Operating Instructions

Hardware Guide

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

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, PostScript are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Apple, AppleTalk, Macintosh, and 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

TABLE OF CONTENTS

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

Positions of WARNING and CAUTION labels

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

BMU008S

①

| WARNING
ATTENTION
WARNUNG
⚠ AVVISO
AVISO
ADVERTENCIA
警告 | ● Do not incinerate toner or toner containers.
   Toner dust may cause flashback when exposed to an open flame.
● Ne pas incinérer les cartouches ni les boîtes de cartouches de toner.
   Exposée à une flamme nue, la cendre de toner peut provoquer un retour de flamme.
● Verbrennen Sie keinen Toner oder Tonerkartusche. Tonerstaub kann beim kontakt mit offenem Feuer explodieren.
● Non gettare il toner o i contenitori del toner sul fuoco. La polvere del toner si può incendiare dalla fiamma.
● No incinere el tóner ni los contenedores de tóner. El polvo de tóner puede inflamarse al ser expuesto al fuego.
● Não exponha o Toner ou a sua embalagem ao fogo. O pó de Toner poderá explodir quando exposto a chama viva.
●トナー又はトナーの入った容器を直接焼却炉等の火中に投入しないでください。火傷をするおそれがあります。 |

BMU149S

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

②

BMU151S

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.

③

BMU150S

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

BMU0153S

The printer weights about 17 kg (37.5 lb.). When moving the machine, detach the optional paper feed and duplex units first, and then use the inset grips on both sides to lift the machine. Otherwise the printer could break or cause injury if dropped.

⑤

BMU152S

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 machine.

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

⭐ **Important**

- Media differ according to manual.

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.

UNIX Supplement

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

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

⬇ **Note**

- Manuals provided are specific to machine types.

How to Read This Manual

Symbols

This manual uses the following symbols:

⭐ Important

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

⬇ Note

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

🔷 Reference

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

[ ]

Indicates the names of keys that appear on the machine's display.

[ ]

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

Model-Specific Information

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

`220-240V`

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

Read if you have purchased this model.
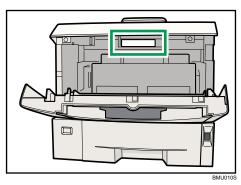
`120V`

This indicates information about the 120 V model printer.

Read if you have purchased this model.

🔽Note

- Check the label behind the front cover of the printer to identify the printer's model.

BMU010S

- 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 TK1030	Paper feed unit
Duplex Unit AD1000	Duplex unit
Envelope Feeder Type 400	Envelope feeder
Hard Disk Drive Type 2670	Hard disk drive
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
Data Storage Card Type A	Data storage card
SD card for NetWare Printing Type B	NetWare card
VM Card Type K	VM card

⬇ Note

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

🗐 Reference

Installing the Operating Instructions

Follow the instructions in the HTML Operating Instructions Manuals that are provided on the "Manuals" CD-ROM.

⭐ **Important**

- System Requirements :
    - 800 × 600 or higher monitor resolution.
- Web Browser Requirements :
    - Microsoft Internet Explorer 4.01 SP2 or later
    - Netscape 6.2 or later

1. **Quit all applications currently running.**

2. **Insert the CD-ROM "Manuals" into the CD-ROM drive.**

    The installer starts.

3. **Select an interface language and the model type you want to use, and then click [OK].**

4. **Click [Install manuals] or [Install HTML manuals].**

    | 220-240V |

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

    | 120V |

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

5. **Follow the instructions on the screen to complete the installation.**

6. **Click [Finish] when the installation is completed.**

7. **Click [Exit].**

🔽 **Note**
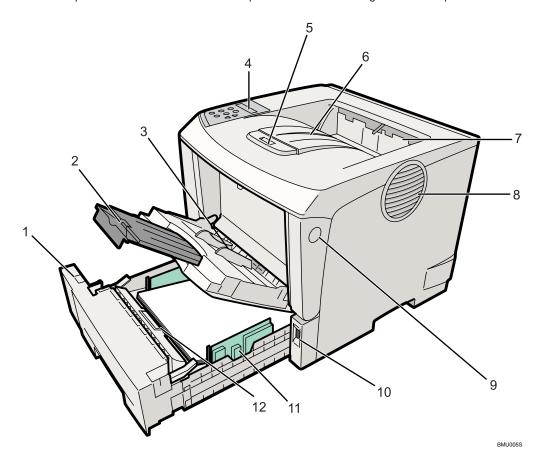
- Auto Run may not work under certain operating system setting. If this is the case, copy all data on the CD-ROM root directory to your hard disk drive, and then launch "Setup.exe" to start the installation.

- To uninstall the Operating Instructions Manual, select [Programs] in the [Start] menu, select your printer driver, and then click [uninstall]. You can uninstall each Operating Instructions separately.

- If you are using an unsupported Web browser and the simpler version of the Operating Instructions Manual does not display correctly, open the folder "MANUAL_HTML\LANG\ (language)\(manual name) \unv\" on the "Manuals" CD-ROM, and then double-click on "index.htm".

1. Guide to the Printer

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

Exterior: Front View

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

BMU005S

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 B5⊐ 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 (80 g/m^2, 20 lb.) can be loaded on the Bypass Tray.

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

13

1

4. **Control Panel**

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

5. **Tray Extension**

Pull this out if the paper you are loading is longer than B5.

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. **Ventilator**

Prevents the printer's internal components overheating.

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

9. **Front Cover Release Button**

Press this to open the front cover.

10. **Power Switch**

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

11. **Paper Tray (Tray 1)**

Loads up to 500 sheets of plain paper (80 g/m^2, 20 lb.) into this tray for printing.

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

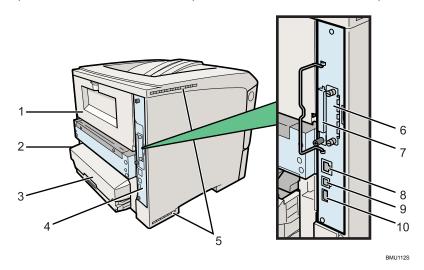12. **Friction Pad**

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.

Exterior: Rear View

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

BMU112S

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 machine 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. **Ventilators**

   Prevent the printer's internal components overheating.

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

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, data storage card, 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).
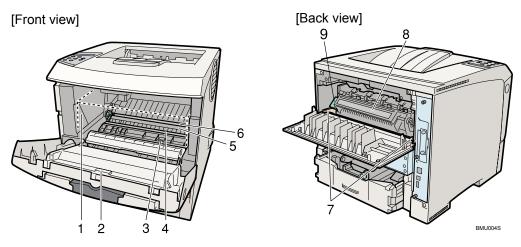
9. **USB Port B**

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

10. **USB Port A**

   This port is usually not used.

Interior

[Front view]   [Back view]

BMU004S

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**

   Pulls in sheets of paper for printing. Be sure to clean this roller if it becomes dirty.

   See p.151 "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.

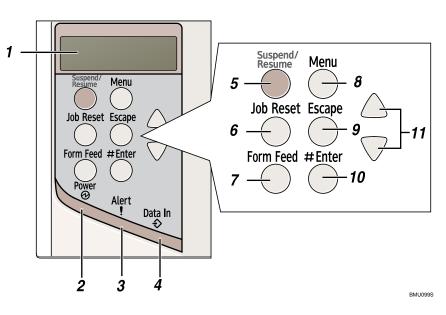8. **Fusing Unit**

   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

BMU099S

1. **Display**

   Displays error messages and the printer's current operational status.

   The display's back light turns off when the machine enters Energy Saver mode. For details about Energy Saver mode, see Software Guide.

2. **Power indicator**

   Remains lit as long as the printer is powered.

   Is unlit when the machine is in Energy Saver mode or is not powered.

3. **Alert indicator**

   Blinks or lights up whenever any printer error occur. A message describing the cause of the error also appears on the display.

4. **Data In indicator**

   Flashes when the printer is receiving data from a computer.

   Remains lit if data is about to be printed.

5. **[Suspend/Resume] key**

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

6. **[Job Reset] key**

   When the printer is online, press this to cancel any current print jobs.

   See "Canceling a Print job", Software Guide.

7. **[Form Feed] key**

   When the printer is offline, pressing this will print all the data remaining in the printer's input buffer.

1

This does not work if the printer is online.

8. **[Menu] key**

Press this to configure and check the printer's current settings.

9. **[Escape] key**

Press this to return the display to its previous state.

10. **[# Enter] key**

Press this to perform functions that are selected on the display.

Press this to clear errors.

11. **[▲] [▼] keys**

When making settings, press these increase or decrease the value of a setting.

Keep the key pressed to quicken scrolling and increase or decrease values on the display in units of 10.

Turning the Printer's Power On and Off

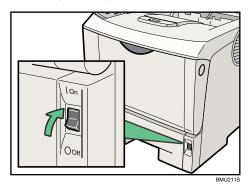This section explains the procedures for turning the printer's power on and off.

⭐ **Important**

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

Turning on the Power

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

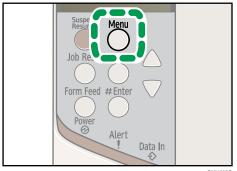1. **Turn the printer's power switch to On.**

BMU211S

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.**

BMU098S

2. **Press the [▼] or [▲] key to display [Shutdown], and then press the [# Enter] key.**

```
Menu:
  Shutdown
```

3. **Press the [# Enter] key.**

```
Shutdown
Press #
```

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

⬇ **Note**

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

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

- Before moving the machine, 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 machine, use the grips on both sides. The machine could break or cause an injury if dropped.

⭐Important

- 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 TK1030).**

   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 400).**

   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 drive (Hard Disk Drive Type 2670).**

   Install the hard disk drive to the controller board.

5. **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.

2

6. **Install the optional interface board.**

   Install an 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, Data Storage Card Type A), or the VM card (VM Card Type K).

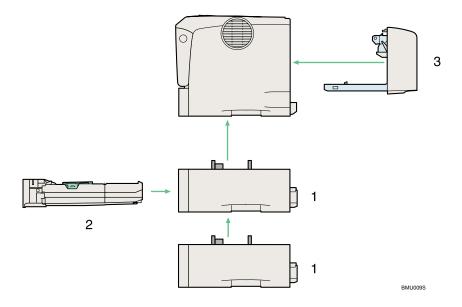   Insert these units into the SD card slot on the controller board.

8. **Attach the duplex unit. (Duplex Unit AD1000).**

   Attach the duplex unit to the rear of the printer.

Installing Options

Install options in the positions shown in the illustration.

Exterior

BMU009S

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

   You can load up to 500 sheets (60-130 g/m^2, 16-34 lb.) of plain paper into the tray.

   See p.27 "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.30 "Attaching the Envelope Feeder".

3. Duplex unit

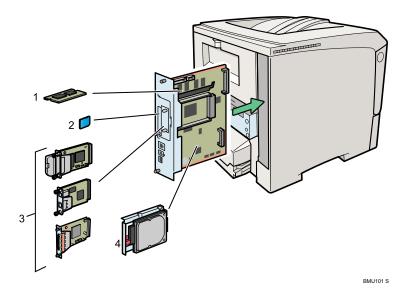You can print on both sides of paper.

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

See p.49 "Attaching the Duplex Unit".

🔽**Note**

• 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

BMU101 S

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

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

See p.32 "Installing the Memory Expansion Units".

2. Optional cards

See p.47 "Installing SD Memory Card Options".

3. Optional interface boards

See p.40 "Installing the Interface Units".

4. Hard disk drive

See p.32 "Installing the Memory Expansion Units".

💭 **Note**

- 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.

⭐ **Important**

- 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.
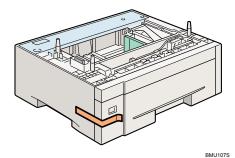
Attaching the Paper Feed Unit

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

⚠ CAUTION

- Before moving the machine, 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 about 17.5 kg (38.6 lb.). When lifting the machine, use the inset grips on both sides. Otherwise the printer could break or cause injury if dropped.
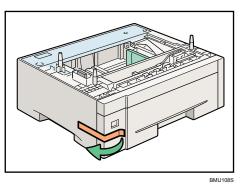
⭐ **Important**

- 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 machine to topple over.
- 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)
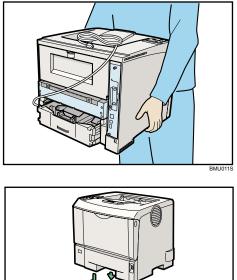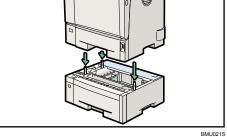

   BMU107S

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.

BMU108S

4. 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.

BMU011S

BMU021S

5. Attach the interface cable to the printer.

6. Plug the printer's power cord back into the wall outlet, and then turn on the power.

🔽 **Note**

- 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 "Paper Feed

Unit (Tray 2)" or "Paper Feed Unit (Tray 2), Paper Feed Unit (Tray 3)" for "Connection 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.
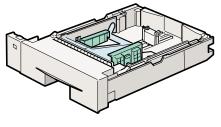
🗐 Reference

- "Printing the Test Page", Quick Installation Guide.
- p.96 "Loading Paper"
- p.157 "Adjusting Tray Registration"

Attaching the Envelope Feeder

⭐ **Important**

- Pull out only one paper tray at a time. Having multiple paper trays fully extended could cause the machine 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.
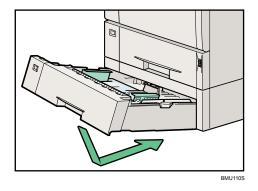
1. **Check the package contains the following:**

   Envelope Feeder

   BMU003S

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.**

   BMU109S

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

BMU110S

Note

- 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.

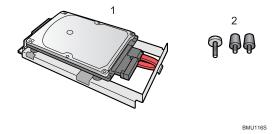**Reference**

- 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 machine malfunction or a burn.
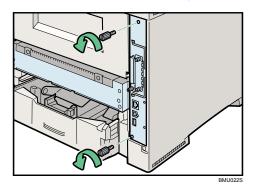
Installing the Hard Disk

⭐ **Important**

- Before touching the hard disk drive, touch something metal to discharge any static electricity. Static electricity can damage the hard disk drive.

- Do not subject the hard disk drive to physical shocks.

- Before using the new hard disk drive, be sure to make the settings in the printer driver.

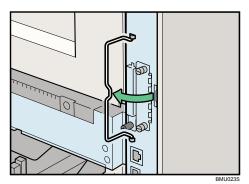1. **Check the package contains the following:**

   BMU116S

   1. **Hard disk drive**

   2. **Screws**

2. **Turn off the power of the printer, and then unplug the power cable and interface cable.**

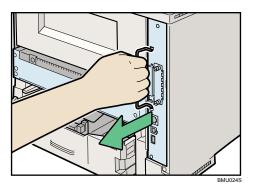3. **Remove the two screws holding the controller board in place.**

   BMU022S

The removed screws are required in fastening the controller board.
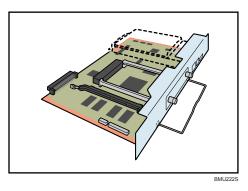
4. **Pull out the handle of the controller board.**

BMU023S

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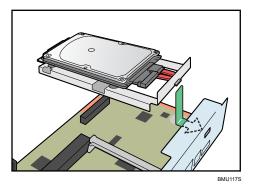

BMU024S

6. **Place the controller board on a flat surface.**

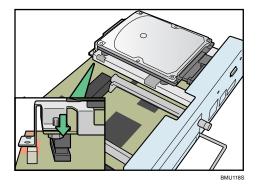The hard disk drive is installed in the slot shown in the illustration below.

BMU222S

7. **Insert the protrusion on the front end of the hard disk board into the notch on the back panel of the controller board.**
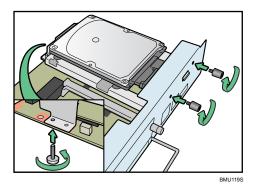
Be sure to set the hard disk board parallel with the controller board.

