

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 and Maintenance Kit
- 7 Cleaning the Printer
- 8 Adjusting the Printer
- 9 Troubleshooting
- 10 Removing Misfed Paper
- 11 Appendix

Introduction

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

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

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

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

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

Important

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

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

For good copy quality, the supplier recommends that you use genuine print cartridges from the supplier.

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

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

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

TABLE OF CONTENTS

Positions of WARNING and CAUTION labels	5
Power Switch Symbols	6
Manuals for This Printer	7
How to Read This Manual	8
Symbols	8
Model-Specific Information	9
List of Options	10
Installing the Operating Instructions	11
Installing the HTML Format Manuals	11
Opening the HTML Format Manuals	11
1. Guide to the Printer	
Exterior: Front View	
Exterior: Rear View	15
Interior	17
Control Panel	19
Turning the Printer's Power On and Off	21
Turning on the Power	21
Turning off the Power	21
Display Panel	23
Reading the Display and Using Keys	24
2. Installing Options	
Available Options	25
Order of Option Installation	
Installing Options	
Caution when re-installing the controller board	28
Attaching the Paper Feed Unit	29
Attaching the Envelope Feeder	32
Installing the Memory Expansion Units	34
Installing the Hard Disk	
Installing the SDRAM Module	
Installing the Interface Units	
Installing the Wireless LAN Interface Unit	
Installing the Gigabit Ethernet Board	45

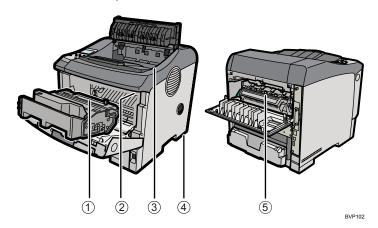
Installing the IEEE 1284 Interface Board	47
Installing SD Memory Card Options	50
Attaching the Duplex Unit	52
3. Connecting the Printer Cables	
Ethernet Cable Connection	55
Reading the LED Lamps	58
USB Cable Connection	60
Parallel Cable Connection	62
4. Configuration	
Ethernet Configuration	
Specifying an IP Address (No DHCP)	64
Receiving an IP Address Automatically (DHCP)	66
Configuring Network Settings When Using NetWare	67
Setting the Ethernet Speed	69
Wireless LAN Configuration	71
Setting the SSID	73
Confirming Wireless Network Connectivity	74
Cautions When Using a Wireless LAN	75
Setting Security Method of Wireless LAN	76
Setting a WEP Key	76
Setting WPA	77
Configuring IEEE 802.1X (WPA/WPA2)	81
Installing a Site Certificate	81
Installing Device Certificate	81
Setting Items of WPA/WPA2	83
5. Paper and Other Media	
Supported Paper for Each Tray	85
Paper Recommendations	88
Loading Paper	88
Storing Paper	88
Types of Paper and Other Media	88
Paper Not Supported by this Printer	92
Print Aroa	03

Loading Paper	96
Loading Paper in Tray 1 and the Optional Paper Feed Unit	96
Loading Paper in the Bypass Tray	109
Loading Envelopes	115
Switching Between Paper Trays	120
Printing on Orientation-Fixed or Two-Sided Paper	121
Using Paper Types that Have Unique Names	123
From Registration of User Paper Types to Use	123
Registering Names to Paper Types	124
Setting User Paper Types to Trays	125
Printing Using Registered Paper Types	126
6. Replacing Consumables and Maintenance Kit	
Replacing the Toner Cartridge (Print Cartridge)	127
Replacing the Maintenance Kit	133
Before Replacing	133
Replacing the Friction Pad	134
Replacing the Paper Feed Roller	136
Replacing the Transfer Roller	140
Replacing the Fusing Unit	144
Replacing the Dustproof Filter	148
7. Cleaning the Printer	
Cautions to Take When Cleaning	151
Cleaning the Friction Pad	152
Cleaning the Paper Feed Roller	154
Cleaning the Registration Roller	157
8. Adjusting the Printer	
Adjusting the Image Density	161
Adjusting Tray Registration	163
Reducing Paper Curl	166
9. Troubleshooting	
Error and Status Messages that Appear on the Control Panel	
Panel Tones	178
Printer Dage Not Print	170

Checking the Port Connection	181
Other Printing Problems	182
When You Cannot Print Properly	182
Paper Misfeeds Occur Frequently	184
The printed image is different from the image on the computer	185
When Printer is Not Functioning Properly	187
Additional Troubleshooting	188
Using the Envelope Lever	190
When Printing on Envelopes Frequently	192
10. Removing Misfed Paper	
Removing Misfed Paper	
Paper Misfeed Message (A)	196
Paper Misfeed Message (B)	200
Paper Misfeed Message (Y)	206
Paper Misfeed Message (Z)	207
Removing Misfed Paper Inside the Cover	207
Removing Misfed Paper Inside the Duplex Unit	209
11. Appendix	
Moving and Transporting the Printer	211
Moving the Printer	211
Consumables	213
Toner Cartridge (Print Cartridge)	213
Maintenance Kit	213
Specifications	215
Mainframe	215
Options	218
INDEX	221

Positions of WARNING and CAUTION labels

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







BMU149S

Do not incinerate toner or toner containers. Toner dust may cause flashback when exposed to open flames.





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





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

4



The printer weights approximately 22.5 kg (49.6 lb.). When moving the printer, detach the optional paper feed and duplex units first, and then use the inset grips on both sides to lift the printer. Otherwise the printer could break or cause injury if dropped.

(5)



BVN23

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

Power Switch Symbols

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

- I:POWER ON.
- O:POWER OFF.

Manuals for This Printer

Read this manual carefully before you use this printer.

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

- 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.



Manuals provided are specific to printer types.

How to Read This Manual

Symbols

This manual uses the following symbols:

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

₩Note

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

■ Reference

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

[]

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

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.

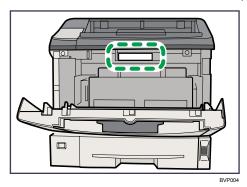
120V

This indicates information about the 120 V model printer.

Read if you have purchased this model.



• Check the label behind the front cover 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
Paper Feed Unit PB3090	Paper feed unit
Duplex Unit Type AD610	Duplex unit
Envelope Feeder Type 610	Envelope feeder
Hard Disk Drive Type 2670	Hard disk
Memory Unit Type G 128 MB	128 MB SDRAM module
Memory Unit Type G 256 MB	256 MB SDRAM module
Gigabit Ethernet Board Type A	Gigabit Ethernet board
120V IEEE 802.11a/g Interface Unit Type L	Wireless LAN interface unit
220-240V IEEE 802.11a/g Interface Unit Type M	Wireless LAN interface unit
IEEE 1284 Interface Board Type A	IEEE 1284 interface board
Data Overwrite Security Unit Type L	Data overwrite security unit
SD card for NetWare Printing Type C	NetWare card
VM Card Type K	VM card
HDD Encryption Unit Type D	HDD encryption unit



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

■ Reference

• p.215 "Specifications"

Installing the Operating Instructions

This section explains how to use HTML format manuals.

Installing the HTML Format Manuals

The supplied "Manuals" CD-ROMs contain HTML format manuals. For easy access, we recommend you install the manuals on a computer.



- The system requirements for installing the manuals are as follows:
 - Minimum display resolution: 800 × 600 pixels
- Recommended browsers:
 - Microsoft Internet Explorer 4.01 SP2 or later
- Non-recommended browsers can display the simplified manual only.
- If you are using a Macintosh, click [Read HTML manuals] to view manuals.
- 1. Select a language and a product, and then click [OK].
- 2. Click [Install manuals].

If you want to read manuals from the CD-ROM, click [Read HTML manuals].

- 3. Install the manual you require according to the displayed instructions.
- 4. When installation is complete, click [Finish].
- 5. Click [Finish].



- Depending on the printer model, PDF manuals may be supplied in the CD-ROM. To open PDF manuals, click [Read PDF manuals] in step 2.
- If you cannot install a manual, copy the "MANUAL_HTML" folder to your computer's hard drive, and then run "Setup.exe".
- To delete an installed manual, on the [Start] menu, point to [All Programs], then [Product Name], and then click [Uninstall]. Follow the instructions to delete the manual.

Opening the HTML Format Manuals

This section explains how to open the HTML format manuals.

Opening from the Icon

This section explains how to open a manual using its desktop icon.

1. Double-click the icon on your desktop.



The browser opens and the manual appears.

Opening from the [Start] Menu

This section explains how to open a manual from the [Start] menu.

 On the [Start] menu, point to [All Programs] (for operating systems other than Windows XP: [Programs]), then [Product Name], and then click the manual you want to view.

The browser opens, and then the manual appears.



• Depending on the settings made during installation, menu folder names may differ.

Opening from the CD-ROM

This section explains how to open a manual from the supplied "Manuals" CD-ROM.

- 1. Click [Read HTML manuals].
- 2. Click the title of the manual you want to view.

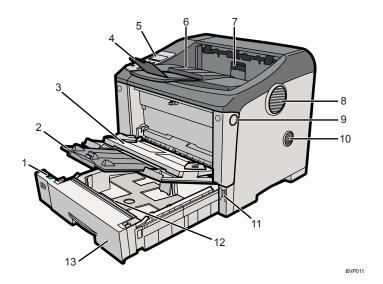
The browser opens, and then the manual appears.

1. Guide to the Printer

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

Exterior: Front View

This section introduces the names of the various parts on the front and right side of the printer and outlines their functions.



1. Paper Size Dial

Adjust this dial according to the size and feed direction of the paper loaded in the paper tray.

2. Bypass Tray Extension

Pull this out when loading a sheet that is longer than A4D on the Bypass Tray.

3. Bypass Tray

Use this tray to feed in thick paper, OHP transparencies, adhesive labels, envelopes, and sheets of non-standard length. When printing on custom paper size, printer driver settings are required.

Up to 100 sheets of plain paper (75 g/m², 20 lb.) can be loaded on the Bypass Tray.

See p.85 "Supported Paper for Each Tray" and p.96 "Loading Paper".

4. Tray Extension

Pull this out if the paper you are loading is A4D or longer.

5. Control Panel

Features keys for printer operations and a display that shows the printer's operational status.

6. Output Tray (Standard Tray)

Prints are delivered here printed side facing down.

7. Paper Exit Cover

Open this cover to remove jammed paper.

8. Exhaust Vent

Releases hot air from the printer's interior to prevent internal components overheating.

The direction of exhaust from this vent can be adjusted.

Do not block or obstruct the printer's vents. Doing so can result in malfunctions caused by build up of heat inside the printer.

9. Front Cover Release Button

Press this to open the front cover.

10. Intake Vent

Draws cool air into the machine's interior to prevent internal components overheating.

To prevent dust entering the printer's interior, attach the dustproof filter to this vent.

Do not block or obstruct the printer's vents. Doing so can result in malfunctions caused by build up of heat inside the printer. See p.148 "Replacing the Dustproof Filter".

11. Power Switch

Press this to turn the printer's power on and off.

12. Friction Pad

This ensures only one sheet of paper is fed in at a time. If multi-sheet feeds occur, clean the friction pad carefully. If the message "Replace Maintenance Kit.", replace the friction pad with a new one.

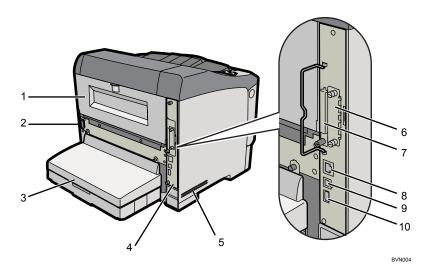
13. Paper Tray (Tray 1)

Loads up to 500 sheets of plain paper (75 g/m², 20 lb.) into this tray for printing.

The paper tray is identified as "Tray 1" on the display.

Exterior: Rear View

This section introduces the names of the various parts on the rear and left side of the printer and outlines their functions.



1. Rear Cover

Remove this to install the optional duplex unit or to replace the fusing unit.

2. Power Connector

Connect the power cord to the printer here. Insert the other end of the cable into a nearby wall outlet. Do not use extension leads or adaptor plugs to connect this printer to a wall outlet.

3. Paper Tray Cover

Keeps paper in the tray free of dust.

4. Controller Board

Slide this out to install the hard disk or SDRAM module.

5. Intake Vent

Prevents the printer's internal components overheating by letting in cool air through this vent.

Do not block or obstruct the ventilator areas. Doing so can result in malfunctions caused by build up of heat inside the printer.

6. Optional Interface Board Slot

Install an optional interface board here. The Gigabit Ethernet board, Wireless LAN interface unit, or IEEE1284 interface board can be installed in this slot.

7. SD Card Slots

Remove the cover and install SD cards here. Install the data overwrite security unit or IPDS unit in the upper slot. Install the VM card in the lower slot.

8. Ethernet Port

Use this port to connect the printer to a network via an Ethernet cable (RJ-45 connector).

9. USB Port B

Use this port to connect a computer directly to the printer via a USB cable.

10. USB Port A

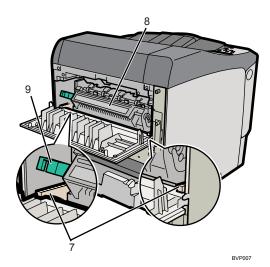
Use this port to connect an external device such as an IC card reader to the printer.

Interior

[Front view]

1 2 3 4

[Back view]



1. Toner Cartridge (Print Cartridge)

Contains toner and the photo conductor unit.

When "Replace print cartridge." appears on the display, replace this unit.

2. Front Cover

Open this to access the printer's interior.

3. Guide Board

Open this to remove jammed paper.

4. Registration Roller

 $\label{pulls in sheets of paper for printing. Be sure to clean this roller if it becomes dirty.$

See p.157 "Cleaning the Registration Roller".

5. Transfer Roller Cover

Open this to replace the transfer roller.

6. Transfer Roller

When "Replace Maintenance Kit." appears on the display, replace this roller.

7. Fusing Unit Lock Levers

Lift these levers to replace the fusing unit.

8. Fusing Unit

Fuses print images onto paper.

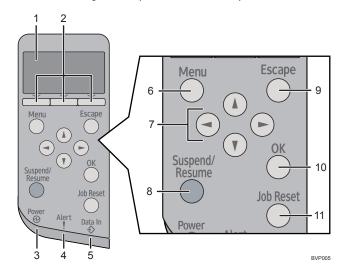
When "Replace Maintenance Kit." appears on the display, replace this unit.

9. Envelope lever

Use this lever if envelopes become wrinkled during printing. Raising or lowering the envelope lever according to the thickness of the paper you are printing on can improve print quality.

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 shown on the bottom line of the display.

3. 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.

4. 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.

5. Data In Indicator

Blinks when the printer is receiving data from a computer. Lights up if there is data to be printed.

6. [Menu] Key

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

While configuring settings, press this key to return to the initial screen.

7. Scroll Keys

Press to move the cursor in each direction.

When the $[^{\blacktriangle}] [^{\blacktriangledown}] [^{\blacktriangledown}]$ keys appear in this manual, press the scroll key of the same direction.

8. [Suspend/Resume] Key

Press this key to suspend a print job. The key lights up while the job is suspended. To resume the job, press this key again.

9. [Escape] Key

Press this key to return to the previous display.

10. [OK] Key

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

11. [Job Reset] Key

Press this key to cancel an ongoing print job.

Turning the Printer's Power On and Off

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

MARNING

• It is dangerous to handle the plug with wet hands. Doing this may result in receiving an electric shock.

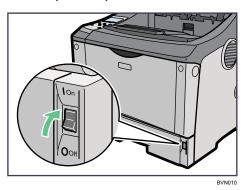
Mportant !

- 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.
- Do not physically disturb the printer while printing is in progress. Doing so may damage the printer.

Turning on the Power

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

1. Turn the printer's power switch to On.

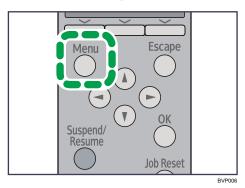


When the printer has fully warmed up, a ready message appears on the display and you can begin printing.

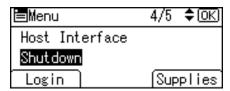
Turning off the Power

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

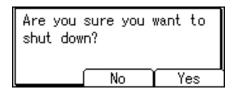
1. Press the [Menu] key.



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



3. Press [Yes].



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



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

Display Panel

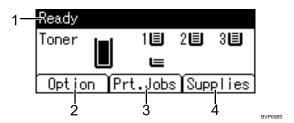
This section explains configuration using the initial screen of the display panel.

The items are highlighted when selected.



• 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.

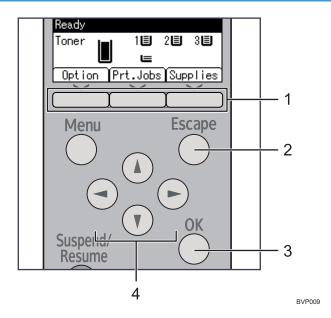
4. [Supplies]

Press to display the menu of supplies for the printer.



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

Reading the Display and Using Keys



1. 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.

2. [Escape] key

Cancels an operation or returns to the previous display.

3. [OK] key

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

4. Scroll keys

Move the cursor in each direction.

When the $[^{\blacktriangle}][^{\blacktriangledown}][^{\blacktriangledown}]$ keys appear in this manual, press the scroll key of the same direction.

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.

CAUTION

- Before installing options, the printer should be turned off and unplugged for at least an hour.
 Components inside the printer become very hot, and can cause a burn if touched.
- Before moving the printer, unplug the power cable from the outlet. If the cable is unplugged abruptly, it could become damaged. Damaged plugs or cables can cause an electrical or fire hazard.
- When lifting the printer, use the grips on both sides. The printer could break or cause an injury if dropped.



• The voltage rating of the connector for options is 24 V DC or less.

Order of Option Installation

Installing multiple options in the following order is recommended:

1. Attach the paper feed unit (Paper Feed Unit PB3090).

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

You can attach up to two paper feed units. Up to 1600 sheets of paper can be loaded.

2. Attach the envelope feeder (Envelope Feeder Type 610).

Replace the paper tray of the optional feeder with the envelope feeder.

- 3. Take out the controller board from the printer.
- 4. Install the hard disk (Hard Disk Drive Type 2670).

Install the hard disk to the controller board.

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

Install the module to the SDRAM module slot on the controller board.

There are two types of memory unit: 128 MB and 256 MB.

6. Install the optional interface board.

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

7. Insert SD card options.

Install the security unit (Data Overwrite Security Unit Type L), or the VM card (VM Card Type K). Insert these units into the SD card slot on the controller board.

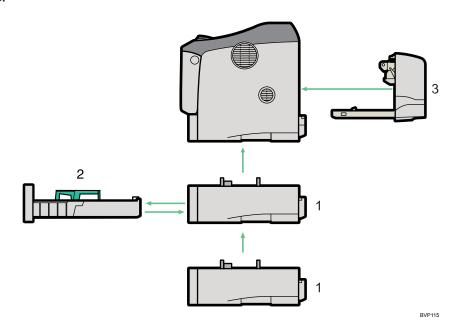
8. Attach the duplex unit. (Duplex Unit Type AD610).

Attach the duplex unit to the rear of the printer.

Installing Options

Install options in the positions shown in the illustration.

Exterior



1. Paper feed unit (Tray 2 or Tray 3)

You can load up to 500 sheets (60-216 g/ m^2 , 16-57 lb.) of plain paper into the tray. See p.29 "Attaching the Paper Feed Unit".

2. Envelope feeder

You can load up to 60 envelopes (72-90 g/m 2 , 19-24 lb.) into the tray. See p.32 "Attaching the Envelope Feeder".

3. Duplex unit

You can print on both sides of paper.

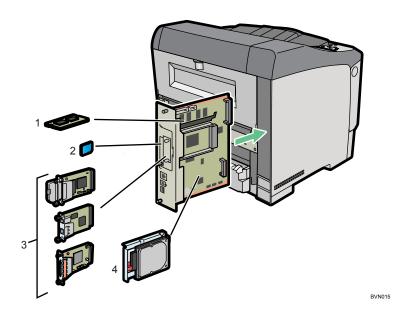
Install the duplex unit by removing the rear cover of the printer.

See p.52 "Attaching the Duplex Unit".



- Up to two paper feed units can be attached.
- The upper optional paper feed unit is displayed with "Tray 2", and the lower unit is displayed with "Tray 3" on the display.
- The envelope feeder is a tray that slides into the optional paper feed unit. Without the optional paper feed unit, the envelope feeder cannot be used.
- Your printer can accommodate two optional paper feed units. The envelope feeder can be used in "Tray 2". The main unit's feed tray (Tray 1) cannot be used for this purpose.

Interior



1. Memory unit 128MB/ 256MB (SDRAM module)

Install 128 MB or 256 MB SDRAM module into the controller board slot.

See p.34 "Installing the Memory Expansion Units".

2. Optional cards

See p.50 "Installing SD Memory Card Options".

3. Optional interface boards

See p.43 "Installing the Interface Units".

4. Hard disk

See p.34 "Installing the Memory Expansion Units".



• You cannot install following options at the same time:

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

Caution 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 units, carefully read the instruction to re-install the controller board.



- The following may occur if the controller board is not properly installed:
 - all control panel indicators are lit.
 - no control panel indicators are lit.
 - the error message appears on the display.

Re-install the controller board into the printer by pushing the bottom center area of the board.

2

Attaching the Paper Feed Unit

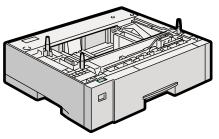
When installing multiple options, install the paper feed unit first.

ACAUTION

- Before moving the printer, unplug the power cord from the outlet. If the cord is unplugged abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.
- When lifting the paper feed unit, hold the bottom of it, and then lift it slowly. Lifting it carelessly or dropping it may cause an injury.
- The printer weighs approximately 22.5 kg (49.6 lb.). When lifting the printer, use the inset grips on both sides. Otherwise the printer could break or cause injury if dropped.

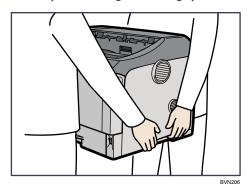
- Do not slide out more than one paper tray at a time. Fully extending more than one full tray at a time
 can cause the printer to topple over.
- The printer should always be lifted by at least two people.
- Check the printer nameplate to confirm the model code.
- Before using the new paper feed unit, you must make settings in the printer driver.
- 1. Check the package contains the following:

Paper Feed Unit (including a paper tray)



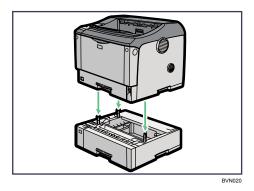
- BVN016
- 2. Turn off the power of the printer, and then unplug the printer's power cable and the interface cable.
- 3. Remove the adhesive tape from the paper feed unit.

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



5. Align the holes over the pins, and then lower the printer gently onto the paper feed unit.

There are three pins on the top of the paper feed unit that point straight up. On the bottom of the printer, there are three holes.



- 6. Attach the interface cable to the printer.
- 7. Plug the printer's power cord back into the wall outlet, and then turn on the power.



