/m2)].

- Check the paper settings of this printer.
   For details, see p.91 "Types of Paper and Other Media".
- 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.142 "Replacing the Maintenance Kit".

#### When printing on OHP transparencies, a color is missing or black or white dots are obvious.

• The registration roller is dirty. Clean the registration roller. For details, see p.159 "Cleaning the Registration Roller".

#### When printing on plain paper, white dots are obvious.

The registration roller is dirty. Clean the registration roller.
 For details, see p.159 "Cleaning the Registration Roller".

#### PDF Direct Print is not executed (PDF file is not printed).

• You must install an optional hard disk drive or set the value of the [RAM Disk] in the System Menu to 2 MB or higher.

See "Attaching Hard Disk Drive Type 420", Setup Guide for optional hard disk driveinstallation.

For details about [RAM Disk], see "System Menu", Software Guide.

After adding a memory unit and set the value of the [RAM Disk] in the System Menu to 16 MB, value of the [RAM Disk] returns to 0 MB if the memory unit is removed. If this happens, reset the value of the [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 installed in the paper tray, the file will print out. This applies similarly to the opposite case.

# With Windows 2000/XP/Vista, Windows Server 2003/2003 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.

## **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 Email Notify] is active in the [System] Menu on the Control Panel. See "System Menu", Software Guide.
- Access the printer through the Web browser, log on as an Administrator on the 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 on 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 the 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.

# The setting for [Auto Email Notify] on the System Menu was changed from [Off] to [On], but e-mail is not arriving.

• After changing the setting, turn the main unit'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 the 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 main unit is turned off after an Alert occurs, 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 Alertresolved 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 the Web Image Monitor's Help to the settings.

#### Printing using Bluetooth is slow.

- When using the optional Bluetooth interface unit, do the following:
  - Transmit fewer print jobs.
  - Make sure no Wireless LAN or other Bluetooth devices are in use.

Interference may occur with the Wireless LAN interface board. Such interference may affect the transmission speed and other functions.

• Transmissions between the client computer and the printer can be blocked by obstructions. Move the printer or client computer if necessary.

When you use a Bluetooth connection, print jobs are transmitted relatively slowly.

#### 🔂 Important

• 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. 9. Troubleshooting

# 10. Removing Misfed Paper

This chapter explains how to remove misfed paper.

# **Removing Misfed Paper**

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.

### 

 The inside of this printer becomes very hot. Do not touch parts labeled "A" (indicating a hot surface). Touching these parts will result in burns.

#### 🔂 Important

- Do not forcefully remove misfed paper, it may tear and torn pieces may remain inside 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 friction pad is dirty.
- For details about clean the friction pad, see "Cleaning the Friction Pads".
- Misfed paper may be covered with toner. Be careful not to get toner on your hands or clothes.
- If paper is still misfed after you have checked the above-mentioned causes, contact your sales or service representative.

#### Reference

• p.154 "Cleaning the Friction Pads"

## Paper Misfeed Message (A)

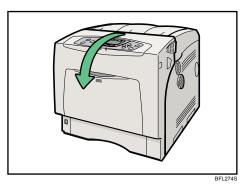
The " $^{sh}$ (B)(C)(D) Press A to open cover and remove paper.". Error message appears when a paper misfeed occurs in the paper feed section.

### 

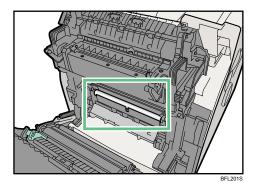
- The inside of this printer becomes very hot. Do not touch parts labeled "△" (indicating a hot surface). Touching these parts will result in burns.
- When pulling the paper tray out, be careful not to pull it strongly. If you do, the tray might fall and cause an injury.

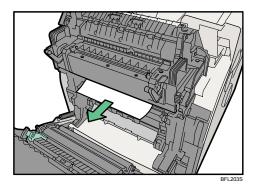
#### Comportant 🗋

- 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.
- 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 duplex unit cool down.
- 1. Carefully open the printer's front cover (A) of by pulling left and right side levers.



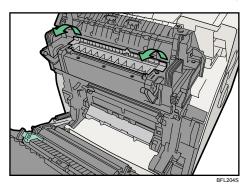
2. Remove misfed paper slowly.



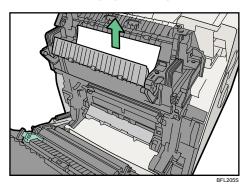


If you cannot find the misfed paper, look inside the printer.

3. If a misfeed occurs in the output area of the fusing unit, open the output cover by pulling back the levers marked "A1" (left and right on the fusing unit's upper side).