BMU117S

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

BMU118S
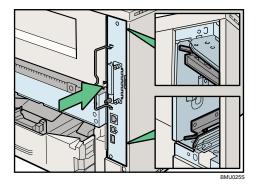
9. **Tighten the two screws by turning them clockwise with a coin, and then secure the hard disk board by tightening the third screw from the under side of the controller board.**

BMU119S

10. **To install other options on the controller board, follow the installation procedure shown in the documentation provided with the option.**
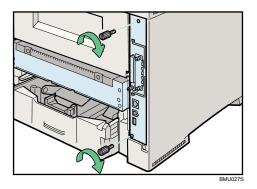
11. **Match the controller board to the top and bottom rail using the "▼" mark, and then slide it into the printer slowly until it stops.**
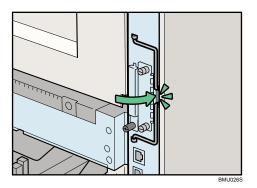

BMU025S

12. **Push the handle of the controller board until it clicks.**

BMU026S

13. **Fasten the controller board to the printer with the two screws.**

BMU027S

⬇ Note

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

- After finishing installation, you can check whether the hard disk drive is properly installed: Print the configuration page from the [List/Test Print] menu. If it is installed properly, you will see "Hard Disk Drive" for "Device Connection" on the configuration page.

- If the Hard disk drive 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

- "Printing the Test Page", Quick Installation Guide.
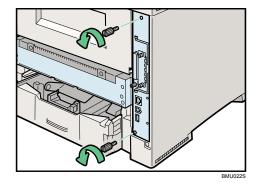
2 Installing the SDRAM Module

⭐ Important
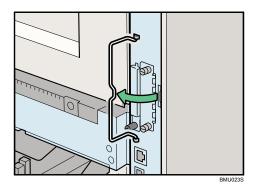
- Before touching the memory unit, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the memory unit.
- Do not subject the memory unit to physical shocks.
- The printer comes equipped with 256 MB of memory. This can be expanded to a maximum 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.**

BMU022S

The removed screws are required in fastening the controller board.
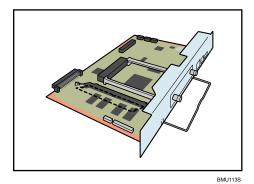
3. **Pull out the handle of the controller board.**

BMU023S
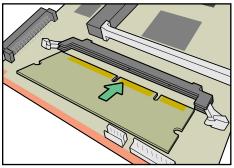
4. **Pull the handle, and then slide the controller board out.**

BMU024S

5. **Place the controller board on a flat surface.**

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

BMU113S

6. **Align the notch on the SDRAM module with the slot, and then carefully push in the SDRAM module at an angle.**

BMU114S
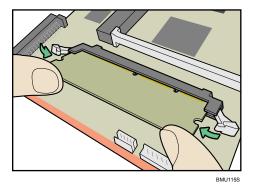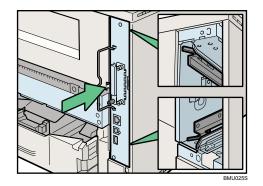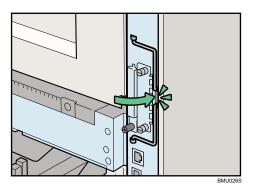
7. **Holding the SDRAM module at an angle, press it down until it clicks into place.**

BMU115S
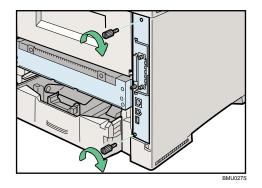
8. **Match the controller board to the top and bottom rail using the "▼" mark, and then slide it into the printer slowly until it stops.**

BMU025S

9. **Push the handle of the controller board until it clicks.**

BMU026S

10. **Fasten the controller board to the printer with the two screws.**

BMU027S

⬇ 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

- "Printing the Test Page", Quick Installation Guide.
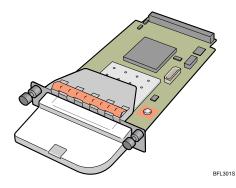
Installing the Interface Units

⚠ CAUTION

- Do not touch the inside of the controller board compartment. Doing so may cause a machine malfunction or a burn.
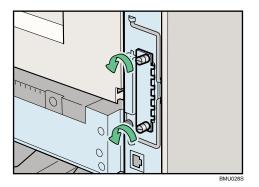
Installing the Wireless LAN Interface Unit

⭐ **Important**

- 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:**

BFL301S
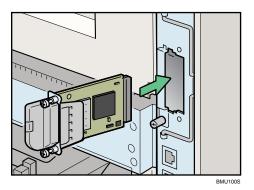
2. **Turn off the power of the printer, and then unplug the power cable and the interface cable.**

3. **Remove the two screws and the slot cover of the wireless LAN interface unit mounting bracket.**

BMU028S
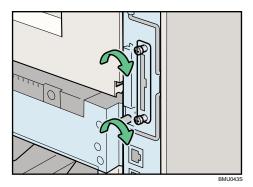
When the wireless LAN unit is installed, the slot cover is no longer required. However, we recommend you keep the cover for future use.

4. **Attach the wireless LAN interface unit.**

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

BMU100S

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

BMU043S

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

↓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
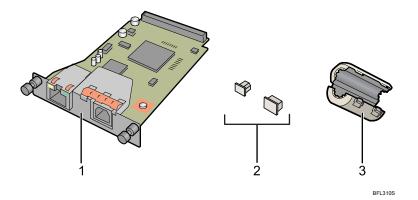
- "Printing the Test Page", Quick Installation Guide

- p.71 "Wireless LAN Configuration"
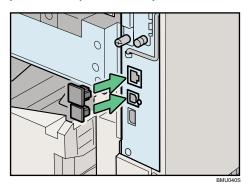
Installing the Gigabit Ethernet Board

⭐ **Important**
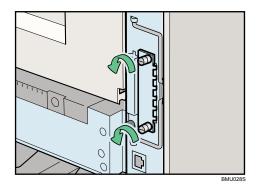
- The printer's Ethernet and USB ports are not available when the Gigabit Ethernet board is attached to the printer. Use the Ethernet and USB ports on the Gigabit Ethernet board.
- Before you begin any installation, always ground yourself by touching something metal to discharge any static electricity. 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:**

BFL310S

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.**

BMU040S
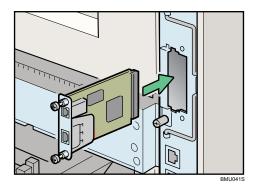
4. Remove the two screws and the slot cover of the Gigabit Ethernet board mounting bracket.

BMU028S

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.

BMU041S

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

BMU042S

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

Note

- 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
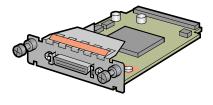
- "Printing the Test Page", Quick Installation Guide.

- p.61 "Ethernet Configuration"

Installing the IEEE 1284 Interface Board
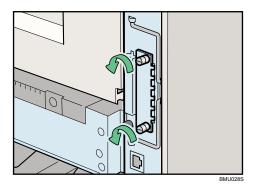
⭐ Important

- 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.**

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

BMU028S

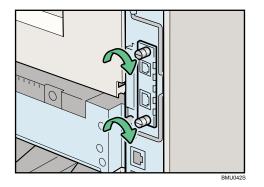When the IEEE 1284 interface board is installed, the slot cover is no longer required. However, we recommend you keep the cover for future use.
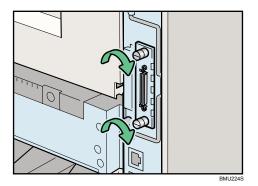
4. **Attach the IEEE 1284 interface board to the controller board.**

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

BMU223S

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.**

BMU224S

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

Note

- Confirm that the IEEE 1284 interface board was correctly installed by printing the configuration page. If it is correctly installed, "Parallel Interface" will appear for "Device Connection" on the configuration page.

- If the board was not installed properly, repeat the procedure from step **2**. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.

Reference

- "Printing the Test Page", Quick Installation Guide.
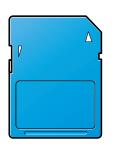
Installing SD Memory Card Options

Installing the data overwrite security unit, data storage card, or VM card.

⚠CAUTION

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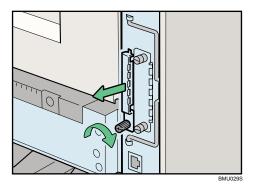
⭐Important

- Do not subject the optional cards to physical shock.

- Using the upper slot is recommended for inserting the cards.

1. **Check the package contains the following:**

BFL308S
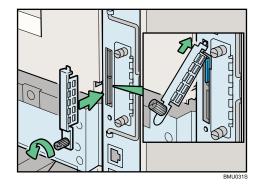
2. **Turn off the power, and then unplug the power cable.**

3. **Remove the screw and the cover of the card slot at the back of the printer.**

BMU029S

Be sure to keep a screw removed during installation.

4. **Carefully insert the optional card into the upper slot, until the card clicks into the place.**

BMU030S

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

BMU031S

� **Note**
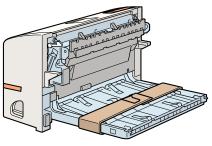
- Do not touch the card while the printer is in use. It may come loose, even if pushed only slightly. The slot cover must be reattached.

- 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 "Printing the Test Page", Quick Installation Guide.

Attaching the Duplex Unit

⭐ **Important**
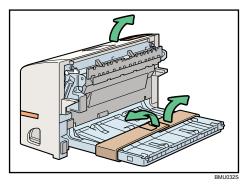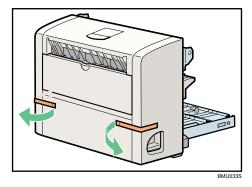
- If you attach the duplex unit and the paper feed unit, the paper feed unit must be attached prior to attaching the duplex unit.

- Check the printer nameplate to confirm the model code.

1. **Check the contents of the box for the following items:**
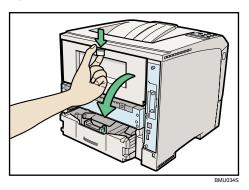
BMU002S

2. **Turn off the power of the printer, and then unplug the power cable.**

3. **Remove the adhesive tape and paper.**

BMU032S

BMU033S
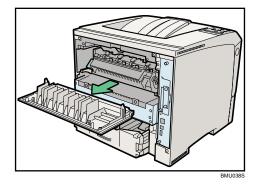
4. **Open the rear cover.**

BMU034S
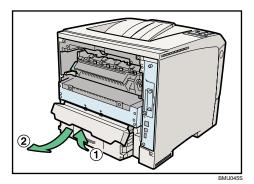
5. **Lower the rear cover until it is horizontal, and then pull it away.**

BMU038S

Proceed to step 7 if the paper tray cover is not installed.
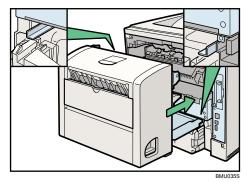
6. **Pull the bottom of the paper tray cover (①) up slightly, and then remove the paper tray cover (②), in the order shown in the illustration.**

BMU045S
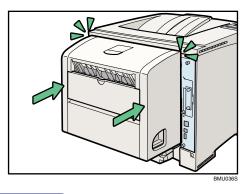
7. **Push in the duplex unit along the rails at the back of the printer.**

BMU035S

8. **Push the duplex unit securely into the printer.**

BMU036S

🔻**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 "Connection 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.

🔖**Reference**

- "Printing the Test Page", Quick Installation Guide.
- p.157 "Adjusting Tray Registration"

2

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.

⚠CAUTION

- 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.
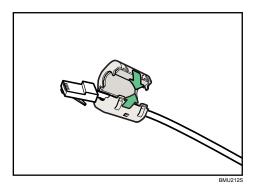
⭐Important

- 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

1. **Attach the supplied ferrite core at the printer end of the Ethernet cable.**

   220-240V

   BMU212S
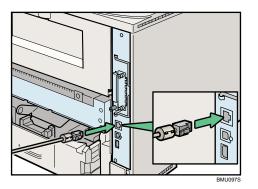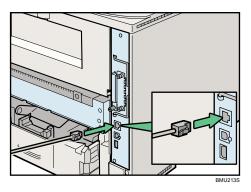
   120V

No attach the ferrite core.

2. **Connect the Ethernet cable to the Ethernet port.**

220-240V

BMU097S

120V

BMU213S
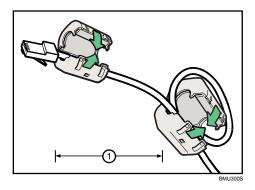
3. **Connect the other end of the cable to the network, such as a hub.**

Connecting to the Ethernet port of the Gigabit Ethernet board

1. **Attach the ferrite core at the Gigabit Ethernet cable.**

220-240V
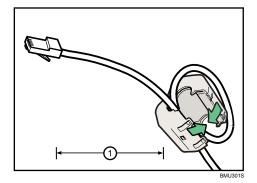
Attach one ferrite core at the printer end of the Ethernet cable, and attach the other ferrite core about 10 cm (4 inches) (①) from this core making a loop as shown.
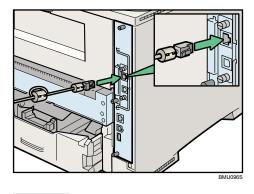
BMU300S

120V

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

BMU301S
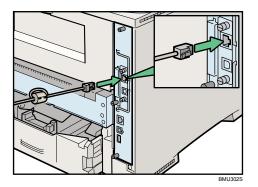
2. **Connect the Ethernet cable to the Gigabit Ethernet board.**

220-240V

BMU096S

120V

3

BMU302S

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

🔸Note

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

🄱Reference

- "Network Connection", Software Guide.

- p.40 "Installing the Interface Units"

Reading the LED Lamps
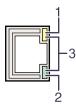
For the standard Ethernet port

BMU214S

1. Yellow: comes on when 100BASE-TX is being used. It comes off when 10BASE-T is being used.

2. Green: comes on when the printer is properly connected to the network.

For the Gigabit Ethernet board

BMU215S

1. Yellow: comes on 100BASE-TX is being used.

2. Green: comes on when 10BASE-T is being used.

3. Green and yellow lamps come on when 1000BASE-T is being used.
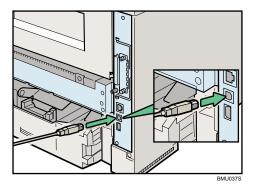
USB Cable Connection

⚠ 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.

⭐ **Important**
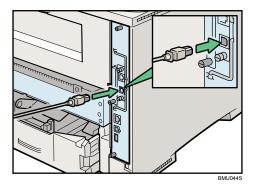
- USB connection is possible under Windows 2000/XP/Vista, Windows Server 2003/2003 R2/2008, Mac OS 9.x, and Mac OS X 10.3.3 or later.

- 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.

   BMU037S

   - 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.

BMU044S

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.40 "Installing the Interface Units"
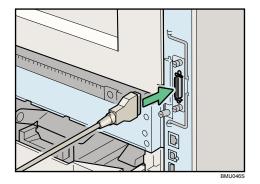
Parallel Cable Connection

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

⚠️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.

⭐ **Important**

- **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.**

BMU046S

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.

⬇️ **Note**

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

📄 **Reference**

- "Printing with Parallel Connection", Software Guide.

- p.40 "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 interface you are using.

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

⭐ **Important**

- Configure the printer for the network using the control panel.

- The following table shows the control panel settings and their default values. These items appear in the [Host Interface] menu.

Setting Name	Value
IPv4 Settings	• DHCP: On • IPv4 Address: 11.22.33.44 • Subnet Mask: 0.0.0.0 • Gateway Address: 0.0.0.0
IPv6 Settings	Stateless Sett.: Active
IPsec	Not Active
Frame Type (NW)	Auto Select
Active Protocol	• IPv4: Active • IPv6: Not Active • NetWare: Active • SMB: Active • AppleTalk: Active
Ethernet Speed	Auto Select
IEEE802.1X Auth	Not Active
LAN Type	Ethernet

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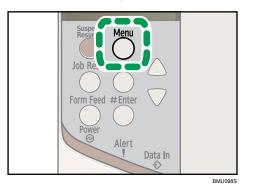
- If DHCP is in use on your network, the IP address, subnet mask, and gateway address are all set automatically.

- The menu items displayed on the control panel may differ depending on the optional unit installed.

- Make this setting only when it is necessary. See Software Guide.

Specifying an IP Address (No DHCP)

Follow this procedure to assign a specific IP address to the printer. This is only necessary when you will use the printer on a network without DHCP, or want to prevent the printer's IP address from changing.
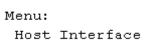
Before beginning, make sure that you know the IP address, subnet mask and gateway address that the printer will use.

