# Operating Instructions Maintenance Guide



- 1 Getting Started
- 2 Paper and Other Media
- 3 Replacing Consumables and Maintenance Kit
- (4) Cleaning and Adjusting the Printer
- 5 Troubleshooting
- 6 Appendix

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

#### Introduction

This manual describes detailed instructions on the operation and notes about the use of this machine. To get maximum versatility from this machine all operators are requested to read this manual carefully and follow the instructions. Please keep this manual in a handy place near the machine.

#### **Power Source**

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

Please be sure to connect the power cable to a power source as above.

#### Operator Safety:

This printer is considered a class 1 (3B) laser device, safe for office/ EDP use. The printer contains 5 milliwat, 770 - 795 nanometer wavelength, AlGaAs Laser Diode. Direct (or indirect reflected) eye contact with the laser beam might cause serious eye damage. Safety precautions and interlock mechanisms have been designed to prevent any possible laser beam exposure to the operator.

The following label is attached on right side of the printer.



#### Laser Safety:

The optical housing unit can only be repaired in a factory or at a location with the requisite equipment. The laser subsystem is replaceable in the field by a qualified customer engineer. The laser chassis is not repairable in the field. Customer engineers are therefore directed to return all chassis and laser subsystems to the factory or service depot when replacement of the optical subsystem is required.

#### **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.

#### Caution:

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

Do not make copies of any item for which copying is prohibited by law.

Copying the following items is normally prohibited by local law:

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

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

Two kinds of size notation are employed in this manual. With this machine refer to the metric version.

For good copy 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.

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# **Trademarks**

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

- Microsoft® Windows® 95 operating system
- Microsoft® Windows® 98 operating system
- Microsoft® Windows® Millennium Edition (Windows Me)
- The product names of Windows<sup>®</sup> 2000 are as follows: Microsoft<sup>®</sup> Windows<sup>®</sup> 2000 Advanced Server Microsoft<sup>®</sup> Windows<sup>®</sup> 2000 Server Microsoft<sup>®</sup> Windows<sup>®</sup> 2000 Professional
- The product names of Windows<sup>®</sup> XP are as follows: Microsoft<sup>®</sup> Windows<sup>®</sup> XP Professional Microsoft<sup>®</sup> Windows<sup>®</sup> XP Home Edition
- The product names of Windows Server<sup>TM</sup> 2003 are as follows: Microsoft<sup>®</sup> Windows Server<sup>TM</sup> 2003 Standard Edition Microsoft<sup>®</sup> Windows Server<sup>TM</sup> 2003 Enterprise Edition Microsoft<sup>®</sup> Windows Server<sup>TM</sup> 2003 Web Edition
- The product names of Windows NT<sup>®</sup> 4.0 are as follows: Microsoft<sup>®</sup> Windows NT<sup>®</sup> Server 4.0 Microsoft<sup>®</sup> Windows NT<sup>®</sup> Workstation 4.0

#### 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.

# **Safety Information**

When using your printer, the following safety precautions should always be followed.

# **Safety During Operation**

In this manual, the following important symbols are used:

#### **⚠ WARNING:**

Indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

#### **A** CAUTION:

Indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

#### **↑** WARNING:

- It is dangerous to handle the plug with wet hands. Doing this may result in receiving an electric shock.
- Connect the power cord directly into a wall outlet and never use an extension cord.
- Disconnect the power plug (by pulling the plug, not the cable) if the power cable or plug becomes frayed or otherwise damaged.
- Confirm that the wall outlet is near the machine and freely accessible, so that in event of an emergency, it can be unplugged easily.
- Only connect the machine to the power source described in the manual.
- Avoid multi-wiring.
- Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.
- To avoid hazardous electric shock or laser radiation exposure, do not remove any covers or screws other than those specified in this manual.
- Turn off the power and disconnect the power plug (by pulling the plug, not the cable) if any of the following conditions exists:
  - · You spill something into the equipment.
  - You suspect that your equipment needs service or repair.
  - Your equipment's cover has been damaged.
- Do not incinerate spilled toner or used toner. Toner dust 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.
- Dispose of the used toner cartridge in accordance with the local regulation.
- Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.
- 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 cartridges yourself, dispose of them according to local regulations.
- Do not remove any covers or screws other than those specified in this manual. Some parts of the machine are at a high voltage and could give you an electric shock. Also, if the machine has laser systems, direct (or indirect) reflected eye contact with the laser beam may cause serious eye damage. When the machine needs to be checked, adjusted, or repaired, contact your service representative.

#### **A CAUTION:**

- Do not eat or swallow toner.
- Keep toner (used or unused) and toner cartridge out of reach of children.
- Do not put an object on the right cover when it is open.
- Protect the equipment from dampness or wet weather, such as rain, snow, and so on.
- Unplug the power cord from the wall outlet before you move the equipment.
   While moving the equipment, you should take care that the power cord will not be damaged under the equipment.
- When you disconnect the power plug from the wall outlet, always pull the plug (not the cable).
- Do not allow paper clips, staples, or other small metallic objects to fall inside the equipment.
- For environmental reasons, do not dispose of the equipment or expended supply waste at household waste collection points. Disposal can take place at an authorized dealer or at appropriate collection sites.
- The inside of the machine becomes very hot. Do not touch the parts with a
   "≜" label (means hot surface). Touching a part with a "≜" label (means hot
   surface) could result in a burn.
- The fusing unit becomes very hot. When installing the new fusing unit, turn off the printer and wait about 30 minutes. After that, install the new fusing unit. Not waiting for the unit to cool down can result in a burn.
- Do not pull out the fusing unit forcefully. It may cause the unit to fall and result in an injury.
- When touching the fusing unit, do not touch any areas other than the handle as it may cause a burn.
- When removing misfed paper, do not touch the fusing unit because it could be very hot.
- To prevent an injury, this printer should be lifted by at least two people.
- The printer weights approximately 31.5 kg (69.4 lb). When moving the printer, use the inset grips on both sides, and lift slowly. The printer will break or cause injury if dropped.
- Before installing options, the machine should be turned off and unplugged for at least half an hour. Components inside the machine become very hot, and can cause a burn if touched.
- Lifting the paper feed unit carelessly or dropping it may cause an injury.
- Lifting the duplex unit carelessly or dropping it may cause an injury.
- Do not touch the inside of the controller board compartment. It may cause a machine malfunction or a burn.

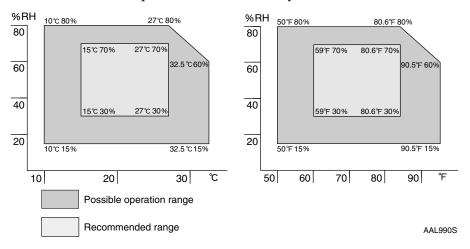
#### A CAUTION:

- Keep the machine away from humidity and dust. A fire or an electric shock might occur.
- Place the machine on a strong and level surface. Otherwise, the machine might fall and result in an injury.
- If you use the machine in a confined space, confirm that there is a continuous flow of air.
- When pulling the paper tray out, be careful not to pull it strongly. If you do, the tray might fall and cause an injury.
- This product uses low frequency electromagnetic fields and may cause harmful interference to sensitive medical implant devices. If you have a cardiac pacemaker or implantable defibrillator, please consult your doctor for additional suggestion or advice.
- When moving the machine, each person should hold the handles that are located on opposite sides, and then lift it slowly. Lifting it carelessly or dropping it may cause an injury.
- When you move the printer, remember to unplug the power cord from the wall outlet to avoid a fire or an electric shock.
- When you pull out the plug from the socket, grip the plug, not the cord, to avoid damaging the cord and causing a fire or an electric shock.
- When moving the printer after use, do not take out any of the Toners, Photo Conductor Units, nor the Waste Toner Bottle to prevent toner spill inside the machine.
- When lifting the machine, use the inset grips on both sides. Otherwise the printer could break or cause an injury if dropped.
- Before moving the machine, unplug the power cord from the wall outlet. If the cord is unplugged abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.
- Our products are engineered to meet the highest standards of quality and functionality. When purchasing expendable supplies, we recommend using only those specified by an authorized dealer.

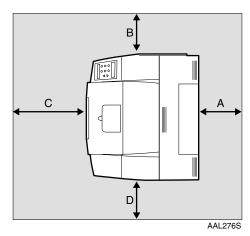
This machine has labels for <u>AWARNING</u> and <u>ACAUTION</u> at the positions shown below. For safety, please follow the instructions and handle the machine as indicated.

# For Proper Operation

- Supplies and parts, including toner, and photo conductor unit have been
  evaluated for quality based on a benchmark for recommended products. Use
  recommended supplies and parts to maintain this standard and achieve high
  quality results.
- Place this printer on a level, stable table that is not curved. Do not place across two tables.
  - The machine must be level within 4.5 mm, 0.2" front to rear, and left to right.
- Recommended temperature and humidity.



 To load paper, replace consumables, and resolve paper jams, etc., leave a clearance as shown below.



A: more than 25 cm (9.9") (More than 35 cm when the AD460 (duplex unit) is attached.)

B: more than 20 cm (7.9")

C: more than 70 cm (27.6")

D: more than 50 cm (19.7")

- When moving from a cold to warm location, or if the local temperature rises suddenly, condensation may occur inside. If this occurs, leave the machine unused for at least one hour to let it acclimatize.
- Extreme temperature rise inside the machine may cause malfunctions. Do not place anything in the immediate area of the exhaust and intake vents.
- Always keep all covers closed.
- During printing, do not open the cover of any parts, and do not move the printer.
- Do not pull out the paper tray during printing. Printing will stop and paper will jam.
- Prevent foreign objects, such as paper clips, etc., from falling inside the printer.
- During printing, do not switch the power off and do not unplug the power cable. Sudden power interruptions can cause malfunctions.
- While printing, protect the printer from external shocks, such as arranging papers on top of the printer.
- Depending on temperature and humidity, during printing a while steam may come from the printing paper when it leaves the printer.
- The paper exit and nearby parts may become hot during printing. This is normal and no reason for concern.
- This unit is designed and manufactured to have a life expectancy of 5 years based on a monthly printing volume of 2,000 sheets (A4 with a 1:1 ratio of color printing and monochrome printing) when the power is on for a total of 8 hours per day). If the monthly number of printed pages exceeds 10,000 sheets or if the time the power is on exceeds 8 hours a day, life expectancy shortens. The 5 years figure is also based on a ratio of 1:1 of color printing and monochrome printing. Should the number of sheets of color printing exceed this ratio, the total number decreases.