- After finishing installation, you can check whether the paper feed unit is properly installed: Print the
 configuration page from the [List/Test Print] menu. If it is installed properly, you will see "Optional
 Paper Feed Tray 2" or "Optional Paper Feed Tray 2, Optional Paper Feed Tray 3" for "Attached
 Equipment" on the configuration page.
- If the paper feed unit is not installed properly, reinstall it from the start. If you cannot install it properly even after attempting reinstallation, contact your sales or service representative.
- To attach two paper feed units at the same time, first stack them one upon the other, and then attach them as a single unit.

Reference

- "Test Printing", Quick Installation Guide.
- p.96 "Loading Paper"

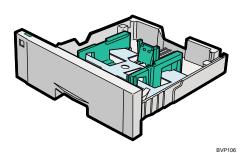
7/

• p.163 "Adjusting Tray Registration"

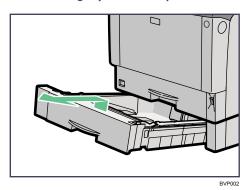
Attaching the Envelope Feeder

- Pull out only one paper tray at a time. Having multiple paper trays fully extended could cause the
 printer to topple.
- The tray of the upper optional paper feed unit (Tray 2) is beneath the standard paper tray (Tray 1).
- Your printer can accommodate two optional paper feed units. The envelope feeder can be used in "Tray 2". The main unit's feed tray (Tray 1) cannot be used for this purpose.
- 1. Check the package contains the following:

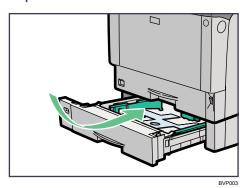
Envelope Feeder



2. Pull out the optional paper tray (Tray 2) of the optional paper feed unit until it stops. After that, lift it slightly, and then pull it out.



3. Lift the front end of the envelope feeder, and slide it carefully into the paper feed until it stops.





- This unit is a tray that slides into the optional paper feed unit. Without the optional paper feed unit, this envelope feeder cannot be used.
- Keep the removed paper tray with paper in a cool dark place.

■ Reference

• p.96 "Loading Paper"

Installing the Memory Expansion Units

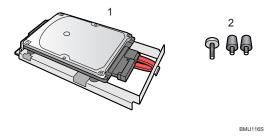
CAUTION

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

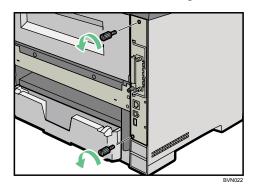
Installing the Hard Disk



- Before touching the hard disk, touch something metal to discharge any static electricity. Static electricity can damage the hard disk.
- Do not subject the hard disk to physical shocks.
- Before using the new hard disk, be sure to make the settings in the printer driver.
- 1. Check the package contains the following:

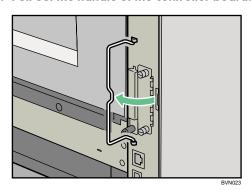


- 1. Hard disk
- 2. Screws
- 2. Turn off the power of the printer, and then unplug the power cable and interface cable.
- 3. Remove the two screws holding the controller board in place.

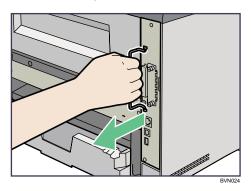


The removed screws are required in fastening the controller board.

4. Pull out the handle of the controller board.

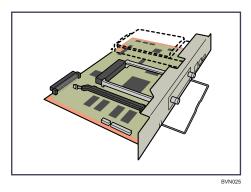


5. Pull the handle, and then slide the controller board out.



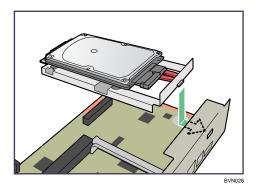
6. Place the controller board on a flat surface.

The hard disk is installed in the slot shown in the illustration below.

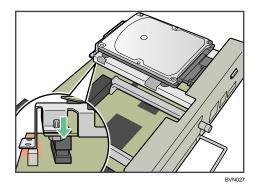


7. Insert the protrusion on the front end of the hard disk board into the notch on the back panel of the controller board.

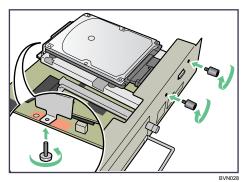
Be sure to set the hard disk board parallel with the controller board.



8. Fit the hard disk on the connector of the controller board carefully.

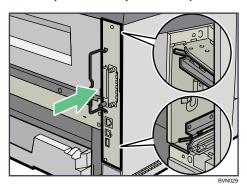


9. Tighten the two screws by turning them clockwise with a coin, and then secure the hard disk board by tightening the third screw from the under side of the controller board.

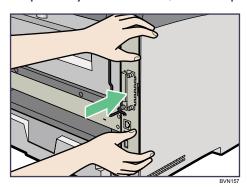


10. To install other options on the controller board, follow the installation procedure shown in the documentation provided with the option.

11. Match the controller board to the top and bottom rail using the "▼" mark, and then slide it into the printer slowly until it stops.

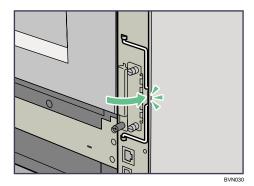


12. Hold the printer with one hand, and then push the lower handle of the controller board with the palm of your other hand, until it stops.



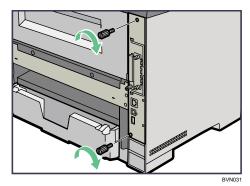
Malfunctions can occur if the controller board is not set properly.

13. Push the handle of the controller board until it clicks.



37

14. Fasten the controller board to the printer with the two screws.



U Note

- Use a coin or similar object if the screws do not turn easily.
- After finishing installation, you can check whether the hard disk is properly installed: Print the
 configuration page from the [List/Test Print] menu. If it is installed properly, you will see "Hard Disk"
 for "Device Connection" on the configuration page.
- If the Hard disk is not installed properly, repeat the procedure from the start. If you cannot install it properly even after reinstallation, contact your sales or service representative.

Reference

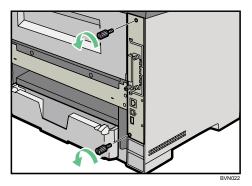
• "Test Printing", Quick Installation Guide.

Installing the SDRAM Module



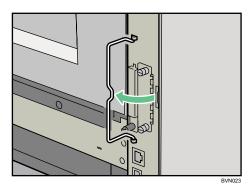
- Before touching the memory unit, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the memory unit.
- Do not subject the memory unit to physical shocks.
- The printer comes equipped with 256 MB of memory. This can be expanded to a maximum of 512 MB.
- Before using the new memory unit, be sure to make settings in the printer driver.
- 1. Turn off the power of the printer, and then unplug the power cable and interface cable.

2. Remove the two screws holding the controller board in place.

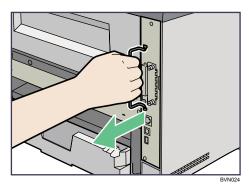


The removed screws are required in fastening the controller board.

3. Pull out the handle of the controller board.

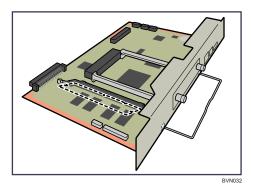


4. Pull the handle, and then slide the controller board out.

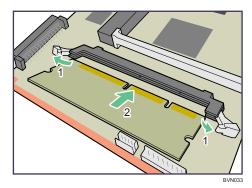


5. Place the controller board on a flat surface.

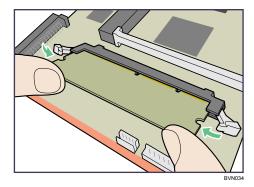
The Memory Unit is installed in the slot shown in the illustration below.



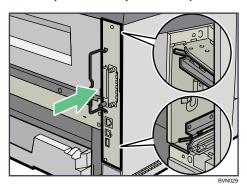
6. Push out the latches at both ends of the memory module slot (1). Align the notches on the SDRAM module with the protrusions in the slot, and the carefully push in the SDRAM module at an angle (2).



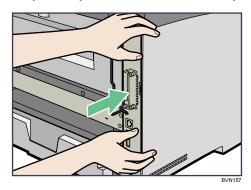
7. Holding the SDRAM module at an angle, press it down until it clicks into place.



8. Match the controller board to the top and bottom rail using the "▼" mark, and then slide it into the printer slowly until it stops.

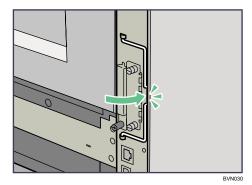


9. Hold the printer with one hand, and then push the lower handle of the controller board with the palm of your other hand, until it stops.

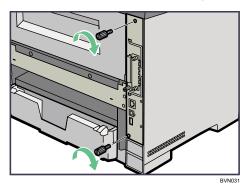


Malfunctions can occur if the controller board is not set properly.

10. Push the handle of the controller board until it clicks.



11. Fasten the controller board to the printer with the two screws.



₩Note

- Use a coin or similar object if the screws do not turn easily.
- After finishing the installation, you can check the memory unit is properly installed: Print the
 configuration page from the [List/Test Print] menu. If it is installed properly, the memory capacity will
 appear under "Total Memory" on the configuration page.
- The table below shows the total SDRAM module capacities.

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

- If the memory unit is not properly installed, repeat this procedure. If you cannot install it properly even after reinstallation, contact your sales or service representative.
- Install the controller board carefully to prevent any malfunction.

Reference

• "Test Printing", Quick Installation Guide.

2

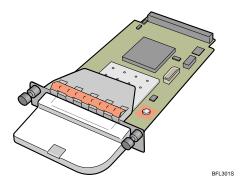
Installing the Interface Units

CAUTION

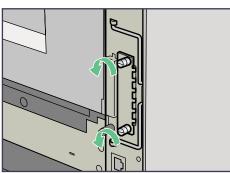
• Do not touch the inside of the controller board compartment. Doing so may cause a printer malfunction or a burn.

Installing the Wireless LAN Interface Unit

- Before you begin any installation, always 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 package contains the following:



- 2. Turn off the power of the printer, and then unplug the power cable and the interface cable.
- Remove the two screws and the slot cover of the wireless LAN interface unit mounting bracket.



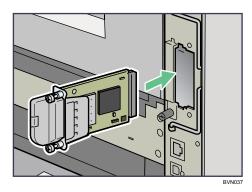
3VN036

2

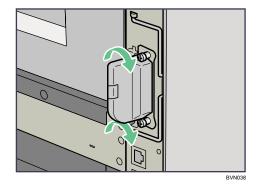
When the wireless LAN unit is installed, the slot cover is no longer required. However, we recommend you keep the cover for future use.

4. Attach the wireless LAN interface unit.

Insert the end of the wireless LAN interface unit into the slot.



5. Fasten the wireless LAN interface unit to the controller board with the two screws.



Check the wireless LAN interface unit is connected firmly to be controller board.

U Note

- Use a coin or similar object if the screws do not turn easily.
- After finishing installation, you can check the wireless LAN interface unit is properly installed: Print the
 configuration page from the [List/Test Print] menu. If it is installed properly, "Wireless LAN" will appear
 for "Device Connection" on the configuration page.
- If the wireless LAN interface 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.
- You need to make settings with the control panel before using the wireless LAN interface unit. For more information, see "Wireless LAN Configuration".

Reference

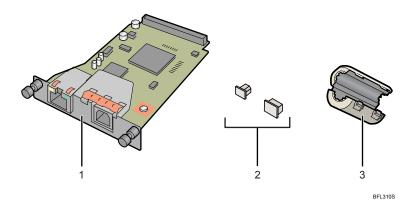
• "Test Printing", Quick Installation Guide

• p.71 "Wireless LAN Configuration"

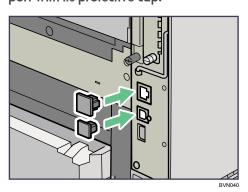
Installing the Gigabit Ethernet Board



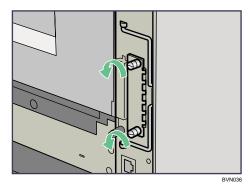
- The printer's Ethernet and USB ports are not available when the Gigabit Ethernet board is attached to the printer. Use the Ethernet and USB ports on the Gigabit Ethernet board.
- Before you begin any installation, always ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the Gigabit Ethernet board.
- Do not subject the Gigabit Ethernet board to physical shocks.
- 1. Check the package contains the following:



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



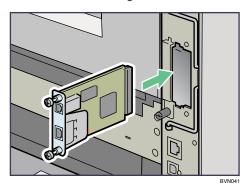
4. Remove the two screws and the slot cover of the Gigabit Ethernet board mounting bracket.



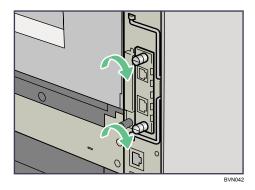
When the Gigabit Ethernet board is installed, the slot cover is no longer required. However, we recommend you keep the cover for future use.

5. Attach the Gigabit Ethernet board to the controller board.

Insert the end of the Gigabit Ethernet board into the slot.



6. Fasten the Gigabit Ethernet board to the controller board with two screws.



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



• Use a coin or similar object if the screws do not turn easily.

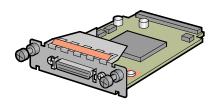
- After finishing installation, check the Gigabit Ethernet board is installed properly: print the configuration page from the [List/Test Print] menu. If it is installed properly, you will see "Gigabit Ethernet" for "Device Connection" on the configuration page.
- If the Gigabit Ethernet board is not installed properly, reinstall it following this procedure. If you cannot install it properly even after attempting reinstallation, contact your sales or service representative.
- You need to make settings with the control panel before using the Gigabit Ethernet board. For details, see "Ethernet Configuration".

■ Reference

- "Test Printing", Quick Installation Guide.
- p.63 "Ethernet Configuration"

Installing the IEEE 1284 Interface Board

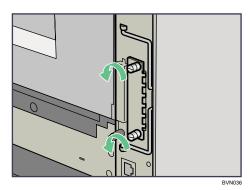
- Before you begin any installation, always ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the IEEE 1284 interface board.
- Do not subject the IEEE 1284 interface board to physical shocks.
- For connection to the IEEE 1284 interface board, use a half pitch 36-pin interface cable.
- 1. Check the package contains the following:



BFL302S

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

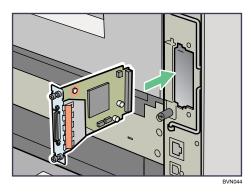
Remove the two screws and the slot cover of the IEEE 1284 interface board mounting bracket.



When the IEEE 1284 interface board is installed, the slot cover is no longer required. However, we recommend you keep the cover for future use.

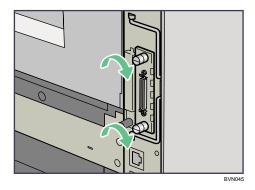
4. Attach the IEEE 1284 interface board to the controller board.

Insert the end of the IEEE 1284 interface board into the slot.



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

5. Fasten the IEEE 1284 interface board to the controller board with two screws.



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



- After finishing installation, you can check the IEEE 1284 interface board is properly installed: Print the
 configuration page from the [List/Test Print] menu. If it is installed properly, "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.

Reference

• "Test Printing", Quick Installation Guide.

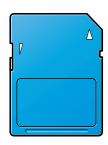
Installing the data overwrite security unit or VM card.

ACAUTION

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

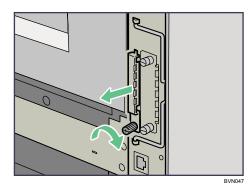
☆ Important

- Do not subject the optional cards to physical shock.
- 1. Check the package contains the following:



BFL308S

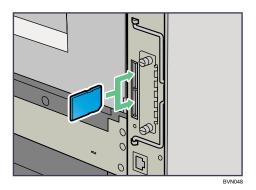
- 2. Turn off the power, and then unplug the power cable.
- 3. Remove the screw and the cover of the card slot at the back of the printer.



Be sure to keep a screw removed during installation.

9

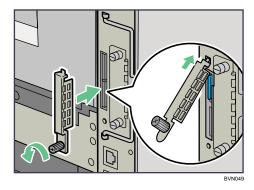
4. Insert the SD card into the slot until it clicks.



Insert the SD card in the appropriate slot as follows:

- Upper slot: Data overwrite security unit
- Lower slot: VM card

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

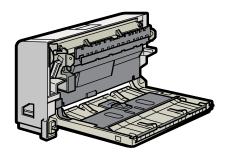


U Note

- Do not touch the card while the printer is in use. It may come loose, even if pushed only slightly. The slot cover must be reattached.
- Confirm that the card was correctly installed by printing the configuration page.
- 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.

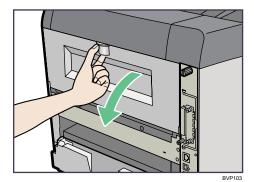
Attaching the Duplex Unit

- If you attach the duplex unit and the paper feed unit, the paper feed unit must be attached prior to attaching the duplex unit.
- Check the printer nameplate to confirm the model code.
- 1. Check the contents of the box for the following items:

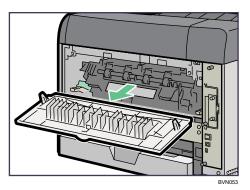


BVN050

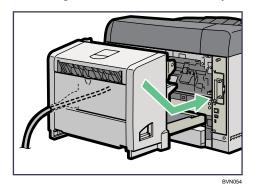
- 2. Turn off the power of the printer, and then unplug the power cable.
- 3. Remove the adhesive tape and paper.
- 4. Open the rear cover.



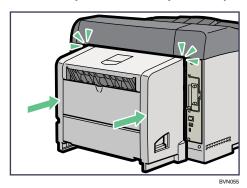
5. Lower the rear cover until it is horizontal, and then pull it away.



6. Place the power cable inside the slot on the side of the duplex unit, and then push the duplex unit along the rails in the back of the printer.



7. Push the duplex unit securely into the printer.



U Note

- After finishing installation, you can check whether the duplex unit is properly installed: Print the
 configuration page from the [List/Test Print] menu. If it is installed properly, you will see "Duplex Unit"
 for "Attached Equipment" on the configuration page.
- If the duplex unit is not installed properly, repeat the procedure from the start. If you cannot install it properly even after reinstallation, contact your sales or service representative.

- If the printing position is not correct, adjust the registration of the trays. For more information about adjusting the registration of the trays, see "Adjusting Tray Registration".
- When the duplex unit is installed, the rear cover is no longer required. However, we recommend you keep the cover for future use.
- Do not install the duplex unit if the paper tray cover is installed.

■ Reference

- "Test Printing", Quick Installation Guide.
- p.163 "Adjusting Tray Registration"

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.

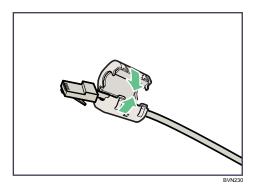


- A network interface cable with a ferrite core must be used for RF interference suppression.
- For users outside the United States of America: properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet emission limits.
- For users in the United States of America: properly shielded and grounded cables and connectors
 must be used for connections to a host computer (and/or peripheral) in order to meet FCC emission
 limits.

- Use shielded Ethernet cable. Unshielded cables create electromagnetic interference that could cause malfunctions.
- The Ethernet cable is not supplied with this printer. Select your cable according to the network environment.

Connecting to the standard Ethernet port

Attach the supplied ferrite core at the printer end of the Ethernet cable.
 220-240V

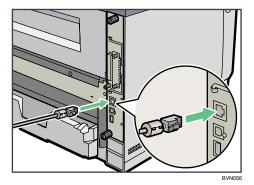


120V

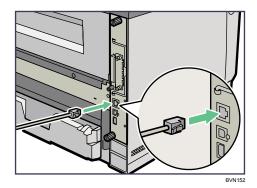
Do not attach the ferrite core.

2. Connect the Ethernet cable to the Ethernet port.

220-240V



120V



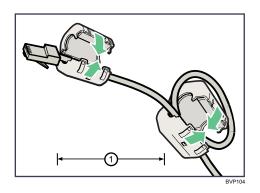
3. Connect the other end of the cable to the network, such as a hub.

Connecting to the Ethernet port of the Gigabit Ethernet board

1. Attach the ferrite core to the Gigabit Ethernet cable.

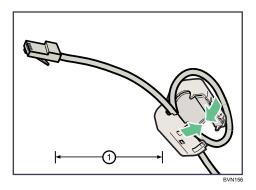
220-240V

Attach one ferrite core at the printer end of the Ethernet cable, and attach the other ferrite core about 10 cm (4 inches) $(\widehat{\mathbb{U}})$ from this core making a loop as shown.



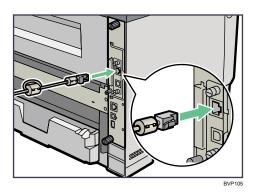
120V

Attach the other ferrite core about 10 cm (4 inches) ($^{\textcircled{1}}$) from this core making a loop as shown.

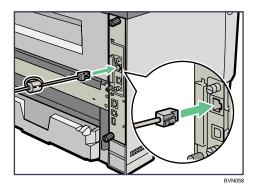


2. Connect the Ethernet cable to the Gigabit Ethernet board.

220-240V



120V



3. Connect the other end of the cable to the network, such as a hub.



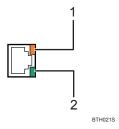
The printer's Ethernet and USB port B are not available when the Gigabit Ethernet board is attached
to the printer.

■ Reference

- "Network Connection", Software Guide.
- p.43 "Installing the Interface Units"

Reading the LED Lamps

For the standard Ethernet port



1. Indicator (yellow)

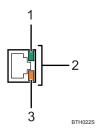
Lights up yellow when 100 BASE-TX is in operation. Goes off when 10 BASE-T is in operation.

2. Indicator (green)

Lights up green when 10 BASE-T is in operation. Goes off when 100 BASE-TX is in operation.

3

For the Gigabit Ethernet board



1. Indicator (green)

When 10BASE-T is operating, the LED is lit green. When 100BASE-TX is operating, it is turned off.

2. Indicators (both green and yellow)

When 1000BASE-T is operating, both LED are lit.

3. Indicator (yellow)

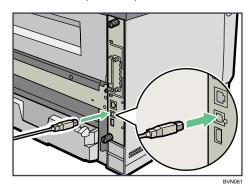
When 100BASE-TX is operating, the LED is lit yellow. When 10BASE-T is operating, it is turned off.

USB Cable Connection

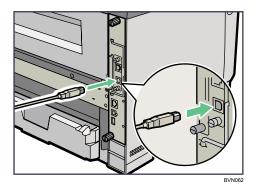
CAUTION

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

- USB connection is possible under Windows 2000/XP/Vista, Windows Server 2003/2003 R2/2008, Mac OS 9.x, and Mac OS X 10.3.3 or later.
- USB connection with Mac OS is only possible via the printer's USB port, not the Gigabit Ethernet board's USB port.
- The USB cable is not supplied with this printer. Select a cable that is suitable for use with your computer.
- 1. Connect the USB cable to the printer.
 - Connecting the USB cable to the standard USB port B
 Connect the square-shaped connector of the USB2.0 cable to the USB port B.



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.