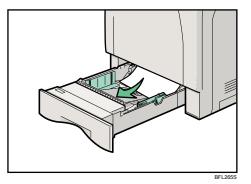
4. Remove misfed paper slowly.



- 5. Close the output cover of the fusing unit.
- 6. Carefully close the front cover (A).

If the error message remains displayed even you have removed the misfed paper, check the input tray for a paper misfeed.

7. Pull out the paper tray, and then carefully remove any misfed paper.



8. Push in the paper tray. Make sure the tray is securely inserted to avoid paper jams.

#### Note

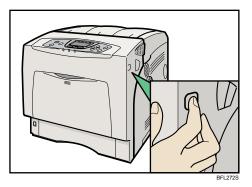
- When a paper form the paper tray 3 causes a misfeed, pull out the paper tray 1 and 2 to remove the jammed paper. Pull out the paper tray with force if it is difficult to pull it out completely.
- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error is cleared.

# Paper Misfeed Message (Z)

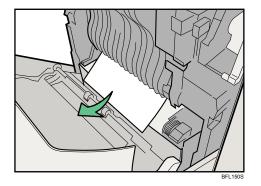
The " $^{\$}$ (Z) Press Z to open cover and remove paper.". Error message appears when a paper misfeed occurs inside the duplex unit.

Coloritant 🖸

- 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 duplex unit cool down.
- A paper misfeed occurs in the duplex unit. Open the front cover (Z) to remove the misfed paper.
- 1. Open the printer's front cover (Z) by pressing the button on the right side.



2. Carefully remove misfed paper.



3. Carefully close the front cover (Z).

#### **Note**

• When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error is cleared.

# 11. Appendix

This section explains maintenance and operation procedures for this printer. It also describes the specifications of the printer and it options.

# Moving and Transporting the Printer

### **WARNING**

• Disconnect the power plug (by pulling the plug, not the cable) if the power cable or plug becomes frayed or otherwise damaged.

### 

- When moving the machine, each person should hold the handles that are located on opposite sides, and then lift it slowly. Lifting it carelessly or dropping it may cause an injury.
- Before moving the machine, unplug the power cord from the wall outlet. If the cord is unplugged abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.
- When moving the printer after use, do not take out any of the toners, photo conductor units, nor waste toner bottle to prevent toner spill inside the machine.

#### Comportant 🔁

- 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 50 kg (110 lb.).

#### Moving the Printer

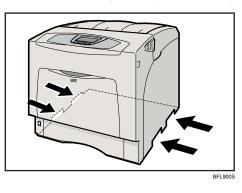
- When lifting the machine, use the inset grips on both sides. Otherwise the printer could break or cause an injury if dropped.
- Before moving the machine, unplug the power cable from the wall outlet. If the cable is unplugged abruptly, it cable become damaged. Damaged plugs or cables can cause an electrical or fire hazard.

#### Moving the printer a short distance

- 1. Be sure to check the following points:
  - The power switch is turned off.
  - The power cable 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 four 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.





4. If you removed options, reattach them.

For details, see the relevant sections in this manual.

#### Note

- Be sure to keep the printer horizontal while moving it. To prevent toner from being released, move the printer slowly.
- If optional paper feed units are attached, remove them from the printer and move them separately.
- When finished, return the handles to their original position.

## Consumables

### 

• 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.

#### Toner

Toner	Average printable number of pages per container <sup>*1</sup>
Black	15,000 pages, 5,000 pages
Cyan	15,000 pages, 5,000 pages
Magenta	15,000 pages, 5,000 pages
Yellow	15,000 pages, 5,000 pages

\*1 A4/Letter 5% test chart, two pages/job, printing in monochrome/color only.

The number of printable pages varies depending on which of the two different types of toner you have installed.

#### **Vote**

- If toner are not changed when necessary, printing will become impossible. We recommend keeping a stock of containers.
- 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, contents of print images, and environmental conditions such as temperature and humidity.
- Toner may need to be changed sooner than indicated above due to deterioration over the period of use.
- Toner (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.
- When you first use this printer, use the toner packaged with the printer.
- Toner may need to be changed sooner than indicated above due to deterioration over the period of use.
- Number of pages that can be printed using the toner supplied with this printer is 3,000 pages for black, cyan, magenta, and yellow.

#### Waste Toner Bottle

Name	Average printable number of pages <sup>*1</sup>
Waste Toner Bottle Type 145	50,000 pages

<sup>\*1</sup> A4/Letter 5% test chart, 2 pages/job, printing in monochrome/color only.

#### Note

- The actual number of printable pages varies depending on the used paper type and size, and environmental conditions.
- 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.

#### Photo Conductor Unit

Name Average printable number of pag	
Photo Conductor Unit Type 145 Black	50,000 pages
Photo Conductor Unit Type 145 Color	50,000 pages

<sup>\*1</sup> A4/Letter 5% test chart, 2 pages/job, printing in monochrome/color only.

