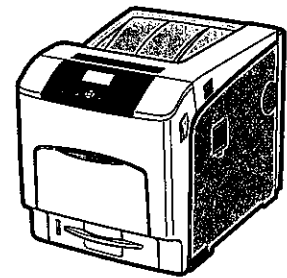


## Operating Instructions Hardware Guide



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

---

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

## **Introduction**

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

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

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

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

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

## **Important**

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

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

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

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

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

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

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# Manuals for This Printer

Read this manual carefully before you use this printer.

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

## ★ Important

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

### Safety Information

Contains information about safe usage of this printer.

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

### Quick Installation Guide

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

### Hardware Guide (This manual)

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

### Driver Installation Guide

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

### Software Guide

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

### Security Guide

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

### Enhanced Locked Print NX User's Guide (Type 2 model only)

This manual is for ordinary users (non-administrators) of Enhanced Locked Print NX. It explains the procedures for configuring authentication using the printer driver, and logging on to Enhanced Locked Print NX to print or delete jobs.

### Enhanced Locked Print NX Administrator's Guide (Type 2 model only)

This manual is for administrators of Enhanced Locked Print NX. It explains the procedures for using the management tool to configure system and option settings, and manage print jobs.

This manual is provided in English only.

---

### **VM Card Extended Feature Settings Web Reference**

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

### **UNIX Supplement**

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

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

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

This manual is provided in English only.

#### **⬇ Note**

- Manuals provided are specific to printer types.



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# How to Read This Manual

---

---

## Symbols

---

This manual uses the following symbols:

 **Important**

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

 **Note**

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


 **Reference**

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

[ ]

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

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

 **Region B** (mainly North America)

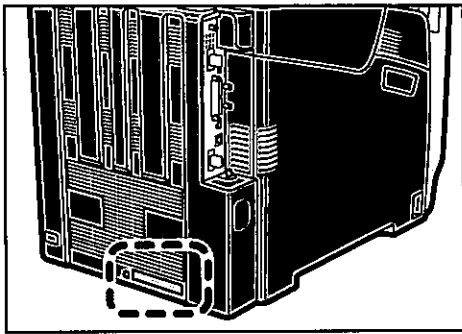
Differences in the functions of Region A and Region B models are indicated by two symbols. Read the information indicated by the symbol that corresponds to the region of the model you are using. For details about which symbol corresponds to the model you are using, see "Model-Specific Information".

---

## Model-Specific Information

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

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



BYK003

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

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

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

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

 **Region B** (mainly North America)

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

- CODE XXXX -11, -17
- 120-127V

 **Note**

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

---

### Machine Types

---

This printer comes in two models that have different printing speeds.

When describing procedures that are model-specific, this manual refers to the different printer models as Type 1 or Type 2. The following table describes the model types.

---

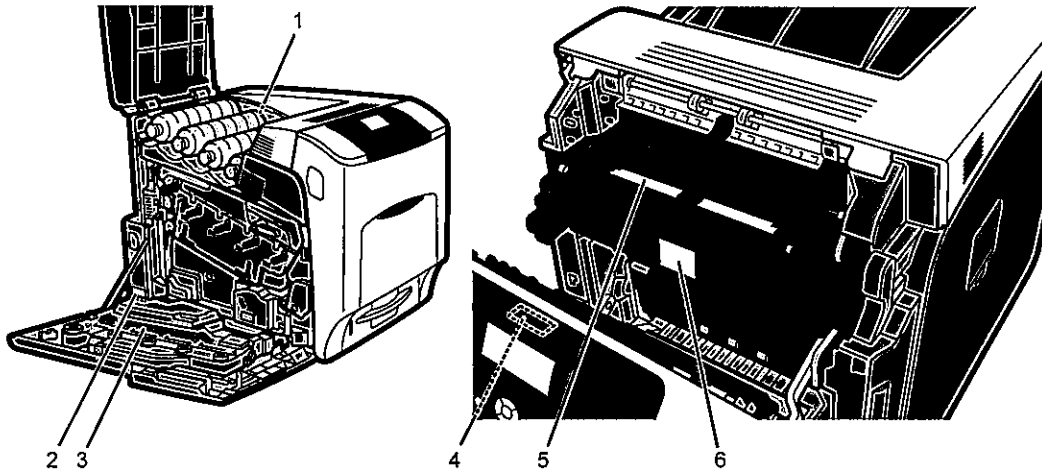
**Model types**

Model types	Printing Speed	Hard Disk
Type 1	maximum 35 pages per minute (A4 <sup>D</sup> )	Optional
Type 2	maximum 40 pages per minute (A4 <sup>D</sup> )	Standard

---

## Positions of WARNING and CAUTION Labels

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



BYK001

1



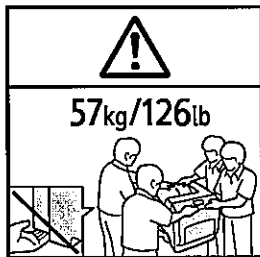
BYK140

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

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

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

2

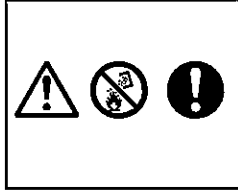


BYK144

The printer weights approximately 57 kg (126 lb.).

Four people are required to move the printer. Hold the inset grips located on both sides, and then lift it slowly. Lifting it carelessly or dropping it may cause an injury.

3



BYK202

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

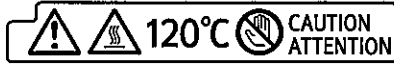
4



BYK147

Some parts of the Transfer roller may be charged with high voltage, and pose electric shock hazard. Do not touch parts other than the ones specified in the maintenance guide.

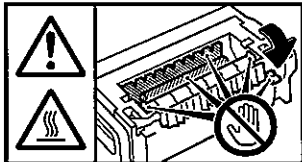
5



BYK148

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

6



BYK145

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

---



## Power Switch Symbols

---

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

## 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 PB1020	Paper feed unit
Caster Table Type C	Tip-resistant caster table
Hard Disk Drive Option Type 5000	Hard disk
Memory Unit Type G 256 MB	SDRAM module
Memory Unit Type I 512 MB	SDRAM module
Gigabit Ethernet Board Type A	Gigabit Ethernet board
 <b>Region B</b> IEEE 802.11 a/g Interface Unit Type L	Wireless LAN interface unit
 <b>Region A</b> IEEE 802.11 a/g Interface Unit Type M	Wireless LAN interface unit
IEEE 1284 Interface Board Type A	IEEE 1284 interface board
Camera Direct Print Card Type H	Camera direct print card
Data Overwrite Security Unit Type K	Data overwrite security unit
HDD Encryption Unit Type D	HDD encryption unit
SD card for NetWare printing Type D	NetWare card
VM Card Type O	VM card

### Note

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

### Reference

- p.232 "Specifications"

---

# Installing the Operating Instructions

This section explains how to use HTML format manuals.

---

## Installing the HTML Format Manuals

---

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

### Important

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

1. Quit all applications currently running.

2. Insert the CD-ROM into the CD-ROM drive.

The installer starts.

Auto Run may not work with certain operating system settings. If this happens, launch "Setup.exe" on the CD-ROM root directory.

3. Select a language and a product, and then click [OK].

4. Click [Install manuals].

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

5. Install the manual you require according to the displayed instructions.

6. When installation is complete, click [Finish].

7. Click [Finish].

### Note

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



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## Opening the HTML Format Manuals

---

This section explains how to open the HTML format manuals.

### Opening from the Icon

---

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

1. Double-click the icon on your desktop.



The browser opens and the manual appears.

### Opening from the [Start] Menu

---

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

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

The browser opens, and then the manual appears.

#### Note

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

### Opening from the CD-ROM

---

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

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

The browser opens, and then the manual appears.



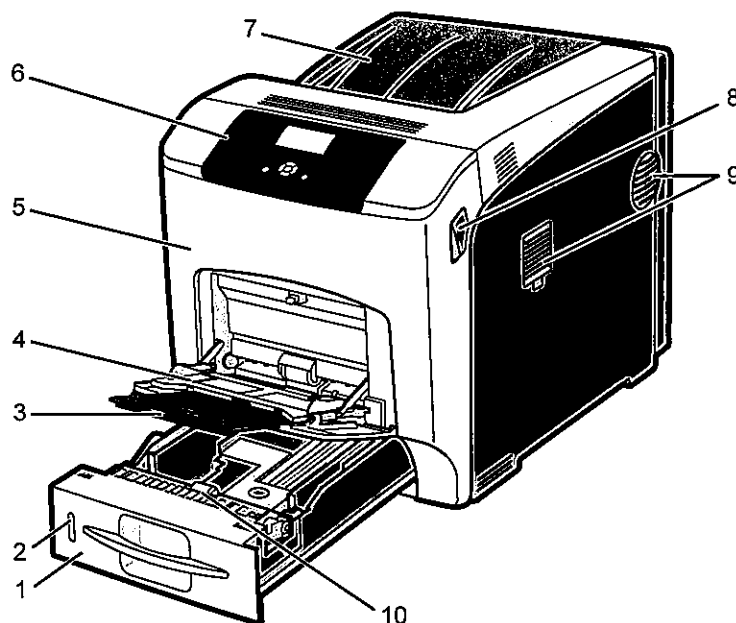
# 1. Guide to the Printer

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

## 1

### Exterior: Front View

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



BYK004

**1. Standard Paper Feed Tray (Tray 1)**

Up to 550 sheets of plain paper can be loaded.

**2. The Remaining Paper Indicator**

Indicates the approximate amount of paper remaining in the tray.

**3. Bypass Tray Extension**

Pull this out when loading a sheet that is larger than A5 on the bypass tray.

**4. Bypass Tray**

Up to 100 sheets of plain paper can be loaded.

**5. Front Cover**

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

**6. Control Panel**

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

### 7. Standard Tray / Top Cover

Under normal operation, output is stacked on the top cover, which works as the standard output tray. Open this cover to replace the toner.

### 8. Front Cover Open Levers

Pull these levers toward the front side of the printer to open the front cover.

### 9. Vents

The right side of the printer features two vents. To prevent overheating, heat from internal components is released through these vents. Malfunctions and failure can result if these vents are blocked or obstructed.

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

Replace the dustproof filter when the following message appears:

- "Replcmnt Rqrd:Fusing Unit"

Replace the dustproof filter and the fusing unit together.

### 10. Paper Feed Roller

This ensures only one sheet of paper is fed in at a time. If multi-sheet feeds occur, clean the paper feed roller carefully.

#### Note

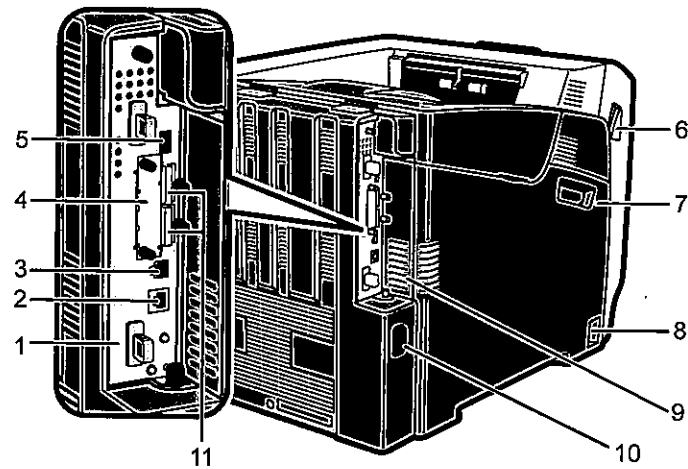
- For details about the messages which appear on the screen to prompt you to replace the units, see "Error and Status Messages Appears on the Control Panel".

#### Reference

- p.197 "Error and Status Messages Appear on the Control Panel"

## Exterior: Rear View

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



BYK005

### 1. Controller Board

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

### 2. Ethernet Port

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

### 3. USB Port B

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

### 4. Optional Interface Board Slot

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

### 5. USB Port A

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

### 6. Front Cover Open Levers

Pull these levers toward the front side of the printer to open the front cover.

### 7. Left Cover

Open this cover when replacing the drum unit, transfer unit or waste toner bottle.

### 8. Power Switch

Use this switch to turn the power on and off.

### 9. Vents

To prevent overheating, heat from internal components is released through these vents. Malfunctions and failure can result if these vents are blocked or obstructed.

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

Replace the dustproof filter when the following message appears:

- "Replcmnt Rqrd:Fusing.Unit"

Replace the dustproof filter and the fusing unit together.

**1**

#### 10. Power Connector

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

#### 11. SD Card Slots

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

#### Note

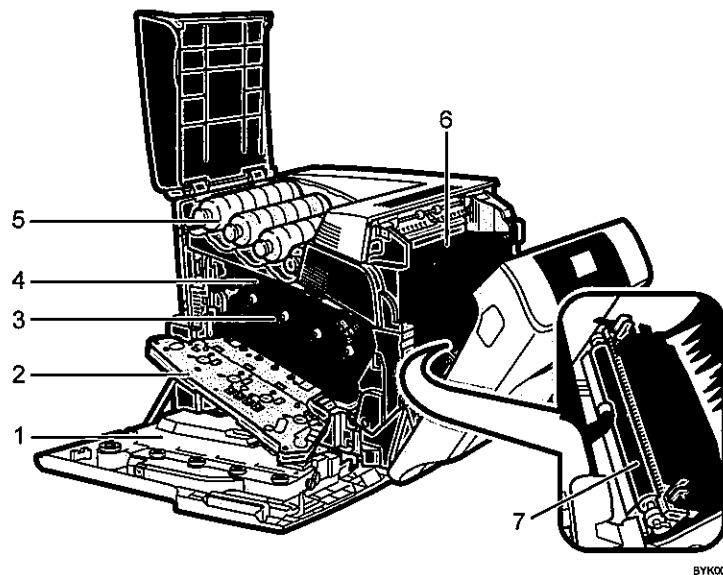
- For details about the messages which appear on the screen to prompt you to replace the units, see "Error and Status Messages Appears on the Control Panel".

#### Reference

- p.197 "Error and Status Messages Appear on the Control Panel"

# Interior

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



BYK006

## 1. Waste Toner Bottle

Collects toner that is wasted during printing.

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

- "Waste Toner Bottle full"

## 2. Inner Cover

Open this cover when replacing the drum unit or transfer unit.

## 3. Drum Unit

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

- "Rplcmnt Requird:PCU:Block"
- "Rplcmnt Requird:PCU:Color"

## 4. Transfer Unit

Replace the transfer unit when the following message appears:

- "Replacmnt Requird:IniTrans"

Replace the transfer unit and transfer roller together.

## 5. Toner

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

- "Add toner<K,C,M,Y>."

## 6. Fusing Unit

Replace the fusing unit when the following message appears:

- "Replcmnt Rqrd:Fusing Unit"

Replace the fusing unit and the dustproof filter together.

## 7. Transfer Roller

Replace the transfer roller when the following message appears:

- "Replacmnt Requd:InfTrans"

Replace the transfer roller and the transfer unit together.

### Note

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

### Reference

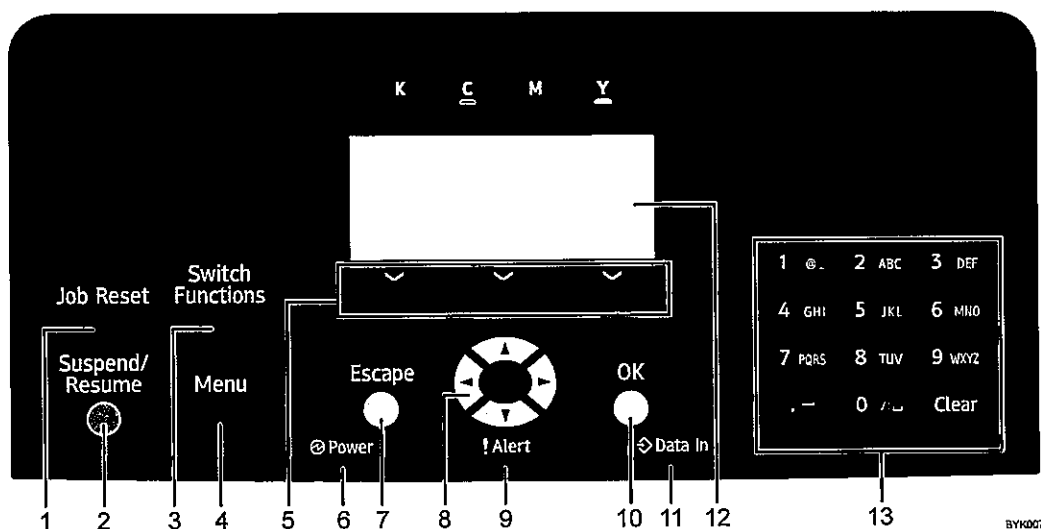
- p.197 "Error and Status Messages Appear on the Control Panel"



# Control Panel

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

1



## 1. [Job Reset] Key

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

## 2. [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.

## 3. [Switch Functions] Key

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

## 4. [Menu] Key

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

## 5. Selection Keys

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

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

## 6. Power Indicator

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

## 7. [Escape] Key

Press this key to return to the previous display.

## 8. Scroll Keys

Press these keys to move the cursor in each direction.

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

**9. Alert Indicator**

Lights up or flashes when a printer error occurs.

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

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

Follow the instructions that appear on the display.

**10. [OK] Key**

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

**11. Data In Indicator**

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

**12. Display**

Displays current printer status and error messages.

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

**13. Number Keys**

Use these to enter characters or numbers.

# Display Panel

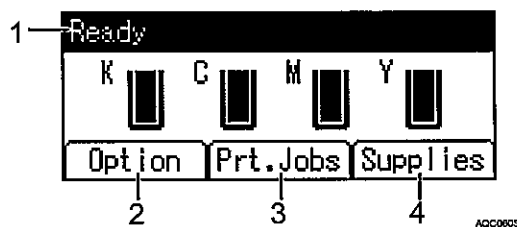
This section explains configuration using the initial screen of the display panel.

The items are highlighted when selected.

## ★ Important

- Do not touch the display panel.

The following screen appears when you turn on the printer.



### 1. Operational Status or Messages

Displays the printer status or the messages.

### 2. [Option]

Press to display the following items:

- Form Feed
- Error Log

### 3. [Prt.Jobs]

Press to display print jobs sent from a computer.

### 4. [Supplies]

Press to display the menu of supplies for the printer.

## ↓ Note

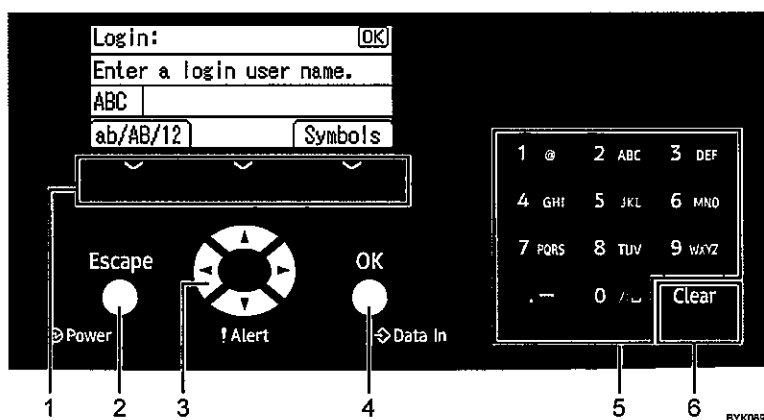
- [Prt.Jobs] is displayed only when the hard disk is installed in the printer.
- By default, the remaining amount of toner is displayed. To not display the remaining amount of toner, press the [Menu] key, and then select [Maintenance] on the display. Select [General Settings], then [Display Supply Info],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

## Entering Character

### 1

This section explains how to enter characters.

When you enter a character, it appears at the position of the cursor. If there is a character already at the cursor position, the entered character appears before that.



#### 1. Selection Keys

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

Example: When this manual instructs you to press [ab/AB/12], press the selection key on the left below the text input screen.

Press the left selection key to switch the input mode between lowercase, uppercase, and numeric characters.

Press the right selection key to display a list of the symbols that you can enter.

#### 2. [Escape] Key

Clears entered text and numbers, returns the display to its previous state.

#### 3. Scroll Keys

Press to move the cursor in each direction.

When the [^][v][<][>] keys appear in this manual, press the scroll key of the same direction.

#### 4. [OK] Key

Confirms entered text and numbers, and displays to the next menu.

#### 5. Number Keys

To enter text using the number keys, select text input mode by pressing [ab/AB/12].

When you press a number key repeatedly, the character changes in the order indicated above the key you are pressing.

#### 6. [Clear] Key

Deletes a character at the cursor position. You can delete a character at the right end of a line even if the cursor is placed to the right of the character.

## How to Enter Characters

Use the following procedure to enter text in the text input screen. ("User#2" is the text entered in this example.)

1

1. Press [ab/AB/12] to change the input mode to uppercase.

Login:	[OK]
Enter a login user name.	
ABC	
ab/AB/12	Symbols

2. Press the [8 TUV] key twice, and then press the [▶] key. A letter "U" is entered.

Login:	[OK]
Enter a login user name.	
ABC	U_
ab/AB/12	Symbols

3. Press [ab/AB/12] twice to change the input mode to lowercase.

Login:	[OK]
Enter a login user name.	
abc	U_
ab/AB/12	Symbols

4. Press the [7 PQRS] key four times, and then press the [▶] key. A letter "s" is entered.

Login:	[OK]
Enter a login user name.	
abc	Us_
ab/AB/12	Symbols

5. Press the [3 DEF] key twice, and then press the [▶] key. A letter "e" is entered.

Login:	[OK]
Enter a login user name.	
abc	Use_
ab/AB/12	Symbols

**1**

6. Press the [7 PQRS] key three times, and then press the [P] key. A letter "r" is entered.

Login:	[OK]
Enter a login user name.	
abc	User_
ab/AB/12	Symbols

7. Press [Symbols] to display a list of the symbols you can enter.

Login:	[OK]
Enter a login user name.	
abc	User_
ab/AB/12	Symbols

Symbols:	1/2	[OK]
! " # \$ % & ' ( )		
* + , - . / : ; <		
= > ? @ [ \ ] ^ _		

8. Use the scroll keys to select "#", and then press the [OK] key.

Symbols:	1/2	[OK]
! " # \$ % & ' ( )		
* + , - . / : ; <		
= > ? @ [ \ ] ^ _		

The list of symbols disappears and a "#" symbol is entered.

Login:	[OK]
Enter a login user name.	
abc	User#_
ab/AB/12	Symbols

9. Press [ab/AB/12] twice to change the input mode to numeric.

Login:	[OK]
Enter a login user name.	
123	User#
ab/AB/12	Symbols

10. Press the [2 ABC] key. A number "2" is entered.

Login:	[OK]
Enter a login user name.	
123	User#2_
ab/AB/12	Symbols

11. Press the [OK] key to proceed to the next menu.





## 2. Setting Up the Printer

---

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

### Printer Set Up Procedure

Use the following procedure to set up the printer.

2

- 1. Select a suitable location for your printer.**  
For details, see p.32 "Place to Install".
- 2. Verify the items that come with the printer.**  
For details, see p.36 "Checking the Contents of the Box".
- 3. Take the printer out of its box, and then remove the protective materials and adhesive tape.**  
For details, see p.38 "Removing the Packaging Materials".
- 4. Install the toner (print cartridge) in the printer.**  
For details, see p.43 "Installing the Toner (Print Cartridge)".
- 5. Load paper in the standard paper feed tray.**  
For details, see p.47 "Loading Paper".
- 6. Turn the printer power on.**  
For details, see p.50 "Turning the Printer's Power On and Off".
- 7. Select the language used on the display.**  
For details, see p.54 "Selecting the Display Language".
- 8. Print a test page.**  
For details, see p.55 "Test Printing".
- 9. Connect the printer to your network.**  
For details, see p.85 "Connecting the Printer".
- 10. Configure the printer's network settings.**  
For details, see p.93 "Configuration".
- 11. If you are using a Type 2 model, install the ELP-NX card.**  
For details, see p.56 "Installing the ELP-NX Card".
- 12. Install the printer driver.**  
For details, see Driver Installation Guide.

## Place to Install

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

### **WARNING**

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

### **WARNING**

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

### **WARNING**

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

### **WARNING**

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

### **WARNING**

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

### **WARNING**

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

### **WARNING**

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

### **WARNING**

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

**⚠ WARNING**

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

**⚠ WARNING**

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

**⚠ WARNING**

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

**⚠ WARNING**

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

**⚠ CAUTION**

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

**⚠ CAUTION**

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

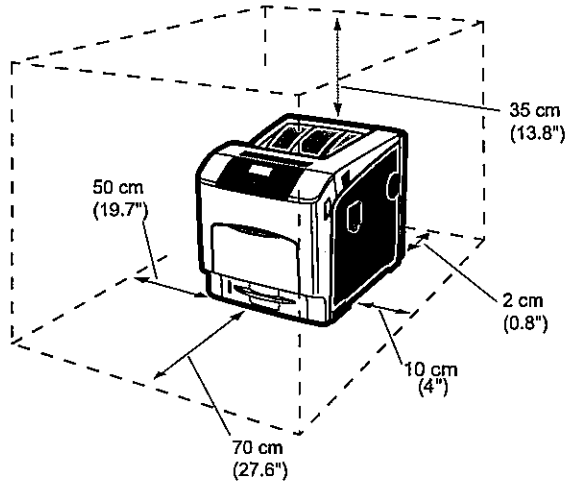
**⚠ CAUTION**

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

**Space Required for Installation**

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

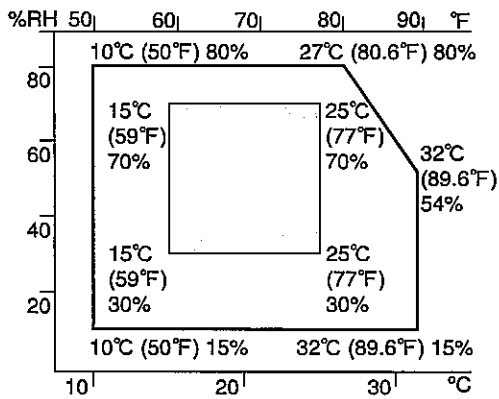
**2**



BYK011

**Optimum Environmental Conditions**

Permissible and recommended temperature and humidity ranges are as follows:



BSP0238

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

**Note**

- The machine must be level within 5 mm, 0.2" from both front to rear and left to right.
- To avoid possible build-up of ozone, locate this machine in large well ventilated room that has an air turnover of more than 30 m<sup>3</sup>/ hr/ person.
- When you use this machine for a long time in a confined space without good ventilation, you may detect an odd smell. To keep the workplace comfortable, we recommend you keep it well ventilated.

**Environments to Avoid**


Do not use the printer in the following environments:


**★ Important**

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

**Power Source**

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

 **Region A** (mainly Europe and Asia)  
220 - 240 V, 50/ 60 Hz, 8 A or more

 **Region B** (mainly North America)  
120 - 127 V, 60 Hz, 12 A or more

## Checking the Contents of the Box

Follow the procedure below to verify the items that come with the printer.

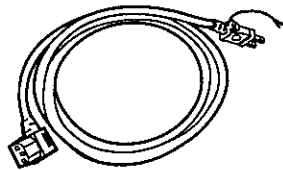
**Important**

- Ensure that the box contains all items listed below. If there are any missing or defective items, contact your sales representative.

2

### Manuals and CD-ROMs

- Quick Installation Guide
- CD-ROM "Printer Drivers"
- CD-ROM "Manuals"
- Power Cord



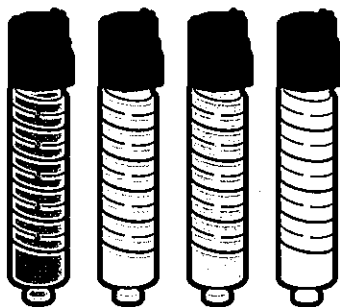
BYK154

- Ferrite Core



BYK012

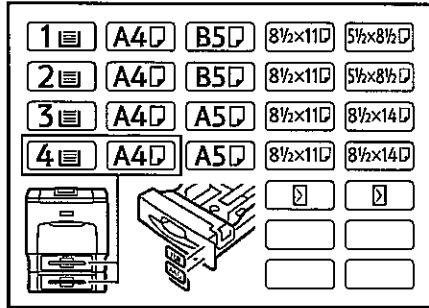
- Toner: Black (K), Cyan (C), Magenta (M), Yellow (Y)



BYK018

- ELP-NX Card (Type 2 model only)

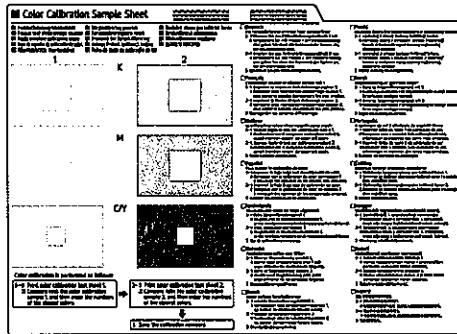
• Paper Feed Unit Labels



BYK019

2

• Color Calibration Sample Sheet



• Paper Weight/Grade Chart

Region B (mainly North America)

**Notes for Users**  
Attach this seal to a clearly visible part of the machine so that users can select the appropriate machine setting mode according to paper type.

• **Mode Setting Instructions**  
For optimal print quality, select the appropriate Paper Type and Setting Mode on the printer's Control Panel using the following instructions:  
• Press the [Menu] key, select [Maintenance], [General Settings], and then select a paper type.  
• Select mode according to the chart below.  
The greater number corresponds to thicker settings.  
• Refer to the manual for further details.

Paper Type	Setting Mode
Letterhead	1 - 2* 3 - 4 - 5
Coated Paper (Glossy)	1 - 2 - 3 - 4* 5
Coated Paper (Matte)	1* 2
Coated Paper (Matte Thick)	1 - 2 - 3 - 4* 5
Coated Paper (Matte Thick)	1* 2
Waterproof Paper	1 - 2 - 3 - 4 - 5*
Label Paper	1 - 2 - 3 - 4 - 5 - 6*
Envelope	1* 2 - 3 - 4
or Default Setting	

• **Paper Weight/Grade Chart**

Paper Type	Weight (gsm)	Bond (lb)	Cover (lb)	Card (lb)	Book (lb)
Thin Paper	52	14	19	24	29
Thin 1	61	16	21	26	31
Thin 2	81	21	27	33	39
Medium Thick	91	24	31	38	45
Thick 1	106	28	35	43	51
Thick 2	131	35	43	52	61
Thick 3	164	43	53	64	75
Thick 4	241	62	77	94	111
Thick 5	296	77	95	117	139

BYK120

• Additional Documentation

↓ Note

- This package does not include an interface cable. Purchase one as necessary to connect to the printer.

## Removing the Packaging Materials

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

### **⚠ WARNING**

2

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

### **⚠ CAUTION**

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

### **⚠ CAUTION**

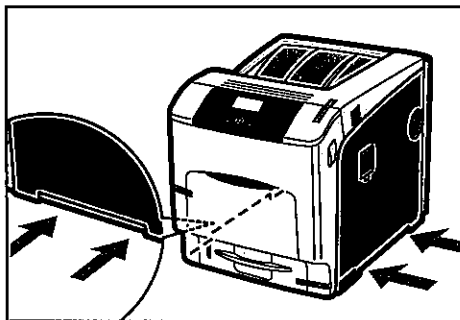
- Place no objects on the left or inner cover.

