

## SP C231N/C232DN

## Operating Instructions Hardware Guide



- 1 Guide to the Printer
- 2 Installing the Printer and Options
- 3 Connecting the Printer
- 4 Configuration
- 5 Paper and Other Media
- 6 Replacing Consumables
- 7 Cleaning the Printer
- 8 Troubleshooting
- 9 Removing Misfed Paper
- (10) 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.

#### 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.

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.

#### Notes:

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. Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

#### Caution:

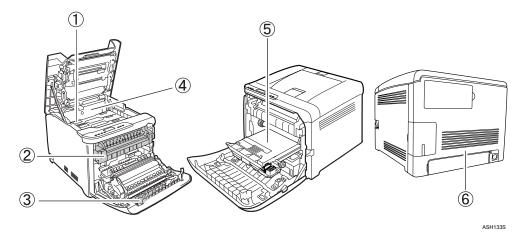
Use of controls or adjustments or performance of procedures other than those specified in this manual might result in hazardous radiation exposure.

For good print quality, the supplier recommends that you use genuine toner, maintenance kits and parts from the supplier.

The supplier shall not be responsible for any damage or expense that might result from the use of consumables (toner, maintenance kits and parts) other than genuine consumables from the supplier with your office products.

# Positions of AWARNING and ACAUTION Labels

This machine has labels for <u>AWARNING</u> and <u>ACAUTION</u> at the positions shown below. For safety, please follow the instructions and handle the machine as indicated.



1



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

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

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

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

2



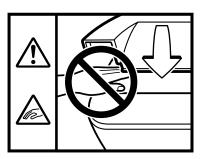
Do not touch labelled gray areas.

The areas can get very hot.

3



Do not touch labelled gray areas. The areas can get very hot.



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

5



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

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

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

Keep toner (used or unused) and toner containers out of reach of children. 6



The machine weighs approximately 23 kg (50.6 lb.). When moving the machine, use the inset grips on both sides, and lift slowly in pairs.

## **Manuals for This Printer**

For particular functions, see the relevant parts of the manual.

#### Safety Information

Provides information on safe usage of this machine. To avoid injury and prevent damage to the machine, be sure to read this.

#### Quick Installation Guide

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

#### Hardware Guide (This manual)

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

#### Software Guide

Contain procedures for using this machine in a network environment, utilizing the software, and using security functions.

## How to Read This Manual

## Symbols

This manual uses the following symbols:

#### A WARNING:

Indicates important safety notes.

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

#### **CAUTION:**

Indicates important safety notes.

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

#### **∰I**mportant

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.

#### $\mathcal{P}$ Reference

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

#### []

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

## 

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

## **Description for the Specified Model**

In this manual, the following items explain about the printer for the specified models:

#### 220-240V

This explains about the 220–240 V model printer. You can identify the model by checking the label on the rear of the printer.

Read if you purchase this model.

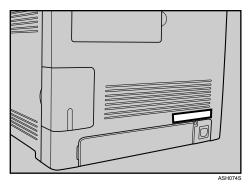
#### 120V

This explains about the 120 V model printer. You can identify the model by checking the label on the rear of the printer.

Read if you purchase this model.

#### 🖉 Note

□ You can identify the printer's model by checking the label on the rear of the printer as shown.



## Installing the Operating Instructions

The CD-ROM provided with the printer contains an HTML Operating Instructions Manual in HTML version. Follow this instructions to install it.

#### ∰Important

□ System Requirements :

- Windows 2000/XP/Vista, Windows Server 2003/2003 R2/2008.
- 800 × 600 or higher monitor resolution.

□ Web Browsers :

- Microsoft Internet Explorer 4.01 SP2 or higher
- Netscape 6.2 or higher

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

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

The installer starts.

Auto Run may not work under certain operating system setting. If this is the case, launch "Setup.exe" on the CD-ROM root directory.

**3** Select an interface language, and then click [OK].

#### **4** Click [Install Manuals].

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

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

## Click [Exit].

#### 🖉 Note

- □ Auto Run may not work under certain operating system setting. If this is the case, copy all data on the CD-ROM root directory to your hard disk drive, and then launch "Setup.exe" to start the installation.
- □ To uninstall the Operating Instructions Manual, select **[Programs]** in the **[Start]** menu, select your printer driver, and then click **[uninstall]**. You can uninstall each manual guide separately.
- □ If you are using an incompatible Web browser and the simpler version of the Operating Instructions Manual does not display correctly, open the folder "MANUAL \ LANG \ (language) \ (manual name) \ unv \" on the CD-ROM, and then double-click on "index.htm".

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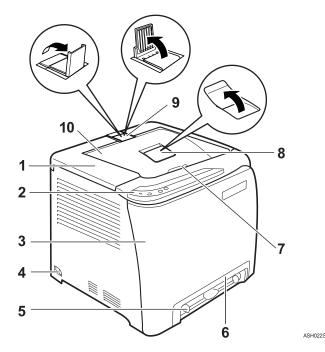
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# 1. Guide to the Printer

## **Exterior: Front View**



#### **1.** Top Cover

Open this cover to replace the print cartridge.

#### 2. Control Panel

Contains keys for printer control and indicators that shows the printer status.

#### 3. Front Cover

Open this cover to replace the waste toner bottle or remove jammed paper.

To open this cover, pull the lever on the right side of the printer.

#### 4. Power Switch

Use this switch to turn the power on and off.

#### 5. Bypass Tray

Load paper sheet by sheet.

#### 6. Tray 1

Up to 250 sheets of plain paper can be loaded.

#### 7. Top Cover Open Lever

#### 8. Standard tray extension

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

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

#### 9. Stop Fence

Use these to stop legal-size or A4-size prints falling behind the machine.

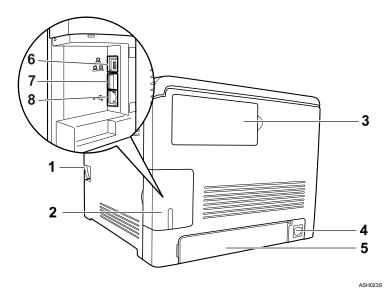
For legal-size prints, raise the rear fence.

For A4-size prints, raise the forward fence.

#### **10.** Standard Tray

Output is stacked here with the print side down.

## **Exterior: Rear View**



#### **1.** Front Cover Open Lever

#### 2. Cable cover

#### **3.** Memory cover

Remove this cover to install the additional memory unit (optional).

#### 4. Power socket

#### 5. Rear cover

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

#### **6.** Ethernet Port

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

#### **7. USB Host Interface**

Use a USB cable to connect the digital camera to the printer. You can print images directly from a digital camera, without having to connect to a computer.

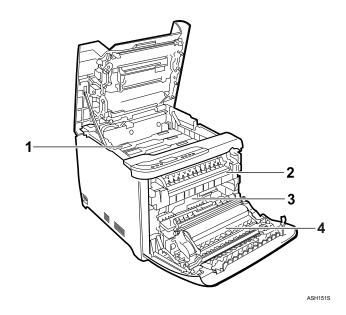
#### 8. USB Port

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

#### 🖉 Note

- Make sure the digital camera you connect to the printer for PictBridge and direct printing supports PictBridge.
- □ USB Host Interface is installed only for the SP C232DN model printer.

## Inside



#### **1.** Print Cartridge

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

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

"Replace (Color) Print Cartridge"

#### 2. Fusing Unit

Fuses toner to the paper.

You might have to handle this unit to check for or remove jammed paper.

#### 

For details about the messages which appear on the screen to prompt you to replace the units, see p.93 "Error & Status Messages on the Control Panel".

#### 3. Waste Toner Bottle

Collects toner that is wasted during printing.

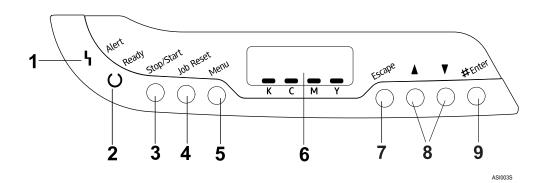
If the following message appears on the control panel, replace the waste toner bottle:

"Replace Waste Toner"

#### **4.** Transfer unit

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

## **Control Panel**



#### **1.** Alert Indicator

Lights up whenever a printer error occurs. Use Display to check the error.

#### 2. Ready Indicator

Lights up when the printer is ready to receive data from a computer. Flashes when the printer is warming up or receiving data.

#### 3. [Stop/Start] key

If you press this key, the printer stops receiving data, and printing is not possible.

Press the **[Stop/Start]** key again to return to the ready condition.

#### 4. [Job Reset] key

Press this key to cancel a job that is printing out.

#### 5. [Menu] key

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

#### 6. Display

Display current printer status and error message

#### 7. [Escape] key

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

#### 8. Scroll Keys

Press to move the cursor in each direction, step by step.

#### 9. [#Enter] key

Press this key to execute menu items selection on.

# 2. Installing the Printer and Options

## **Installing the Printer**

This section describes how to install the printer and perform settings after installation.

## Where to Put the Printer

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

MARNING:

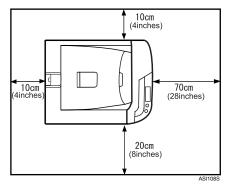
- The supplied power cord is for use with this equipment only. Do not use with other appliances. Doing so may result in fire, electric shock, or injury.
- Keep the machine away from flammable liquids, gases, and aerosols. A fire or an electric shock might occur.
- The wall outlet shall be installed near the machine and shall be easily accessible.
- Connect the machine to the power source specified in this manual and do not use any other power sources. Connect the power cord directly to a wall outlet and do not use an extension cord. Power sources not specified in this manual and extension cords are electric shock or fire hazards.
- Power cords that are damaged, broken, modified, trapped under heavy objects, pulled hard, or bent severely are electric shock and fire hazards.

#### A CAUTION:

- Keep the machine away from humidity and dust. Otherwise a fire or an electric shock might occur. Do not place the machine on an unstable or tilted surface. If it topples over, an injury might occur.
- Keep the machine in an area that is within optimum environmental conditions. Operating the machine in an environment that is outside the recommended ranges of humidity and temperature can cause an electrical fire hazard. Keep the area around the socket free of dust. Accumulated dust can become an electrical fire hazard.
- 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.
- Machine sound levels exceeding *L<sub>WAd</sub>* > 63 dB (A) are not suitable for desk work environments, so place the machine in another room.
- When new, electrical devices containing volatile materials will normally release emissions into the air of their vicinity. For this reason, for the first few days after installation of a new device, strong ventilation inside the room where it is placed is necessary.

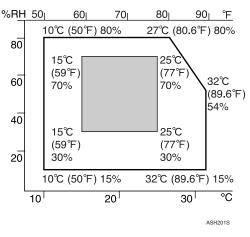
#### Space Required for Installation

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



#### Optimum Environmental Conditions

Permissible and recommended temperature and humidity ranges are as follows:



- White area: Permissible Range
- Gray area: Recommended Range

#### 🖉 Note

□ 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 that you keep it well ventilated.

#### Environments to Avoid

#### ∰Important

- □ Areas exposed to direct sunlight or strong light
- Dusty areas
- □ Areas with corrosive gases
- □ Areas that are excessively cold, hot, or humid
- Locations near air conditioners or humidifiers
- Locations near other electronic equipment
- Locations subject to frequent strong vibration

#### Power Source

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

- 220 240 V, 50/60 Hz, 6 A or more
- 120 V, 60 Hz, 11 A or more

## Unpacking

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

A WARNING:

- Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame. Dispose of used toner containers in accordance with local regulations.
- Do not store toner, used toner, or toner containers in a place with an open flame. The toner might ignite and cause burns of a fire.

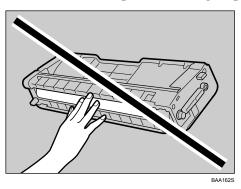
#### A CAUTION:

- Keep toner (used or unused) and toner containers out of reach of children.
- If toner or used toner is inhaled, gargle with plenty of water and move into a fresh air environment. Consult a doctor if necessary.
- If toner or used toner gets into your eyes, flush immediately with large amounts of water. Consult a doctor if necessary.
- If toner or used toner is swallowed, dilute by drinking a large amount of water. Consult a doctor if necessary.
- When moving the printer, use the inset grips on both sides. The printer will break or cause injury if dropped.
- Be careful not to trap your fingers when opening or closing the top cover.

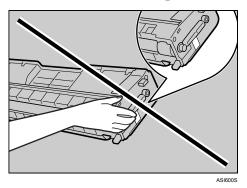
#### ∰Important

- □ Removed tape is dirty. Be careful not to let it touch your hands or clothes.
- □ 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.
- **D** Do not grip on the tray area when lifting the printer.
- Do not allow paper clips, staples, or other small metallic objects to fall inside the machine.
- □ Keep the uncovered print cartridge away from direct sunlight.

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



**D** Do not touch the ID chip on the side of the print cartridge.

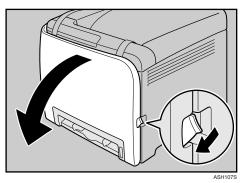


**1** Remove the plastic bag.

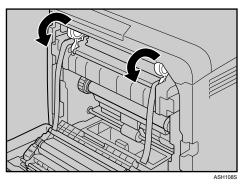
**2** Lift the printer with two people by using the inset grips on both sides of the printer.



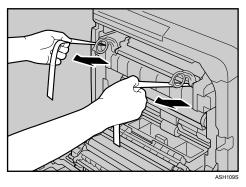
**E** Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



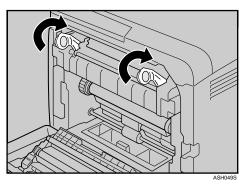
**4** Lower the blue fusing unit lever.



**5** Hold each tape near its joint, and then pull both tapes gently upward to remove them from the printer at the same time.



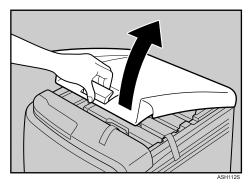
**6** Carefully lift the blue fusing unit levers.



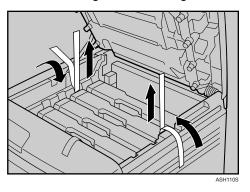
**2** Close the front cover with both hands carefully.