■ Reference

- "Installing the Printer Driver Using USB", Software Guide
- p.43 "Installing the Interface Units"

Parallel Cable Connection

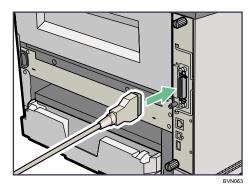
The type of cable required varies depending on the computer you are using. Make sure to use the interface cable compliant with your computer.

ACAUTION

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

Mportant (

- The parallel interface cable is not supplied with the printer.
- The printer's parallel connection is a standard bidirectional interface that requires an IEEE 1284-compliant half pitch 36-pin parallel cable and host computer parallel port.
- Use shielded interface cable. Unshielded cables create electromagnetic interference.
- 1. Turn off the printer and computer.
- 2. 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.



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

Reference

- "Printing with Parallel Connection", Software Guide.
- p.43 "Installing the Interface Units"

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 environment 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	 DHCP: On IPv4 Address: 11.22.33.44 Subnet Mask: 0.0.0.0 Gateway Address: 0.0.0.0 		
IPv6 Stateless Setting	Active		
IPsec	Inactive		
NW Frame Type	Auto Select		
Effective Protocol	IPv4: ActiveIPv6: InactiveNetWare: InactiveSMB: ActiveAppleTalk: Inactive		
Ethernet Speed	Auto Select		
IEEE802.1X Auth.(Ethernet)	Inactive		
Restr.IEEE802.1X Auth.Def.	-		
LAN Type	Ethernet		



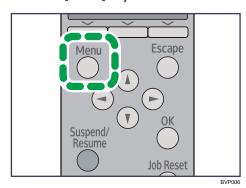
 If DHCP is in use on your network, the IP address, subnet mask, and gateway address are all set automatically.

Specifying an IP Address (No DHCP)

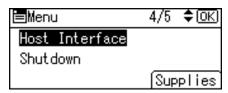
Follow this procedure to assign a specific IP address to the printer. This is only necessary when you use the printer on a network without DHCP, or want to prevent the printer's IP address from changing.

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

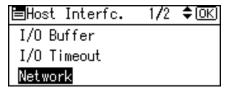
1. Press the [Menu] key.



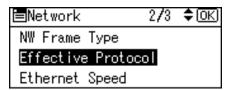
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



3. Press the [$^{\blacktriangledown}$] or [$^{\blacktriangle}$] to select [Network], and then press the [OK] key.

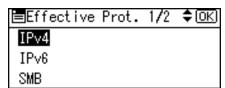


4. Press the [▼] or [▲] key to select [Effective Protocol], and then press the [OK] key.

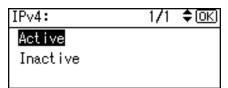


1

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

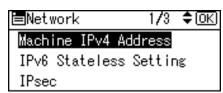


6. Press the [♥] or [♠] key to select [Active] or [Inactive], and then press the [OK] key.



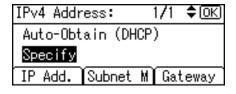
Set other protocols you need to set in the same way.

- Select [Inactive] for unused protocols.
- Enable IPv4 to use the pure IPv4 environment of NetWare 5/5.1, 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.].

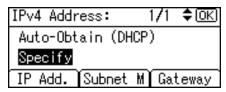


If you use IPv4, also assign the subnet mask and gateway address. To assign these, press [Subnet M] or [Gateway].

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 $[\ \ \]$ key. Use the same method to assign the subnet mask and gateway address.

• Change the IP address from "11.22.33.44" to an IP address supported by your network.



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

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

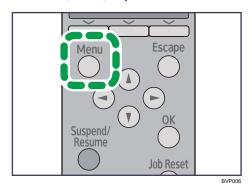


• For details about printing the configuration page, see "List/Test Print Menu", Software Guide.

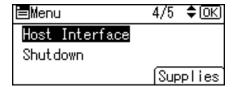
Receiving an IP Address Automatically (DHCP)

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.

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

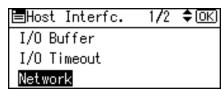


2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.

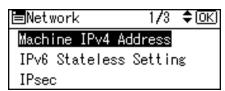


4

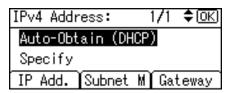
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



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



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



The printer will automatically receive an IP address.

To check the detected addresses, press the following:

- [IP Add.] : IP address
- [Subnet M]: Subnet mask
- [Gateway]: Gateway address
- 6. Press the [Menu] key to return to the initial screen.
- 7. Print a configuration page to confirm the settings.



• For details about printing the configuration page, see "List/Test Print Menu", Software Guide.

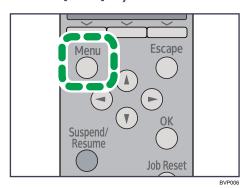
Configuring Network Settings When Using NetWare

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

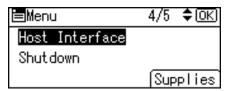
- Auto Select
- Ethernet II
- Ethernet 802.2
- Ethernet 802.3
- Ethernet SNAP



- 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.



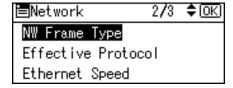
Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



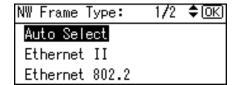
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



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



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



4

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



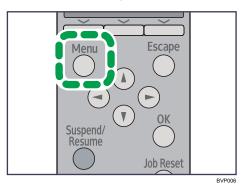
• For details about printing the configuration page, see "List/Test Print Menu", Software Guide.

Setting the Ethernet Speed

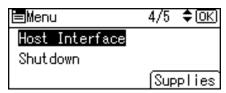
You can set the speed that the printer will use for Ethernet communications. In most cases, this should be left on the default setting, [Auto Select]. This setting allows two interfaces to automatically determine the optimum speed when they are connected.

Router/HUB	Printer					
	[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)	0	-	0	-	0	

- Connection cannot be established if the selected Ethernet speed does not match your network's transmission speed.
- The auto-negotiation mechanism allows two interfaces to automatically determine an optimum Ethernet speed as soon as they are connected. We recommend you select [Auto Select].



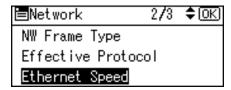
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



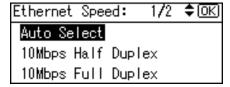
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



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



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



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



• For details about printing the configuration page, see "List/Test Print Menu", Software Guide.

4

4

Wireless LAN Configuration

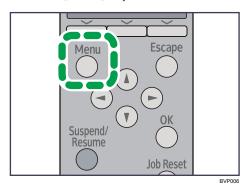
Configure the following wireless LAN settings according to the network environment using the control panel.



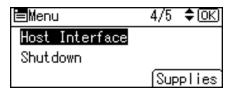
- Ethernet and Wireless LAN cannot be used at the same time.
- To use wireless LAN, set as follows using the control panel: press the [Menu] key, select [Host Interface], [Network], [LAN Type], and then select [Wireless LAN]. In addition, you must set the IP address, subnet mask, gateway address, DHCP,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

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

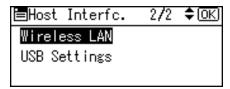
1. Press the [Menu] key.



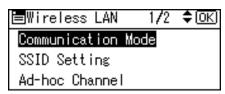
Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



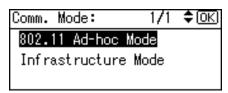
3. Press the [▼] or [▲] key to select [Wireless LAN], and then press the [OK] key.



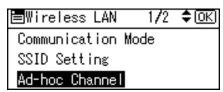
4. Press the [▼] or [▲] key to select [Communication Mode], and then press the [OK] key.



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



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



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

Ad-hoc	: Char	nnel:	1/2 📢	▶ [OK]
1	2	3	4	5
6	7	8	9	10
111	12	13	36	40

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

When using IEEE 802.11 b/g:

220-240V Channels 1 to 13

120V Channels 1 to 11

When using IEEE 802.11 a:

220-240V 120V Channels 36,40,44,48

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



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

Reference

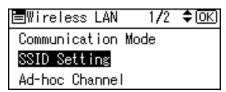
• p.63 "Ethernet Configuration"

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.



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

2. Press [Enter].

3. Press the scroll keys to enter characters, and then press [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.

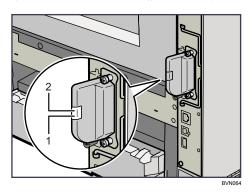


The SSID can also be set using a Web browser. For details, see the Web Image Monitor Help, and
"Configuring the Network Interface Board", Software Guide. For details about printing the
configuration page, see "List/Test Print Menu", Software Guide.

Confirming Wireless Network Connectivity

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

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



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

Cautions When Using a Wireless LAN

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

Information leakage

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

Unauthorized network access

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

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

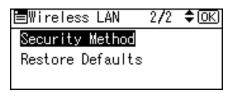
Setting Security Method of Wireless LAN

Setting a WEP Key

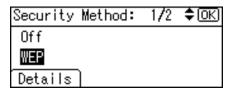
If the wireless network uses WEP to encrypt transmitted data, the corresponding WEP key must be set to the printer to allow communications with other network devices.

Ask the network administrator for the WEP key to use.

In the [Wireless LAN] menu, press the [▼] or [▲] key to select [Security Method], and then press the [OK] key.

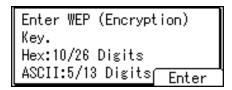


2. Press the [▼] or [▲] key to select [WEP], and then press [Details].



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

3. A confirmation message appears. Press [Enter].



4. Press the scroll keys to enter characters, and then press [Accept].



- When entering a character, pressing [Accept] will mask it with an asterisk for security reasons.
- When using 64-bit WEP, up to 10 hexadecimal characters or five ASCII characters can be
 entered. When using 128-bit WEP, up to 26 hexadecimal characters or 13 ASCII characters
 can be used.

- Up to 10 or 26 hexadecimal characters and 5 or 13 ASCII characters can be entered.
- For ASCII character strings, uppercase and lowercase letters are differentiated, so be sure to enter characters in the required case.
- 5. Press the [▼] or [▲] key to select [WEP], and then press the [OK] key.
- 6. Press the [Menu] key to return to the initial screen.
- 7. Print a configuration page to confirm the settings.



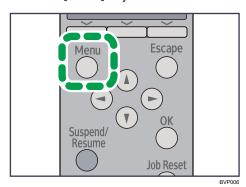
- The WEP key can also be set using a Web browser. For details, see the Web Image Monitor Help.
- For details about printing the configuration page, see "List/Test Print Menu", Software Guide.

Setting WPA

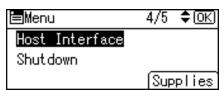
In the case of using WPA on a network, activate the WPA setting to be used for communication along with WPA. Consult your network administrator for information about making authentication settings.



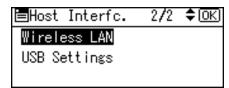
- For setting WPA, installing the optional HDD or the optional Data Storage Card is required.
- 1. Press the [Menu] key.



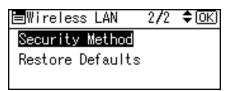
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



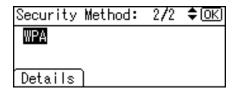
3. Press the [▼] or [▲] key to select [Wireless LAN], and then press the [OK] key.



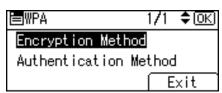
4. Press the [▼] or [▲] key to select [Security Method], and then press the [OK] key.



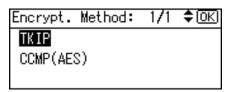
Press the [▼] or [▲] key to select [WPA], and then press [Details].



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



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



Consult your network administrator for information about making encryption settings.

Encryption settings are as follows:

• [TKIP]

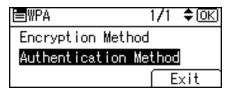
Uses the same algorithm as RC4, but further reduces vulnerability using methods such as key mixing.

• [CCMP(AES)]

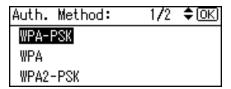
Increases security using AES (Advanced Encryption Standard).

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

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



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



Authentication settings are as follows:

• [WPA-PSK]

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

• [WPA]

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

• [WPA2-PSK]

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

• [WPA2]

WPA2 is an expanded version of WPA that fully supports IEEE802.11i.

 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.

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





- 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].



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

- 14. Press the [Escape] key.
- 15. Press [Exit].
- 16. Press the [♥] or [▲] key to select [WPA], and then press the [OK] key.
- 17. Press the [Menu] key to return to the initial screen.
- 18. Print a configuration page to confirm the settings.



• For details about printing a configuration page, see "List/Test Print Menu", Software Guide.

4

Configuring IEEE 802.1X (WPA/WPA2)

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

IEEE 802.1X (WPA/WPA2) can be configured using Web Image Monitor's administrator mode.

To configure the settings when using Ethernet; select [Host Interface] and [IEEE802.1X Auth.(Ethernet)] in [Network] on the display, and then select [Active].

To configure the settings when using a wireless LAN; configure WPA using the control panel or Web Image Monitor.



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

Installing a Site Certificate

- Access the authentication server and obtain the CA certificate.
 - Methods of obtaining certificates differ according to the operating system you are using.
- 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, contact your administrator.

- 5. Click [Configuration].
- 6. Click [Site Certificate] in the "Security" area.
- 7. 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. Quit 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 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.
- 11. 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 2] on "Device Certificate" window, and then click [Install].
- 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].
- 16. "Updating..." appears. Wait for about one or two minutes, and then click [OK].

 Check that the "Device Certificate" shows "Installed".
- 17. Click [Certificate 2] on "Certification", and then click [OK].
- 18. Click [Logout].
- 19. Quit the Web browser.



- You can select any Certificate between 1 and 4 in the "Device Certificate" window. Be sure to select the same Certificate number in both the "Device Certificate" window and the "Certification".
- 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. Click [OK].
- 11. Click [Logout].
- 12. Quit the Web browser.



- 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" list 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.

5. Paper and Other Media

This chapter explains the paper sizes and types 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.



• The following symbols and terminology are used to represent the feed direction.

In this manual	On the display	Paper feed direction
□ ↑ (Feed direction)	A4 [□] 8 ¹ / ₂ ×11 [□]	Short-edge feed direction
□↑ (Feed direction)	A4□ 8 ¹ / ₂ ×11□	Long-edge feed direction

• Be careful of the paper feed direction. The direction is determined for each paper size.

Input Paper Sizes Tray 1

Metric version / Inch version	
220-240 V	A3₽, A4₽□, A5□, 8¹/2" × 11" (Letter)₽□
120 V	A4 , 11" × 17" ⁻ , 8 ¹ / ₂ " × 14" (Legal) ⁻ , 8 ¹ / ₂ " × 13" (Foolscap) ⁻ , 8 ¹ / ₂ " × 11" (Letter) ⁻

The following sizes are supported but not indicated on the tray dial. You should set the tray dial to "\(\frac{\times}{\times}\)", and select the paper size with the control panel.

Metric version / Inch version		
220-240 V	B4 JISD, B5 JISDD, A5D, A6D, 8KD, 16KDD, 11" × 17"D, 8 ¹ / ₂ " × 14" (Legal)D, 8 ¹ / ₂ " × 13" (Foolscap)D, 8 ¹ / ₄ " × 13" (Folio)D, 8" × 13" (F/GL)D, 7 ¹ / ₄ " × 10 ¹ / ₂ " (Executive)DD, 5 ¹ / ₂ " × 8 ¹ / ₂ " (Half Letter)D	

Metric version / Inch version		
120 V	A3D, B4 JISD, A4D, B5 JISDD, A5DD, A6D, 8KD, 16KDD, 8 ¹ / ₄ " × 13" (Folio)D, 8" × 13" (F/GL)D, 7 ¹ / ₄ " × 10 ¹ / ₂ " (Executive)DD, 5 ¹ / ₂ " × 8 ¹ / ₂ " (Half Letter)D	

Tray 1 supports custom size paper, approximately 90 - 297 mm (3.6 - 11.7 inches) in width, and 148 - 432 mm (5.9 - 17 inches) in length. Set as custom size using the control panel and printer driver.

The supported size may differ depending on the printer language you use.

Input Paper Sizes Paper Feed Unit (Tray 2/3)

The following sizes are supported but not indicated on the tray dial. You should set the tray dial to "**", and select the paper size with the control panel.

Tray 2/3 supports custom size paper, approximately 182 - 297 mm (7.2 - 11.7 inches) in width, and 148 - 432 mm (5.9 - 17 inches) in length.

Input Paper Sizes Bypass Tray

The following paper size is supported but the paper size should be set with the control panel. There is no dial on the tray.

Bypass Tray supports custom size paper, approximately 64 - 305 mm (2.6 - 12 inches) in width, and 148 - 1260 mm (5.9 - 49.6 inches) in length. Set as custom size using the printer driver.

The supported size may differ depending on the printer language you use.

See p.96 "Loading Paper".

5

Input Paper Sizes Envelope Feeder Unit

The following paper size is supported but the paper size should be set with the control panel.

There is no dial on the tray.

Com#10 Env.D, C5 Env.D, C6 Env.D, DL Env.D, Monarch Env.D

See p.96 "Loading Paper".

Paper Weight and Number of Sheets to Be Set

	Supported paper weight	Maximum number of sheets (plain paper)
Tray 1	60 - 216 g/m² (16 - 57 lb.)	500 (75 g/m², 20 lb.)
Bypass Tray	52 - 216 g/m ² (14 - 57 lb.)	100 (75 g/m², 20 lb.) For other kind of papers, see p.88 "Types of Paper and Other Media".
Paper Feed Unit (Tray 2, Tray 3)	60 - 216 g/m ² (16 - 57 lb.)	500 (75 g/m², 20 lb.)
Envelope Feeder	See p.96 "Loading Paper".	

Check that the top of the stack is not higher than the limit mark inside the tray.

Paper Size Supported by Both Side Printing

The following paper sizes can be printed on both sides:

Metric version / Inch version

A3D, B4 JISD, A4DD, B5 JISDD, A5DD, 8KD, 16KDD, 11" × 17"D, $8^1/_2$ " × 14" (Legal)D, $8^1/_2$ " × 13" (Foolscap)D, $8^1/_2$ " × 11" (Letter)DD, $8^1/_4$ " × 13" (Folio)D, 8^1 × 13" (F/GL)D, $5^1/_2$ " × $8^1/_2$ " (Half Letter)D



- The envelope feeder unit requires the installation of the optional paper feed unit.
- Custom paper size is not supported by both sides printing.
- JIS stands for "Japanese Industrial Standard".

Loading Paper

Mportant !

- · Do not use ink-jet printer paper because it may stick to the fusing unit and cause a paper misfeed.
- When printing on OHP transparencies that have a print side, load them with the print side facing up
 on the bypass tray. Not taking this precaution may cause them to stick to the fusing unit and cause
 misfeeds.
- Set the paper as described below.
 - Tray 1: Print side facing down
 - Bypass Tray: Print side facing up

Paper Recommendations

- Paper Feed Unit (Tray 2, Tray 3): Print side facing down
- Print quality cannot be guaranteed if paper other than the ones recommended is used. For more
 information about recommended paper, contact your sales or service representative.
- Do not use paper that has already been printed onto by other printers.

Storing Paper

- Paper should always be stored properly. 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 the package in which the paper came.

Types of Paper and Other Media

Plain Paper

Paper thickness	60 - 105 g/m² (16 - 28 lb.)
Printer setup	Make the following setting using the control panel: Select [Paper Input] → [Paper Type: (tray name)] → [No Display (Plain Paper)].

Printer driver setup	Click [Plain (60 to 105 g/m²)] or [Plain & Recycled] in the "Paper Type:" list.
Enabled paper feeding tray	Any input tray can be used.
Number of sheets that can be set	Tray 1: 500
	Tray 2, Tray 3 (Paper Feed Unit): 500
	Bypass Tray: 100
	 Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray.
Both-sided printing	Possible
Additional cautions	When printing on 91 - 130 g/m ² paper, print speed is slightly slower to when printing on paper of 60 - 91 g/m ² .

Letterhead

Printer setup	Make the following setting using the control panel: Select [Paper Input] → [Paper Type: (tray name)] → [Letterhead].
Printer driver setup	Click [Letterhead] in the "Paper Type:" list.
Both-sided printing	Possible

Thick Paper

Paper thickness	105 - 216 g/m ² (28 - 57 lb.) • [Thick Paper 1]: 105 - 157 g/m ² (28 - 42 lb.) • [Thick Paper 2]: 157 - 216 g/m ² (42 - 57 lb.)
Printer setup	Make the following setting using the control panel: Select [Paper Input] → [Paper Type: (tray name)] → [Thick Paper 1] or [Thick Paper 2].
Printer driver setup	Click [Thick 1 (105 to 157 g/m²)] or [Thick 2 (157 to 216 g/m²)] in the "Paper Type:" list.

Enabled paper feeding tray	Any input tray can be used. • Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray.
Both-sided printing	Not possible
Additional cautions	Print speed is slightly slower than when using plain paper.

OHP transparencies

Printer setup	Make the following setting using the control panel:	
	Select [Paper Input] → [Paper Type: Bypass Tray] → [OHP	
	(Transparency)].	
Printer driver setup	Click [Transparency] in the "Paper Type:" list.	
Enabled paper feeding tray	This paper type can be printed only from the bypass tray.	
Number of sheets that can be set	Bypass Tray: 1 sheet	
Both-sided printing	Not possible	
Additional cautions	Print speed for OHP transparencies is slower than for plain	
	paper.	
	Depending on the setting made for mode switching, the	
	printer goes into standby mode 30 or 40 seconds after	
	receiving a job.	
	We recommend you use a 4000 ANSI lumen or brighter	
	overhead projector to project OHP transparencies.	
	When printing on OHP transparencies that have a print side,	
	load them with the print side facing up on the bypass tray.	
	When printing multiple pages, remove output sheet as it	
	comes out. Do not leave multiple sheets remaining on the	
	output tray.	

Envelopes

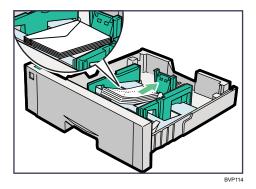
Printer setup	Make the following setting using the control panel:
	Select [Paper Input] → [Paper Type: (tray name)] → [Envelope].

Printer driver setup	Click [Envelope] in the "Paper Type:" list.
Enabled paper feeding tray	Tray 2 (Envelope Feeder) Bypass Tray
	 Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray.
Both-sided printing	Not possible
Additional cautions	Check the print side is facing up.
	Check there is no air in the envelopes before loading.
	 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.
	Before loading envelopes, flatten their leading edges (the edge going into the printer) by running a pencil or ruler across them.
	Some kinds of envelope might cause misfeeds, wrinkles or print poorly.
	 Print quality on envelopes may be uneven if parts of an envelope have differing thicknesses. Print one or two envelopes to check print quality.
	The following can occur when printing on envelopes:
	creased long edges
	smudged backs
	blurred print
	If envelopes are printed over with solid black, white streaks might appear where the envelopes overlap. Using the envelope lever can resolve these problems. For more information about the envelope lever, see p. 190 "Using the Envelope Lever".