### **★ Important**

- Removed tape is dirty. Be careful not to let it touch your hands or clothes.

1. Remove the plastic bag.
2. Lift the printer with four people by using the inset grips on both sides of the printer.

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

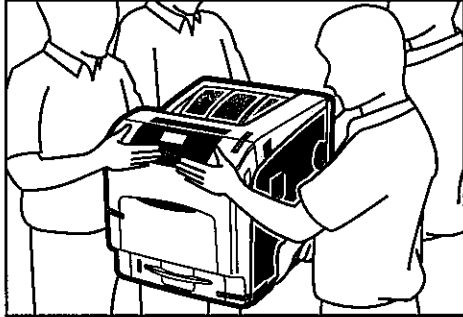


BYK014

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

- The handle onto the standard paper feed tray.
- The underside of the bypass tray.
- The underside of the box containing the controller board (on the back of the printer).

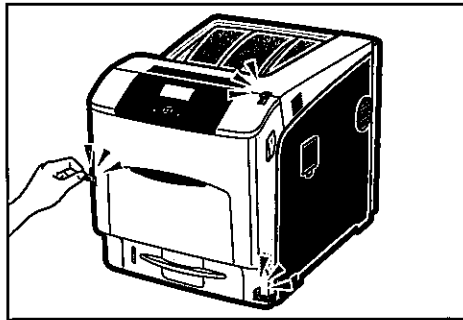




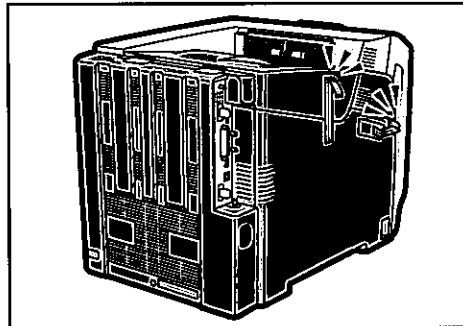
BYK155

2

3. Remove the orange adhesive tape from the printer body.

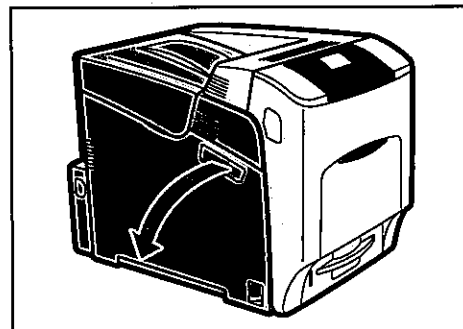


BYK150



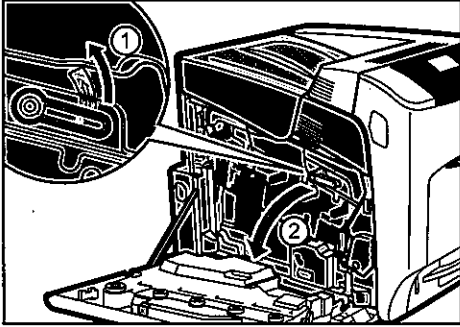
BYK151

4. Carefully open the left cover.

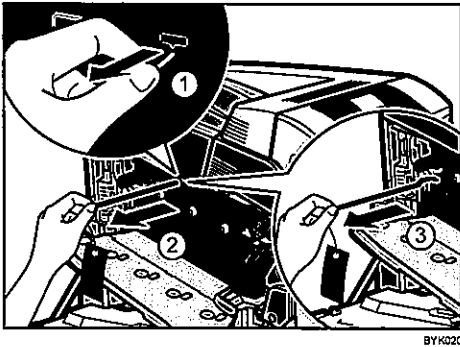


BYK016

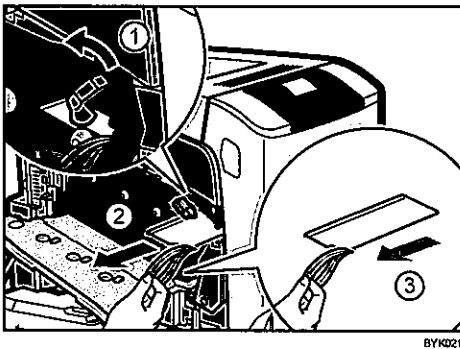
5. Turn the green lever counterclockwise (①), and then slowly open the inner cover (②).



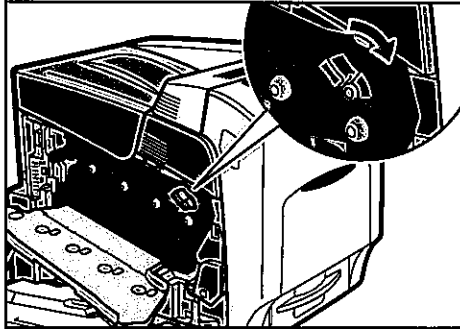
6. Remove the securing pin, as shown, from the transfer unit. Pinch it (①), and then pull it out (②-③).



7. Turn the green lever of the transfer unit counterclockwise to unlock the unit (①). Remove the protective sheet, as shown. Pinch the orange tape (②), and then pull it out (③).

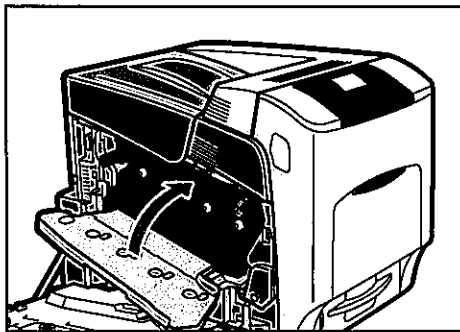


8. Turn the green lever clockwise to lock the unit.



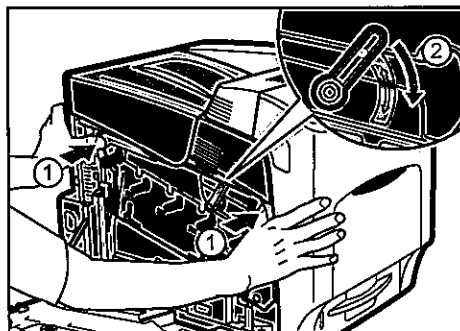
BYK023

9. Close the inner cover.



BYK024

10. Lock the inner cover by pushing on both ends (①), and then turning the green lever clockwise (②).



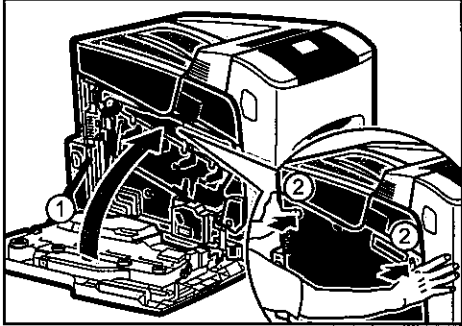
BYK141

11. Close the left cover.

Using both hands, push the left cover firmly, until it clicks into place.

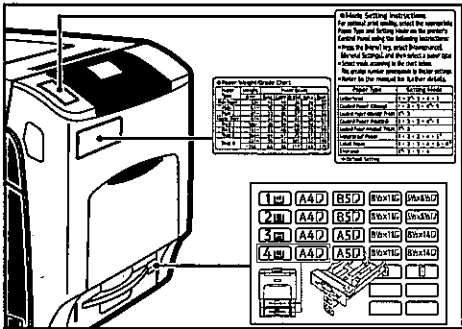
2. Setting Up the Printer

2



BYK149

12. Put labels "1" on the front of the paper tray.



BYK028

## Installing the Toner (Print Cartridge)

The following procedure describes how to install the toner.

### **WARNING**

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

2

### **WARNING**

- Do not store toner (new or used) or toner containers anywhere near naked flames. Doing so risks fire and burns. Toner will ignite on contact with naked flame.

### **WARNING**

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

### **CAUTION**

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

### **CAUTION**

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

### **CAUTION**

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

### **CAUTION**

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

### **CAUTION**

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

**⚠ CAUTION**

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

**2**

**⚠ CAUTION**

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

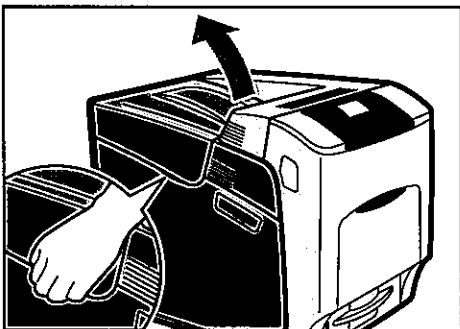
**★ Important**

- When you use this printer for the first time, use the four toners supplied with the printer.
- Do not forcefully push toner in.
- When handling toner, never stand them up on either end or position them upside down.

**📌 Note**

- Toner (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.
- Toner mouths may become dirty during quality inspection.

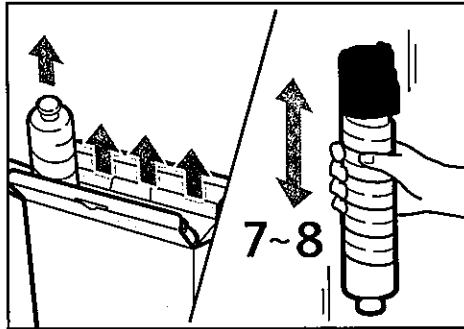
1. Open the top cover by pulling the handles on the left side.



BYK025

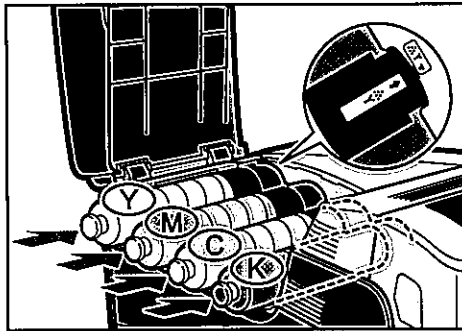
2. Take the toner bottle out of its box, and then shake the toner bottle up and down seven or eight times. When holding or shaking the toner bottle, take care to hold the actual bottle, not the bottle's cover.

Even distribution of toner within the bottle improves print quality.



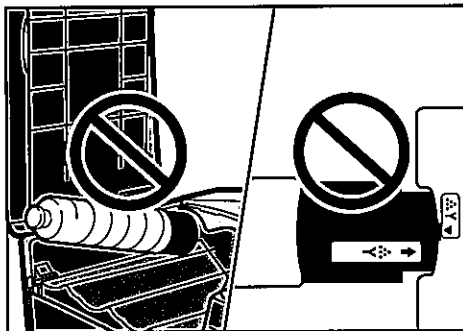
2

3. Install the yellow toner bottle first. Holding the toner bottle horizontally with the label facing up, align the label with the position of the triangular mark.



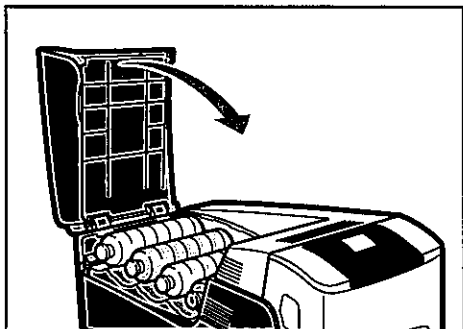
Be sure to set the toner bottles so that they are straight and flat.

Carefully align the label on each toner bottle with the triangular mark on the receiving side.



4. Push in the toner bottle until you hear a clicking sound.  
Do not repeatedly install and remove toner bottle. Doing so results in toner leak.

5. Close the top cover.



BYK115

2



## Loading Paper

This section describes how to load paper into Standard Paper Feed Tray (Tray 1).

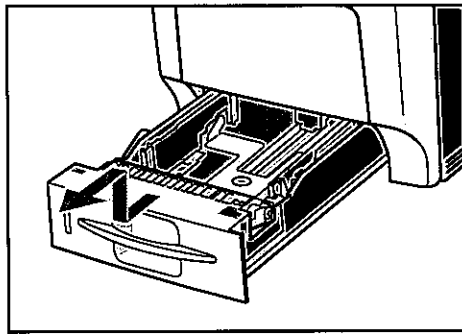
### **⚠ CAUTION**

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

### **🔑 Important**

- Make sure paper is not stacked higher than the upper limit mark inside the paper tray. Paper misfeeds might occur.
- Do not mix different types of paper in the same paper tray.
- During printing, do not open or close the printer covers or bypass tray, or pull out or push in the paper tray.
- The default setting of tray 1 is as follows:
  - **Region A** (mainly Europe and Asia)  
A4
  - **Region B** (mainly North America)  
8 1/2 " × 11 " (Letter)

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

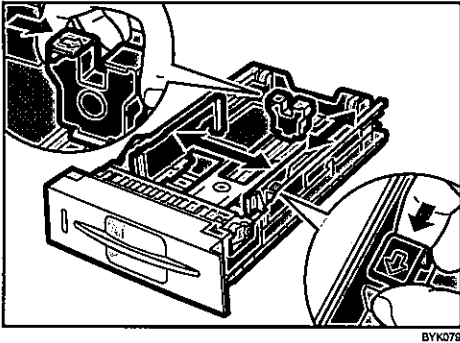


BYK078

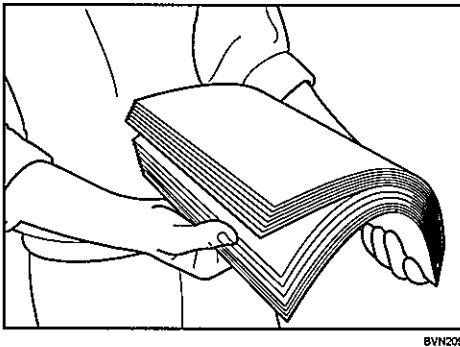
Place the tray on a flat surface.

2

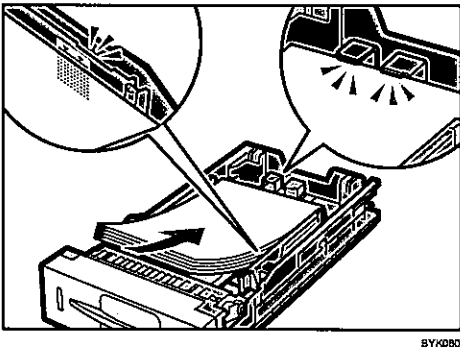
2. Pinch the green clips on the side guide and the end guide, and then adjust the guides to the paper size being loaded.



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



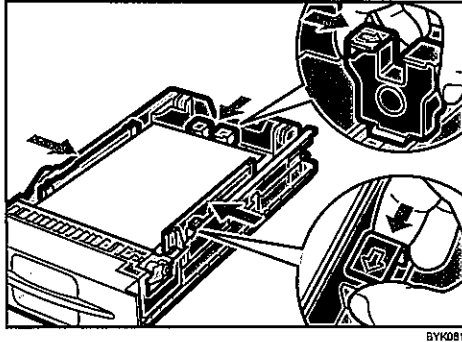
4. Load the new paper stack print side up, making sure the paper is flush against the paper guides.



5. Adjust the paper guides to close any gaps.

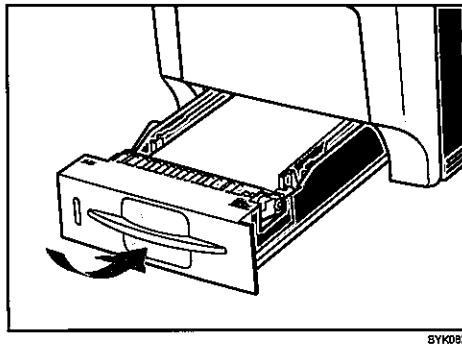
Do not move paper loaded in the tray more than a few millimeters.

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



2

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

**Note**

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

**Reference**

- p.123 "Types of Paper and Other Media"

## Turning the Printer's Power On and Off

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

### **⚠ WARNING**

**2**

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

### **★ Important**

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

---

### Turning on the Power

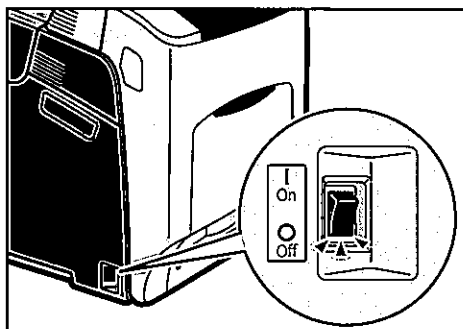
---

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

### **★ Important**

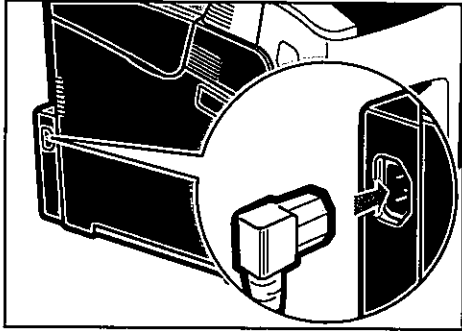
- Make sure the power cord is plugged securely into the wall outlet.
- Turn the power switch off when plugging and unplugging the power plug.

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



BYK033

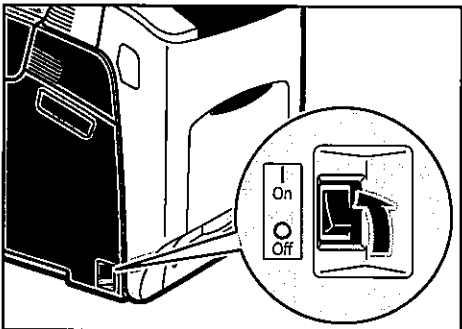
2. Connect the power cord to the connector of the printer.



BYK034

3. Insert the plug of the power cord securely into the wall outlet.
4. Turn the power switch to "I On".

The power indicator on the control panel lights up.



BYK035

**Note**

- Wait while the toner loads. To avoid malfunction, do not turn off the power while "Loading Toner" is shown on the display.
- Wait until "Ready" appears on the display panel.
- The printer may make a noise while initializing. This noise does not indicate a malfunction.

---

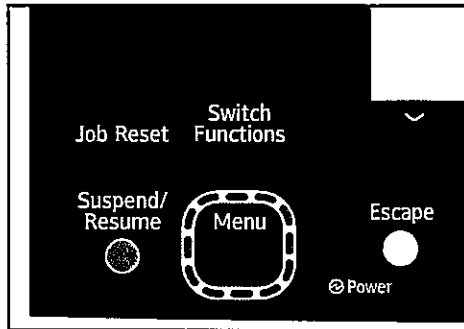
## Turning off the Power

---

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

2

1. Press the [Menu] key.

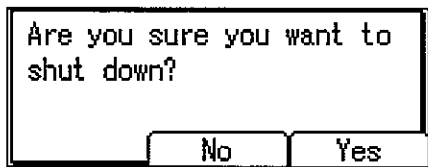


BYK087

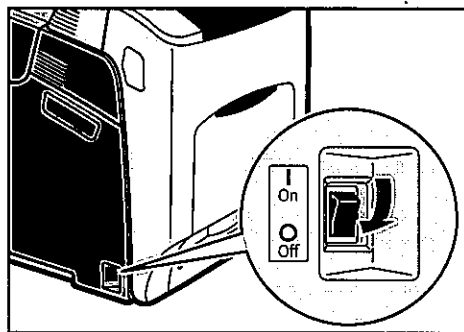
2. Press the [▼] or [▲] key to select [Shutdown], and then press the [OK] key.



3. Press [Yes].



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



BYK122

**Note**

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

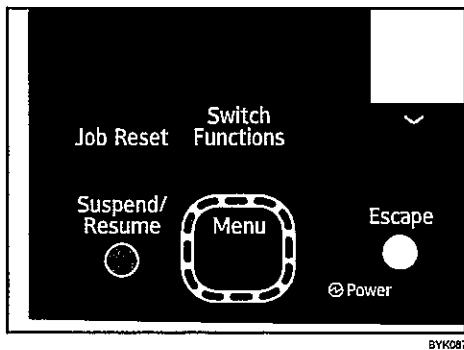
- If the printer's cover is opened.

## Selecting the Display Language

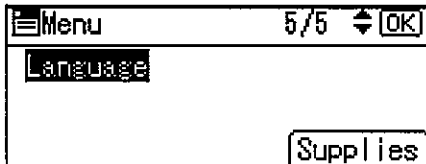
Select a language using the procedure described here. The message in the selected language will appear on the display.

2

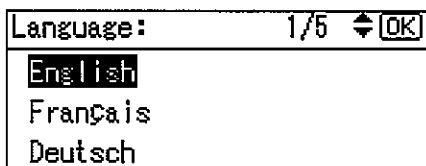
1. Press the [Menu] key.



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



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



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

**Note**

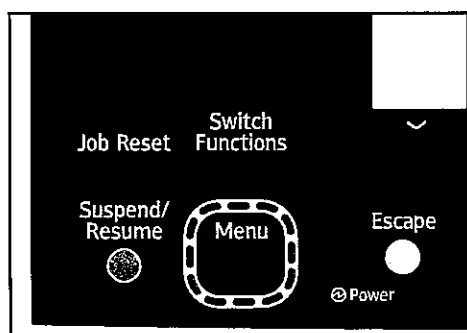
- The default setting is English.



## Test Printing

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

1. Press the [Menu] key.



2

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



3. Press the [▼] or [▲] key to select [Config. Page], and then press the [OK] key.  
The configuration page will be printed.



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

### ⚠ Note

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

### 📖 Reference

- p.197 "Troubleshooting"

## Installing the ELP-NX Card

This section explains how to install the ELP-NX card. The following procedure applies to Type 2 model only.

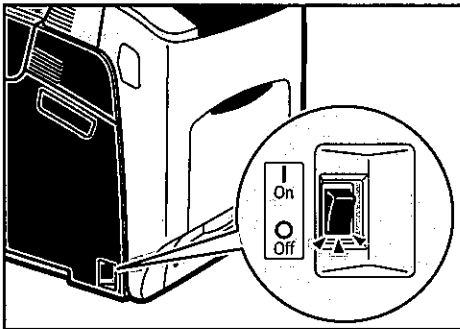
### ⚠ CAUTION

2

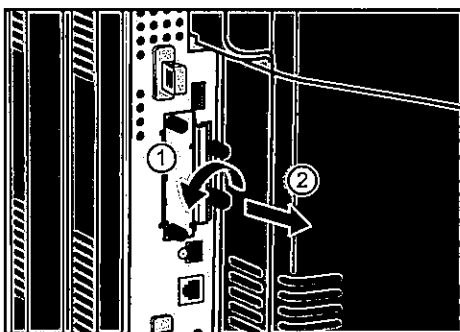
- Keep SD memory cards out of reach of children. If a child swallows an SD memory card, consult a doctor immediately.

### ★ Important

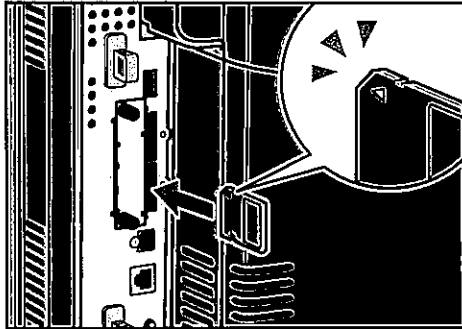
- To complete the installation process of the ELP-NX card, you must restart the printer.
  - Do not subject the card to physical shocks.
  - Use the lower slot for the SD card.
1. Make sure the power switch is set to "○ Off", and then unplug the power cord.



2. Remove the cover of the controller board's lower SD card slot.

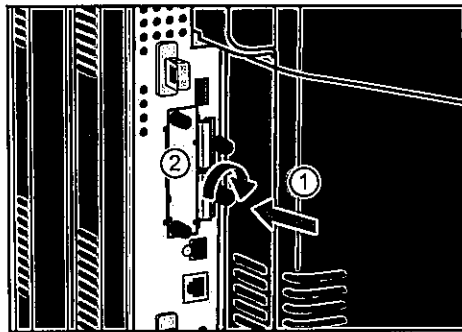


3. Carefully push in the SD card (notched corner upward and leading), until it clicks into place.



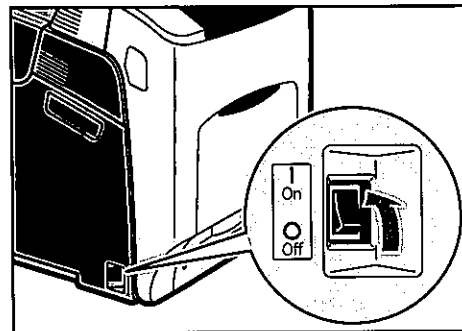
BYK601

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



BYK602

5. Insert the plug of the power cord securely into the wall outlet.
6. Turn the power switch to "I On".



BYK603

The power indicator on the control panel lights up and the application installation process starts automatically. The initial screen will appear.

7. Perform the shutdown procedure, and then turn the power switch to "O Off".
8. Turn the power switch to "I On".

The power indicator on the control panel lights up.

 **Note**

- Do not touch the card while the printer is in use. It may come loose, even if pushed only slightly. The slot cover must be reattached.
- You can confirm that the ELP-NX card was installed correctly by checking Web Image Monitor. For details, see "Extended Feature Info", VM Card Extended Feature Settings Web Reference.
- If the card is not installed properly, repeat the procedure from the beginning. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.

# 3. Installing Options

---

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

## Available Options

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

### CAUTION

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

3

---

### Order of Option Installation

---

When installing multiple options, the following order is recommended:

**1. Attach the paper feed unit.**

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

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

If the paper feed unit is set on the floor, the tip-resistant caster table (option) is required for safe usage. The tip-resistant caster table can only be installed by a service representative. Contact your service representative for details.

**2. If you are using Type 1 model, install the SDRAM module.**

Install the expansion memory in the controller board slot.

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

**3. If you are using Type 1 model, install the hard disk.**

**4. Install the optional interface board.**

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

**5. Insert SD card options.**

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

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

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

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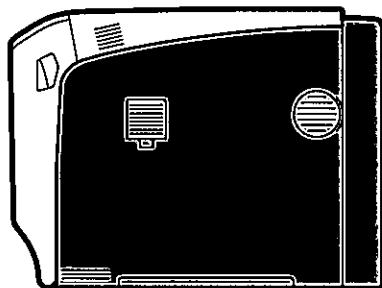
## Where to Install Options

---

Install options in the locations shown in the following illustrations.

### External options

3



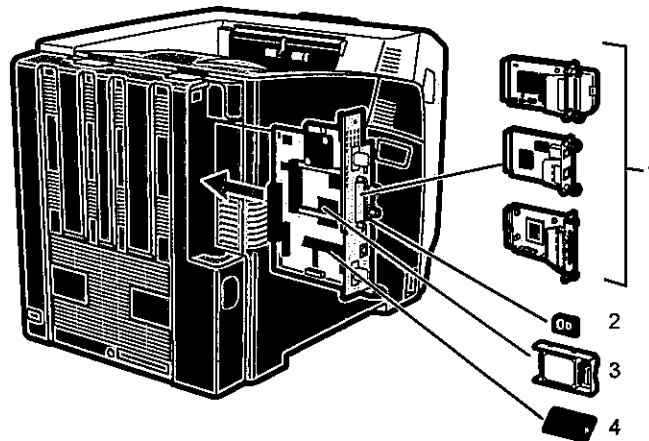
1

BYK036

#### 1. Paper feed unit

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

## Interior


**3**

BYK037

### 1. Optional interface boards

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

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

### 2. SD card options

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

### 3. Hard disk

For details about this option, see "Installing the Memory Expansion Units".

### 4. SDRAM module

For details about this option, see "Installing the Memory Expansion Units".

#### Note

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

#### Reference

- p.63 "Attaching the Paper Feed Unit"
- p.67 "Installing the Memory Expansion Units"
- p.75 "Installing the Interface Units"
- p.82 "Installing the SD Memory Card Options"
- p.232 "Specifications"

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## Cautions When Re-installing the Controller Board

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This section describes handling the controller board when installing options.

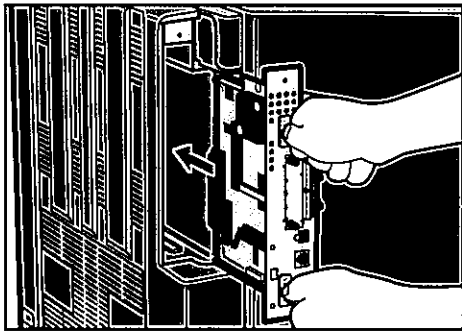
If you slide out the controller board to install the SDRAM module or hard disk, carefully follow the instruction below to re-install the controller board.

**★ Important**

• The following may occur if the controller board is not correctly installed:

- All control panel indicators are lit.
- No control panel indicators are lit.
- The "SC670" error message appears on the display.

Re-install the controller board in the printer. To do this, grip the handles on the back of the board and push the board in until it stops.



BYK043



## Attaching the Paper Feed Unit

### **WARNING**

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

### **CAUTION**

- The printer weighs approximately 57 kg (126 lb.). When moving the printer, use the inset grips on both sides, and lift slowly. The printer will break or cause injury if dropped.

### **CAUTION**

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

### **CAUTION**

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

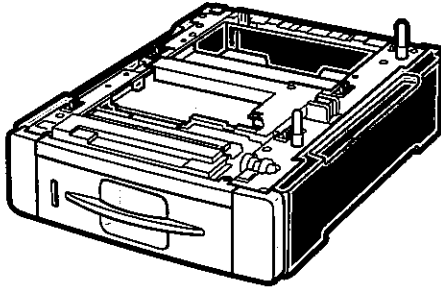
### **CAUTION**

- The tip-resistant caster table is required if the printer is to be used while placed on the floor with the optional paper feed unit installed. Not using the tip-resistant caster table risks injury to users and damage to the printer resulting from toppling. The tip-resistant caster table can only be installed by a service representative. Contact your service representative for details.

### **Important**

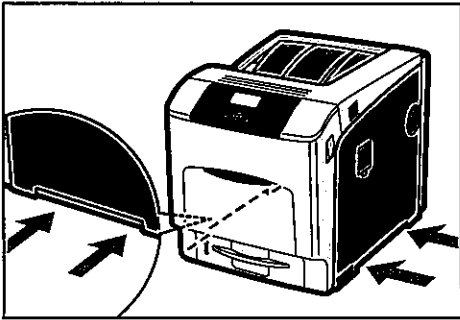
- Up to three paper feed units can be attached to the printer.
- When three paper feed units are installed, they are detected as "Tray 2", "Tray 3", and "Tray 4", starting from the upper unit.
- The printer should always be lifted by at least four people.
- Before using the new paper feed unit, you must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

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



BYK038

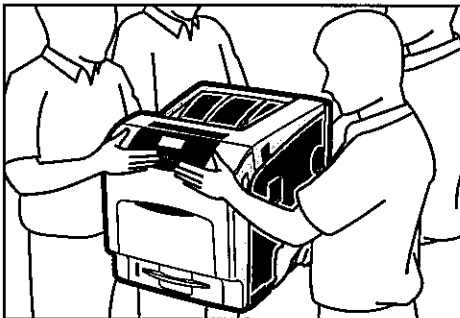
2. Turn off the power, and then unplug the power cord.
3. Remove the stowage tapes from the paper feed unit.
4. Lift the printer with four people by using the inset grips on both sides of the printer.