# **ENERGY STAR Program**

### Low-power Mode (Energy Saver mode)

This printer automatically lowers its power consumption 30 minutes after the last operation has been completed. To exit Low-power (Energy Saver) mode, press any key on the control panel. For more information about how to configure Energy Saver mode, see "Making Printer Settings with Control Panel", *Administrator Reference*.

### Specifications

Energy Saver mode	Power Consumption	15 W or less
	Default Time	30 minutes
	Recovery Time	45 seconds or less

# German acoustic statement

The following measurements were made in accordance with ISO7779 and reported in comformance with ISO 9296.

### **❖** Noise Emission:

#### **Sound Power Level**

	Mainframe only
Stand-by	54 dB (A)
During Printing	66 dB (A)

#### **Sound Pressure level**

	Mainframe only
Stand-by	46 dB (A)
During Printing	60 dB (A)

# How to Read This Manual

#### **Symbols**

In this manual, the following symbols are used:

#### **MARNING:**

This symbol indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

#### **A CAUTION:**

This symbol indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

\* The statements above are notes for your safety.

## **#Important**

If this instruction is not followed, paper might be misfed or data might be lost. Be sure to read this.

## Preparation

This symbol indicates the prior knowledge or preparations required before operating.

#### Note

This symbol indicates precautions for operation, or actions to take after misoperation.

#### Limitation

This symbol indicates numerical limits, functions that cannot be used together, or conditions in which a particular function cannot be used.

### 

This symbol indicates a reference.

### [ ]

Keys that appear on the machine's panel display.

Keys and buttons that appear on the computer's display.

## 

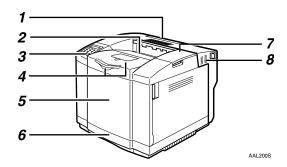
Keys built into the machine's control panel.

Keys on the computer's keyboard.

# 1. Getting Started

# Guide to the Printer

### **Exterior-Front View**



#### 1. Rear Cover

Open this cover when replacing the fusing unit, or removing misfed paper.

#### 2. Standard Tray

Output is stacked here with the print side down.

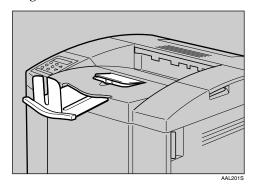
#### 3. Control Panel

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

#### 4. Extender and Paper Stand

When printing on A4 and letter (8  $^{1}/_{2}$  x 11) size sheets, pull out the extender and use the internal stand to prevent the sheets from falling.

When printing on sheets that curl easily, raise up the paper stand to prevent them curling.



#### 5. Front Cover

Open this cover when replacing the toner cartridge or waste toner bottle.

#### 6. Tray 1

Up to 250 sheets of plain paper can be loaded.

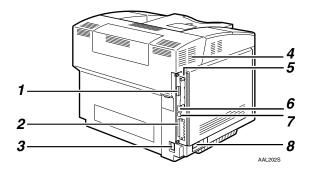
### 7. Upper Cover

Open this cover when replacing the photo conductor unit (PCU).

#### 8. Ventilator

The ventilator helps to keep the components inside the printer from overheating. Do not block the ventilator as it may cause a printer malfunction due to overheating.

### **Exterior-Rear View**



#### 1. Parallel Port

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

#### 2. Expansion Card Slots

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

#### 3. Power Port

Connect the power cable to this port and the other end of the cable to the outlet.

#### 4. Ventilator

The ventilator helps to keep the components inside the printer from overheating. Do not block the ventilator as it may cause a printer malfunction due to overheating.

#### 5. Controller Board

Slide this out when installing option such as SDRAM module (memory unit). Two expansion card slots are included on this board.

#### 6. Ethernet Port

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

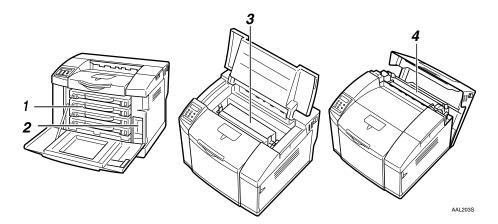
#### 7. USB Port

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

#### 8. Power Switch

Use this switch to turn the power on and off

## Inside



#### 1. Toner Cartridges

When "Add Toner XXX" appears on the panel display, replace the indicated color of the toner cartridge.

#### Note

 $\Box$  The color is displayed for XXX.

#### 2. Waste Toner Bottle

Collects waste toner. When "Check Waste Toner Bottle" appears on the panel display, replace this bottle.

#### 3. Photo Conductor Unit

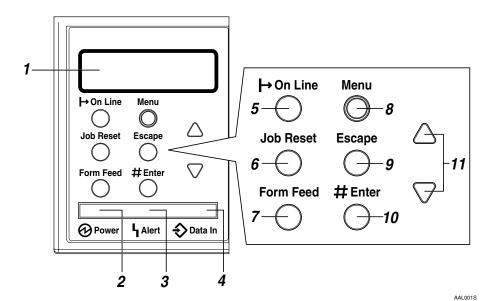
When "Replace PCU" appears on the panel display, replace the Photo Conductor Unit.

#### 4. Fusing Unit

Fuses the image on paper.

When "Replace Fusing Unit" appears on the panel display, contact your sales or service representative.

#### **Control Panel**



#### Panel Display

Displays current printer status and error messages.

For details about error messages, see p.51 "Error & Status Messages on the Control Panel".

#### 2. Power indicator

Is on while the printer power is on.

Is off when the power is turned off or while the printer is in Energy Saver mode.

#### 3. Alert indicator

Lights up whenever any printer error occurs. A red light indicates an error has occurred when printing is not possible; yellow indicates an error when printing is possible.

If any messages appear in red on the display, follow their instructions.

#### 4. Data In indicator

Blinks while the printer is receiving data from a computer.

Is on if there is data to be printed.

### 5. [On Line] key

Press this key to switch the printer between online and offline.

## 6. [Job Reset] key

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

## 7. [Form Feed] key

If the printer is offline, press this key to print all the data left in the printer's input buffer.

### Note

☐ This does not work if the printer is online.

## 8. [Menu] key

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

For details, See "Making Printer Settings with the Control Panel", *Administrator Reference*.

## 9. [Escape] key

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

#### 10. [# Enter] key

Press this key to execute menu items selected on the panel display.

Press this key to clear some errors.

For details, see p.51 "Troubleshooting".

### 11. [▲] [▼] keys

Use these keys to increase or decrease values on the panel display when making settings.

### **𝚱** Note

☐ It takes a while for the display to change after pressing the key. Press and release the key immediately, make sure that the display changes, and then proceed to the next step.

ď

# 2. Paper and Other Media

# Paper and Other Media Supported by This Printer

# **Paper Sizes**

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

#### Note

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

In this manual	On the panel display	Paper feed direction
☐ ↑ (Feed direction)	A4 (210 × 297) 8 1/2 × 11	Short-edge feed direction

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

#### **❖** Input Paper Sizes (Metric version)

	Feed direction	Size (mm)	Tray 1	Paper Feed Unit (Tray 2)
A4	D	210 × 297	0	0
A5	D	148 × 210	☆	×
Letter (LT, $8^1/_2 \times 11$ inches)	D	216 × 279	0	0
Half Letter (HLT, $5^1/_2 \times 8^1/_2$ inches)	D	140 × 216	☆	×
Exective (Exec., $7^1/_4 \times 10^1/_2$ inches)	D	184 × 276	0	0
Custom Size	-	-	☆	×

• ⊚

Means that the size is supported and the printer selects the paper size automatically.

• ☆

Means that the supported size is approximately 104.8 - 215.9 mm in width, and approximately 210.0 - 297.0 mm in length. The supported size may differ depending on the printer language you use. Use the printer driver to set custom sizes. Set custom sizes with the control panel. See p.26 "Selecting paper size Making Printer Settings with the Control Panel".

• ×

Means that the size is not supported.

#### Input Paper Sizes (Inch version)

	Feed direction	Size (inch)	Tray 1	Paper Feed Unit (Tray 2)
Letter (LT)	D	$8^1/_2 \times 11$	0	0
Half Letter (HLT, $5^{1}/_{2} \times 8^{1}/_{2}$ inches)	D	$5^1/_2 \times 8^1/_2$	☆	×
Exective (Exec.)	D	$7^1/_4 \times 10^1/_2$	0	0
A4	D	8.26 × 5.83	0	0
A5	D	5.83 × 8.26	☆	×
Custom Size	-	-	☆	×

- Means that the size is supported and the printer selects the paper size automatically.
- ★
   Means that the supported size is approximately 4.13 8.50 inches in width, and approximately 8.27 11.69 inches in length. The supported size may differ depending on the printer language you use. Use the printer driver to set custom sizes. Set custom sizes with the control panel. See p.26 "Selecting paper size Making Printer Settings with the Control Panel".
- ×
   Means that the size is not supported.

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

	Supported paper weight	Maximum number of sheets (plain paper) *1
Tray 1	60 - 210 g/m <sup>2</sup> (16 - 55 lb. Bond)	250 (80 g/m², 20 lb. Bond)
PAPER FEED UNIT Type 1000 (Tray 2)	60 - 105 g/m <sup>2</sup> (16 - 28 lb. Bond)	530 (80 g/m², 20 lb. Bond)

 $<sup>^{*1}</sup>$  Confirm 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. The sheets may curl around the fusing unit, causing a malfunction.
- ☐ Set the paper as described below
  - Tray 1: Print side facing up
  - 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.