**8** Pull up Top Cover Open Lever to open the top cover.

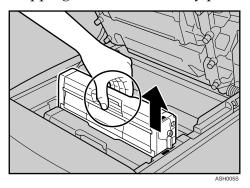


## **9** Remove the protection tape.

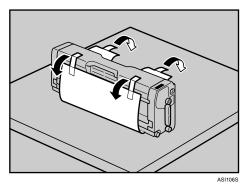


## Take each print cartridge out.

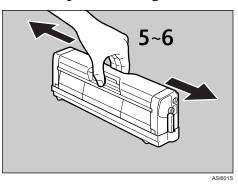
Gripping its center, carefully pull the print cartridge upward and out.



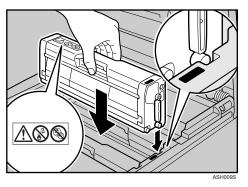
When taking out the black print cartridge, be sure to place it on at a flat surface, and then remove the protection sheet also.



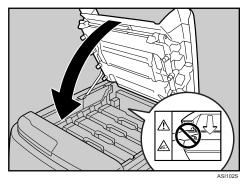
Hold the print cartridge and shake it from side to side five or six times.



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



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



## Turning the Power On

Follow the procedure below to turn the power on.

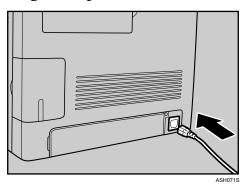
#### A WARNING:

• Plug and unplug the power cable with dry hands, or an electric shock could occur.

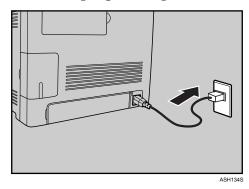
#### ∰Important

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

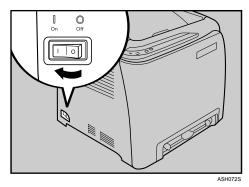
## Plug in the power cable.



**2** Insert the plug of the power cord into the wall socket securely.



**3** Turn the power switch to ON.



The Ready indicator on the control panel lights up.

#### 🖉 Note

- □ Wait until the **Ready** indicator turns on.
- □ The machine may make a noise while initializing. This noise does not indicate a malfunction.

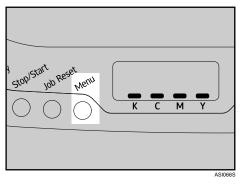
## Selecting the Display Language

Select a language using the procedure described here. The message for the selected language will appear on the display. If you want to use the display in English, the following procedures are unnecessary.

#### 🖉 Note

□ The default setting is English.





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



2

E Press the [▼] or [▲] key to select the language, and then press the [#Enter] key.

```
Language:
English
```

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

The initial screen appears.

#### Test Printing

The following explains the procedure for performing a test print.

Perform the test print to verify the printer is working normally. Test printing checks printer performance only; it does not test the connection to the computer.



2 Press the [▼] or [▲] key to display [List/Test Print], and then press the [#Enter] key.

Menu: List/Test Print

#### E Press the [▼] or [▲] key to display [Config. Page], and then press the [#Enter] key.

List/Test Print: Confi§. Pa§e

The configuration page will be printed.

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

The initial screen appears.

#### Note

- □ If printing is not normal, check to see if an error message appears on the display.
- □ If there is an error message, see p.93 "Error & Status Messages on the Control Panel".

## **Installing Options**

This section describes how to install options.

By installing options, you can improve the printer performance and have an expanded variety of features to use. For the specifications of each option, see p.125 "Specifications".

## Attaching Paper Feed Unit TK1010

When installing multiple options, install Paper Feed Unit TK1010 first.

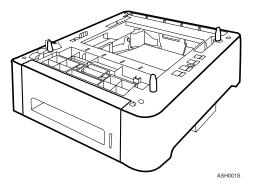
#### A CAUTION:

- The printer weighs approximately 23 kg (50.6 lb.). When moving the printer, use the inset grips on both sides, and lift slowly. The printer will break or cause injury if dropped.
- Lifting the paper feed unit carelessly or dropping it may cause injury.
- It is dangerous to handle the plug with wet hands. Doing this may result in receiving an electric shock.
- Before moving the machine, unplug the power cord from the wall outlet. If the cord is unplugged abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.

#### ∰Important

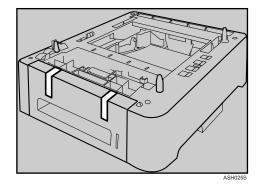
- Tray 1 is required to print using the optional paper feed unit. Without Tray 1, paper jams will occur.
- Certain options might not be available in some countries. For details, contact your local dealer.
- □ The printer should always be lifted by two people.
- **D** Do not grip on the tray area when lifting the printer.

## **1** Check the package contains Paper Feed Unit TK1010.

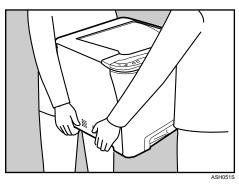


**2** Turn off the printer's power switch, and then unplug the printer's power cord from the wall outlet.

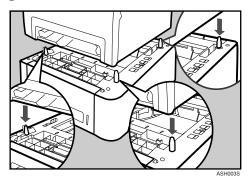
**B** Remove the adhesive tape from the optional paper feed unit.



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



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



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

#### 🖉 Note

- □ When moving the printer, remove the optional paper feed unit.
- □ Before using the optional paper feed unit, you can make settings in the printer driver.
- □ If the new device is listed in the column of configuration options, then it has been properly installed.
- □ If the optional paper feed unit is not installed properly, reinstall it following this procedure. If you cannot install it properly even after attempting reinstallation, contact your sales or service representative.

#### 

For details about printing the configuration page using control panel, see p.16 "Test Printing".

For details about loading paper into the paper tray, see p.47 "Loading Paper". When adjusting the printing position, see Software Guide.

## Attaching Memory Unit Type F 256MB (DDR-SDRAM Module)

#### A CAUTION:

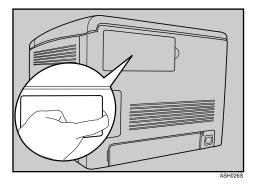
Before installing the memory unit, turn off the printer's power switch and unplug the power cable. After installing the memory unit, be sure to close the memory unit cover, and then turn the machine back on. Do not turn on the machine before closing the memory unit cover.

#### ∰Important

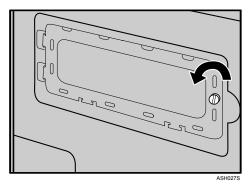
- Before touching the memory unit, ground yourself by touching something metal to discharge any static electricity. Static electricity can damage the memory unit.
- **D** Do not subject the memory unit to physical shocks.

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

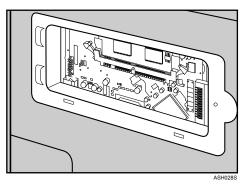
## **2** Remove the memory cover.



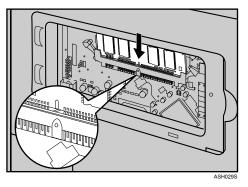
**1** Loosen the screw securing the inner cover by using a coin.



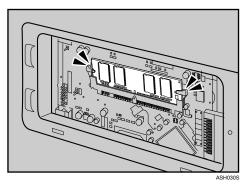
Be sure to install the memory unit as shown.



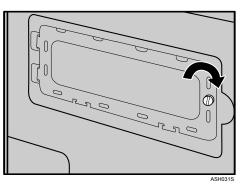
**5** To install the recommended memory, align the notch of the recommended memory with the protruding part of the vacant slot, and then carefully insert the module at an angle.



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



**2** Attach the inner cover, and then fasten the screw.



## 8 Attach the memory cover.

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

If it is installed properly, the memory capacity will appear under "Total Memory" on the configuration page.

#### 🖉 Note

- □ Before using the new memory unit, make settings in the printer driver.
- □ If the memory unit is not properly installed, repeat this procedure. If you cannot install it properly even after the reinstallation, contact your sales or service representative.

#### 

For details about printing the configuration page using control panel, see p.16 "Test Printing".

# 3. Connecting the Printer

## **Network Connection**

Follow the procedure below to connect the printer to the computer through the network. Prepare a hub, straight-through Ethernet cable, and any other necessary network devices before connecting the 10BASE-T or 100BASE-TX cable to the printer's Ethernet port.

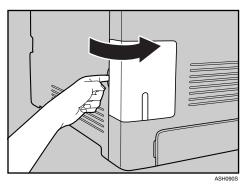
#### A CAUTION:

 Do not connect the Ethernet port of the machine to a network that may supply excess voltage, such as a telephone line. Doing so may result in fire or electric shock.

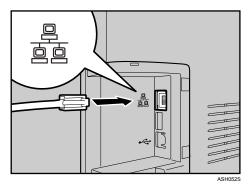
#### ∰Important

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

## **1** Remove the cable cover.

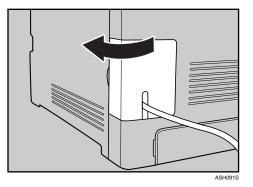


**2** Connect the Ethernet cable to the Ethernet port.



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

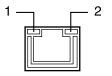
Attach the cable cover.



#### Reference

For details about network environment settings, see p.27 "Ethernet Configuration".

## **Reading the LED Lamps**



AQC070S

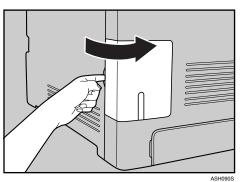
**1.** Yellow: comes on when 100BASE-TX is being used. It comes off when 10BASE-T is being used. 2. Green: comes on when the printer is properly connected to the network.

## **USB** Connection

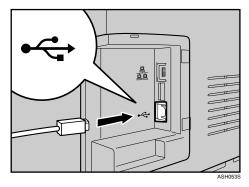
#### ∰Important

- □ USB2.0 interface cable is not supplied. Obtain it separately, according to the computer you are using.
- □ USB connection is possible under Windows 2000/XP/Vista, Windows Server 2003/2003 R2/2008, and Mac OS X.
- **USB** connection with Macintosh is only possible via the printer's USB port.

#### **1** Remove the cable cover.

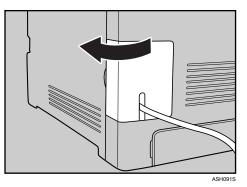


**2** Connect the square-shaped connector of the USB2.0 cable to the USB port.



**E** Connect the opposite end's flat connector to devices such as your computer's USB interface.

## Attach the cable cover.



## $\mathcal{P}$ Reference

For details about settings for USB connection printing, see Software Guide.

# 4. Configuration

# **Ethernet Configuration**

If connecting the printer to a network using an Ethernet cable, set the necessary settings, depending on the network environment, on the control panel.

Web Image Monitor or Smart Organizing Monitor can be used for the settings related to the IP address.

#### ∰Important

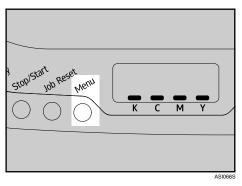
□ The following are settings that can be set at the **[Host Interface]** menu and their default values.

Setting Name	Value
DHCP	On
MAC Address	XX-XX-XX-XX-XX
IP Address	192.0.0.192
Subnet Mask	255.255.255.0
Gateway Address	192.0.0.192
Frame Type (NW)	Auto Select
Active Protocol	<ul> <li>TCP/IP Active</li> <li>NetWare Active</li> <li>AppleTalk Active</li> </ul>
Ethernet Speed	Auto Select

#### 🖉 Note

- □ If **[DHCP]** is in use, the IP address, subnet mask, and gateway address are all set automatically.
- **□** Each printer has a unique **[MAC Address]** value.
- □ Set the Ethernet speed if necessary.

## Press the [Menu] key.



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

Menu		
Host	Interface	

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

Host Interface: Network Setup

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

```
Network Setup:
Active Protocol
```

Press the [▼] or [▲] key to display [TCP/IP], and then press the [#Enter] key.

```
Active Protocol:
TCP/IP
```

This example shows how to activate TCP/IP.

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

```
TCP/IP:
Active
```

Press the [Escape] key until the screen returns to the [Network Setup] menu.

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

```
Network Setup:
DHCP
```

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

```
DHCP:
Off
```

The address detected by the printer will appear.

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

```
Network Setup:
IP Address
```

Press the  $[ \bullet ]$  or  $[ \bullet ]$  key to enter the left most entry field of the address.

- To go to the next field, press the **[#Enter]** key.
- To go back to the previous field, press the [Escape] key.

**U** After setting values for all fields, press the **[#Enter]** key.

The [IP Address] menu appears.

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

Set values for each setting following the same procedure as for the IP address.

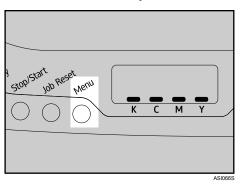
After completing the settings, return to the initial screen by pressing the [Menu] key.

# **Using DHCP - Detecting the Network Address Automatically**

#### ∰Important

- □ When you use this printer in the DHCP environment, select **[DHCP]** following this procedure.
- □ When **[DHCP]** is selected, you cannot make settings for the following items:
  - IP Address
  - Subnet Mask
  - Gateway Address
- Consult your network administrator for information about making network settings.

#### Press the [Menu] key.



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

Menu: Host Interface

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

```
Host Interface:
Network Setup
```

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

```
Network Setup:
DHCP
```

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

DHCP:

On

The address detected by the printer will appear.

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

The initial screen appears.

#### **2** Print a configuration page to confirm the settings made.

#### 

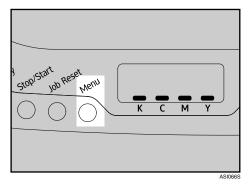
For details about printing the configuration page using control panel, see p.16 "Test Printing".

# Specifying an IP Address (No DHCP)

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

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

# Press the [Menu] key.



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



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

Host Interface: Network Setup

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

```
Network Setup:
DHCP
```

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

DHCP	
Off	

The address detected by the printer will appear.

Derive The [▼] or [▲] key to display [IP Address], and then press the [#Enter] key.

Network Setup: IP Address

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

```
IP Address:
0.0.0.0
```

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

Use this method to assign Subnet Mask and Gateway Address.

#### Press the [Menu] key.

The initial screen appears.

#### $m{U}$ Print a configuration page to confirm the settings made.

#### 

For details about printing the configuration page using control panel, see p.16 "Test Printing".