BYK157

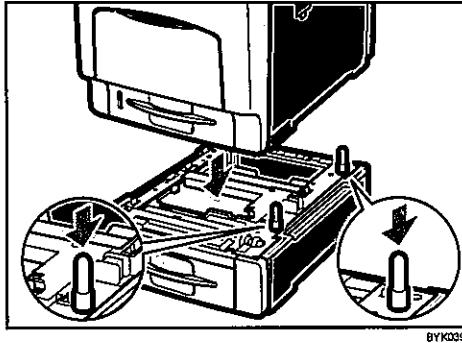
When moving the printer, do not hold on the following parts as doing so could cause a malfunction:

- The handle onto the standard paper feed tray.
- The underside of the bypass tray.
- The underside of the box containing the controller board (on the back of the printer).

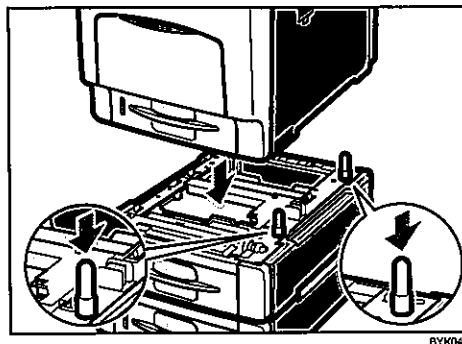


BYK015

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



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



**Note**

- When moving the printer, remove the paper feed unit.
- After finishing the installation, you can check whether the paper feed unit is properly installed by printing the configuration page from the [List/Test Print] menu. If the paper feed unit is properly installed, "Tray 2", "Tray 3", and "Tray 4" will appear for "Attached Equipment" on the configuration page.
- If the paper feed unit is not installed properly, reinstall it following this procedure. If you cannot install it properly even after attempting reinstallation, contact your sales or service representative.
- If the print area is not centered correctly, adjust the printing position for the optional paper feed unit. For details, see "Adjusting Printing Position".
- For details about printing the configuration page, see "Test Printing".
- For details about loading paper onto the paper tray, see "Loading Paper".

**Reference**

- p.55 "Test Printing"
- p.138 "Loading Paper"

- p.192 "Adjusting Printing Position"

## Installing the Memory Expansion Units

The following procedure applies to Type 1 model only.

### **⚠ CAUTION**

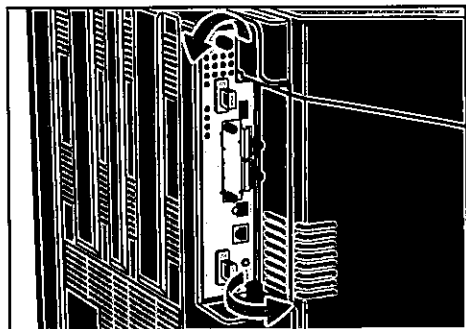
- Do not touch the inside of the controller board compartment. It may cause a machine malfunction or a burn.

## Installing the SDRAM Module

3

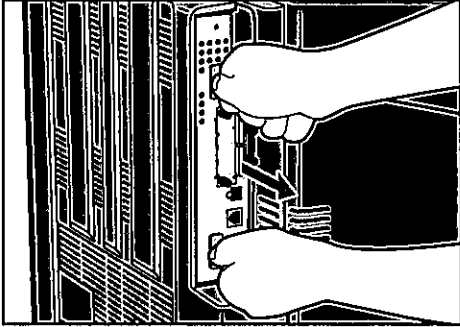
### **★ Important**

- Before touching the SDRAM module, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the SDRAM module.
  - Do not subject the memory unit to physical shocks.
  - The printer comes equipped with 384 MB of memory. This can be expanded to a maximum of 768 MB.
  - Before using the new memory unit, you must configure settings in the printer driver.
1. Turn off the power, and then unplug the power cord.
  2. Remove the two screws securing the controller board.



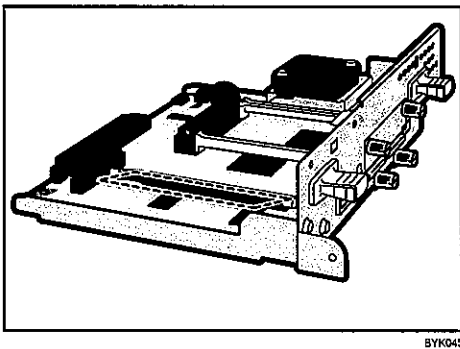
BYK041

3. Gripping the handles, carefully pull out the controller board.

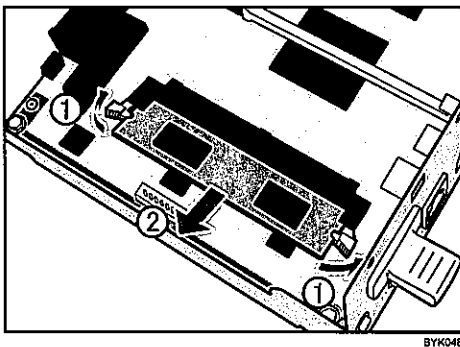


4. Place the controller board on a flat surface.

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

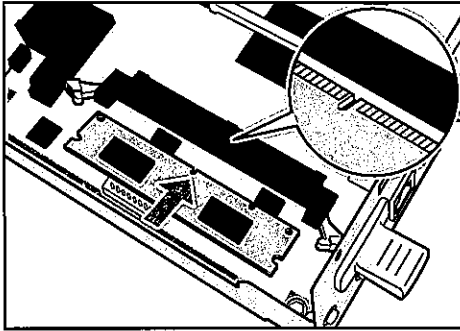


5. Push the levers on both ends of the slot outward (①), and then remove the default module (②).

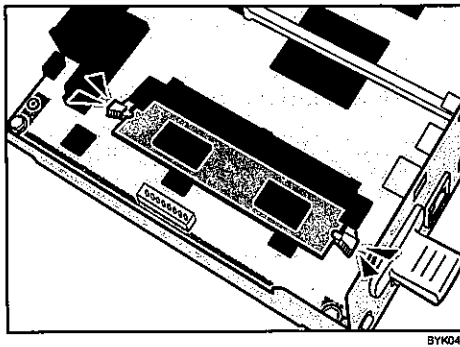


Install a new SDRAM module.

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

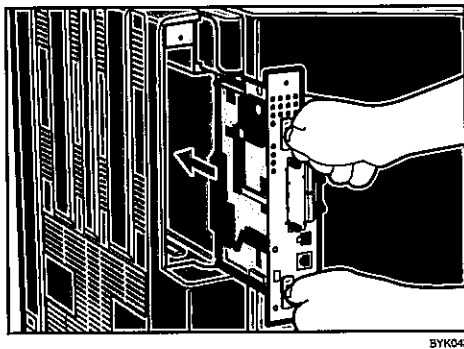


7. Push in the SDRAM module firmly until it clicks into place.

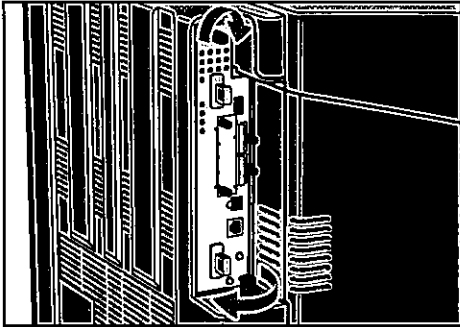


8. Align the controller board with the top and bottom rails, and then push it carefully in, until it stops.

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



9. Fasten the controller board to the printer using the two screws.



3

**Note**

- After finishing the installation, you can check the memory unit is properly installed: Print the configuration page from the [List/Test Print] menu. If it is installed properly, the memory capacity will appear under "Total Memory" on the configuration page.
- The following table shows the total capacities of the SDRAM modules in Type 1 model.

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

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

**Reference**

- p.55 "Test Printing"

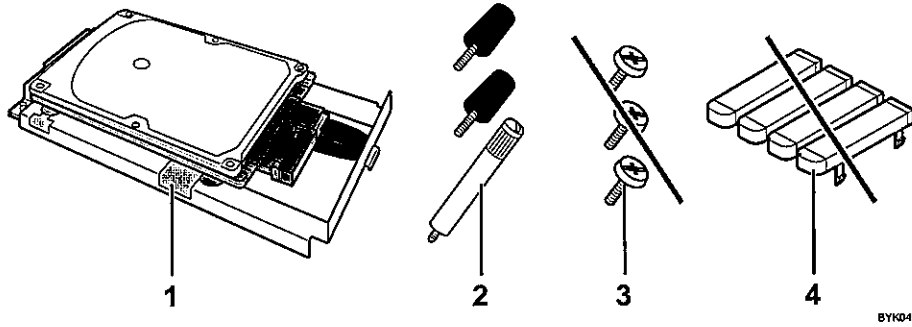
**Installing the Hard Disk**

**Important**

- Before touching the hard disk, touch something metal to discharge any static electricity. Static electricity can damage the hard disk.
- Do not subject the hard disk to physical shocks.
- Install the hard disk carefully if the SDRAM module is already installed. If the hard disk comes into contact with the SDRAM module, the SDRAM module may be damaged.
- Before using the new hard disk, be sure to reconfigure the printer driver settings.



1. Check the package contains the following:

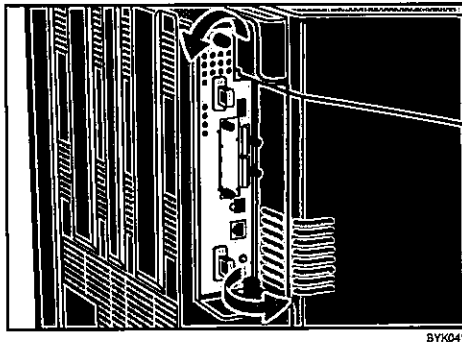


3

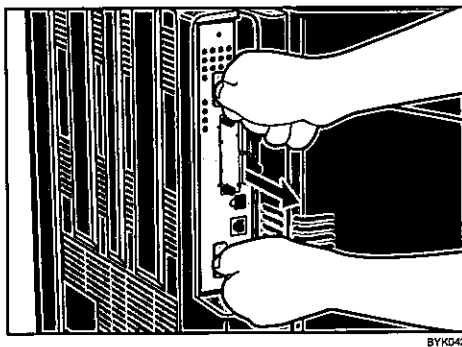
1. Hard Disk
2. Three Screws
3. Screws for Other Models
4. Key Tops

2. Turn off the power, and then unplug the power cord.
3. Remove the two screws securing the controller board.

The removed screws will be used to secure the controller board again later.

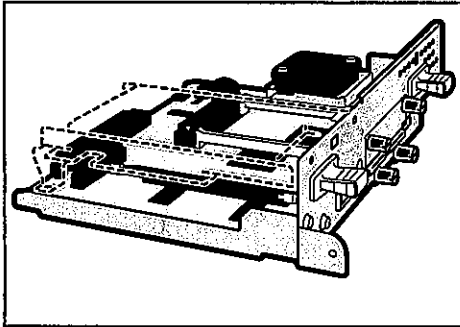


4. Gripping the handles, carefully pull out the controller board.



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

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

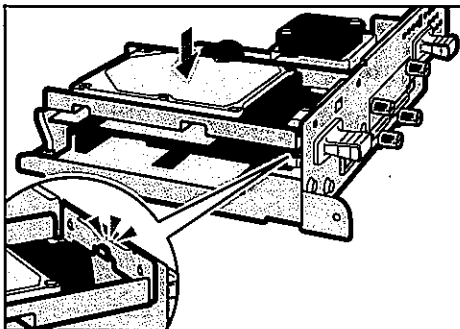


BYK050

**3**

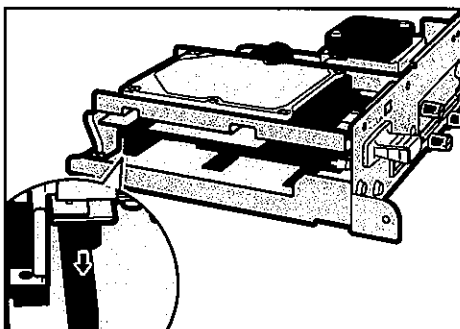
**6. Insert the protrusion on the front end of the hard disk board into the notch on the back panel of the controller board.**

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



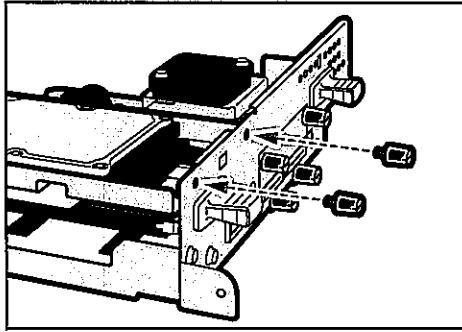
BYK051

**7. Fit the hard disk on the connector of the controller board carefully until it stops.**

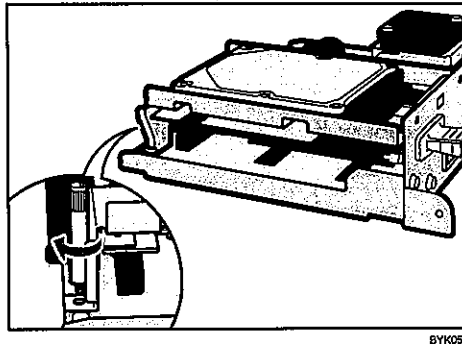


BYK052

8. Fasten the hard disk to the controller board using the two screws.

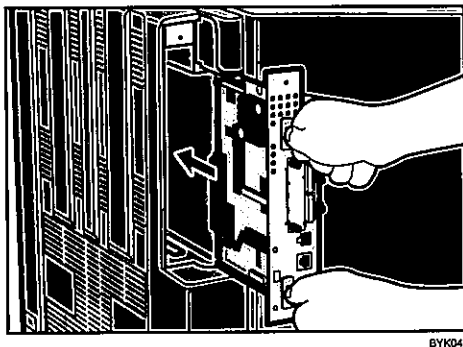


9. Fasten the hard disk to the controller board using the screw.

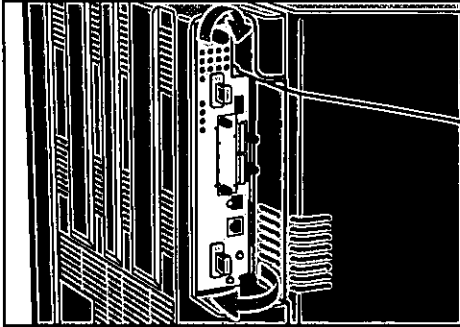


10. Align the controller board with the top and bottom rails, and then push it carefully in, until it stops.

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



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



BYKD44

3

**Note**

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

**Reference**

- p.55 "Test Printing"

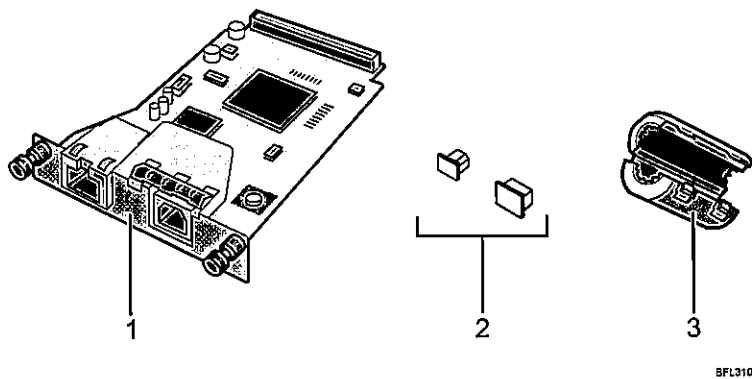
# Installing the Interface Units

## Installing the Gigabit Ethernet Board

### Important

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

1. Check the contents of the package.

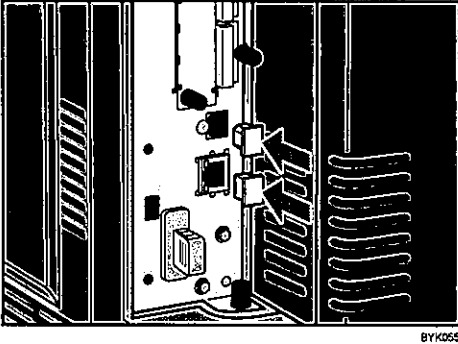


1. Gigabit Ethernet Board
2. Protective caps (one each for the Ethernet port and the USB port)
3. Ferrite core

Design of the ferrite core varies according to printer model.

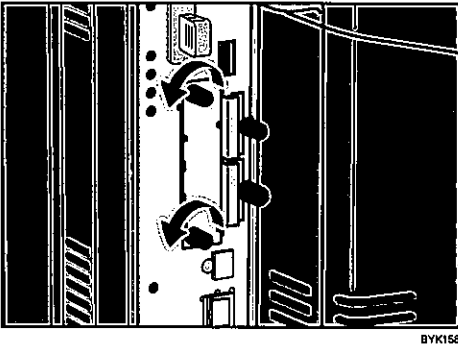
2. Turn off the power, and then unplug the power cord.

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

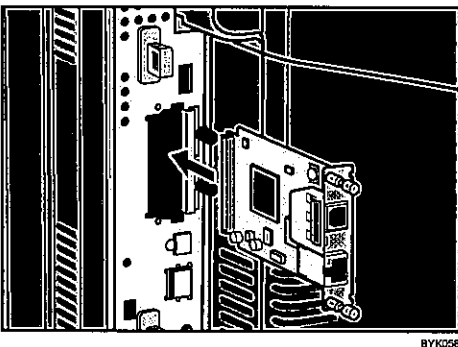


4. Remove the two screws and remove the cover of the slot in which the Gigabit Ethernet board is installed.

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

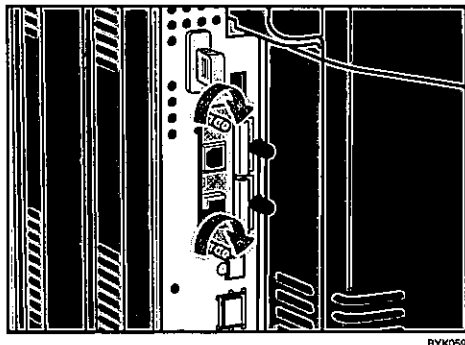


5. Fully insert the Gigabit ethernet board.



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

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



3

**Note**

- Confirm that the Gigabit Ethernet board was correctly installed by printing the configuration page. If it is correctly installed, "Gigabit Ethernet" will appear for "Device Connection" on the configuration page.
- If the board was not installed properly, repeat the procedure from step 2. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.
- For details about printing the configuration page, see "Test Printing".
- Before using the Gigabit Ethernet board, you must configure settings from the printer control panel. For details, see "Ethernet Configuration".

**Reference**

- p.55 "Test Printing"
- p.93 "Ethernet Configuration"

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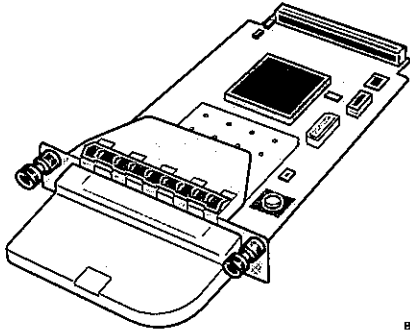
## Installing the Wireless LAN Interface Board

---

**★ Important**

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

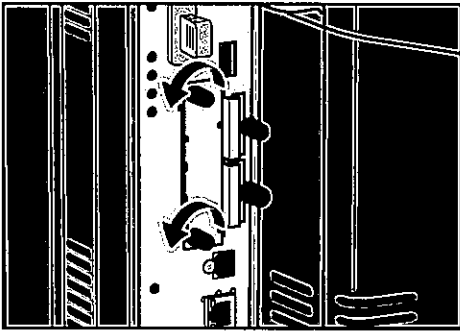
1. Check the contents of the package.



BFL3015

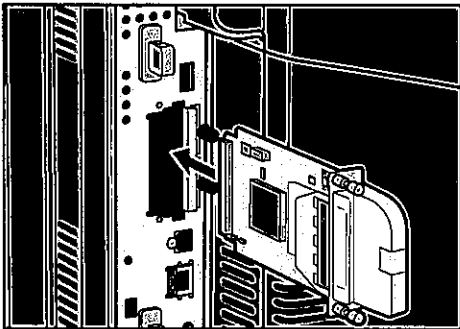
2. Turn off the power, and then unplug the power cord.
3. Remove the two screws and remove the cover of the slot in which the Wireless LAN interface board is installed.

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



BYK058

4. Fully insert the Wireless LAN interface board.



BYK061

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

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





3

**Note**

- Confirm that the interface board was correctly installed by printing the configuration page. If it is correctly installed, "Wireless LAN" will appear for "Device Connection" on the configuration page.
- If the board was not installed properly, repeat the procedure from step 2. If it cannot be installed correctly even after reattempting installation, contact your sales or service representative.
- For details about printing the configuration page, see "Test Printing".
- Before using the Wireless LAN interface board, you must configure settings from the printer control panel. For details, see "Wireless LAN Configuration".

**Reference**

- p.55 "Test Printing"
- p.104 "Wireless LAN Configuration"

---

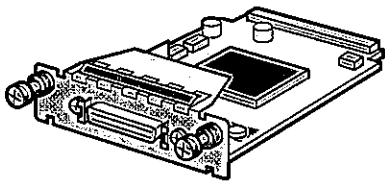
**Installing the IEEE 1284 Interface Board**

---

**Important**

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

1. Check the contents of the package.

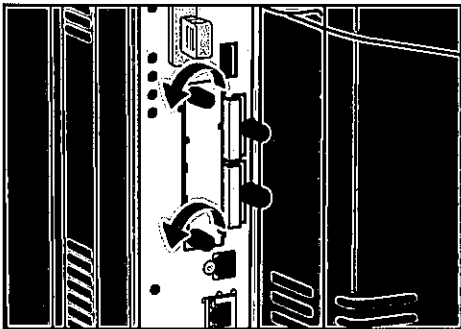


**3**

BFL3028

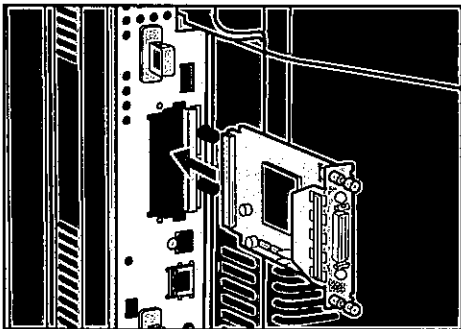
2. Turn off the power, and then unplug the power cord.
3. Remove the two screws and remove the cover of the slot in which the 1284 interface board is installed.

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



BYK056

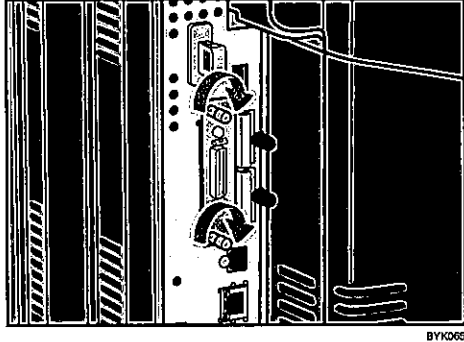
4. Fully insert the IEEE 1284 interface board.



BYK064

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

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

**Reference**

- p.55 "Test Printing"

## Installing the SD Memory Card Options

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

### CAUTION

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

## 3

### Important

- Do not subject the card to physical shocks.

### Note

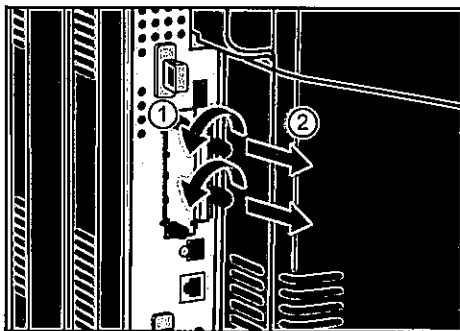
- The VM card is optional to Type 1 models only. To use it, the optional 512 MB SDRAM module must be installed.

1. Check the contents of the package.



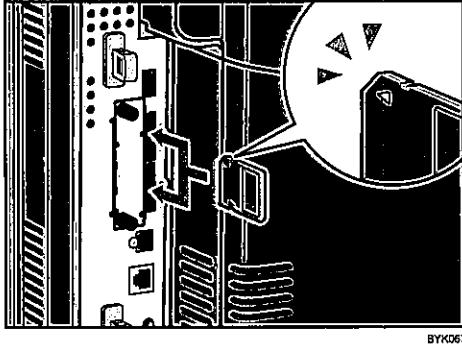
BFL308S

2. Turn off the power, and then unplug the power cord.
3. Remove the two screws, and then carefully remove the cover of the SD card slot.



BYK006

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

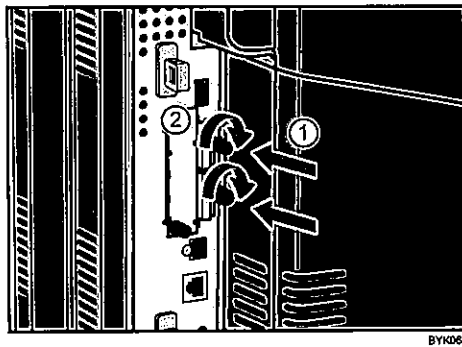


3

Insert the SD card in the appropriate slot as follows:

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

5. Reattach the cover over the SD card. Fasten the two screws to secure the cover.



**Note**

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

**Reference**

- p.55 "Test Printing"

# 4. Connecting the Printer

This chapter explains how to connect network and USB cables.

## Ethernet Cable Connection

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

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

### CAUTION

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

### CAUTION

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

### CAUTION

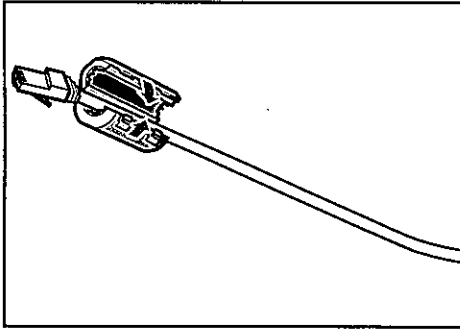
- For users in the United States of America: properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet FCC emission limits.

### Important

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

### Connecting to the standard Ethernet port

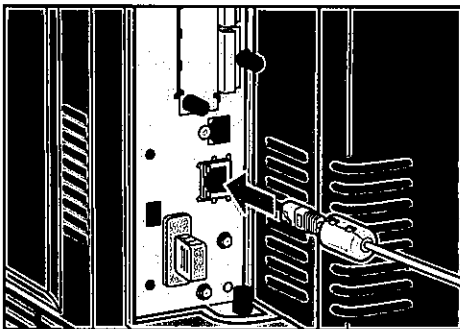
1. Attach the supplied ferrite core at the printer end of the Ethernet cable.



BYK169

4

2. Connect the Ethernet cable to the Ethernet port.



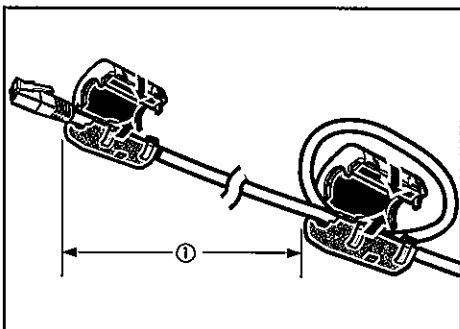
BYK069

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

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

1. Attach two ferrite cores to the Ethernet cable.

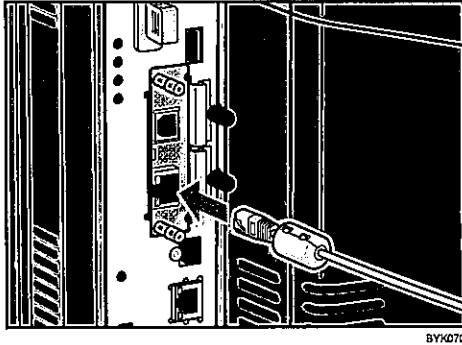
Attach the core supplied with the printer to the connector end, and the one supplied with the Gigabit Ethernet board about 10 cm (4 inches) from the connector end (①), making a loop as shown.



BYK170



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



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

**Note**

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

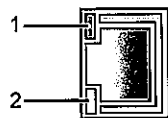
**Reference**

- p.75 "Installing the Interface Units"
- p.93 "Ethernet Configuration"

4

## Reading the LED Lamps

### Standard Ethernet port



BYK109

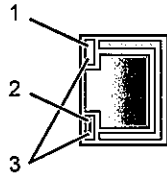
#### 1. Green indicator

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

#### 2. Yellow indicator

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

### Optional Gigabit Ethernet board



BYK110

#### 1. Yellow indicator

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

#### 2. Green indicator

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

#### 3. Green and yellow indicators

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

## USB Cable Connection

### ⚠ CAUTION

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

### ⚠ CAUTION

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

4

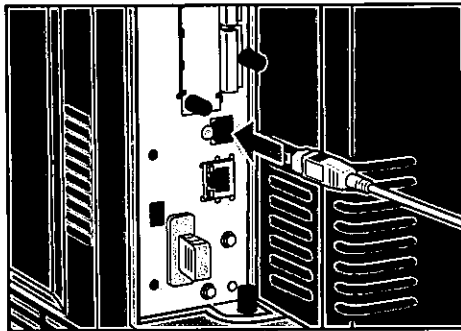
### ★ Important

- USB connection is possible under Windows 2000/XP/Vista, Windows Server 2003/2003 R2/2008, 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.
- A USB cable is not supplied with this printer. Select your cable according to the computer.