1. **Press the [Menu] key.**

   BMU098S

   The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Host Interface], and then press the [# Enter] key.**

   ```
   Menu:
     Host Interface
   ```

3. **Press the [▲] or [▼] key to display [Network Setup], and then press the [# Enter] key.**

   ```
   Host Interface:
     Network Setup
   ```

4. **Press the [▲] or [▼] key to display [Active Protocol], and then press the [# Enter] key.**

   ```
   Network Setup:
     Active Protocol
   ```

5. Press the [▲] or [▼] key to set the network protocol, and then press the [# Enter] key.

```
Active Protocol:
  IPv4
```

6. Press the [▲] or [▼] key to display [Active] or [Not Active], and then press the [# Enter] key.

```
IPv4:
*Active
```

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

- Select [Not Active] 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 Setup] menu.

```
Network Setup:
  Active Protocol
```

8. If you use IPv4, assign the IPv4 address to the printer. Press the [▲] or [▼] key to display [IPv4 Settings], and then press the [# Enter] key.

```
Network Setup:
  IPv4 Settings
```

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

9. To specify the IP Address, Press the [▲] or [▼] key to display [IPv4 Address], and then press the [# Enter] key.

```
IPv4 Settings:
  IPv4 Address
```

If you use IPv4, also assign subnet mask and gateway address.

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

```
IPv4 Address:
  192.  0.  0.  0
```

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

Do not set "11.22.33.44" as the IP address.

11. **If you are using the printer on an IPv4 network, specify the subnet mask and gateway address in the same way as you assigned the IPv4 address.**

    Press the [▲] or [▼] key to select [Subnet Mask] or [Gateway Address], and then press the [# Enter] key.

12. **Press the [Menu] key.**

    The initial screen appears.

13. **Print a configuration page to confirm the settings made.**

🔲 Reference
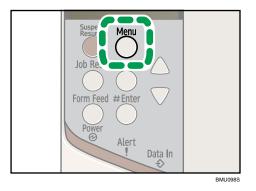
- "Printing the Test Page", Quick Installation Guide.

Receiving an IP Address Automatically (DHCP)

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

⭐ Important

- When [DHCP] is selected, you cannot configure settings for the following items:
  - IPv4 Address
  - Subnet Mask
  - Gateway Address
- Consult your network administrator for information about making network settings.

1. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Host Interface], and then press the [# Enter] key.**

```
Menu:
  Host Interface
```

3. Press the [▲] or [▼] key to display [Network Setup], and then press the [# Enter] key.

```
Host Interface:
  Network Setup
```

4. Press the [▲] or [▼] key to display [IPv4 Settings], and then press the [# Enter] key.

```
Network Setup:
  IPv4 Settings
```

5. Press the [▲] or [▼] key to display [DHCP], and then press the [# Enter] key.

```
IPv4 Settings:
  DHCP
```

6. Press the [▲] or [▼] key to select [On] or [Off], and then press the [# Enter] key.

```
DHCP:
 *On
```

The address will be automatically assigned to the printer.

The default setting is [On].

7. Press the [Menu] key.

The initial screen appears.

8. Print a configuration page to confirm the settings made.

🖹 Reference

• "Printing the Test Page", Quick Installation Guide.

Configuring Network Settings When Using NetWare
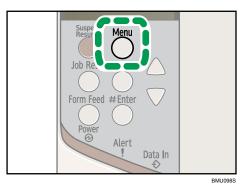
If you use NetWare, select the frame type for NetWare.

Select one of the items below if necessary.

• Auto Select (Default)

• Ethernet II

• Ethernet 802.2

• Ethernet 802.3

• Ethernet SNAP

⭐ **Important**

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

- To use NetWare, the optional NetWare card must be installed.

1. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Host Interface], and then press the [# Enter] key.**

```
Menu:
  Host Interface
```

3. **Press the [▲] or [▼] key to display [Network Setup], and then press the [# Enter] key.**

```
Host Interface:
  Network Setup
```

4. **Press the [▲] or [▼] key to display [Frame Type (NW)], and then press the [# Enter] key.**

```
Network Setup:
  Frame Type (NW)
```

5. **Press the [▲] or [▼] key to select the frame type, and then press the [# Enter] key.**

```
Frame Type (NW):
  *Auto Select
```

6. **Press the [Menu] key.**

The initial screen appears.

7. **Print a configuration page to confirm the settings made.**

- "Printing the Test Page", Quick Installation Guide.

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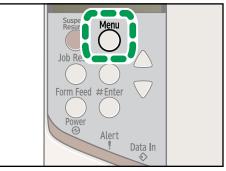
You can set the speed that the printer will use for Ethernet communications. In most cases, this should be left on the default setting, [Auto Select]. This setting allows two interfaces to automatically determine the optimum speed when they are connected.

Router/HUB	Printer				
	10Mbps Half D.	10Mbps Full D.	100Mbps Half D.	100Mbps Full D.	Auto Select
10 Mbps half duplex	○	-	-	-	○
10 Mbps full duplex	-	○	-	-	-
100 Mbps half duplex	-	-	○	-	○
100 Mbps full duplex	-	-	-	○	-
auto-negotiation (auto selection)	○	-	○	-	○

⭐ **Important**

- 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].

1. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Host Interface], and then press the [# Enter] key.**

```
Menu:
  Host Interface
```

3. **Press the [▲] or [▼] key to display [Network Setup], and then press the [# Enter] key.**

```
Host Interface:
  Network Setup
```

4. **Press the [▲] or [▼] key to display [Ethernet Speed], and then press the [# Enter] key.**

```
Network Setup:
  Ethernet Speed
```

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

```
Ethernet Speed:
 *Auto Select
```

6. **Press the [Menu] key.**

The initial screen appears.

7. **Print a configuration page to confirm the settings made.**

🔽 **Note**

- If Ethernet and wireless LAN are both connected, select which interface you want to use under [LAN Type].
- For details about printing the configuration page, see "Printing the Test Page", Quick Installation Guide.

Reference
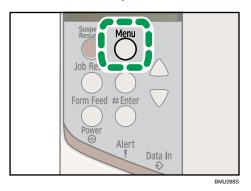
• "Printing the Test Page", Quick Installation Guide.

Enabling IEEE 802.1X Authentication

Follow this procedure to enable IEEE 802.1X Authentication.

Important

• To use IEEE 802.1X Authentication, connect this machine to an authentication enabled port. If you do not, the authentication will fail.

1. **Press the [Menu] key.**
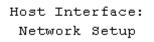
BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Host Interface], and then press the [# Enter] key.**
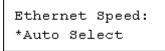
```
Menu:
  Host Interface
```

3. **Press the [▲] or [▼] key to display [Network Setup], and then press the [# Enter] key.**

```
Host Interface:
  Network Setup
```

4. **Press the [▲] or [▼] key to display [IEEE802.1X Auth], and then press the [# Enter] key.**

```
Network Setup:
  IEEE802.1X Auth
```

5. **Press the [▲] or [▼] key to display [Active], and then press the [# Enter] key.**

```
IEEE802.1X Auth:
*Active
```

6. **Press the [Menu] key.**

   The initial screen appears.

7. **Print a configuration page to confirm the settings made.**

⬇ **Note**

- If Ethernet and wireless LAN are both connected, select which interface you want to use under [LAN Type].

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

▤ **Reference**

- "Printing the Test Page", Quick Installation Guide.
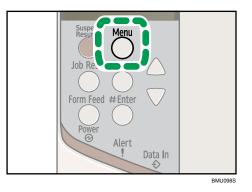
Wireless LAN Configuration

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

Setting Name	Default Value
Comm. Mode	802.11 Ad hoc
Ad-hoc Channel	11
SSID	blank
Security Method	None

4

⭐ **Important**

- Ethernet and wireless LAN cannot be used at the same time.
- To use wireless LAN, set as the followings using the control panel: press the [Menu] key, and then select [Host Interface], [Network Setup], [LAN Type], and then [Wireless LAN]. Also, set the IPv4 Address, Subnet Mask, Gateway Address, DHCP, Frame Type (NW), and Active Protocol under the [Network Setup] menu. For details about setting items, see p.61 "Ethernet Configuration".
- The wireless LAN interface unit cannot be used simultaneously with a standard Ethernet interface.
- The optional wireless LAN interface unit supports 802.11 Ad hoc and Infrastructure modes. Select [802.11 Ad hoc] or [Infrastructure] for [Comm.Mode].

1. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Host Interface], and then press the [# Enter] key.**

```
Menu:
  Host Interface
```

3. **Press the [▲] or [▼] key to display [Wireless LAN], and then press the [# Enter] key.**

```
Host Interface:
  Wireless LAN
```

4. **Press the [▲] or [▼] key to display [Comm. Mode], and then press the [# Enter] key.**

```
Wireless LAN:
  Comm. Mode
```

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

```
Comm. Mode:
*802.11 Ad hoc
```

The factory default is [802.11 Ad hoc].

The transmission mode of wireless LAN can also be set using a Web browser. For details, see Web browser, and "Configuring the Network Interface Board", Software Guide.

6. **If [802.11 Ad hoc] is selected for [Comm. Mode], set the channel to use for transmission.**

Confirm the network administrator for the channel to use.

7. **In the [Wireless LAN] menu, press the [▲] or [▼] key to display [Ad-hoc Channel], and then press the [# Enter] key.**

```
Wireless LAN:
  Ad-hoc Channel
```

8. **Press the [▲] or [▼] key to set the channel, and then press the [# Enter] key.**

```
Ad-hoc Channel:
11
```

9. **Print a configuration page to confirm the settings made.**

🗐 Reference

• "Printing the Test Page", Quick Installation Guide.

Setting the SSID

To use wireless LAN, set SSID for transmission. Consult your network administrator for the SSID to use.

When [Comm. Mode] is set to [Infrastructure] or [Ad hoc], 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.

1. **In the [Wireless LAN] menu, press the [▲] or [▼] key to display [SSID], and then press the [# Enter] key.**

```
Wireless LAN:
 SSID
```

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

2. **Press the [▲] or [▼] key to display [Enter ID], and then press the [# Enter] key.**

```
SSID:
 Enter ID
```

3. **Press the [▲] or [▼] key to enter characters, and then press the [# Enter] key.**

```
SSID: [3]
 AIR
```

The number of characters you have entered is displayed on the top right of the screen.

The characters that can be used are ASCII 0x20-0x7e (32 bytes), 16 digits.

4. **Print a configuration page to confirm the settings made.**

⬇ Note

- The SSID can also be set using a Web browser. For details, see the Web Image Monitor Help, and "Configuring the Network Interface Board", Software Guide.

- WEP key can also be set using a Web browser. For details, see Web Image Monitor Help.

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

🗐 Reference

- "Configuring the Network Interface Board", Software Guide

- "Printing the Test Page", Quick Installation Guide

- Web Image Monitor Help

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
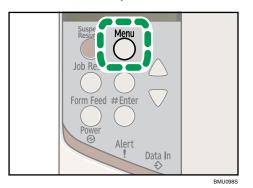
Setting a WEP key

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.

⭐ **Important**

- • **When activating the WEP Setting, you must enter the WEP key.**

1. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Host Interface], and then press the [# Enter] key.**

```
Menu:
  Host Interface
```

3. **Press the [▲] or [▼] key to display [Wireless LAN], and then press the [# Enter] key.**

```
Host Interface:
  Wireless LAN
```

4. **Press the [▲] or [▼] key to display [Security Method], and then press the [# Enter] key.**

```
Wireless LAN:
  Security Method
```

5. **Press the [▲] or [▼] key to display [WEP], and then press the [# Enter] key.**

   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.

   ```
   Security Method:
   *WEP
   ```

6. **Press the [▲] or [▼] key to select [Change (HEX)] or [Change (ASCII)], and then press the [# Enter] key.**

   ```
   WEP Key:
     Change(HEX)
   ```

7. **Press the [▲] or [▼] key to enter the characters, and then press the [# Enter] key.**

   ```
   WEP Key:[26]
   ***********3
   ```

   When entering a character, pressing the [# Enter] key will mask it with an asterisk for security reasons.

   When using 64 bit WEP, up to 10 characters can be used for hexadecimal and up to five characters for ASCII. When using 128 bit WEP, up to 26 characters can be used for hexadecimal and up to 13 characters for ASCII.

   The number of characters that can be entered is limited to 10 or 26 for hexadecimal and 5 or 13 for ASCII.

   For ASCII character strings, each uppercase and lowercase letter is recognized respectively.

8. **Press the [Menu] key.**

   The initial screen appears.

9. **Print a configuration page to confirm the settings made.**

⬇ **Note**

- In the case of using a WEP key on a network, activate the WEP setting to be used for communication along with WEP.
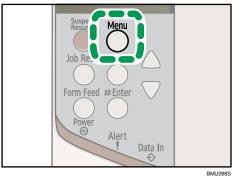- Confirm the network administrator for the WEP Key to use.

📄 **Reference**

- "Printing the Test Page", Quick Installation Guide.
- Web Image Monitor Help

Setting WPA

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

⭐ **Important**

- **For setting WPA, installing the optional HDD or the optional data storage card is required.**

1. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Host Interface], and then press the [# Enter] key.**

```
Menu:
  Host Interface
```

3. **Press the [▲] or [▼] key to display [Wireless LAN], and then press the [# Enter] key.**

```
Host Interface:
  Wireless LAN
```

4. **Press the [▲] or [▼] key to display [Security Method], and then press the [# Enter] key.**

```
Wireless LAN:
  Security Method
```

5. **Press the [▲] or [▼] key to display [WPA], and then press the [# Enter] key.**

```
Security Method:
*WPA
```

6. Press the [▲] or [▼] key to display [Encrypt. Meth.], and then press the [# Enter] key.

```
WPA:
  Encript. Meth.
```

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

```
Encrypt. Meth.:
*TKIP
```

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 display [Authent. Meth.], and then press the [# Enter] key.

```
WPA:
  Authent. Meth.
```

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

```
Authent. Meth.
*WPA-PSK
```

Authentication settings are as follows:

• WPA-PSK

Performs authentication using an encryption key (a Pre-Shared Key) that is shared by the access point and client. Enter the Pre-Shared Key using between 8 and 63 ASCII characters. Select [PSK Entry] using the [▼] or [▲] key in the [WPA] menu, and then enter the characters.

• WPA

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

• WPA2-PSK

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

- WPA2

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

  Wait for 2 seconds, the display returns to the [WPA] menu.

10. **Press the [Menu] key.**

    The initial screen appears.

11. **Print a configuration page to confirm the settings made.**

Reference

- "Printing the Test Page", Quick Installation Guide

Configuring IEEE 802.1X

IEEE 802.1X can be configured using Web Image Monitor's administrator mode.

You can select four types of EAP authentication method: EAP-TLS, LEAP, EAPTTLS and PEAP. Note that each EAP authentication method has different configuration settings and authentication procedures.

Types and requirements of certificates are as follows:

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

EAP Types Requiring a "Site Certificate"

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

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

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

⭐ Important

- To set IEEE 802.1X, you must enable SSL.

- To set IEEE 802.1X, you must use Web Image Monitor.

Installing a Site Certificate

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

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

2. **Log on to Web Image Monitor in the administrator mode.**

3. **Click [Configuration].**

4. **Click [Site Certificate] in the "Security" area.**

5. **Click [Browse] on the "Site Certificate to Import" window, and then select the CA certificate you obtained.**

6. **Click [Import].**

7. **Check that the imported certificate's [Status] shows "Trustworthy".**

    If [Site Certificate Check] shows [Active], and the [Status] of the certificate shows [Untrustworthy], communication might not be possible.

8. **Click [OK].**

9. **Click [Logout].**

10. **Quit the Web Image Monitor.**

Installing Device Certificate

1. **Log on to Web Image Monitor in the administrator mode.**

2. **Click [Configuration].**

3. **Click [Device Certificate] in "Security" area.**

4. **Click [Certificate 2] on the "Device Certificate" window, and then click [Request].**

5. **Enter appropriate "Common Name" and "Country Code" on "Certificate Information" page, and then click [OK].**

6. **"Updating..." appears. Wait for about 2 minutes, and then click [OK].**

7. **Click [Details], shown in the "Device Certificate" window as the memo pad icon for "Requesting".**

8. **Select all, and then copy the entire "Text for Requested Certificate" text that is displayed in the "Certificate Status" window.**

9. **Access the certificate authority server, and then obtain the CA signified certificate using the text copied into "Text for Requested Certificate" windows.**

   Obtaining the certificate differs depending on the environment you want to use.