# Making Network Settings for Using Netware

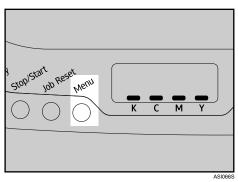
If you use NetWare, select the frame type for NetWare. Select one of the items below if necessary.

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

#### ∰Important

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

Press the [Menu] key.



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

Menu: Host Interface

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

Host Interface: Network Setup Press the [▼] or [▲] key to display [Frame Type (NW)], and then press the [#Enter] key.

Network Setup: Frame Type (NW)

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

O Press the [Menu] key.

The initial screen appears.

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

#### $\mathcal{P}$ Reference

For details about printing the configuration page using control panel, see p.16 "Test Printing".

## Setting the Ethernet Speed

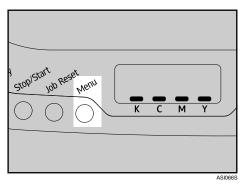
You can set the speed that the printer will use for Ethernet communication. For normal usage, the default setting **[Auto Select]** is suitable and does not need to be changed. This setting allows two connected interfaces to automatically determine the optimum speed that they will communicate at.

Router/HUB	Printer						
	[10Mbps Half D.]	[10Mbps Full D.]	[100Mbps Half D.]	[100Mbps Full D.]	[Auto Select]		
10Mbps Half Duplex	0				0		
10Mbps Full Duplex		0					
100MbpsHalf Duplex	_	_	0	_	0		
100Mbps Full Duplex	_	_	_	0	_		
auto-negotia- tion (auto se- lection)	0	_	0		0		

#### ∰Important

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

#### Press the [Menu] key.



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

Menu: Host Interface

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

Host Interface: Network Setup

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

```
Network Setup:
Ethernet Speed
```

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

O Press the [Menu] key.

The initial screen appears.

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

#### Reference

For details about printing the configuration page using control panel, see p.16 "Test Printing".

# 5. Paper and Other Media

# Paper and Other Media Supported by This Printer

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

#### 🖉 Note

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

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

#### Input Paper Sizes (Metric version)

	Size (mm)	Size (inch)	Standard Input Tray 1	Paper Feed Unit TK1010 (Tray 2)	Bypass Tray	Duplex
A4	210 × 297	8.26 " × 11.69 "	☆	☆	☆	☆
B5	182 × 257	7.17 " × 10.12 "	☆	×	☆	☆
A5	148 × 210	5.83 " × 8.26 "	☆	×	☆	×
A6	$105 \times 148$	4.13 " × 5.63 "	☆	×	☆	×
Legal	216 × 356	8.5 " × 14 "	☆	×	☆	☆
Letter	216 × 279	8.5 " × 11 "	☆	☆	☆	☆
Executive	$184 \times 276$	7.25 " × 10.5 "	☆	×	☆	☆
F/GL	203 × 330	8 ″ × 13 ″	☆	×	☆	×
Foolscap	216 × 330	8.5 " × 13 "	☆	×	☆	×
Folio	210 × 330	8.25 " × 13 "	☆	×	☆	×
Com10 Env	104.8 × 241.3	$4.25^{\prime\prime}\times9.5^{\prime\prime}$	☆	×	☆	×

	Size (mm)	Size (inch)	Standard Input Tray 1	Paper Feed Unit TK1010 (Tray 2)	Bypass Tray	Duplex
C5 Env	162 × 229	6.38" × 9.02"	☆	×	☆	×
C6 Env	$114 \times 162$	$4.49'' \times 6.38''$	☆	×	☆	×
DL Env	110 × 220	4.33" × 8.66"	☆	×	☆	×
Monarch Env	$98.4 \times 190.5$	3.875" × 7.5"	☆	×	☆	×
16K	195 × 267	7.68 " × 10.5 "	☆	×	☆	×
Custom Paper Size	-	-	*	×	*	×

• 🕁

Use the control panel to specify the size.

• \*

Use the control panel to specify a size as a custom size.

The following sizes are supported:

Tray 1 (approximately): width 90 - 216 mm (3.54 - 8.5 inch); length 148 - 356 mm (5.83 - 14 inch)

Bypass Tray (approximately): width 90 - 216 mm (3.54 - 8.5 inch); length 148 - 356 mm (5.83 - 14 inch)

• ×

The size is not supported.

#### Paper weight and number of sheets to be set

	Supported paper weight	Maximum number of sheets (plain paper)
Tray 1	$60 - 160 \text{ g/m}^2 (16 - 42 \text{ lb.})$	250 (80 g/m <sup>2</sup> , 20 lb.)
Bypass Tray	$60 - 160 \text{ g/m}^2 (16 - 42 \text{ lb.})$	1
Paper Feed Unit (Tray 2)	60 - 105 g/m <sup>2</sup> (16 - 28 lb.)	500 (80 g/m <sup>2</sup> , 20 lb.)

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

# Paper Recommendations

# **Loading Paper**

#### ∰Important

- Do not use ink-jet printer paper because it may stick to the fusing unit and cause a paper misfeed.
- Do not load OHP transparencies. Load translucent media only.
- □ Set the paper as described below.
  - Tray 1: Print side facing up
  - Bypass Tray: Print side facing down.
  - Paper Feed Unit (Tray 2): Print side facing up
- Print quality cannot be guaranteed if paper other than the ones recommended is used. For more information about recommended paper, contact your sales or service representative.
- **D** Do not use paper that has already been printed onto by other printers.
- When loading the printer, take care not to touch the surface of the paper.
- □ Do not use dirty or damaged paper.
- □ Specify the paper size and type using the control panel.
- The remaining paper indicator on the right front side of the paper tray shows approximately how much paper is remaining.

# **Storing Paper**

- Paper should always be stored properly. Improperly stored paper might result in poor print quality, paper misfeeds, or printer damage. Recommendations are as follows:
  - Avoid storing paper in humid areas.
  - Avoid exposing paper to direct sunlight.
  - Store on a flat surface.
- Keep paper in the package in which the paper came.

# Types of Paper and Other Media

This section provides information about the types of paper supported by this printer and cautions for use.

#### Setting the paper type

Use the control panel or printer driver to specify the paper type you want to use.

#### Control Panel

Press the [Menu] key, and then specify the paper type that you want to use by selecting a [Paper Type] at [Paper Input].

For details, see p.61 "Specifying a paper type for tray 1 and the optional paper feed unit"" and p.67 "Specifying a paper type for the bypass tray"".

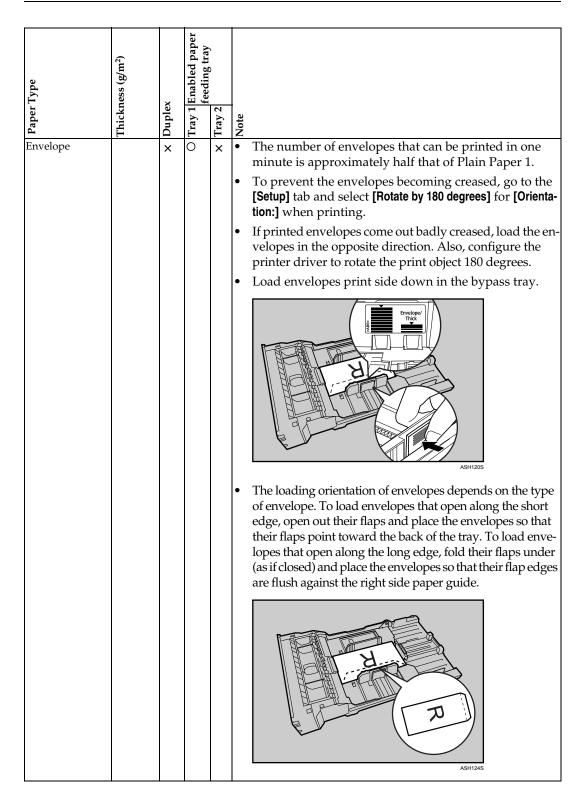
#### Printer driver

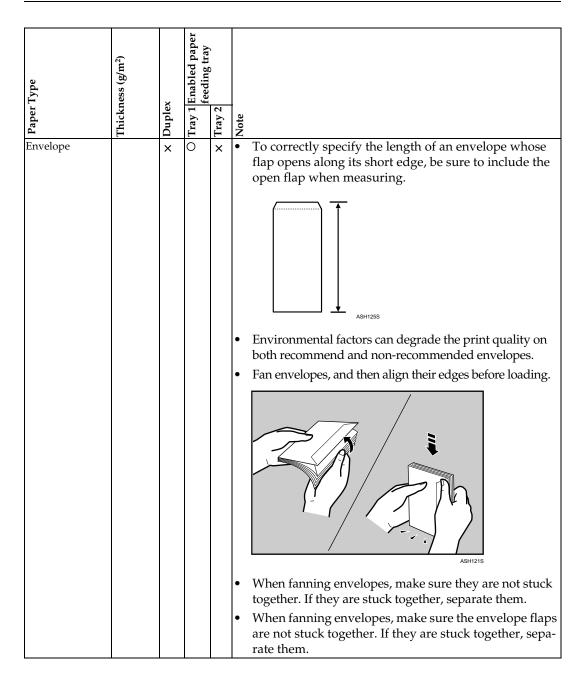
On the printer driver screen, click the **[Paper]** tab, and then select a paper type under **[Paper Type:]**.

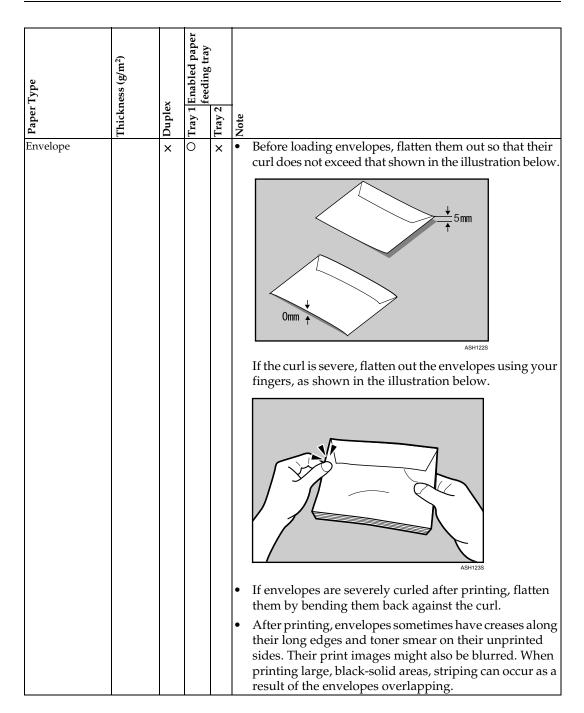
For details about the printer driver, see Help for the driver.

#### Types of paper

Paper Type Thickness (g/m²)				fan ginnaar	
Paper Type	Thickr	Duplex	Tray 1 Enabled paper feeding trav	Tray 2	Note
Thin Paper (60-74g/m²)	60-74	0	0	0	
Plain Paper 1	75-90	0	0	0	• Default
Plain Paper 2 (91- 105g/m <sup>2</sup> )	91-105	×	0	0	<ul> <li>The number of sheets that can be printed in one minute is approximately half that of Plain Paper 1.</li> </ul>
Recycled Paper	75-90	0	0	0	• If the paper thickness is outside the specified range, se
Color Paper	75-90	0	0	0	lect Thin Paper, Plain Paper 2 (91-105 g/m <sup>2</sup> ) or Thick
Preprinted Paper	75-90	0	0	0	Paper.
Prepunched Paper	75-90	0	0	0	
Thick Paper 1 (106-160g/m <sup>2</sup> )	106-160	×	×	×	<ul> <li>The number of sheets that can be printed in one minute is approximately half that of Plain Paper 1.</li> </ul>
Letterhead	75-90	0	0	0	• Paper that has a thickness outside the specified range cannot be printed.
Bond Paper	105-160	×	0	×	• The number of sheets that can be printed in one minute is approximately half that of Plain Paper 1.
					<ul> <li>If the paper thickness is outside the specified range, se lect Plain Paper 2 (91-105 g/m<sup>2</sup>).</li> </ul>
Cardstock	105-160	×	0	×	<ul> <li>The number of sheets that can be printed in one minute is approximately half that of Plain Paper 1.</li> </ul>
					• Paper thicker than 160g/m <sup>2</sup> cannot be printed.
Label Paper		×	0	×	• The number of sheets that can be printed in one minute is approximately half that of Plain Paper 1.







# Paper not Supported by This Printer

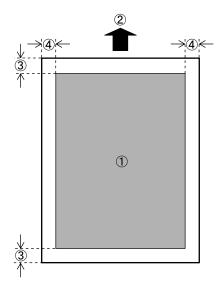
Avoid using the following paper as they are not supported by this printer.

- Paper meant for an ink-jet printer
- Bent, folded, or creased paper
- Curled or twisted paper
- Torn paper
- Wrinkled paper
- Damp paper
- Paper that is dry enough to emit static electricity
- Paper that has already been printed onto, except a preprinted letterhead. Malfunctions are especially likely when using paper printed on by other than a laser printer (e.g. monochrome and color copiers, ink-jet printers, etc.)
- Special paper, such as thermal paper, aluminum foil, carbon paper and conductive paper
- Paper whose weight is heavier or lighter than the limitation
- Paper with windows, holes, perforations, cutouts, or embossing
- Adhesive label paper on which glue or base paper is exposed
- Paper with clips or staples

# **Print Area**

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

#### Paper

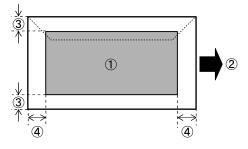


- ① Print area
- Feed direction
- ③ Approx. 4.2 mm (0.17 inches)
- ④ Approx. 4.2 mm (0.17 inches)

#### 🖉 Note

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

#### ✤ Envelope



- ① Print area
- 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.
- □ For better print quality, we recommend the right, left, top, and bottom print margins to be at least 15 mm (0.6 inches) each.

# Loading Paper

This describes how to load paper into the paper tray and bypass tray.

#### A WARNING:

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

#### A CAUTION:

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

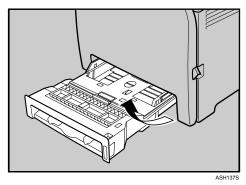
# Loading Paper in Tray 1

The following example explains the loading procedure for the standard paper tray (Tray 1).