# Storing Paper

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

# Types of Paper and Other Media

### Plain Paper

Paper thickness	60 - 105 g/m <sup>2</sup>	
Printer setup	Make the following two settings using the control panel:  Press [Paper Input]menu, [Paper Type], and then[Plain Paper].  press [Maintenance] menu, and then [PlainPaper Type] to select the regular paper thickness.	
Printer driver setup	Click [Plain Paper] in the [Paper Type] list.	
Enabled paper feeding tray	Tray 1, 2	
Number of sheets that can be set	<ul> <li>Tray 1: 250</li> <li>Tray 2: 530</li> <li>✓ Note</li> <li>Make sure paper is not stacked higher than the PAPER upper limit mark (▼) inside the tray.</li> </ul>	
Two-sided printing	Possible	
Additional cautions	When printing on 91 - 105 g/m <sup>2</sup> paper, print speed is slightly slower to when printing on paper of $60 - 91$ g/m <sup>2</sup> .	

# **Thick Paper**

Paper thickness	$105 - 210 \text{ g/m}^2$
Printer setup	Make the following two settings using the control panel:
	Press [Paper Input] menu, [Paper Type] and then [Thick Paper].
	Press [Maintenance] menu, and then [ThickPaper Type] to select the regular paper thickness.
Printer driver setup	Click [Thick Paper] in the [Paper Type] list.
Enabled paper feeding tray	Tray 1
Number of sheets that can	40
be set	<b>𝒯</b> Note
	☐ Make sure paper is not stacked higher than the LABEL upper limit mark (▼) inside the tray.
Two-sided printing	Not possible
Additional cautions	Print speed is slightly slower compared to plain paper.

# **Envelopes**

Printer setup	Make the following two settings using the control panel:
	Press [Paper Input] menu, [Paper Type], and then [Thick Paper].
	Press [Maintenance] menu, and then [ThickPaper Type] to select [Thin Envelopes] or [Thick Envelopes].
Printer driver setup	Click [Thick Paper] in the [Paper Type] list.
Enabled paper feeding tray	Tray 1
Number of sheets that can	15
be set	<b>∅</b> Note
	☐ Do not stack envelopes over the limit mark.
Two-sided printing	Not possible
Additional cautions	Check the print side is facing up.
	Check there is no air in the envelopes before loading.
	• For better print quality, we recommend the right, left, top, and bottom print margins to at least 20 mm (0.8") each.
	Load only one size and type of envelope at a time.
	Before loading envelopes, flatten their leading edges (the edge going into the printer) by running a pencil or ruler across them.
	Some kinds of envelope might cause misfeeds, wrinkles or print poorly.
	Print quality on envelopes may be uneven if parts of an envelope have differing thicknesses. Print one or two envelopes to check print quality.

# Adhesive labels

Printer setup	Press [Paper Input] menu, [Paper Type], and then [Labels] on the control panel.
Printer driver setup	Click [Labels] in the [Paper Type] list.
Enabled paper feeding tray	Tray 1
Number of sheets that can be set	80  Note  Make sure paper is not stacked higher than the LABEL upper limit mark (▼) inside the tray.
Two-sided printing	Not possible
Additional cautions	Print speed is slightly slower compared to plain paper.

# **OHP** transparencies

Printer setup	Press [Paper Input] menu, [Paper Type], and then [Transparency] on the control panel.
Printer driver setup	Click [OHP Transparency] in the [Paper Type]list.
Enabled paper feeding tray	Tray 1
Number of sheets that can be set	<ul> <li>Note</li> <li>Make sure paper is not stacked higher than the TRANSPAR-ENCY upper limit mark (▼) inside the tray.</li> </ul>
Two-sided printing	Not possible
Additional cautions	<ul> <li>Print speed for OHP transparencies is slower than for plain paper.</li> <li>Due to switching modes, the machine will be on standby for thirty or forty seconds after the job was received.</li> </ul>

#### Glossy paper

Printer setup	Press [Paper Input] menu, [Paper Type], and then [Glossy] on the control panel.
Printer driver setup	Click [Glossy] in the [Paper Type] list.
Enabled paper feeding tray	Tray 1
Number of sheets that can be set	40  Note  Make sure paper is not stacked higher than the CARDSTOCK upper limit mark (▼) inside the tray.
Two-sided printing	Not possible
Additional cautions	<ul> <li>Print speed for glossy papers is slower than for plain paper.</li> <li>Due to switching modes, the machine will be on standby for thirty or forty seconds after the job was received.</li> </ul>

# Paper not supported by this printer

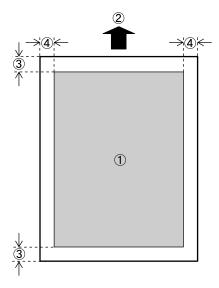
Avoid using the following paper as they are not supported by this printer.

- 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

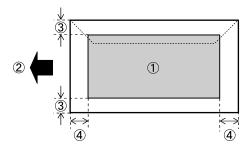


- ① Print area
- ② Feed direction
- ③ Approx. 5 mm (0.20 inch)
- ④ Approx. 4 mm (0.16 inch)

### **𝚱** Note

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

# **❖** Envelope



- ① Print area
- ② Feed direction
- ③ Approx. 4 mm (0.16 inch)
- 4 Approx. 5 mm (0.20 inch)

# **𝒯** Note

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

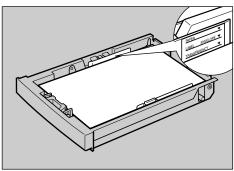
# **Loading Paper**

#### A CAUTION:

When pulling the paper tray out, be careful not to pull it strongly. If you do, the tray might fall and cause an injury.

# **Load Paper into the Paper Tray** on the Printer

- 1 Pull the paper tray out slowly. Place it on a flat surface.
- 2 Load paper into the paper tray with the print side up.

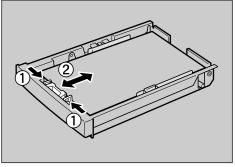


AAL212S

## **#Important**

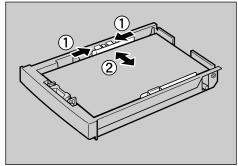
- ☐ Make sure the top of the stack is not higher than the limit mark inside the tray. For details about maximum numbers of pages per paper type, see p.19 "Types of Paper and Other Media".
- ☐ The front guides should be set exactly to the paper size to avoid paper misfeeds.
- ☐ Do not load different kinds of paper in the tray.

Make sure there is no space between the front guide and the paper. If there is a gap, pinch both front guide ends inward (1), and move the front guide till it is flush against the paper (2).



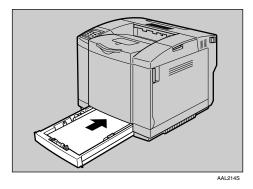
AAL270S

4 Make sure there is no space between the side guides and the paper. If there is a gap, pinch the levers on both ends inward (1), and move the front guide till they are flush against the paper (2).



AAL271S

# Install the paper tray by pushing it in until it clicks into place.



**∰**Important

☐ Be sure to insert the paper tray completely. Otherwise, misfeeds might occur.

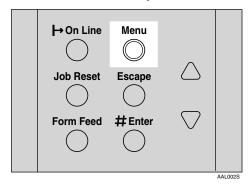
# Selecting paper size Making Printer Settings with the Control Panel

Use the following procedure to specify the paper size from the printer's control panel after loading custom size paper into the standard paper tray.

### **𝚱** Note

- ☐ You can set the custom size paper in the standard tray only.
- ☐ When custom size paper is set, the size set using the control panel is given priority, when [Tray Locking] is set to [On] in [Paper Input] menu. The size set by the printer driver is given priority when set to [Off].

# 1 Press the [Menu] key.



"Menu" appears on the panel display.

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

Menu: Paper Input

The screen for selecting paper settings appears.

Paper Input: Tray 1 Ppr.Size

Press the [# Enter] key.

The following message appears:

Tray 1 Ppr.Size: \*Auto

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

Tray 1 Ppr.Size: Custom Size

The screen for setting a custom size appears.

Custom Size: Horiz. 210.0 mm **5** Press [▲] or [▼] key to specify the length of the side that is horizontal to the feed direction, and then press [# Enter] key.

#### Note

 $\square$  Press  $[ \lor ]$  or  $[ \blacktriangle ]$  key scrolls the value in increments of 0.1 mm. Pressing **(▼)** or **(△)** key scrolls the value in increments of 1 mm.

Custom Size: Horiz. 210.0 mm

The screen for entering the length appears.

**6** Press **(▲)** or **(▼)** key to specify the length of the side that is vertical to the feed direction, and then press [# Enter] key.

### Note

☐ Press (▼) or (▲) key scrolls the value in increments of 0.1 mm. Pressing **(▼)** or **(△)** key scrolls the value in increments of 1 mm.

Custom Size: 297.0 mm Vert.

The screen returns to that of step 4 after a few seconds.

# Press [On Line] key.

"Ready" appears on the panel display.

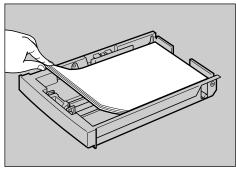
Ready

## **𝚱** Note

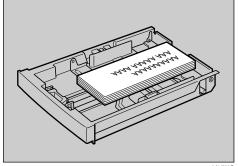
☐ To change from the "Custom Size" setting to automatic paper size detection, press (▲) and (▼) key in step 3 of the above procedure to scroll to "Auto Detect", and then press [# Enter] key.

#### **Loading Envelopes**

- Pull the paper tray out slowly. Place it on a flat surface.
- **2** Remove the paper.

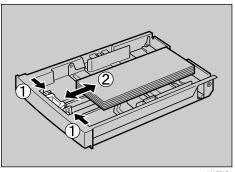


I Load envelopes as shown below.



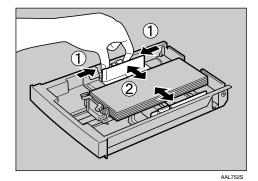
AAI 750S

4 Make sure there is no space between the front guide and the envelope. If there is a gap, pinch both front guide ends inward (1), and move the front guide till it is flush against the envelope (2).