10. **Click [Certificate 2] on "Device Certificate" window, and then click [Install].**

11. **Using a text editor, open the CA signified certificate downloaded in step 11, and then copy over all the text.**

12. **In the [Install Certificate] window, paste all the text copied into the CA signified certificate.**

13. **Click [OK].**

14. **"Updating..." appears. Wait for about one or two minutes, and then click [OK].**

15. **Check that the "Device Certificate" shows "Installed".**

16. **Click [Certificate 2] on "Certification", and then click [OK].**

17. **Click [Logout].**

18. **Quit Web Image Monitor.**

⊍ Note

- If you request two certificates simultaneously, the certificate authority might not display either certificate. Click [Cancel Request] to cancel the request.

- You can select [Certificate 1-4] in the "Device Certificate" window. Note that if you select [Certificate 1] in the "Device Certificate" window, you must select "Certificate 1" in the "IEEE 802.1X (WPA/WPA2)" drop down menu in the "Certification" window.

- Click [Cancel Request] to cancel the request for the server certificate.

- If "Not found" appears after clicking [OK] in steps 6 and 14, wait one or two minutes, and then click [Refresh].

Setting Items of IEEE 802.1X for Ethernet

1. **Log on to Web Image Monitor in the administrator mode.**

2. **Click [Configuration].**

3. **Select [IEEE 802.1X (WPA/WPA2)] in "Security" area.**

4. **In "User Name", enter the user name set in the RADIUS server.**

5. **Enter the domain name in "Domain Name".**

6. **Select "EAP Type". Configurations differ according to the EAP Type.**

   EAP-TLS

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

   LEAP

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

   EAP-TTLS

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

   PEAP

   - Click [Change] in "Password", and then enter the password set in the RADIUS server.
   - Click [Change] on "Phase 2 User Name", and then enter the user name set in the RADIUS server.
   - Select [MSCHAPv2] or [TLS] in "Phase 2 Method".
   - When you select [TLS], you must install "IEEE 802.1X Client Certificate".
   - Make the following settings according to the operating system you are using:
     - Select [On] or [Off] in "Authenticate Server Certificate".
     - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
     - Enter the host name of the RADIUS server on "Server ID".

7. **Click [OK].**

8. **Click [Configuration], and then click [Interface Settings] in the "Interface" area.**

9. **Select [Active] in "Ethernet Security".**

10. **Click [OK].**

11. **Click [Logout].**

12. **Quit the Web Image Monitor.**

⬇ Note

- If there is a problem with settings, you might not be able to communicate with the printer. To identify the problem, print a network summary.

- If you cannot identify the problem, reset the printer interface to normal, and then repeat the procedure from the beginning.

Setting Items of IEEE 802.1X for Wireless LAN

1. **Log on to Web Image Monitor in the administrator mode.**

2. **Click [Configuration].**

3. **Select [IEEE 802.1X (WPA/WPA2)] in "Security" area.**

4. **In "User Name", enter the user name set in the RADIUS server.**

5. **Enter the domain name in "Domain Name".**

6. **Select "EAP Type". Configurations differ according to the EAP Type.**

   EAP-TLS

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

   LEAP

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

   EAP-TTLS

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

- Select [On] or [Off] in "Trust Intermediate Certificate Authority".

- Enter the host name of the RADIUS server in "Server ID".

PEAP

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

- Click [Change] on "Phase 2 User Name", and then enter the user name set in the RADIUS server.

- Select [MSCHAPv2] or [TLS] in "Phase 2 Method".

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

- Make the following settings according to the operating system you are using:

  - Select [On] or [Off] in "Authenticate Server Certificate".

  - Select [On] or [Off] in "Trust Intermediate Certificate Authority".

  - Enter the host name of the RADIUS server on "Server ID".

7. **Click [OK].**

8. **Click [Configuration], and then click [Wireless LAN Settings] in the "Interface" area.**

9. **Select [Wireless LAN] in "LAN Type".**

10. **Select [Infrastructure Mode] in "Communication Mode".**

11. **Enter the alphanumeric characters (a-z, A-Z, or 0-9) in [SSID] according to the access point you want to use.**

12. **Select [WPA] in "Security Method".**

13. **Select [TKIP] or [CCMP (AES)] in "WPA Encryption Method" according to the access point you want to use.**

14. **Select [WPA] or [WPA2] in "WPA Authentication Method".**

15. **Click [OK].**

16. **Click [Logout].**

17. **Quit the Web Image Monitor.**

🡇 Note

- If there is a problem with settings, you might not be able to communicate with the printer. To identify the problem, print a network summary.

- If you cannot identify the problem, reset the printer interface to normal, and then repeat the procedure from the beginning.

5. Paper and Other Media

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

Supported Paper for Each Tray

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

🔽**Note**

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

In this manual	On the display	Paper feed direction
▯↑ (Feed direction)	A5 (148×210) 5 1/2 × 8 1/2	Short-edge feed direction
▭↑ (Feed direction)	A5 (210×148) 8 1/2 × 5 1/2	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
A4▯, B5 JIS▯, A5▯, $8^1/_2$ × 14(Legal)▯, $8^1/_2$ × 11(Letter)▯, $5^1/_2$ × $8^1/_2$▯

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.

Metric version / Inch version
A5▭, $5^1/_2$ × $8^1/_2$▭, $8^1/_4$ × 13(Folio)▯, $8^1/_2$ × 13(Foolscap)▯, 8 × 13(F/GL)▯, 7.68 × $10^1/_2$(16K)▯

Tray 1 supports custom size paper, approximately 139.7 - 216 mm (5.5 - 8.5 inches) in width, and 139.7 - 356 mm (5.5 - 14.01 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)

Metric version / Inch version
A4□, B5 JIS□, A5□, $8^1/_2$ × 14(Legal)□, $8^1/_2$ × 11(Letter)□, $5^1/_2$ × $8^1/_2$□

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.

Metric version / Inch version
$7^1/_4$ × $10^1/_2$(Executive)□, $8^1/_4$ × 13(Folio)□, $8^1/_2$ × 13(Foolscap)□, 8 × 13(F/GL)□, 7.68 × $10^1/_2$(16K)□

Tray 2/3 supports custom size paper, approximately 139.7 - 216 mm (5.5 - 8.5 inches) in width, and 160 - 356 mm (6.3 - 14.01 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.

Metric version / Inch version
A4□, B5 JIS□, A5□□, A6□, $8^1/_2$ × 14(Legal)□, $8^1/_2$ × 11(Letter)□, $5^1/_2$ × $8^1/_2$□□, $7^1/_4$ × $10^1/_2$(Executive)□, $8^1/_4$ × 13(Folio)□, $8^1/_2$ × 13(Foolscap)□, 8 × 13(F/GL)□, Com#10 Env □, C5 Env□, C6 Env□, DL Env□, Monarch Env□, 7.68 × $10^1/_2$(16K)□

Bypass Tray supports custom size paper, approximately 64 - 216 mm (2.52 - 8.5 inches) in width, and 139.7 - 432 mm (5.5 - 17 inches) in length. Set as custom size using the printer driver.

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

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.

Metric version / Inch version
Com#10 Env□, C5 Env□, C6 Env□, DL Env□, Monarch Env□.

Paper Weight and Number of Sheets to Be Set

	Supported paper weight	Maximum number of sheets (plain paper)
Tray 1	60 - 130 g/m^2 (16 - 34 lb.)	500 (80 g/m^2, 20 lb.)
Bypass Tray	60 - 162 g/m^2 (16 - 43 lb.)	100 (80 g/m^2, 20 lb.) For other kind of papers, see p.88 "Types of Paper and Other Media".
Paper Feed Unit (Tray 2, Tray 3)	60 - 130 g/m^2 (16 - 34 lb.)	500 (80 g/m^2, 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
A4▽, B5 JIS▽, A5▽▷, 8^1/$_2$ × 14(Legal)▽, 8^1/$_2$ × 11(Letter)▽, 5^1/$_2$ × 8^1/$_2$▽▷, 8 × 13(F/GL)▽, 8^1/$_2$ × 13(Foolscap)▽, 8^1/$_4$ × 13(Folio)▽, 7.68 × 10^1/$_2$ (16K)▽

⬇Note

- 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".

5

Paper Recommendations

Loading Paper

⭐ Important

- 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 over 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 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 - 130 g/m^2 (16 - 34 lb.)
Printer setup	Make the following settings using the control panel: • Press the [Menu] key, select [Paper Input], and then select [Plain Paper] for the selected tray's paper type.

Printer driver setup	Click [Plain] 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 settings using the control panel: • Press the [Menu] key, select [Paper Input], and then select [Letterhead] for the selected tray's paper type.
Printer driver setup	Click [Letterhead] in the "Paper type:" list.
Both-sided printing	Possible

Thick Paper

Paper thickness	130 - 162 g/m^2 (8 - 43 lb.)
Printer setup	Make the following settings using the control panel: • Press the [Menu] key, select [Paper Input], and then select [Thick Paper] for the selected tray's paper type.
Printer driver setup	Click [Thick] 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.

5

Both-sided printing	Not possible
Additional cautions	Print speed is slightly slower than when using plain paper.

OHP transparencies

Printer setup	Make the following settings using the control panel: • Press the [Menu] key, select [Paper Input], and then select [Transparency] for the bypass tray's paper type.
Printer driver setup	Click [OHP 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
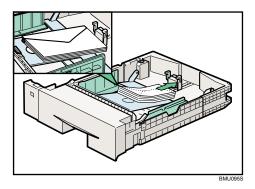
Printer setup	Make the following settings using the control panel: • Press the [Menu] key, select [Paper Input], and then select [Thick Paper] for the selected tray's paper type. • Paper type settings made using the printer driver have priority over paper type settings made using the control panel settings.

Printer driver setup	Click [Thick] 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 envelope lever, see p.179 "Using the Envelope Lever".
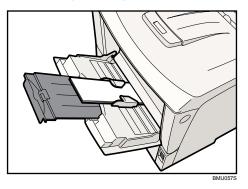
Note

• 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 "Misc." tab.

BMU095S

- 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 a printer driver, select the [Rotate by 180 degrees] check box on the "Misc." tab.

BMU057S

Paper Not Supported by this Printer

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

- Paper meant for an ink-jet printer
- 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
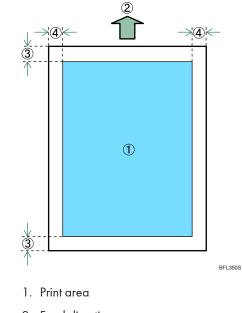
⊕ Note

- 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

BFL350S

1. Print area
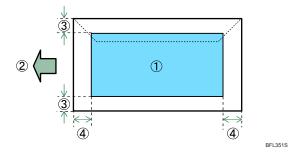
2. Feed direction

3. Approx. 4.2 mm (0.18 inches)

4. Approx. 4.2 mm (0.18 inches)

🔸**Note**

• 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)

Note

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

5

Loading Paper

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

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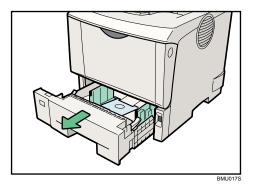
> • Do not pull out the paper tray forcefully. If you do, the tray might fall and cause an injury.

Loading Paper in Tray 1 and the Optional Paper Feed Unit
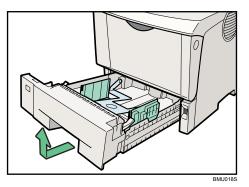
The following example explains loading procedure for the standard paper tray (Tray 1). The same procedure can be used for the optional paper feed unit.

⭐Important
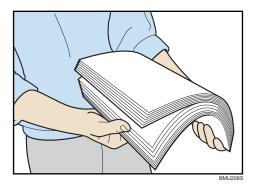
- Make sure paper is not stacked above the limit mark inside the tray. Misfeeds might occur.
- Do not put different types of paper in a single paper tray.
- Up to 500 sheets of paper can be loaded in the paper feed unit. This means a maximum of 1,500 sheets can be simultaneously loaded when two additional 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.**

BMU017S

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

BMU018S
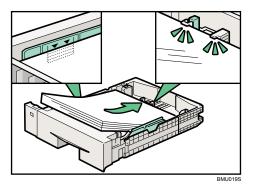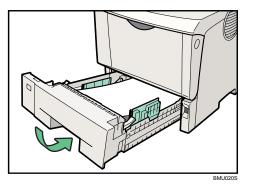
3. **Fan the paper before loading paper in the paper tray.**

BMU208S

4. **Load paper into the tray with the print side down.**

BMU019S

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

BMU020S

Reference

• p.85 "Supported Paper for Each Tray"
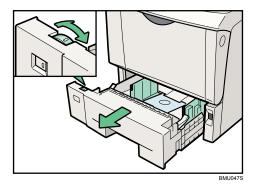
Changing the paper size

Important
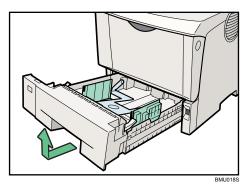
• Confirm that the setting of the paper size dial matches the paper size and feed direction of the paper in the tray, otherwise the printer might be damaged, or printing problems might occur.

• If you want to use the paper size and feed direction that are not indicated on the paper size dial, set the dial to "✳". 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.
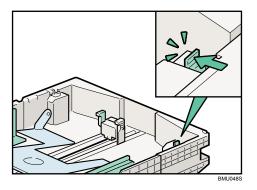
1. **Lift the paper tray slightly, and then pull it out until it stops. Adjust the paper size dial to match the size and feed direction of paper in the paper tray.**

BMU047S

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

BMU018S
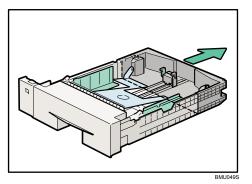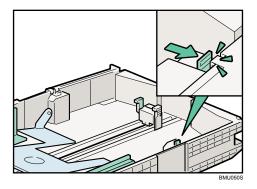
3. **If you load paper larger than A4⊞, you should extend the tray as follows:**

4. **Slide the catches inwards to unlock the tray.**

BMU048S

5
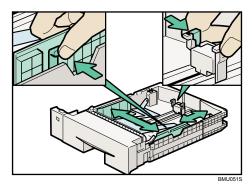
5. **Slide the tray until it stops.**

BMU049S

6. **Return the catches to their original positions.**

BMU050S
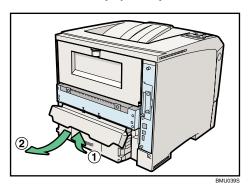
7. **Adjust the rear and side guides to the paper size you want to load.**

BMU051S
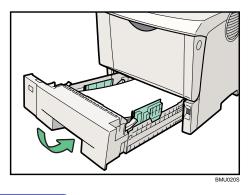
8. **Load paper into the tray with the print side down.**

BMU019S

9. **If you extend the tray in Step 3, pull the bottom of the paper tray cover (①) up slowly, and then remove the paper tray cover (②), in the order shown in the illustration.**

BMU039S

10. **Lift the front side of the tray, and then place it into the printer. Carefully slide it into the printer until it stops.**

BMU020S
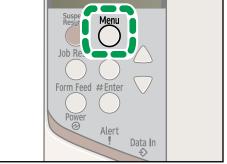
🔽 **Note**

• You cannot load paper smaller than A4▽, if the tray is extended. In this case, return the tray to its standard length.

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.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

```
Menu:
  Paper Input
```

3. **Press the [▲] or [▼] key to display [Tray Paper Size], and then press the [# Enter] key.**

4. **Press the [▲] or [▼] key to display the target paper tray, and then press the [# Enter] key.**

```
Tray Paper Size:
  Tray 1
```

5. **Press the [▲] or [▼] key to display the loaded paper size, and then press the [# Enter] key.**

```
Tray 1:
  A5 (210x148)
```

After about two seconds, the display returns to the menu.