#### 1. Connect the USB cable to the printer.

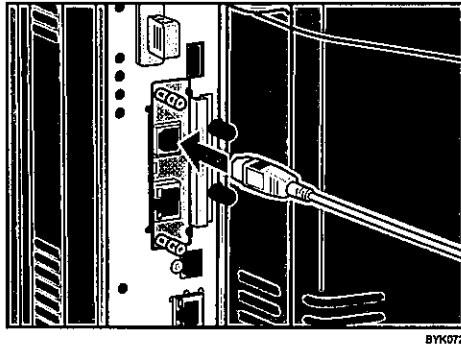
- Connecting the USB cable to the standard USB port B

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



BYK071

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



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

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

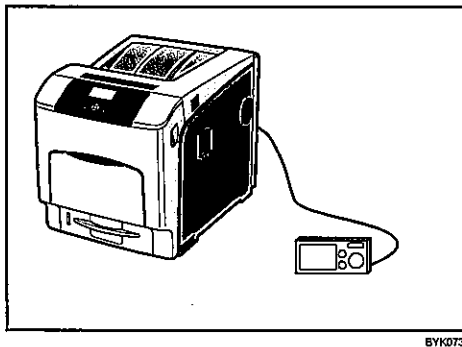
4

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## Digital Camera Connection

---

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

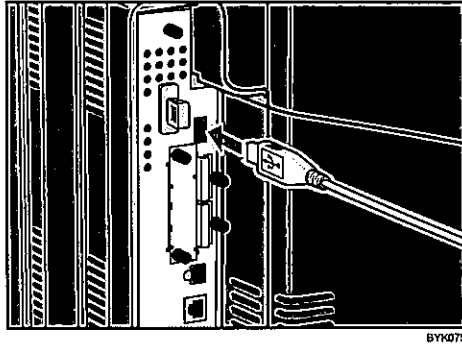


### ★ Important

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

1. Confirm that the printer and digital camera are turned on.

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



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

**Note**

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

**Reference**

- p.82 "Installing the SD Memory Card Options"

## Parallel Cable Connection

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

### ⚠ CAUTION

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

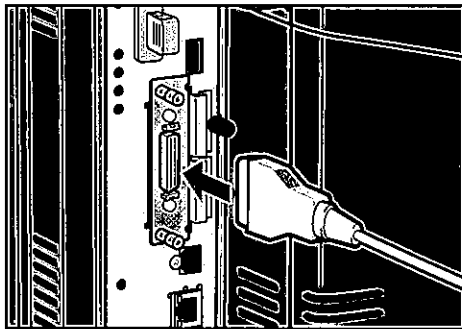
### ⚠ CAUTION

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

4

### ★ Important

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



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

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

### ↓ Note

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

### 📖 Reference

- p.75 "Installing the Interface Units"

# 5. Configuration

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

## Ethernet Configuration

Configure the following network settings according to the network interface you are using. 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	Default
Machine IPv4 Address	<ul style="list-style-type: none"><li>• DHCP: On</li><li>• IPv4 Address: 11.22.33.44</li><li>• Subnet Mask: 0.0.0.0</li><li>• Gateway Address: 0.0.0.0</li></ul>
IPv6 Stateless Setting	Active
IPsec	Inactive
NW Frame Type	Auto Select
Effective Protocol	<ul style="list-style-type: none"><li>• IPv4: Active</li><li>• IPv6: Inactive</li><li>• NetWare: Inactive</li><li>• SMB: Active</li><li>• AppleTalk: Inactive</li></ul>
Ethernet Speed	Auto Select
IEEE802.1X Auth.(Ethernet)	Inactive
Restr.IEEE802.1X Auth.Def.	-
LAN Type	Ethernet

**Note**

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

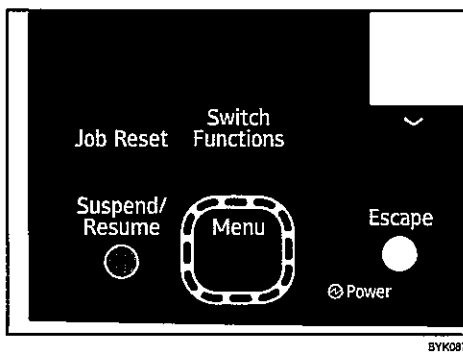
**Specifying an IP Address (No DHCP)**

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

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

**5**

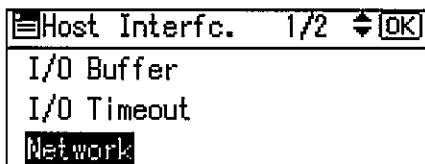
1. Press the [Menu] key.



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



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





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

Network	2/3	[OK]
NW Frame Type		
Effective Protocol		
Ethernet Speed		

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

Effective Prot.	1/2	[OK]
IPv4		
IPv6		
SMB		

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

IPv4:	1/1	[OK]
Active		
Inactive		

5

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

- Select [Inactive] for unused protocols.
- Enable IPv4 to use the pure IPv4 environment of NetWare 5/5.1, NetWare 6/6.5.

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

Network	1/3	[OK]
Machine IPv4 Address		
IPv6 Stateless Setting		
IPsec		

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

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

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

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

10. Press the number keys to enter the address, and then press the [OK] key.

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

IPv4 Address:	↔	[OK]
Enter with No. keys or ↕.		
[11]	[22]	[33]
[44]		

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

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

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

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

#### ⏴ Note

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

#### 📖 Reference

- p.55 "Test Printing"

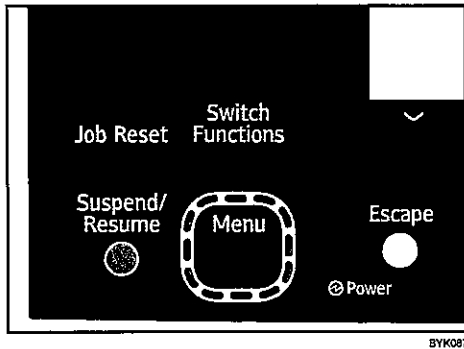
## Receiving an IP Address Automatically (DHCP)

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

#### ★ Important

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

1. Press the [Menu] key.

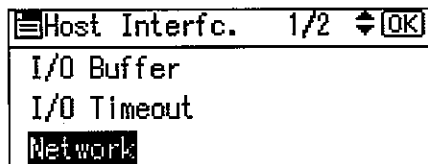


2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.

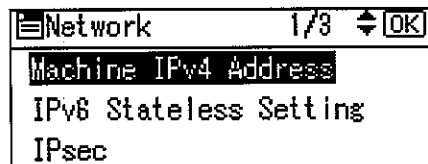


5

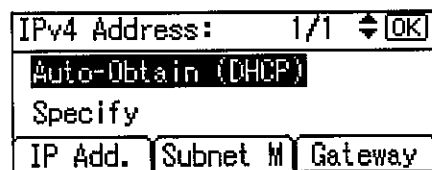
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



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



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



The printer will automatically receive an IP address.

To check the detected addresses, press the followings:

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

- [Gateway]: Default Gateway

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

7. Print a configuration page to confirm the settings.

**Note**

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

**Reference**

- p.55 "Test Printing"

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## Configuring Network Settings When Using NetWare

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

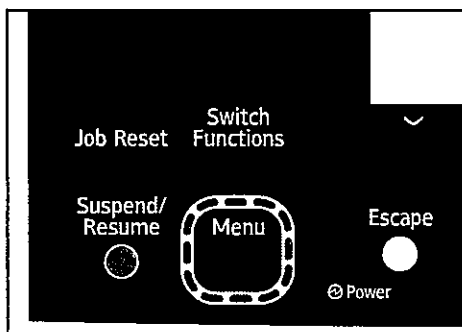
**5**

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

**Important**

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

1. Press the [Menu] key.



BYK087

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

Menu	4/5	↕ [OK]
Host Interface		
Shut down		
		Supplies

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

Host Interfc.	1/2	↕ [OK]
I/O Buffer		
I/O Timeout		
Network		

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

Network	2/3	↕ [OK]
NW Frame Type		
Effective Protocol		
Ethernet Speed		

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

NW Frame Type:	1/2	↕ [OK]
Auto Select		
Ethernet II		
Ethernet 802.2		

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

#### Note

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

#### Reference

- p.55 "Test Printing"

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## Setting the Ethernet Speed

---

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

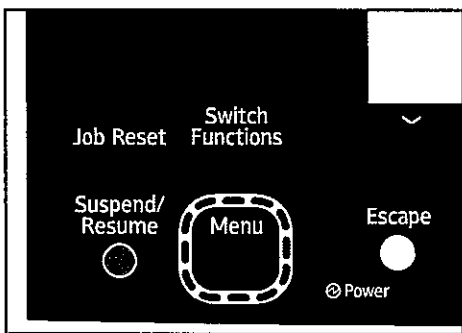
**5**

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

**★ Important**

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

1. Press the [Menu] key.

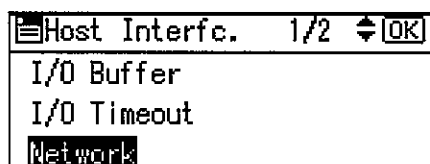


BYK087

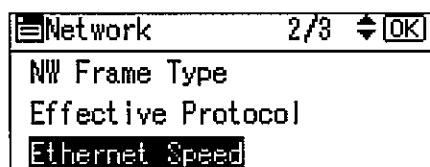
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



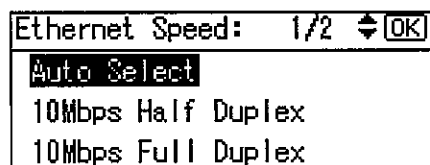
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



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



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



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

**Note**

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

**Reference**

- p.55 "Test Printing"

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## Enabling IEEE802.1X Authentication

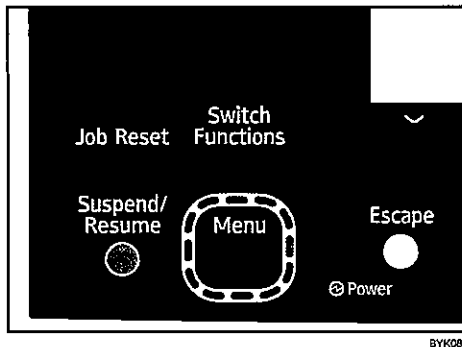
---

Follow this procedure to enable IEEE802.1X Authentication.

**Important**

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

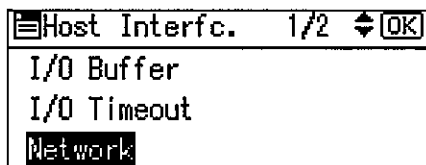
1. Press the [Menu] key.



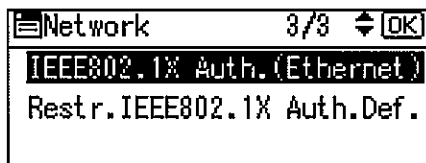
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



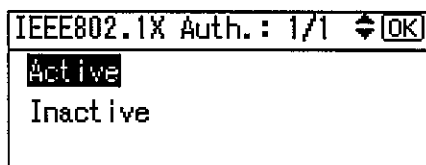
3. Press the [▼] or [▲] key to select [Network], and then press the [OK] key.



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




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



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

5



 **Note**

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

 **Reference**

- p.55 "Test Printing"

## Wireless LAN Configuration

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

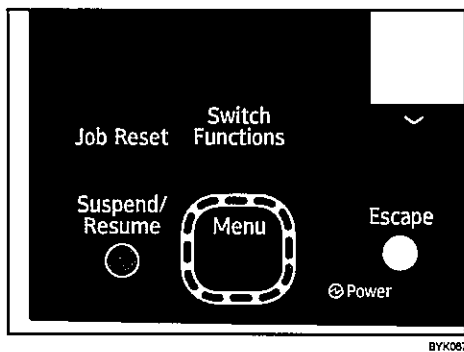
### ★ Important

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

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

5

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

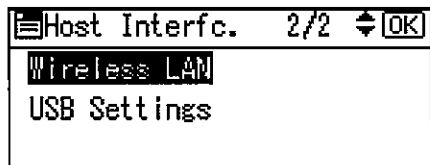


BYK087

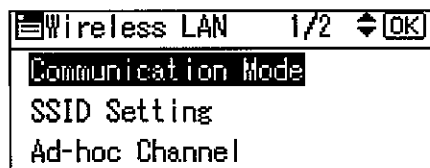
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



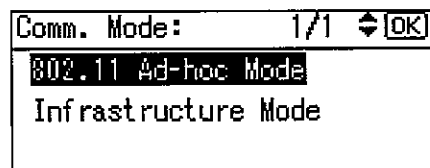
3. Press the [▼] or [▲] key to select [Wireless LAN], and then press the [OK] key.



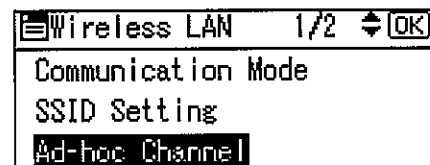
4. Press the [▼] or [▲] key to select [Communication Mode], and then press the [OK] key.



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



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



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

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

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

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

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

#### Note

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

#### Reference

- p.55 "Test Printing"
- p.93 "Ethernet Configuration"

## Setting the SSID

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

Ask your network administrator for the SSID to use.

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

Wireless LAN 1/2 [OK]	
Communication Mode	
<b>SSID Setting</b>	
Ad-hoc Channel	

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

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

SSID Setting:	1/1	◀▶	[OK]
SSID			

3. Press the number keys to enter characters, and then press the [OK] key.

SSID Setting:	[OK]
Enter SSID.	
abc	
ab/AB/12	Symbols

You can switch among lower /upper cases and numeric characters by pressing [ab/AB/12].

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

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

#### ⚠ Note

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

#### 📖 Reference

- p.55 "Test Printing"

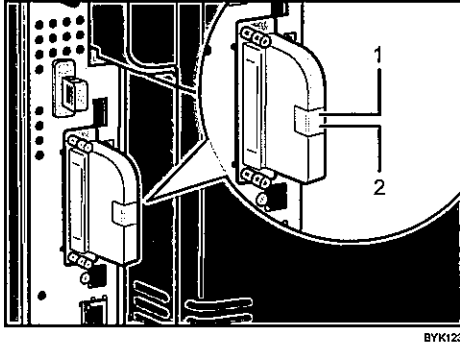
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## Confirming Wireless Network Connectivity

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

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



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

## 5

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### Cautions When Using a Wireless LAN

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

#### Information leakage

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

#### Unauthorized network access

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

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

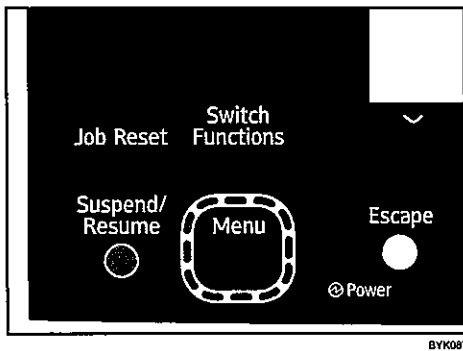
## Setting Security Method of Wireless LAN

### Setting a WEP Key

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

Ask your network administrator for the WEP key to use.

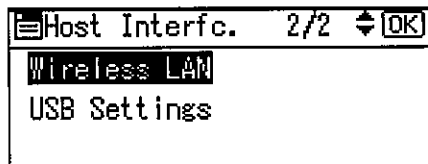
1. Press the [Menu] key.



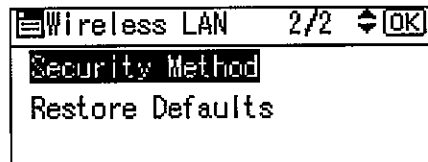
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



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



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



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

Security Method: 1/2	⬇	⬆	[OK]
Off			
<b>WEP</b>			
Details			

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

6. Press the scroll keys to enter characters, and then press the [OK] key.

WEP (Encryption) Key:	[OK]
Hex:10/26,ASCII:5/13 Digits	
abc	
ab/AB/12	Symbols

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

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

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

9. Print a configuration page to confirm the settings.

#### ⬇ Note

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

#### 📖 Reference

- p.55 "Test Printing"

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## Setting WPA

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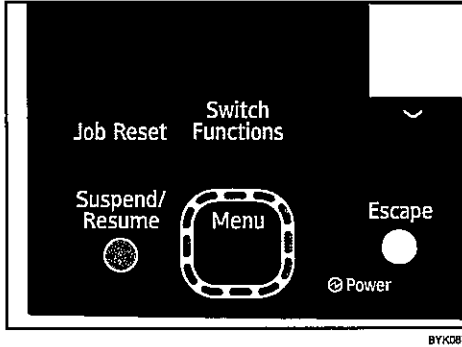
In the case of using WPA on a network, activate the WPA setting to be used for communication along with WPA. Consult your network administrator for information about making authentication settings.

#### ★ Important

- WPA is available for Type 1 model only if the optional HDD is installed.



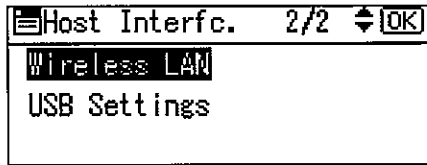
1. Press the [Menu] key.



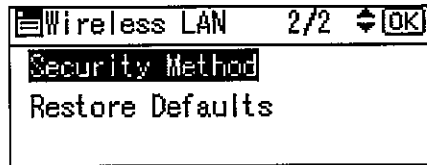
2. Press the [▼] or [▲] key to select [Host Interface], and then press the [OK] key.



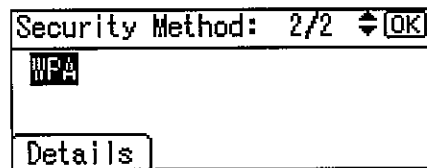
3. Press the [▼] or [▲] key to select [Wireless LAN], and then press the [OK] key.



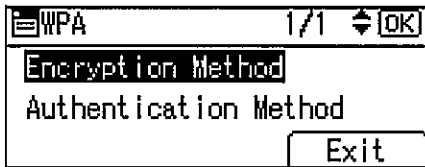
4. Press the [▼] or [▲] key to select [Security Method], and then press the [OK] key.



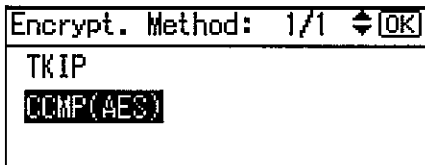
5. Press the [▼] or [▲] key to select [WPA], and then press [Details].



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



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



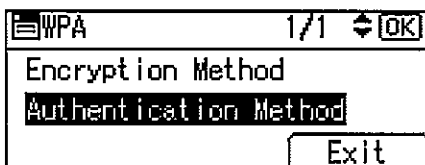
Consult your network administrator for information about making encryption settings.

Encryption settings are as follows:

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

The display returns to the [WPA] menu.

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



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



Authentication settings are as follows:

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

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

- [WPA2-PSK]

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

- [WPA2]

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

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

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

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

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

12. Press the number keys to enter the Pre-Shared Key, and then press the [OK] key.

PSK Entry:	[OK]
Enter ASCII 8-63byte	
abc	
ab/AB/12	Symbols

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

13. When all characters have been entered, press the [OK] key.

PSK Entry:	[OK]
Enter ASCII 8-63byte	
abc	****_
ab/AB/12	Symbols

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

14. Press the [Escape] key.

15. Press [Exit].

WPA	1/1	[OK]
Encryption Method		
Authentication Method		
Exit		

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

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

**18. Print a configuration page to confirm the settings.**

**Note**

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

**Reference**

- p.55 "Test Printing"

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## Configuring IEEE 802.1X

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

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

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

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

### Important

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

**5**

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### Installing a Site Certificate

---

1. Access the authentication server and obtain the CA certificate.  
Methods of obtaining certificates differ according to the operating system you are using.
2. Start your Web browser.
3. Enter "http://{printer's IP address}/" in the address bar of a Web browser.
4. Enter your user name and password, and then click [Login].  
For details about the login user name and password, consult your network administrator.
5. Click [Configuration].
6. Click [Site Certificate] in the "Security" area.
7. Click [Browse] on the "Site Certificate to Import" window, and then select the CA certificate you obtained.
8. Click [Import].
9. Click [OK].
10. Click [Logout].
11. Quit the Web browser.

---

### Installing Device Certificate


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

1. Start your Web browser.

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2. Enter "http://{printer's IP address}/" in the address bar of a Web browser.
3. Enter your user name and password, and then click [Login].  
For details about the login user name and password, consult your network administrator.
4. Click [Configuration].
5. Click [Device Certificate] in "Security" area.
6. Check [Certificate 2] on the "Device Certificate" window, and then click [Request].
7. Enter appropriate "Common Name" and "Country Code" on "Certificate Information" page, and then click [OK].
8. "Updating..." appears. Wait for about 2 minutes, and then click [OK].
9. Click [Details], shown in the "Device Certificate" window as the memo pad icon for "Requesting".
10. Select all, and then copy the entire "Text for Requested Certificate" text that is displayed in the "Certificate Status" window.
11. Access the certificate authority server, and then obtain the CA signified certificate using the text copied into "Text for Requested Certificate" windows.  
Obtaining the certificate differs depending on the environment you want to use.
12. Click [Certificate 2] on "Device Certificate" window, and then click [Install].
13. Using a text editor, open the CA signified certificate downloaded in step 11, and then copy over all the text.
14. In the [Enter Certificate Request] window, paste all the text copied into the CA signified certificate.
15. Click [OK].
16. "Updating..." appears. Wait for about one or two minutes, and then click [OK].  
Check that the "Device Certificate" shows "Installed".
17. Click [Certificate 2] on "Certification", and then click [OK].
18. Click [Logout].
19. Quit the Web browser.

 Note

- You can select any Certificate between 1 and 4 in the "Device Certificate" window. Be sure to select the same Certificate number in both the "Device Certificate" window and the "Certification".
- If you request two certificates simultaneously, the certificate authority might not display either certificate. Click [Cancel Request] to cancel the request.
- Click [Cancel Request] to cancel the request for the server certificate.
- If "Not found" appears after clicking [OK] in steps 8 and 16, wait one or two minutes, and then click [Refresh].

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## Setting Items of WPA/WPA2

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

### Note

- You can select [Certificate 1] or [Certificate 2] in the "Device Certificate" window. Note that if you select [Certificate 1] in the "Device Certificate" window, you must select [Certificate 1] in the "IEEE 802.11a" list in the "Certification" window.
- If there is a problem with settings, you might not be able to communicate with the printer. To identify the problem, print a network summary.
- If you cannot identify the problem, reset the printer interface to normal, and then repeat the procedure from the beginning.





# 6. Paper and Other Media

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

## Supported Paper for Each Tray

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

### Symbols

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

#### Note

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


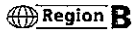
### Standard Paper Feed Tray and optional paper feed trays

#### Standard paper feed tray

##### Automatically selected paper sizes

Model type	Paper sizes
Region A	A4☐, A5☐, A6☐, 8 1/2" × 14" (Legal)☐, 8 1/2" × 11" (Letter)☐, 7 1/4" × 10 1/2" (Executive)☐
Region B	8 1/2" × 14" (Legal)☐, 8 1/2" × 11" (Letter)☐, 7 1/4" × 10 1/2" (Executive)☐, 5 1/2" × 8 1/2" (Half Letter)☐, A4☐

## Paper sizes requiring manual setting

Model type	Paper sizes
 <b>Region A</b>	B5 JIS, B6 JIS, 8 1/2" x 13" (Foolscap), 8 1/4" x 13" (Folio), 8" x 13" (F/GL), 5 1/2" x 8 1/2" (Half Letter), 4 1/8" x 9 1/2" (Com10), 3 7/8" x 7 1/2" (Monarch), C5 Env., C6 Env., DL Env., 16K
 <b>Region B</b>	A5, B5 JIS, A6, B6 JIS, 8 1/2" x 13" (Foolscap), 8 1/4" x 13" (Folio), 8" x 13" (F/GL), 4 1/8" x 9 1/2" (Com10), 3 7/8" x 7 1/2" (Monarch), C5 Env., C6 Env., DL Env., 16K



Tray 1 supports custom size paper, approximately 98 - 216 mm (3.86 - 8.5 inches) in width, and 148 - 355.5 mm (5.83 - 13.99 inches) in length. Set as custom size using the control panel and printer driver.

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


## Optional paper feed trays

## Automatically selected paper sizes

Model type	Paper sizes
 <b>Region A</b>	A4, A5, A6, 8 1/2" x 14" (Legal), 8 1/2" x 11" (Letter), 7 1/4" x 10 1/2" (Executive)
 <b>Region B</b>	8 1/2" x 14" (Legal), 8 1/2" x 11" (Letter), 7 1/4" x 10 1/2" (Executive), 5 1/2" x 8 1/2" (Half Letter), A4

## Paper sizes requiring manual setting

Model type	Paper sizes
 <b>Region A</b>	B5 JIS, B6 JIS, 8 1/2" x 13" (Foolscap), 8 1/4" x 13" (Folio), 8" x 13" (F/GL), 5 1/2" x 8 1/2" (Half Letter), 4 1/8" x 9 1/2" (Com10), 3 7/8" x 7 1/2" (Monarch), C5 Env., C6 Env., DL Env., 16K

Model type	Paper sizes
 <b>Region B</b>	A5 <sup>□</sup> , B5 JIS <sup>□</sup> , A6 <sup>□</sup> , B6 JIS <sup>□</sup> , 8 1/2" × 13" (Foolscap) <sup>□</sup> , 8 1/4" × 13" (Folio) <sup>□</sup> , 8" × 13" (F/GL) <sup>□</sup> , 4 1/8" × 9 1/2" (Com10) <sup>□</sup> , 3 7/8" × 7 1/2" (Monarch) <sup>□</sup> , C5 Env. <sup>□</sup> , C6 Env. <sup>□</sup> , DL Env. <sup>□</sup> , 16K <sup>□</sup>

Tray 2, Tray 3, and Tray 4 supports custom size paper, approximately 98 - 216 mm (3.86 - 8.5 inches) in width, and 148 - 355.5 mm (5.83 - 13.99 inches) in length.

#### Reference

- p.138 "Loading Paper"

## Bypass Tray

### Paper sizes requiring manual setting

The following sizes are supported, but they must be selected using the control panel. For details about paper size settings, see "Specifying standard size paper for the bypass tray".

The custom size must be selected using the control panel or the printer driver. For details about setting the paper size on the control panel, see "Specifying custom size paper for the bypass tray".

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

Paper sizes
A4 <sup>□</sup> , B5 JIS <sup>□</sup> , A5 <sup>□</sup> , B6 JIS <sup>□</sup> , A6 <sup>□</sup> , 8 1/2" × 14" (Legal) <sup>□</sup> , 8 1/2" × 13" (Foolscap) <sup>□</sup> , 8 1/2" × 11" (Letter) <sup>□</sup> , 8 1/4" × 13" (Folio) <sup>□</sup> , 8" × 13" (F/GL) <sup>□</sup> , 7 1/4" × 10 1/2" (Executive) <sup>□</sup> , 5 1/2" × 8 1/2" (Half Letter) <sup>□</sup> , 4 1/8" × 9 1/2" (Com10) <sup>□</sup> , 3 7/8" × 7 1/2" (Monarch) <sup>□</sup> , C5 Env. <sup>□</sup> , C6 Env. <sup>□</sup> , DL Env. <sup>□</sup> , 16K <sup>□</sup>

Bypass Tray supports custom size paper, approximately 70 - 216 mm (2.76 - 8.5 inches) in width, and 127 - 1260 mm (5 - 49.6 inches) in length. Set as custom size using the printer driver.

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

#### Reference

- p.147 "Specifying standard size paper for the bypass tray"
- p.149 "Specifying custom size paper for the bypass tray"

**Paper Weight and Capacity**

Tray	Supported paper weight	Supported capacity (Plain paper)
Tray 1	52 to 220 g/m <sup>2</sup> (14 to 59 lb.)	550 sheets (80 g/m <sup>2</sup> , 20 lb.)
Tray 2, Tray 3, Tray4	52 to 220 g/m <sup>2</sup> (14 to 59 lb.)	550 sheets (80 g/m <sup>2</sup> , 20 lb.)
Bypass tray	52 to 256 g/m <sup>2</sup> (14 to 68 lb.)	100 sheets (80 g/m <sup>2</sup> , 20 lb.)

**Note**

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

## Paper Recommendations

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

### ★ Important

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

### Storing Paper

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

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

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### Types of Paper and Other Media

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

#### Plain paper

Paper thickness	61 to 90 g/m <sup>2</sup> (16 to 24 lb.)
Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [No Display (Plain Paper)].
Printer driver setup	Click [Plain & Recycled] or [Plain (81 to 90 g/m <sup>2</sup> )] in the "Paper Type:" list.
Supported paper feed tray	Any input tray can be used.
Paper capacity	<ul style="list-style-type: none"> <li>• Tray 1: 550</li> <li>• Tray 2, Tray 3, Tray 4 (Paper feed unit): 550</li> <li>• Bypass Tray: 100</li> </ul> <p>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.</p>

Duplex printing	Supported
Maintenance	<ul style="list-style-type: none"> <li>• [Plain Paper 1]: 61 to 80 g/m<sup>2</sup> (16 to 21 lb.)</li> <li>• [Plain Paper 2]: 81 to 90 g/m<sup>2</sup> (22 to 24 lb.)</li> </ul> <p>Default: [Plain Paper 2]</p> <p>If prints made using the paper tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>• Press the [Menu] key, select [Maintenance], [General Settings], and then select [Plain Paper Setting]. Select the paper tray, and then select [Plain Paper 1] or [Plain Paper 2].</li> </ul> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>

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## Middle thick

Paper thickness	91 to 105 g/m <sup>2</sup> (24 to 28 lb.)
Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: {tray name}], and then select [Middle Thick].
Printer driver setup	Click [Middle Thick (91 to 105 g/m <sup>2</sup> )] in the "Paper Type:" list.
Supported paper feed tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.
Duplex printing	Supported
Additional cautions	Printing may be slower than when using plain paper.

## Thick paper

Paper thickness	<p>106 to 256 g/m<sup>2</sup> (28 to 68 lb.)</p> <ul style="list-style-type: none"> <li>• [Thick Paper 1]: 106 to 130 g/m<sup>2</sup> (28 to 35 lb.)</li> <li>• [Thick Paper 2]: 131 to 163 g/m<sup>2</sup> (35 to 43 lb.)</li> <li>• [Thick Paper 3]: 164 to 220 g/m<sup>2</sup> (44 to 59 lb.)</li> <li>• [Thick Paper 4]: 221 to 256 g/m<sup>2</sup> (59 to 68 lb.)</li> </ul>
Printer setup	<ul style="list-style-type: none"> <li>• Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Thick Paper 1], [Thick Paper 2] or [Thick Paper 3].</li> <li>• Press the [Menu] key, select [Paper Input], [Paper Type: Bypass Tray], and then select [Thick Paper 4].</li> </ul>
Printer driver setup	<ul style="list-style-type: none"> <li>• [Thick Paper 1]: Click [Thick 1 (106 to 130 g/m<sup>2</sup>)] in the "Paper Type:" list.</li> <li>• [Thick Paper 2]: Click [Thick 2 (131 to 163 g/m<sup>2</sup>)] in the "Paper Type:" list.</li> <li>• [Thick Paper 3]: Click [Thick 3 (164 to 220 g/m<sup>2</sup>)] in the "Paper Type:" list.</li> <li>• [Thick Paper 4]: Click [Bypass Tray] in "Input Tray:" list, and then Click [Thick 4 (221 to 256 g/m<sup>2</sup>)] in the "Paper Type:" list.</li> </ul>
Supported paper feed tray	<p>Any input tray can be used.</p> <p>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.</p>
Duplex printing	<ul style="list-style-type: none"> <li>• [Thick Paper 1], [Thick Paper 2], : Supported</li> <li>• [Thick Paper 3], [Thick Paper 4]: Not supported</li> </ul>
Additional cautions	Printing is slightly slower than when using plain paper.

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## Thin paper

Paper thickness	52 to 60.2 g/m <sup>2</sup> (14 to 16 lb.)
Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Thin Paper].