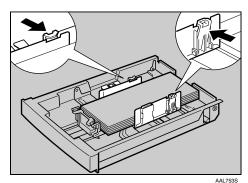


AAL751S

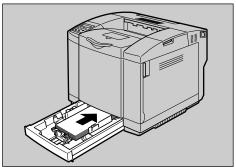
Make sure there is no space between the side guides and the envelope. If there is a gap, pinch the levers on both ends inward (1), and move the front guide till they are flush against the envelope (2).



**6** Push in the side guide clamps to press down the envelopes.



**7** Install the paper tray by pushing it in until it clicks into place.



AAL754S

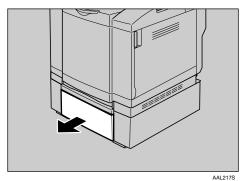
## ∰Important

☐ Be sure to insert the paper tray completely. Otherwise, misfeeds might occur.

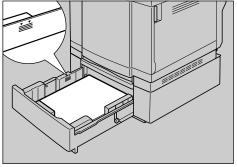
# Loading Paper in the PAPER FEED UNIT Type 1000

#### Note

- ☐ For more information about the size and feed direction of paper that can be loaded in the paper feed unit, see p.17 "Paper and Other Media Supported by This Printer".
- **1** Slide the paper tray out until it stops.



2 Load paper into the tray with the side to be printed facing up.

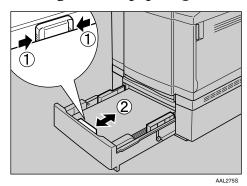


AAL220S

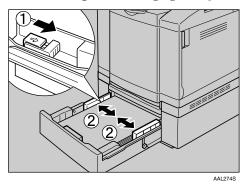
## **∰**Important

- □ Confirm that the top of the stack is not higher than the limit mark (▼) inside the tray.
- ☐ The front and side guides should be set to the correct paper size to avoid paper feed problems.
- ☐ Load only plain paper in the paper feed unit. To print on thick paper, adhesive labels, OHP transparencies or envelopes, use the standard tray.

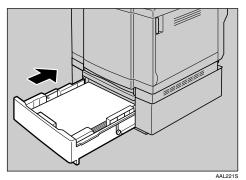
Make sure there is no space between the front guide and the paper. If there is a gap, pinch both front guide ends inward (1), and move the front guide till it is flush against the paper (2).



Make sure there is no space between the side guides and the paper. If there is a gap, pinch the levers on both ends inward (1), and move the front guide till they are flush against the paper (2).



Slide the paper tray into the paper feed unit until it stops.



### **#Important**

- ☐ Be sure to insert the paper tray completely, or paper misfeeds might occur.
- ☐ If the paper size shown on the panel display differs from the size of paper actually loaded, re-adjust the position of the paper guides.

# Specifying a paper type

By selecting the paper type you want to load, the printer can perform printing better.

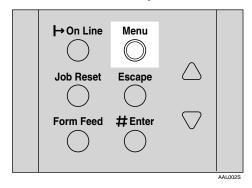
You can select from the following paper types:

### **♦** Standard Tray (Tray 1)

Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Preprinted, Thick Paper, Labels, Cardstock, Transparency, Glossy

PAPER FEED UNIT Type 1000 (Tray 2) Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Preprinted

1 Press the [Menu] key.



"Menu" appears on the panel display.

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

Menu: Paper Input

The screen for selecting paper settings appears.

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

Paper Input: Paper Type

The screen for selecting the paper tray appears.

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

Paper Type: Tray i

The screen for selecting the paper type appears.

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

Tray 1: Recycled Paper

The screen returns to step **2** in a few seconds.

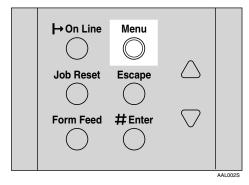
Press the [On Line] key.

"Ready" appears on the panel display.

# **Switching between Paper Trays**

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

1 Press the [Menu] key.



"Menu" appears on the display.

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

Menu: Paper Input

"Paper Input" menu appears on the display.

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

Paper Input: Tray Priority

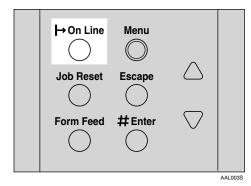
The screen for selecting the paper tray appears.

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

> Tray Priority: \*Tray 2

The screen returns to step **2** in a few seconds.

**5** Press the [On Line] key.



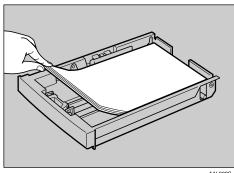
"Ready" appears on the display.



# Changing paper size of the paper tray

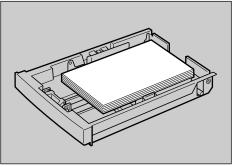
The procedure to change the paper size of a tray is explained using Tray 1 as an example. The procedure for the optional paper feed unit is the same.

- **1** Pull the paper tray out slowly. Place it on a flat surface.
- **2** Remove the paper.



AAL222S

Load paper into the paper tray, with the print side up.

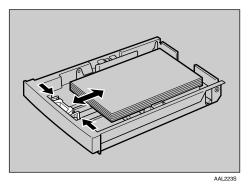


AAL225S

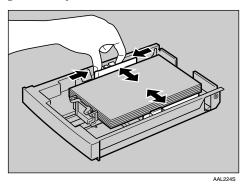
# **∰**Important

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

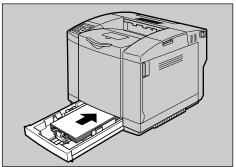
4 Set the paper size by pinching together both ends of the front guide, and then sliding it.



Adjust the side guides to the paper size you want to load.



**6** Install the paper tray by pushing it in until it clicks into place.



A A L 0000

# ∰Important

☐ Close the tray completely to prevent paper jamming.

# 3. Replacing Consumables and Maintenance Kit

### **Replacing Toner Cartridges**

#### **⚠ WARNING:**

- 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 cartridges yourself, dispose of them according to local regulations.

#### **A** CAUTION:

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

### Note

- ☐ When handling toner cartridges, never stand them up on either end or position them upside down.
- ☐ Store toner cartridges in a cool dark place.
- ☐ The actual printable numbers vary depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity. The quality of toner lowers in time. Because of this, the toner cartridge may require replacement earlier than expected. We recommend that you prepare a new toner cartridge beforehand.

Replace the toner cartridge of the indicated color when the following message appears on the panel display.

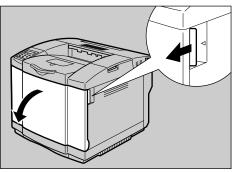
Add Toner XXX/XXX

### Note

- $\Box$  The color is displayed for XXX.
- ☐ If cyan, magenta or yellow toner runs out, you can print in black and white using the black toner. Change the color mode setting to "Black and White" with the printer driver.
- ☐ If black toner runs out, you cannot print in black and white or color until the black toner cartridge is replaced.

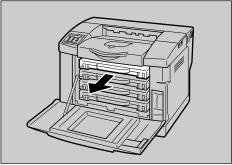
The following explains replacing the black toner. Other toner cartridges can be replaced using the same procedure.

1 Pull the front cover open lever, to open the front cover.



AAL227S

### **2** Remove the toner cartridge for the color you want to replace.



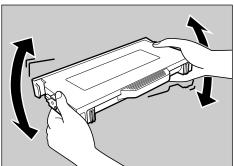
AAL228S

### **#Important**

- Do not shake the removed toner cartridge. The remaining toner may spill.
- ☐ Pull the toner cartridge out slowly and carefully to prevent spilling of toner.

### Note

- ☐ Place the old toner cartridge on paper or some other material to avoid making the area you are working dirty with toner.
- Take out a new toner cartridge from the package.
- 4 Hold the new toner cartridge and shake it well, about 3 to 4 times, as shown in the illustration.



AAL229S

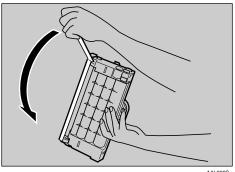
### **∰**Important

☐ Print quality decreases if toner is unevenly distributed inside the cartridge.

E Remove the tape securing the protective cover while holding the toner cartridge as shown.

### **∰**Important

☐ The tape is attached front to back of the toner cartridge. Be sure to remove all of it.



AAL230

### **6** Remove the protective cover.



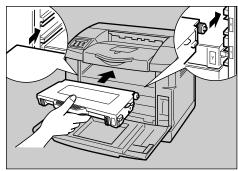
AAL231

### **#Important**

- ☐ Do not touch the development roller, which is exposed after removing the protection cover. Doing so may cause a deterioration in print quality.
- ☐ Once the protective cover is removed, toner can spill from the cartridge easily. Take care to avoid subjecting the toner cartridge to vibration and impact after removing the protective cover.

### **7** Install the toner cartridge (black).

With the seal side surface facing up, align it with position K on the printer, and then slide in the toner cartridge along the guide rails.



AAL232S

### **#Important**

- ☐ Do not use excessive force to slide the cartridge.
- ☐ Do not repeatedly install and remove toner cartridges. Doing so will cause toner leakage.

### **8** Close the front cover.

The "Add Toner XXX" message clears from the panel display and the printer starts warming up.

### Note

- $\Box$  The color is displayed for XXX.
- ☐ Please cooperate with the Toner Cartridge Recycling Program, whereby are collected used toner cartridges. For details, consult with the store where the printer was purchased or with a sales or service representative.

### Replacing Waste Toner Bottle Type 140

#### $\triangle$ WARNING:

- 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.

#### **↑** CAUTION:

- Keep toner (used or unused) and the toner cartridge out of reach of children.
- Do not put an object on the right cover when it is open.

Replace the waste toner bottle when the following message appears on the panel display.

> Check Waste Toner Bottle

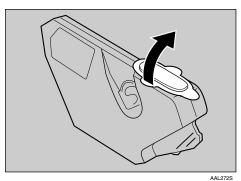
### **∰**Important

- ☐ Waste toner bottles are consumable items and cannot be reused.
- ☐ We recommend that you purchase extra waste toner bottles and keep them on hand for replacement when necessary.