#### ∰Important

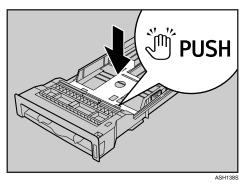
- Make sure paper is not stacked above the limit mark inside the tray. Misfeeds might occur.
- □ After loading paper in the tray, specify the paper type and size using the control panel.
- **D** Do not mix different types of paper in the same paper tray.
- **D** Do not move the side paper guides forcefully. Doing so can damage the tray.
- **D** Do not move the end paper guide forcefully. Doing so can damage the tray.
- When inserting the tray, make sure it is not slanted. Inserting it at a slant can damage the printer.
- **□** Curled paper may jam, straighten curled paper before loading.

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

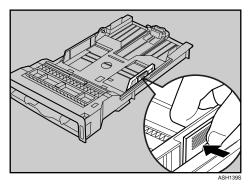


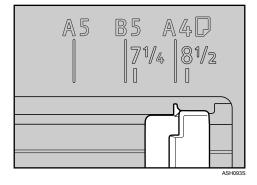
Place the tray on a flat surface.

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



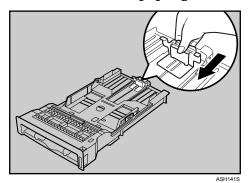
**3** Pinch the clip on the side paper guide and slide it to match the standard size.

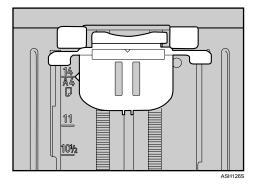




When loading custom size paper, position the paper guide slightly wider than the actual paper size.

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

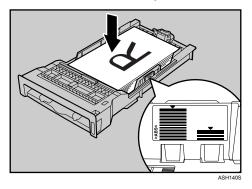




When loading custom size paper, position the paper guide slightly wider than the actual paper size.

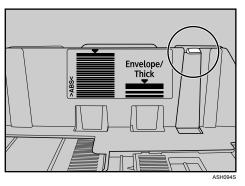
# **5** Load the new paper stack print side up.

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

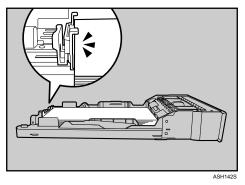


Slide the guides inward, until they are flush against the paper's sides.

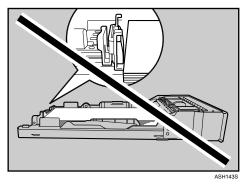
Make sure the paper is not stacked higher than the projection on the side paper guides.



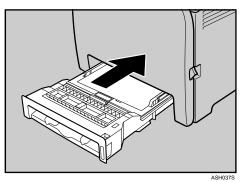
Check there are no gaps between the paper and the paper guides, both side and front end paper guides.



If there is a gap between the paper and the front end paper guide, as in the example below, the paper might not feed in correctly.



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



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

#### 🖉 Note

□ The upper limit differs depending on paper type; thin paper or thick paper. Check the label inside the tray to confirm the upper limit.

#### Reference

For details about paper types supported by the printer, see p.39 "Paper Recommendations".

For details about the paper settings, see Software Guide.

#### Loading Legal size paper

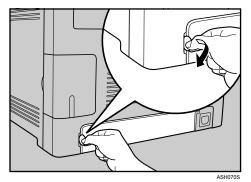
This section describes how to load Legal size paper into the printer.

The same procedure applies to A4 paper (297 mm) or larger.

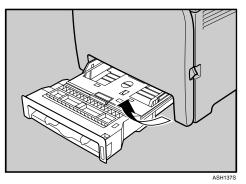
#### ∰Important

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

# **1** Remove the rear cover using a coin.

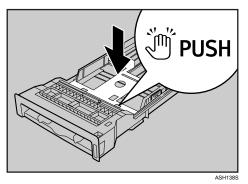


**2** Pull Tray 1 carefully, then hold it with both hands and pull it out.

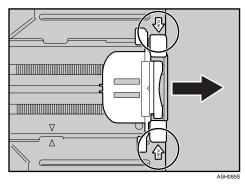


Place the tray on a flat surface.

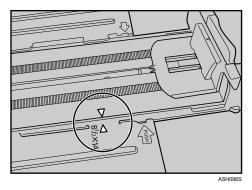
**3** Push the metal plate down until it clicks into place to lock.



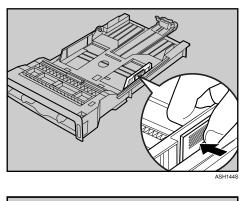
Pinch the extender in the "PUSH" direction, and then pull out the extender until it stops (you will hear a click).

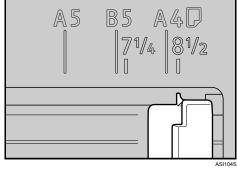


After extension, make sure the arrows on the extender and tray are aligned.



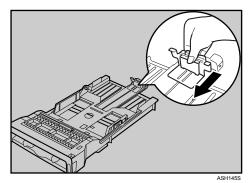
**5** Pinch the clip on the side paper guide, and then slide it to match the standard size.

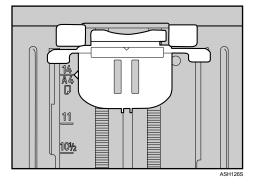




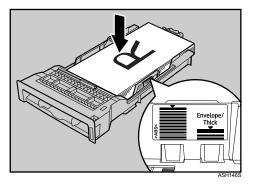
5

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





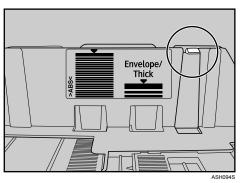
**2** Load the new paper stack print side up.



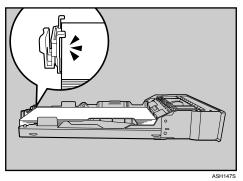
Make sure paper is not stacked higher than the upper limit (upper line) marked inside the tray.

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

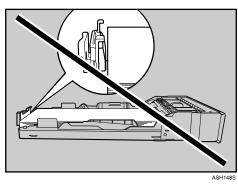
Make sure the paper is not stacked higher than the projection on the side paper guides.



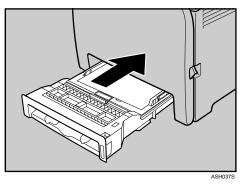
Check there are no gaps between the paper and the paper guides; both side and front end paper guides.



If there is a gap between paper and the front end paper guide, as in the example below, the paper might not feed in correctly.



#### **2** Carefully push Tray 1 straight into the printer.



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

#### 🖉 Note

**T** To reinsert the extender, you might have to push it with moderate force.

#### Reference

For details about paper types supported by the printer, see p.39 "Paper Recommendations".

For details about the paper settings, see Software Guide.

#### Loading envelopes

#### ∰Important

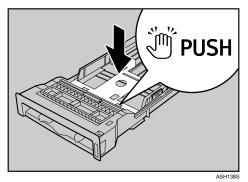
- Check there is no air in the envelopes before loading.
- □ Load only one size and type of envelope at a time.
- Before loading envelopes, flatten their leading edges (the edge going into the printer) by running a pencil or ruler across them.
- □ Some kinds of envelope might cause misfeeds, wrinkles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

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

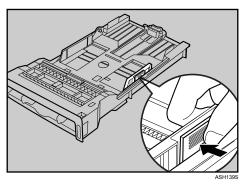
Place the tray on a flat surface.

#### **2** Take out paper from Tray 1.

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

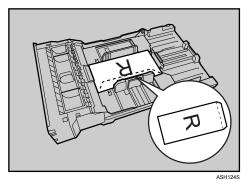


Pinch the clip on the side paper guide, and then adjust the guides to the envelope.

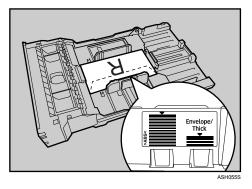


**•** Pinch the clip on the front end paper guide to match the envelope size.

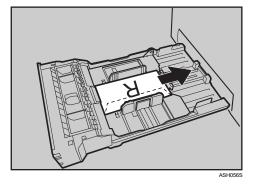
**6** Set the envelopes in Tray 1 with the printing side facing up.



Make sure envelopes are not stacked higher than the upper limit (lower line) mark inside the tray.



**2** Carefully slide the paper tray back in until it stops. To avoid paper jams, make sure the tray is securely inserted.



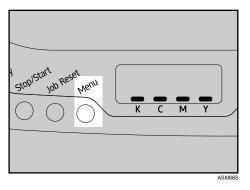
### 🖉 Note

- □ Be sure to load envelopes so that their flaps are on the right. If you do not, the envelopes will become creased.
- □ To prevent the envelopes becoming creased, go to the **[Setup]** tab and select **[Rotate by 180 degrees]** for **[Orientation:]** when printing in the printer driver properties dialog box.

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

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

### Press the [Menu] key.



**2** Press the  $[\bullet]$  or  $[\bullet]$  key to display [Paper Input], and then press the [#Enter] key.

Menu: Paper Input

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

```
Paper Input:
Paper Size
```

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

In this example, tray 1 is selected.

```
Paper Size:
Tray 1
```

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

220-240V

Tray 1 Size: A4 (210 x 297)

120V

Tray 1 Size: 8 1⁄2 x 11

## O Press the [Menu] key.

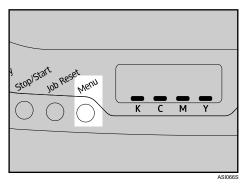
The initial screen appears.

#### Specifying custom size paper for tray 1

#### ∰Important

- □ When printing on custom size paper, specify the paper size using the control panel or printer driver.
- Custom size paper selected using the printer driver overrides that selected using the control panel. Do not make settings using the control panel if you have already made settings using the printer driver.
- Paper sizes between 90 216 mm (3.54 8.5 inch) in width and 148 356 mm (5.83 14 inch) in length can be loaded in the tray 1.
- The printer cannot print from applications that do not support custom size paper.

#### Press the [Menu] key.



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

Menu: Paper Input

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

Paper Input: Paper Size

Press the [▼] or [▲] key to display [Tray 1], and then press the [#Enter] key.

```
Paper Size:
Tray 1
```

For example, [Tray 1] is selected for Tray 1 as shown.

E Press the [▼] or [▲] key to display [Tray 1 Size: Custom Size], and then press the [#Enter] key.

Tray 1 Size: Custom Size

I Press the [▼] or [▲] key to select a unit, and then press the [#Enter] key.

```
Custom Size:
mm
```

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

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

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

Custom Size: Vert. 356.0 mm

#### Press the [Menu] key.

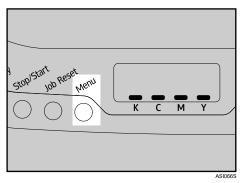
The initial screen appears.

#### Specifying a paper type for tray 1 and the optional paper feed unit

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

• Thin Paper (60 - 74 g/m<sup>2</sup>), Plain Paper 1, Plain Paper 2 (91 - 105 g/m<sup>2</sup>), Recycled Paper, Color Paper, Preprinted Paper, Prepunched Paper, Letterhead

## Press the [Menu] key.



5

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

Menu: Paper Input

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

```
Paper Input:
Paper Type
```

Press the [▼] or [▲] key to select the paper tray, and then press the [#Enter] key. In this example, tray 1 is selected.

```
Paper Type:
Tray 1
```

5

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

```
Tray 1:
Plain Paper 1
```

#### Press the [Menu] key.

The initial screen appears.

#### 🖉 Note

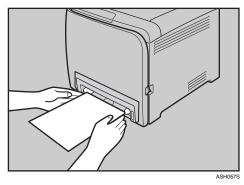
**D** Plain Paper 2 (91 - 105 g/m<sup>2</sup>) cannot be printed on both sides.

# Loading Paper in the Bypass Tray

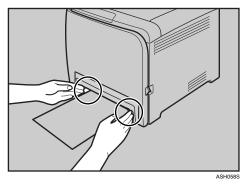
#### ∰Important

- Set the size and direction of the loaded paper using 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.
- **D** Duplex printing is not possible.
- □ You cannot use the bypass tray to feed in paper that requires a specified printing position (such as preprinted paper). Use Tray 1 for such paper.
- □ If paper is curled, straighten it before loading, by bending it the paper in the opposite direction to the curl, for example.
- **D** Do not load paper while the printer is printing.
- □ Tray 1 and 2 are unavailable while paper is being loaded in the Bypass Tray.
- □ You cannot load paper when the printer is in Energy Saver mode. To disable Energy Saver mode, click the **[Stop/Start]** key on the control panel.

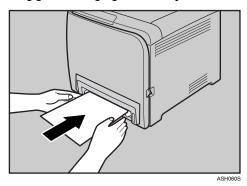
# **U** Insert the top edge of the paper into the printer.



**2** Adjust the paper guides to the paper size.



**B** Support the paper with your hands, and insert it carefully until it stops.



# Start the printer driver and specify the paper size.

# **5** Start printing.

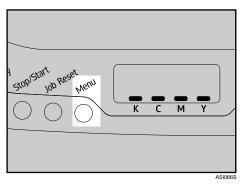
## 

For details about specifying the paper sizes, see the Printer driver help.

#### Specifying standard size paper for the bypass tray

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

# Press the [Menu] key.



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

Menu:		
Paper	Input	

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

Paper Input: Paper Size

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

Paper Size: Bypass Tray

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

220-240V

```
Bypass Size:
A4 (210 x 297)
```

120V

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

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

The initial screen appears.

# 🖉 Note

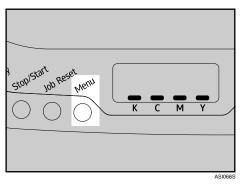
The number of pages that can be loaded in the bypass tray differs depending on the paper type. Make sure paper is not stacked above the paper guides inside the bypass tray.

## Specifying custom size paper for the bypass tray

# ∰Important

- □ When loading custom size or special paper, specify the paper size using the control panel or printer driver.
- □ The custom paper size selected using the printer driver overrides that selected using the control panel. Do not configure the settings using the control panel if you have already made the settings using the printer driver.
- □ You cannot print on custom size paper with an application that does not support the custom size setting.
- Paper sizes between 90 216 mm (3.54 8.5 inch) in width and 148 356 mm (5.83 14 inch) in length can be loaded in the bypass tray.