Printer driver setup	Click [Thin (52 to 60 g/m <sup>2</sup> )] in the "Paper Type:" list.
Supported paper feed tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.
Duplex printing	Not supported

### OHP transparencies

Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: Bypass Tray], and then select [OHP (Transparency)].
Printer driver setup	Click [Bypass Tray] in "Input Tray:" list, and then click [Transparency] in the "Paper Type:" list.
Supported paper feed tray	This paper type can be printed only from the bypass tray.
Paper capacity	<ul style="list-style-type: none"> <li>• Bypass Tray: 100</li> </ul> Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.
Duplex printing	Not supported
Additional cautions	<ul style="list-style-type: none"> <li>• Printing is slightly slower than when using plain paper.</li> <li>• Due to switching modes, the printer will be on standby for thirty or forty seconds after the job was received.</li> <li>• We recommend that you use a 4000 ANSI lumen or brighter overhead projector to project OHP transparencies.</li> </ul>

### Letterhead

Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Letterhead].
Printer driver setup	Click [Letterhead] in the "Paper Type:" list.



Supported paper feed tray	<p>Any input tray can be used.</p> <p>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.</p>
Duplex printing	Supported
Maintenance	<p>Default: [Letterhead 2]</p> <p>If prints made using the paper tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>• Press the [Menu] key, select [Maintenance], [General Settings], and then select [Letterhead Setting]. Select the paper tray, and then select one from [Letterhead 1], [Letterhead 2],[ Letterhead 3], [Letterhead 4] or [Letterhead 5].</li> </ul> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>

### Label paper

Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Label Paper].
Printer driver setup	Click [Labels] in the "Paper Type:" list.
Supported paper feed tray	<p>Any input tray can be used.</p> <p>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.</p>
Duplex printing	Not supported

Maintenance	<p>Default: [Label Paper 6]</p> <p>If prints made using the paper tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>• Press the [Menu] key, select [Maintenance], [General Settings], and then select [Label Paper Setting]. Select the paper tray, and then select one from [Label Paper 1], [Label Paper 2], [Label Paper 3], [Label Paper 4], [Label Paper 5], or [Label Paper 6].</li> </ul> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>
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### Coated Paper (Glossy)

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Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Coated Paper (Glossy)].
Printer driver setup	Click [Coated (Glossy)] in the "Paper Type:" list.
Supported paper feed tray	<p>Any input tray can be used.</p> <p>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.</p>
Duplex printing	Supported
Maintenance	<p>Default: [Coated Paper (Glossy) 4]</p> <p>If prints made using the paper tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>• Press the [Menu] key, select [Maintenance], [General Settings], and then select [Coated Paper (Glossy) Stg.]. Select the paper tray, and then select one from [Coated Paper (Glossy) 1], [Coated Paper (Glossy) 2], [Coated Paper (Glossy) 3], [Coated Paper (Glossy) 4], or [Coated Paper (Glossy) 5].</li> </ul> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>

### Coated Paper (Glossy: Thick)

Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Coated Paper(Glossy:Thick)].
Printer driver setup	Click [Coated (Glossy: Thick Paper)] in the "Paper Type:" list.
Supported paper feed tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.
Duplex printing	Not supported
Maintenance	<p>Default: [CoatedPaper(Glossy:Thick)1]</p> <p>If prints made using the bypass tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>Press the [Menu] key, select [Maintenance], [General Settings], and then select [Coated Paper(Glossy:Thick)]. Select the bypass tray, and then select [CoatedPaper(Glossy:Thick)1] or [CoatedPaper(Glossy:Thick)2].</li> </ul> <p>Note that this setting cannot be changed if you are printing from Tray 1 to 4. You can change this setting only when printing from the bypass tray.</p> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>
Additional cautions	Printing is slightly slower than when using plain paper.

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### Coated Paper (Matted)

Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Coated Paper (Matted)].
Printer driver setup	Click [Coated (Matted)] in the "Paper Type:" list.

Supported paper feed tray	<p>Any input tray can be used.</p> <p>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.</p>
Duplex printing	Supported
Maintenance	<p>Default: [Coated Paper (Matted) 4]</p> <p>If prints made using the paper tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>Press the [Menu] key, select [Maintenance], [General Settings], and then select [Coated Paper (Matted) Stg.]. Select the paper tray, and then select one from [Coated Paper (Matted) 1], [Coated Paper (Matted) 2], [Coated Paper (Matted) 3], [Coated Paper (Matted) 4], or [Coated Paper (Matted) 5].</li> </ul> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>

### Coated Paper (Matted: Thick)

Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Coated Paper(Matted:Thick)].
Printer driver setup	Click [Coated (Matted: Thick Paper)] in the "Paper Type:" list.
Supported paper feed tray	<p>Any input tray can be used.</p> <p>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.</p>
Duplex printing	Not supported

Maintenance	<p>Default: [CoatedPaper(Matted:Thick)1]</p> <p>If prints made using the bypass tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>• Press the [Menu] key, select [Maintenance], [General Settings], and then select [Coated Paper(Matted:Thick)]. Select the bypass tray, and then select [CoatedPaper(Matted:Thick)1] or [CoatedPaper(Matted:Thick)2].</li> </ul> <p>Note that this setting cannot be changed if you are printing from Tray 1 to 4. You can change this setting only when printing from the bypass tray.</p> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>
Additional cautions	Printing is slightly slower than when using plain paper.

### Waterproof Paper

Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Waterproof Paper].
Printer driver setup	Click [Waterproof] in the "Paper Type:" list.
Supported paper feed tray	<p>Any input tray can be used.</p> <p>Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.</p>
Duplex printing	Not supported

Maintenance	<p>Default: [Waterproof Paper 5]</p> <p>If prints made using the paper tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>Press the [Menu] key, select [Maintenance], [General Settings], and then select [Waterproof Paper Setting]. Select the paper tray, and then select one from [Waterproof Paper 1], [Waterproof Paper 2], [Waterproof Paper 3], [Waterproof Paper 4], or [Waterproof Paper 5].</li> </ul> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>
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### Special paper

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

### Preprinted paper

Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Preprinted Paper].
Printer driver setup	Click [Preprinted] in the "Paper Type:" list.

Supported paper feed tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. When using the bypass tray, make sure paper is not stacked higher than the paper guides on the bypass tray.
Duplex printing	Not supported

### Recycled paper

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

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### Envelopes

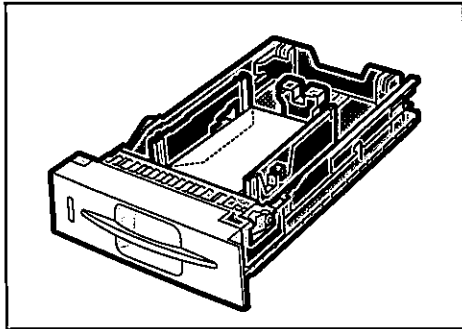
Printer setup	Press the [Menu] key, select [Paper Input], [Paper Type: (tray name)], and then select [Envelope].
Printer driver setup	Click [Envelope], in the "Paper Type:" list.
Supported paper feed tray	Any input tray can be used. Make sure paper is not stacked higher than the upper limit mark (▼)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

Maintenance	<p>Default: [Envelope 1]</p> <p>If prints made using the paper tray show heavy smudging, use the following procedure to change the paper type setting from the control panel:</p> <ul style="list-style-type: none"> <li>• Press the [Menu] key, select [Maintenance], [General Settings], and then select [Envelope Setting]. Select the paper tray, and then select one from [Envelope 1], [Envelope 2], [Envelope 3], or [Envelope 4].</li> </ul> <p>When specifying paper thickness, remember that a higher number indicates greater thickness. Also, because the paper thickness will normally be detected automatically, change this setting only if a print problem occurs.</p>
Additional cautions	<ul style="list-style-type: none"> <li>• Check there is no air in the envelopes before loading.</li> <li>• For optimum print results, we recommend you set at least 15 mm (0.6 inches) for the left print margin, and at least 10 mm (0.4 inches) for the right, top, and bottom margins.</li> <li>• Load only one size and type of envelope at a time.</li> <li>• Before loading envelopes, flatten their leading edges (the edge going into the printer) by running a pencil or ruler across them.</li> <li>• Some kinds of envelope might cause misfeeds, wrinkles or print poorly.</li> <li>• Print quality on envelopes may be uneven if parts of an envelope have differing thicknesses. Print one or two envelopes to check print quality.</li> <li>• In a hot and humid environment, the envelope might be output creased or improper printing quality.</li> </ul>

**Note**

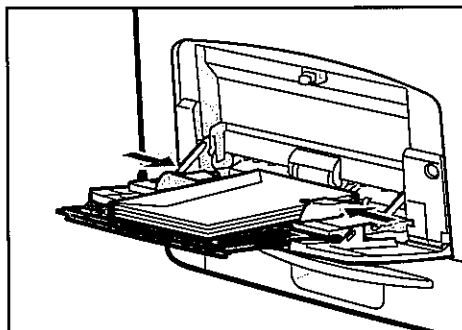
- Load envelopes print side up in the standard paper feed tray or optional paper feed tray.
- Load envelopes with flaps closed to the left side of the tray.





BYK095

- Load envelopes print side down on the bypass tray.
- Load envelopes with flaps closed to the left side of the tray.



BYK095

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## Paper Not Supported by This Printer

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### ★ Important

- Do not use the following types of paper:
  - Ink-jet printer paper
  - GelJet special paper
  - Bent, folded, or creased paper
  - Curled or twisted paper
  - Wet paper
  - Paper that is dry enough to emit static electricity
  - Paper that has already been printed on

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

- Surface-processed paper (excluding specified paper)

- Special paper, such as thermal paper and carbon paper
- Paper whose weight is heavier or lighter than the limitation
- Perforated paper
- Adhesive label paper on which glue or base paper is exposed
- Paper with clips or staples

**Note**

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

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## Print Area

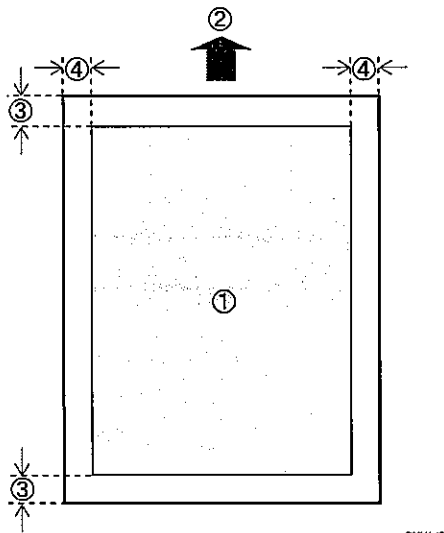
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This section describes the area of a page that is available for printing.

The following diagram shows the print area for this printer.

### Paper

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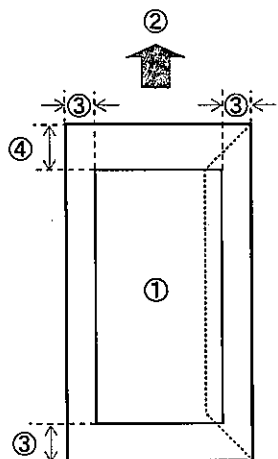


- ① Print area
- ② Feed direction
- ③ Approx. 4.2 mm (0.17 inches)
- ④ Approx. 4.2 mm (0.17 inches)

**Note**

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

## Envelope



BYK124

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

### Note

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





## Loading Paper

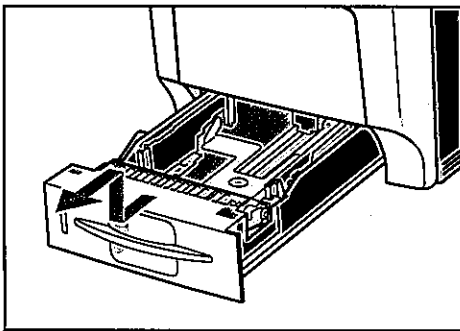
This section describes how to load paper into the paper tray or onto the bypass tray.

### Loading Paper into Standard Paper Feed Tray or Optional Paper Feed Trays

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

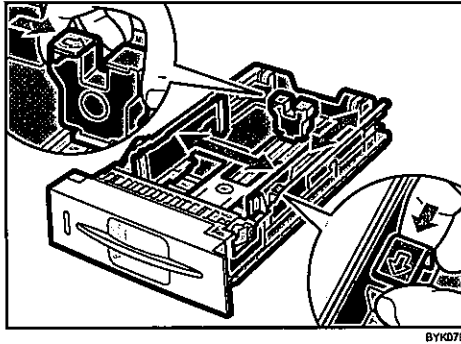
#### ★ Important

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

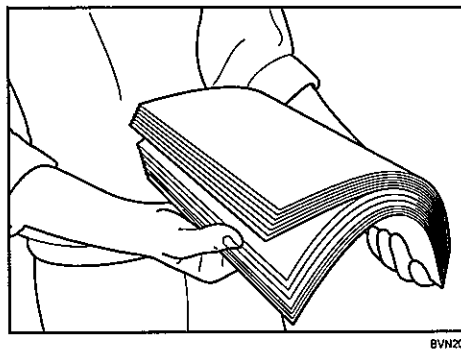


Place the tray on a flat surface.

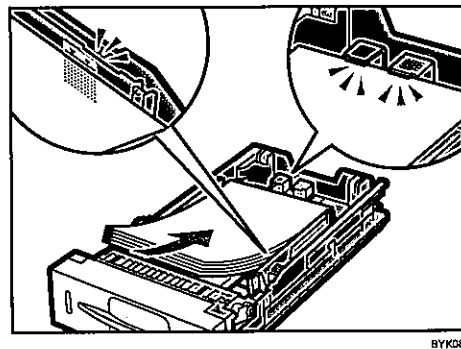
2. Pinch the green clips on the side guide and the end guide, and then adjust the guides to the paper size being loaded.



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



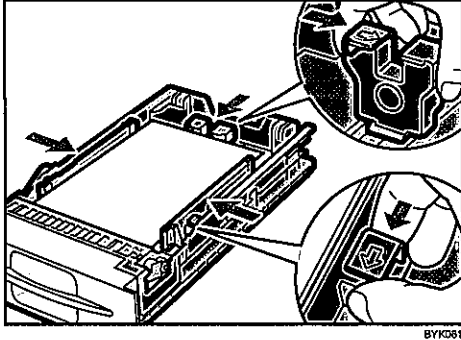
4. Load the new paper stack print side up, making sure the paper is flush against the paper guides.



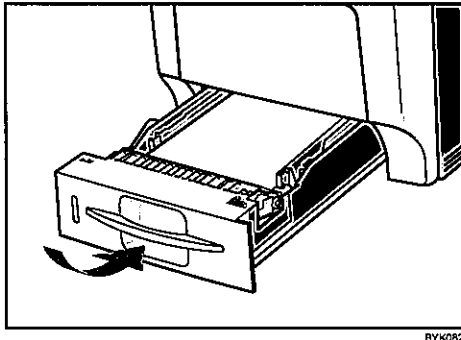
5. Adjust the paper guides to close any gaps.

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

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



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



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**Note**

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

**Reference**

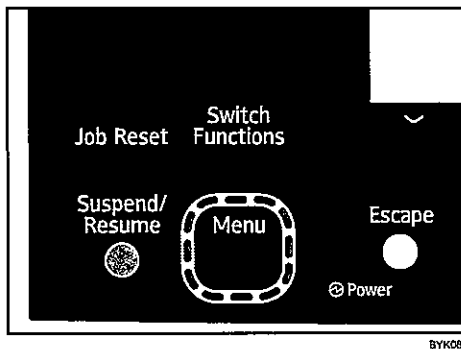
- p.123 "Types of Paper and Other Media"

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

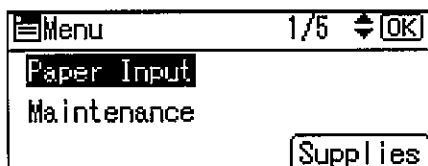
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To load paper whose size cannot be selected automatically, set the paper size on the control panel. Follow the procedure described below to set the paper size.

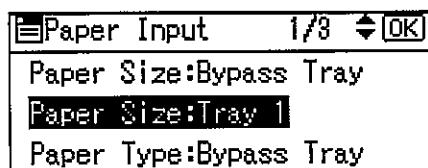
1. Press the [Menu] key.



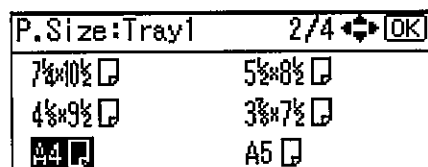
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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



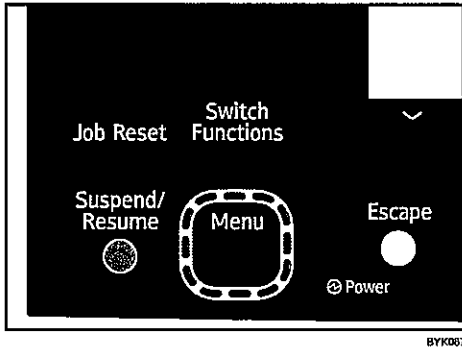
5. Press the [Menu] key to return to the initial screen.

### Setting the paper size automatically

#### ★ Important

- Use the following procedure if you have been specifying the paper size manually using the control panel and want to reapply automatic paper size detection.

1. Press the [Menu] key.

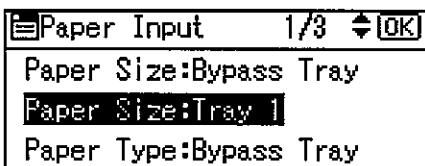


2. Press the [v] or [^] key to select [Paper Input], and then press the [OK] key.

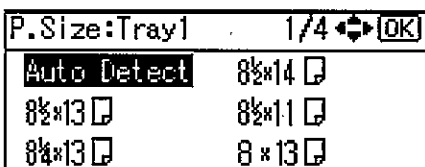


**6**

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



4. Select [Auto Detect] using the scroll keys, and then press the [OK] key.



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

**Note**

- For details about the available paper size, see "Supported Paper for Each Tray".

**Reference**

- p.119 "Supported Paper for Each Tray"

**Specifying custom size paper for standard paper feed tray and optional paper feed tray**

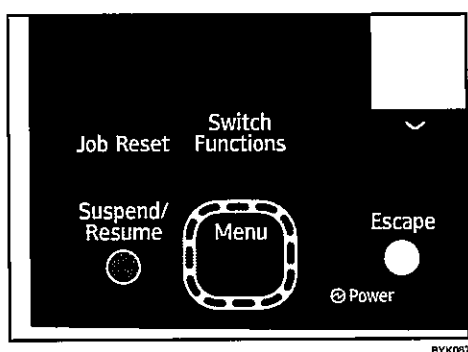
This section describes how to load custom size paper into trays 1 to 4.



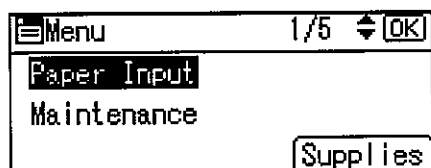
### ★ Important

- When printing on custom size paper, specify the paper size using the control panel or printer driver.
- The standard paper tray (Tray 1) and the optional paper feed units (Tray 2, 3, and 4) can accommodate paper that is 98 - 216 mm (3.86 - 8.5 inches) wide and 148 - 355.5 mm (5.83 - 13.99 inches) long. You cannot load these trays with paper that is outside this size range.
- The printer cannot print from applications that do not support custom size paper.

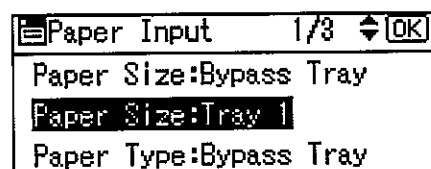
1. Press the [Menu] key.



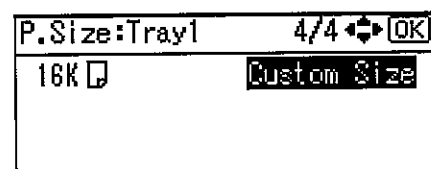
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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



5. Press the number keys to enter the horizontal value, and then press the [OK] key.

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

Custom:Tray1	↕ [OK]
Enter with No. keys or ↕.	
Horiz.	<input type="text" value="215.9"/> mm
<98.0to216.0 by 0.1>	

🌐 **Region B** (mainly North America)

Custom:Tray1	↕ [OK]
Enter with No. keys or ↕.	
Horiz.	<input type="text" value="8.50"/> inch
<3.86to8.50 by 0.01>	

6. Press the number keys to enter the vertical value, and then press the [OK] key.

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

Custom:Tray1	↕ [OK]
Enter with No. keys or ↕.	
Vert.	<input type="text" value="279.4"/> mm
<148.0to355.5 by 0.1>	

🌐 **Region B** (mainly North America)

Custom:Tray1	↕ [OK]
Enter with No. keys or ↕.	
Vert.	<input type="text" value="11.00"/> inch
<5.83to13.99 by 0.01>	

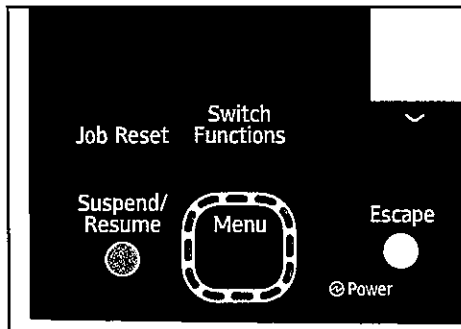
7. Press the [Menu] key to return to the initial screen.

### Specifying a paper type for standard paper feed tray and optional paper feed tray

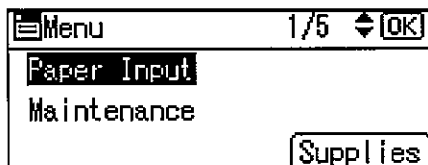
This section describes how to specify a paper type. You can improve printer performance by selecting the optimum paper type for the tray. You can select from the following paper types:

- No Display (Plain Paper), Middle Thick, Thick Paper 1, Thick Paper 2, Thick Paper 3, Thin Paper, Letterhead, Label Paper, Coated Paper (Glossy), CoatedPaper(Glossy:Thick), Coated Paper (Matted), CoatedPaper(Matted:Thick), Waterproof Paper, Special Paper 1, Special Paper 2, Special Paper 3, Preprinted Paper, Recycled Paper, Envelope

1. Press the [Menu] key.

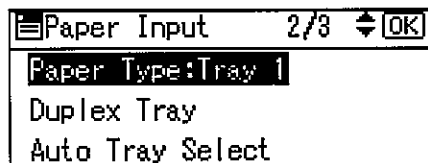


2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.

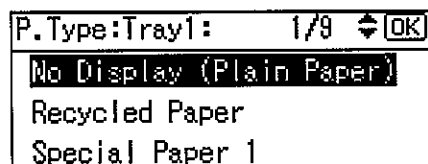


3. Press the [▼] or [▲] key to select [Paper Type: (tray name)], and then press the [OK] key.

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



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



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

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

#### **Note**

- If the printing result is badly smudged, change the setting on the printer's control panel. For details, see "Types of Paper and Other Media".
- The following paper types cannot be printed on both sides:
  - Thick Paper 3, Thick Paper 4, Thin Paper, OHP (Transparency), Label Paper, Coated Paper (Glossy:Thick), Coated Paper (Matted:Thick), Waterproof Paper, Preprinted Paper, Envelope

**Reference**

- p.123 "Types of Paper and Other Media"

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## Loading Paper in Bypass Tray

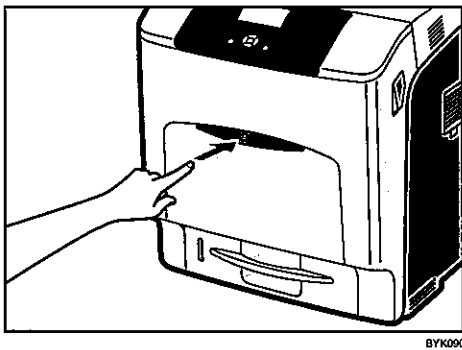
---

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

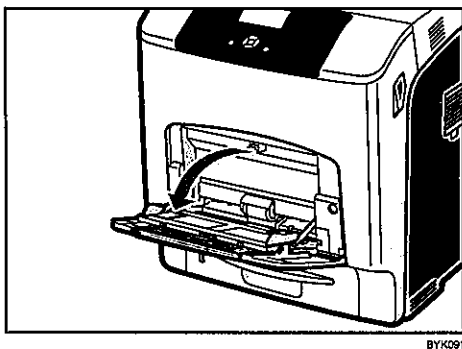
**Important**

- Shuffle paper before loading the stack onto the tray, so multiple sheets are not fed in together.
- Set the size and direction of the loaded paper on the control panel or in the printer driver. Make sure the settings do not conflict. Otherwise, the paper may jam or the print quality may be affected.
- Load paper with the print side down and in the short-edge feed direction.

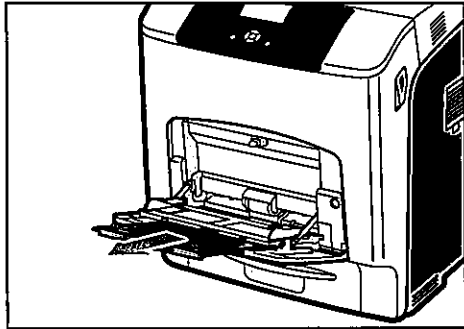
1. Press the mark in the centre of the bypass tray.



Open the bypass tray.

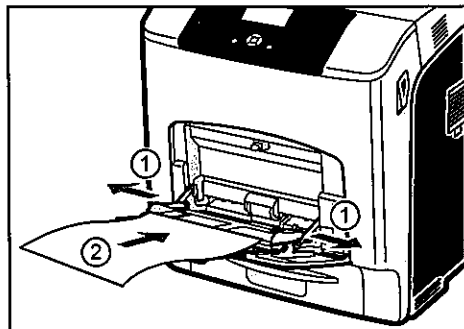


2. If you load A5 or larger size paper, pull out the bypass tray extension, and then flip it open.



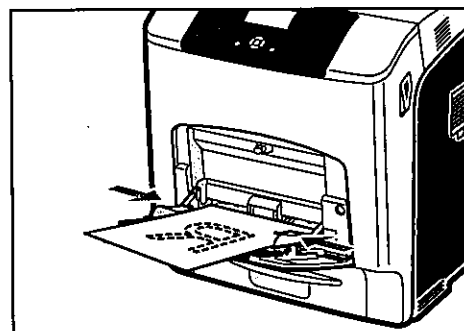
BYK082

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



BYK083

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



BYK084

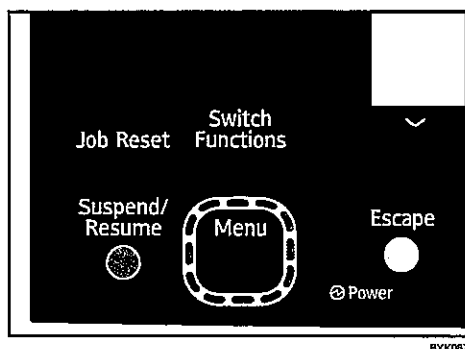
6

### Specifying standard size paper for the bypass tray

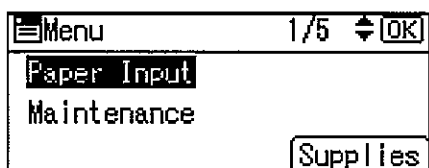
**★ Important**

- This describes how to load standard size paper onto the bypass tray.

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

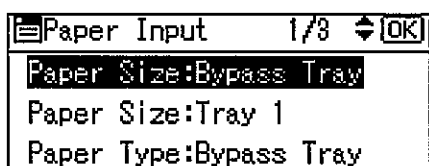


2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.

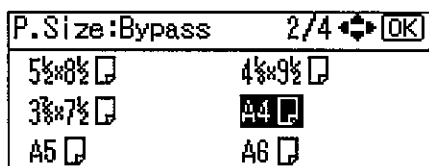


6

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



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



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

#### Note

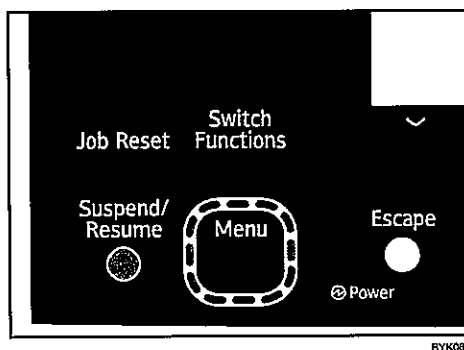
- After loading paper on the tray, specify the paper type using the control panel and printer driver.
- The number of pages that can be loaded on the bypass tray differs depending on paper type. Make sure paper is not stacked above the paper guides inside the bypass tray.

## Specifying custom size paper for the bypass tray

### Important

- When loading custom size or special paper, specify the paper size using the control panel and printer driver.
- Paper sizes between 70 - 216 mm (2.76 - 8.5 inches) in width and 127 - 1260 mm (5 - 49.6 inches) in length 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.
- 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.
- You cannot print on custom size paper with an application that does not support the custom size setting.

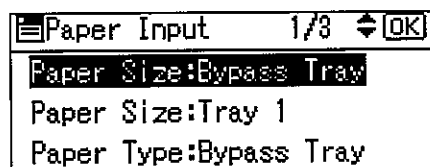
1. Press the [Menu] key.



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



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



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

P. Size: Bypass	4/4	↔	[OK]
Custom Size			

5. Press the number keys to enter the horizontal value, and then press the [OK] key.

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

Custom: Bypass	↔	[OK]
Enter with No. keys or ↔.		
Horiz.	<input type="text" value="215.9"/>	mm
<70.0 to 216.0 by 0.1>		

⊕ Region **B** (mainly North America)

Custom: Bypass	↔	[OK]
Enter with No. keys or ↔.		
Horiz.	<input type="text" value="8.50"/>	inch
<2.76 to 8.50 by 0.01>		

6. Press the number keys to enter the vertical value, and then press the [OK] key.

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

Custom: Bypass	↔	[OK]
Enter with No. keys or ↔.		
Vert.	<input type="text" value="279.4"/>	mm
<127.0 to 260.0 by 0.1>		

⊕ Region **B** (mainly North America)

Custom: Bypass	↔	[OK]
Enter with No. keys or ↔.		
Vert.	<input type="text" value="11.00"/>	inch
<5.00 to 49.60 by 0.01>		

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

⚠ Note

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



## Specifying a paper type for the bypass tray

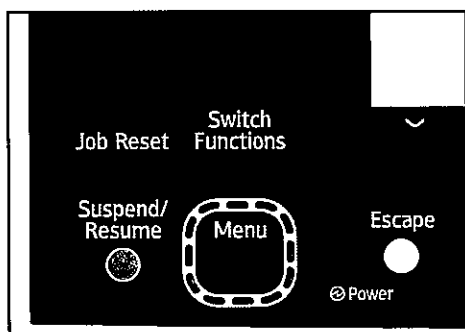
This section describes how to specify a paper type. You can improve printer performance by selecting the optimum paper type for the tray. You can select from the following paper types:

- No Display (Plain Paper), Middle Thick, Thick Paper 1, Thick Paper 2, Thick Paper 3, Thick Paper 4, Thin Paper, OHP (Transparency), Letterhead, Label Paper, Coated Paper (Glossy), Coated Paper (Glossy:Thick), Coated Paper (Matted), Coated Paper (Matted:Thick), Waterproof Paper, Special Paper 1, Special Paper 2, Special Paper 3, Preprinted Paper, Recycled Paper, Envelope

### Important

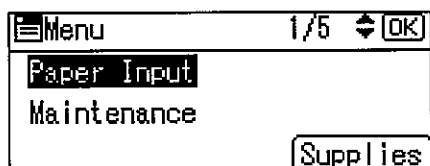
- After loading paper on the tray, specify the paper type using the control panel and printer driver.
- The paper type selected using the printer driver overrides that selected using the control panel.