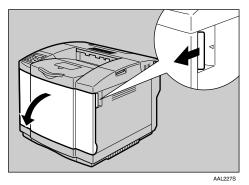
### **𝚱** Note

☐ Before removing the waste toner bottle from the printer, spread paper or some other material around the area you are working to keep the toner from making the floor dirty.

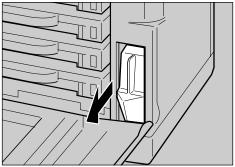
1 Prepare the new waste toner bottle by removing its bottle cap.



2 Pull the front cover open lever, to open the front cover.

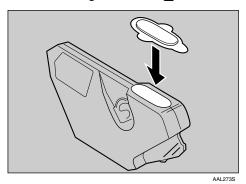


Slowly pull the waste toner bottle out from the waste toner holder.

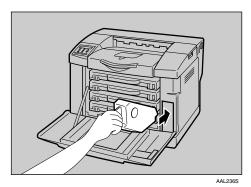


AAL235

## Put the bottle cap removed in procedure on the used waste toner bottle from procedure .



**5** Insert the new waste toner bottle.



**6** Close the front cover.

### Replacing Photo Conductor Unit Type 140

Replace the black or color photo conductor unit when the following message appears on the panel display.

Replace PCU

### #Important

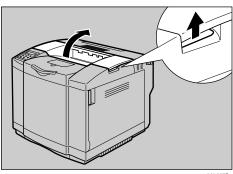
- ☐ Exposing the photo conductor unit to light for too long can reduce its performance. Replace the unit as quickly as possible.
- ☐ Be sure to make the setting from the control panel after replacing the photo conductor unit. Without it, the procedure is incomplete.

### Note

- ☐ Before removing the photo conductor unit from the printer, spread paper or some other material around the area you are working to keep the toner from making the floor dirty.
- $\square$  The "Replace PCU" message is for reference only. This message appears after printer usage reaches a set amount. However, service life varies according to the conditions under which it is used.

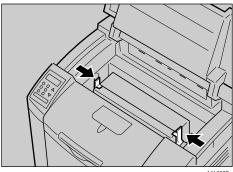
Replacing the photo conductor unit

**1** Lift the top cover open lever, and then open the top cover.

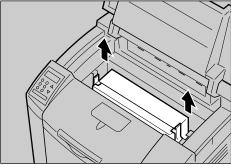


AAL237S

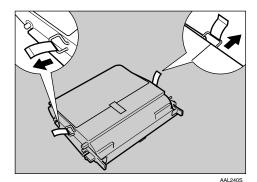
2 Turn the left and right locking levers securing the photo conductor unit inside.



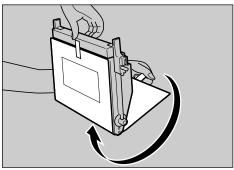
3 Hold the inset grip of the photo conductor unit, pull it straight up, and remove it from the printer.



- 4 Remove the new photo conductor unit from the box.
- 5 Remove the left and right pins from the new photo conductor



**6** Remove the protective sheet while holding onto the new photo conductor unit, as shown.

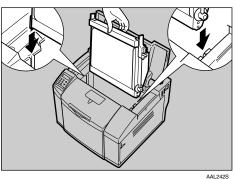


AAL241S

### **#Important**

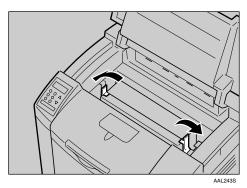
- ☐ Do not touch the green surface of the photo conductor unit with bare hands or gloves. This could damage the photo conductor unit and reduce the print quality.
- ☐ A white powder has been intentionally adhered to the surface of the photo conductor unit. Do not attempt to wipe it off. Removal will prevent normal printing.

7 From the machine's front, insert the photo conductor unit with the green side facing you using the left and right guides.



### **#Important**

- ☐ When inserting the photo conductor unit, be careful not to damage the surface of it.
- 8 Turn the left and right locking levers (green) to the outside to lock the photo conductor unit into position.



**9** Close the top cover.

Press firmly the center of the top cover until it locks into position.

Use the following procedure to, reset the maintenance counter.

### **#Important**

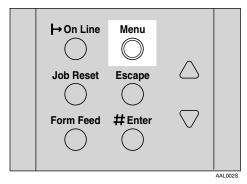
- ☐ After replacing the photo conductor unit, be sure to reset the maintenance counter.
- ☐ If the maintenance counter is not reset, the message will not disappear.

### 

For details about resetting the maintenance counter, see p.40 "Resetting the maintenance counter".

Resetting the maintenance counter

1 Press [Menu] key.



The following message appears on the panel display.

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

Menu: Maintenance

The "Maintenance" menu appears.

Maintenance: Color Calibrate Press [▼] or [▲] key to display "Maint. Reset", and then press [# Enter] key.

Maint. Reset: PCU

4 Check "PCU" is displayed, and then press the [# Enter] key.

The menu for resetting photo conductor unit maintenance appears.

PCU Press # to Start

Press [# Enter] key.

The maintenance counter is reset, and an ending message appears.

Counter is Reset

The display returns to the "Maintenance" menu after about two seconds.

6 Press [On Line] key.

The normal display screen appears.

Ready'

## 4. Cleaning and Adjusting the Printer

### Cautions to Take When Cleaning

#### **⚠ WARNING:**

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

### **A CAUTION:**

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

Clean the printer periodically to maintain fine printing.

Dry wipe the exterior with a soft cloth. If dry wiping is not enough, wipe with a soft, wet cloth that is wrung out well. If you still cannot remove the stain or 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 c	racking,	do not use	e volatile	chemi-
cals, such as benzine and thinner, or	spray	y insectio	cide on the	printer.	

☐ If there is dust or grime inside the printer, wipe with a clean, dry cloth.

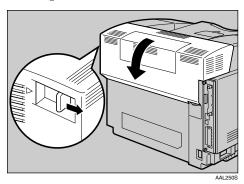
### Cleaning the Registration Roller

### **A CAUTION:**

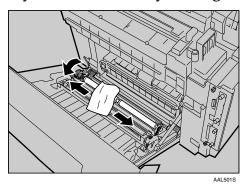
The inside of the machine becomes very hot. Do not touch the parts with a "▲" label (means hot surface). Touching a part with a "▲" label (means hot surface) could result in a burn.

Clean the registration roller when black or white dots caused by bits of paper stuck to the roller become obvious on printed OHP transparencies

Pull the rear cover open lever, and then open the rear cover.



**2** Wipe the registration roller with a dry cloth while slowly turning it.



**3** Close the rear cover.

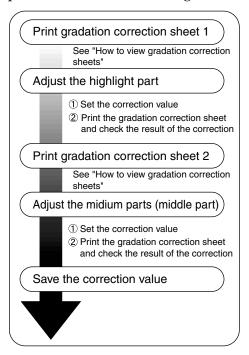
### **Correcting the Color Gradation**

Color gradation during color printing changes slightly, depending on a number of factors. If you print the same file repeatedly or toner was recently replaced, changes may occur in color tones. When this happens, to obtain suitable print results, color gradation can be corrected, although it is not usually necessary to make any particular settings.

### 

- ☐ If suitable results cannot be obtained after a single operation, repeat the correction several times, as needed.
- ☐ Corrections to color gradation will be applied to all user jobs.
- ☐ Use the same paper when printing a run of gradation corrections. If a different type of paper is used, corrections may not be apparent.
- ☐ This requires the use of the supplied Color Calibration Sample Sheet.

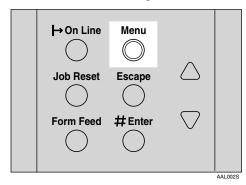
☐ Corrections to color gradation are performed in the following order:



## **Set the Gradation Correction Value**

During printing, you can correct the gradation in two areas: bright part (highlight) and the medium (middle). The correction value for the highlight and the medium parts are set using "Calibr.1" and "Calibr.2" respectively.

1 Press the [Menu] key.



"Menu" appears on the panel display.

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

Menu: Maintenance

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

Maintenance: Color Calibrate

Note

- ☐ If you perform only correction 2, proceed to step **1**.
- 4 Check "Start Calibr. 1" is displayed, and then press the [# Enter] key.

Color Calibrate Start Calibr. 1 Check "Yes" is displayed, and press [# Enter] key to print gradation correction sheet 1.

Print Sheet 1?: Yes

6 Set the gradation correction value of the highlighted part using correction 1.

- □ Set the correction value using the supplied Color Calibration Sample Sheet and gradation correction sheet 1 printed in step ⑤. For details about gradation correction sheets, see p.46 "Viewing the Color Calibration Sample Sheet and Gradation Correction Sheet".
- Set the K (black) gradation.

Hold the correction value (0-6) for "K" of the correction value setting sheet over the color sample (K) for gradation correction of the Color Calibration Sample Sheet and set the numerical value of a closer color using the [ ] or [ ] key.

Calibrate 1: K:3 M:3 C/Y:3/3

- Note
- ☐ In this example a setting value of 3 is used for K, M, C, and Y.
- ☐ Each time the [♠] or [▼] key is pressed, the value increases or decreases respectively, in increments of 1.
- ☐ The correction value can be set between 0 and 6.

2 Press [# Enter] key.

Calibrate 1: K:2 M:3 C/Y:3/3

- Ø Note
- $\square$  In this example, the setting value of K is changed to 2.

You can now enter the value of M.

- 3 Set M (magenta), C (cyan), and Y (yellow) using the same method as in steps 1 and 2.
- 4 After completing all settings, and then press the [# Enter] key.

Calibrate 1: K:2 M:2 C/Y:2/3

- **𝚱** Note
- ☐ In this example, the value of M is changed to 2 and the setting value of C to 2.
- 6 Check "Yes" is displayed, and press the [# Enter] key to print the correction result.

Print Result?: Yes

6 Check gradation correction sheet
1. To save the correction values, check "Save and exit" is displayed and press the [# Enter] key. If you do not want to save the correction values after this procedure, press the [♠] or [▼] key to display "Exit don't save", and then press the [# Enter] key.