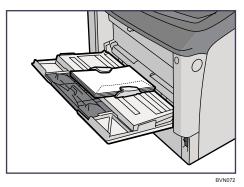


- Load envelopes with the print side down in the envelope feeder.
- Load envelopes with flaps closed to the left side of the tray. When printing with a printer driver, select the [Rotate by 180 Degrees] check box on the "Detailed Settings" tab.





- Load envelopes with the print side facing up on the bypass tray.
- Load envelopes with flaps closed to the left side of the tray. When printing with the printer driver, select the [Rotate by 180 Degrees] check box on the "Detailed Settings" tab.



Paper Not Supported by this Printer

Avoid using the following paper as they are not supported by this printer.

- Paper meant for ink-jet printers
- Bent, folded, or creased paper
- Curled or twisted paper
- Torn paper
- Wrinkled paper
- Damp paper
- Paper that is dry enough to emit static electricity
- Paper that has already been printed onto, except a preprinted letterhead paper.
 Malfunctions are especially likely when using paper printed on by other than a laser printer (e.g. monochrome and color copiers, ink-jet printers, etc.)
- Special paper, such as thermal paper, aluminum foil, carbon paper and conductive paper

- Paper whose weight is heavier or lighter than the limitation
- · Paper with windows, holes, perforations, cutouts, or embossing
- · Adhesive label paper on which glue or base paper is exposed
- Paper with clips or staples
- Envelopes in the following conditions:
 - damp
 - · excessively curled or twisted
 - stuck together
 - · damaged in any way
 - · with stamps attached
 - with windows, holes, perforations, cutouts or embossing
 - · with metal clasps, string ties or metal folding bars
 - · designed to be interlocked
 - with nicked edges or bent corners
 - with rough, wrinkled or laid finishes
 - with any exposed adhesive, when the flap is in the sealed or closed position

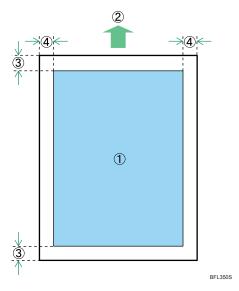


• When paper with holes such as punch holes is used, paper jam may occur, or the paper size may not be detected correctly.

Print Area

The following shows the print area for this printer. Be sure to set the print margins correctly by the application.

Paper

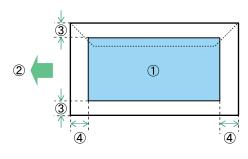


- 1. Print area
- 2. Feed direction
- 3. Approx. 4.2 mm (0.18 inches)
- 4. Approx. 4.2 mm (0.18 inches)



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

Envelope



BFL351S

- 1. Print area
- 2. Feed direction
- 3. Approx. 10 mm (0.39 inches)
- 4. Approx. 15 mm (0.59 inches)





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

Loading Paper

This describes how to load paper into the paper tray and Bypass Tray.



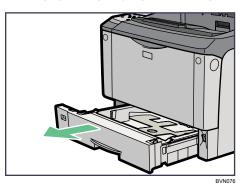
• Do not pull out the paper tray forcefully. If you do, the tray might fall and cause an injury.

Loading Paper in Tray 1 and the Optional Paper Feed Unit

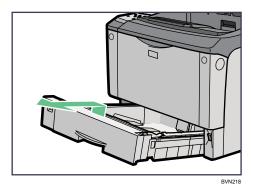
The following example explains loading procedure for the standard paper tray (Tray 1). The same procedure can be used for the optional paper feed unit.



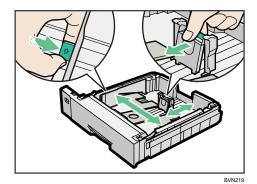
- Make sure paper is not stacked above the limit mark inside the tray. Misfeeds might occur.
- Do not put different types of paper in a single paper tray.
- Up to 500 sheets of paper can be loaded in the paper feed unit. This means a maximum of 1,500 sheets can be simultaneously loaded when two additional paper feed units are installed.
- Confirm that paper fits under the rear guide.
- Do not slide the paper tray in with force. If you do, the front and side guides might move.
- 1. Lift the paper tray slightly, and then pull it out until it stops.



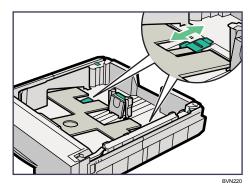
2. Lift the front side of the tray, and then pull it out of the printer.



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

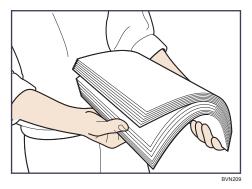


4. Slide the two green switches into one of the two positions according to the thickness of the paper you are loading. If the paper is 157 g/m² (42 lb.) or thicker, slide both switches into the rear (thick) position. If the paper is lighter than 157 g/m² (42 lb.), slide both switches into the forward (thin) position.

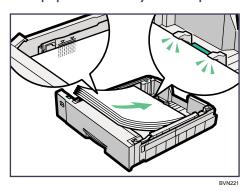


Make sure that the positions of both switches are the same.

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



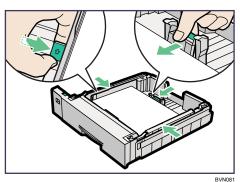
6. Load paper into the tray with the print side down.



7. Adjust the paper guides to close any gaps.

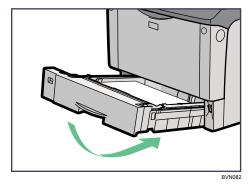
Do not move paper loaded in the tray more than a few millimeters.

Excessive movement of loaded paper can cause edges of sheets to snag on the openings of the tray's lifting plate, resulting in sheets being folded or becoming jammed.



J

8. Lift the front end of the tray, and then carefully slide the tray into the printer until it stops.



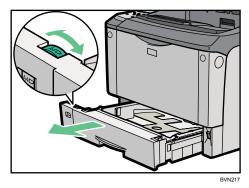
Reference

• p.85 "Supported Paper for Each Tray"

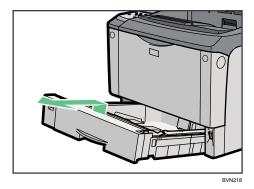
Changing the paper size

- Confirm that the setting of the paper size dial matches the paper size and feed direction of the paper in the tray, otherwise the printer might be damaged, or printing problems might occur.
- If you want to use the paper size and feed direction that are not indicated on the paper size dial, set the dial to "X". In this case, you should set the paper size using the control panel.
- Confirm that the catches return to their original positions securely. If they are not locked securely, paper misfeeds might occur.
- To avoid damage, pinch the paper guides when moving them.
- Confirm that the top of the stack is not higher than the limit mark inside the tray.
- Confirm that paper fits under the rear guide.
- Do not slide the paper tray in with force. If you do, the front and side guides might move.

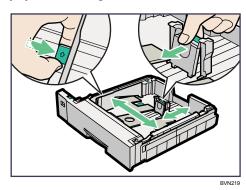
The following explanation uses the example of "Tray 1" for the paper tray.



2. Lift the front side of the tray, and then pull it out of the printer.

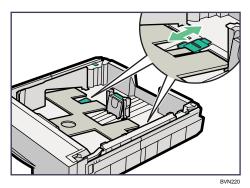


3. Pinch the green clips on the side guide and the end guide, and then adjust the guides to the paper size being loaded.



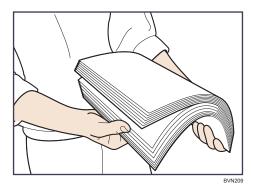
4. Slide the two green switches into one of the two positions according to the thickness of the paper you are loading. If the paper is 157 g/m^2 (42 lb.) or thicker, slide both switches into

the rear (thick) position. If the paper is lighter than 157 g/m 2 (42 lb.), slide both switches into the forward (thin) position.

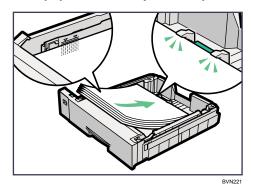


Make sure that the positions of both switches are the same.

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



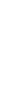
6. Load paper into the tray with the print side down.

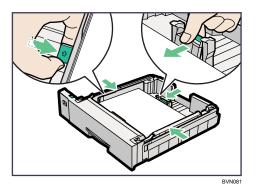


7. Adjust the paper guides to close any gaps.

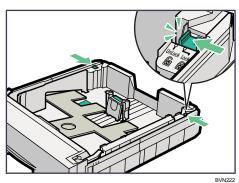
Do not move paper loaded in the tray more than a few millimeters.

Excessive movement of loaded paper can cause edges of sheets to snag on the openings of the tray's lifting plate, resulting in sheets being folded or becoming jammed.

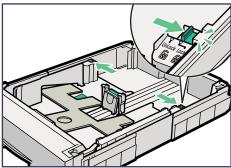




- 8. If you load paper larger than A4 $\mathbb D$, you should extend the tray as follows:
- 9. Slide the catches inwards to unlock the tray.

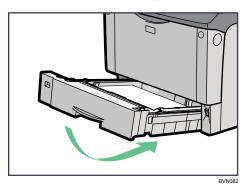


- .
- 10. Slide the tray until it stops.
- 11. Return the catches to their original positions.



BVN224

12. Lift the front end of the tray, and then carefully slide the tray into the printer until it stops.



13. If you pulled out the tray extension in step 9, cover the area of the tray that is exposed at the rear of the printer by attaching the paper tray cover (supplied with the printer).



- You cannot load paper smaller than A4D, if the tray is extended. In this case, return the tray to its standard length.
- Do not install the paper tray cover if the duplex unit is installed.

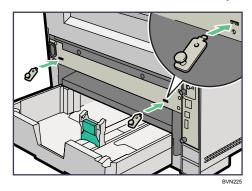
■ Reference

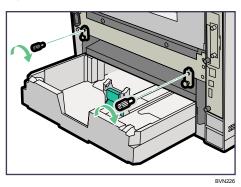
• p.103 "Attaching the Paper Tray Cover"

Attaching the Paper Tray Cover

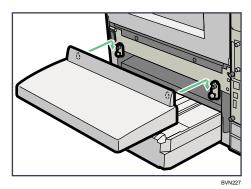
Use the following procedure to attach the paper tray cover to the rear of the printer.

1. Attach two brackets to the rear of the printer.





3. Align the holes on the back of the paper tray cover with the bracket studs, and then hang the cover on the bracket studs.

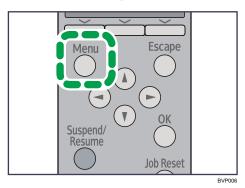


- **U** Note
 - There are four holes on the paper tray cover for attachment. Markings indicate which holes are used for hanging the cover on the bracket studs.
 - Use the two outer holes to attach the paper tray cover to the main unit.
 - Use the two inner holes to attach the paper tray cover to the optional tray.
 - Do not attempt to attach the paper tray cover when the duplex unit is installed.

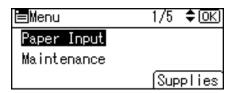
Setting a paper size by using the control panel

If you want to use the paper size and feed direction that are not indicated on the paper size dial, set the dial to "**. In this case, you should set the paper size using the control panel. Follow the procedure described below to set the paper size.

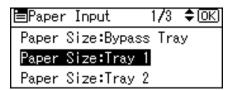
1. Press the [Menu] key.



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.



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

P.Size:Tray1	3/4 ♦ • OK
A4□∂	A5 ⊑a
B4Jis 🖟	B5uis 🖟
B5us ⊡	8K 🕞

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

5. Press the [Menu] key.

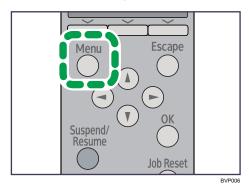
The display returns to the initial screen. This completes the paper size setting.

Specifying custom size paper for Tray 1 and the optional paper feed unit

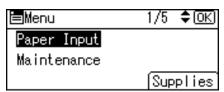


- When printing on custom size paper, specify the paper size using the control panel and printer driver.
- The following is the range of paper sizes that can be loaded in each type of the paper trays:
 - Tray 1: 139.7 216 mm (5.5 8.5 in.) in width and 139.7 356 mm (5.5 14.01 in.) in length.

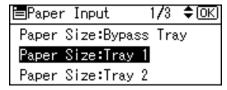
- Optional Paper Feed Unit (Tray 2, Tray 3): 139.7 216 mm (5.5 8.5 in.) in width and 160 356 mm (6.3 14.01 in.) in length.
- The printer cannot print from applications that do not support custom size paper.
- 1. Press the [Menu] key.



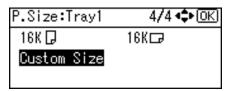
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



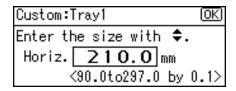
3. Press the [▼] or [▲] key to select [Paper Size: (tray name)], and then press the [OK] key.



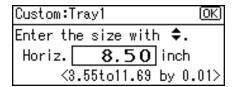
4. Select [Custom Size] using the scroll keys, and then press the [OK] key.



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



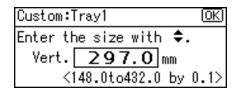
120V



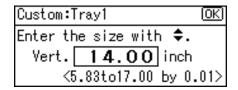
By pressing the $[^{\blacktriangledown}]$ or $[^{\blacktriangle}]$ key, the value increases or decreases by 0.1 mm (0.01 inch).

The screen for entering the length appears.

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



120V



By pressing the $[\]$ or $[\]$ key, the value increases or decreases by 0.1 mm (0.01 inch).

By pressing and holding the $[\ \]$ or $[\ \]$ key, the value varies by 1 mm (0.1 inch).

The screen for entering the length appears.

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

7. Press the [Menu] key.

The display returns to the initial screen.

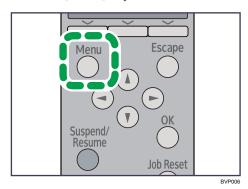
Specifying a paper type for Tray 1 and the optional paper feed unit

Improve printer performance by selecting the optimum paper type for the tray. You can select from the following paper types:

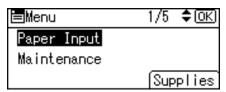
 No Display (Plain Paper), Recycled Paper, Special Paper 1, Special Paper 2, Colour Paper, Letterhead, Label Paper, Envelope, Preprinted Paper, Bond Paper, Cardstock, Thick Paper 1, Thick Paper 2

You can select custom paper type settings made using Web Image Monitor.

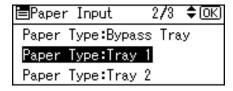
- Be sure to set a paper type using the control panel of the printer as the following procedure. If you set a paper type only by the printer driver, printing result might not be appropriate.
- 1. Press the [Menu] key.



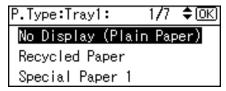
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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



5. Press the [Menu] key.

The display returns to the initial screen.



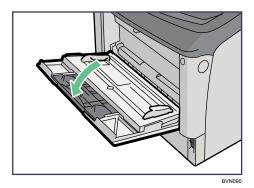
• The following paper types cannot be printed on both sides:

Special Paper 1, Special Paper 2, Colour Paper, Preprinted Paper, Thick Paper 1, Thick Paper
 2

Loading Paper in the Bypass Tray

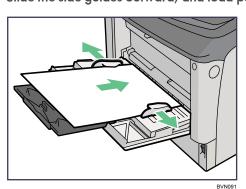


- Shuffle the paper before loading the stack onto the tray, so multiple sheets are not fed in together.
- Set the size and direction of the loaded paper on the control panel and with the printer driver. Make sure the settings do not conflict. Otherwise, the paper may jam or the print quality may be affected.
- Confirm that paper fits under the side guides.
- Sheets of A4 \square or $8^1/_2 \times 11^\square$ length or longer must be loaded one at a time. Support the paper by hand so it feeds in properly. Additionally, since paper feeding and image quality may differ depending on paper thickness and width, check print results in advance using paper you intend to print on.
- 1. Press the mark in the center of the Bypass Tray.

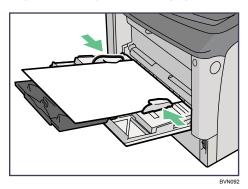


Open the Bypass Tray.

2. Slide the side guides outward, and load paper until it stops with the print side up.



3. Adjust the side guides to the paper width.



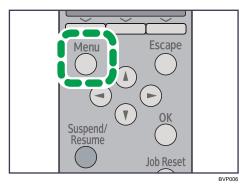


- 45 g/m² (12 lb.) paper or paper of A3D or longer may not feed in properly unless it is cut at right angles.
- If you load A4D or larger, slide out the Bypass Tray extension.

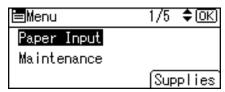
Specifying standard size paper for the Bypass Tray

This describes how to load standard size paper into the Bypass Tray.

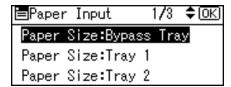
1. Set the paper size using the control panel. Press the [Menu] key.



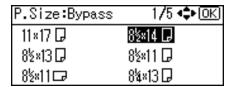
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



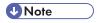
4. Select the paper size you want to set using the scroll keys, and then press the [OK] key.



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

5. Press the [Menu] key.

The display returns to the initial screen.

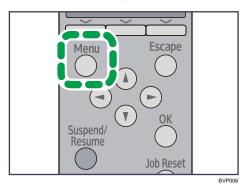


- To load thick paper, OHP transparencies, or envelopes, make settings for thick paper, envelope, or OHP transparencies using both the control panel and printer driver.
- The number of pages that can be loaded in the Bypass Tray differs depending on paper type. Make sure paper is not stacked above the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

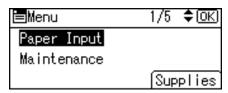
Specifying custom size paper for the Bypass Tray



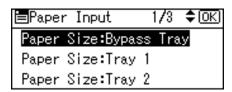
- When loading custom size or special paper, specify the paper size using the control panel or printer driver.
- The custom size paper selected using the printer driver overrides that selected using the control panel.
 Do not make settings using the control panel if you have already made settings using the printer driver.
- Paper sizes between 139.7 432 mm (5.50 17.00 in.) in length and 64 216 mm (2.52 8.50 in.) in width can be loaded in the Bypass Tray. However, the size range varies depending on a type of printer drivers. For details, see the printer driver Help.
- Be sure to set a same size using both the control panel and the printer driver. If you set different size, printer error will occur.
- You cannot print on custom size paper with an application that does not support the custom size setting.



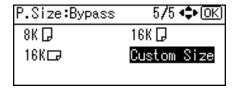
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



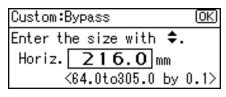
3. Press the [▼] or [▲] key to select [Paper Size: Bypass Tray], and then press the [OK] key.



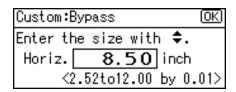
4. Select [Custom Size] using the scroll keys, and then press the [OK] key.



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



120V

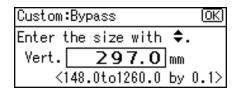


By pressing the $[\mathbf{V}]$ or $[\mathbf{A}]$ key, the value increases or decreases by 0.1 mm (0.01 inch).

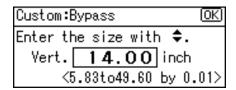
By pressing and holding the $[\mathbf{v}]$ or $[\mathbf{A}]$ key, the value varies by 1 mm (0.1 inch).

The screen for entering the length appears.

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



120V



By pressing the $[^{\blacktriangledown}]$ or $[^{\blacktriangle}]$ key, the value increases or decreases by 0.1 mm (0.01 inch).

By pressing and holding the [▼] or [▲] key, the value varies by 1 mm (0.1 inch).

The screen for entering the length appears.

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

7. Press the [Menu] key.

The display returns to the initial screen.

Reference

• The printer driver Help

Specifying a paper type for the Bypass Tray

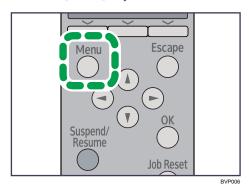
You can improve the printer's performance by specifying the type of paper that you are placing on the Bypass Tray. You can select one of the following paper types:

 No Display (Plain Paper), Recycled Paper, Special Paper 1, Special Paper 2, Special Paper 3, Colour Paper, Letterhead, Label Paper, OHP (Transparency), Envelope, Preprinted Paper, Bond Paper, Cardstock, Thick Paper 1, Thick Paper 2 E

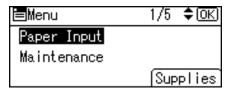
You can select custom paper type settings made using Web Image Monitor.



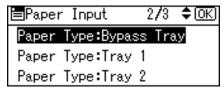
- Be sure to select the paper type when you load thick paper, envelopes, or OHP transparencies in the Bypass Tray.
- The paper type selected using the printer driver overrides that selected using the control panel.
- Be sure to set a paper type using the control panel of the printer as the following procedure. If you set a paper type only by the printer driver, printing result might not be appropriate.
- 1. Press the [Menu] key.



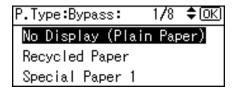
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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.

The display returns to the initial screen.



- The following paper types cannot be printed on both sides:
 - Special Paper 1, Special Paper 2, Special Paper 3, Colour Paper, OHP (Transparency), Envelope, Preprinted Paper, Thick Paper 1, Thick Paper 2

Loading Envelopes

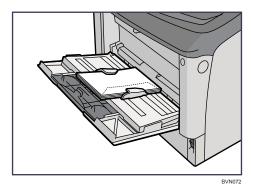
As there are many kinds of envelopes, be sure to check if those to be used are supported by this printer.



- p.32 "Attaching the Envelope Feeder"
- p.88 "Types of Paper and Other Media"

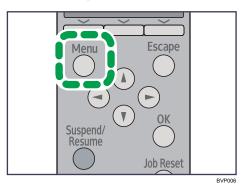
Loading envelopes onto the Bypass Tray

- Confirm that the envelope flaps are securely folded down, and that there is no air inside the envelopes.
- 1. Load envelopes until they stop, with the print side up and the sides of the flaps on the left as shown below.

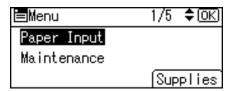


2. Slide the side guides against the edge of the envelope stack.

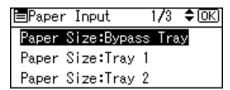
3. Set the envelope size and feed direction. Press the [Menu] key.



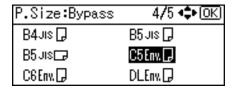
4. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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



7. Press the [Menu] key.

The display returns to the initial screen.



- Confirm that the top of the stack is not higher than the limit mark on the side guides.
- Do not push the stack of envelopes with too much force.
- Confirm that the edges of envelopes fit under the side guides.

■ Reference

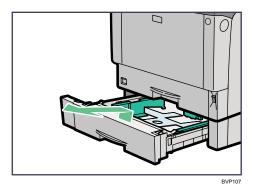
• p.88 "Types of Paper and Other Media"

Loading envelopes into the envelope feeder unit

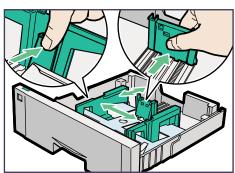
The following explanation uses the example of installing the envelope feeder unit in "Tray 2".