1. Press the [Menu] key.

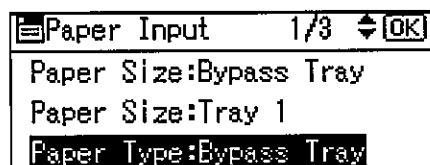


BYK087

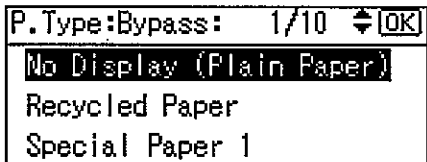
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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



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

**Note**

- If the printing result is badly smudged, change the setting on the printer's control panel. For details, see "Types of Paper and Other Media".
- The following paper types cannot be printed on both sides:
  - Thick Paper 3, Thick Paper 4, Thin Paper, OHP (Transparency), Label Paper, CoatedPaper (Glossy:Thick), CoatedPaper(Matted:Thick), Waterproof Paper, Preprinted Paper, Envelope

**Reference**

- p.123 "Types of Paper and Other Media"

**6**

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## Loading Envelopes

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

**Reference**

- p.123 "Types of Paper and Other Media"

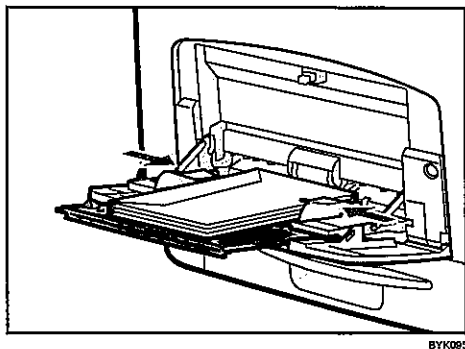
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## Loading envelopes onto the bypass tray

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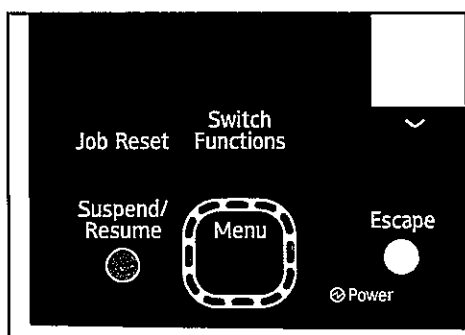
**Important**

- 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 down and the sides of the flaps on the left as shown below.  
Slide the side guides against the edge of the envelope stack.



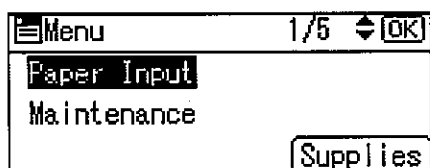
BYK005

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

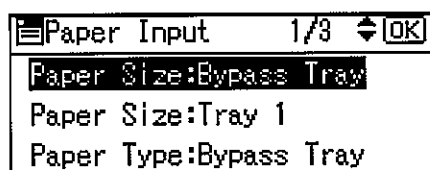


BYK007

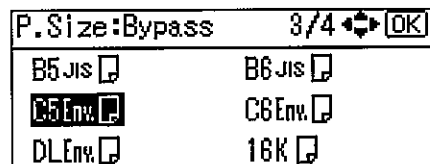
3. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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



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

The display returns to the initial screen.

**Note**

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

**Reference**

- p.123 "Types of Paper and Other Media"

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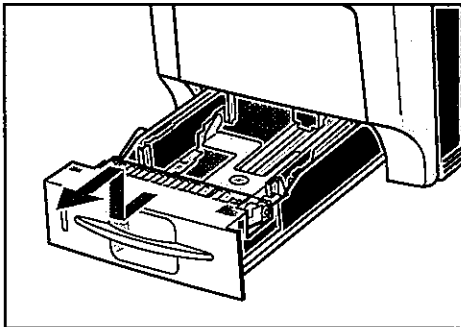
### Loading envelopes into the standard paper feed tray

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The following explanation uses the example of Loading envelopes into the standard paper feed tray (Tray 1).

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

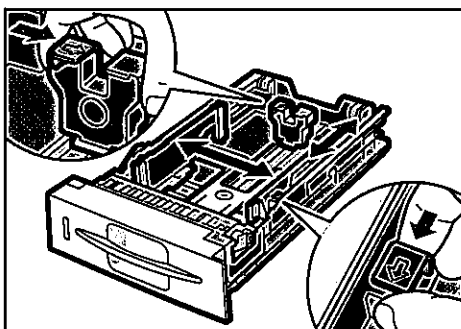
**6**



BYK078

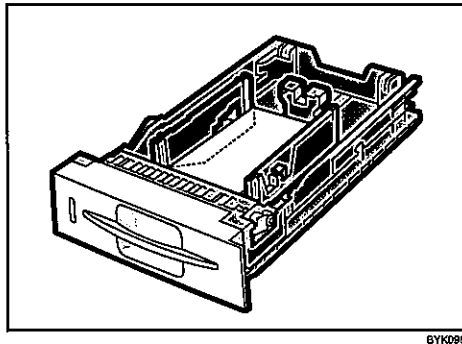
Place the tray on a flat surface.

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

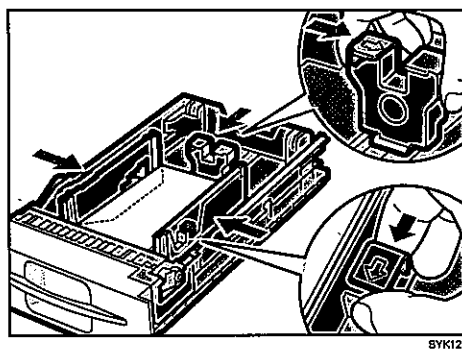


BYK079

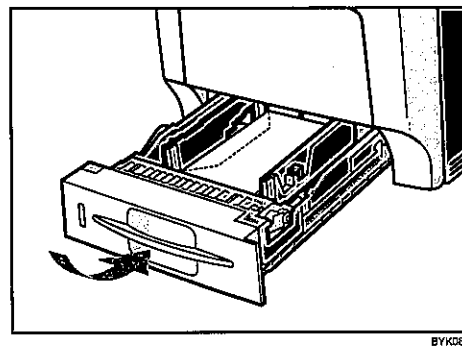
3. Load envelopes into the paper tray, with the print side up and the flap on the left as shown in the illustration.



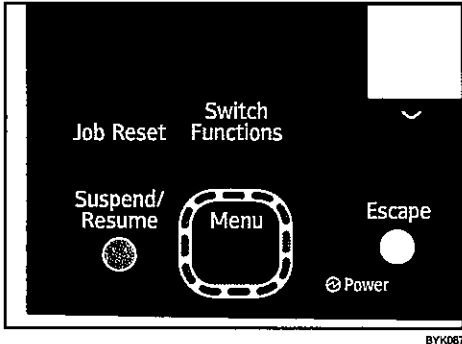
4. Adjust the paper guides to close any gaps.



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



6. Press the [Menu] key.

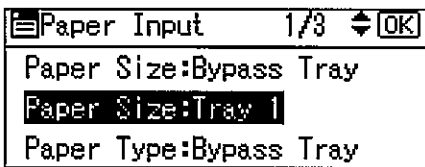


7. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.

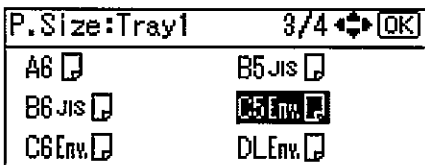


**6**

8. Press the [▼] or [▲] key to select [Paper Size:Tray 1], and then press the [OK] key.



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



10. Press the [Menu] key.

The display returns to the initial screen.

**Note**

- Confirm that the top of the stack is not higher than the limit mark on the side guides.
- 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.

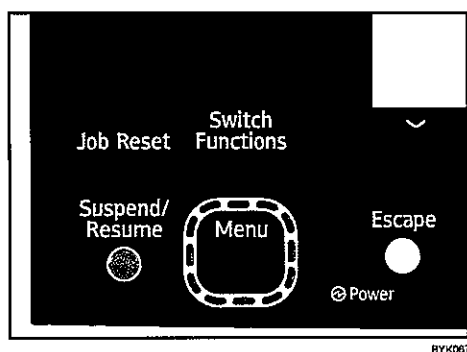
**Reference**

- p.123 "Types of Paper and Other Media"

## Switching between Paper Trays

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

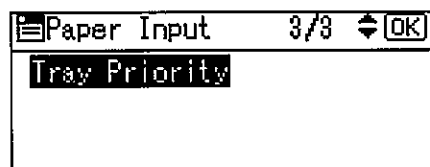
1. Press the [Menu] key.



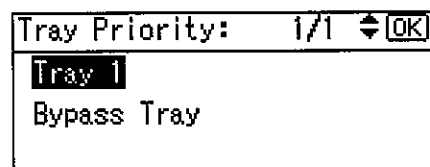
2. Press the [▼] or [▲] key to select [Paper Input], and then press the [OK] key.



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



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



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

The display returns to the initial screen.









## Printing on Orientation-Fixed or Two-Sided Paper

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

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

To make sure documents are printed correctly, press the [Menu] key using control panel, and in the [Print Settings] menu, select [Machine Modes], [Letterhead Setting] and [On (Always)]. Select [Letterhead] as the paper type in the printer driver's settings when you have selected [Auto Detect] or [Off] in the [Print Settings] menu.

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

Paper Orientation	Paper trays 1 - 4		Bypass Tray	
	Letterhead Setting [On]	Letterhead Setting [Off]	Letterhead Setting [On]	Letterhead Setting [Off]
1-sided print ☐				
2-sided print ☐				

### 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.



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# Using Paper Types that Have Unique Names

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## From Registration of User Paper Types to Use

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

**6**

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

1. Using Web Image Monitor, register the name under [User Paper Type].
  - Enter "Invoice A" for [Paper Name] and select [Plain Paper (61 to 90g/m<sup>2</sup>)] for [Paper Type].
  - When printing a file, the paper type is automatically set by selecting [User Paper Types] on the printer driver setting screen.
  - For details about this procedure, see "Registering Names to Paper Types".
2. In Web Image Monitor, set [User Paper Type] for the bypass tray.
  - Set [Paper Type] for the tray to "Invoice A".
  - For details about this procedure, see "Setting User Paper Types to Trays".
3. Load the paper you want to use on the bypass tray.
  - Set an unprinted paper on the bypass tray.
  - For details about this procedure, see "Loading Paper".
4. Using the printer driver, print a document on the registered custom type 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.138 "Loading Paper"
- p.160 "Registering Names to Paper Types"
- p.161 "Setting User Paper Types to Trays"
- p.161 "Printing Using Registered Paper Types"

---

## Registering Names to Paper Types

---

# 6

**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. Log in to Web Image Monitor as an administrator.**

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

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

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

The screen for selecting [User Paper Type] appears.

**4. 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 (61 to 90g/m<sup>2</sup>)] for [Paper Type]. If the setting is incorrect, the paper might become jammed or print quality could be affected.
- For details about combinations of paper sizes and types, see "Types of Paper and Other Media".

**5. Click [OK].**

**Note**

- You can register up to eight user paper types.

---

## Setting User Paper Types to Trays

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

**1. Log in to Web Image Monitor as an administrator.**

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

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

**3. In the [Device Settings] area, click [Paper].**

**4. Set the paper tray you want to use as a user paper type, and then select the registered paper type.**

The example below is for printing invoices.

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

**5. Click [OK].**

**6. Click [Logout].**

**7. Quit Web Image Monitor.**

**Note**

- For details about loading paper, see "Loading Paper".
- For details about setting the paper type from the control panel, see "Specifying a paper type for standard paper feed tray and optional paper feed tray" and "Specifying a paper type for the bypass tray".

**Reference**

- p.138 "Loading Paper"
- p.144 "Specifying a paper type for standard paper feed tray and optional paper feed tray"
- p.151 "Specifying a paper type for the bypass tray"

---

## Printing Using Registered Paper Types

---

Select a registered paper type to print onto.

**1. Select your application's print command.**

**2. On the tab in the properties dialog box that appears, select a registered paper type under [Paper Type:].**

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

**3. Execute the print command.**

The preregistered settings are applied and print is performed.

**Note**

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

# 7. Maintaining the Printer

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

## Adding Toner (Print Cartridge)

### **WARNING**

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

### **WARNING**

- Do not store toner (new or used) or toner containers anywhere near naked flames. Doing so risks fire and burns. Toner will ignite on contact with naked flame.

### **WARNING**

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

### **CAUTION**

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

### **CAUTION**

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

### **CAUTION**

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

### **CAUTION**

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

### **CAUTION**

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

**⚠ CAUTION**

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

**⚠ CAUTION**

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

**➔ Important**


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

**⬇ Note**

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

**7**

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

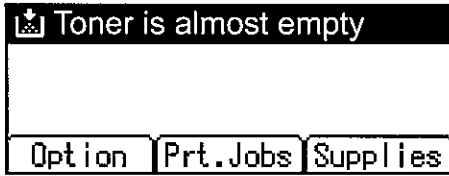
"Add Toner: {color}"

 Add toner <K,C,M,Y>

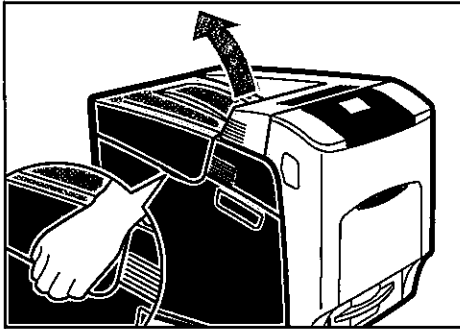
See instructions in Upper Cover. Press the Menu key to check Supplies.

- A combination of one to four colors, yellow, magenta, cyan, black, appears in "{color}".
- If cyan, magenta, or yellow toner runs out, you can print in black and white using black toner. Change the color mode setting to Black and White using the printer driver.
- If black toner runs out, you cannot print in black and white or color until the black toner cartridge is replaced.

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

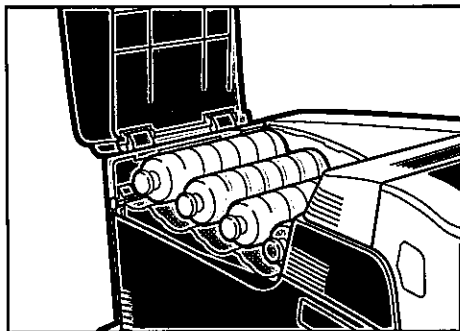


1. Open the top cover by pulling the handles on the left side.



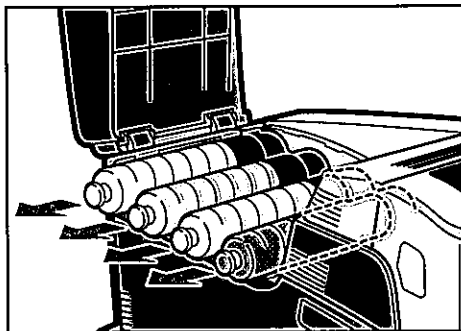
BYK026

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



BYK127

2. Remove the toner bottle you want to replace.

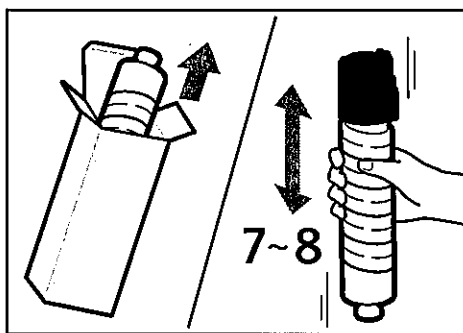


BYK114

- Do not shake the removed toner bottle. Any remaining toner may leak.

- Pull the toner bottle out slowly and carefully to prevent leakage.
  - Place the old toner bottle on paper or some other material to avoid dirtying your workspace.
3. Take the new toner bottle out of its box, and then shake the toner bottle up and down seven or eight times. When holding or shaking the toner bottle, take care to hold the actual bottle, not the bottle's cover.

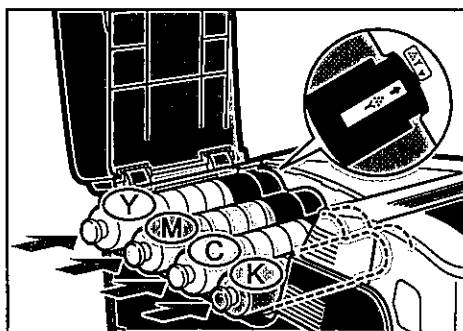
Even distribution of toner within the bottle improves print quality.



BYK111

4. Install the yellow toner bottle first. Holding the toner bottle horizontally with the label facing up, align the label with the position of the triangular mark.

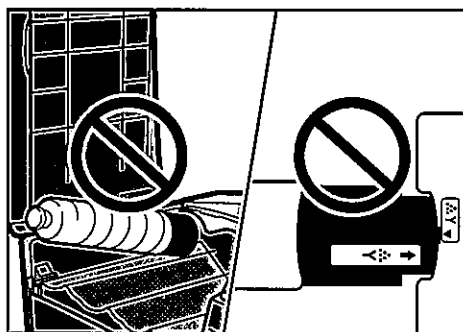
7



BYK113

Be sure to set the toner bottles so that they are straight and flat.

Carefully align the label on each toner bottle with the triangular mark on the receiving side.



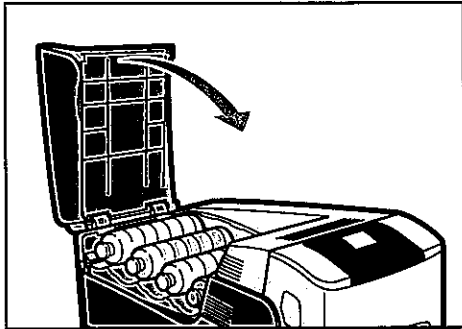
BYK121



**5. Push in the toner bottle until you hear a clicking sound.**

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

**6. Close the top cover.**



Wait while the toner loads.

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

**Note**

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

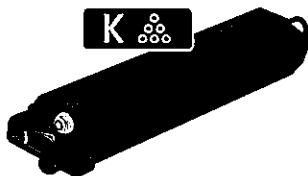
## Replacing the Drum Unit

Refer to the maintenance guide provided with the new items for the replacement procedure of the drum unit.

### ★ Important

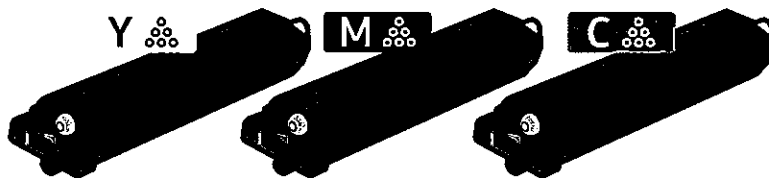
- Exposure to light reduces drum unit performance. Replace the unit as quickly as possible.
- Do not pull out the drum unit quickly or with force as it may fall.
- Take care that nothing comes into contact with the top surface of the drum unit.
- When holding the drum unit, grab the green grip on the left and the handle on the front together. Do not move the drum unit by only grabbing the grip. Doing so may damage the grip.
- The color drum units (yellow, magenta, and cyan) are supplied as a single item.

### Black Drum Unit



BYK100

### Color Drum Units



BYK101

Replace the black drum unit/color drum units if any of the following messages appear on the display:

"Rplcmnt Requird:PCU:Black"



"Rplcmnt Requird:PCU:Color"

<b>Rplcmnt Requird:PCU:Color</b>		
Option	Prt.Jobs	Supplies

When the following messages appear on the display, the black drum unit/color drum units should be replaced soon. Prepare a new Black Drum Unit/Color Drum Unit.

"Repl Rqrd Soon:PCU:Black"

<b>Repl Rqrd Soon:PCU:Black</b>		
Option	Prt.Jobs	Supplies

"Repl Rqrd Soon:PCU:Color"

<b>Repl Rqrd Soon:PCU:Color</b>		
Option	Prt.Jobs	Supplies

## Replacing the Transfer Unit and Transfer Roller

Refer to the maintenance guide provided with the new items for the replacement transfer unit and transfer roller.

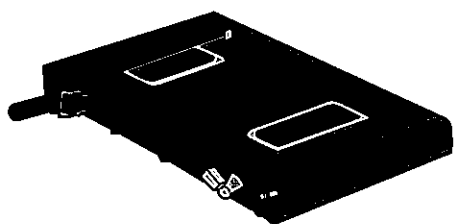
### **⚠ CAUTION**

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

### **★ Important**

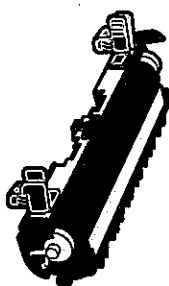
- Replace the transfer unit and transfer roller together.

#### Transfer Unit



BYK130

#### Transfer Roller



BYK131

Replace the transfer unit and transfer roller if the following message appears on the display:

"Replacmnt Requd:IntTrans"



When the following message appears on the display, the transfer unit and transfer roller should be replaced soon. Prepare a new Transfer Unit and Transfer Roller.

"Repl Rqrd Soon:InfTrans"

Repl Rqrd Soon:InfTrans		
Option	Prt.Jobs	Supplies

## Replacing the Waste Toner Bottle

Refer to the maintenance guide provided with the new items for the replacement procedure of the waste toner bottle.

### **⚠ WARNING**

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

### **⚠ WARNING**

- Do not store toner (new or used) or toner containers anywhere near naked flames. Doing so risks fire and burns. Toner will ignite on contact with naked flame.

### **⚠ WARNING**

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

## 7

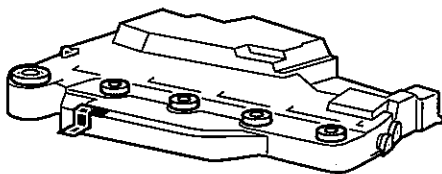
### **⚠ CAUTION**

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

### **★ Important**

- Waste toner bottles cannot be reused.
- Purchasing and storing extra waste toner bottles is recommended.
- Before removing the waste toner bottle from the printer, spread paper or some other material around the area to keep toner from dirtying your workspace.

### Waste Toner Bottle



BYK108

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

" Waste Toner Bottle full"



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

"Waste Toner almost full"



## Replacing the Fusing Unit and Dustproof Filters

Refer to the maintenance guide provided with the new items for the replacement procedure of the fusing unit and dustproof filters.

### ⚠ CAUTION

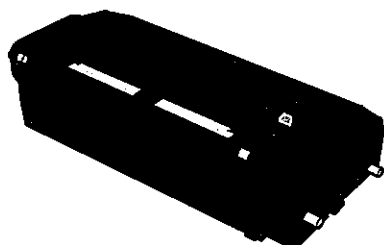
- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.
- Wait at least one hour after power off before replacing parts. Not allowing the printer to cool may result in burns.

### ★ Important

- Replace the fusing unit and dustproof filters together.

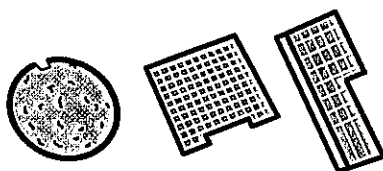
#### Fusing Unit

7



BYK133

#### Dustproof Filters



BYK134

Replace the fusing unit and dustproof filters if the following message appears on the display:

"Replcmnt Rqrd:Fusing Unit"





When the following message appears on the display, the fusing unit and dustproof filters should be replaced soon. Prepare a new Fusing Unit and Dustproof Filters.

"Repl Rqrd Soon:FusingUnit"

Repl Rqrd Soon:FusingUnit		
Option	Prt.Jobs	Supplies

## Cautions When Cleaning

### **WARNING**

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

### **CAUTION**

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

### **CAUTION**

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

## 7

### **CAUTION**

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

Clean the printer periodically to maintain fine printing.

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

### **Important**

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

## Cleaning the Paper Feed Roller

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

### ⚠ CAUTION

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

### ⚠ CAUTION

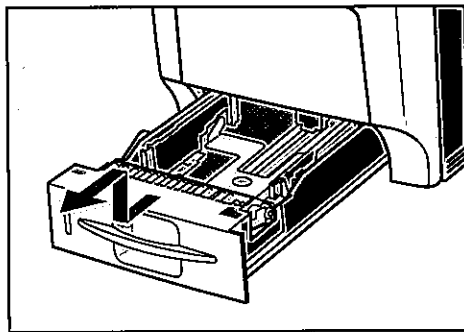
- When performing maintenance on the machine, always disconnect the power cord from the wall outlet.

### ⚠ CAUTION

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

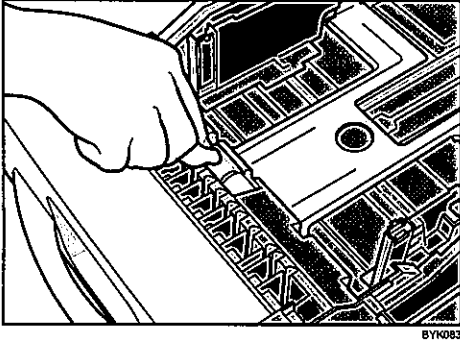
### ★ Important

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

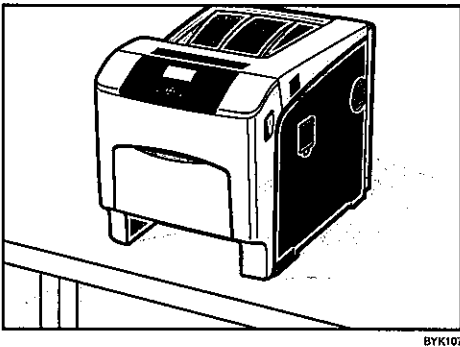


2. Place the tray on a flat surface. When there is paper in the tray, remove paper.

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



4. Turn off the power switch.
5. Pull out the plug from the socket. Remove all the cables from the printer.
6. Move the printer to the edge of a stable table or desk.

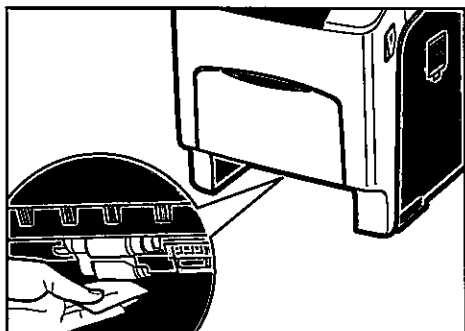


Do not put the printer on an unstable or tilted surface.

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

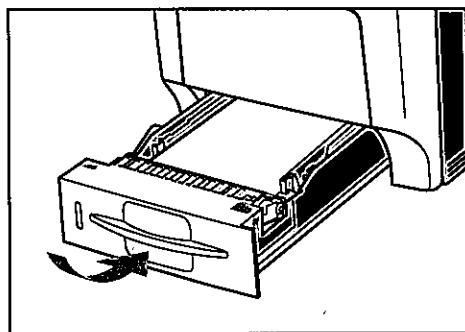
When lifting the printer, confirm that the optional paper feed unit is not attached to the printer.

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



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

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



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

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

**Note**

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

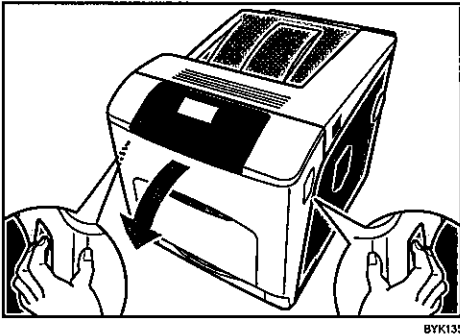
## Cleaning the Registration Roller

### **⚠ CAUTION**

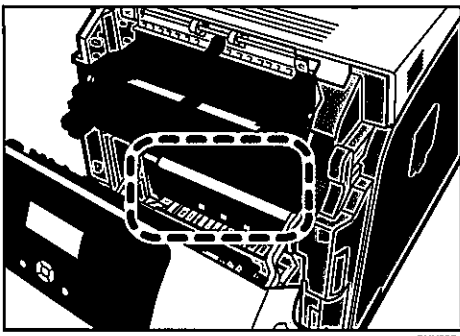
- The inside of the machine could be very hot. Do not touch the parts with a label indicating the "hot surface". Otherwise, an injury might occur.

### **★ Important**

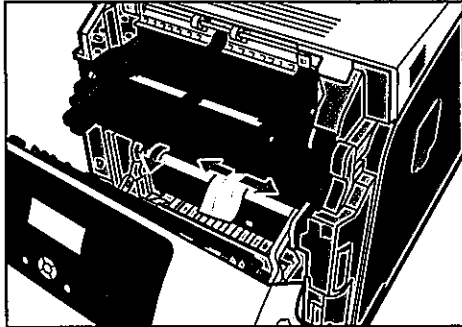
- Do not use chemical cleaners or organic solvents such as thinners or benzine.
  - Do not touch the belt of the roller when cleaning.
  - Clean the registration roller if dots (caused by specks of paper stuck to the roller) appear on printed OHP transparencies.
1. Turn off the power, and then unplug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



3. Set the registration roller as shown.



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



5. Carefully close the front cover.
6. Plug in the power cord, and then turn on the power.





## 8. Adjusting the Printer

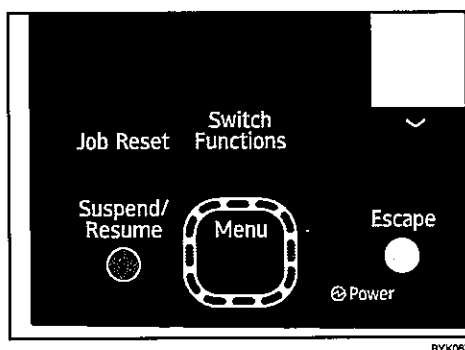
This chapter explains how to adjust the color gradations, color alignment, and print position.

### Adjusting the Color Registration

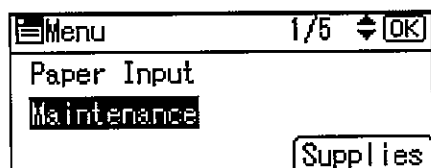
This section describes automatic color adjustment.

After moving the printer, printing on thick paper, or printing repeatedly for some time, color degradation may occur. By performing automatic color adjustment, you can restore optimum print quality.

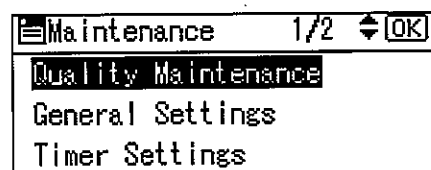
1. Press the [Menu] key.