6. **Press the [Menu] key.**
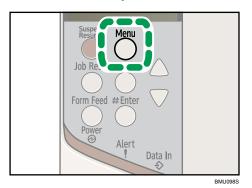
The initial screen appears.

This completes the setting change.

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

⭐ **Important**

- When printing on custom size paper, specify the paper size using the control panel and printer driver.

- When printing with a printer driver other than the RPCS printer driver, you must configure the settings using control panel.

- The following is the range of paper sizes that can be loaded in each type of the paper trays:

  - Tray 1: 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.**

   BMU098S

   The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

   ```
   Menu:
     Paper Input
   ```

3. **Press the [▲] or [▼] key to display [Tray Paper Size], and then press the [# Enter] key.**

4. **Press the [▲] or [▼] key to display the target paper tray, and then press the [# Enter] key.**

   ```
   Tray Paper Size:
     Tray 1
   ```

5. **Press the [▲] or [▼] key to display [Custom Size], and then press the [# Enter] key.**

6. **Press the [▲] or [▼] key to set horizontal value, and then press the [# Enter] key.**

   220-240V

```
Custom Size:
Horiz.   216.0 mm
```

120V

```
Custom Size:
Horiz.    8.50 "
```

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.

7. **Press the [▲] or [▼] key to set the vertical value, and then press the [# Enter] key.**

220-240V

```
Custom Size:
Vert.    297.0 mm
```

120V

```
Custom Size:
Vert.    14.00 "
```

After about two seconds, the display returns to the menu.

8. **Press the [Menu] key.**

The initial screen appears.

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:
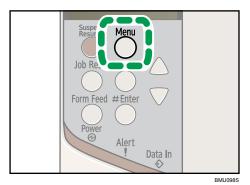
- Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Preprinted, Thick Paper

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

⭐ **Important**

- **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.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

```
Menu:
  Paper Input
```

3. **Press the [▲] or [▼] key to display [Paper Type], and then press the [# Enter] key.**

4. **Press the [▲] or [▼] key to select the tray, and then press the [# Enter] key.**

```
Paper Type:
  Tray 1
```

5. **Press the [▲] or [▼] key to select the paper type, and then press the [# Enter] key.**

```
Tray 1:
  Plain Paper
```

6. **Press the [Menu] key.**

The initial screen appears.

⬇ Note
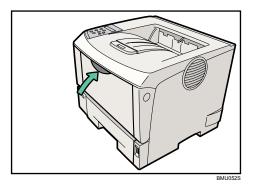
- The following paper types cannot be printed on both sides:
  - Special Paper, Color Paper, Preprinted, Thick Paper

Loading Paper in the Bypass Tray
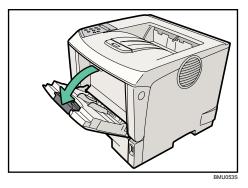
⭐ Important

- Shuffle the paper before loading the stack onto the tray, so multiple sheets are not fed in together.

5
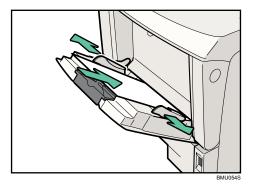
- Set the size and direction of the loaded paper on the control panel and with the printer driver. Make sure the settings do not conflict. Otherwise, the paper may jam or the print quality may be affected.

- Confirm that paper fits under the side guides.

- Sheets of A4$\square$ or 8$^1/_2$ × 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.**

BMU052S
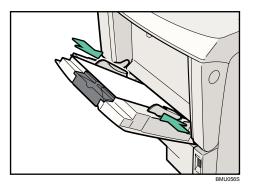
2. **Open the Bypass Tray.**

BMU053S

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

BMU054S
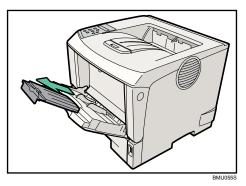
4. **Adjust the side guides to the paper width.**

BMU056S

⬇ Note
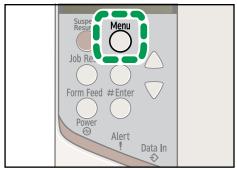
- 45 g/m^2 (12 lb.) paper or paper of A4▯ or $8^1/_2$ × 11▯ or longer may not feed in properly unless it is cut at right angles.
- If you load B5▯ or larger, slide out the Bypass Tray extension.

BMU055S

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.**

BMU098S

5

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

```
Menu:
  Paper Input
```

3. **Press the [▲] or [▼] key to display [Bypass Size], and then press the [# Enter] key.**

4. **Press the [▲] or [▼] key to select the paper size you want to set, and then press the [# Enter] key.**

220-240V

```
Bypass Size:
*A4 (210x297)
```

120V

```
Bypass Size:
*8 1/2 x 11
```

5. **Press the [Menu] key.**

The initial screen appears.

⬇ **Note**
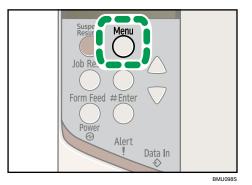
- To load thick paper, OHP transparencies, or envelopes, make settings for thick paper, envelope, or OHP transparencies using both the control panel and printer driver.

- 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

⭐ **Important**
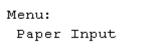
- When loading custom size or special paper, specify the paper size using both the control panel and printer driver.

- The custom size paper selected using the printer driver overrides that selected using the control panel. Do not make settings using the control panel if you have already made settings using the printer driver. However, when printing with a printer driver other than the RPCS printer driver, you must configure the settings using control panel.

- 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.
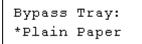
1. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

```
Menu:
  Paper Input
```

3. **Press the [▲] or [▼] key to display [Bypass Size], and then press the [# Enter] key.**

4. **Press the [▲] or [▼] key to display [Custom Size], and then press the [# Enter] key.**

5. **Press the [▲] or [▼] key to enter the horizontal value, and then press the [# Enter] key.**

220-240V

```
Custom Size:
  Horiz.   216.0 mm
```

120V

```
Custom Size:
  Horiz.     8.50 "
```

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).

You can set the horizontal value in the following range: 64 - 216 mm (2.52 - 8.50 inches).

5

6. **Press the [▲] or [▼] key to enter the vertical value, and then press the [# Enter] key.**

220-240V

```
Custom Size:
Vert.    150.0 mm
```

120V

```
Custom Size:
Vert.     17.00 "
```

You can set the vertical value in the following range: 139.7 mm - 432 mm (5.50 -17.00 inches).

7. **Press the [Menu] key.**

The initial screen appears.

🔖 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:
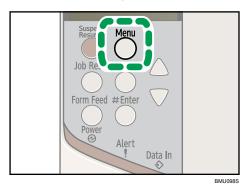
• Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Transparency (OHP transparency), Envelope, Preprinted, Thick Paper

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

⭐ Important

• 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.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

```
Menu:
  Paper Input
```

3. **Press the [▲] or [▼] key to display [Paper Type], and then press the [# Enter] key.**
4. **Press the [▲] or [▼] key to display [Bypass Tray], and then press the [# Enter] key.**
5. **Press the [▲] or [▼] key to select the paper type, and then press the [# Enter] key.**

```
Bypass Tray:
 *Plain Paper
```

6. **Press the [Menu] key.**

The initial screen appears.

⬇ **Note**

- The following paper types cannot be printed on both sides:
  - Special Paper, Color Paper, Transparency (OHP transparency), Envelope, Preprinted, Thick Paper

Loading Envelopes

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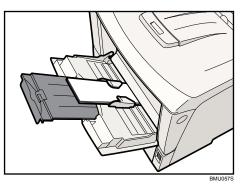
🔖 **Reference**

- p.30 "Attaching the Envelope Feeder"
- p.88 "Types of Paper and Other Media"
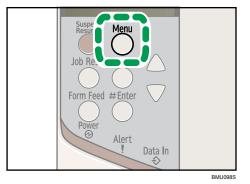
Loading envelopes onto the Bypass Tray

⭐ **Important**

- 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.**

BMU057S
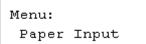
2. **Slide the side guides against the edge of the envelope stack.**

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

BMU098S

The [Menu] screen appears.

4. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

```
Menu:
  Paper Input
```

5. **Check [Bypass Size] appears, and then press the [# Enter] key.**

6. **Press the [▲] or [▼] key to select the envelope type, and then press the [# Enter] key.**

```
Bypass Size:
  C5 Env(162x229)
```

7. **Press the [Menu] key.**

The initial screen appears.

Note

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

Reference

- p.88 "Types of Paper and Other Media"
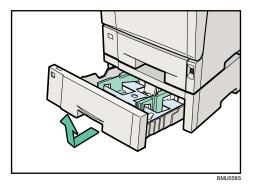
Loading envelopes into the envelope feeder unit

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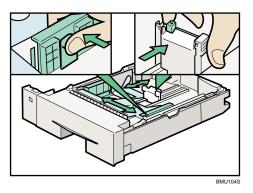
Important

- 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.**

BMU058S
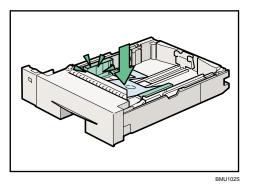
2. **Prepare the envelope feeder unit.**
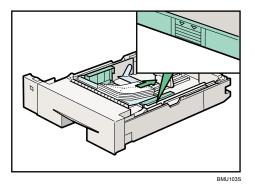
3. **Pinch the side guides, and then slide them outward until they stop. Pinch the rear guide, and then slide it toward the back.**

BMU104S

4. **Push the bottom plate down until it locks into place.**

BMU102S
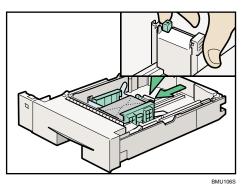
5. **Load envelopes into the envelope feeder unit, with the print side down and the flap on the left as shown in the illustration.**

BMU103S
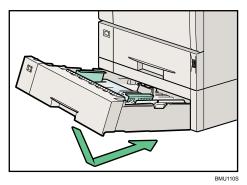
6. **Pinch the side guides, and then slide them along the edge of the envelope stack.**

BMU105S
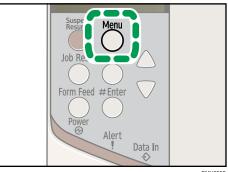
7. **Pinch the rear guide, and then slide it along the edge of the envelope stack.**

BMU106S

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

BMU110S
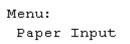
9. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

10. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

```
Menu:
  Paper Input
```

11. **Press the [▲] or [▼] key to display [Tray Paper Size], and then press the [# Enter] key.**

12. **Press the [▲] or [▼] key to select [Tray 2], and then press the [# Enter] key.**

13. **Press the [▲] or [▼] key to select the envelope type, and then press the [# Enter] key.**

```
Tray 2:
  C5 Env(162x229)
```

14. **Press the [Menu] key.**

The initial screen appears.

⬇Note

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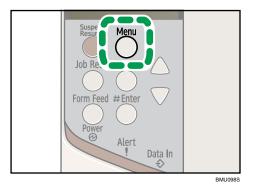
- p.88 "Types of Paper and Other Media"

Switching Between Paper Trays

When paper of the same size is loaded in both the Tray1 and the paper feed unit (option), and when [Aut. Tray Select] is set with the printer driver, paper will be fed from the Tray1 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.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Paper Input], and then press the [# Enter] key.**

```
Menu:
  Paper Input
```

3. **Press the [▲] or [▼] key to display [Tray Priority], and then press the [# Enter] key.**

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

```
Tray Priority:
*Tray 1
```

5. **Press the [Menu] key.**

The initial screen appears.

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 whose orientations are specified such as letterhead or letter paper, misprints may occur.

For appropriate print, press the [Menu] key using control panel and select [Letterhead Mode], [On (Always)] under [System] menu.

Select [Letterhead] as the paper type in the RPCS printer driver's settings when specifying [Auto Detect] or [Off] under [System] menu.

Refer to "Types of Paper and Other Media" for the letterhead print settings.

Paper Orientation	Paper trays 1-3		Bypass Tray	
	Letterhead Mode [On]	Letterhead Mode [Off]	Letterhead Mode [On]	Letterhead Mode [Off]
1-sided print 🗐 ↑	ABC	ABC	ABC	ABC
2-sided print 🗐 ↑	ABC	ABC	ABC	ABC
1-sided print 🗐 ↑	ABC	ABC	ABC	ABC
2-sided print 🗐 ↑	ABC	ABC	ABC	ABC

Note

- 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.

⭐**Important**

- This function can be used
  - when the machine is operating in a network,
  - in conjunction with the RPCS 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 [Save/Restore Settings] function (registered paper types appear as [Plain] in the printer driver) and
  - if the machine 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 machine'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 a 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 RPCS 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".

⬇️Note

- You can register up to eight user paper types.

📘Reference

- p.96 "Loading Paper"
- p.120 "Registering Names to Paper Types"
- p.121 "Setting User Paper Types to Trays"
- p.122 "Printing Using Registered Paper Types"

Registering Names to Paper Types

Log on to Web Image Monitor in the administrator mode.

⭐Important

- 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. **On the [Device Settings], 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 types, paper type, see "Types of Paper and Other Media".

8. **Click [OK].**

🔽 **Note**

- You can register up to eight user paper types.

Setting User Paper Types to Trays

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

1. **Log on to Web Image Monitor in administrator mode.**

2. **In the menu area, click [Configuration].**

3. **On the [Device Settings], 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.**

🔽 **Note**

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

- For details about setting the paper type from 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.

⭐**Important**

- This function can be used when the machine is operating in a network, in conjunction with the RPCS 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 [Save/Restore Settings] function (registered paper types appear as [Plain] in the printer driver) and if the machine 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 machine'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 [Print Settings] tab.
3. **Execute the print command.**

   The preregistered settings are applied and print is performed.

⬇**Note**

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

6. Replacing Consumables and Maintenance Kit

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

Replacing the Toner Cartridge (Print Cartridge)

⚠ WARNING

- 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.

⚠ WARNING

- 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.

⚠ CAUTION

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

⚠ CAUTION

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

⚠ CAUTION

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

⚠ CAUTION

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

⚠ CAUTION

- 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 be 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 cartridge, 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 15,000 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 printed 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

If the following message appears, approximately 200 sheets can still be printed until the "Replace Print Cartridge" message is displayed:
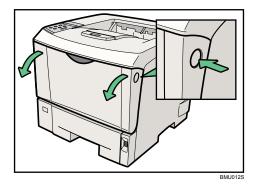
```
Replace Print
Cartridge soon
```

If the following message appears, replace the toner cartridge.
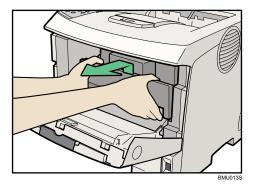
```
Replace
Print Cartridge
```

⭐ **Important**

- 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 out the toner tape. Pulling out the toner with the cartridge upright or tilted can cause printer failure.
- Be careful not to get toner dust on your hands or clothes.

1. **Open the front cover by pushing the front cover release button.**
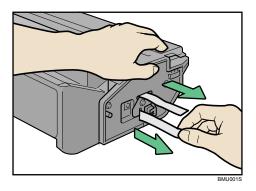
BMU012S

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

BMU013S
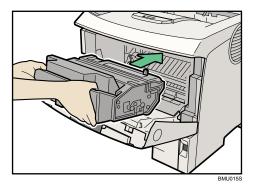
3. **Be sure to put the toner cartridge on a stable, flat surface.**

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

BMU059S

5. **Take the new toner cartridge from the box.**

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.**

BMU001S
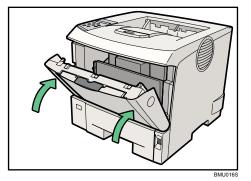
7. **Hold the grips of the cartridge, and then insert it into the printer until it stops.**

BMU015S

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

BMU014S

9. **Close the front cover.**

BMU016S

10. **Wait while the toner loads.**

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

⬇ **Note**

- 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

⚠ CAUTION

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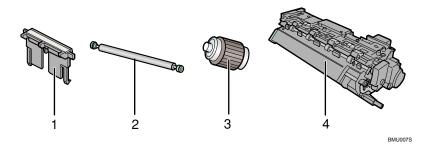
Replace the maintenance kit if the following message appears on the display:

```
Replace
Maintenance Kit
```

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:**

BMU007S

1. **Friction Pad × 3**

   See "Replacing the Friction Pad".
2. **Transfer Roller (with gloves)**

   See "Replacing the Transfer Roller".