# Press the [Menu] key.



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

Menu:		
Paper	Input	

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

	Input:	
Paper	Size	

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

```
Paper Size:
Bypass Tray
```

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

```
Bypass Size:
Custom Size
```

O Press the [▼] or [▲] key to select a unit, and then press the [#Enter] key.

```
Custom Size:
mm
```

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

Custom Size: Horiz. 216.0 mm

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

Custom Size: Vert. 356.0 mm

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

The initial screen appears.

# 

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

## Specifying a paper type for the bypass tray

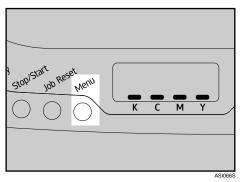
By selecting the paper type you want to load, the printer performs better. You can select from the following paper types:

Thin Paper (60 - 74 g/m<sup>2</sup>), Plain Paper 1, Plain Paper 2 (91 - 105 g/m<sup>2</sup>), Recycled Paper, Color Paper, Preprinted Paper, Prepunched Paper, Thick Paper 1 (106 - 160 g/m<sup>2</sup>), Letterhead, Bond Paper, Cardstock, Label Paper, Envelope

# ∰Important

- □ Be sure to select the paper type when you load labels, thick paper, or envelopes in the bypass tray.
- The paper type selected using the printer driver overrides that selected using the control panel.

# Press the [Menu] key.



5

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

Menu: Paper Input

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

Paper	Input:	
Paper	Туре	

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

Paper :	Туре:
Bypass	Tray

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

```
Bypass Tray:
Plain Paper 1
```

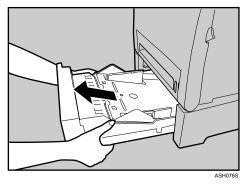
# O Press the [Menu] key.

The initial screen appears.

# Loading Paper in the Optional Paper Feed Unit

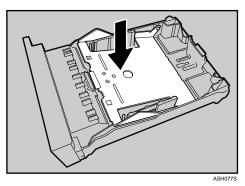
The following example explains the loading procedure for the optional paper feed unit.

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

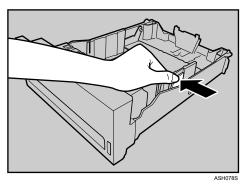


Place the tray on a flat surface.

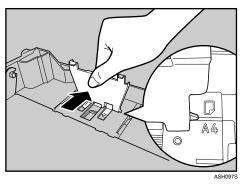
**2** Press down on the bottom plate until it clicks.



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

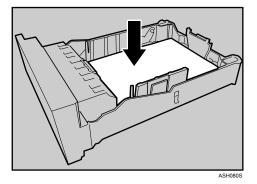


Pinch the clip on the end paper guide and align the arrow with the paper size.

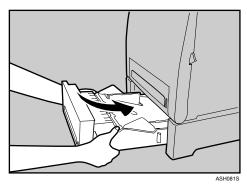


# **5** Load the new paper stack print side up.

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



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



# 6. Replacing Consumables

# **Replacing the Print Cartridge**

#### A WARNING:

- Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame. Dispose of used toner containers in accordance with local regulations.
- Do not store toner, used toner, or toner containers in a place with an open flame. The toner might ignite and cause burns of a fire.

#### A CAUTION:

- Keep toner (used or unused) and toner containers out of reach of children.
- If toner or used toner is inhaled, gargle with plenty of water and move into a fresh air environment. Consult a doctor if necessary.
- Avoid getting toner on your clothes or skin when removing a paper jam or replacing toner. If your skin comes into contact with toner, wash the affected area thoroughly with soap and water.
- If toner gets on your clothing, wash with cold water. Hot water will set the toner into the fabric and may make removing the stain impossible.
- If toner or used toner gets into your eyes, flush immediately with large amounts of water. Consult a doctor if necessary.
- If toner or used toner is swallowed, dilute by drinking a large amount of water. Consult a doctor if necessary.
- Be careful not to trap your fingers when opening or closing the top cover.

# ∰Important

- □ Store print cartridges in a cool dark place.
- Actual printable numbers vary depending on image volume and density, number of pages printed at a time, paper type and size, and environmental conditions such as temperature and humidity. Toner quality degrades over time. Early replacement of the print cartridge might be necessary. Therefore, we recommend you always keep a new print cartridge ready.
- For good print quality, the supplier recommends that you use genuine toner from the supplier.
- □ The supplier shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the supplier with your office products.

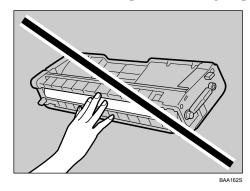
#### When to replace the print cartridge

If the **Alert** indicator on the control panel lights up and the following message appears on the display, replace the print cartridge: "Replace (Color) Print Cartridge"

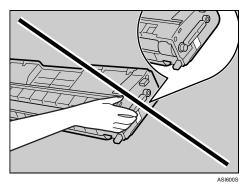
- If cyan, magenta, or yellow toner runs out, you can print in black and white using black toner. Change the color mode setting to Black and White using the printer driver.
- If black toner runs out, you cannot print in black and white or color until the black print cartridge is replaced.

#### ∰Important

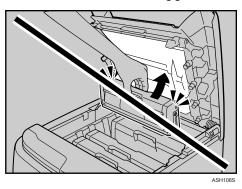
- Do not allow paper clips, staples, or other small metallic objects to fall inside the machine.
- Do not expose the print cartridge without its cover to direct sunlight for a long time.
- □ Do not touch the print cartridge's photo conductor unit.



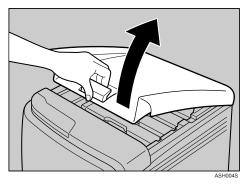
**D** Do not touch the ID chip on the side of the print cartridge.



□ When removing print cartridges, be careful not to touch the Laser Scanning Unit on the underside of the upper cover (the white area in the illustration below).

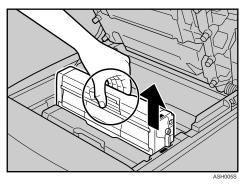


**1** Pull up Top Cover Open Lever to open the top cover.



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

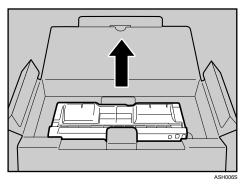
**2** Gripping its center, carefully pull the print cartridge upward and out.



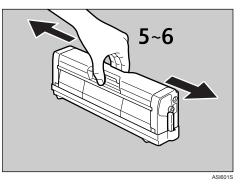
- Do not shake the removed print cartridge. Remaining toner may leak.
- Place the old print cartridge on paper or some other material to avoid dirtying your workspace.
- Color is labeled on each print cartridge.

6

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

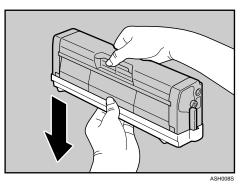


Hold the print cartridge and shake it from side to side five or six times.

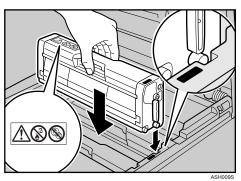


Even distribution of toner within the bottle improves print quality.

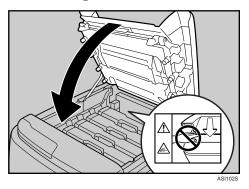
**5** Remove the cover from the print cartridge.



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



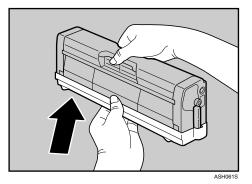
Close the top cover with both hands carefully. Be careful not to trap your fingers.



Wait while the toner loads.

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

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





- □ Make sure to cover the old print cartridge with the protective cover for recycling and environmental purposes.
- □ Comply with the print cartridge Recycling Program, whereby used print cartridges are collected for processing. For details, ask your sales or service representative.

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# **Replacing the Waste Toner Bottle**

#### \land WARNING:

- Do not incinerate spilled toner or used toner. Toner dust might ignite when exposed to an open flame.
- Wait for 30 minutes or more after disconnecting the power plug before removing the transfer unit.
- Do not incinerate used toner or toner containers. Toner dust might ignite when exposed to an open flame. Dispose of used toner containers in accordance with local regulations.

#### A CAUTION:

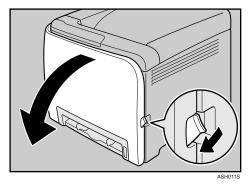
- The inside of this printer becomes very hot. Do not touch parts labelled "A" (indicating a hot surface).
- Keep toner (used or unused) and toner containers out of reach of children.

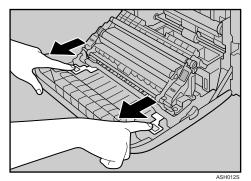
#### When to replace the waste toner bottle

If the **Alert** indicator on the control panel lights up and the following message appears on the display, replace the waste toner bottle: "Replace Waste Toner"

## ∰Important

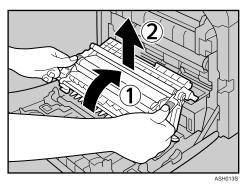
- □ Waste toner bottles cannot be reused.
- □ Purchasing and storing extra waste toner bottles is recommended.
- □ When removing the waste toner bottle, make sure not to tilt it.
- □ Keep the waste toner bottle horizontal as you take it out.
- □ Make sure that the transfer unit is installed. If the transfer unit is not installed, install it before turning the power on.
- □ Cooperate with the waste toner bottle Recycling Program, whereby used waste toner bottles are collected for recycling.
- Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



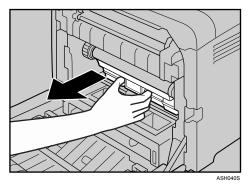


**2** Slide both levers on the front cover outward.

**1** Hold both ends of the transfer unit, and then lift it up.

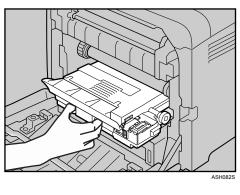


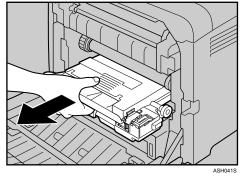
Hold the center of the waste toner bottle, and then carefully pull it out horizontally.



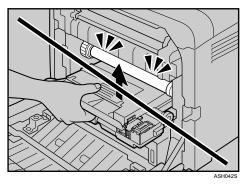
6

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

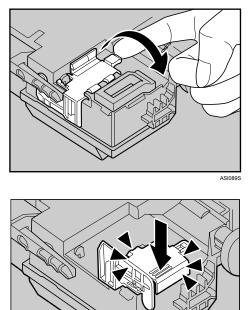




To prevent the waste toner bottle touching the intermediate transfer unit, do not lift the bottle while pulling it out.



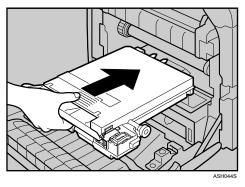
# **6** Close the bottle cap.



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

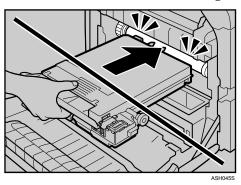
BAA063S

Leave the cap open.



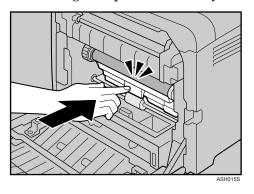
6

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

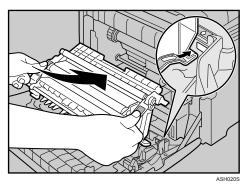


# **8** Push in the waste toner bottle until it clicks into place.

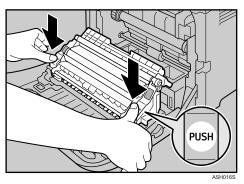
Push the green part all the way in.



**9** Place the transfer unit down on the front cover.



Slide the transfer unit along the guide rails into the printer. When it stops, push on the green PUSH mark until it clicks into place.



Close the front cover with both hands carefully.



# 🖉 Note

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.

# 7. Cleaning the Printer

# **Cautions to Take When Cleaning**

#### A WARNING:

• Do not attempt any maintenance or troubleshooting other than that mentioned in this manual. This machine contains a laser beam generator and direct exposure to laser beams can cause permanent eye damage.

#### A CAUTION:

• The inside of this printer becomes very hot. Do not touch parts labelled "\alpha" (indicating a hot surface).

Clean the printer periodically to maintain fine printing.

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

# ∰Important

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

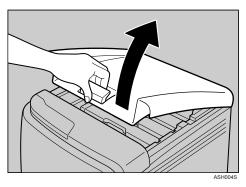
# **Cleaning the Toner Density Sensor**

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

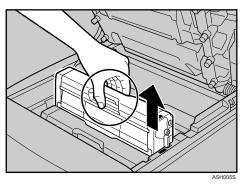
"Toner Den.Sensor cleaning req."

#### A CAUTION:

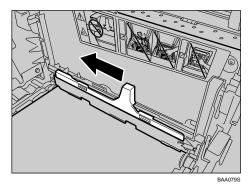
- Be careful not to trap your fingers when opening or closing the top cover.
- **1** Pull up Top Cover Open Lever to open the top cover.



**2** Lift out the cyan print cartridge.

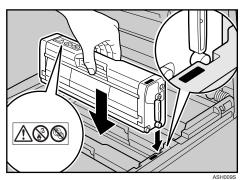


**3** Slide the toner density sensor lever once to the left.

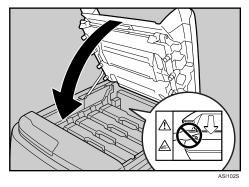


Slide the lever only once.

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



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



# Cleaning the Friction Pad and the Paper Feed Roller

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

#### A CAUTION:

- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, you should take care that the power cord will not be damaged under the machine.
- Do not pull out the paper tray forcefully. If you do, the tray might fall and cause an injury.
- Do not put your hands inside the printer when the input tray is removed. Some internal parts become hot and are a burn hazard.

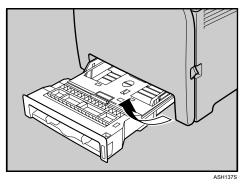
#### ∰Important

**D** Do not use chemical cleaner or organic solvent such as thinner or benzine.

**1** Turn off the power switch.

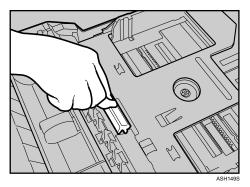
**2** Pull out the plug from the socket. Remove all the cables from the printer.