#### • 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, contents of print images, and environmental conditions such as temperature and humidity.
- If the photo conductor unit is not changed when necessary, print quality is not guaranteed. We recommend keeping a stock of photo conductor units.
- Photo conductor unit (consumables) are not covered by warranty. However, if there is a problem, contact the store where they were purchased.

#### Intermediate Transfer Unit

Name	Average printable number of pages <sup>*1</sup>
Intermediate Transfer Unit Type 145	100,000 pages

<sup>\*1</sup> A4/Letter 5% test chart, 2 pages/job, printing in monochrome/color only.

#### 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 transfer unit is not changed when necessary, the quality of printing is not guaranteed. We recommend keeping a stock of transfer unit or purchasing one soon.

#### **Maintenance Kit**

#### Maintenance Kit SP C411

Name	Average printable number of pages <sup>*1</sup>	
Fusing unit	100,000 pages	
Transfer roller	100,000 pages	
Paper feed roller × 3	100,000 pages	
Friction pad × 3	100,000 pages	
Dustproof filter × 2	100,000 pages	

<sup>\*1</sup> A4/Letter 5% test chart, 2 pages/job, printing in monochrome/color only.

#### 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 maintenance kit (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.

#### Feed Roller Kit

#### Feed Roller Kit Type 145

Name	Average printable number of pages <sup>*1</sup>	
Paper feed roller × 1	100,000 pages	
Friction pad × 1	100,000 pages	

<sup>\*1</sup> A4/Letter 5% test chart, 2 pages/job, printing in monochrome/color only.

#### **Vote**

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

### **Specifications**

#### Mainframe

#### **Configuration:**

Desktop

#### **Print Process:**

Laser beam scanning and Electrophotographic printing

Four-drums tandem method

#### **First Print Speed:**

Monochrome: 10 seconds or less (A4 $\Box$ , 8<sup>1</sup>/<sub>2</sub> " × 11 " (Letter) $\Box$ )

Color: 15 seconds or less (A4 $\Box$ , 8<sup>1</sup>/<sub>2</sub> " × 11 " (Letter) $\Box$ )

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 30 pages per minute (A4 $\Box$ , 8<sup>1</sup>/<sub>2</sub> " × 11 " (Letter) $\Box$ )

Color: maximum 30 pages per minute (A4 $\Box$ , 8<sup>1</sup>/<sub>2</sub> " × 11 " (Letter) $\Box$ )

#### **Resolution:**

```
1200 × 1200 dpi (RPCS, PostScript 3, PCL6)
```

1200 × 600 dpi (RPCS, PostScript 3, PCL6)

600 × 600 dpi (RPCS, PostScript 3, PCL5c/e/6)

```
300 × 300 dpi (PCL 5c/e *1)
```

\*1 monochrome only

#### **Paper Size:**

For details, see p.87 "Supported Paper for Each Tray".

#### **Paper Weight:**

For details, see p.87 "Supported Paper for Each Tray".

#### Media Type:

For details, see p.91 "Types of Paper and Other Media".

#### Paper Output Capacity:

Standard 500 sheets (80 g/m<sup>2</sup>, 20 lb.)

#### **Paper Input Capacity**

Тгау	Paper capacity
Standard Paper Tray	550 sheets <sup>*1</sup>
Bypass Tray	100 sheets <sup>*1</sup>
Optional Paper Feed Units	550 sheets <sup>*1</sup>

#### \* 1 Paper weight: 80 g/m<sup>2</sup> (20 lb. bond)

#### Power Source:

220-240V

220-240 V, 50/60 Hz, 6 A or more

120V

120 V, 60 Hz, 11 A or more

#### **Power Consumption:**

#### 220-240V

Printing	1200 W or less (Unplug the power cable to turn off the power completely.)
Energy saver mode	6 W or less

#### 120V

Printing	990 W or less (Unplug the power cable to turn off the power completely.)
Energy saver mode	6 W or less

#### Warm-up Time:

Less than 30 seconds (23 °C, 71.6 °F)

#### Dimensions (W $\times$ D $\times$ H):

446 × 589.5 × 487 mm (17.4 × 23.2 × 19.2 inches) \*1

\*1 Printer only (tray not extended)

#### Weight:

Approximately 50 kg (110 lb.) (toner and power cord included)

#### Noise Emission:<sup>\*1</sup>

• Sound Power Level

**During Printing:** 

- Monochrome: 63 dB (A)
- Color 64 dB (A)

Standby: 40 dB (A)

• Sound Pressure Level

**During Printing:** 

- Monochrome: 53 dB (A)
- Color: 53 dB (A)
- Standby: 28 dB (A)

<sup>\*1</sup> operational condition from all sides of the printer at the estimated distance of a standing user.