3. **Paper Feed Roller × 3**

   See "Replacing the Paper Feed Roller".

4. **Fusing Unit**

   See "Replacing the Fusing Unit".
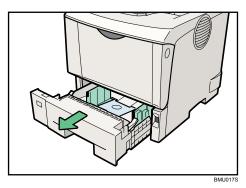
🗐 Reference

- p.129 "Replacing the Friction Pad"

- p.131 "Replacing the Transfer Roller"

- p.134 "Replacing the Paper Feed Roller"

- p.138 "Replacing the Fusing Unit"
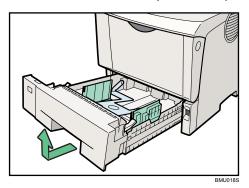
Replacing the Friction Pad

Replace all the friction pads in the tray. The following procedure shows how to replace the tray's friction pad (Tray 1) and the other are for the paper feed unit(s) (Tray 2, 3).
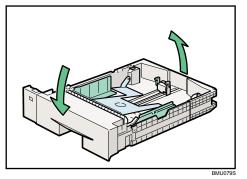
1. **Pull out the paper tray until it stops.**

BMU017S

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

BMU018S
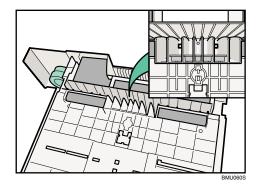
3. **Remove paper from the paper tray. Place the tray upside down on a flat surface.**

BMU079S
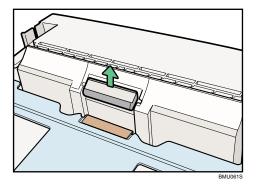
4. **Use a sharp-pointed item like a ball-point pen, to release the two catches that lock the friction pad.**

BMU060S
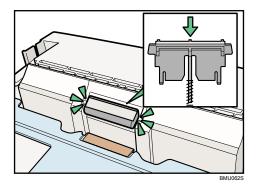
The friction pad may fall off when the catches are released. Place your hand over the friction pad while releasing the catches.

5. **Return the paper tray to its original position, and then remove the friction pad from the tray.**

BMU061S

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.

BMU062S

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.**
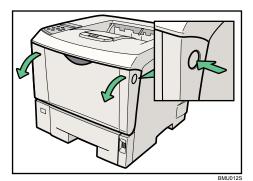
⬇️**Note**

- 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 Transfer Roller
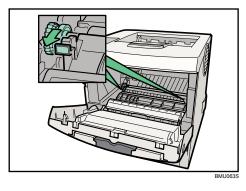
⭐**Important**

- 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.**

BMU012S
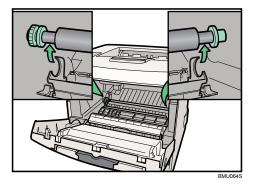
2. **Pull the toner cartridge out of the printer, while raising the front side.**

BMU013S

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

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

BMU063S
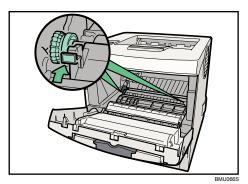
5. **Hold the green parts of the roller on both sides, and remove the roller from the printer, as shown in the illustration.**

BMU064S
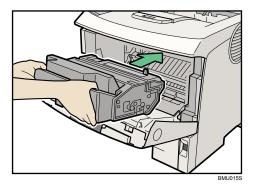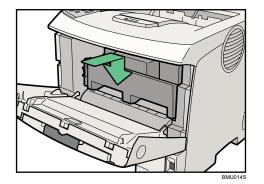
6. Insert the new transfer roller on the socket with the gear of the roller positioned to the left.

BMU065S

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

BMU066S
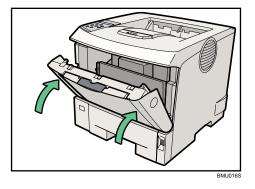
8. Take the gloves off.

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

BMU015S

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

BMU014S

11. **Close the front cover.**

BMU016S

❖ Note

- Be sure to place the used cartridge on the level place.

- When the transfer roller is set, the transfer roller cover will return to its original position automatically.
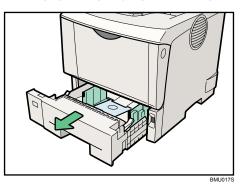
Replacing the Paper Feed Roller

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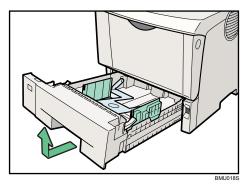
⚠ CAUTION

- When lifting the machine, 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.

⭐**Important**
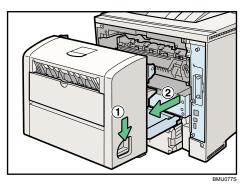
- Always move the printer horizontally. Turning the printer sideways or tilting it backward or forward while moving will result in toner leakage.

- 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.**

BMU017S

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

BMU018S

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).**
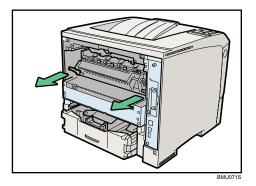

BMU077S

4. **Push the under board levers ($\textcircled{1}$), and then pull the duplex unit out of the printer ($\textcircled{2}$).**

BMU078S
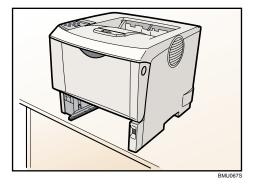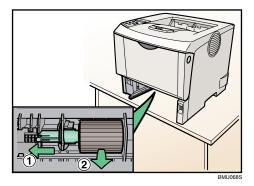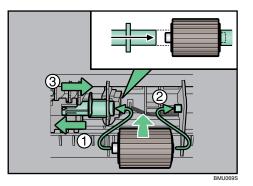
5. **Move the printer to the edge of a sturdy and stable table or desk.**

BMU067S

6. **Slide the green lock lever to the left ($\textcircled{1}$), and then remove the paper feed roller ($\textcircled{2}$).**

BMU068S

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

BMU069S
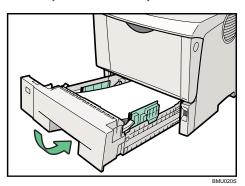
Confirm the green lock lever secures the roller correctly by checking that sure the new roller rotates smoothly.
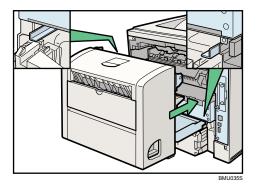
8. **If the printer is equipped with the optional paper feed unit(s), follow the same procedure to replace its paper feed roller.**

If you installed two paper feed units, also replace both their paper feed rollers.
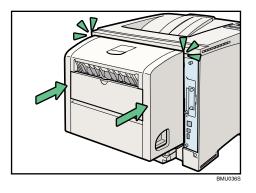
9. **Place paper in the removed paper trays. Lift the front of the tray, and then slide it carefully into the printer until it stops.**

BMU020S

6

10. **When the optional duplex unit was removed, push in the duplex unit along the rails in the back of the printer.**

BMU035S

11. **Securely push the duplex unit into the printer.**

BMU036S

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.
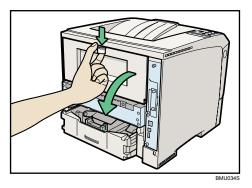
Reference

- p.203 "Moving and Transporting the Printer"

Replacing the Fusing Unit

⚠️ CAUTION
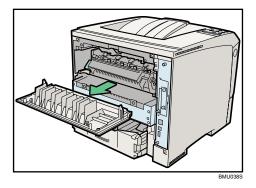
- The fusing unit becomes very hot. When installing a new fusing unit, turn off the printer and wait at least an hour before replacing the old fusing unit. Not allowing the unit to cool may result in burns.
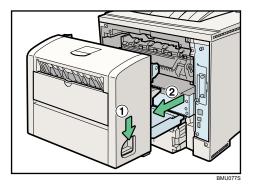
1. **Open the rear cover.**
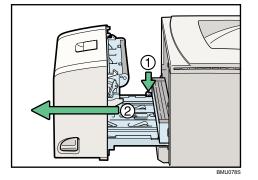
BMU034S

2. **Lower the rear cover until it is horizontal, and then pull it away.**
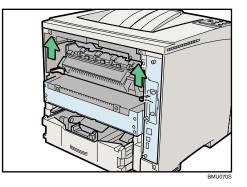
BMU038S

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).**

BMU077S

4. **Push the under board levers (①), and then pull the duplex unit out of the printer (②).**

BMU078S
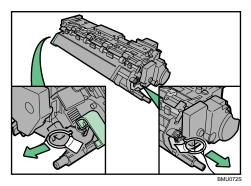
5. **Lift the lock levers of the fusing unit as shown in the illustration.**

BMU070S
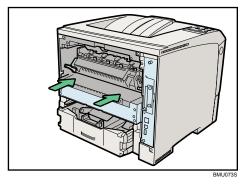
6. **Pull the fusing unit out.**

BMU071S
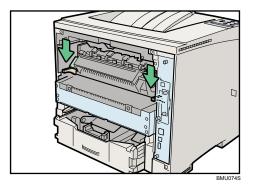
7. **Pull out the pins on both sides of the new fusing unit.**

BMU072S

8. **Push the new fusing unit into the printer.**

BMU073S
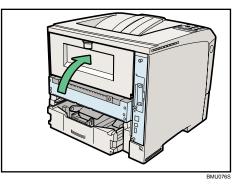
9. **Push the lock levers of the fusing unit down until they click.**

BMU074S
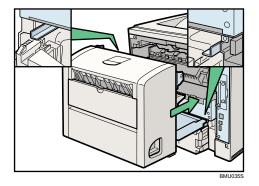
10. **Position the rear cover horizontally and align it with the grooves in the printer's interior.**

BMU075S
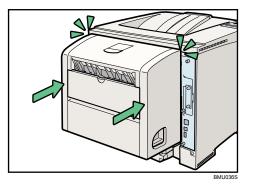
11. **Close the rear cover.**

BMU076S

12. **When the optional duplex unit was removed, push in the duplex unit along the rails in the back of the printer.**

BMU035S

13. Securely push the duplex unit into the printer.

BMU036S

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

🗉 Reference

- "Print the Test Page", Quick Installation Guide.

7. Cleaning the Printer

This chapter explains how to clean this printer.

Cautions to Take When Cleaning

⚠ WARNING

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

- Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.

⚠ CAUTION

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

⚠ CAUTION

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

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.

⭐ **Important**

- To avoid deformation, discoloration, or cracking, do not use volatile chemicals, such as benzine and thinner, or spray insecticide on the printer.

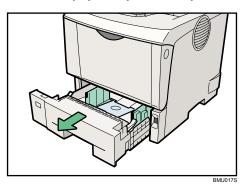- If there is dust or grime inside the printer, wipe with a clean, dry cloth.
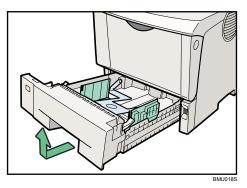
Cleaning the Friction Pad

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

⭐ **Important**

- 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.
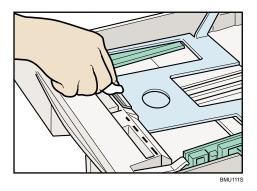
1. **Pull out the paper tray until it stops.**

BMU017S

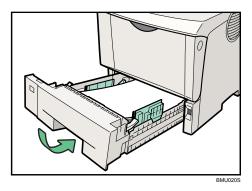2. **Lift the front side of the tray, and then pull it out of the printer.**

BMU018S

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.**

BMU111S

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

BMU020S

⬇ Note

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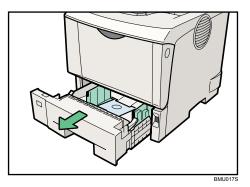- Follow the same procedure to clean the friction pad of the optional paper feed unit and the envelope feeder unit.

7

Cleaning the Paper Feed Roller

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

⚠ CAUTION
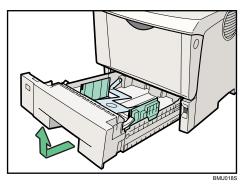
- When lifting the printer, use the grips on both sides of the printer, otherwise the printer might fall and cause personal injury.

- When you move the printer, unplug the power cord from the wall outlet to avoid a fire or an electric shock.

- When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing a fire or an electric shock.

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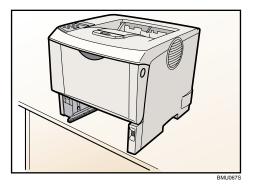
- If the printer is equipped with the optional paper feed unit, do not move the printer and unit together as they are not securely attached.

- 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.**

BMU017S

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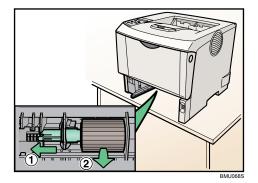

BMU018S

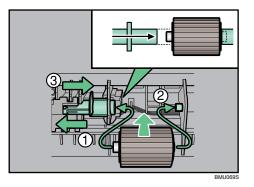5. **Move the printer to the edge of a stable table or desk.**

BMU067S

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

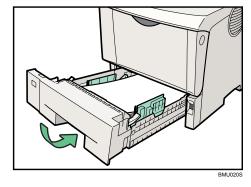6. **Slide the green lock lever to the left ($①$), so that the paper feed roller can be released ($②$).**

BMU068S

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

7

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

BMU069S

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.**

BMU020S

🔽 **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:
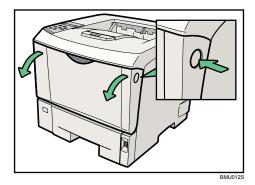
⚠ WARNING

- 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.
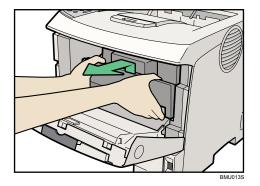
⚠ CAUTION

- 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.
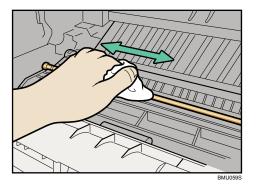
⭐ **Important**

- 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.**

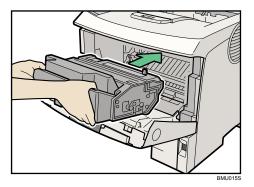2. **Open the front cover by pushing the front cover release button.**

BMU012S

3. **Pull the toner cartridge out of the printer by holding the grips of the cartridge.**

BMU013S

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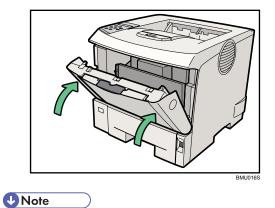

BMU059S

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

BMU015S

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

BMU014S

7. **Close the front cover.**

BMU016S

↓ Note

- 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.

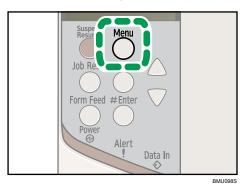# 8. Adjusting the Printer

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

Adjusting the Image Density

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

⭐ **Important**

- 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.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Maintenance], and then press the [# Enter] key.**

```
Menu:
  Maintenance
```

3. **Press the [▲] or [▼] key to display [Image Density], and then press the [# Enter] key.**

```
Maintenance:
  Image Density
```

4. **Press the [▲] or [▼] key to specify the image density, and then press the [# Enter] key.**

```
Image Density:
(-6 +3)          0
```

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

5. **Press the [Menu] key.**
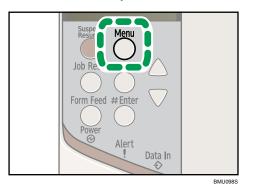
   The initial screen appears.

Note

- 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.
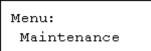
Adjusting Tray Registration

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.
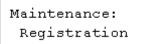
1. **Press the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Maintenance], and then press the [# Enter] key.**

```
Menu:
  Maintenance
```

3. **Press the [▲] or [▼] key to display [Registration], and then press the [# Enter] key.**
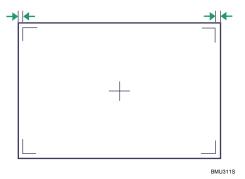
```
Maintenance:
  Registration
```

4. **Press the [▲] or [▼] key to display [Prt. Test Sheet], and then press the [# Enter] key.**

```
Registration:
  Prt. Test Sheet
```

5. **Press the [▲] or [▼] key to select the tray you want to adjust, and then press the [# Enter] key.**

Print the test sheet to preview the settings.