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

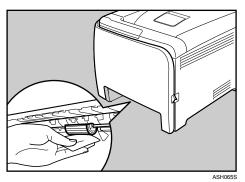


Place the tray on a flat surface. When there is paper in the tray, remove paper.

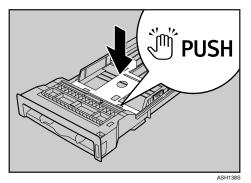
Wipe the friction pad with a damp cloth.



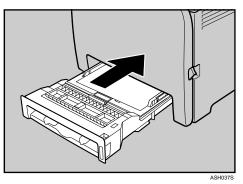
**5** Wipe the rubber part of the roller with a soft damp cloth. After that, wipe it with a dry cloth to remove the water.



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



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



# Insert the plug of the power cord into the wall socket securely. Connect all the interface cables that were removed.

# **9** Turn the power switch on.

## 🖉 Note

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

# Cleaning the Registration Roller and the Paper Tray

The surrounding registration roller or paper tray might get dirty with paper dust when using paper other than standard paper.

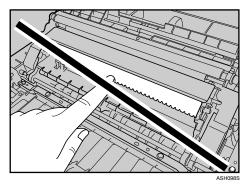
If white spots appear on the printout due to paper dust, wipe the paper tray and registration roller.

## A CAUTION:

- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, you should take care that the power cord will not be damaged under the machine.
- The inside of this printer becomes very hot. Do not touch parts labelled "A" (indicating a hot surface).
- Do not pull out the paper tray forcefully. If you do, the tray might fall and cause an injury.
- Do not put your hands inside the printer when the input tray is removed. Some internal parts become hot and are a burn hazard.

# ∰Important

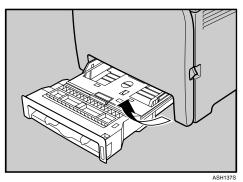
- □ Do not use chemical cleaner or organic solvent such as thinner or benzine.
- □ Do not touch the transfer roller.



**1** Turn off the power switch.

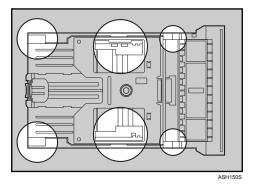
**2** Pull out the plug from the socket. Remove all the cables from the printer.

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

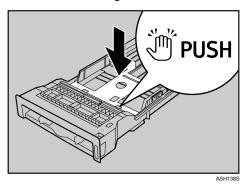


Place the tray on a flat surface. When there is paper in the tray, remove paper.

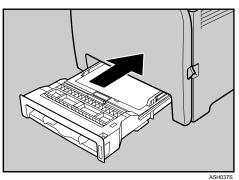
# • Wipe the inside of the paper tray with a cloth.



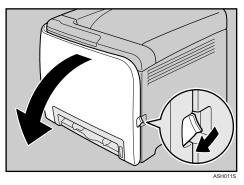
**5** Push the metal plate down until it clicks into place to lock.



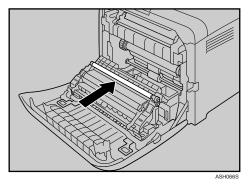
Slide Tray 1 along the rails, and push it carefully all the way into the printer.



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



The registration roller is set in the position shown by the arrow.



Clean the registration roller if printed paper becomes smeared after clearing a paper jam.

Using a cloth, wipe the metal registration roller.

**2** Close the front cover with both hands carefully.



Insert the plug of the power cord into the wall socket securely. Connect all the interface cables that were removed.

**1** Turn on the power switch.

# 8. Troubleshooting

# Error & Status Messages on the Control Panel

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

#### Status messages

Message	Explanation	Recommended Action
Offline	The machine is Offline.	To start printing, switch the machine to online by press- ing the <b>[Stop/Start]</b> key on the control panel.
Processing	The machine is printing.	Wait a while.
Ready	This is the default ready mes- sage.	The machine is ready for use. No action is required.
Resetting Job	The machine is resetting the print job.	Wait until "Ready" appears on the display.
Waiting	The machine is waiting for the next data to print.	Wait a while.
Warming up	The printer is warming up or toner is being supplied.	Wait until "Ready" appears on the display.

#### ✤ Messages

Message	Explanation	Recommended Action
Cannot collate	The computer does not have a print control module, or the job does not use a print driv- er.	Change the port setting to print through a USB or LPR port.
Change Settings # Paper Size	The paper size setting in the tray # (1, 2, bypass) differs from that of actual paper size in the tray.	Load paper of the selected size in the tray, and then change the paper size setting with printer driver.
Change Settings # Paper Type	The paper type setting in the tray # (1, 2, bypass) differs from that of actual paper type in the tray.	Load paper of the selected size in the tray, and then change the paper size setting with the control panel.
Close Top/Front Cover	The top or front cover is open.	Open and then close the top or front cover.

Message	Explanation	Recommended Action
Controller FW download failed	Controller FW could not be downloaded.	Turn off the main power, turn it back on, and then download the controller FW again. If the download fails again, contact your sales or service representative.
Hardware Problem DIMM	There is an abnormality in the optional memory on the controller.	Turn off the main power, and then turn it on again. If the error occurs again, con- tact your sales or service rep- resentative.
Irregular Toner	Irregular toner is set.	Replace the toner to appro- priate one.
Load Paper #	The indicated tray # (1, 2, by- pass) is out of paper.	Load paper into the indicat- ed paper tray. See p.47 "Loading Paper".
Load Paper: # or Stop/Start	The printer detected that the actual paper type and size are not the same as the paper tray # (1, 2, bypass) size setting and the paper type settings.	Load the indicated tray with the correct paper or change the paper type / size using dial or via the special paper size setting menu on the con- trol panel.
Memory full Cannot print	This error occurs when FW memory is not enough to save the printing page.	Add more memory.
Misfeed recovery print failed	The print data could not be recovered due to insufficient memory.	Print again.
Print Overrun	The print data could not be processed.	Print the job again from a higher performance compu- ter.
Paper Misfeed Duplex Unit	There is a paper jam in the duplex unit.	Remove the misfed paper. See p.109 "Removing Misfed
Remove Misfeed Internal Path	There is a paper jam in the fusing unit.	Paper".
Remove Misfeed Tray 1	There is a paper jam in Tray 1.	
Remove Misfeed Tray 2	There is a paper jam in Tray 2.	
Remove Misfeed Bypass Tray	There is a paper jam in the bypass tray.	
Remove Misfeed Paper Exit	There is a paper jam in the paper exit area.	

Message	Explanation	Recommended Action
Replace (color) Print Car- tridge	The printer is out of toner.	Replace the print cartridge. See, p.71 "Replacing the Print Cartridge".
Replace (color) Print Car- tridge soon	The printer is almost out of toner.	Prepare a new print cartridge.
Replace Waste Toner	It is time to replace the waste toner box.	Replace the waste toner box with a new one. See p.76 "Replacing the Waste Toner Bottle".
Reset (color) Print Cartridge	The indicated print cartridge is not set correctly, or not set.	Set the indicated print car- tridge correctly.
	The error message appears even though the print car- tridge is set correctly.	Using a dry cloth, carefully wipe the interface area on the print cartridge surface.
Reset Tray # correctly	The indicated paper input tray # (1 or 2) is not installed correctly, or not installed.	Install the indicated paper input tray correctly.
Reset Waste Toner correctly	There is no waste toner bot- tle, or the waste toner bottle is not installed correctly.	Set the waste toner bottle correctly.
SC XXX Power off on Call Service If error reoccurs	There is a problem with the printer's controller.	Turn off the main power, and then turn it on again. Call service people to repair it. If the error occurs again, contact your sales or service representative.
Toner Den.Sensor cleaning req.	Color registration failed.	Clean the toner density sen- sor. See p.84 "Cleaning the Toner Density Sensor".

# **Panel Indicator**

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

Indicator patterns	Cause
The <b>Alert</b> indicator is lit.	The printer cannot be used normally. Check the error on the con- trol panel.
The <b>Ready</b> indicator is flashing.	The printer is receiving print data or preparing to print.
The <b>Ready</b> indicator is lit.	The printer is ready for use.

# **Printer Does Not Print**

Possible Cause	Solutions
Is the power on?	Confirm that the cable is securely plugged into the power outlet and the printer. Turn on the power.
Does the <b>Alert</b> indicator stay red?	If so, check the error message on the control panel and take the re- quired action.
Is paper loaded?	Load paper into the paper tray or the bypass tray. See p.47 "Loading Paper".
Can you print a configura- tion page?	If you cannot print a configuration page, it probably indicates a printer malfunction. Contact your sales or service representative. For details about printing the configuration page using control panel, see p.16 "Test Printing".
Is the interface cable con- nected 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 compu- ter you use. Be sure to use the correct one. If the cable is damaged or worn, replace it with a new one. See p.125 "Specifications".
Is the <b>Ready</b> indicator blinking or lit after starting the print job?	<ul> <li>If not blinking or lit, the data is not being sent to the printer.</li> <li>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.98 "When the Printer is Directly Connected to a Computer via USB Cable".     </li> <li>Network Connection         Contact your network administrator.     </li> </ul>

If printing still does not start, contact your sales or service representative. Consult with the store where the printer was purchased for information about the location of sales or service representatives.

# When the Printer is Directly Connected to a Computer via USB Cable

#### Windows

When the printer is directly connected via a USB cable to a computer but the **Ready** indicator does not flash or light up, use the following method to check the port connection:

- For a USB port connection, port USB00 (n) <sup>\*1</sup> should be set.
- <sup>\*1</sup> (n) is the number of printers connected.

Windows 2000

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

If the port (such as LPT1) is not correct, reinstall the driver.

✓ Reference

For details about installation and port settings, see Software Guide.

Windows XP Professional, and Windows Server 2003/2003 R2

- Access the [Printers and Faxes] window from [Start] on the taskbar.
- 2 Click to select the icon of the printer. Next, on the [File] menu, click [Properties].
- **3** Click the [Port] tab.
- 4 Check the [Print to the following port(s).] box to confirm that the correct port is selected.

If the port (such as LPT1) is not correct, reinstall the driver.

#### 

For details about installation and port settings, see Software Guide.

Windows XP Home Edition

Access the [Control Panel] window from [Start] on the taskbar.

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

- **E** Click [Printers and Faxes].
- Click to select the icon of the printer. Next, on the [File] menu, click [Properties].
- **5** Click the [Port] tab.
- Check the [Print to the following port(s).] box to confirm that the correct port is selected.

If the port (such as LPT1) is not correct, reinstall the driver.

#### ₽ Reference

For details about installation and port settings, see Software Guide.

Windows Vista, and Windows Server 2008

- Click [Control Panel] on the [Start] menu, and then click [Printer] in the "Hard-ware and Sound".
- 2 Click to select the icon of the printer. Next, on the [File] menu, click [Properties].

Click the [Port] tab.

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

If the port (such as LPT1) is not correct, reinstall the driver.

#### Reference

For details about installation and port settings, see Software Guide.

#### Mac OS X

When the printer is connected to Mac OS X and the **Ready** indicator does not flash or light up, try the following procedures to check the port connection.

- Use [About This Mac] to check the USB information.
- Use the printer browser to check if the printer is displayed.

#### Using [About This Mac]

Click Apple Menu, and then select [About This Mac].

**2** Click [More Info].

Under [Contents], for [Hardware], select [USB].

Using the printer browser - Mac OS X 10.4.x or earlier

**1** On the desktop, double-click the hard drive icon.

**2** Click [Application], and then select the [Utilities] folder.

Double-click [Printer Setup Utility].

The **[Printer List]** dialog box appears.

## 4 Click [Add].

The printer browser starts.

Check that the printer appears in the browser. If it does not, reinstall the driver.

Using the printer browser - Mac OS X 10.5

**U** On the desktop, double-click the hard drive icon.

**2** Click [Applications], and then open the [System Preferences] folder.

- E In the [Hardware] category, double-click [Print & Fax].
- Click [+], and then click [Default].
- **5** Select the name of the printer you are using, and then click [Add]. Check that the printer appears in the browser. If it does not, reinstall the driver.

# **Other Printing Problems**

Status	Possible Causes, Descriptions, and Solutions
Toner smears appear on the print side of the page.	<ul> <li>The paper setting may not be correct. For example, al- though you are using thick paper, the setting for thick pa- per may not be set. Check the printer driver's paper settings. See the printer driver Help.</li> <li>Confirm that the paper is not curled or bent. Envelopes</li> </ul>
	can be curled easily. Flatten paper before loading. See p.37 "Paper and Other Media".
Paper jams occur frequently.	• Number of paper set in the tray exceeds the limit. Con- firm that the top of the stack is not higher than the limit mark inside the tray. See p.47 "Loading Paper".
	• There may be a gap between the front end paper guide and the paper, or between the paper guide both side and the paper in the paper tray. Make sure there are no gaps. See p.47 "Loading Paper".
	<ul> <li>Paper is either too thick or too thin.</li> <li>See p.37 "Paper and Other Media".</li> </ul>
	<ul> <li>Paper is bent or wrinkled. Use paper that have no bents or wrinkles.</li> <li>See p.37 "Paper and Other Media".</li> </ul>
	<ul> <li>Paper has already been printed on.</li> <li>See p.37 "Paper and Other Media".</li> </ul>
	• Paper is damp. Use paper that has been stored properly. See p.37 "Paper and Other Media".
	• The friction pad or paper feed roller or registration roller may be dirty. Clean the pertinent section as necessary. See p.86 "Cleaning the Friction Pad and the Paper Feed Roller" and p.89 "Cleaning the Registration Roller and the Paper Tray"
	<ul> <li>The paper setting may not be correct. For example, al- though you are using thick paper, the setting for thick pa- per may not be set.</li> <li>Check the printer driver's paper settings.</li> <li>See the printer driver Help.</li> </ul>
Prints fall behind the machine when they are output.	• Raise the appropriate stop fence (forward fence for A4, rear fence for legal size prints). See, p.1 "Exterior: Front View".