### **𝚱** Note

☐ If you complete this procedure without saving the correction values, the changes will not be applied to subsequent print jobs.

Calibrate 1: Save and exit

Calibrate 1: Exit don't save

Proceed to correction 2.

If you do not need to perform correction 2, proceed to step **(1)**.

Press the [▼] key to display "Start Calibr. 2", and then press the [#Enter] key.

Color Calibrate: Start Calibr. 2

Check "Yes" is displayed, and then press the [# Enter] key to print gradation correction sheet 2.

Print Sheet 27: Yes

- Perform the same operations as in step 6 and set the gradation correction value of the middle part using correction 2.
- After completing all settings, press the [Online] key.

"Ready" appears on the panel display.

Ready

The color gradation correction value setting sheet contains two color sample columns "Sample 1" column for setting the highlight part, and "Sample 2" column for setting the medium part.

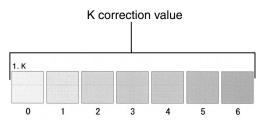
Similarly, the gradation correction sheet contains: "Gradation correction sheet 1" for setting the highlight part and "Gradation correction sheet 2" for setting the medium part. Gradation correction sheet 1 is used for correction 1, while Gradation correction sheet 2 is used for correction 2.

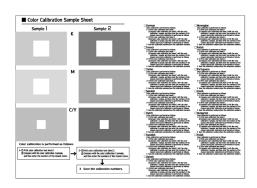
### Color sample and correction values

The following explains how to view the color sample of the Color Calibration Sample Sheet and the correction values of the gradation correction sheet. This explanation uses setting K (black) as an example. The setting method for M (magenta) is similar. For C/Y (cyan/yellow), the correction value is determined based on combinations of these two colors, although panel settings are made for each color.

### **𝚱** Note

□ Hold the correction value (0-6) for "K" of the correction value setting sheet over the color sample of gradation correction 1 of the Color Calibration Sample Sheet and search for a corrected color closest to that of the color sample, and then set its correction value using the operation panel. The currently set correction value is printed in red.





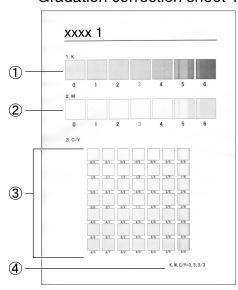
4

### Relationship between gradation correction sheet and panel display

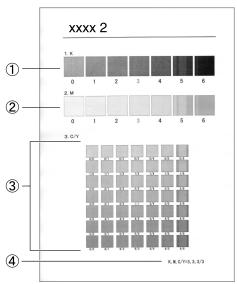
The printed gradation correction sheet and panel display correspond as shown in the following diagram:

Comparing at the gradation correction sheet and correction value of each color, K (black), M (magenta), and C (cyan)/Y (yellow), determine the gradation correction and make settings using the control panel.

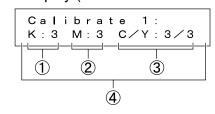
#### Gradation correction sheet 1

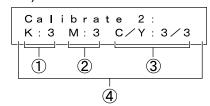


#### Gradation correction sheet 2



### Panel display (correction value setting screen)





### **𝚱** Note

☐ XXXX means printer model name.

#### ① K (black)

Adjust the printed color when only black toner is used. The currently set correction value is printed in red.

### ② M (magenta)

Adjust the printed color when only magenta toner is used. The currently set correction value is printed in red.

### ③ C (cyan)/Y (yellow)

Correct the color printed when cyan and yellow are used. For C/Y (cyan/yellow), the correction value is determined based on a combination of these two colors, although settings are made for separately each color.

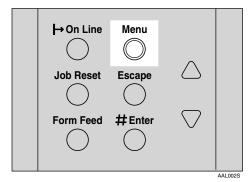
### 4 K, M, C/Y

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

## Resetting the gradation correction value to the initial value

Reset the correction value default.

1 Press the [Menu] key.



"Menu" appears on the panel display.

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

Menu: Maintenance

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

Maintenance: Color Calibrate Press the [▲] or [▼] key to display "Reset", and then press the [# Enter] key.

Color Calibrate: Reset

A confirmation message is displayed.

Press # to reset Calibration

5 Press [# Enter] key.

A message indicating the gradation correction value has returned to default, is displayed.

Calibration was reset

After about 2 seconds, the display returns to the "Color Calibrate: Reset" menu.

6 Press (Online) key.

"Ready" appears on the panel display.

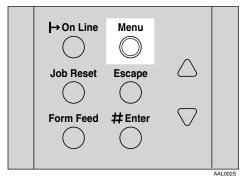
Ready

### **Adjusting the Tray Registration**

The printing position needs adjustment when the optional paper feed unit or duplex unit is attached.

Normally, adjustment is not required. Adjust only when the printing area has shifted out of alignment.

1 Press the [Menu] key.



"Menu" appears on the panel display.

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

Menu: Maintenance

Press the [ ] or [ ] key to display "Registration", and then press the [# Enter] key.

Maintenance: Resistration

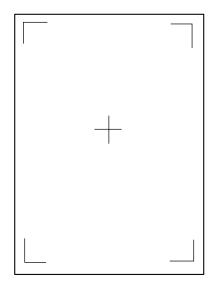
Confirm that "Prt. Test Sheet" is displayed, and then press the [# Enter] key.

Resistration Prt. Test Sheet Confirm that "Tray 2" is displayed, and then press the [# Enter] key.

Prt. Test Sheet Tray 2

The test sheet prints out.

6 Check the test sheet and adjust to make the blank portions of the printout equal.



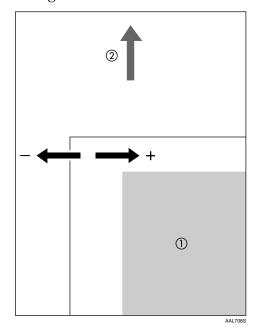
- Press the [Escape] key.
- ② Press the [▲] or [▼] key to display "Adjustment", and then press the [# Enter] key.

Re≊istration: Adjustment

③ Press the [▲] or [▼] key to display the parameter to be adjusted, and then press the [# Enter] key.

Adjustment Horiz.:Dup.Back **4** Press the **[**▲**]** or **[**▼**]** key to set the registration value (mm).

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



- ① : Print Area
- ②: Feed Direction
- **𝚱** Note
- ☐ Pressing the 【▲】 or 【▼】 key makes the value increase or decrease by 0.5 mm steps.
- 6 Press the [# Enter] key.

The display returns to the print area "Adjustment" menu.

Registration: Adjustment Press the [▲] or [▼] key to display "Prt. Test Sheet", and then press the [# Enter] key.

The test sheet prints out.

- Print the test sheet to check the settings you have made.
- Press the [On Line] key.

"Ready" appears on the panel display.

Ready

### 5. Troubleshooting

## Error & Status Messages on the Control Panel

### **❖** Status Messages

Messages/Second messages	Status
Calibrating	The printer is calibrating the color. Wait until "Ready" appears on the panel display.
Energy Save Mode	The printer is in Energy Saver (low-power) mode. No action is required.
Hex Dump Mode	The printer receives data in hexadecimal numbers in Hex Dump mode. Turn off the printer after printing, and then turn it back on.
Offline	The printer is offline. Make the printer online by pressing the <b>[On Line]</b> key to start printing.
Processing	The printer is processing the print job. Wait for a while.
Ready	The default ready message. The printer is ready for use. No action is required.
Resetting Job	The printer is resetting the print job. Wait until "Ready" appears on the panel display.
Setting change	During offline applications, setting change is currently in process.
in process	
Waiting	The printer is waiting for the next data to print. Wait for a while.
Warming Up	The printer is warming up and not ready. Wait until "Ready" appears on the panel display.

### **❖** Alert Messages

Messages/Second messages	Description	Solution
Add Toner: XXX	The printer is out of the indicated toner(s).  XXX: Yellow/Magenta/Cyan/Black	Replace with a new toner cartridge of the indicated color(s). Even when yellow, magenta or cyan toner runs out, you can print in black and white using the black toner.  See p.33 "Replacing Toner Cartridges".
Call Service: EC Power Off On	A communication error sent from the engine to the controller.	Turn the power switch off and on. If the message appears again, contact your sales or service representative.
Cannot Execute	In Sample Print or Locked Print, Printing/deletion cannot be performed from the Web.	
Check Toner Crtg XXX/XXX	The indicated toner cartridges are not set correctly or may be of a different type. (The colors of the toner appear on the second line of the first/second messages, up to two colors per line.)  XXX: Yellow/Magenta/Cyan/Black	Set the indicated toner cartridges correctly, or set the correct toner cartridge type.
Check Waste Toner Bottle	The waste toner bottle is full.	Replace the waste toner bottle. See p.36 "Replacing Waste Toner Bottle Type 140"
Close Duplex Unit Cover	The cover of the duplex unit is open.	Close the cover of the duplex unit.
Close Front Cover	The front cover of the printer is open.	Close the front cover of the printer.
Close Rear Cover	The rear cover has been left open.	Close the rear cover.
Close Upper Cover	The upper cover has been left open.	Close the upper cover.
DHCP assigned Cannot change	The following addresses have already been assigned by DH- CP: IP Address, Gateway Ad- dress, Subnet Mask.	Disable the default DHCP setting in Network in order to enter the addresses manually.