8

6. **Confirm the position of the image on the test sheet, and then adjust the registration value.**

BMU311S

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

7. **In the [Registration] menu, press the [▲] or [▼] key to select [Adjustment], and then press the [# Enter] key.**

```
Registration:
 Adjustment
```
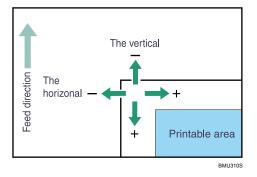
8. **Press the [▲] or [▼] key to select the parameter you want to adjust, and then press the [# Enter] key.**

```
Adjustment:
  Vert.:Std. Tray
```

9. **Press the [▲] or [▼] key to set the registration value (mm), and then press the [# Enter] key.**

```
Vert.:Std. Tray:
(-4.0 +4.0)  0.0
```

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

BMU310S

Pressing the [▲] or [▼] key makes the value increase or decrease by 0.1 mm steps.

10. **Press the [# Enter] key.**

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

   ```
   Registration:
     Adjustment
   ```

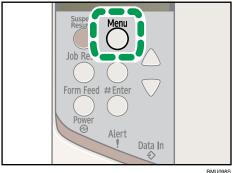11. **Print the test sheet to confirm the adjustment result.**

12. **Press the [Menu] key.**
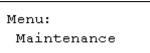
   The initial screen appears.

Reducing Paper Curl

Follow the procedure below to reduce paper curl.

1. **Push the [Menu] key.**

BMU098S

The [Menu] screen appears.

2. **Press the [▲] or [▼] key to display [Maintenance], and then press the [# Enter] key.**

```
Menu:
  Maintenance
```

3. **Press the [▲] or [▼] key to display [Curl Prevention], and then press the [# Enter] key.**

```
Maintenance:
  Curl Prevention
```

4. **Press the [▲] or [▼] key to set [On] or [Off], and then press the [# Enter] key.**

```
Curl Prevention:
*Off
```

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

5. **Press the [Menu] key.**

The initial screen appears.

9. Troubleshooting

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

Error & Status Messages on the Control Panel

This section describes the main messages that appear on the display. If a message that is not described here, follow its instructions.

Status Messages

Energy Save Mode

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

Hex Dump Mode

In the hex dump mode, the machine receives data in hexadecimal format. Turn off the machine after printing, and then turn back on.

Print Suspended

Printing is suspended. To cancel the suspension, turn the printer off, wait a few moments, and then turn it back on.

Processing...

The machine is printing. Wait a while.

Ready

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

Resetting Job...

The machine is resetting the print job. Wait until "Ready" appears on the display.

Setting change in process

The machine is changing settings. Wait a while.

Suspending...

All jobs in the machine are suspended. Wait a while.

Waiting for print data...

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

Warming up...

The printer is warming up or toner is being supplied. Wait until "Ready" appears on the display.

Messages (in alphabetical order)

Call Service: EC Power Off On/Call Service if error reoccurs

A communication error was sent from the engine to the controller.

- Turn the power off, and then on. If the message appears again, contact your sales or service representative.

Cannot check Signal in Ad hoc

An attempt to check the radio signal was made while the communication mode was set to [802.11 Ad hoc] in the [Maintenance] menu.

- To check the radio signal, select Infrastructure in the communication mode settings.
- See p.71 "Wireless LAN Configuration".

Cannot duplex Tray

The selected tray is set to one sided tray when duplex mode is set.

- Cancel duplex mode. Alternatively, press the [Form Feed] key to select another tray, or cancel the job.
- Contact the machine administrator.

Certificate auto renewal failed

Renewing the certificate automatically has failed.

- Call your service provider.

Change Setting Tray #/Paper Size: Paper Type

The printer detected that the actual paper type was not the same as the paper tray size and paper type setting.

- Change the paper type via the paper type setting menu on the control panel or execute Form Feed by pressing the [Form Feed] key, or cancel the job.
- Load the indicated tray with the correct paper, or change the paper type/size using the dial or using the [Paper Input] menu on the control panel. Alternatively, select another tray by pressing the [Form Feed] key, or cancel the job.

DHCP assigned Cannot change

An attempt to change the IP address, subnet mask or gateway address was made while [DHCP] was set to [On].

- Make the change after setting [DHCP] to [Off].

Error: Enter 10 or 26 characters

The entered number of characters for the WEP Key (hexadecimal entry) is incorrect.

- Enter the correct WEP key.

- See p.71 "Wireless LAN Configuration".

Error: Enter 5 or 13 characters

The entered number of characters for the WEP Key (ASCII entry) is incorrect.

- Enter the correct WEP key.
- See p.71 "Wireless LAN Configuration".

Hardware Problem Ethernet

The printer detected an ethernet error.

- Turn the power off, and then on. If the message appears again, contact your sales or service representative.

Hardware Problem HDD

The printer identified a HDD Board error.

- Turn the power off, and then on. Remove and re-install the HDD board correctly. If the message appears again, contact your sales or service representative.
- See p.32 "Installing the Memory Expansion Units".

Hardware Problem Option RAM

The printer detected an optional RAM error.

- Turn the power off, and then on. Remove and re-install the optional RAM. If the message appears again, contact your sales or service representative.
- See p.32 "Installing the Memory Expansion Units".

Hardware Problem Parallel I/F

The printer identified a parallel interface error.

- Check the correct interface cable being used.
- Turn the power off, and then on. If the message appears again, contact your sales or service representative.

Hardware Problem Printer font

The printer identified a printer font file error.

- Replace the printer font module.

Hardware Problem USB

The printer identified a USB I/F Board error.

- Turn the power off, and then on. If the message appears again, contact your sales or service representative.

Invalid Password Try again

The invalid password was entered and Locked or Stored Print is incorrect.

9

- Enter the correct password.

Irregular Toner

Irregular toner is set.

- Replace the toner to appropriate one.

Load Correct Size Paper/Paper Size: Paper Type: Press # to continue/Paper Size: Paper Type:

The paper size setting on the tray differs from that of actual paper size in the tray.

- Change the paper size of the tray where the error has occurred using dial or press the [Form Feed] key. Printing will start again after pressing the [# Enter] key.
- See p.96 "Loading Paper".

Load Paper:Tray# or Form Feed

No paper remaining in the indicated tray.

- Load the indicated tray with the paper or select another tray using the [Form Feed] key, or cancel the job.

Menu Protected Cannot change

The control panel has been digitally locked, and settings cannot be changed.

- This alert message is displayed for 3 seconds before returning to the previous display screen.

No Files exist

There are no files available for deleting or printing.

- Check the error list to identify the files unavailable for printing.

P=XX I=XXXXXXXX Power Off On/Call Service if error reoccurs

Controller error. The SC number indicates the problem.

- Turn the power off, and then on. If the message appears again, contact your sales or service representative. Report the error code that appears.

Proxy User Name/Password error

Proxy user name and password are incorrect.

- Change the current user name and password to the correct user name and password.

Remove Misfeed Duplex Unit/Open Duplex Unit Cover

Paper is jammed in the duplex unit.

- Remove and re-install the duplex unit. Remove any jammed paper from the duplex unit and under the rear cover.
- See p.199 "When "Remove Misfeed Duplex Unit" Appears"

Remove Misfeed Internal Path/Open Front Cover

Paper is jammed in the internal paper feed path.

- Open the front cover and remove jammed paper.
- See p.186 "When "Remove Misfeed Internal Path" Appears"

Remove Misfeed Paper Tray/Pull out Tray

Paper is jammed in the specified input paper tray.

- Remove paper from the input paper tray and then reload paper. Then open the front cover and then close it again, so the error message disappears.
- See p.184 "When "Remove Misfeed Paper Tray" Appears"

Remove Misfeed Paper Exit Cover/Open Paper Exit Cover

Paper is jammed under the paper exit cover.

- Open the front and rear cover and remove jammed paper.
- See p.189 "When "Remove Misfeed Paper Exit Cover" Appears"

Remove Paper Standard Tray

The standard output tray is full.

- Remove the paper from the standard output tray.

Replace Print Cartridge

It is time to replace the waste toner.

The printer is out of toner.

- Replace the toner cartridge.
- See p.123 "Replacing the Toner Cartridge (Print Cartridge)".

Replace Print Cartridge soon

The printer is almost out of toner.

- Prepare a new toner Cartridge.

Reset Fusing Unit correctly

The fusing unit is not set correctly or is not set, or your fusing unit is improper.

- Set the fusing unit correctly, or set the proper fusing unit.
- See p.128 "Replacing the Maintenance Kit".

Reset the Job or Form Feed/Paper Size: Paper Type:

The printer detected that the actual paper type and size are not the same as the paper tray size setting and the paper type setting.

- Load the indicated tray with the correct paper or change the paper type/size using dial or via the special paper size setting menu on the control panel. Or otherwise, execute Form Feed by pressing the [Form Feed] key, or cancel the job.

Reset Print Cartridge

The toner cartridge is not set correctly or not installed.

- Set the toner cartridge correctly. If the cartridge is installed, close the front cover and turn the power switch to off and to on. If the message appears again, contact your sales or service representative.
- See p.123 "Replacing the Toner Cartridge (Print Cartridge)".

Reset Tray # or Form Feed

The indicated paper input tray is not set correctly, or is not set.

- Set the indicated paper input tray correctly.

SC XXX-X Power Off On/Call Service if error reoccurs

The Service Code or SC number indicates the problem.

- Turn the power off, and then on. If the message appears again, contact your sales or service representative. Report the error code that appears.

SD authenticatn. Failed

Authentication from the SD card has failed.

- Turn the power off, and then on. If the message appears again, contact your sales or service representative.

SSID not entered

Wireless LAN's SSID is not entered.

- Enter the SSID of the wireless LAN.
- See p.71 "Wireless LAN Configuration".

Supply order failed

Call for supply order has failed.

- Contact your sales or service representative.

Panel Tone

The following table explains the meaning of the various beep patterns that the printer alerts to users about its conditions.

Beep pattern	Meaning	Cause
Two long beeps.	Printer has warmed up.	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 control panel or screen key was pressed. Single short beeps are produced only when valid keys are pressed.
Single long beep.	Job completed.	A Printer/ Document Server Features job has finished.
Five long beeps.	Soft alert.	The screen is changing back to the initial screen after the printer came out of the energy-saving mode or was reset.
Five short beeps repeated five time.	Strong alert.	Printer requires user attention. Paper might have jammed or toner might need replenishing.

⬇ **Note**

- Users cannot mute the printer's beep 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 beep alert might continue, even after normal status has resumed.

9

Printer Does Not Print

Is the power on?

Confirm that the cable is securely plugged into the power outlet and the printer.

Turn on the power.

Does the Online indicator stay on?

If not, press the [Online] key to light it.

Does the Alert indicator stay red?

If so, check the error message on the display and take the required action.

Is the paper set?

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 "Printing the Test Page", Quick Installation Guide.

Is the interface cable connected securely to the printer and the computer?

Connect the interface cable securely. If it has a fastener, fasten it securely as well.

Are you using the correct interface cable?

The type of interface cable you should use depends on the computer you use. Be sure to use the correct one.

If the cable is damaged or worn, replace it with a new one.

See p.207 "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 if the port connection setting is correct. For details about checking the port connection, see p.169 "Checking the Port Connection".

Network Connection

> Contact your network administrator.

How is the signal strength when using the wireless LAN?

802.11 Ad hoc Mode

> Either move to a location where the signal is good, or remove obstructions.

Infrastructure Mode

> Check the signal status from the [Maintenance] menu on the control panel. If the signal is poor, either move to a location where it is good, or remove obstructions.

Checking the Port Connection

When the printer is directly connected via the PC cable and the data-in indicator does not flash or light up, the method of checking the port connection is as follows.

- For a parallel port connection, port LPT 1 or LPT 2 should be set.

- For a USB port connection, port USB00 (n) [1] should be set.

[1] (n) is the number of printers connected.

For Windows 2000:

1. **On the [Start] menu, point to [Settings], and then click [Printers].**

2. **Click to select the icon of the printer. Next, on the [File] menu, click [Properties].**

3. **Click the [Port] tab.**

4. **Check the [Print to the following port] box to confirm that the correct port is selected.**

For Windows XP Professional, Windows Server 2003/2003 R2/2008:

1. **On the [Start] menu, click [Printers and Faxes].**

2. **Click to select the icon of the printer. Next, on the [File] menu, click [Properties].**

3. **Click the [Port] tab.**

4. **Check the [Print to the following port(s).] box to confirm that the correct port is selected.**

For Windows XP Home Edition:

1. **On the [Start] menu, click [Control Panel].**

2. **Click [Printers and Other Hardware].**

3. **Click [Printers and Faxes].**

4. **Click to select the icon of the printer. Next, on the [File] menu, click [Properties].**

5. **Click the [Port] tab.**

6. **Check the [Print to the following port(s).] box to confirm that the correct port is selected.**

9

Windows Vista

1. **Click the [Start] button, and then click [Control Panel].**
2. **Click [Printers].**
3. **Click the icon of the machine. 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.**

9

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 Cartridge soon" message appears on the display, replace the toner cartridge.

  See p.123 "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.123 "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.123 "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.

9

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.

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 RPCS 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.123 "Replacing the Toner Cartridge (Print Cartridge)".

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

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

  See p.32 "Installing the Memory Expansion Units", for optional hard disk drive installation.

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

- After adding a memory unit and set the value of the [RAM Disk] in the [System] menu to 16 MB, value of the [RAM Disk] returns to 0 MB if the memory unit is removed. If this happens, reset the value of the [RAM Disk] to 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: Change PW] menu in the [PDF Menu] or Web Image Monitor.

  For [PDF: Change PW], 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 installed in the paper tray, the file will print out. This applies similarly to the opposite case.

If the problem cannot be solved, contact your sales or service representative.

9

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.183 "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 Email Ntfy] 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 through the Web browser, log on as an administrator on the Web Image Monitor, and then confirm the settings of the SMTP server in "E-mail".

  For details about the settings, see Web Image Monitor Help.
- When the power is turned off before the e-mail is transmitted, the e-mail will not be received.
- Check the e-mail address set for the destination. Confirm the printer's operation history using the Web Image Monitor's System Log menu in "Network". If the e-mail was sent but not received, 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.

9

Alert Occurrence and Alert Resolving are set for sending e-mail, but while no Alert Occurrence mail is received, Alert-resolved e-mail is received.

Alert-notification e-mail is not sent if the problem is resolved before sending. However, an Alert-resolved e-mail is sent.

Alert-notification level was changed, and e-mail stopped arriving.

If an Alert-notification e-mail 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.
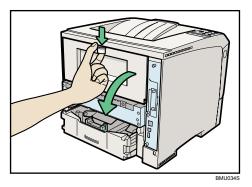
- Transmissions between the client computer and the printer can be blocked by obstructions. Move the printer or client computer if necessary.

⬇️Note
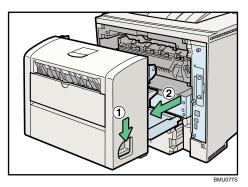
- If the printer is still not operating satisfactorily, contact your sales or service representative. Consult with the store where the printer was purchased for information about the location of sales or service representatives.

Using the Envelope Lever

⚠CAUTION

- The inside of the machine 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.

- 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.**

BMU034S
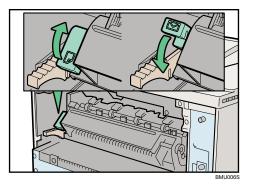
2. **If the optional duplex unit is attached, push down the lever on the right side of the duplex unit (①), and then pull it out until it stops (②).**

BMU077S

3. **Push the under board levers (①) and then pull the duplex unit out of the printer (②).**

BMU078S
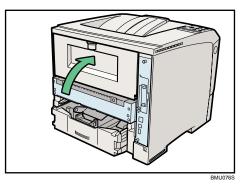
4. **Use the envelope lever.**

   Lowering the envelope lever increases roller pressure.