Status	Possible Causes, Descriptions, and Solutions
Prints do not stack properly.	• Paper is damp. Use paper that has been stored properly. See p.37 "Paper and Other Media".
	• Pull out the extender.
	Perform the following operation.
	① Press the <b>[Menu]</b> key on the control panel, select <b>[System]</b> , and then press the <b>[#Enter]</b> key.
	② Press the 【▼】 or 【▲】 key and select [Anti-Humidity], and then press the [#Enter] key.
	<ul> <li>③ Press the [▼] or [▲] key and select [Mode 2] or [Mode</li> <li>3], and then press the [#Enter] key.</li> </ul>
	Note that the first print takes longer than subsequent prints to complete. See the printer driver help.
	<ul> <li>Raise the appropriate stop fence (forward fence for A4, rear fence for legal size prints).</li> <li>See, p.1 "Exterior: Front View".</li> </ul>
Multiple pages are fed at once.	• There may be a gap between the front end paper guide and paper, or between the paper guide both side and pa- per in the paper tray. Make sure there are no gaps. See p.47 "Loading Paper".
	<ul> <li>Paper is either too thick or too thin.</li> <li>See p.37 "Paper and Other Media".</li> </ul>
	<ul> <li>Paper has already been printed on.</li> <li>See p.37 "Paper and Other Media".</li> </ul>
	<ul> <li>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.</li> <li>See p.37 "Paper and Other Media".</li> </ul>
	<ul> <li>Paper is static. Use paper that has been stored properly. See p.37 "Paper and Other Media".</li> </ul>
	• The friction pad or paper feed roller or registration roller may be dirty. Clean the pertinent section as necessary. See p.86 "Cleaning the Friction Pad and the Paper Feed Roller"
	• Check that paper has not been added while there is still some left in the tray.
	Only add paper when there is none left in the tray.
-	Fan the paper before loading.
Paper gets wrinkles.	• Paper is damp. Use paper that has been stored properly. See p.37 "Paper and Other Media".
	<ul> <li>Paper is too thin.</li> <li>See p.37 "Paper and Other Media".</li> </ul>
	• There may be a gap between the front end paper guide and the paper, or between the paper guide both side and the paper in the paper tray. Make sure there are no gaps. See p.47 "Loading Paper".

Status	Possible Causes, Descriptions, and Solutions
Images are not printed in the right position	<ul> <li>Adjust the printing position. You can adjust the printing position of tray 2 using the control panel. See Software Guide.</li> <li>Adjust the front end paper guide and both side paper guides to match the paper size.See p.47 "Loading Paper"</li> </ul>
Images are printed diagonally to the pages	Adjust the front end paper guide and both side paper guides to match the paper size. p.47 "Loading Paper".
White lines appear.	<ul> <li>The intermediate transfer belt is dirty.</li> <li>Follow the procedure below to clean the belt: <ol> <li>Open the top cover while the power is on.</li> <li>Remove all print cartridges from the printer.</li> <li>Close the top cover with both hands carefully.</li> <li>When cleaning finishes, open the top cover and reinsert all the print cartridges.</li> </ol> </li> <li>If this procedure does not resolve the problem, contact your sales or service representative.</li> </ul>
Horizontal lines appear on the printed paper.	<ul> <li>Impact can cause lines to appear on printed paper and other malfunctions. Protect the printer from impact at all times, especially while it is printing.</li> <li>If lines appear on prints, turn the printer off, wait a few moments, and then turn it back on again. Then, perform the print job again.</li> </ul>
White spots appear.	• The surrounding registration roller or paper tray can be- come dirty with paper dust if you use other than stand- ard paper. Wipe any paper dust off both the paper tray and registration roller. See p.89 "Cleaning the Registration Roller and the Paper Tray".

Status	Possible Causes, Descriptions, and Solutions
After replacing a color print car- tridge, colorless dots appear in solid color printouts.	Change the paper type currently selected in the Paper Type settings, and then print. Eg. "Plain & Recycled" $\Rightarrow$ "Recycled", "Recycled" $\Rightarrow$ "Plain 1". See p.61 "Specifying a paper type for tray 1 and the optional paper feed unit" or p.65 "Specifying custom size paper for the bypass tray".
Speckling occurs in areas of sol- id black print.	Select <b>[CMY + K]</b> for <b>[Gray Reproduction (Text/Line Art):]</b> in the printer driver's dialog box. See the printer driver Help.
Paper is not fed from the select- ed tray.	<ul> <li>When you are using a Windows operating system, the printer driver settings override those set using the control panel. Set the desired input tray using the printer driver. See the printer driver Help.</li> </ul>
A printed image is different from the image on the compu- ter's display.	• When you use some functions, such as enlargement and reduction, the layout of the image might be different from that displayed in the computer display.
It takes too much time to resume printing.	<ul> <li>The data is so large or complex that it takes time to process it. If the Ready indicator is blinking, the data is being processed. Just wait until it resumes.</li> <li>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 Energy Saver mode: <ol> <li>Press the [Menu] key on the control panel, select [System], and then press the [#Enter] key.</li> <li>Press the [▼] or [▲] key, and then select [Energy Saver 2].</li> </ol> </li> </ul>
It takes too much time to com- plete the print job.	<ul> <li>Photographs and other data intensive pages take a long time for the printer to process, so simply wait when printing such data. Changing the settings with printer driver may help to speed up printing. See the printer driver Help.</li> <li>The data is so large or complex that takes time to process. If the <b>Ready</b> indicator is blinking, the data is being processed. Just wait until it resumes.</li> <li>If the <b>Ready</b> indicator on the control panel is flashing, the printer is warming up. Wait for a while.</li> <li>The printer is adjusting the color registration. Wait for a while.</li> </ul>
Images are cut off, or excess pages are printed.	If you are using paper smaller than the paper size selected in the application, use the same size paper as that selected in the application. If you cannot load paper of the correct size, use the reduction function to reduce the image, and then print. See the printer driver Help.

Status	Possible Causes, Descriptions, and Solutions
The color of the printout is dif- ferent from the color on the computer's display.	<ul> <li>The colors made using color toner are different from colors displayed on the display in its production system.</li> <li>Color gradation might appear differently if [On] is selected for [Toner Saving] on the [Print Quality] tab in the printer driver's dialog box. See the printer driver Help.</li> <li>Turn off the main power, and then turn it back on. If the color still appears differently on the printout, perform the following operation. <ol> <li>Press the [Menu] key on the control panel, select [Maintenance], and then press the [#Enter] key.</li> <li>Press the [*Enter] key.</li> <li>Press the [#Enter] key.</li> </ol> </li> <li>If this procedure fails to resolve the problem, contact your sales or service representative.</li> </ul>
The color of the printout is dif- ferent from the color specified.	If a specific color is missing, turn the power switch off and on. If this does not solve the problem, contact your sales or service representative.
Color changes extremely when adjusted with the printer driver.	Do not extreme settings for the color balance under the <b>[Print Quality]</b> tab in the printer driver's dialog box. See the printer driver Help.
Photo images are coarse.	Some applications lower the resolution for making prints.
Color documents are printed in black and white.	<ul> <li>The printer driver is not set up for color printing. See the printer driver Help.</li> <li>Some applications print color files in black and white.</li> </ul>
Fine dot pattern does not print.	Change the <b>[Dithering:]</b> setting in the printer driver's dialog box. See the printer driver Help.
Solid areas, lines or text are shiny or glossy when created as a mixture of cyan, magenta, yel- low.	Select <b>[K (Black)]</b> for <b>[Gray Reproduction (Text/Line Art):]</b> in the printer driver's dialog box. See the printer driver Help.
Black gradation is not natural.	Select <b>[CMY + K]</b> for <b>[Gray Reproduction (Text/Line Art):]</b> in the printer driver's dialog box. See the printer driver Help.
Solid lines are printed as broken lines.	Change the <b>[Dithering:]</b> setting in the printer driver's dialog box. See the printer driver Help.

Status	Possible Causes, Descriptions, and Solutions
A color is missing or partially blurred.	<ul> <li>Paper is damp. Use paper that has been stored properly. See p.37 "Paper and Other Media".</li> <li>Toner is nearing empty. If the following message appears on the control panel, replace the print cartridge: "Replace (Color) Print Cartridge" See p.71 "Replacing the Print Cartridge".</li> <li>Condensation may have collected. If rapid change in tem- perature or humidity occurs, use this printer only after it has acclimatized.</li> </ul>
Color shift occurs.	<ol> <li>① Press the [Menu] key on the control panel, select [Maintenance], and then press the [#Enter] key.</li> <li>② Press the [▼] or [▲] key, select [Color Dens/Reg], and then press the [#Enter] key.</li> </ol>
	③ Press the <b>[#Enter]</b> key.
The whole printout is blurred.	<ul> <li>Paper is damp. Use paper that has been stored properly. See p.37 "Paper and Other Media".</li> <li>Perform the following operation. <ol> <li>Press the [Menu] key on the control panel, select [System], and then press the [#Enter] key.</li> <li>Press the [▼] or [▲] key and select [Anti-Humidity], and then press the [#Enter] key.</li> <li>Press the [▼] or [▲] key and select [Mode 2] or [Mode 3], and then press the [#Enter] key.</li> </ol> </li> <li>If you select [Toner Saving] on the [Print Quality] tab in the printer properties dialog box, printing is generally less dense. See the printer driver Help.</li> <li>If the Alert indicator on the control panel lights up and the following message appears on the display, replace the print cartridge: <ul> <li>"Replace (Color) Print Cartridge".</li> </ul> </li> <li>Condensation may have collected. If rapid change in temperature or humidity occurs, use this printer only after it has acclimatized.</li> </ul>
White streaks or color streaks appear.	• Toner is almost depleted. If an error message appears on the control panel, replace the print cartridge of the color indicated. See p.71 "Replacing the Print Cartridge".
The backs of printed sheets are blemished.	<ul> <li>When removing a jammed sheet, the inside of the printer may have become dirtied. Print several sheets until they come out clean.</li> <li>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.</li> </ul>

Status	Possible Causes, Descriptions, and Solutions
If rubbed with your finger, it smears out.	The setting of the paper may not be correct. For example, al- though thick paper is used, the setting for thick paper may not be set.
	<ul> <li>Check the paper settings of this printer.</li> <li>See p.39 "Types of Paper and Other Media".</li> </ul>
	• Check the paper settings of the printer driver. See the printer driver Help.
The toner has run out and print- ing has stopped.	When the toner runs out, pressing the <b>[Stop/Start]</b> key allows you to print a few more pages, but the print quality of those pages cannot be guaranteed.
The toner is powdery and comes away from the paper, or the printed image has a matt ap- pearance.	Check if the fusing unit lever is lowered or the grey knobs are positioned as in the image below. ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

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

# **Additional Troubleshooting**

Problems	Solutions
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.	<ul> <li>Confirm the setting using either the control panel or Web Image Monitor. Control panel Press the [Menu] key, select [System], and then press the [#Enter] key. Press the [▼] or [▲] key to display [Auto Email Ntfy], and then confirm that [On] is selected. Web Image Monitor Confirm that [Auto E-mail Notification] is set to [On].</li> <li>When the power is turned off before the e-mail is transmitted, the e-mail will not be received.</li> <li>Check the e-mail address set for the destination. If the e-mail was sent but not received, it is possible the destination was incorrect. Also check error mail information from the e-mail server.</li> </ul>
No e-mail notification is re- ceived even though advance auto e-mail notification was set using Web Image Monitor or the control panel.	After changing the setting, turn the main unit's power off and then back on again.
When no date information is in- cluded in sent e-mail, the mail server has a malfunction.	Make the setting for obtaining time information from the SMTP server. For details, see "Printer Status Notification by E-Mail", Software Guide.

# 🖉 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.

# 9. Removing Misfed Paper

# When Paper is Jammed

If a paper jam occurs, the **Alert** indicator on the control panel flashes and one of the following messages appears on the control panel:

"Remove Misfeed Internal Path"

"Remove Misfeed Tray 1"

"Remove Misfeed Tray 2"

"Paper Misfeed Duplex Unit"

"Remove Misfeed Paper Exit"

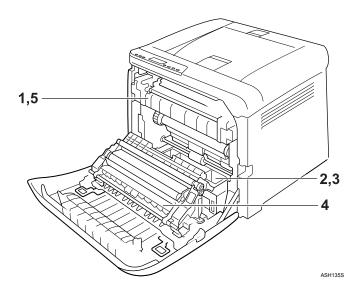
Check the location and remove the jammed paper.

#### A CAUTION:

- The inside of this printer becomes very hot. Do not touch the parts labelled "\alpha" (indicating a hot surface).
- The fusing section of this machine might be very hot. Caution should be taken when removing misfed paper.

#### ∰Important

- Misfed paper may be covered in toner. Be careful not to get toner on your hands or clothes.
- □ Toner on prints made after removing misfed paper may be loose (inadequately fused). Make a few test prints until smudges no longer appear.
- Do not forcefully remove misfed paper, it will tear. Torn pieces remaining inside the printer will cause further misfeeds and possibly damage the printer.
- Paper jams can cause pages to be lost. Check your print job for missing pages and reprint any pages that did not print out.



#### **1.** Remove Misfeed Internal Path

There is a paper jam in the fusing unit. See p.111 "When "Remove Misfeed Internal Path" Appears".

#### 2. Remove Misfeed Tray 1

There is a paper jam in Tray 1. See p.113 "When "Remove Misfeed Tray 1" Appears".

#### **3.** Remove Misfeed Tray 2

There is a paper jam in Tray 2. See p.114 "When "Remove Misfeed Tray 2" Appears".

#### 4. Paper Misfeed Duplex Unit

There is a paper jam in the duplex unit. See p.115 "When "Paper Misfeed Duplex Unit" Appears".

#### 5. Remove Misfeed Paper Exit

There is a paper jam in the fusing unit. See p.116 "When "Remove Misfeed Paper Exit" Appears".

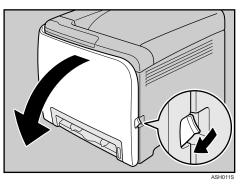
# When "Remove Misfeed Internal Path" Appears

"Remove Misfeed Internal Path" appears when a paper jam has occurred in the fusing unit.

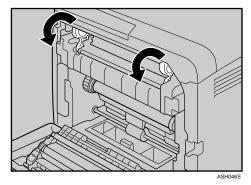
Open the front cover and remove the paper.