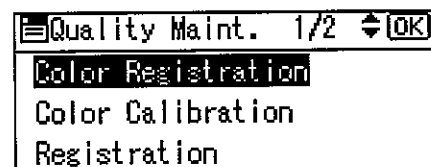
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



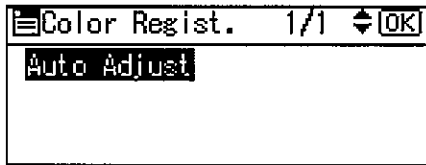
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



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



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



6. Press [OK].



Automatic color adjustment begins.

Automatic color adjustment takes about 50 seconds.

A confirmation message appears when the adjustment is complete. Press [Exit].

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

## Correcting the Color Gradation

This section describes correcting the color gradation.

Color gradation during color printing can change slightly, depending on a number of factors. If you print the same file repeatedly or toner was recently replaced, changes may occur in color tones. In such cases, you can obtain optimal print results by correcting the color gradation.

Corrections to color gradation are performed in the following order:

1. Print gradation correction sheet 1.

2. Adjust the parts of highlight colors.

Set the correction value.

Print the gradation correction sheet, and then check the result of the correction.

3. Print gradation correction sheet 2.

4. Adjust the parts of middle colors.

Set the correction value.

Print the gradation correction sheet, and then check the result of the correction.

5. Save the correction value.

### Note

- If suitable results cannot be obtained after a single operation, repeat the correction several times, as needed.
- Corrections to color gradation will be applied to all user jobs.
- Use the same type of paper when printing a run of gradation corrections. If a different type of paper is used, corrections may not be apparent.
- This requires the use of the supplied Color Calibration Sample Sheet.

---

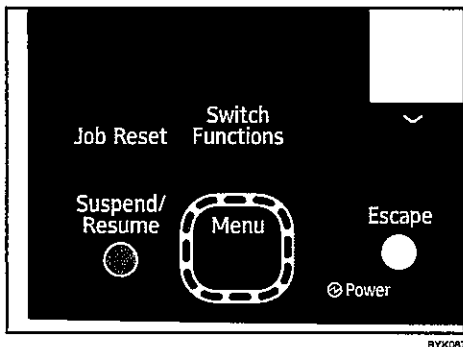
### Setting the Gradation Correction Value

---

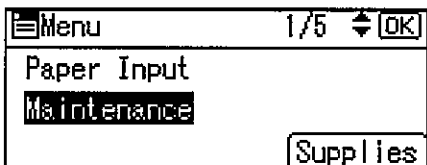
The following procedure describes adjusting the gradation correction value.

During printing, you can correct the gradation in two areas: bright part (highlight) and the medium (middle). The correction values for the highlight and the medium parts are set using [Print Test Pattern 1] and [Print Test Pattern 2] respectively.

1. Press the [Menu] key.



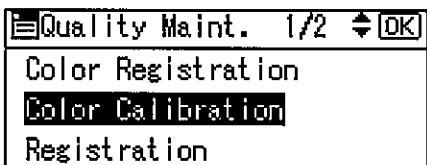
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



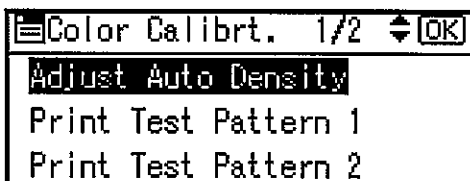
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



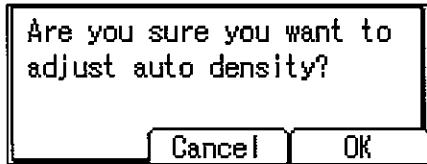
4. Press the [▼] or [▲] key to select [Color Calibration], and then press the [OK] key.



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



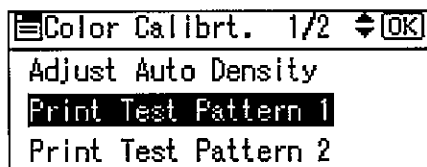
The confirmation message appears. Press [OK] to adjust Auto Density.



The confirmation message appears when complete. Press [Exit].

The display returns to the Color Calibration screen.

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

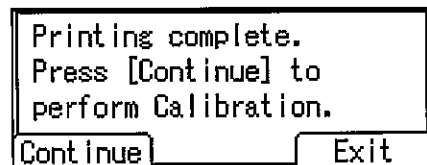


A confirmation message appears. Press [Print].

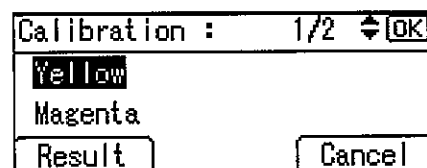
To cancel printing, press [Cancel].



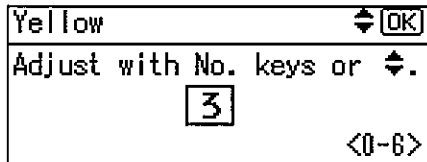
7. When the selected sheet is printed, a confirmation message will appear. Press [Continue].  
If you want to exit from this menu, press [Exit].



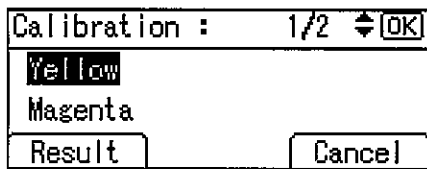
8. Press the [▼] or [▲] key to select the color you want to adjust, and then press the [OK] key.



9. Press the number key (0-6) to adjust the correction value for the selected color, and then press the [OK] key.



10. Press [Result].



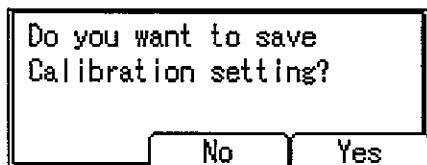
11. Press [Print] to check the result by printing the calibration sheet.



To cancel printing, press [Cancel].



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



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

---

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

---

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

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

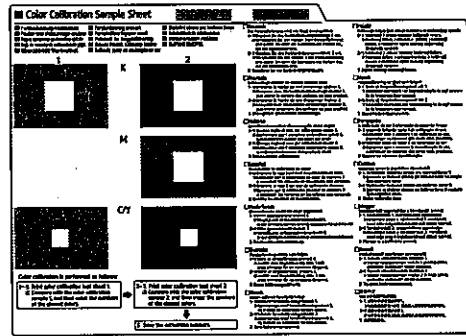
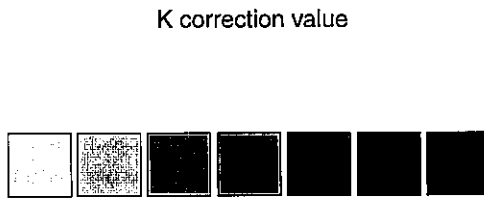
**Color sample and correction values**

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

This explanation uses setting K (black) as an example. The setting method for M (magenta) is similar. For C/Y (cyan/yellow), the correction value is determined based on combinations of these two colors, although panel settings are configured for each color separately.

**Note**

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

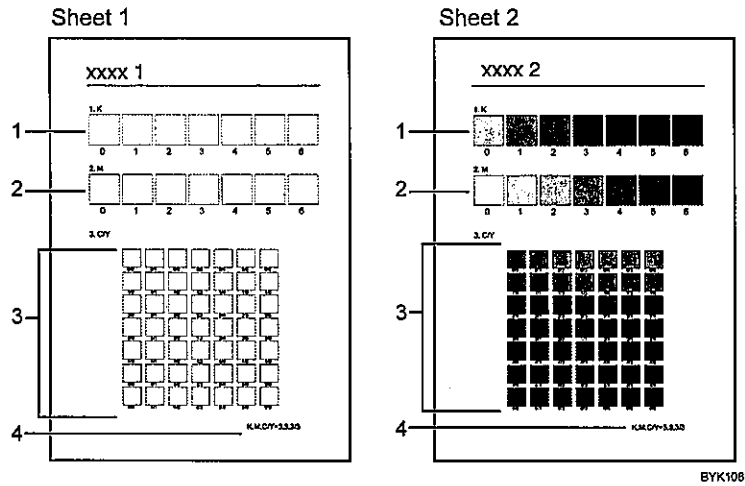


BFL360S

**Reading the gradation correction sheet**

The printed gradation correction sheet is read as shown below.

Comparing the gradation correction sheet and correction value of each color, K (black), M (magenta), and C (cyan)/Y (yellow) determine the required gradation correction and configure settings using the control panel.



**1. K (black) correction values**

Used to adjust the color printed when only black toner is used. The currently set correction value is printed in red.

**2. M (magenta) correction values**

Used to adjust the color printed when only magenta toner is used. The currently set correction value is printed in red.

**3. C (cyan)/Y (yellow) correction values**

Used to correct the colors printed when cyan and yellow are used. For C/Y (cyan/yellow), the correction value is determined based on combinations of these two colors, although panel settings are configured for each color.

**4. Setting value**

The value displayed is the one currently set when the gradation correction sheet is printed. This value corresponds to the value set on the control panel.




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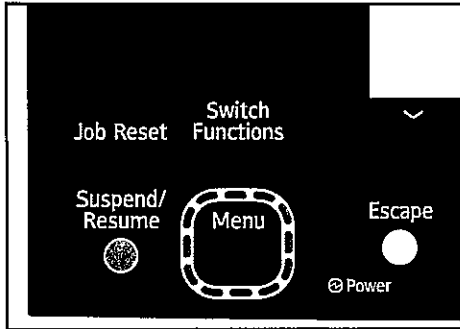
**Resetting the Gradation Correction Value to the Initial Value**

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Reset the correction value default.



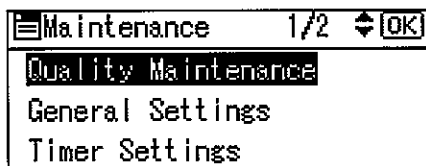
1. Press the [Menu] key.



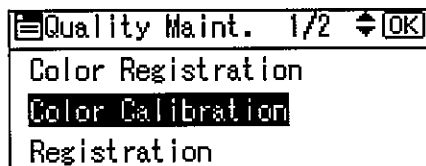
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



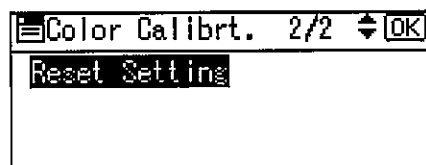
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



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



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



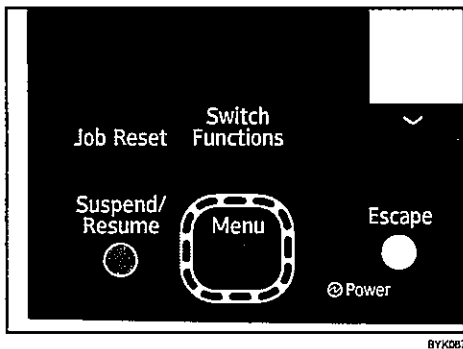
A confirmation message appears.

6. Press [Yes].  
When resetting is completed, press [Exit].
7. Press [Menu] key to return to the initial screen.

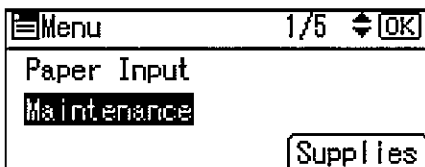
## Adjusting Printing Position

You can adjust the printing position for each tray. Only the horizontal printing position can be adjusted. "Horizontal" means perpendicular to the feed direction. Normally you do not need to update the printing position. However, updating is useful in some cases when the optional paper feed unit is installed.

1. Press the [Menu] key.



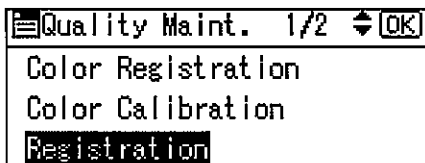
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



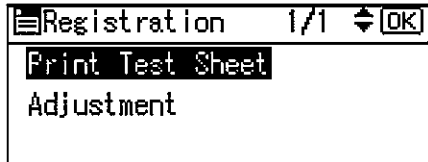
3. Press the [▼] or [▲] key to select [Quality Maintenance], and then press the [OK] key.



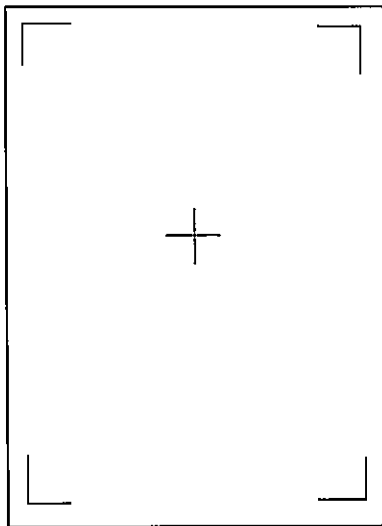
4. Press the [▼] or [▲] key to select [Registration], and then press the [OK] key.



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

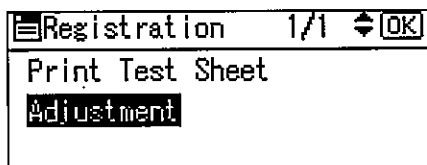


6. Press the [▼] or [▲] key to select the tray you want to adjust, and then press the [OK] key.  
7. Confirm the position of the image on the test sheet, and then adjust the registration value.

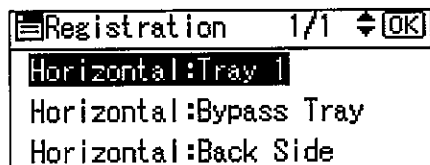


Use this sheet to confirm the current print position.

8. Press the [Escape] key until the screen returns to the [Registration] menu.  
9. Press the [▼] or [▲] key to select [Adjustment], and then press the [OK] key.

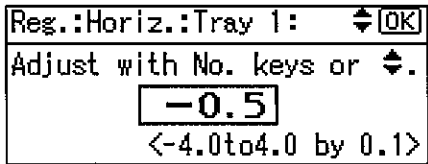


10. Press the [▼] or [▲] key to select the parameter you want to adjust, and then press the [OK] key.

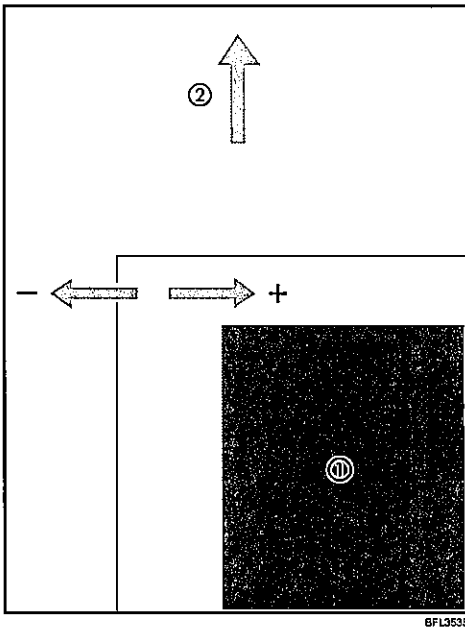


11. Press the [▼] or [▲] key to change the correction value (mm).

You can also use the number keys to change the value.



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



①: Print Area

②: Paper Feed Direction

Pressing the [▼] or [▲] key decreases or increases the value in steps of 1.0 mm.

12. Press the [OK] key to return to the [Registration] menu.

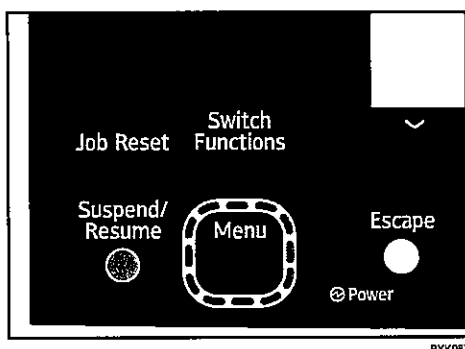
13. Print the test sheet to confirm the adjustment result.

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

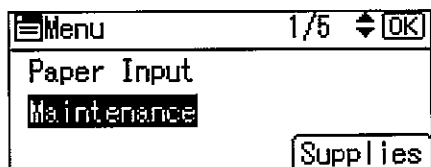
## Adjusting the Paper Type

The following procedure explains how to change the paper thickness value.

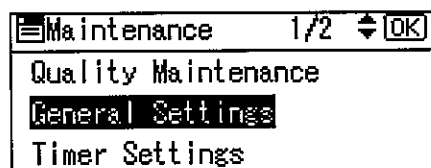
1. Press the [Menu] key.



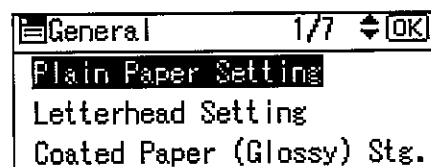
2. Press the [▼] or [▲] key to select [Maintenance], and then press the [OK] key.



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



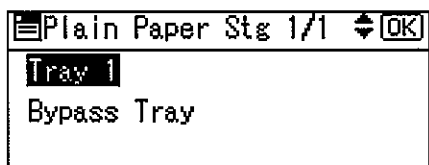
4. Press the [▼] or [▲] key to select the paper type you want to use, and then press the [OK] key.



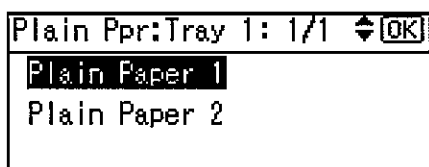
The following paper types are selectable:

Plain Paper, Letterhead, Coated Paper (Glossy), Coated Paper (Glossy:Thick), Coated Paper (Matted), Coated Paper (Matted:Thick), Waterproof Paper, Label Paper, Envelope.

5. If you have selected the [Plain Paper Setting], select the tray you want to set using the [▼] or [▲] key, and then press the [OK] key.



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



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

# 9. Troubleshooting

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

## Error and Status Messages Appear on the Control Panel

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

### Status Messages (in alphabetical order)

#### ■ Calibrating...

The printer is calibrating the color. Wait a while.

#### ■ Energy Saver

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

#### ■ Hex Dump Mode

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

#### ■ Loading toner...

The printer is loading toner. Wait a while.

#### ■ Please wait...

This message may appear for a few seconds. It means the printer is initializing, replenishing toner, or executing maintenance operations. Wait a while.

#### ■ Printing...

The printer is printing. Wait a while.

#### ■ Printing Suspended

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

#### ■ Ready

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

#### ■ Resetting Job...

The printer is resetting the print job. Wait a while.

**Setting change...**

The printer is applying the changes made to its settings. Wait a while.

**Waiting for print data...**

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

**Alert Messages (in alphabetical order)**

**⚠(A) Remove misfeed in Trays. Opn & cls Frt Cov.**

Remove paper from the standard paper feed tray (Tray 1) and then reload paper. Then open the front cover and then close it again, so the error message disappears.

For details, see p.218 "Paper Misfeed Message (A)".

**⚠(B) (C) Open Front Cover and remove the paper.**

Open the front cover and remove any jammed paper from the internal paper feed path.

For details, see p.219 "Paper Misfeed Message (B) (C)".

**⚠(Y2) Remove misfeed in Tray 2. Opn & cls Frt. Cov.**

Remove paper from the tray 2 and then reload paper. Then open the front cover and then close it again, so the error message disappears.

For details, see p.222 "Paper Misfeed Message (Y)".

**⚠(Y3) Remove misfeed in Tray 3. Opn & cls Frt. Cov.**

Remove paper from the tray 3 and then reload paper. Then open the front cover and then close it again, so the error message disappears.

For details, see p.222 "Paper Misfeed Message (Y)".

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**⚠(Y4) Remove misfeed in Tray 4. Opn & cls Frt. Cov.**

Remove paper from the tray 4 and then reload paper. Then open the front cover and then close it again, so the error message disappears.

For details, see p.222 "Paper Misfeed Message (Y)".

**⚠(Z) Open Frt. Cov and remove paper in Dup.Feed.**

Open the front cover and remove any jammed paper from the duplex unit.

For details, see p.224 "Paper Misfeed Message (Z)".

**🖨️Add toner<K,C,M,Y>.**

The printer has run out of the indicated toner. Replace the indicated toner cartridge.

For details, see p.163 "Adding Toner (Print Cartridge)".



**🖨️ Toner is almost empty.**

The printer is almost out of the toner indicated in the message. Contact your sales or service representative to obtain a new unit.

**🖨️ Waste Toner almost full Contact your local vendor. Please call service.**

The waste toner bottle is almost full. Contact your sales or service representative.

**🖨️ Waste Toner Bottle full**

Replace the waste toner bottle. For details, see p.172 "Replacing the Waste Toner Bottle".

**🖨️ Cannot connect with DHCP server.(101/201)**

Cannot obtain IP address from DHCP server. Consult your network administrator.

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

Connection with NetWare print server is unavailable.

**🖨️ Cannot connect with NetWare server.(106/206)**

Connection with NetWare server is unavailable. Consult your network administrator.

**🖨️ Cannot print.**

Check the file you want to print is a supported file type. Check for misfeeds and ask your network administrator for help.

**🖨️ Check network settings.(103/203)**

The IP address setting is incorrect. Check the IP address, subnet mask, and gateway address. For details, see p.93 "Ethernet Configuration".

**🖨️ Check the Left Cover is closed and the Waste Toner Bottle is set correctly.**

Make sure the left cover is firmly closed. If the error message persists, remove the waste toner bottle and set it again.

**🖨️ Classification Code Error**

A classification code is not specified for the print job. Enter a classification code using the printer properties and print the document again.

For details, see "Registering Classification Codes", Software Guide.

**🖨️ Connect failed:Wireless Card Turn power off, check card**

Check there is a wireless LAN board installed.

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

Install the correct board properly.

For details, see p.75 "Installing the Interface Units".

**Cover Open. Please close the indicated cover.**

Close the cover indicated on the control panel.

**Ethernet Board Error**

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

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

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

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

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

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

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

**Option RAM Error**

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

Check if it is installed properly.

For details about installing the unit, see p.67 "Installing the Memory Expansion Units".

**Parallel I/F Error**

The printer's self diagnostic test failed due to a loopback error. Replace the IEEE 1284 board that caused the error.

For details, see p.75 "Installing the Interface Units".

**9**

**Printer Font Error.**

There are problems with the printer's font file.

Contact your sales or service representative.

**Problem with Hard Disk Please call service.**

The printer cannot detect a hard disk. It may be incorrectly installed.

Check if it is installed properly or contact your sales or service representative.

For details about installing the unit, see p.75 "Installing the Interface Units".

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

The printer cannot detect a wireless LAN board failure. It may be incorrectly installed.

Check if it is installed properly or contact your sales or service representative.

For details about installing the unit, see p.75 "Installing the Interface Units".

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

The printer cannot detect a wireless LAN board. It may be incorrectly installed.

Check if it is installed properly or contact your sales or service representative.

For details about installing the unit, see p.75 "Installing the Interface Units".

**Repl Rqrd Soon:FusingUnit**

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

**Repl Rqrd Soon:InfTrans**

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

**Repl Rqrd Soon:PCU:Black**

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

**Repl Rqrd Soon:PCU:Color**

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

**Replacmnt Requird:InfTrans**

You need to replace the transfer unit. For details, see p.170 "Replacing the Transfer Unit and Transfer Roller".

**Replcmnt Rqrd:Fusing Unit**

You need to replace the fusing unit. For details, see p.174 "Replacing the Fusing Unit and Dustproof Filters".

**Rplcmnt Requird:PCU:Black**

You need to replace the black drum unit. For details, see p.168 "Replacing the Drum Unit".

**Rplcmnt Requird:PCU:Color**

You need to replace the color drum units. For details, see p.168 "Replacing the Drum Unit".

**Set the Fusing Unit correctly.**

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

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

For details, see p.174 "Replacing the Fusing Unit and Dustproof Filters" for fusing unit installation.

**Set the Intermediate Transfer Unit correctly.**

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

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

For details, see p.170 "Replacing the Transfer Unit and Transfer Roller" for transfer unit installation.

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

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

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

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

**■ The selected job has already been printed or deleted.**

This message might appear if you print or delete a job from Web Image Monitor. Press Exit on the message screen.

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

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

**■ WPA Auth. incomplete.(211)**

WPA authentication could not complete. Consult your network administrator.

**⬇ Note**

- Confirm error details by printing the Error Log. For details, see "Test Printing".

**📖 Reference**

- p.55 "Test Printing"

## Panel Tones

The following table explains the meaning of the various tone patterns that the printer emits to alert users about its condition.

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

### ★ Important

- Users cannot mute the printer's tone alerts. When the printer beeps to alert users of a paper jam or toner request, if the printer's covers are opened and closed repeatedly within a short space of time, the tone alert might continue, even after normal status has resumed.

## Printer Does Not Print

### ■ Is the power on?

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

Turn on the power.

### ■ Does the Alert indicator stay red?

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

For details, see p.197 "Error and Status Messages Appear on the Control Panel".

### ■ Is paper loaded?

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

For details, see p.138 "Loading Paper".

### ■ Can you print a configuration page?

If you cannot print a configuration page, it probably indicates a printer malfunction. Contact your sales or service representative.

For details, see p.55 "Test Printing".

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

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

### ■ Are you using the correct interface cable?

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

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

For details, see p.232 "Specifications".

### ■ Is the Data In indicator blinking or lit after starting a print job?

If not blinking or lit, the data is not being sent to the printer.

#### **If the printer is connected to the computer using the interface cable**

Check the port connection setting is correct. For details about checking the port connection, see p.205 "Checking the Port Connection".

#### **Network Connection**

Consult your network administrator.

### ■ How is the signal strength when using the wireless LAN?

#### **802.11 Ad hoc Mode**

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

### Infrastructure Mode

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

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## Checking the Port Connection

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When the Data in indicator does not flash or light up, check the port connection as shown below to confirm the setting.

- For a parallel port connection, the port must be set to LPT 1 or LPT 2.
  - For a USB port connection, the port must be set to USB00(n)\*.
- \* (n) varies depending on the number of printers connected.

### Windows 2000

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

### Windows XP Professional or Windows Server 2003/2003 R2

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

### Windows XP Home Edition

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

### Windows Vista/ Windows Server 2008

1. Click the [Start] button, and then click [Control Panel].
2. Click [Printers].
3. Click the icon of the printer. On the [Organize] menu, click [Properties].

4. Click the [Ports] tab.
5. In the [Print to the following port(s)] list, confirm the correct port is selected.



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## Other Printing Problems

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### When You Cannot Print Properly

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

- The paper setting may not be correct. For example, you are using thick paper but the setting for thick paper might not be set.
- Check the paper settings.
- Check the printer driver's paper settings. See the printer driver Help.
- When the message "Rplcmnt Requird:PCU:Black" or "Rplcmnt Requird:PCU:Color" appears on the display, replace the drum unit. For details, see p.168 "Replacing the Drum Unit".
- Check that the paper is not curled or bent. Envelopes can easily become curled. For details, see p.123 "Paper Recommendations".

#### **Photo images are coarse.**

- Some applications lower the resolution for making prints.  
Raise the resolution in the settings of the application.

#### **Fine dot patterns do not print.**

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

#### **Solid lines are printed as broken lines.**

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

#### **The whole printout is blurred.**

- The paper is damp, probably due to improper storage. Use dry paper that has been stored properly.  
For details, see p.123 "Paper Recommendations".
- If you select [On] for [Economy Color:] on the [Print Quality] menu in the printer properties dialog box, print will be at lower density.  
For details, see the printer driver Help.
- Toner is almost depleted. When the "Out of toner" / "{color}", or "Toner is almost empty" / "{color}" message appears on the display panel, or the toner indicator on the initial screen shows empty, replace the toner with new toner of the appropriate color.  
For details, see p.163 "Adding Toner (Print Cartridge)".
- When the message "Rplcmnt Requird:PCU:Black" or "Rplcmnt Requird:PCU:Color" appears on the display, replace the drum unit.

For details, see p. 168 "Replacing the Drum Unit".

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

**White streaks or color streaks appear.**

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

For details, see p. 163 "Adding Toner (Print Cartridge)".

- When the message "Rplcmnt Requird:PCU:Black" or "Rplcmnt Requird:PCU:Color" appears, replace the drum unit.

For details, see p. 168 "Replacing the Drum Unit".

- The paper is damp. Use paper that has been stored at a suitable temperature and humidity.

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

For details, see p. 180 "Cleaning the Registration Roller".

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

For details, see p. 180 "Cleaning the Registration Roller".

**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.

**9**

**If rubbed with your finger, it smears out.**

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

On the [Paper] tab of the printer driver, set [Paper Type:] to [Thick 1 (106 to 130 g/m<sup>2</sup>)] or [Thick 2 (131 to 163 g/m<sup>2</sup>)].

- Check the paper settings of this printer.

For details, see p. 123 "Types of Paper and Other Media".

- Check the paper settings of the printer driver.

For details, see the printer driver Help.

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

For details, see p. 174 "Replacing the Fusing Unit and Dustproof Filters".

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

- The registration roller is dirty. Clean the registration roller.

For details, see p.180 "Cleaning the Registration Roller".

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

- The registration roller is dirty. Clean the registration roller.

For details, see p.180 "Cleaning the Registration Roller".

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## Paper Misfeeds Occur Frequently

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**Paper jams occur frequently.**

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

For details, see p.138 "Loading Paper".

- There may be a gap between the front guide and the paper, or between the side guides and the paper in the paper tray. Make sure there are no gaps.

For details, see p.138 "Loading Paper".

- Paper is either too thick or too thin.

For details, see p.123 "Types of Paper and Other Media".

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

For details, see p.123 "Paper Recommendations".

- Paper has already been printed on.

For details, see p.123 "Types of Paper and Other Media".

- Paper is damp. Use paper that has been stored properly.

For details, see p.123 "Types of Paper and Other Media".

- When loading paper, separate paper from each other.

**Multiple pages are fed at once.**

- Paper is either too thick or too thin.

For details, see p.123 "Paper Recommendations".

- Paper has already been printed on.

For details, see p.123 "Paper Recommendations".

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

For details, see p.138 "Loading Paper".

- Paper is static. Use paper that has been stored properly.

For details, see p.123 "Paper Recommendations".

- When loading paper, separate paper from each other.

**Paper gets wrinkles.**

- Paper is damp. Use paper that has been stored properly.  
For details, see p.123 "Paper Recommendations".
- Paper is either too thick or too thin.  
For details, see p.123 "Types of Paper and Other Media".
- There may be a gap between the front guide and the paper, or between the side guides and the paper in the paper tray. Make sure there are no gaps.  
For details, see p.138 "Loading Paper".
- The fusing unit is deteriorated or damaged. Replace the unit.  
For details, see p.174 "Replacing the Fusing Unit and Dustproof Filters".

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**The printed image is different from the image on the computer**

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

- When you use some functions, such as enlargement or reduction, the layout of the image might be different from that displayed on the computer display.

**Images are printed at an angle**

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

**Images are cut off, or excess pages are printed.**

- If you are using paper smaller than the paper size selected in the application, use the same size paper as that selected in the application. If you cannot load paper of the correct size, use the reduction function to reduce the image, and then print.  
For details, see the printer driver Help.