BMU006S
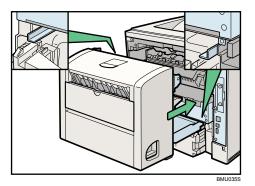
   Keep the envelope lever lowered when printing normally.
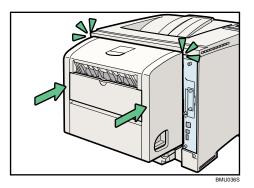
5. **Close the rear cover.**

BMU076S

6. **When the optional duplex unit was removed, push in the duplex unit along the rail in the back of the printer.**

BMU035S

7. **Securely push the duplex unit into the printer.**

BMU036S

9

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 machine 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.
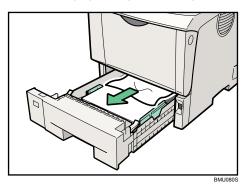
⭐Important

- 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 forcefully remove misfed paper, it will tear. Torn pieces remaining inside the printer will cause further misfeeds 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.
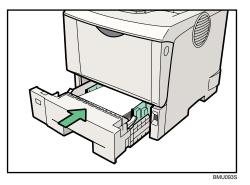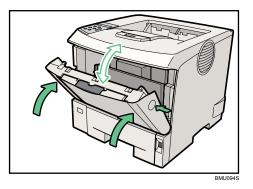
10

When "Remove Misfeed Paper Tray" Appears

⭐**Important**

- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer. This might cause a misfeed and damage the printer.

1. **Pull out the paper tray until it stops, and then remove misfed paper.**

BMU080S

2. **Carefully slide the paper tray into the printer until it stops.**

BMU093S

3. **Open the front cover by pushing the front cover release button, and then close it to reset the misfeed condition.**

BMU094S
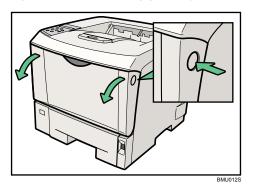
↓Note

- 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.
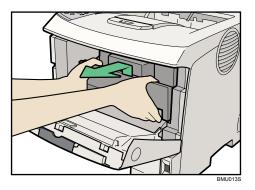
When "Remove Misfeed Internal Path" Appears
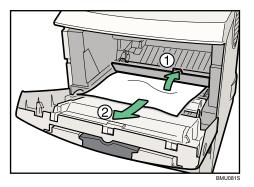
⭐ **Important**

- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer. This might cause a misfeed and damage the printer.

- 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.**
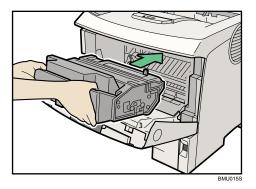
BMU012S

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

BMU013S

3. **Pull out the misfed paper by holding both sides of paper. Be careful not to get toner dust on your hands or clothes.**

BMU081S
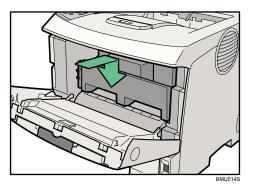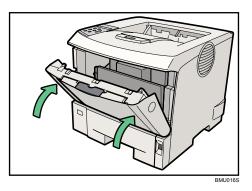
4. **Hold the grips of the toner cartridge, and then push it into the printer until it stops.**

BMU015S

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

BMU014S

10

6. Close the front cover.

BMU016S

When "Remove Misfeed Paper Exit Cover" Appears

⭐ **Important**
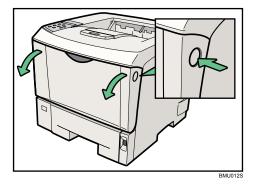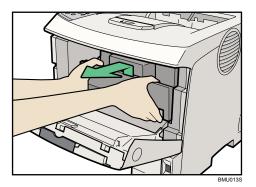
- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer. This might cause a misfeed and damage the printer.

- Be sure to put the toner cartridge on a stable, flat surface.

- Do not hold the toner cartridge upside down or stand it vertically.

- 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.

Removing Misfed Paper from the Internal Path

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

BMU012S

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

BMU013S

10

189

3. **Pull out the misfed paper by holding both sides of paper. Be careful not to get toner dust on your hands or clothes.**

BMU081S

4. **Hold the grips of the toner cartridge, push it into the printer until it stops.**

BMU015S

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

BMU014S

6. **Close the front cover.**

BMU016S
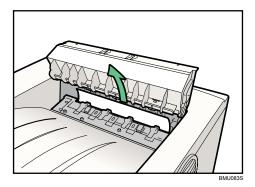
Removing Misfed Paper from the Exit Cover

1. **Open the paper exit cover.**
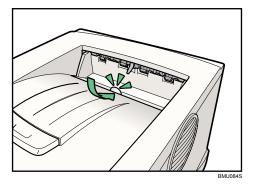
   Place your finger under the indentation in the exit cover, raise it ($①$) and pull it backward to open it ($②$).

BMU082S

2. **Remove the misfed paper.**

BMU083S
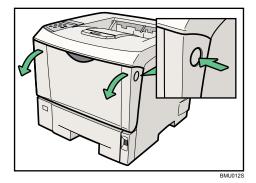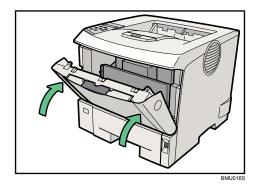
3. **Close the paper exit cover until it clicks.**

BMU084S

4. **Open the front cover by pushing the front cover release button.**

BMU012S

5. **Close the front cover.**

BMU016S

↓Note

• Once all misfed paper is removed, the error message will disappear and printing will continue.
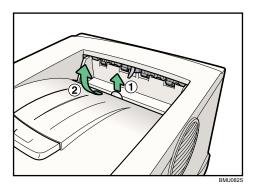
Removing Misfed Paper from the Fusing Unit

If the error message is still displayed, check the inside of the fusing unit and remove any paper inside. Turn off the power and wait for about an hour before turning it back on.

⭐ **Important**
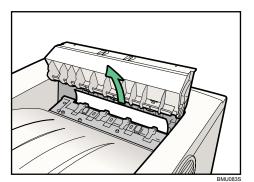
- Do not touch the metal part of the fusing unit. It becomes very hot. Touching it could result in a burn.

1. **Open the paper exit cover.**
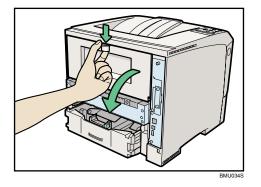
   Place your finger under the indentation in the exit cover, raise it (①) and pull it backward to open it (②).

   BMU082S

2. **Remove the misfed paper.**

   BMU083S

3. **Open the rear cover.**
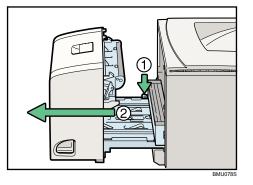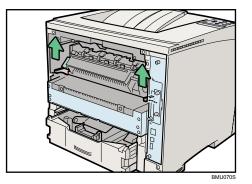
   BMU034S

10

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

BMU038S

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).**

BMU077S
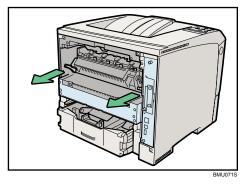
6. **Push the under board levers (①) and then pull the duplex unit out of the printer (②).**

BMU078S
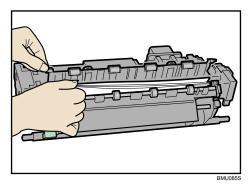
7. **Lift the lock levers of the fusing unit as shown in the illustration.**

BMU070S
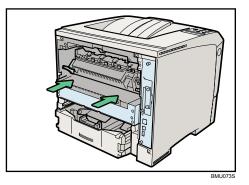
8. **Pull the fusing unit out.**

BMU071S
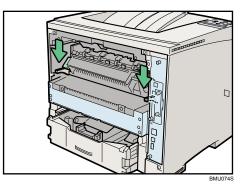
9. **Hold the tab, and then remove the misfed paper.**

BMU085S

10

10. **Push the fusing unit until it stops.**

BMU073S
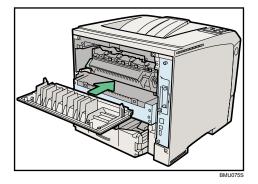
11. **Push the lock levers of the fusing unit down until they click.**

BMU074S
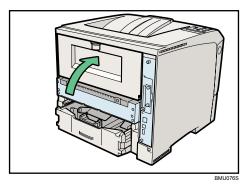
Proceed to step 13 if the optional duplex unit is installed.

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

BMU075S

13. **Close the rear cover.**

BMU076S
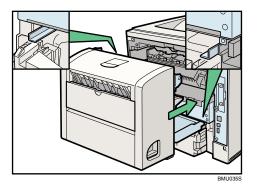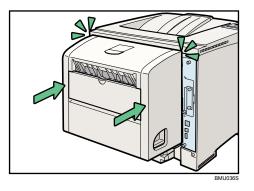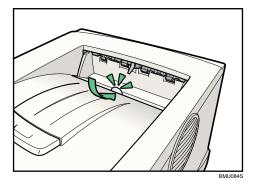
14. **When the optional duplex unit was removed, push in the duplex unit along the rail in the back of the printer.**

BMU035S

15. **Securely push the duplex unit into the printer.**

BMU036S

10

16. **Close the paper exit cover until it clicks.**

BMU084S

17. **Turn the power on.**
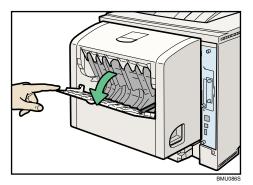
When "Remove Misfeed Duplex Unit" Appears

⭐ **Important**
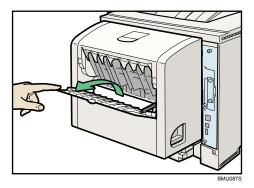
- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the duplex unit. This might cause a misfeed and damage the printer.

Removing Misfed Paper Inside the Cover
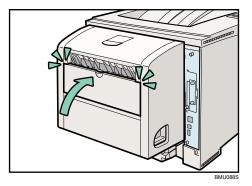
1. **Open the rear cover of the duplex unit.**

BMU086S

2. **Remove the misfed paper.**

BMU087S

10
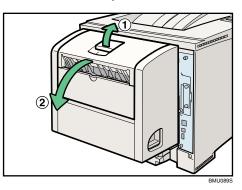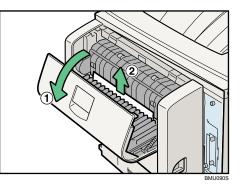
3. **Close the rear cover of the duplex unit.**

BMU088S
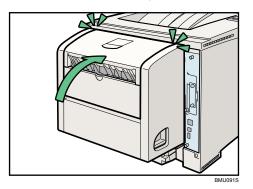
4. **Lift the lever (①), open the cover of the duplex unit (②).**

BMU089S

5. **Remove the misfed paper.**

BMU090S
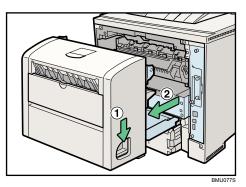
6. **Close the cover of the duplex unit.**

BMU091S
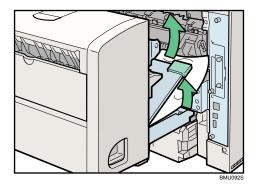
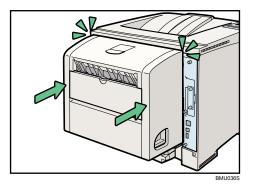## Removing Misfed Paper Inside the Duplex Unit

⭐ **Important**

- When A5▱ 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.

1. **Push down the lever on the right side of the duplex unit (①), and then pull it out until it stops (②).**

BMU077S

2. **Lift the guide board inside the duplex unit, and remove the misfed paper.**

BMU092S

3. **Push in the duplex unit along the rails in the back of the printer.**

BMU036S

⬇Note

- 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 "When Remove Misfeed Internal Path Appears".

🗐Reference

- p.186 "When "Remove Misfeed Internal Path" Appears"

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.

⭐ **Important**

- 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.

⬇ **Note**

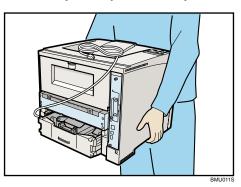- The printer weighs approximately 17.5 kg (38.6 lb.).

Moving the Printer

⚠ CAUTION

- When lifting the machine, use the inset grips on both sides. Otherwise the printer could break or cause an injury if dropped.
- Before moving the machine, unplug the power 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

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.**

BMU011S

4. **If you removed options, move them separately and reinstall them.**

⬇ Note

- Be sure to move the printer horizontally. To prevent toner from scattering, move the printer slowly.

11

Consumables

⭐ **Important**

- 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	15,000 pages

🔽 **Note**

- 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 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 4100

Name	Average printable number of pages
Paper Feed Roller × 3	90,000 pages

11

Name	Average printable number of pages
Fusing Unit	90,000 pages
Transfer Roller	90,000 pages
Friction Pad × 3	90,000 pages

🔽 **Note**

- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.

- The maintenance kit (consumables) are not covered by warranty. However, if there is 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:

6.9 sec or less (A4📄, $8^1/_2$×11📄)

Printing Speed:

Maximum 36 pages per minute (A4📄), 37 pages per minute ($8^1/_2$×11📄)

Resolution:

1,200 × 600 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 250 sheets (80 g/m^2, 20 lb.)

Paper Input Capacity:

Standard Paper Tray	500 sheets [*1]
Bypass Tray [*2]	100 sheets [*1]
Optional Paper Feed Unit	500 sheets × 2 [*1]
Optional Envelop Feeder Unit [*3]	60 sheets [*1]

[*1] Paper weight: 60 - 130 g/m^2 (16 - 34 lb.)

*2 You can load up to 10 envelopes (55 - 157 g/m^2, 14 - 42 lb.) at the same time.

*3 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".

Power Source:

220-240V

220 - 240 V, 4.3 A or more, 50/60 Hz

120V

120 V, 8 A or more, 60 Hz

Power Consumption:

220-240V

	Mainframe	With full options
Printing	970 W or less	990 W or less
Energy Saver	4.5 W or less	10 W or less

120V

	Mainframe	With full options
Printing	930 W or less	960 W or less
Energy Saver	4.5 W or less	10 W or less

Dimensions:

	Width	Depth	Height
Printer only (Bypass Tray not extended)	388 mm (15.2 ")	450 mm (17.7 ")	345 mm (13.6 ")
Printer only (Bypass Tray extended)	388 mm (15.2 ")	508 mm (20.0 ")	345 mm (13.6 ")
Printer with paper feed unit (one optional)	388 mm (15.2 ")	450 mm (17.7 ")	477 mm (18.8 ")
Printer with two optional paper feed unit	388 mm (15.2 ")	450 mm (17.7 ")	609 mm (24.0 ")

11

Weight:

Approximately 17.5 kg (38.6 lb) (power cord included)

Noise Emission [1] **:**

Sound Power Level : Main frame only

Stand-by	42 dB (A)
During Printing	67 dB (A)

Sound Pressure level : Main frame only [2]

Stand-by	36 dB (A)
During Printing	61 dB (A)

[1] The preceding measurements made in accordance with ISO7779 are actual values.

[2] Measured at the position of a bystander.

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

- Monotype Imaging 35 Intellifonts, 10 TrueType fonts, 13 International fonts, and 1 Bitmap font.

PostScript 3, PDF

- 80 fonts

11

Note

- If the printer has not been used for a while, there may be a short delay before the first page starts printing.
- 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 TK1030

Dimensions (W × D × H):

388 × 486 × 135 mm (15.3 × 19.1 × 5.4 inches)

(Without pins on the unit)

Paper size:

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

Paper weight:

60 - 130 g/m2 (16 - 34 lb.)

Note

- Specifications are subject to change without notice.

Envelope Feeder Type 400

Dimensions (W×D×H):

359.4 × 427 × 101 mm (14.15 × 16.8 × 3.98 inches)

Paper Weight:

72 - 90 g/m2 (19 - 24 lb.)

Paper Size:

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

Duplex Unit AD1000

Dimensions (W×D×H):

305.5 × 336.6 × 216.4 mm (12.0 × 13.3 × 8.5 inches)

Paper Size:

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

Paper Weight:

60 - 105 g/m^2 (16 - 28 lb.)

Weight:

5 kg (13.2 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

⬇ Note

- You can install PostScript fonts with this optional hard disk drive. 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

11

- 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

- 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

11

INDEX