Mportant (

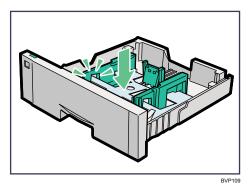
- Even if the optional envelope feeder is not installed, you can select envelope sizes for Tray 2 using the control panel. However, you cannot load envelopes until the optional envelope feeder unit is installed.
- With the optional envelope feeder unit, you can load up to 60 envelopes at the same time.
- Confirm that the envelope flaps are securely folded down, and that there is no air inside the envelopes.
- Do not slide the paper tray in with force. If you do, the front and side guides might move.
- 1. Pull the optional paper feed unit (Tray 2) out until it stops. Then, lift it slightly, and then slide it out.



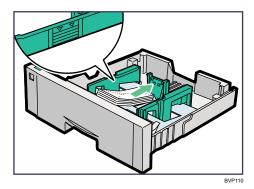
- 2. Prepare the envelope feeder unit.
- 3. Pinch the side guides, and then slide them outward until they stop. Pinch the rear guide, and then slide it toward the back.



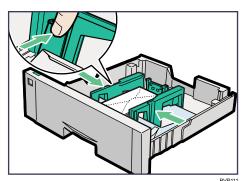
3VP108



5. Load envelopes into the envelope feeder unit, with the print side down and the flap on the left as shown in the illustration.

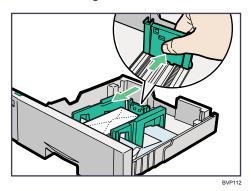


6. Pinch the side guides, and then slide them along the edges of the envelope stack.

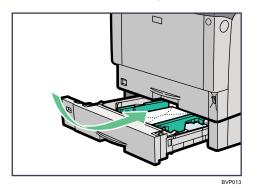


ט

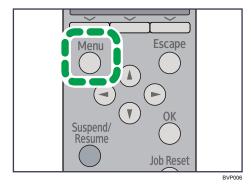
7. Pinch the rear guide, and then slide it along the edge of the envelope stack.



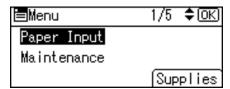
8. Lift the front end of the tray, and then carefully slide the tray into the printer until it stops.



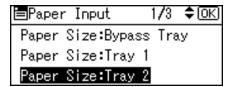
9. Press the [Menu] key.



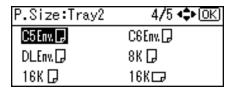
10. Press the $[\ \]$ or $[\ \]$ key to select [Paper Input], and then press the [OK] key.



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



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



13. Press the [Menu] key.

The display returns to the initial screen.



- Confirm that the top of the stack is not higher than the limit mark on the side guides.
- Confirm that the envelopes fit under the side guides.
- Do not push the stack of envelopes with too much force.
- Keep the removed paper tray with paper in a cool and dry place.

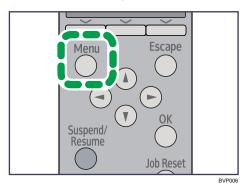
Reference

• p.88 "Types of Paper and Other Media"

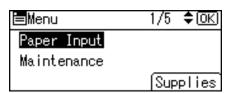
Switching Between Paper Trays

When paper of the same size is loaded in both the Tray 1 and the paper feed unit (option), and when [Auto Tray Select] is set with the printer driver, paper will be fed from the Tray 1 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.

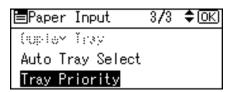
1. Press the [Menu] key.



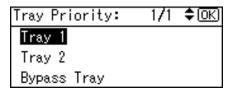
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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



5. Press the [Menu] key.

The display returns to the initial screen.

Printing on Orientation-Fixed or Two-Sided Paper

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

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

To make sure documents are printed correctly, press the [Menu] key using control panel, and in the [Print

For the letterhead print settings, see "Types of Paper and Other Media".

Paper Orientation	Paper trays 1-3		Bypass Tray	
	Letterhead Setting [On]	Letterhead Setting [Off]	Letterhead Setting [On]	Letterhead Setting [Off]
1-sided print	ABC	VBC	ABC	ABC
2-sided print	ABC	ABC	ABC	VBC
1-sided print			ABC	ABC
2-sided print	ABC	ABC		



 If you perform collated printing from a tray that is set for 2-sided printing, all printed after the first print will be output face-up instead of face-down, or vice versa. To ensure all paper is output facing the same direction, print from a tray that is not available for 2-sided printing.

Using Paper Types that Have Unique Names

From Registration of User Paper Types to Use

This section explains the procedures for selecting the paper type according to usage, registering the paper type under a unique name, and printing a file using the registered paper type.



- This function can be used
 - · when the printer is operating in a network,
 - in conjunction with the printer driver, and
 - under Windows 2000 or later (under earlier systems, registered paper types appear as [Plain] in the printer driver).
- This function cannot be used
 - with the printer driver's [Manage Preset List...] function (registered paper types appear as [Plain] in the printer driver) and
 - if the printer and computer are not using bi-directional communication.
- Also, be aware that
 - the printer driver might not display the paper type name correctly if it is registered using an unsupported language,
 - the control panel might not display the paper type name correctly if it is registered using nonalphanumeric characters (i.e., other than a-z, A-Z, or 0-9), and
 - the printer's logs do not record names of user paper types.

The example below explains setting a custom size paper under the name "Invoice A" and feeding it from the bypass tray.

- 1. Using Web Image Monitor, register the name under [User Paper Type].
 - Enter "Invoice A" for [Paper Name] and select [Plain Paper] for [Paper Type].
 - When printing a file, the paper type is automatically set by selecting [User Paper Types] on the
 printer driver setting screen.
 - For details about this procedure, see "Registering Names to Paper Types".
- 2. In Web Image Monitor, set [User Paper Type] for the bypass tray.
 - Set [Paper Type] for the tray to "Invoice A".
 - For details about this procedure, see "Setting User Paper Types to Trays".
- 3. Load the paper you want to use on the bypass tray.
 - Set an unprinted paper on the bypass tray.

- For details about this procedure, see "Loading Paper".
- 4. Using the printer driver, print a document on the registered custom size paper.
 - Select [Invoice A] for [Paper Type:], then proceed with the printing. When [Paper Type:] is set to [Invoice A], Plain paper that is suitable for "Invoice A" is selected automatically. Registering a descriptive name makes selecting a paper type from the [Paper Type:] list easier.
 - For details about this procedure, see "Printing Using Registered Paper Types".



• You can register up to eight user paper types.

Reference

- p.96 "Loading Paper"
- p.124 "Registering Names to Paper Types"
- p.125 "Setting User Paper Types to Trays"
- p.126 "Printing Using Registered Paper Types"

Registering Names to Paper Types

Log on to Web Image Monitor in the administrator mode.

Mportant (

- The control panel might not display the paper type name correctly if it is registered using non-alphanumeric characters (i.e., other than a-z, A-Z, or 0-9).
- 1. Start your Web browser.
- 2. Enter "http://(printer's address)/" in the address bar of the Web browser.

The Top of Web Image Monitor appears.

If the printer's host name has been registered on the DNS or WINS server, you can enter it in the address bar.

If SSL (encrypted HTTP) is running in a server authentication environment, enter "https://(printer's address)".

3. On the Top Page, click [Login].

A dialog box for entering the user name and password appears.

- 4. Enter your login user name and password, and then click [Login].
 - For details about the login user name and password, consult your administrator.
- 5. In the menu area, click [Configuration].

6. In the [Device Settings] area, click [User Paper Type], and then change the settings as necessary.

The screen for selecting [User Paper Type] appears.

7. Make changes to the following settings:

Paper Name: Enter a descriptive name for easier recognition.

Paper Type: Select a suitable paper type from the list.

The example below is for printing invoices.

- Enter "Invoice A" for [Paper Name].
- Select [Plain Paper] for [Paper Type]. If the setting is incorrect, the paper might become jammed
 or print quality could be affected.
- For details about combinations of paper sizes and types, see "Types of Paper and Other Media".
- 8. Click [OK].



• You can register up to eight user paper types.

Setting User Paper Types to Trays

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

- 1. Log on to Web Image Monitor in administrator mode.
- 2. In the menu area, click [Configuration].
- 3. In the [Device Settings] area, click [Paper].
- 4. Set the paper tray you want to use as a user paper type, and then select the registered paper type.

The example below is for printing invoices.

The registered paper type "Invoice A" is displayed as [+ Invoice A (Custom x)] on this screen. Select [+ Invoice A (Custom x)] for [User Paper Type]. Make the appropriate changes to other settings as required.

- 5. Click [OK].
- 6. Click [Logout].
- 7. Quit Web Image Monitor.



• For details about loading paper, see "Loading Paper".

• For details about setting the paper type from the control panel, see "Specifying a Paper Type for Tray 1 and the Optional Paper Feed Unit" and "Specifying a Paper Type for the Bypass Tray".

Printing Using Registered Paper Types

Select a registered paper type to print onto.



- This function can be used when the printer is operating in a network, in conjunction with the printer driver, and under Windows 2000 or later (under earlier systems, registered paper types appear as [Plain] in the printer driver).
- This function cannot be used with the printer driver's [Manage Preset List...] function (registered paper types appear as [Plain] in the printer driver) and if the printer and computer are not using bi-directional communication.
- Also, be aware that the printer driver might not display the paper type name correctly if it is registered
 using an unsupported language, the control panel might not display the paper type name correctly
 if it is registered using non-alphanumeric characters (i.e., other than a-z, A-Z, or 0-9), and the printer's
 logs do not record names of user paper types
- 1. Select your application's print command.
- 2. On the tab in the properties dialog box that appears, select a registered paper type under [Paper Type:].

If you select Custom Setting, click the [One Click Presets] tab.

3. Execute the print command.

The preregistered settings are applied and print is performed.



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

6. Replacing Consumables and Maintenance Kit

This chapter explains how to replace the toner and Maintenance Kit.

Replacing the Toner Cartridge (Print Cartridge)

MARNING

 Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame. Dispose of used toner containers in accordance with local regulations.

MARNING

• 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.

MARNING

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

ACAUTION

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

ACAUTION

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

ACAUTION

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

CAUTION

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

⚠ CAUTION

- 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.

Important

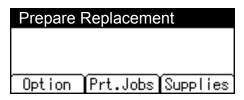
- Do not expose the toner cartridge to light for a long time. Do not leave the front cover open for a long time. If the toner cartridge is exposed to a light for a long time, the toner cartridge might get damaged and print quality might be reduced. Replace the toner cartridge immediately.
- The toner cartridge packaged with the printer can print up to 6,000 pages when it is compliant with ISO/IEC 19752 and the image density is set as the factory default. ISO/IEC 19752 is an international standard on measurement of printable pages, set by the International Organization for Standardization.
- When handling toner cartridges, never stand them up on either end or position them upside down.
- Store toner cartridges in a cool dark place.
- Do not use chemical cleaner or organic solvent such as thinner or benzine.
- 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 cartridge prematurely. We recommend you prepare a new toner cartridge beforehand.
- The new toner cartridge can print up to 20,000 pages.
- The life span of pages the toner cartridge can print vary depending on the depletion of toner and the cartridge parts. The actual number of pages you can print from a particular toner cartridge depends on the paper type, size, orientation, the contents of your print images, number of printout from a print job, and printing environment conditions. Toner cartridges may need to be changed sooner than indicated above due to deterioration over the period of use.
- If the following problems occur even with toner still remaining, the fusing part of the toner cartridge is deteriorated over the period of use. Prepare a new toner cartridge.
 - Areas of printout are missing.
 - The print out image is missing or partially blurred.
 - White streaks appear.
 - The whole printout is blemished.
 - Images are blurred.

When to replace the toner cartridge

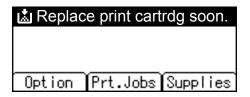
The toner cartridges for this machine are integral components that contain toner, a photoconductor unit, and a waste toner bottle.

The toner cartridge must be replaced when the toner is running low, the photoconductor unit is approaching the end of its lifetime, or the waste toner bottle is nearly full.

When the printer detects one of these conditions, it will display the following message on the control panel.



The following message appears when approximately 200 pages have been printed after the "Prepare Replacement" message first appeared:



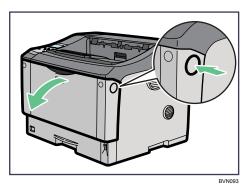
You can continue printing after the "Replace print cartrdg soon." message appears, but printing quality cannot be guaranteed and will gradually deteriorate.

If faint or heavy spots or smears appear on prints, replace the toner cartridge with a new one. When the following message appears on the control panel, printing will no longer be possible.

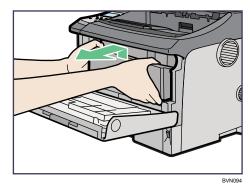


Mportant 🕽

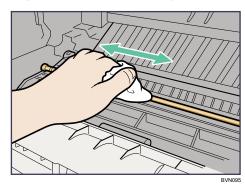
- Do not put the toner cartridge on an unstable or tilted surface.
- Be sure to remove the tape completely before installing the new toner cartridge, otherwise the printer might be damaged.
- Keep the toner cartridge horizontal when pulling it out of the machine. Pulling it out an angle can damage the machine.
- Be careful not to get toner dust on your hands or clothes.



2. Lift the front side of the toner cartridge, and then pull it out of the printer.



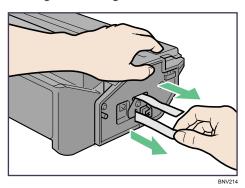
- 3. Be sure to put the toner cartridge on a stable, flat surface.
- 4. Wipe around the metallic registration roller by turning with a soft damp cloth.



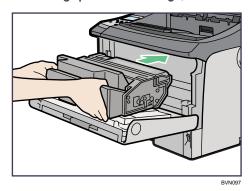
5. Take the new toner cartridge from the box.

Ó

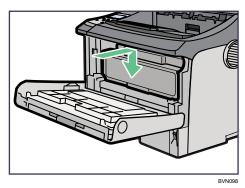
6. Place the toner cartridge on a flat surface. Pull out the tape inside the unit horizontally while holding the cartridge with one hand as shown in the illustration.



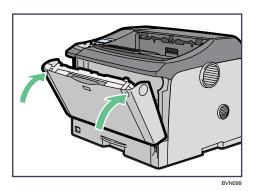
7. Hold the grips of the cartridge, and then insert it into the printer until it stops.



8. Push down the toner cartridge to settle it in appropriate position.



9. Close the front cover.



10. Wait while the toner loads.

To avoid malfunction, do not turn off the power until "Ready" appears on the display.



- Do not shake or shock the toner cartridge after pulling out the toner seal to avoid dirt on paper surfaces, toner spillage, or printer failure.
- Please cooperate with the Toner cartridge Recycling Program, whereby are collected used toner
 cartridges. For details, consult with the store where the printer was purchased or with a sales or service
 representative.
- Do not close the front cover with force. If you cannot close the cover easily, pull out the toner cartridge from the printer and insert it again. After that, close the front cover again.

Replacing the Maintenance Kit

ACAUTION

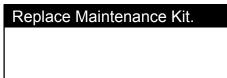
- The inside of this printer becomes very hot. Do not touch parts labeled "△" (indicating a hot surface). Touching these parts will result in burns.
- Grip the plug, not the cord, when pulling the plug from the socket. Pulling the cord causes wear and tear that can result in fire or electric shock.
- 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."

The maintenance kit contains parts for maintaining the printer.

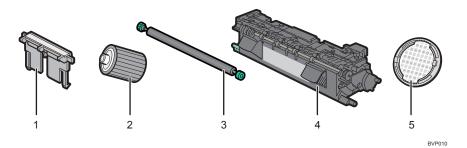
Replace the maintenance kit if the following message appears on the display:



Before Replacing

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

- 1. Turn off the power, and then unplug the power cable.
- 2. Check the box contains the following items:



1. Friction Pad × 3

See "Replacing the Friction Pad".

2. Paper Feed Roller × 3

See "Replacing the Paper Feed Roller".

3. Transfer Roller (with gloves)

See "Replacing the Transfer Roller".

4. Fusing Unit

See "Replacing the Fusing Unit".

5. Dustproof Filter

See "Replacing the Dustproof Filter"

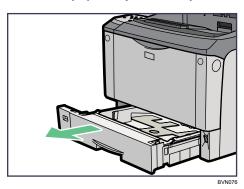
■ Reference

- p.134 "Replacing the Friction Pad"
- p.136 "Replacing the Paper Feed Roller"
- p.140 "Replacing the Transfer Roller"
- p.144 "Replacing the Fusing Unit"
- p.148 "Replacing the Dustproof Filter"

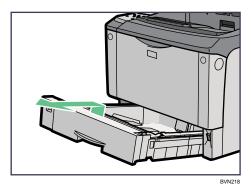
Replacing the Friction Pad

Replace all the friction pads in the trays. The following procedure shows how to replace the tray's friction pad (Tray 1). Use the remaining pads to replace the old pads in the paper feed unit (Tray 2 and 3).

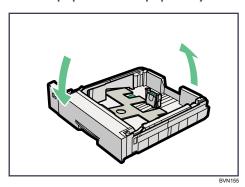
1. Pull out the paper tray until it stops.



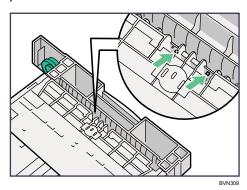
2. Lift the front side of the tray, and then pull it out of the printer.



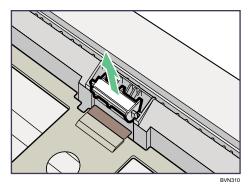
3. Remove paper from the paper tray. Place the tray upside down on a flat surface.



4. Use a sharp-pointed item like a ball-point pen, to release the two catches that lock the friction pad.

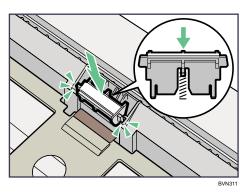


The friction pad may fall off when the catches are released. Place your hand over the friction pad while releasing the catches.



6. Insert the new friction pad in the paper tray.

Attach the central projection of the new friction pad to the spring, and then align the projection of both sides of the friction pad with the holes of the paper tray. Then push the friction pad as shown in the illustration until it clicks.



After pushing in the friction pad, press on it several times to check it is properly installed. If it jumps back into position due to the force of the spring, it is properly installed.

- 7. Push the friction pad until it locks securely.
- 8. Repeat the replacement procedure for any optional paper feed units that are installed.



- The friction pad spring may come off. Be careful not to lose the friction pad spring.
- The catches that lock the friction pad are located at the very back.

Replacing the Paper Feed Roller

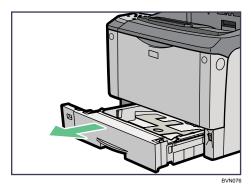
Replace all feed rollers in the printer and the optional paper feed unit(s). The following procedure shows how to replace the paper feed rollers of the printer and the optional paper feed units.

ACAUTION

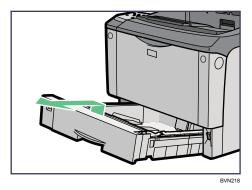
- When lifting the printer, use the inset grips on both sides. Otherwise the printer could break or cause injury if dropped.
- When lifting the paper feed unit, hold the bottom of it, and then lift it slowly. Lifting it carelessly or dropping it may cause an injury.

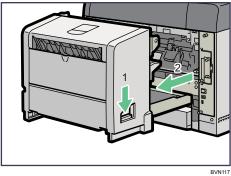
Mportant !

- 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.
- Be sure to move the printer horizontally. Moving the printer up and down may cause toner to scatter.
- 1. Lift the paper tray slightly, and then pull it out until it stops.

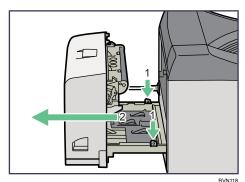


2. Lift the front side of the tray, and then pull it out of the printer.

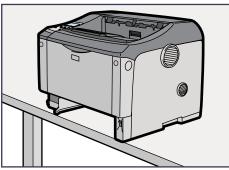




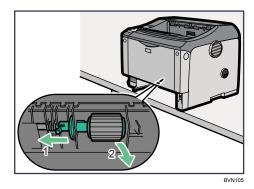
4. Push the bottom board levers (\bigcirc), and then pull the duplex unit out of the printer (\bigcirc).



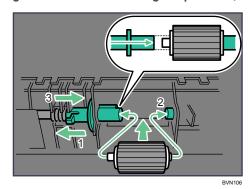
5. Move the printer to the edge of a sturdy and stable table or desk.



6. Slide the green lock lever to the left (1), and then remove the paper feed roller (2).

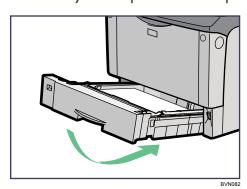


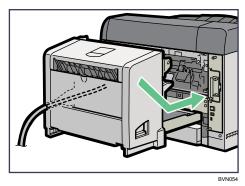
7. While sliding the green lock lever to the left (1), set the new roller (2). Then, return the green lock lever to its original position (3).



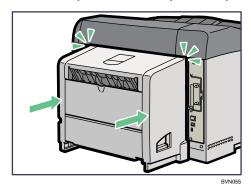
Confirm the green lock lever secures the roller correctly by checking that the new roller rotates smoothly.

- 8. If the printer is equipped with the optional paper feed unit(s), follow the same procedure to replace its paper feed roller.
 - If you installed two paper feed units, also replace both their paper feed rollers.
- 9. Place paper in the removed paper trays. Lift the front end of the tray, and then carefully slide the tray into the printer until it stops.





11. Push the duplex unit securely into the printer.



U Note

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

Reference

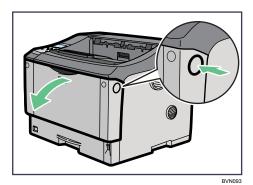
• p.211 "Moving and Transporting the Printer"

Replacing the Transfer Roller

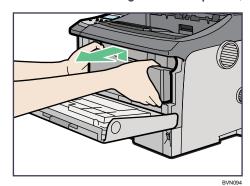


- Do not insert the roller on the back of the socket. Doing so can damage the printer.
- Insert the metallic part of the roller on the socket. If you insert the sponge part of the roller, the roller might be damaged.

1. Open the front cover by pushing the front cover release button.



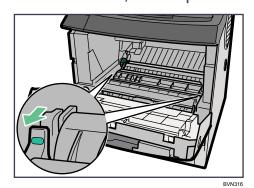
2. Pull the toner cartridge out of the printer, while raising the front side.



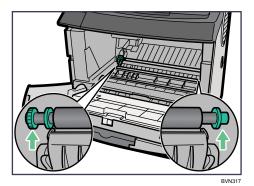
3. To avoid dirtying your hands with toner from the transfer roller, wear the gloves included

4. Hold the lock levers, and then pull them.

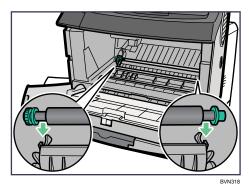
in the Maintenance Kit.



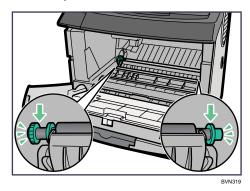
5. Hold the green parts of the roller on both sides, and remove the roller from the printer, as shown in the illustration.