Messages/Second messages	Description	Solution
Error: Tray # Form Feed /Reset The Job Then Power OffOn	There is a problem with the indicated tray. #: tray number	Press the <b>[Form Feed]</b> key to select another tray and make a print, or turn the power switch off and on. If the message appears again, contact your sales or service representative.
File already deleted	In Sample Print or Locked Print, the user attempts to de- lete a file that has already been deleted.	
Hardware Problem Ethernet	The printer detected an Ethernet error.	Turn the power switch off and on. If the message appears again, contact your sales or service representative.
Hardware Problem HDD	The printer detected a HDD Board error.	Remove and reinstall the hard disk drive correctly. If the message appears again, contact your sales or service representative.  See Option Setup Guide.
Hardware Problem Option RAM	There is a problem with the optional memory unit.	Remove and reinstall the optional memory unit. If the message appears again, contact your sales or service representative.  See Option Setup Guide.
Hardware Problem Parallel I/F	There is a problem with the parallel interface.	Switch the power off and then back on again. If you are using a parallel interface, replace the faulty interface cable. If the message appears again, contact your sales or service representative.
Hardware Problem USB	There is a problem related to the Universal Serial Bus Connection and Hardware.	Remove and reinstall the USB board. If the message appears again, contact your sales or service representative.
Hardware Problem Wireless Board	An error has occurred in the optional 802.11b interface unit or Bluetooth <sup>TM</sup> interface unit.	Remove and reinstall the IEEE 802.11b interface unit or Bluetooth <sup>TM</sup> interface unit.  If the message appears again, contact your sales or service representative.

Messages/Second messages	Description	Solution
Hardware Problem Wireless Card	An error has occurred in the optional 802.11b card or Bluetooth <sup>TM</sup> card.	Remove and reinstall the IEEE 802.11b card or Bluetooth <sup>TM</sup> card.
		If the message appears again, contact your sales or service representative.
Invalid Password Try Again	The entered password is not correct.	Enter the correct password.
Invalid Password File Protected	An incorrect password has been entered more that 10 times, the file is now protected until an administrator can unlock it.	The file is now protected until an administrator can unlock it.
Load Paper /Paper Size: Paper Type	The paper size set in the indicated tray differs from the setting made.	Load paper of the selected size in the tray, and then change the paper size setting with the control panel.
		Or press the <b>[Form Feed]</b> key several times until the tray with the desired paper type and paper size appears on the panel display.
		Or press the <b>[Job Reset]</b> key to cancel the print job.
		Load paper of the selected type in the tray, and then change the paper size setting with the control panel.
		Or press the <b>[Form Feed]</b> key several times until the tray with the desired paper type and paper size appears on the panel display.
		Or press the [Job Reset] key to cancel the print job.
Load Correct Size Paper /Press # To Continue	The printer detected the actual paper size is not the same as the dial setting. This error message appears at the second page of a job.	Load the correct paper, and then press [# Enter] key to resume printing. To ignore the error message and continue printing, press [# Enter] key.
Menu Protected Cannot Change	The control panel has been digitally locked, settings cannot be changed.	The printer displays this alert message for 2 seconds before returning to the previous panel display screen.
No Files Exist	There are no files available for Sample Print job or Locked Print job.	You can check the error files in the error log.

Messages/Second messages	Description	Solution
No Log Exists	The user has selected to print the error log in the List/Test Print Menu, however no er- rors have been detected and so a log has not been created.	
P=XX I=XXXXXXX Power Off On If Error Reoccur Call Service	A controller error. The SC number indicates the problem.	Turn the printer Off and then back On to restart. If the error continues, call your service provider.
Please Wait	WEP settings are being changed and updated in this status message. The printer device keys are unoperational during this period.	
	The user is urged to wait while emulation is switching.	
RC Gate connection error	Cannot communicate with RC Gate.	Check the device or the RC Gate network connection.
Remove Misfeed Duplex Unit	There is a misfeed in the fusing unit.	Remove the misfed paper. For more information, see p.74 "When "Remove Misfeed Duplex Unit" Appears".
Remove Misfeed Internal Path	There is a misfeed in the printer.	Remove the misfed paper. For more information, see p.71 "When "Remove Misfeed Internal Path" Appears".
Remove Misfeed Paper Tray	There is a misfeed in the input tray, or the printer is not feeding paper.	Remove the misfed paper. For more information, see p.72 "When "Remove Misfeed Paper Tray" Appears".
Replace Fusing Unit	It is time to replace the fusing unit.	Replace the fusing unit. Although printing is still possible when this message appears, replace the fusing unit as soon as possible to ensure print quality. Contact your sales or service representative.
Replace Fusing Unit soon	The time to replace the fusing unit is soon.	Prepare the new fusing unit. Contact your sales or service representative.

Messages/Second messages	Description	Solution
Replace PCU	It is time to replace the PCU (Photo Conductor Unit).	Prepare the new PCU. Although printing is possible even if this message is displayed, in order to secure a stable quality, replace as soon as possible.  See p.38 "Replacing Photo
		Conductor Unit Type 140".
Replace PCU soon	The time to replace the photo conductor unit is soon.	Prepare the new PCU.
Reset Charge Roller Correctly	The charge roller is not set or is not set correctly.	Contact your sales or service representative.
Reset Fusing Unit Correctly	The fusing unit is not set correctly or is not set.	Contact your sales or service representative.
Reset PCU Correctly	The PCU is not set correctly or is not set.	Check the PCU.
Reset Transfer Unit Correctly	The transfer unit is not set correctly or is not set.	Contact your sales or service representative.
Reset Tray # or Form Feed	The indicated paper input tray is not set correctly.	Reset the tray or press [Form Feed] key to print out.
SC XXX-X Power Off On If Error Reoccur Call Service	The Service Code or SC number indicates the problem.	Turn the power switch off and on. If the message appears again, contact your sales or service representative.
SD authenticatn. failed	Authentication for the SD card has failed.	Turn the power switch off and then back on again. If the mes- sage appears again, contact your sales or service repre- sentative.
Setting error Reset the job	A setting error has occurred.	Contact your sales or service representative.
Supply order failed	Supply order has failed.	The use is required to reset the job.
Toner is Almost Empty: Black	The black toner is almost empty.	Prepare a new black toner cartridge.  For details about the number of pages that can be printed after the message appears, see p.75 "Toner cartridge".

Messages/Second messages	Description	Solution
Toner is Almost Empty: Cyan	The cyan toner is almost empty.	Prepare a new cyan toner cartridge.
		For details about the number of pages that can be printed after the message appears, see p.75 "Toner cartridge".
Toner is Almost Empty: Magenta	The magenta toner is almost empty.	Prepare a new magenta toner cartridge.
		For details about the number of pages that can be printed after the message appears, see p.75 "Toner cartridge".
Toner is Almost Empty: Yellow	The yellow toner is almost empty.	Prepare a new yellow toner cartridge.
1 3		For details about the number of pages that can be printed after the message appears, see p.75 "Toner cartridge".
Waste Toner is Almost Full	The waste toner is almost full.	Prepare a new waste toner.

### **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>On Line</b> indicator stay on?	If not, press [On Line] key to light it.
Does the <b>Alert</b> indicator stay red?	If so, check the error message on the panel display and take the required action.
Is paper loaded?	Load paper into Tray 1. See p.25 "Loading Paper".
Can you print a configuration page?	If you cannot print a configuration page, it probably indicates a printer malfunction. Contact your sales or service representative. See "Printing a Configuration Page", <i>Administrator Reference</i> .
Is the interface cable connected securely to the printer and the computer?	Connect the interface cable securely. If it has a fastener, fasten it securely as well.
Are you using the correct interface cable?	The type of interface cable you should use depends on the computer you use. Be sure to use the correct one.  If the cable is damaged or worn, replace it with a new one.
	See "Specifications", Administrator Reference.
Is the <b>Data In</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</li> <li>Check the port connection setting is correct. For details about checking the port connection, see p.60 "Checking the port connection".</li> </ul>
	Network Connection
	Contact your network administrator.
How is the signal strength when using the wireless LAN?	❖ Ad hoc Mode or 802.11 Ad hoc Mode Either move to a location where the signal is good, or remove obstructions.
	❖ Infrastructure Mode  Check the signal status from the "Maintenance" menu on the control panel. If the signal is poor, either move to a location where it is good, or remove obstructions.
How is the signal strength when using Bluetooth <sup>TM</sup> ?	<ul> <li>Try the following:</li> <li>Check the Bluetooth™ interface unit is installed properly.</li> <li>Check there are no obstructions between computer, printer and other devices.</li> <li>Change the location of the computer.</li> <li>Change the location of the printer.</li> </ul>

Possible Cause	Solutions
When you use the optional	♦ SPP
Bluetooth™ interface unit.	<ol> <li>Make sure the machine you want to use appears in the 3Com Bluetooth Connection Manager.</li> <li>Make sure "Bluetooth Serial Client (COMx)" appears under Client Ports in the 3Com Bluetooth Connection Manager.</li> <li>Restart computer, this printer, and the other devices.</li> <li>Make sure no IEEE 802.11b (wireless LAN) or other Bluetooth<sup>TM</sup> devices are in use.</li> </ol>
	<ul> <li>✔ Note</li> <li>☐ Interference may occur with the IEEE 802.11b wireless LAN interface board. Such interference may affect the transmission speed and other functions.</li> </ul>
	⑤ Transmissions between computers, other devices, and this printer can be blocked by obstructions. Move this printer, computers, and other devices, if necessary.
	♦ HCRP, BIP
	<ol> <li>Restart the computer, this printer, and other devices.</li> <li>Make sure no IEEE 802.11b (wireless LAN) or other Bluetooth™ devices are in use.</li> </ol>
	<ul> <li>✔ Note</li> <li>□ Interference may occur with the IEEE 802.11b wireless LAN interface board. Such interference may affect the transmission speed and other functions.</li> <li>③ Transmissions between computers, other devices, and this printer can be blocked by obstructions. Move this printer, computers, other devices, if necessary.</li> </ul>

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

### Checking the port connection

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

- For a parallel port connection, port LPT 1 or LPT 2 should be set.
- For a USB port connection, port USB00 (n) \*1 should be set.
- (n) is the number of printers connected.

#### Windows 95/98/Me

- 1 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].
- 3 Click the [Details] tab.
- 4 Check the [Print to the following port] box to confirm that the correct port is selected.

#### Windows 2000

- 1 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].
- Click the [Port] tab.
- 4 Check the [Print to the following port] box to confirm that the correct port is selected.

### Windows XP Professional, Windows Server 2003

- 1 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].
- Click the [Port] tab.
- 4 Check the [Print to the following port(s).] box to confirm that the correct port is selected.