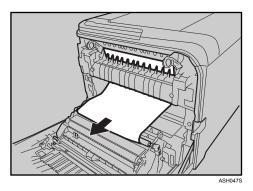
#### ₿Important

- □ Since the surrounding temperature is high around the guide, check for jammed paper when it gets a little cooler.
- **1** Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



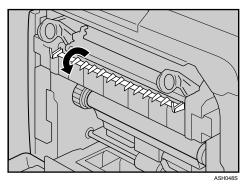
**2** Lower the blue fusing unit levers, and pull out the jammed paper carefully.





Pull the paper downward to remove it. Do not pull it upward.

If it is difficult to locate the paper, check for jammed paper by pulling down the guide.



**E** Close the front cover with both hands carefully.



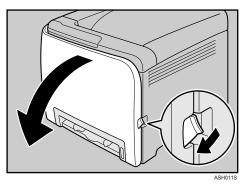
#### 🖉 Note

□ When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error is cleared.

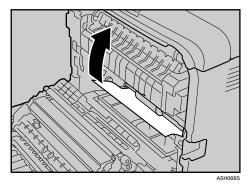
# When "Remove Misfeed Tray 1" Appears

"Remove Misfeed Tray 1" appears when a paper jam has occurred in Tray 1. Open the front cover and remove the paper.

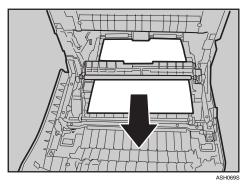
**1** Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



**2** Carefully pull the jammed paper upward and out.



If paper has jammed inside the transfer unit, holding both sides of the paper, pull the paper carefully forward and out.



**3** Close the front cover with both hands carefully.



### 🖉 Note

- **D** Do not pull out the paper tray (Tray 1).
- □ If paper is jammed in Tray 2, but it is difficult to locate, pull out Tray 2 to remove it. After removing the paper, carefully push Tray 2 all the way back inside the printer.
- □ When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error is cleared.

# When "Remove Misfeed Tray 2" Appears

"Remove Misfeed Tray 2" appears when a paper jam has occurred in Tray 2.

Open the front cover and remove the paper following the same procedure as for Tray 1.

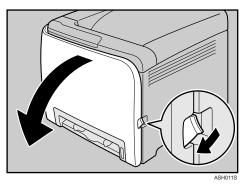
#### 

For details about the procedure, see p.113 "When "Remove Misfeed Tray 1" Appears"

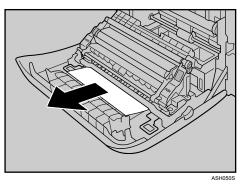
# When "Paper Misfeed Duplex Unit" Appears

"Paper Misfeed Duplex Unit" appears when a paper jam has occurred in the duplex unit. Open the front cover and remove the paper.

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



**2** Carefully remove misfed paper under the transfer unit.



If you cannot find the misfed paper, look inside the printer.

**2** Close the front cover with both hands carefully.



### 🖉 Note

□ When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error is cleared.

# When "Remove Misfeed Paper Exit" Appears

"Remove Misfeed Paper Exit" appears when a paper jam has occurred in the fusing unit.

Open the front cover and remove the paper following the same procedure as for internal path.

### PReference

For details about the procedure, see p.111 "When "Remove Misfeed Internal Path" Appears"

# 10. Appendix

# If the Printer is Not Going to Be Used for a Long Time

If the printer is going to be inactive for a long time, follow the procedure shown here.

#### A WARNING:

• Plug and unplug the power cable with dry hands, or an electric shock could occur.

#### A CAUTION:

- The inside of this printer becomes very hot. Do not touch parts labelled "\alpha" (indicating a hot surface).
- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, you should take care that the power cord will not be damaged under the machine.

# Preparing the Printer For a Long Period of Inactivity

Use this procedure to prepare the printer for a long period of inactivity with its power switch turned to off.

Note that not using the following procedure could result in unusual noises when use of this printer is resumed.

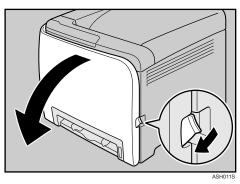
#### ∰Important

**D** Do not switch off the printer during printing.

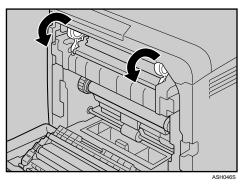
**1** Turn off the power switch.

**2** Pull out the plug from the socket.

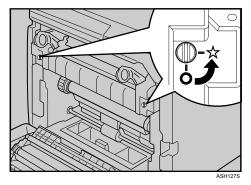
**E** Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



**4** Lower the blue fusing unit lever.



**5** Using a coin, turn both gray knobs on the fusing unit 90 degrees counterclockwise (until the slots are horizontally aligned with the  $\Rightarrow$  marking shown in the illustration below).



**6** Close the front cover with both hands carefully.



### Note

□ This step is not necessary if the printer's power switch is on but the printer has been inactive for a long time.

# Using the Printer Again after it has been Inactive for a Long Period

Use the following procedure to start using the printer again after it has been inactive for a long period.

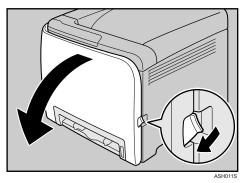
### **₩**Important

□ To avoid damage to the fusing unit's knobs, be sure to turn both knobs back to their original positions, as shown in the following procedure.

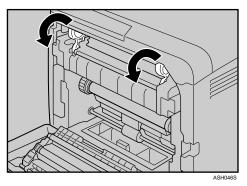


# **1** Plug in the power cable.

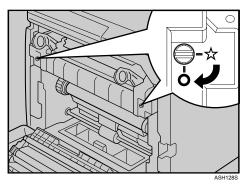
**2** Pull Front Cover Open Lever, and then open the front cover with both hands carefully.



**3** Lower the blue fusing unit lever.



**4** Using a coin, turn both gray knobs on the fusing unit 90 degrees clockwise (until the slots are vertically aligned with the ○ marking shown in the illustration below).



**5** Close the front cover with both hands carefully.



**1** Turn the power switch to On.

# Moving and Transporting the Printer

#### A CAUTION:

- The printer weighs approximately 23 kg (50.6 lb.). When moving the printer, use the inset grips on both sides, and lift slowly in pairs. The printer will break or cause injury if dropped.
- Unplug the power cord from the wall outlet before you move the machine. While moving the machine, you should take care that the power cord will not be damaged under the machine.
- When you disconnect the power plug from the wall outlet, always pull the plug (not the cable).
- When moving the printer after use, do not take out any of the toners, nor the waste toner bottle to prevent toner spill inside the machine.

Repack the printer in its original packing materials for transporting.

### ∰Important

- **D** Be sure to disconnect all cables from the printer before transporting it.
- □ The printer is a precision piece of machinery. Be sure to handle it carefully when moving it.
- □ If the optional paper feed unit is installed, remove it from the printer, and then move them separately.
- **D** Do not grip on the tray area when lifting the printer.

# 🖉 Note

□ The printer weighs approximately 23 kg (50.6 lb.).

# **Moving the Printer**

#### A CAUTION:

Unplug the power cord from the wall outlet before you move the machine. While moving the machine, you should take care that the power cord will not be damaged under the machine.

#### Moving the printer in a short distance

# **1** Be sure to check the following points:

- The power switch is turned off.
- The power cable is unplugged from the wall outlet.
- The interface cable is unplugged from the printer.

# **2** If the external option is installed, remove it.

**1** Lift the printer with two people by using the inset grips on both side of the printer, and then move it horizontally to the place where you want to install it.



If you remove the option, reinstall it.

#### 🖉 Note

- □ Be sure to move the printer horizontally. To prevent toner from scattering, move the printer slowly.
- □ If the optional paper feed unit is installed, remove it from the printer, and then move them separately.

# Consumables

#### A CAUTION:

• Our products are engineered to meet high standards of quality and functionality, and we recommend that you use only the expendable supplies available at an authorized dealer.

# **Print Cartridge**

Print cartridge	Average number of pages printable per cartridge *1
Black	2,500 pages
Black (High yield)	6,500 pages
Cyan	2,500 pages
Cyan (High yield)	6,000 pages
Magenta	2,500 pages
Magenta (High yield)	6,000 pages
Yellow	2,500 pages
Yellow (High yield)	6,000 pages

<sup>\*1</sup> The printable number of pages is based on pages that are compliant with ISO/IEC 19798 and the image density set as the factory default. ISO/IEC 19798 is an international standard on measurement of printable pages, set by the International Organization for Standardization.

The number of printable pages varies depending on which of the two different types of print cartridge you have installed.

### 🖉 Note

- □ If print cartridges are not changed when necessary, printing will become impossible. We recommend keeping a stock of bottles or purchasing them soon.
- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- Print cartridges may need to be changed sooner than indicated above due to deterioration over the period of use.
- □ Print cartridges (consumables) are not covered by warranty. However, if there is a problem, contact the store where they were purchased.
- □ When you first use this printer, use the four print cartridges packaged with the printer.
- **The supplied print cartridge is good for approximately 1,000 pages.**
- This printer routinely performs cleaning and uses toner during operation to maintain quality.
- □ To prevent a cleaning malfunction, you may need to replace a print cartridge even if it is a not empty.
- If the toner has run out but you urgently need to continue printing, see p.101 "Other Printing Problems".

# Waste Toner Bottle

Name	Average printable number of pages <sup>*1</sup>
Waste Toner Bottle SP C220	25,000 pages

<sup>\*1</sup> A4/letter 5% test chart, 3 pages / job, printing in 50% monochrome/color.

### 🖉 Note

- □ The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- □ If the waste toner bottles are not changed when necessary, printing will become impossible. We recommend keeping a stock of bottles or purchasing them soon.

# **Specifications**

#### \land WARNING:

• The supplied power cord is for use with this equipment only. Do not use with other appliances. Doing so may result in fire, electric shock, or injury.

# Main Unit

#### Configuration

Desktop

#### Print Process

Laser beam scanning & Electrophotographic printing 4 drums tandem method

#### First Print Speed

Monochrome: 14 sec or less  $(A4 \square /8 ^{1}/_{2} \times 11 \square)$ Color: 14 sec or less  $(A4 \square /8 ^{1}/_{2} \times 11 \square)$ 

#### 🖉 Note

□ If the printer has not been used for a while, there may be a short delay before the first page starts printing.

#### Printing Speed

Monochrome: maximum 20 pages per minute (A4  $\Box$ ), 21 pages per minutes (8  $^{1}/_{2} \times 11 \Box$ ) Color: maximum 20 pages per minute (A4  $\Box$ ), 21 pages per minutes (8  $^{1}/_{2} \times 11 \Box$ ) Printing speed may vary depending on the setting up environment.

#### Resolution

600 × 600 dpi Speed 1200 × 600 dpi Standard 2400 × 600 dpi Fine

#### Paper size

See p.37 "Paper and Other Media"

#### Paper Weight

See p.37 "Paper and Other Media"

#### Media Type

See p.37 "Paper and Other Media"

 Paper Output Capacity Standard 150 sheets (80 g/m<sup>2</sup>, 20 lb.)

#### Paper Input Capacity

Standard Paper Tray	250 sheets*1
Bypass Tray	1*1
Optional Paper Feed Units	500 sheets*1

<sup>\*1</sup> Paper weight:  $80 \text{ g/m}^2$  (20 lb. bond)

#### Power Source

- **220-240V** 220-240 V, 6A or more, 50/60 Hz
- **120V** 120 V, 11 A or more, 60 Hz

#### Power Consumption

Printing	1300 W or less (No power is used during power off.)
Energy Saver	15 W or less

#### ✤ Warm-up Time

Less than 48 seconds (23 °C, 71.6 F)  $^{*1}$ 

<sup>\*1</sup> When no error is occurred.

#### Dimensions

	Width	Depth	Height
Printer only (tray not extended)	400 mm (15.8 inches)	450 mm (17.8 inches)	320 mm (12.8 inches)

#### ✤ Weight

Approximately 23 kg (50.6 lb.) (print cartridges included)

# Noise Emission \*1 Sound Power Level

During Monochrome Printing (Main Unit Only)	64 dB (A) or less
During Color Printing (Main Unit Only)	64 dB (A) or less
Standby (Main Unit Only)	40 dB (A) or less
During Printing (Complete System)	68 dB (A) or less

#### Sound Pressure Level \*2

During Monochrome Printing (Main Unit Only)	58 dB (A) or less
During Color Printing (Main Unit Only)	58 dB (A) or less
Standby (Main Unit Only)	34 dB (A) or less
During Printing (Complete System)	62 dB (A) or less

\*1 : The preceding measurements made in accordance with ISO7779 are actual values.

\*2 : Measured at the position of a bystander.

#### Memory

Standard 128 MB, up to 384 MB (with the optional memory unit)

#### Interface

- Ethernet (10/100 Base-TX)
- USB2.0

It requires a USB computer port and cable that support USB 2.0.

• USB Host (1.1)

#### 🖉 Note

□ USB Host (1.1) is only available for the SP C232DN model printer.

#### Printer Language

PJL, PCL 5c/6, PostScript Level 3, PictBridge

### 🖉 Note

□ PictBridge is only available for the SP C232DN model printer.

#### Fonts

PCL

41 Symbolset, 35 Intellifonts, 10 TrueType fonts, 1 bitmap font. PostScript 3 80 fonts

# Options

#### Paper Feed Unit TK1010

- ◆ Paper size A4  $\square$  and Letter (8<sup>1</sup>/<sub>2</sub> × 11 inches)  $\square$
- ◆ Dimensions (W × D × H) 400 × 450 × 127 mm (15.8 × 17.8 × 5 inches)
- ✤ Paper weight 60 - 105 g/m<sup>2</sup>, (16 - 28 lb.)
- ✤ Weight Less than 4 kg (8.8 lb.)

#### Memory Unit Type F 256MB

- Module Type DDR-DIMM (Double Data Rate Dual Inline Memory Module)
- Memory Type DDR-SDRAM (Double Data Rate Synchronous Dynamic RAM)
- Number of Pins 100

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ΕN

(USA)

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

# I :POWER ON.

#### O:POWER OFF.

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#### 🖉 Note

D PostScript 3 in this manual stands for "Adobe PostScript 3 Emulation".





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