6. Insert the new transfer roller on the socket with the gear of the roller positioned to the left.

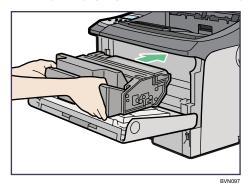


7. Push down the lock levers on both ends of the printer as shown in the illustration, until they click into place.

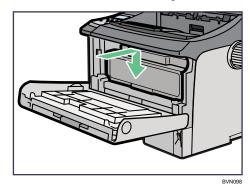


8. Take the gloves off.

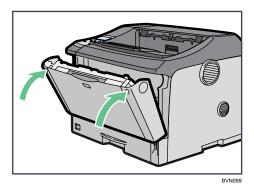
9. Holding the grips, push the toner cartridge into the printer until it stops.



10. Push down the toner cartridge to settle it in appropriate position.



11. Close the front cover.



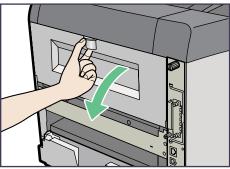
U Note

- Be sure to place the used cartridge on a level place.
- When the transfer roller is set, the transfer roller cover will return to its original position automatically.

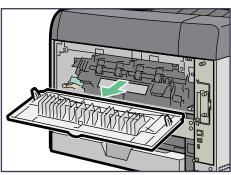
Replacing the Fusing Unit

ACAUTION

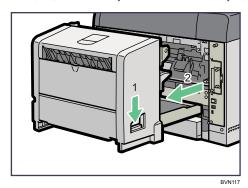
- The fusing unit becomes very hot. When installing a new fusing unit, turn off the printer and wait at least an hour before replacing the old fusing unit. Not allowing the unit to cool may result in burns.
- 1. Open the rear cover.



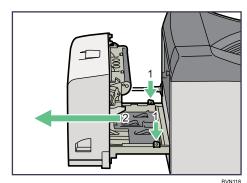
2. Lower the rear cover until it is horizontal, and then pull it away.



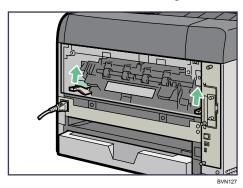
3. If the optional duplex unit is attached, push down the lever on the right side of the duplex unit (1), and then pull it out until it stops (2).

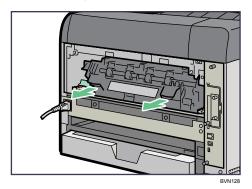


4. Push the under board levers (\bigcirc), and then pull the duplex unit out of the printer (\bigcirc).

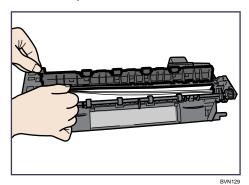


5. Lift the lock levers of the fusing unit as shown in the illustration.

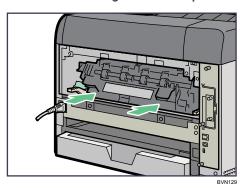




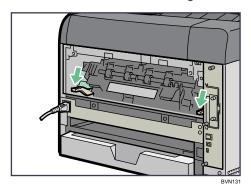
7. Pull out the pins on both sides of the new fusing unit.



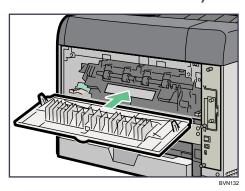
8. Push the new fusing unit into the printer.



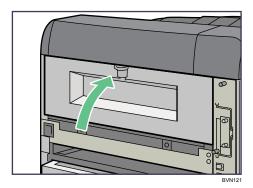
9. Push the lock levers of the fusing unit down until they click.

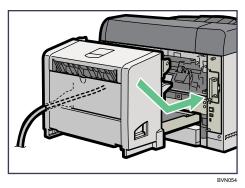


10. Position the rear cover horizontally and align it with the grooves in the printer's interior.

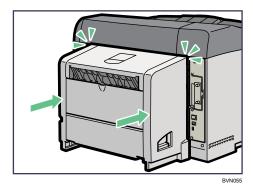


11. Close the rear cover.





13. Push the duplex unit securely into the printer.



14. Print a configuration page to confirm that the printer works properly.



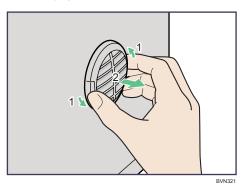
• "Test Printing", Quick Installation Guide.

Replacing the Dustproof Filter

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

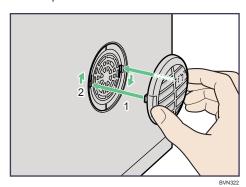
1. Turn off the power, and then unplug the power cable.

2. Use the grips on both sides to turn and then remove the dustproof filter cover.



3. Attach the new dustproof filter cover to the printer.

The dustproof filter is built into the filter cover.



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

7. Cleaning the Printer

This chapter explains how to clean this printer.

Cautions to Take When Cleaning

MARNING

- Do not remove any covers or screws other than those specified in this manual. Some parts of the
 printer are at a high voltage and could give you an electric shock. Also, if the printer has laser
 systems, direct (or indirect) reflected eye contact with the laser beam may cause serious eye
 damage. When the printer needs to be checked, adjusted, or repaired, contact your service
 representative.
- Do not take apart or attempt any modifications to this printer. There is a risk of fire, electric shock, explosion or loss of sight. If the printer has laser systems, there is a risk of serious eye damage.

CAUTION

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

ACAUTION

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

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 grime, use a neutral detergent, and then wipe over with a well-wrung wet cloth, dry wipe, and let it dry.

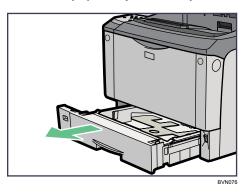
- To avoid deformation, discoloration, or cracking, do not use volatile chemicals, such as benzine and thinner, or spray insecticide on the printer.
- If there is dust or grime inside the printer, wipe with a clean, dry cloth.

Cleaning the Friction Pad

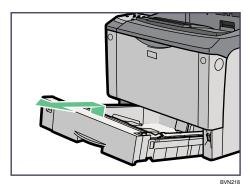
If the friction pad is dirty, a multi-feed or a misfeed might occur. In this case, clean the pad as follows:

Mportant !

- Do not use chemical cleaner or organic solvent such as thinner or benzine.
- Do not slide the paper tray in with force. If you do, the front and side guides might move.
- 1. Pull out the paper tray until it stops.

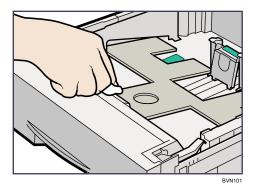


2. Lift the front side of the tray, and then pull it out of the printer.

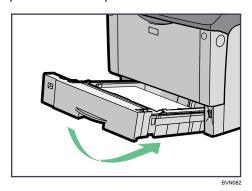


3. Place the tray on a flat surface. When there is paper in the tray, remove paper.

4. Wipe the friction pad with a soft damp cloth. Then, wipe it with a dry cloth to remove the water.



5. Load paper into the paper tray with the print side up. Carefully slide the paper tray into the printer until it stops.





- If misfeeds or multi-feeds of paper occur after cleaning the friction pad, contact your sales or service representative.
- Follow the same procedure to clean the friction pads of the optional paper feed unit and the envelope feeder unit.

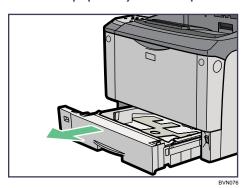
Cleaning the Paper Feed Roller

If the paper feed roller is dirty, a misfeed might occur. In this case, clean the roller as follows:

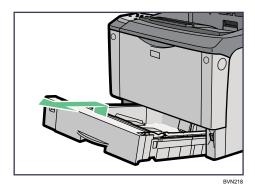
ACAUTION

- 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.

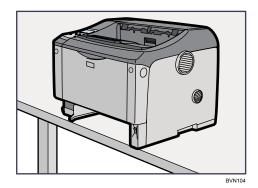
- If the printer is equipped with the optional paper feed unit, do not move the printer and unit together as they are not securely attached.
- When lifting the printer, confirm that the optional paper feed unit is not attached to the printer.
- Do not use chemical cleaner or organic solvent such as thinner or benzine.
- Do not slide the paper tray in with force. If you do, the front and side guides might move.
- 1. Turn off the power.
- 2. Pull out the plug from the socket. Remove all the cables from the printer.
- 3. Pull out the paper tray until it stops.



4. Lift the front side of the tray, and then pull it out of the printer.

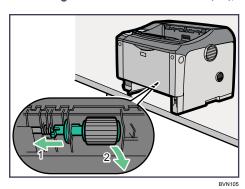


5. Move the printer to the edge of a stable table or desk.

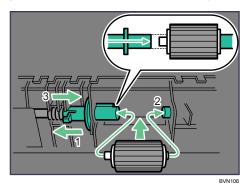


Do not put the printer on an unstable or tilted surface.

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

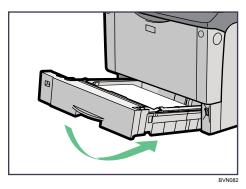


7. Wipe the rubber part of the roller with a soft damp cloth. Then, wipe it with a dry cloth to remove the water.



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

9. Move the printer to the place where it was placed. Carefully slide the paper tray into the printer until it stops.



U Note

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

/

Cleaning the Registration Roller

If the registration roller is dirty, a misfeed might occur. In this case, clean the roller as follows:

MARNING

• Be sure to turn off the power switch and wait for about 15 minutes before cleaning the Registration roller. Not waiting for the printer to cool down can result in a burn.

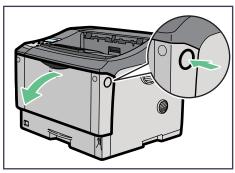
ACAUTION

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

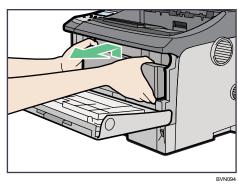
Clean the registration roller if dots (caused by specks of paper stuck to the roller) appear on printed OHP transparencies.

Mportant !

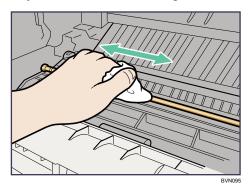
- Do not hold the toner cartridge upside down or stand it vertically.
- Do not put the toner cartridge on an unstable or tilted surface.
- Do not use chemical cleaners or organic solvents such as thinners or benzine.
- 1. Turn off the power, and then unplug the power cable.
- 2. Open the front cover by pushing the front cover release button.



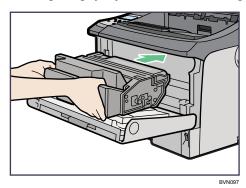
3VN093



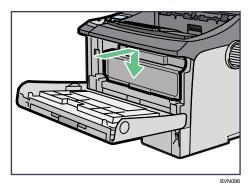
4. Wipe around the metallic Registration roller by turning with a soft damp cloth.



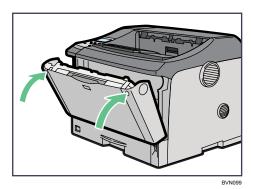
5. Holding the grips, push the toner cartridge into the printer until it stops.



6. Push down the toner cartridge to settle it in appropriate position.



7. Close the front cover.



UNote

• Carefully close the front cover. If you cannot close the cover easily, pull the toner cartridge out of the printer and insert it again. After that, close the front cover again.

8. Adjusting the Printer

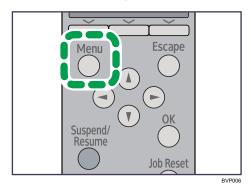
This chapter explains how to adjust the image density and print position.

Adjusting the Image Density

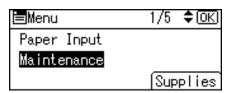
You can adjust the image density using the control panel if the image density is not appropriate.



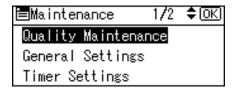
- Extreme settings may create printouts that appear dirty.
- Image Density settings should be made from the application or the printer driver whenever possible.
- 1. Press the [Menu] key.



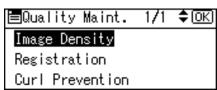
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



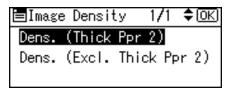
Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



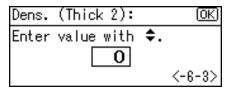
4. Press the [▼] or [▲] key to select [Image Density], and then press the [OK] key.



 Press the [▼] or [▲] key to select [Dens. (Thick Ppr 2)] or [Dens. (Excl. Thick Ppr 2)], and then press the [OK] key.



6. Press the $[^{\blacktriangledown}]$ or $[^{\blacktriangle}]$ key to specify the image density, and then press the [OK] key.



You can specify the image density in the range of -6 to +3.

7. Press the [Menu] key.

The display returns to the initial screen.

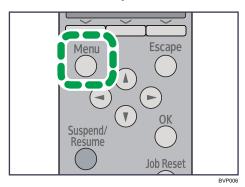


- To maintain a darker image under high volume printing conditions, Selecting 3 from the control panel is highly recommended.
- You can adjust the image density in seven steps from -6 to +3. Increasing the value makes the printouts darker and decreasing the value makes the printouts lighter.

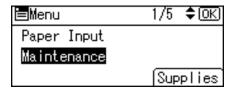
Adjusting Tray Registration

You can adjust the registration of each tray. The vertical adjustment is used for all trays. Normally, you need not update the registration. But when the optional paper feed unit or the duplex unit is installed, updating is useful in some cases.

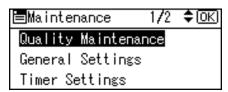
1. Press the [Menu] key.



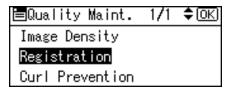
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



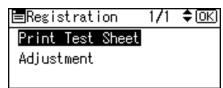
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



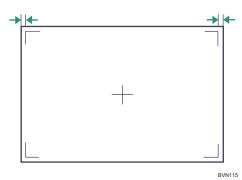
4. Press the [▼] or [▲] key to select [Registration], and then press the [OK] key.



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

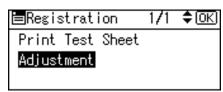


- 6. Press the [▼] or [▲] key to select the tray you want to adjust, and then press the [OK] key.
 Print the test sheet to preview the settings.
- 7. Confirm the position of the image on the test sheet, and then adjust the registration value.

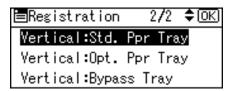


In this setting, adjust the margins of the test sheet so that they are equal in size.

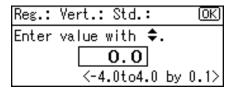
- 8. Press the [Escape] key to return to the registration menu.
- 9. Press the [▼] or [▲] key to select [Adjustment], and then press the [OK] key.



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

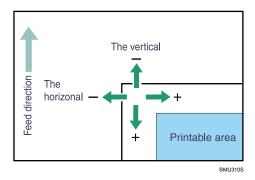


11. Press the $[^{\blacktriangledown}]$ or $[^{\blacktriangle}]$ key to change the registered value (mm).



Ō

Increase the value to shift the print area in the positive direction, and decrease to shift in the negative direction.



Pressing the $[\P]$ or $[\P]$ key makes the value increase or decrease by 0.1 mm steps.

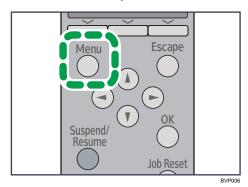
- 12. Press the [OK] key to return to the [Registration] menu.
- 13. Print the test sheet to confirm the adjustment result.
- 14. Press the [Menu] key.

The display returns to the initial screen.

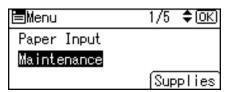
Reducing Paper Curl

Follow the procedure below to reduce paper curl.

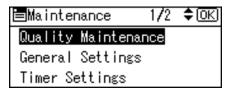
1. Push the [Menu] key.



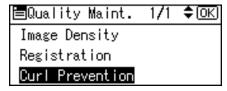
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



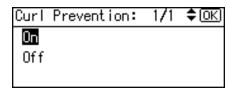
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



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



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



About two seconds later, the display returns to the [Maintenance] menu.

6. Press the [Menu] key.

The display returns to the initial screen.

Q

9. Troubleshooting

This chapter provides solutions to common problems and it also explains how to correct unwanted print results.

Error and Status Messages that Appear on the Control Panel

This section explains the meanings of messages that appear on the control panel and what to do when a particular message appears.

Status Messages (in alphabetical order)

@Remote Certif. updating...

The printer is updating the @Remote certificate.

Energy Saver Mode

The printer is in Energy Saver mode. Press any key to recover to the normal mode.

Hex Dump Mode

In Hex Dump mode, the printer receives data in hexadecimal format. Turn off the printer after printing, and then turn back on.

Offline

The printer is offline and cannot print.

Please wait...

This message may appear for a few seconds. It means the printer is preparing, cooling down the fusing unit, initializing the development unit, loading toner, or executing maintenance operations. Wait a while.

Preparing to start firmware update.

The printer is checking for firmware updates.

Printing...

The printer is printing. Wait a while.

Printing Suspended

Printing is suspended. Turn off the printer, and turn it on again to recover.

Ready

This is the default ready message. The printer is ready for use. No action is required.

The printer is performing diagnostic tests remotely.

Resetting Job...

The printer is resetting jobs. Wait a while.

Setting change...

The printer is changing settings. Wait a while.

Set the Fusing Unit correctly.

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

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

See p.144 "Replacing the Fusing Unit" for fusing unit installation.

SmartServ.Call

The printer is contacting the Smart Service center. Some or all of the printer's functions may not be available.

Updating Certificate...

The printer is updating @Remote certificate.

Waiting for print data...

The printer is waiting for the next data to print. Wait a while.

Alert Messages (in alphabetical order)

@Remote Cert. update failed

Updating the @Remote certificate failed. Contact your sales or service representative.

@Remote error. Call service

There was an error with the @Remote line.

Cannot connect=>Comm.Serv.

There was a communication error in the remote service modem.

Cannot connect=>Comm.Serv./ Check proxy user/password.

The proxy user name or password is incorrect. Check the proxy server settings, and change the user name and/or password if they are incorrect.

Cannot connect with DHCP server. (101/201)

Cannot obtain IP address from DHCP server. Contact the network administrator.

Cannot connect with/ NetWare print server. (107/207)

Connection with NetWare print server is unavailable. Contact the network administrator.

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.

Cannot recognize SDRAM mod./ Please call service.

The printer could not recognize the installed optional memory.

Cannot set IPv4 within/ the same subnet range. (###)

The IPv4 address cannot be set within the same subnet ranges.

Change (tray name) to the following settings: A4 (Recycled)

The specified paper type is different from the paper type in the indicated tray. This message does not apply to the bypass tray. Press [Change] to change the tray's settings, press [Job Reset] to reset the job, or press [FormFeed] to force printing.

Check @Remote Line

Check the connection status of @Remote Line.

Check network/ settings. (103/203)

The IP address setting is incorrect. Check the IP address, subnet mask, and gateway address. For details, see p.63 "Ethernet Configuration".

Connect failed:WirelessCard Turn power off, check card.

Check there is a wireless LAN board installed.

Check that it is a supported board. If it is, check it is installed correctly.

Install the correct board properly.

For details, see p.43 "Installing the Interface Units".

Cover Open. Please close the Front Cover.

Close the front cover.

Cover Open. Please close the Paper Exit Cover.

Close the paper exit cover.

Cover Open. Please close the Rear Cover.

Close the rear cover.

Current wireless card is not WPA compatible. (###)

The wireless LAN you are using is not compatible with WPA.

Device access violation may have occurred. Contact the administrator.

An attempt was made to access the printer from outside of the network.

Duplex mode is in off position for (tray name)

The duplex mode for the indicated tray is off; you can only use one-sided printing. Press [Change] to change the tray's settings, press [Job Reset] to reset the job, or press [FormFeed] to force printing.

Ethernet Board Error

An error on the Ethernet board is detected. Pull out and then re-install the controller board. If the problem persists, contact your sales or service representative.

Failed to connect to server for Remote Diagnostics.

The printer cannot communicate with Remote Communication Gate. Check the connection to the Remote Server Gate.

Independent-supply toner

Independent-supply toner is set. Use toner recommended for this printer.

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.

Load paper in (tray name) or [Cancel] to FormFeed. A4□ (Recycled)

There is no paper in the specified tray. Load the specified paper in the tray, press [Job Reset] to reset the job, or press [FormFeed] to force printing.

Load paper in (tray name) A4 (Recycled)

There is no paper in the specified tray. Load the specified paper in the tray, press [Job Reset] to reset the job, or press [FormFeed] to force printing.

Login failed due to user lockout. Please contact the administrator.

Login failed because the wrong password was repeatedly used for login.

Netwrk connection failed./ Check IP Address.

The connection with the network has failed. Check that the IP address is correct.

Netwrk connection failed./ Contact the administrator.

The connection with the network failed. Contact the network administrator.

Netwrk connection failed./ Please call service.

The connection to the network failed.

No paper in the tray. Select another tray.

The indicated tray is out of paper. Select another tray.

♣A Open Front Cover/StdTray to remove misfeed.

Open the front cover and remove jammed paper. Then open the front cover and then close it again, so the error message disappears.

Remove paper from the standard tray and then reload paper. Then open the front cover and then close it again, so the error message disappears.

See p.196 "Paper Misfeed Message (A)".

♣B Open Dup. Unit/PprExit to remove misfeed.

Remove and re-install the duplex unit. Open the paper exit cover and remove jammed paper.

See p.200 "Paper Misfeed Message (B)".

♣B Open Rear/PprExit Cover to remove misfeed.

Open the rear and paper exit cover and remove jammed paper.

See p.200 "Paper Misfeed Message (B)".

⁸√Y Open the Optional Tray 1 to remove misfeed.

Remove paper from the Optional Tray 1 and then reload paper.

See p.206 "Paper Misfeed Message (Y)".

♣Y Open the Optional Tray 2 to remove misfeed.

Remove paper from the Optional Tray 2 and then reload paper.

See p.206 "Paper Misfeed Message (Y)".

¾Z Open Dup. Unit/Cover to remove misfeed.

Remove and re-install the duplex unit. Remove any jammed paper from the duplex unit and under the rear cover.

See p.207 "Paper Misfeed Message (Z)".

Option RAM Error

The printer cannot detect the optional SDRAM module. It may be incorrectly installed.

Check if it is installed properly.

For details about installing the unit, see p.34 "Installing the Memory Expansion Units".

Output tray is full.

The output trays are full. Remove the paper.

Paper size/type mismatch. Change settings to: A4 (Recycled)

The paper type and size in all trays are not the same as the paper tray type and size setting, when Auto Paper Select mode is selected. Press [Change] to change the settings, press [Job Reset] to reset the job, or press [FormFeed] to force printing.

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.43 "Installing the Interface Units".

Prepare Replacement/ Check print cartridge replacement(s).

The toner cartridge is approaching the end of its life time. Prepare a new toner cartridge.

For details, see p. 127 "Replacing the Toner Cartridge (Print Cartridge)".

Printer Font Error.

There are problems with the printer's font file.

Contact your sales or service representative.