#### CPU:

RM7935-835L 800MHz

#### Memory:

Standard 256 MB, up to 512 MB (with the optional memory unit)

#### Hard Disk Drive (optional):

60 GB

Note

• Storage capacity is subject to change without prior notice.

#### 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 802.11a/b/g (Wireless LAN)
- Parallel (Bidirectional IEEE 1284)
- Bluetooth
- Gigabit Ethernet (1000BASE-T)

#### **Printer Language:**

PJL, RPCS, PCL5c/PCL6, PS3/PDF

#### Fonts:

PCL 5c/PCL 6

Monotype Imaging 35 Intellifonts, 10 TrueType fonts, 13 International fonts, and 1 Bitmap font.

PostScript 3, PDF

136 fonts (Type 2:24, Type 14:112)

#### Network:

Topology: The physical or logical layout of the nodes (devices) in a network. (10BASE-T/100BASE-TX)

Protocol: TCP/IP, IPX/SPX, AppleTalk

#### Options

#### Paper Feed Unit Type 4000

#### Paper Size:

A4D, B5 JISD, A5D, B6 JISD, A6D, C5 Env.D, C6 Env.D, DL Env.D, 16KD, 8 1/2 " × 14 " (Legal) D, 8 1/2 " × 13 " (Foolscap)D, 8 1/2 " × 11 " (Letter)D, 8 1/4 " × 13 " (Folio)D, 8 " × 13 " (F/GL) D, 7 1/4 " × 10 1/2" (Executive)D, 5 1/2 " × 8 1/2" (Half Letter)D, 4 1/8 " × 9 1/2" (Com10) D, 3 7/8 " × 7 1/2" (Monarch)D, and Custom Size

#### Dimensions (W $\times$ D $\times$ H):

460 × 576 × 150 mm (18.2 × 22.7 × 5.9 inches)

#### Paper weight:

52 - 216 g/m<sup>2</sup>, (14 - 58 lb.)

#### Weight:

Less than 8.5 kg (18.8 lb.)

#### Printer Hard Disk Drive Type 420

#### Storage Capacity (Formatted):

60 GB

#### Note

• Storage capacity is subject to change without prior notice.

#### **Specifivations:**

- Spooling print data to collate
- Storing/Spooling Sample Print/Locked Print/Hold Print/Stored Print data
- Storing PostScript fonts
- Storing log data

#### Note

You can install PostScript fonts with this optional hard disk drive. With MacOS, types of fonts supported
are PostScript Type 1 and PostScript Type 2. To download them, use Printer Utility for Mac.

#### Memory Unit Type G 128MB

#### 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 G 256MB

#### 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), 12 Mbps (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 Board Type M

#### 220-240V

#### **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, 6Mbps, 9Mbps, 11 Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps

#### **Frequency Range:**

2412 to 2472 MHz (Channels 1 to 13)

5180 to 5320 MHz (Channels 36 to 64)

#### **Transmission Mode:**

- Ad hoc
- infrastructure mode

#### IEEE 802.11 Interface Board Type P

220-240V

#### **Transmission Specification:**

Based on IEEE 802.11b/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 2462 MHz (Channels 1 to 11)

#### **Transmission Mode:**

- Ad-hoc mode
- Infrastructure mode

#### IEEE 802.11a/g Interface Board Type L

#### 120V

#### **Transmission Specification:**

Based on IEEE 802.11 a/b/g (Wireless LAN)

#### Data Transfer Speed:

Auto select from the following speed:

1 Mbps, 2 Mbps, 5.5 Mbps, 6Mbps, 9Mbps, 11 Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps

#### **Frequency Range:**

2412 to 2462 MHz (1 to 11 channels)

5180 to 5320 MHz (Channels 36 to 64)

#### **Transmission Mode:**

- Ad hoc
- infrastructure mode

#### Bluetooth Interface Unit Type 3245

#### **Supported Profiles:**

SPP (Serial Port Profile), HCRP (Hardcopy Cable Replacement Profile), BIP (Basic Imaging Profile)

#### **Frequency Range:**

2.45 GHz ISM band

#### Data Transmission Speed:

723 kbps

#### Vote

• The transmission speed is adjusted according to factors such as the distance and obstacles between the devices, radio signal condition and Bluetooth adaptor.

#### Maximum Range:

10 m

#### IEEE 1284 Interface Board Type A

#### **Transmission Specification:**

IEEE 1284

#### **Required Cable:**

Standard IEEE 1284-compliant Micro Getronics 36-pin cable

11. Appendix

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