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

- You must install an optional hard disk drive or set the value of [RAM Disk] in the System Menu to 2 MB or higher.  
For details about [RAM Disk], see "System Menu", Software Guide.
- After adding a memory unit and setting the value of [RAM Disk] in the System Menu to 16 MB, value of [RAM Disk] returns to 0 MB if the memory unit is removed. If this happens, reset the value of [RAM Disk] to 2MB or higher.  
For details about [RAM Disk], see "System Menu", Software Guide.
- When printing a PDF with a password set, set the password of the PDF file using the [Change PDF Password] menu in [PDF Menu] or Web Image Monitor. For details about [Change PDF Password], see "PDF Menu", Software Guide.

For details about Web Image Monitor, see Web Image Monitor Help.

- PDF files not allowed to be printed by the PDF file security setting cannot be printed.
- Highly compressed PDFs cannot be printed using PDF Direct Print.

Open the relevant application and print the PDF file using the printer driver.

Set the file format to standard PDF.

**As a result of printing using PDF Direct Printing, characters are missing or misshapen.**

- Before printing, embed the font in the PDF file to be printed.

**The paper size appears on the control panel and printing is not performed with PDF Direct Print.**

- When using PDF Direct Print, printout requires paper set within the PDF file. When a message indicating a paper size appears, either place the indicated size in the paper tray, or perform Form Feed.

Also, if [Sub Paper Size] in the [System] Menu is set to [Auto], printing is performed assuming letter size and A4 size to be the same size. For example, When a PDF file set to A4 size paper is printed using PDF Direct Print and letter size paper is loaded in the paper tray, the file will be printed out. This applies similarly to the opposite case.

**The color of the printout is different from the color on the computer's display.**

- The colors made using color toner are different from colors displayed on the display in its production system.
- If you select [On] for [Economy Color.] on the [Print Quality] menu in the printer driver's dialog box, the color gradation may appear differently.

For details, see the printer driver Help.

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

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

Note that the sample image displayed in the printer driver is used only to show what processing will be performed, so may not match the print results.

For details, see the printer driver Help.

**Color documents are printed in black and white.**

- The printer driver is not set up for color printing.  
For details, see the printer driver Help.
- Some applications print color files in black and white.

**Solid areas, lines or text are shiny or glossy when created as a mixture of cyan, magenta, yellow.**

- Select [K (Black)] for [Gray reproduction (Text/Line Art):] in the printer driver's dialog box.

For details, see the printer driver Help.

**Black gradation is not natural.**

- Select [CMY + K] for [Gray reproduction (Text/Line Art):] in the printer driver's dialog box.

For details, see the printer driver Help.

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

- Paper is damp. Use paper that has been stored properly.

For details, see p.138 "Loading Paper".

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

For details, see p.163 "Adding Toner (Print Cartridge)".

- When "Rplcmnt Requird:PCU:Black" or "Rplcmnt Requird:PCU:Color" appears on the display, replace the drum unit.

For details, see p.168 "Replacing the Drum Unit".

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


**White or color rivers appear.**

- When the message "Rplcmnt Requird:PCU:Black" or "Rplcmnt Requird:PCU:Color" appears, replace the drum unit.

For details, see p.168 "Replacing the Drum Unit".

**9**

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

- If  is flashing, toner is almost depleted. Add toner.

For details, see p.163 "Adding Toner (Print Cartridge)".

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**When Printer is Not Functioning Properly**

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**Paper is not fed from the selected tray.**

- When you are using a Windows operating system, the printer driver settings override those set using the control panel. Set the desired input tray using the printer driver.

For details, see the printer driver Help.

**It takes too much time to turn on the printer.**

- If the printer is turned off while it is still accessing the hard disk (for example: during file deletion), the printer will require more time to power-up the next time it is turned on. To avoid this time delay, do not turn the power off while it is in operation.

**It takes too much time to resume printing.**

- The data is so large or complex that it takes time to process it. If the data in indicator is blinking, the data is being processed. Just wait until it resumes.
- If an OHP transparency or glossy paper is being used, printing takes more time to start.
- The printer was in the Energy Saver mode. To resume from the Energy Saver mode, the printer has to warm up, and this takes time until printing starts. To disable the Energy Saver mode, select [Off] for [Energy Saver On/Off] in the [System], [Energy Saver] menu.

**It takes too much time to complete the print job.**

- Photographs and other data intensive pages take a long time for the printer to process, so simply wait when printing such data.  
Changing the settings with printer driver may help to speed up printing.  
For details, see the printer driver Help.
- The data is so large or complex that it takes time to process it. If the data in indicator is blinking, the data is being processed. Just wait until it resumes.
- If "Waiting for print data..." appears on the display, the printer is now warming up. Wait for a while.

**With Windows 2000/XP/Vista, Windows Server 2003/2003 R2/2008, attached options are not detected.**

- The computer and printer are not in two-way communication. You must configure attached options in the printer properties.  
For details, see the printer driver Help.  
If the problem cannot be solved, contact your sales or service representative.

**With Windows 2000/XP/Vista, Windows Server 2003/2003 R2/2008, when doing aggregate prints or bound prints.**

- Check that the paper size and direction set in the [Menu] tab of the printer driver are the same as those set in the application.  
If the settings are not the same, change the settings of the printer driver.

**Some complex images do not print out on large custom size paper, such as paper with a length of 1260 mm (Type 1 model only).**

- If the image prints out when a lower resolution is set, the printer does not have enough memory to process the image. To print the image at higher resolution, install the optional memory.

**An empty tray is selected by Auto Tray Select, and the document does not print out due to out of paper error.**

- If a paper tray is opened and closed while the printer is in Energy Saver mode, the printer will initialize the tray upon recovery, but the tray will not be selectable by Auto Tray Select.

To print from a paper tray that you have opened and closed while the printer was in Energy Saver mode, you must manually specify the tray as the source paper tray before printing. When the printer recovers from Energy Saver mode and completes initialization, it will then print the document from the tray you have specified.



## Additional Troubleshooting

### Strange noise is heard.

- If a supply was recently replaced or an option attached in the area the strange noise is coming from, check the supply or option is properly attached. If the strange noise persists, contact your sales or service representative.

### No e-mail is received when an Alert occurs, and after resolving an Alert.

- Confirm [Auto E-mail Notify] is active in the [System] Menu on the Control Panel. See "System Menu", Software Guide.
- Access the printer through a Web browser, log in as an Administrator on Web Image Monitor, and then confirm the following settings in [Auto E-mail Notification]:
  - Device E-mail Address
  - Groups to Notify
  - Select Groups/Items to Notify

For details about the settings, see Web Image Monitor Help.

- Access the printer through the Web browser, log in as an Administrator on the Web Image Monitor, and then confirm the settings of the SMTP server in [E-mail]. For details about the settings, see Web Image Monitor Help.
- When the power is turned off before the e-mail is transmitted, the e-mail will not be received.
- Check the e-mail address set for the destination. Confirm the printer's operation history using Web Image Monitor's System Log menu in [Network]. If the e-mail was sent but not received, it is possible the destination was incorrect. Also check the information concerning error mail from the e-mail server.

### The setting for [Auto E-mail Notify] on the System Menu was changed from [Off] to [On], but e-mail is not arriving.

- After changing the setting, turn the printer's power off and then back on again.

### Error notification e-mail was received, but no error-solved e-mail is received.

- Check e-mail is set for sending using Web Image Monitor's [Auto E-mail Notification] at the time the error was fixed. You must click the [Edit] button of [Detailed Settings of Each Item] in [Auto E-mail Notification], and set [Notify when error:] to [Occurs & Fixed] on the displayed screen.

For details about the settings, see Web Image Monitor Help.

### Alert Resolving is set for sending e-mail, but no Alert-resolved e-mail is sent.

- If the power of the printer is turned off after an alert occurs, and the alert is resolved during the time the power is off, no Alert-resolved e-mail is sent.

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

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

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

- If an Alert-notification e-mail, set with the earlier notification level, arrives, later e-mail will not be sent, even if the notification level is changed after.

**When no date information is included in sent e-mail, the mail server has a malfunction.**

- Configure the setting for obtaining time information from the SNTP server. Refer to Web Image Monitor's Help to the settings.

**There is toner remaining in the toner bottle.**

- Depending on the environment in which the printer is located, there might be toner remaining in the toner bottle. If there is, remove the toner bottle and set it again. The printer will attempt to reload the toner automatically, and you might be able to continue operation if there is enough toner left in the bottle.

**Note**

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

# 10. Removing Misfed Paper

This chapter explains how to remove misfed paper.

## Removing Misfed Paper

An error message appears if a paper misfeed occurs. The error message gives the location of the misfeed. Check the location and remove the paper.

### 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.

### CAUTION

- Some of this machine's internal components get very hot. For this reason, take care when removing misfed paper. Not doing so could result in burns.

### CAUTION

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

### CAUTION

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

### Important

- Do not forcefully remove misfed paper, it may tear and torn pieces may remain inside the printer.
- When paper is misfed a number of times, the following are possible causes.
  - The control panel settings do not match the size or orientation of the loaded paper.
  - The paper feed roller is dirty.
- For details about cleaning the paper feed roller, see "Cleaning the Paper Feed Roller".
- Misfed paper may be covered with toner. Be careful not to get toner on your hands or clothes.
- If paper is still misfed after you have checked the above-mentioned causes, contact your sales or service representative.

### Reference

- p.177 "Cleaning the Paper Feed Roller"

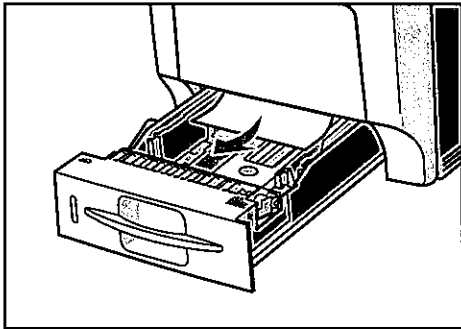
## Paper Misfeed Message (A)

The "Error (A) Remove misfeed in Trays. Opn & cls Frt Cov." error message appears when a paper misfeed occurs in the standard paper feed tray.

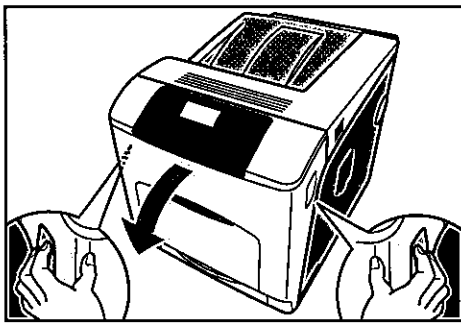
### ★ Important

- 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, and then carefully remove any misfed paper.



2. Push in the paper tray. Make sure the tray is securely inserted to avoid paper jams.
3. Carefully open the printer's front cover by pulling the left and right side levers.



4. Carefully close the front cover.

### ↓ Note

- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error has cleared.

## Paper Misfeed Message (B) (C)

The "⚠(B)(C) Open Front Cover and remove the paper." error message appears when a paper misfeed occurs in the internal paper feed path.

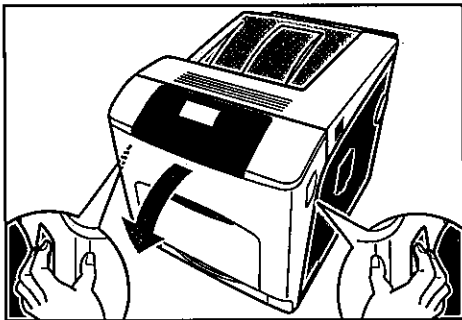
### ⚠ CAUTION

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

### ★ Important

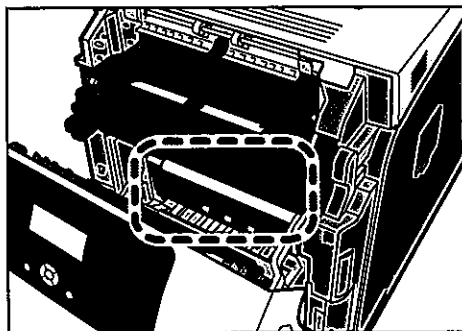
- Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer.
- Remove the paper from the bypass tray before opening the front cover.
- If a misfeed occurs when using the bypass tray, open the front cover, and then remove the misfed paper.
- The inside of this printer becomes very hot. Before removing paper around the fusing unit, wait until the temperature of the covers inside the fusing unit and duplex unit cool down.

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



BYK135

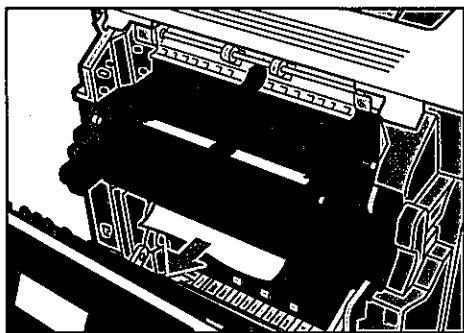
2. Remove misfed paper slowly.



BYK085

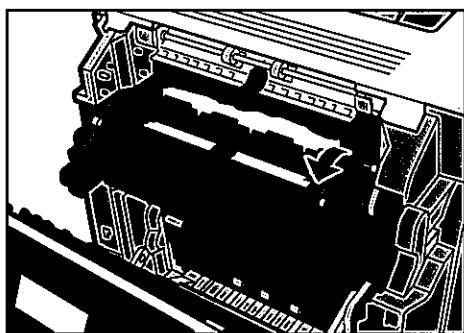
## 10. Removing Misfed Paper

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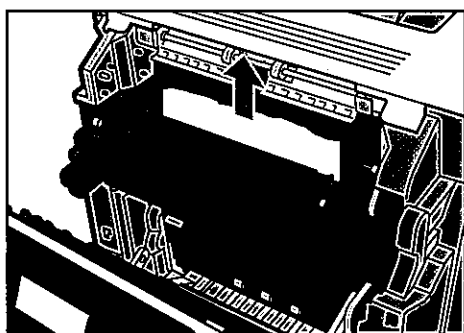


If you cannot find the misfed paper, look inside the printer.

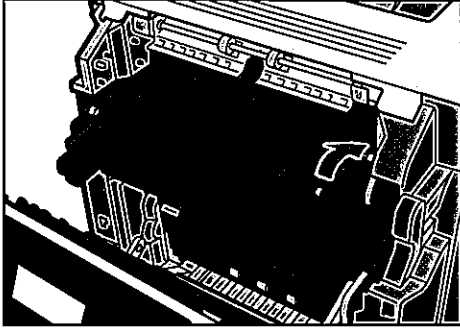
3. If a misfeed occurs in the output area of the fusing unit, open the output cover by pulling back the levers marked "C" (left and right on the fusing unit's upper side).



4. Remove misfed paper slowly.



5. Close the output cover of the fusing unit.



6. Carefully close the front cover.

**Note**

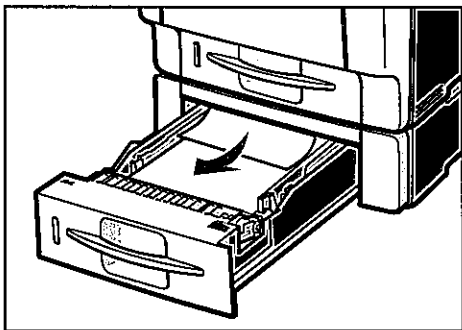
- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error has cleared.

## Paper Misfeed Message (Y)

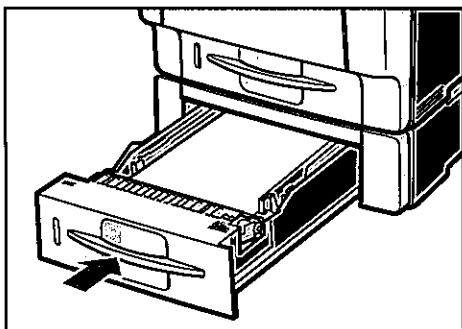
The "Error (Y2) Remove misfeed in Tray 2. Open & close Front Cover.", "Error (Y3) Remove misfeed in Tray 3. Open & close Front Cover." or "Error (Y4) Remove misfeed in Tray 4. Open & close Front Cover." error message appears when a paper misfeed occurs in the paper feed section.

### ★ 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 optional paper tray until it stops, and then remove the jammed paper.

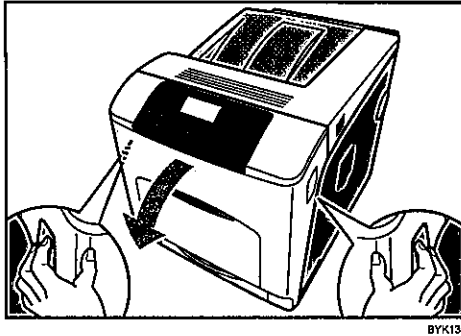


2. Carefully slide the tray back into the optional paper feed until it stops.





3. Carefully open the printer's front cover by pulling the left and right side levers.



4. Carefully close the front cover.

**Note**

- If a paper jam occurs in one of the optional paper feed trays, pull out all the paper trays above the tray in which the jam occurred, and then remove any jammed or partially fed sheets. If you cannot pull a tray fully out, jammed sheets are the most likely cause. To pull a stuck tray fully out, use moderate force.
- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error has cleared.

## Paper Misfeed Message (Z)

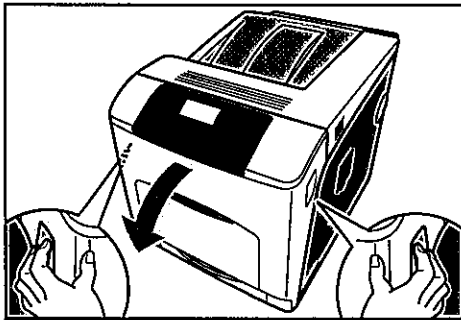
The "Error (Z) Open Frt. Cov and remove paper in Dup.Feed." error message appears when a paper misfeed occurs inside the duplex unit.

### ⚠ CAUTION

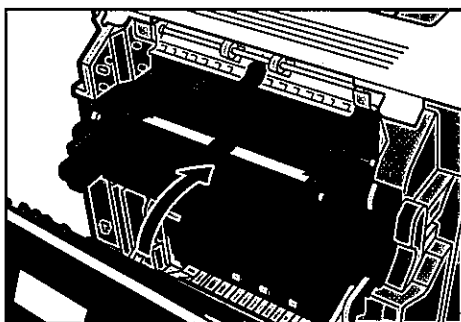
- Some of this machine's internal components get very hot. For this reason, take care when removing misfed paper. Not doing so could result in burns.

### ★ Important

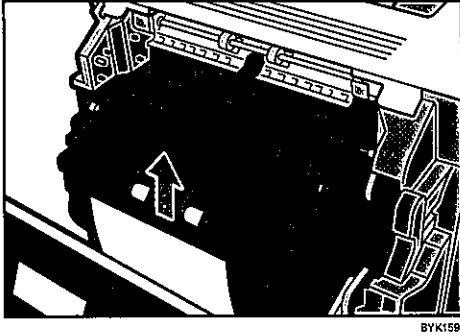
- The inside of this printer becomes very hot. Before removing paper from the area around the fusing unit, wait until both the fusing unit and the duplex unit have cooled down.
  - If a paper misfeed occurs in the duplex unit, open the front cover to remove the misfed paper.
1. Carefully open the printer's front cover by pulling the left and right side levers.



2. Tilt the duplex unit backward by carefully raising its front end.



3. Carefully remove misfed paper.



4. Carefully close the front cover.

**Note**

- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error has cleared.



# 11. Appendix

This section explains maintenance and operation procedures for this printer. It also describes the specifications of the printer and its options.

## Moving and Transporting the Printer

### **WARNING**

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

### **CAUTION**

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

### **CAUTION**

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

### **CAUTION**

- When moving the machine, each person should hold the handles that are located on opposite sides, and then lift it slowly. Lifting it carelessly or dropping it may cause an injury.

### **CAUTION**

- When moving the printer after use, do not take out any of the toners, photo conductor units, nor waste toner bottle to prevent toner spill inside the machine.

### **Important**

- Be sure to disconnect all cables from the printer before transporting it.
- The printer is a piece of precision machinery. Take care to avoid damage during transportation.
- If optional paper feed units are attached, remove them from the printer and move them separately.

Repack the printer using its original packaging for transporting.

**Note**

- The printer weighs approximately 57 kg (126 lb.).

---

### Moving the Printer a Short Distance

---

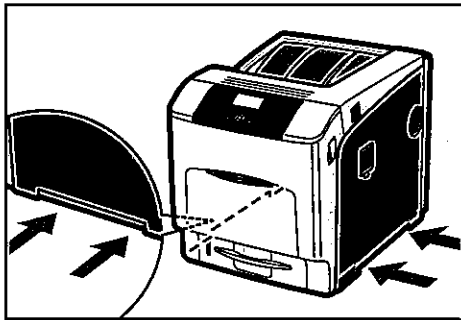
**1. Be sure to check the following points:**

- The power switch is turned off.
- The power cord is unplugged from the wall outlet.
- The interface cable is unplugged from the printer.

**2. If any external options are attached, remove them.**

See the relevant sections in this manual and reverse the steps to remove options.

**3. Lift the printer with four people by using the inset grips on both side of the printer, and then move it horizontally to the place where you want to install it.**

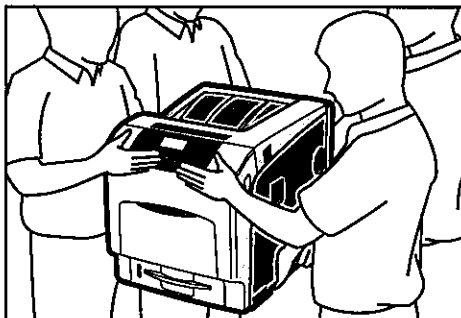


BYK157

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

- The handle onto the standard paper feed tray.
- The underside of the bypass tray.
- The underside of the box containing the controller board (on the back of the printer).

**11**



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**4. If you removed options, reattach them.**

For details, see the relevant sections in this manual.

**Note**

- Be sure to keep the printer horizontal while moving it. To prevent toner from being released, move the printer slowly.

## Consumables

### ⚠ CAUTION

- Our products are engineered to meet the highest standards of quality and functionality. When purchasing expendable supplies, we recommend using only those specified by an authorized dealer.

### Toner (Print Cartridge)

For details about the toner, please visit our Web site or consult an authorized dealer.

### Waste Toner Bottle

Name	Average printable number of pages <sup>*1</sup>
Waste Toner Bottle SP C430	50,000 pages

<sup>\*1</sup> A4/Letter 5% test chart; 2 pages/job; 50% B&W/50% color printing.

#### ⬇ Note

- The actual number of printable pages varies depending on the used paper type and size, and environmental conditions.
- If the waste toner bottles are not changed when necessary, printing will become impossible. We recommend keeping a stock of bottles or purchasing them soon.

### Drum Unit

Name	Average printable number of pages <sup>*1</sup>
Black Drum Unit SP C430	50,000 pages
Color Drum Unit SP C430	50,000 pages

<sup>\*1</sup> A4/Letter 5% test chart; 2 pages/job; Color Drum Unit: color printing only.

#### ⬇ Note

- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, contents of print images, and environmental conditions such as temperature and humidity.



- If the drum unit is not changed when necessary, print quality is not guaranteed. We recommend keeping a stock of drum unit.
- Drum unit (consumables) are not covered by warranty. However, if there is a problem, contact the store where they were purchased.

## Transfer Unit

### Transfer Unit SP C430

Name	Average printable number of pages <sup>*1</sup>
Intermediate transfer unit	150,000 pages
Transfer roller	150,000 pages

<sup>\*1</sup> A4/Letter 5% test chart, 2 pages/job.

#### Note

- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- If the transfer unit is not changed when necessary, the quality of printing is not guaranteed. We recommend keeping a stock of transfer unit or purchasing one soon.

## Fusing Unit

### Fusing Unit SP C430

Name	Average printable number of pages <sup>*1</sup>
Fusing unit	120,000 pages
Dustproof filter × 3	120,000 pages

<sup>\*1</sup> A4/Letter 5% test chart, 2 pages/job.

#### 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.
- Fusing unit is not covered by warranty. However, if there is problem, contact the store where they were purchased.

# Specifications

## Mainframe

### Configuration:

Desktop

### Print Process:

Laser beam scanning and Electrophotographic printing

Four-drums tandem method

### First Print Speed:

Monochrome: 10 seconds or less (A4, 8 1/2 " × 11 " (Letter))

Color: 15 seconds or less (A4, 8 1/2 " × 11 " (Letter))

Note that if the printer has not been used for some time, there may be a short delay before the first page starts printing.

### Printing Speed:

Model types	Printing Speed: A4	Printing Speed: 8 1/2 " × 11 " (Letter)
Type 1	maximum 35 pages per minute	maximum 37 pages per minute
Type 2	maximum 40 pages per minute	maximum 42 pages per minute

### Resolution:

1200 × 1200 dpi (RPCS, PostScript 3, PCL 6)

600 × 600 dpi (RPCS, PostScript 3, PCL 6, PCL 5c)

### Paper Size:

For details, see p. 119 "Supported Paper for Each Tray".

### Paper Weight:

For details, see p. 119 "Supported Paper for Each Tray".

### Media Type:

For details, see p. 123 "Types of Paper and Other Media".

### Paper Output Capacity:



Standard 500 sheets (80 g/m<sup>2</sup>, 20 lb.)

**Paper Input Capacity**

Tray	Paper capacity
standard paper feed tray	550 sheets *1
Bypass Tray	100 sheets *1
Optional Paper Feed Units	550 sheets *1 × 3

\*1 Paper weight: 80 g/m<sup>2</sup> (20 lb. bond)

**Power Source:**

-  **Region A** (mainly Europe and Asia)  
220-240 V, 50/ 60 Hz, 8 A or more
-  **Region B** (mainly North America)  
120-127 V, 60 Hz, 12 A or more

**Power Consumption:**

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

Printing	1650 W or less
Energy saver mode	110 W or less
Auto off mode	6 W or less

 **Region B** (mainly North America)

Printing	1600 W or less
Energy saver mode	110 W or less
Auto off mode	6 W or less

**Warm-up Time:**

Less than 50 seconds (23 °C, 71.6 °F)

**Dimensions (W × D × H):**

444 × 658 × 490 mm (17.5 × 26 × 19.3 inches) \*1

\*1 Printer only (tray not extended)

**Weight:**

Approximately 57 kg (126 lb.) (Toner and power cord included)

**Noise Emission:** \*1

- Sound Power Level (During Printing)

Model types	Monochrome	Color
Type 1	68.3 dB (A)	68.5 dB (A)
Type 2	70 dB (A)	70 dB (A)

- Sound Pressure Level (During Printing) \*2

Model types	Monochrome	Color
Type 1	62.3 dB (A)	62.5 dB (A)
Type 2	64 dB (A)	64 dB (A)

\*1 The preceding measurements made in accordance with ISO7779 are actual values.

\*2 Measured at the position of a bystander.

**Memory:**

Model types	Memory
Type 1	384 MB (Standard), up to 768 MB (with the optional memory unit)
Type 2	768 MB (Standard)

**Hard Disk:**

Model types	Hard Disk
Type 1	80 GB (Optional)
Type 2	80 GB (Standard)

**11****Note**

- Storage capacity is subject to change without prior notice.

**Interfaces:**

## Standard:

- Ethernet (10BASE-T/100BASE-TX)
- USB 2.0

To use USB 2.0, a USB computer port and cable that support USB 2.0 are required.

- USB Host

**Optional:**

- IEEE 802.11a/b/g (Wireless LAN)
- Parallel (Bidirectional IEEE 1284)
- Gigabit Ethernet (1000BASE-T)

**Printer Language:**

RPCS, PCL5c/PCL6, PS3/PDF

**Fonts:**

PCL 5c/PCL 6

45 fonts, 13 International fonts

PostScript 3, PDF

136 fonts (Type 2:24, Type 14:112)

**Network:**

Topology: The physical or logical layout of the nodes (devices) in a network. (10BASE-T/100BASE-TX)

Protocol: TCP/IP, IPX/SPX, AppleTalk

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**Options**

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**Paper Feed Unit PB1020**

---

**Paper Size:**

For details, see p.119 "Supported Paper for Each Tray".

**Dimensions (W × D × H):**

444 × 590 × 140 mm (17.5 × 23.2 × 5.6 inches)

**Paper weight:**

52 - 220 g/m<sup>2</sup>, (14 - 59 lb.)

**Weight:**

Less than 12 kg (26.5 lb.)

**Hard Disk Drive Option Type 5000 (Type 1 model only)**

---

**Storage Capacity (Formatted):**

80 GB

**Note**

- Storage capacity is subject to change without prior notice.

**Specifications:**

- Spooling print data to collate
- Storing/Spooling Sample Print/Locked Print/Hold Print/Stored Print data
- Storing PostScript fonts
- Storing log data

---

**Memory Unit Type G 256 MB (Type 1 model only)**

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**Module Type:**

DIMM (Dual-in-line Memory Module)

**Memory Type:**

DDR-SDRAM (Double Data Rate Synchronous Dynamic RAM)

**Number of Pins:**

200 pins

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**Memory Unit Type I 512 MB (Type 1 model only)**

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**Module Type:**

DIMM (Dual-in-line Memory Module)

**Memory Type:**

DDR-SDRAM (Double Data Rate Synchronous Dynamic RAM)

**Number of Pins:**

200 pins

**11**

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**Gigabit Ethernet Board Type A**

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**Interface Connector:**

Ethernet (10BASE-T, 100BASE-TX, 1000BASE-T)

USB 2.0

To use USB 2.0, a USB computer port and cable that support USB 2.0 are required.

Data Transmission Speed: Ethernet: 10 Mbps, 100 Mbps, 1000 Mbps

USB: 480 Mbps (High speed: USB 2.0), 12Mbps (Full speed)

**Protocol:**

TCP/IP, IPX/SPX, AppleTalk

**Maximum Length of Cable Between Devices:**

Ethernet: 100 m

USB: 5 m

**IEEE 802.11 a/g Interface Board Type M  Region A (mainly Europe and Asia)****Transmission Specification:**

Based on IEEE 802.11 a/b/g (Wireless LAN)

**Data Transfer Speed:**

Auto select from the following speed:

1 Mbps, 2 Mbps, 5.5 Mbps, 6Mbps, 9Mbps, 11 Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps

**Frequency Range:**

2412 to 2472 MHz (Channels 1 to 13)

5180 to 5320 MHz (Channels 36 to 64)

**Transmission Mode:**

- Ad hoc
- infrastructure mode

**IEEE 802.11 a/g Interface Board Type L  Region B (mainly North America)****Transmission Specification:**

Based on IEEE 802.11 a/b/g (Wireless LAN)

**Data Transfer Speed:**

Auto select from the following speed:

1 Mbps, 2 Mbps, 5.5 Mbps, 6Mbps, 9Mbps, 11 Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps

**Frequency Range:**

2412 to 2462 MHz (1 to 11 channels)

5180 to 5320 MHz (Channels 36 to 64)

**Transmission Mode:**

- Ad hoc
- infrastructure mode

## **IEEE 1284 Interface Board Type A**

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### **Transmission Specification:**

IEEE 1284

### **Required Cable:**

Standard IEEE 1284-compliant Micro Getronics 36-pin cable



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Operating Instructions Hardware Guide