Printing suspended. Resume printing from PC side.

Printing has been suspended. Resume the print job from your computer.

Problem:Printer module

There was an error with a DIMM module (slot 1).

Problem:PS3 module/ Please call service.

There was an error with a DIMM module (slot 1).

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.43 "Installing the Interface Units".

Problem:Wireless card/ Please call service.

The printer has detected a wireless LAN board or Bluetooth failure, or it could not detect a wireless card. It may be incorrectly installed.

Check that the wireless LAN or Bluetooth board is installed properly, or contact your sales or service representative.

For details about installing the unit, see p.43 "Installing the Interface Units".

Proxy error. If it recurs:/ Please call service.

There is a problem connecting to the proxy server. Possible causes include: incorrect proxy server address or port number, inactive or incorrectly configured proxy server, or incorrect center URL.

Q

Contact your sales or service representative if the problem persists.

Replacement Alert/ Replace Fusing Unit.

You need to replace the fusing unit. For details, see p. 144 "Replacing the Fusing Unit".

Replacement Alert/ Replace Maintenance Kit.

You need to replace the Maintenance Kit. Contact your sales or service representative to obtain a new unit.

See p.133 "Replacing the Maintenance Kit" for installation instructions.

Replace Fusing Unit soon./ A new kit is required./ Contact your local vendor.

You will need to replace the fusing unit soon. Contact your sales or service representative to obtain a new unit.

🕍 Replace print cartrdg soon.

The printer is almost out of toner. Prepare a new toner cartridge.

See p. 127 "Replacing the Toner Cartridge (Print Cartridge)".

▲Replace print cartridge.

The printer is out of toner. Replace the toner cartridge.

See p.127 "Replacing the Toner Cartridge (Print Cartridge)".

Reset Paper Tray correctly./ A4 (Recycled)

The paper tray is not set correctly. Set the indicated tray again, or select a different tray to print from.

SD Card authenticatn.failed Error recurs, call service.

Authentication from the SD card failed. Turn the power off, and then back on. If the error recurs, contact your sales or service representative.

Server communicat. failed

There was no reply from the server.

Set the Fusing Unit correctly.

The fusing unit is not set correctly. Set the fusing unit again.

Set the Print Cartridge correctly.

The indicated toner cartridge is not set correctly. Set the indicated toner cartridge again.

Set Tray to below setting or [Cancel] to FormFeed./ A4 (Recycled)

A size and paper type mismatch has occurred with Auto tray select mode set. Set the tray to the indicated size and paper type, press [Job Reset] to reset the job, or press [FormFeed] to force printing.

There was an error in the SRAM.

Standard Tray is full. Remove the paper.

The standard output tray is full, or there is a problem with the paper tray motor. Remove the paper from the tray.

Supply order has failed.

The automatic supply order failed. The message indicates the supplies that the printer tried to order.

The same IP Address exists on several interfaces. (###)

The same IP address has already been set on several interfaces. Contact the network administrator.

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

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

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

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

(tray name) Error. Power Off/On./ Error recurs, call service.

There was an error with an input tray motor. Turn the power off, and then on again.

USB has a problem./ Please call service.

The printer has detected a USB board failure. Turn the power off, and then on again. If the problem persists, contact your sales or service representative.

Values set for IPv6/Gateway addresses are invalid. (110/210)

The IPv6 address or gateway address is invalid. Check the network settings.

WPA Auth. incomplete. (211)

WPA authentication could not complete. Contact your network administrator.

Print/Data Errors (in alphabetical order)

Command Error.

A PCL command error occurred. Check the connection between the printer and the computer, make sure you are using the correct driver for the printer, and make sure that the memory settings for the driver match the memory installed in the printer.

Compressed Data Error

The printer detected corrupt compressed data. Check the connection between the computer and the printer. Check that the program you used to compress the data is functioning correctly.

a

A memory retrieval error occurred.

- (a) Failure in memory retrieval while drawing.
- (b) Failure in processing frame.

Add additional memory to the printer. See p.34 "Installing the Memory Expansion Units".

Memory Retrieval Error.

A memory retrieval error occurred. This alert is displayed when failures cannot be avoided even though additional memory is installed in the printer. For example, this error can occurs if there is a failure while initializing PCL. Turn the printer off, and then on again. If the error persists, replace the memory module. See p.34 "Installing the Memory Expansion Units" for instructions on installing memory.

Paper Type Error

The paper type specified by the driver was not recognized by the printer. Retrieve the latest paper type information from the printer.

Receiving data failed.

This error occurs when the printer receives an unexpected end-of-file signal. Try printing again.

Sending data failed.

The printer received a command from the driver to suspend data transmission. Check that the host is operating normally.

UNote

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 uses to alert users about its condition.

Tone pattern	Meaning	Cause
Two long beeps.	Printer ready.	After cooling or being switched on, the printer has fully warmed up and is ready for use.
Single short beep.	Panel/screen input accepted.	A valid control panel or screen key was pressed. Single short beeps are produced only when valid keys are pressed.
Single long beep.	Job completed.	A printer job has finished.
Four long beeps.	Printer initialized.	The screen is changing back to the initial screen after the printer came out of the energy-saving mode or was reset.
Five short beeps repeated five times.	Printer alert.	Printer requires user attention. Paper may have jammed or toner may need replenishing.

9

• 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.

9

Printer Does Not Print

Is the power on?

Confirm that the cord 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.

See p. 169 "Error and Status Messages that Appear on the Control Panel".

Is paper loaded?

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

See p.96 "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.

See "List/Test Print Menu", Software 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.

See p.215 "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.181 "Checking the Port Connection".

Network Connection

Contact your network administrator.

How is the signal strength when using the wireless LAN?

Ad-hoc Channel

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.

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.

How is the signal strength when using Bluetooth?

Try the following:

- Check that the Bluetooth interface unit is installed properly.
- Check that there are no obstructions between the 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 other devices.
- 4. 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 function.
- 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.



- 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.

4

Checking the Port Connection

*(n) varies depending on the number of printers connected. This section describes how to check the print port when the Data In indicator does not light up or blink.

Check if the print port setting is correct. When it is connected using a parallel interface, connect it to LPT1 or LPT2.

Windows 2000

- 1. Click the [Start] button, point to [Settings], and then click [Printers].
- 2. Click the icon of the printer. On the [File] menu, click [Properties].
- 3. Click the [Ports] tab.
- 4. In the [Print to the following port(s)] list, confirm the correct port is selected.

Windows XP Professional or Windows Server 2003/2003 R2

- 1. Click the [Start] button, and then click [Printers and Faxes].
- 2. Click the icon of the printer. On the [File] menu, click [Properties].
- 3. Click the [Ports] tab.
- 4. In the [Print to the following port(s)] list, confirm the correct port is selected.

Windows XP Home Edition

- 1. Click the [Start] button, and then click [Control Panel].
- 2. Click [Printers and Other Hardware].
- 3. Click [Printers and Faxes].
- 4. Click the icon of the printer. On the [File] menu, click [Properties].
- 5. Click the [Ports] tab.
- 6. In the [Print to the following port(s)] list, confirm the correct port is selected.

Windows Vista/ Windows Server 2008

- 1. Click the [Start] button, and then click [Control Panel].
- 2. Click [Printers].
- 3. Click the icon of the printer. On the [Organize] menu, click [Properties].
- 4. Click the [Ports] tab.
- 5. In the [Print to the following port(s)] list, confirm the correct port is selected.

Other Printing Problems

When You Cannot Print Properly

Toner smears appear on the print side of the page.

The paper setting may not be correct. For example, although you are using thick paper, the setting for thick paper may not be set.

- Check the paper settings.
 - See p.88 "Types of Paper and Other Media".
- Check the printer driver's paper settings.
 - See the printer driver Help.

Confirm that the paper is not curled or bent. Envelopes can be curled easily. Flatten paper before loading. See p.85 "Supported Paper for Each Tray".

Photo images are coarse.

Some applications lower the resolution for making prints.

Fine dot pattern does not print.

Change the [Dithering:] setting in the printer driver's dialog box.

See the printer driver Help.

Solid lines are printed as broken lines.

Change the [Dithering:] setting in the printer driver's dialog box.

See the printer driver Help.

The print out image is missing or partially blurred.

- Paper is damp. Use paper that has been stored properly.
 - See p.88 "Storing Paper".
- Toner is almost depleted. When the "Replace print cartrdg soon." message appears on the display, replace the toner cartridge.
 - See p.127 "Replacing the Toner Cartridge (Print Cartridge)".
- 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.

See p.88 "Storing Paper".

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

See the printer driver Help.

• Toner is almost depleted. When the "Replace print cartridge." message appears on the display, replace the toner cartridge.

See p.127 "Replacing the Toner Cartridge (Print Cartridge)".

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

White streaks appear.

 Toner is almost depleted. When the "Replace print cartridge." message appears on the display, replace the toner cartridge.

See p.127 "Replacing the Toner Cartridge (Print Cartridge)".

The backs of printed sheets are blemished.

- When removing a jammed sheet, the inside of the printer may have become dirtied. Print several sheets until they come out clean.
- If document size is larger than paper size, e.g. A4 document on B5 paper, the back of the next printed sheet may be dirtied.

If rubbed with your finger, it smears out.

The setting of the paper may not be correct. For example, although thick paper is used, the setting for thick paper may not be set.

• Check the paper settings of this printer.

See p.85 "Supported Paper for Each Tray".

• Check the paper settings of the printer driver.

See the printer driver Help.

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

For replacing the unit, Maintenance Kit (optional) is required.

When printing on OHP transparencies, black or white dots are obvious.

The registration roller is dirty. Clean the registration roller. Contact your sales/service representatives.

Image quality varies when printing on thick paper or on OHP transparencies.

Switch to Thick Paper mode.

See "Making Printer Settings Using the Control Panel", Software Guide.

When printing on plain paper, white dots are obvious.

The registration roller is dirty. Clean the registration roller. Contact your sales/service representatives.

Paper Misfeeds Occur Frequently

Paper jams occur frequently.

Number of paper set in the tray exceeds the limit. Confirm that the top of the stack is not higher than
the limit mark inside the tray.

See p.96 "Loading Paper".

 There may be a gap between the guides and the paper in the paper tray. Make sure there are no gaps.

See p.96 "Loading Paper".

• Paper is either too thick or too thin.

See p.85 "Supported Paper for Each Tray".

• Paper is bent or wrinkled. Use paper that have no bents or wrinkles.

See p.85 "Supported Paper for Each Tray".

• Paper has already been printed on.

See p.85 "Supported Paper for Each Tray".

• Paper is damp. Use paper that has been stored properly.

See p.85 "Supported Paper for Each Tray".

• When loading paper, separate paper from each other.

Multiple pages are fed at once.

 There may be a gap between the guides and the paper in the paper tray. Make sure there are no gaps.

See p.96 "Loading Paper".

• Paper is either too thick or too thin.

See p.85 "Supported Paper for Each Tray".

• Paper has already been printed on.

See p.85 "Supported Paper for Each Tray".

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.

See p.85 "Supported Paper for Each Tray".

• Paper is static. Use paper that has been stored properly.

See p.85 "Supported Paper for Each Tray".

• When loading paper, separate paper from each other.

Paper gets wrinkles.

Paper is damp. Use paper that has been stored properly.

a

9

See p.88 "Storing Paper".

• Paper is too thin.

See p.88 "Types of Paper and Other Media".

 There may be a gap between the guides and the paper in the paper tray. Make sure there are no gaps.

See p.96 "Loading Paper".

 The fusing unit is deteriorated or damaged. Replace the unit. For replacing the unit, Maintenance Kit (optional) is required.

The printed image is different from the image on the computer

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

- When you use some functions, such as enlargement 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.

See the printer driver Help.

The image is printed in the wrong orientation.

Set the correct orientation under the [PCL Menu] with the control panel. See "Making Printer Settings Using the Control Panel". Software Guide.

Confirm that the setting of orientation has been set in the application you use.

Set the correct paper size and feed direction that matches tray settings on the printer driver.

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.

See the printer driver Help.

Nothing is printed on the paper.

Check if the tape of the toner cartridge is completely removed. Be sure to remove the tape completely when replacing the toner cartridge. If the power switch is turned on with the tape still attached to the toner cartridge, the printer might be damaged.

See p. 127 "Replacing the Toner Cartridge (Print Cartridge)".

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

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

See p.34 "Installing the Memory Expansion Units", for optional hard disk installation.

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

After adding a memory unit and set the value of [RAM Disk] in the [System] menu to 16 MB, value of
[RAM Disk] returns to 0 MB if the memory unit is removed. If this happens, reset the value of the [RAM
Disk] to 2 MB or higher.

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

 When printing a PDF with a password set, set the password of the PDF file using the [PDF Menu] or Web Image Monitor.

For [PDF Menu], see the "PDF Menu", Software Guide.

For Web Image Monitor, see Web Image Monitor Help.

• PDF files not allowed to be printed by the PDF file security setting cannot be printed.

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.

A portion of the image is not printed or an error occurred in the PostScript printer driver when printing with PCL or the PostScript printer driver.

You can print using the procedure below.

- Set [Memory Usage] in the [System] menu to [Font Priority] on the control panel.
- Return the setting to [Font Priority] after you have finished printing. If the setting is left as [Font Priority],
 continuous printing speed may decrease, two-sided printing may be canceled or a job reset may
 occur during continuous printing.

If the entire image is not printed out properly even after changing the above setting, add an additional memory unit.

The paper size appears on the control panel and printing is not performed with PDF Direct Print.

When using PDF Direct Print, printout requires paper set within the PDF file. When a message indicating a paper size appears, either place the indicated size in the paper tray, or perform Form Feed.

Also, if [Sub Paper Size] in the [System] menu is set to [Auto], printing is performed assuming letter size and A4 size to be the same size. For example, When a PDF file set to A4 size paper is printed using PDF Direct Print and letter size paper is loaded in the paper tray, the file will be printed. This applies similarly to the opposite case.

If the problem cannot be solved, contact your sales or service representative.

When Printer is Not Functioning Properly

Paper is not fed from the selected tray.

When you are using a Windows operating system, the printer driver settings override those set using the control panel. Set the desired input tray using the printer driver.

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.

- Large or complex data takes long time for the printer to process. If the Data In indicator is blinking, the data is being processed. Just wait until it resumes.
- Printing takes longer to start if you are printing on OHP transparencies.
- 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] in the [System] menu.
- Changing the paper feed direction may sometimes reduce the time to resume printing.

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.
 - See the printer driver Help.
- Large or complex data takes long time for the printer to process. If the Data In indicator is blinking, the data is being processed. Just wait until it resumes.
- If "Waiting for print data..." appears on the display, the printer is now warming up. Wait for a while.

Network configurations you have made do not become effective.

Print a configuration page and check the network settings.

The control panel error message stays on after removing the misfed paper.

Open the front cover of the printer and then close it.

See p.195 "Removing Misfed Paper".

Additional Troubleshooting

Strange noise is heard.

If a supply was recently replaced or an option attached in the area the strange noise is coming from, check the supply or option is properly attached. If the strange noise persists, contact your sales or service representative.

No e-mail is received when an Alert occurs, and after resolving an Alert.

- Confirm [Auto E-mail Notify] is [On] using 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 using a 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, the destination
 may be incorrect. Also check the information concerning error mail from the e-mail server.

The setting for Notify by Email on the System Menu was changed from Off to On, but e-mail is not arriving.

After changing the setting, turn the printer's power off and then back on again.

Error notification e-mail was received, but no error-solved e-mail is received.

Check e-mail is set for sending using 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-notification e-mail is not sent if the problem is resolved before sending. However, an Alert-resolved e-mail is sent.

Alert-notification level was changed, and e-mail stopped arriving.

If an Alert-notification e-mail arrives in the previous notification level, e-mail will not be sent even if the notification level is changed afterwards.

When no date information is included in sent e-mail, the mail server has a malfunction.

Make the setting for obtaining time information from the SNTP server. Refer to the Web Image Monitor's Help to the settings.

Printing using wireless LAN is slow.

When using the optional wireless LAN interface board, do the following:

- Transmit fewer print jobs.
- Make sure no other wireless LAN or 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.

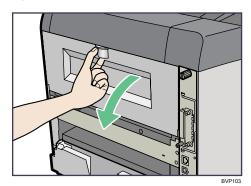


If the printer is still not operating satisfactorily, contact your sales or service representative. Consult
with the store where the printer was purchased for information about the location of sales or service
representatives.

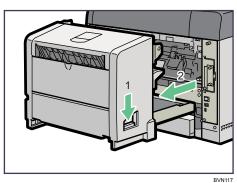
Using the Envelope Lever

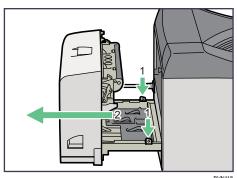
ACAUTION

- The inside of the printer becomes very hot. Do not touch the parts with a "\(\triangle \)" label (means hot surface). Touching a part with a "\(\triangle \)" label (means hot surface) could result in a burn.
- The fusing unit becomes very hot. When installing the new fusing unit, turn off the printer and wait about an hour. After that, install the new fusing unit. Not waiting for the unit to cool down can result in a burn.
- 1. Open the rear cover.



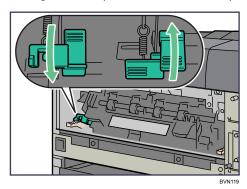
2. If the optional duplex unit is attached, push down the lever on the right side of the duplex unit (1), and then pull it out until it stops (2).





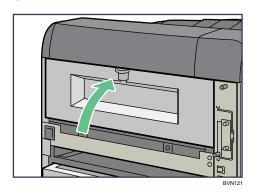
4. Use the envelope lever.

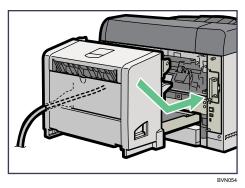
Raising the envelope lever increases roller pressure.



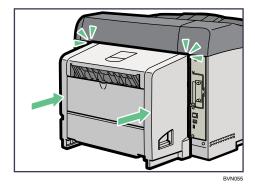
When printing on normal paper, keep the envelope lever in its original position (raised).

5. Close the rear cover.





7. Push the duplex unit securely into the printer.



U Note

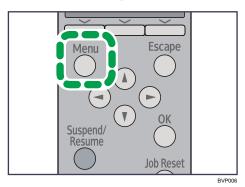
• When printing on normal paper, keep the envelope lever in its original position (raised).

When Printing on Envelopes Frequently

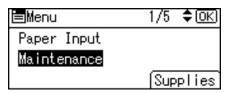
The printer can be configured not to display an error message when the envelope lever is lowered.

When [Do not Display] is selected, the position of the envelope lever will not be reported by an error message or alarm light.

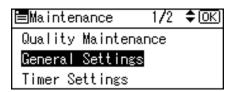
1. Press the [Menu] key.



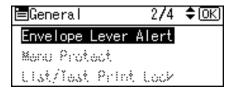
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



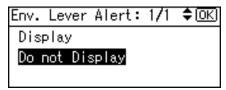
3. Press the [▼] or [▲] key to select [General Settings], and then press the [OK] key.



4. Press the [▼] or [▲] key to select [Envelope Lever Alert], and then press the [OK] key.



Press the [▼] or [▲] key to select [Display] or [Do not Display], and then press the [OK] key.



About two seconds later, the display returns to the [Maintenance] menu.

6. Press the [Menu] key.

The display returns to the initial screen.

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.

CAUTION

- The inside of the printer becomes very hot. Do not touch the parts with a "△" label (means hot surface). Touching a part with a "△" label (means hot surface) could result in a burn.
- When pulling the paper tray out, be careful not to pull it strongly. If you do, the tray might fall and cause an injury.
- When removing misfed paper, do not touch the fusing section because it becomes very hot.
- The fusing unit becomes very hot. When installing the new fusing unit, turn off the printer and wait about an hour. After that, install the new fusing unit. Not waiting for the unit to cool down can result in a burn.

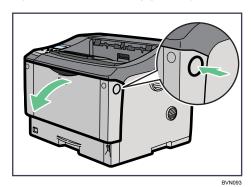
- Misfed paper may be covered in toner. Be careful not to get toner on your hands or clothes.
- Toner on prints made after removing misfed paper may be loose (inadequately fused). Make a few test prints until smudges no longer appear.
- Do not remove jammed paper forcefully. The paper will tear, and torn pieces remaining inside the printer will cause further jams and possibly damage the printer.
- More than one misfed area might be indicated. In this case, check every applicable area.
- If paper continues to misfeed, check the following points.
 - Confirm that the setting of the paper size dial matches the size and feed direction of the paper loaded in the paper tray.
 - Confirm that the toner cartridge is set correctly.
- If paper misfeeds still occur, contact your sales or service representative.
- Do not leave any torn paper scraps within the printer.

Paper Misfeed Message (A)

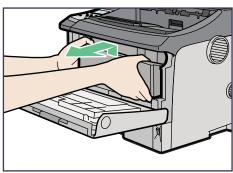
The "⁸ A Open Front Cover/StdTray to remove misfeed." error message appears when a paper misfeed occurs in the paper feed section.



- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer.
 This might cause a misfeed and damage the printer.
- If paper is fed from the Bypass Tray, be sure to remove all the paper from the Bypass Tray and close it before opening the front cover.
- Be sure to put the toner cartridge on a stable, flat surface.
- Do not hold the toner cartridge upside down or stand it vertically.
- 1. Open the front cover by pushing the front cover release button.

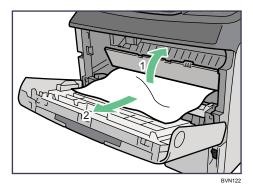


2. Lift the front side of the toner cartridge, and then pull it out of the printer.

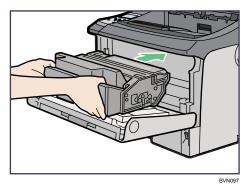


BVN094

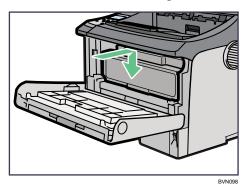
3. Pull out the misfed paper by holding both sides of paper. Be careful not to get toner dust on your hands or clothes.



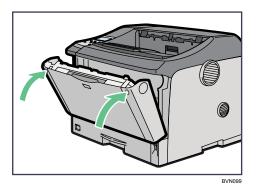
4. Hold the grips of the toner cartridge, and then push it into the printer until it stops.



5. Push down the toner cartridge to settle it in appropriate position.



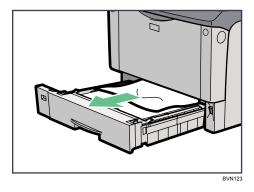
6. Close the front cover.



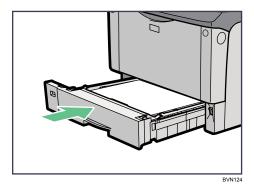
If the misfed paper is removed completely, the error message disappears.

If the message remains, proceed to the next step.

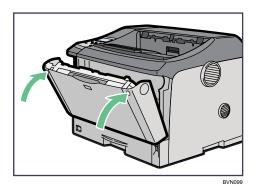
7. Pull out the paper tray until it stops, and then remove misfed paper.



8. Carefully slide the paper tray into the printer until it stops.



9. Open the front cover by pushing the front cover release button, and then close it to reset the misfeed condition.





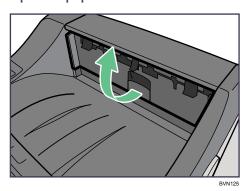
- You can apply this procedure for both the paper tray and the optional paper feed unit.
- To reset the misfeed condition, open and close the front cover, then the indicator will be off.

Paper Misfeed Message (B)

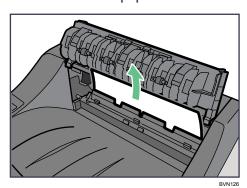
The "% B Open Dup. Unit/PprExit to remove misfeed." or "% B Open Rear/PprExit Cover to remove misfeed." error message appears if a paper jam occurs in the paper exit section.

Mportant ...

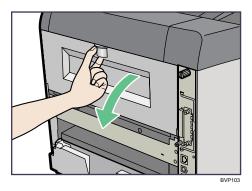
- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer.
 This might cause a misfeed and damage the printer.
- Do not touch the metal part of the fusing unit. It becomes very hot. Touching it could result in a burn.
- 1. Open the paper exit cover.



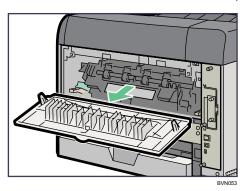
2. Remove the misfed paper.



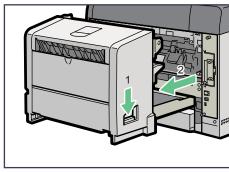
3. Open the rear cover.



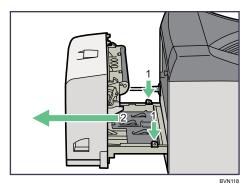
4. Lower the rear cover until it is horizontal, and then pull it away.



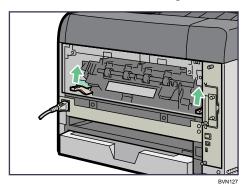
5. If the optional duplex unit is attached, push down the lever on the right side of the duplex unit (1), and then pull it out until it stops (2).



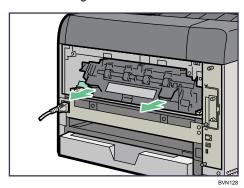
6. Push the bottom board levers (\bigcirc) and then pull the duplex unit out of the printer (\bigcirc).



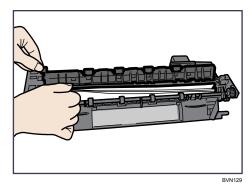
7. Lift the lock levers of the fusing unit as shown in the illustration.



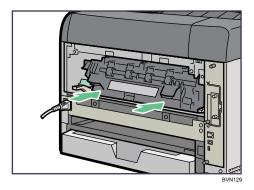
8. Pull the fusing unit out.



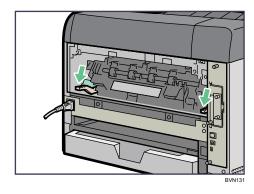
9. Hold the tab, and then remove the misfed paper.



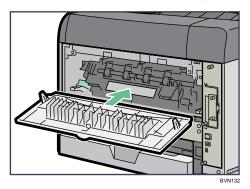
10. Push the fusing unit until it stops.



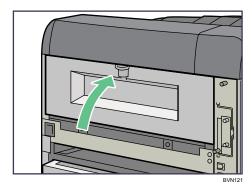
11. Push the lock levers of the fusing unit down until they click.



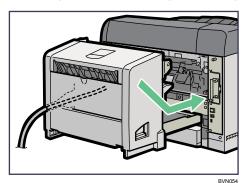
Proceed to step 13 if the optional duplex unit is installed.



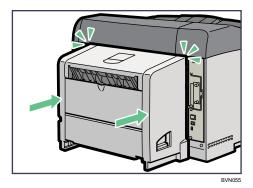
13. Close the rear cover.



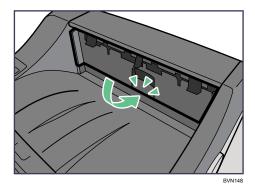
14. When the optional duplex unit is detached, place the power cable inside the slot on the side of the duplex unit, and then push the duplex unit along the rails into the rear of the printer.



15. Push the duplex unit securely into the printer.



16. Close the paper exit cover until it clicks.



17. Turn the power on.



• If the error message appears again, the misfed paper might be left in the printer. Confirm that any torn paper scraps are not in the inside of the printer. For more information, see "Paper Misfeed Message (A)".

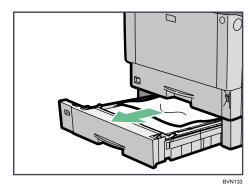
■ Reference

• p.196 "Paper Misfeed Message (A)"

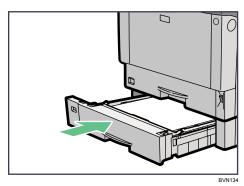
Paper Misfeed Message (Y)

The "% Y Open the Optional Tray 1 to remove misfeed." or "% Y Open the Optional Tray 2 to remove misfeed." error message appears when a paper misfeed occurs in the paper feed section of an optional paper feed unit.

- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer.
 This might cause a misfeed and damage the printer.
- 1. Pull out the optional paper tray until it stops, and then remove the jammed paper.



2. Carefully slide the tray back into the optional paper feed until it stops.



10

Paper Misfeed Message (Z)

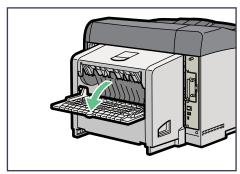
The " 8 VZ Open Dup. Unit/Cover to remove misfeed." error message appears when a paper misfeed occurs inside the duplex unit.



 Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the duplex unit. This might cause a misfeed and damage the printer.

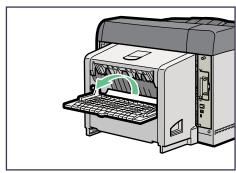
Removing Misfed Paper Inside the Cover

1. Open the rear cover of the duplex unit.



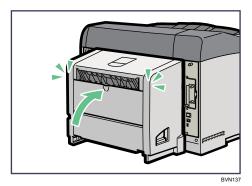
BVN13

2. Remove the misfed paper.

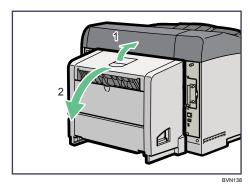


3VN136

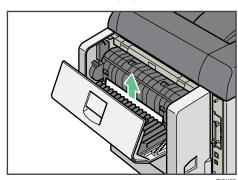
3. Close the rear cover of the duplex unit.



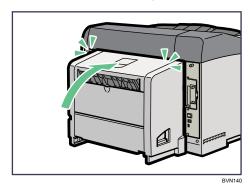
4. Lift the lever ($\widehat{\ \, }$), open the cover of the duplex unit ($\widehat{\ \, }$).



5. Remove the misfed paper.

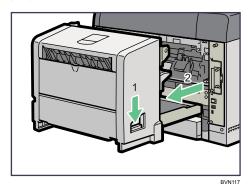


6. Close the cover of the duplex unit.

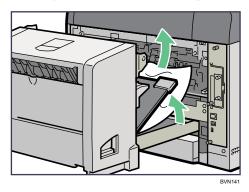


Removing Misfed Paper Inside the Duplex Unit

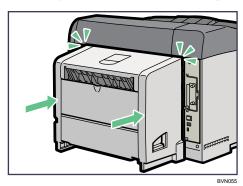
- When A5D paper misfeeds, you might not be able to remove it by pulling the duplex unit out. In this case, pull the paper tray out and remove the paper.
- Push down the lever on the right side of the duplex unit (①), and then pull it out until it stops (②).



2. Lift the guide board inside the duplex unit, and remove the misfed paper.



3. Place the power cable inside the slot on the side of the duplex unit, and then push the duplex unit along the rails in the back of the printer.





• If the error message appears again, the misfed paper might be left in the printer. Confirm that any torn paper scraps are not in the inside of the printer. For more information, see "Paper Misfeed Message (A)".

■ Reference

• p.196 "Paper Misfeed Message (A)"

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

CAUTION

- When you move the printer, remember to 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, not the cord, to avoid damaging the cord and causing a fire or an electric shock.

Mportant (

- Repack the printer in its original packing materials for transporting.
- Be sure to disconnect all cables from the printer before transporting it.
- The printer is a precision piece of machinery. Take care to avoid damage during shipment.
- If the optional paper feed unit is installed, remove it from the printer, and then move them separately.



• The printer weighs approximately 22.5 kg (49.6 lb.).

Moving the Printer

ACAUTION

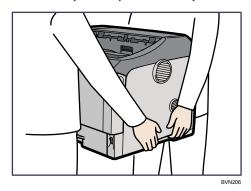
- When lifting the printer, use the inset grips on both sides. Otherwise the printer could break or cause an injury if dropped.
- Before moving the printer, unplug the power cord from the wall outlet. If the cord is unplugged abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.

Moving the printer in a short distance



• The printer should always be lifted by at least two people.

- 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 the external options are installed, remove them.
- 3. Lift the printer 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, move them separately and reinstall them.



• Be sure to move the printer horizontally. To prevent toner from scattering, move the printer slowly.

Ш

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 Cartridge (Print Cartridge)

Toner cartridge	Average printable number of pages per cartridge
Black	20,000 pages



- The printable number of pages is based on pages that are compliant with ISO/IEC 19572 and the
 image density set as the factory default. ISO/IEC 19752 is an international standard on measurement
 of printable pages, set by the International Organization for Standardization.
- If toner cartridges are not changed when necessary, printing will become impossible. We recommend keeping a stock of cartridges or purchasing them soon.
- The actual number of printable pages varies depending on the image volume and density, number
 of pages to be printed at a time, paper type and paper size used, and environmental conditions such
 as temperature and humidity.
- Toner cartridges may need to be changed sooner than indicated above due to deterioration over the period of use.
- Toner cartridges (consumables) are not covered by warranty. However, if there is a problem, contact the store where they were purchased.
- When you first use this printer, use the toner cartridge packaged with the printer.
- Numbers of pages that can be printed using the toner cartridge supplied with this printer are as follows:

Name	Average printable number of pages
Print Cartridge	6,000 pages

Maintenance Kit

Maintenance Kit SP 6330

Manifordia Co. Co.			
	Name	Average printable number of pages	
	Paper Feed Roller × 3	90,000 pages	



- The actual number of printable pages varies depending on the image volume and density, number
 of pages to be printed at a time, paper type and paper size used, and environmental conditions such
 as temperature and humidity.
- The maintenance kit (consumables) are not covered by warranty. However, if there is a problem, contact the store where they were purchased.

11

Specifications

Mainframe

Configuration:

Desktop

Print Process:

Laser beam scanning & Electrophotographic printing

Dualcomponent development

First Print Speed:

6.8 sec or less (A4□)

Printing Speed:

Maximum 35 pages per minute (A4D)

Resolution:

1,200 × 1,200 dpi (RPCS, PostScript 3, PCL 6)

600 × 600 dpi (RPCS, PostScript 3, PCL 5e/6)

300 × 300 dpi (RPCS, PostScript 3, PCL 5e)

Paper size:

See p.85 "Supported Paper for Each Tray".

Paper Weight:

See p.85 "Supported Paper for Each Tray".

Media Type:

See p.88 "Types of Paper and Other Media".

Paper Output Capacity:

Standard 500 sheets (75 g/m 2 , 20 lb.)

Paper Input Capacity:

Standard Paper Tray	500 sheets *1
Bypass Tray *3	100 sheets *2
Optional Paper Feed Unit	500 sheets × 2 * 1
Optional Envelop Feeder Unit *4	60 sheets * 1

^{*1} Paper weight: 60 - 216 g/m² (16 - 57 lb.)

Power Source:

220-240V

220 - 240 V, 4.5 A or more, 50/60 Hz

120V

120 V, 8.4 A or more, 60 Hz

Power Consumption:

220-240V

Printing	940 W or less
Energy Saver	3.9 W or less

120V

Printing	880 W or less
Energy Saver	3.9 W or less

Dimensions:

	Width	Depth	Height
Printer only (Bypass Tray not extended)	478 mm (18.9 ")	410 mm (16.2 ")	404 mm (15.9 ")
Printer only (Bypass Tray extended)	478 mm (18.9 ")	437 mm (17.3 ")	404 mm (15.9 ")
Printer with paper feed unit (one optional)	478 mm (18.9 ")	410 mm (16.2 ")	533 mm (20.9 ")
Printer with two optional paper feed unit	478 mm (18.9 ")	410 mm (16.2 ")	661 mm (26.0 ")

Weight:

Approximately 22.5 kg (49.6 lb.) (power cord included)

^{*2} Paper weight: 52 - 216 g/m² (14 - 57 lb.)

 $^{^{*3}}$ You can load up to 10 envelopes (52 - 216 g/m², 14 - 57 lb.) at the same time.

^{*4} To use the envelope feeder unit, the optional paper feed unit is required. The paper tray of the feed unit can be replaced with the envelope feeder unit. For more information about envelopes, see p.88 "Types of Paper and Other Media".

Noise Emission *1:

Sound Power Level: Main frame only

Stand-by	40 dB (A)
During Printing	67 dB (A)

Sound Pressure level: Main frame only *2

Stand-by	30 dB (A)
During Printing	55 dB (A)

^{*1} The preceding measurements made in accordance with ISO7779 are actual values.

Memory:

Standard 256 MB, up to 512 MB (with the optional Memory Unit)

Interface:

Standard:

- Ethernet (10BASE-T/100BASE-TX)
- USB 2.0, USB Host

To use USB 2.0, a USB computer port and cable that support USB 2.0 are required.

Optional:

- Wireless LAN (IEEE 802.11a/b/g)
- Gigabit Ethernet (1000BASE-T)
- Parallel (Bidirectional IEEE1284)

Printer Language:

RPCS, PCL 5e/6, PostScript Level 3, PDF

Fonts:

PCL 5e/6

• 45 fonts, 13 International fonts

PostScript 3, PDF

• 80 fonts (Type 2:24, Type 14:112)



• If the printer has not been used for a while, there may be a short delay before the first page starts printing.

11

^{*2} Measured at the position of a bystander.

 Continuous printing on sheets with a width of 170 mm or smaller may decrease the printing speed depending on the temperature control of the fusing unit.

Options

Paper Feed Unit PB3090

Dimensions (W \times D \times H):

 $468 \times 545 \times 130 \text{ mm} (18.5 \times 21.5 \times 5.2 \text{ inches})$

(Without pins on the unit)

Paper size:

See p.85 "Supported Paper for Each Tray".

Paper weight:

60 - 216 g/m² (16 - 57 lb.)



• Specifications are subject to change without notice.

Envelope Feeder Type 610

Dimensions (W×D×H):

 $468 \times 410 \times 130 \text{ mm} (18.5 \times 16.2 \times 5.2 \text{ inches})$

Paper Weight:

$$72 - 90 \text{ g/m}^2 (19 - 24 \text{ lb.})$$

Paper Size:

See p.85 "Supported Paper for Each Tray".

Duple

Duplex Unit Type AD610

Dimensions (W×D×H):

 $419 \times 378 \times 257 \text{ mm} (16.5 \times 14.9 \times 10.2 \text{ inches})$

Paper Size:

See p.85 "Supported Paper for Each Tray".

Paper Weight:

60 - 105 g/m² (16 - 28 lb.)

Weight:

6 kg (13.3 lb.)

Hard Disk Drive Type 2670

Storage Capacity (Formatted):

80 GB

Specifications:

- · Spooling print data to collate
- Storing/Spooling Sample Print/Locked Print/Hold Print/Stored Print data
- Storing PostScript fonts
- · Storing log data



You can install PostScript fonts with this optional hard disk. With Mac OS, 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/ 256MB

Module Type:

DIMM (Dual-in-line Memory Module)

Memory Type:

DDR-SDRAM (Double Data Rate Synchronous Dynamic RAM)

Number of Pins:

200 pins

IEEE 802.11a/g Interface Unit Type L/M

Transmission Specification:

Based on IEEE 802.11 a/b/g (Wireless LAN)

Data Transfer Speed:

Auto select from the following speed:

• IEEE 802.11 b:

1 Mbps, 2 Mbps, 5.5 Mbps, 11 Mbps

• IEEE 802.11 g:

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

11

• IEEE 802.11 a:

6 Mbps, 9 Mbps, 12 Mbps, 18 Mbps, 24 Mbps, 36 Mbps, 48 Mbps, 54 Mbps

Frequency Range:

• IEEE 802.11 b/g:

220-240V 2412 to 2472 MHz (Channels 1 to 13)
120V 2412 to 2462 MHz (Channels 1 to 11)

• IEEE 802.11 a:

5180 to 5320 MHz (Channels 36, 40, 44, 48, 52, 56, 60, and 64)

Transmission Mode:

- Ad-hoc mode
- Infrastructure mode

Gigabit Ethernet Board Type A

Interface Connector:

- Ethernet (10Base-T, 100Base-TX, 1000Base-T)
- USB 2.0

It requires a USB computer port and cable that support USB 2.0.

Data Transmission Speed:

- Ethernet: 1000 Mbps, 100 Mbps, 10 Mbps
- USB: 480 Mbps (High speed: USB 2.0), 12 Mbps (Full speed)

Protocol:

TCP/IP, IPX/SPX, AppleTalk

Distance Between Devices:

- Ethernet: 100 m
- USB: 5 m

IEEE 1284 Interface Board Type A

Transmission Specification:

IEEE 1284

Required Cable:

Standard IEEE 1284-compliant Micro Getronics 36-pin cable

11

INDEX

A	Error message169
Ad-hoc channel71	Escape key19, 23
AD1000 (Duplex Unit)	Ethernet55
Additional troubleshooting	Ethernet configuration63
_	Ethernet port55
Adjusting image density161	Ethernet speed69
tray registration	F
Alert indicator19	F 104 150 016
Appendix211	Friction pad134, 152, 213
Attaching the Paper Tray Cover	Fusing unit144, 213
paper tray cover103	G
Available options25	Gigabit Ethernet board45, 55, 220
В	Guide to the printer
Browser11	exterior13, 15 inside
С	н
CAUTION5	Hard disk34, 219
Caution when re-installing the controller board	How to read this manual
28	HTML11
CD-ROM11	-
Certificate81	
Cleaning the friction pad152	IEEE 1284 interface board47, 220
Cleaning the paper feed roller154	Installing options25, 26
Cleaning the printer151	Installing SD memory card options50
Cleaning the registration roller157	Installing the interface units43
Connecting the printer	Installing the memory expansion units34
ethernet cable connection55	IP address62
parallel cable connection	
USB cable connection60	J
Consumables213	Job reset key19
Custom size105	L
D	List of options10
Data In indicator19	Loading envelopes115
Device certificate81	bypass tray116
DHCP66	envelope feeder
Display19	Loading paper88
Duplex unit	bypass tray109, 110
Dustproof filter	optional paper feed unit96
E	Tray 196
Envelope feeder32, 117, 218	M
Envelope lever	Maintenance Kit133, 213
Envelopes90	Manuals11
Liiveiopes90	

Manuals for this printer7	dustproof filter	148
Memory unit (SDRAM module)38, 219	Replacing the Maintenance Kit	133
Menu key19	friction pad	134
Model-specific information9	fusing unit	
Moving and transporting the printer211	paper feed roller	
N	transfer roller	
	Replacing the toner cartridge	127
NetWare67	S	
Network55	Scroll keys	10
Network setting67	Security	
0	Selection keys	
OHP transparencies90	Shutdown	
OK key	Site certificate	
Operational messages	Specifications	
Operational status	Specifying a paper type	
Options	bypass tray	113
	optional paper feed unit	
Order of option installation	Tray 1	107
Other printing problems182	Specifying custom size paper	
P	bypass tray	
Panel tone	optional paper feed unit	
Paper and other media85	Tray 1	105
Paper feed roller	Specifying standard size paper	
Paper feed unit	bypass tray	
Paper misfeed	optional paper feed unit Tray 1	
Paper not supported by this printer92		
Paper recommendations	SSID	
Paper size dial	Status message	
Paper tray cover	Storing paper	
Plain paper88	Supported paper for each tray	
Positions of WARNING and CAUTION labels	Suspend/Resume key	
5	Switching between paper trays	120
Power indicator19	T	
Power switch symbols6	Thick paper	89
Print area93	Toner cartridge	
Print cartridge127, 213	Transfer roller	
Printer error179	Tray priority	
	Turning off the power	
R	Turning on the power	
Reducing paper curl166	Turning the power On and Off	
Registration roller157		
Remove misfed paper195	U	
Replacing consumables127	USB port	60
Replacing the Dustproof Filter	User paper type 123-12	

W

WARNING	
Web Image Monitor	
WEP key	
When printing on envelopes frequentl	
Wireless LAN7	1, 74, 75, 70
Wireless LAN connectivity	74
Wireless LAN interface unit	43, 219
WPA	77, 81, 83
WPA2	77. 81. 83

MEMO

Trademarks

Microsoft[®], Windows[®], Windows Server[®], and Windows Vista[®] are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Adobe, Acrobat, Acrobat Reader, PostScript, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Apple, AppleTalk, Macintosh, Mac OS, are registered trademarks of Apple Inc., registered in the United States and other countries.

UNIX is a registered trademark of The Open Group.

PCL® is a registered trademark of Hewlett-Packard Company.

Monotype is a registered trademark of Monotype Imaging, Inc.

IPS is a trademark or registered trademark of Zoran Corporation and/ or its subsidiaries in the United States or other countries.

Netware, IPX, IPX/SPX are either registered trademarks or trademarks of Novell, Inc.

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights to those marks.

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

* The product names of Windows 2000 are as follows:

Microsoft® Windows® 2000 Professional

Microsoft® Windows® 2000 Server

Microsoft® Windows® 2000 Advanced Server

* The product names of Windows XP are as follows:

Microsoft® Windows® XP Professional

Microsoft® Windows® XP Home Edition

Microsoft® Windows® XP Media Center Edition

Microsoft® Windows® XP Tablet PC Edition

* The product names of Windows Vista are as follows:

Microsoft® Windows Vista® Ultimate

Microsoft® Windows Vista® Business

Microsoft® Windows Vista® Home Premium

Microsoft® Windows Vista® Home Basic

Microsoft® Windows Vista® Enterprise

* The product names of Windows Server 2003 are as follows:

Microsoft® Windows Server® 2003 Standard Edition

Microsoft® Windows Server® 2003 Enterprise Edition

Microsoft® Windows Server® 2003 Web Edition

Microsoft® Windows Server® 2003 Datacenter Edition

* The product names of Windows Server 2003 R2 are as follows:

Microsoft® Windows Server® 2003 R2 Standard Edition

Microsoft® Windows Server® 2003 R2 Enterprise Edition

Microsoft® Windows Server® 2003 R2 Datacenter Edition

* The product names of Windows Server 2008 are as follows:

Microsoft® Windows Server® 2008 Standard

Microsoft® Windows Server® 2008 Enterprise

Microsoft® Windows Server® 2008 Datacenter