### Windows XP Home Edition

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

### Windows NT 4.0

- 1 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].
- Click the [Port] tab.
- 4 Check the [Print to the following port] box to confirm that the correct port is selected.

### **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, although you are using thick paper, the setting for thick paper may not be set.</li> <li>Check the paper settings.     See p.19 "Types of Paper and Other Media".</li> <li>Check the printer driver's paper settings.     See the printer driver's Help.</li> </ul>
	When "Replace PCU" appears on the panel display, replace the photo conductor unit.  See p.38 "Replacing Photo Conductor Unit Type 140".
	Confirm that the paper is not curled or bent. Envelopes can be curled easily. Flatten paper before loading.  See p.17 "Paper and Other Media".
Paper jams occur frequently.	Number of paper set in the tray exceeds the limit. Confirm that the top of the stack is not higher than the limit mark inside the tray.  See p.25 "Loading Paper".
	There may be a gap between the front guide and the paper, or between the side guides and the paper in the paper tray. Make sure there are no gaps.  See p.25 "Loading Paper".
	Paper is either too thick or too thin. See p.17 "Paper and Other Media".
	Paper is bent or wrinkled. Use paper that have no bents or wrinkles.  See p.17 "Paper and Other Media".
	Paper has already been printed on. See p.17 "Paper and Other Media".
	Paper is damp. Use paper that has been stored properly. See p.17 "Paper and Other Media".
	When loading paper, separate paper from each other.
Paper jams occur repeatedly when using the duplex unit.	The two green screws inside the duplex unit may be loose. Open the duplex unit's back cover and tighten them.

Status	Possible Causes, Descriptions, and Solutions
Multiple pages are fed at once.	There may be a gap between the front guide and the paper, or between the side guides and the paper in the paper tray. Make sure there are no gaps.
	See p.25 "Loading Paper".
	Paper is either too thick or too thin.
	See p.17 "Paper and Other Media".
	Paper has already been printed on.
	See p.17 "Paper and Other Media".
	Number of paper set in the tray exceeds the limit. Confirm that the top of the stack is not higher than the limit mark inside the tray.
	See p.17 "Paper and Other Media".
	Paper is static. Use paper that has been stored properly. See p.17 "Paper and Other Media".
	When loading paper, separate paper from each other.
Paper gets wrinkles.	Paper is damp. Use paper that has been stored properly.
	See p.17 "Paper and Other Media".
	Paper is too thin.
	See p.17 "Paper and Other Media".
	There may be a gap between the front guide and the paper, or between the side guides and the paper in the paper tray. Make sure there are no gaps.
	See p.25 "Loading Paper".
	The fusing unit is deteriorated or damaged. Replace the unit. Contact your sales or service representative.
Paper is not fed from the selected tray.	When you are using a Windows operating system, the printer driver settings override those set using the control panel. Set the desired input tray using the printer driver.  See the printer driver's Help.
A printed image is different from the image on the compu-	When you use some functions, such as enlargement and reduction, the layout of the image might be different from that
ter's display.	displayed in the computer display.
	You might have selected to replace True Type fonts with printer fonts in the printing process.
	To print an image similar to the image on the computer, make the settings to print out True Type fonts as an image.
	See the printer driver's Help.

Status	Possible Causes, Descriptions, and Solutions
It takes too much time to resume printing.	The data is so large or complex that it takes time to process it. If the <b>Data In</b> indicator is blinking, the data is being processed. Just wait until it resumes.
	If OHP transparencies or glossy paper is being used, printing takes more time to start.
	The printer was in the Energy Saver mode. To resume from the Energy Saver mode, the printer has to warm up, and this takes time until printing starts. To disable the Energy Saver mode, select [Off] for [Energy Saver 1] in the System menu.
It takes too much time to complete the print job.	Photographs and other data intensive pages take a long time for the printer to process, so simply wait when printing such data.
	Changing the settings with printer driver may help to speed up printing.
	See the printer driver's Help.
	The data is so large or complex that it takes time to process it. If the <b>Data In</b> indicator is blinking, the data is being processed. Just wait until it resumes.
	If "Warming Up" appears on the panel display, the printer is now warming up. Wait for a while.
Images are cut off, or excess pages are printed.	If you are using paper smaller than the paper size selected in the application, use the same size paper as that selected in the application. If you cannot load paper of the correct size, use the reduction function to reduce the image, and then print. See the printer driver's Help.
The color of the printout is dif- ferent from the color on the computer's display.	The colors made using color toner are different from colors displayed on the display in its production system.  See "Appendix", Client Reference.
	When [Toner Saving] is checked under the [Print Quality] tab in the printer driver's dialog box, the color gradation may appear differently.  See the printer driver's Help.
The color of the printout is different 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's Help.
Photo images are coarse.	Some applications lower the resolution for making prints.
Color documents are printed in black and white.	The printer driver is not set up for color printing. See the printer driver's Help.
	Some applications print color files in black and white.

Status	Possible Causes, Descriptions, and Solutions
Fine dot pattern does not print.	Change the [Dithering:] setting in the printer driver's dialog box.
	See the printer driver's Help.
Solid areas, lines or text are shiny or glossy when created as a mixture of cyan, magenta, yellow.	Select [K (Black)] for [Gray reproduction (Text/Line Art):] in the printer driver's dialog box.
	See the printer driver's Help.
Black gradation is not natural.	Select [CMY + K] for [Gray reproduction (Text/Line Art):] in the printer driver's dialog box.
	See the printer driver's 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's Help.
A color is missing or partially	Paper is damp. Use paper that has been stored properly.
blurred.	See p.17 "Paper and Other Media".
	Toner is almost depleted. When the "Add Toner XXX" or "Toner is Almost Empty: XXX" message appears on the display panel, replace the toner cartridge of the displayed color.
	See p.33 "Replacing Toner Cartridges".
	When "Replace PCU" appears on the panel display, replace the photo conductor unit.
	See p.38 "Replacing Photo Conductor Unit Type 140".
	Condensation may have collected. If rapid change in temperature or humidity occurs, use this printer only after it has acclimatized.

Status	Possible Causes, Descriptions, and Solutions
The whole printout is blurred.	Paper is damp. Use paper that has been stored properly. See p.17 "Paper and Other Media".
	If you select <b>[Toner saving]</b> on the <b>[Print Quality]</b> tab in the printer properties dialog box, printing is generally less dense. See the printer driver's Help.
	Toner is almost depleted. When the "Add Toner XXX" or "Toner is Almost Empty: XXX" message appears on the display panel, replace the toner cartridge of the displayed color.
	See p.33 "Replacing Toner Cartridges".
	When "Replace PCU" appears on the panel display, replace the photo conductor unit.
	See p.38 "Replacing Photo Conductor Unit Type 140".
	Condensation may have collected. If rapid change in temperature or humidity occurs, use this printer only after it has acclimatized.
White streaks or color streaks	Toner is almost depleted. When the "Add Toner XXX" or
appear.	"Toner is Almost Empty: XXX" message appears on the display panel, replace the toner cartridge of the displayed color.
	See p.33 "Replacing Toner Cartridges".
A	When "Replace PCU" appears on the panel display, replace the photo conductor unit.
	See p.38 "Replacing Photo Conductor Unit Type 140".
White or color rivers appear.	When "Replace PCU" appears on the panel display, replace the photo conductor unit.
	See p.38 "Replacing Photo Conductor Unit Type 140".

Status	Possible Causes, Descriptions, and Solutions
The backs of printed sheets are blemished.	When removing a jammed sheet, the inside of the printer may have become dirtied. Print several sheets until they come out clean.
	If document size is larger than paper size, e.g. A4 document on B5 paper, the back of the next printed sheet may be dirtied.
If rubbed with your finger, it smears out.	The setting of the paper may not be correct. For example, although thick paper is used, the setting for thick paper may not be set.
<b>企</b>	• Check the paper settings of this machine. See p.19 "Types of Paper and Other Media".
A	Check the paper settings of the printer driver.  See the printer driver's Help.
	The fusing unit is deteriorated or damaged. Replace the unit. Contact your sales or service representative.
When printing on OHP transparencies, a color is missing or black or white dots are obvious.	The registration roller is dirty. Clean the registration roller. See p.42 "Cleaning the Registration Roller".
When printing, dots are obvious.	The registration roller is dirty. Clean the registration roller. See p.42 "Cleaning the Registration Roller".

Status	Possible Causes, Descriptions, and Solutions
PDF Direct Print is not executed (PDF file is not printed).	You must install an optional hard disk drive or set the value of the <b>[RAM Disk]</b> in the System Menu to 2 MB or higher.
	See "Attaching the Hard Disk Drive Type 2600", Option Setup Guide for optional hard disk drive installation.
	For <b>[RAM Disk]</b> , see the "System" Menu, <i>Administrator Reference</i> .
	After adding a memory unit and set the value of the [RAM Disk] in the System Menu to 16 MB, value of the [RAM Disk] returns to 0 MB if the memory unit is removed. If this happens, reset the value of the [RAM Disk] to 2 MB or higher.
	₽ Reference
	For <b>[RAM Disk]</b> , see the "System" Menu, <i>Administrator Reference</i> .
	When printing a PDF with a password set, set the password of the PDF file using the [PDF: Change PW] menu in [PDF Menu] or Web Image Monitor.
	₽ Reference
	For [PDF: Change PW], see the "PDF" Menu, Administrator Reference.
	For Web Image Monitor, see Help.
	PDF files not allowed to be printed by the PDF file security setting cannot be printed.
As a result of printing using PDF Direct Printing, characters are missing or misshapen.	Before printing, embed the font in the PDF file to be printed.
The paper size appears on the control panel and printing is not performed with PDF Direct Print.	When using PDF Direct Print, printout requires paper set within the PDF file. When a message indicating a paper size appears, either place the indicated size in the paper tray, or perform Form Feed.
	Also, if <b>[Sub Paper Size]</b> in the System Menu is set to <b>[Auto]</b> , printing is performed assuming letter size and A4 size to be the same size. For example, When a PDF file set to A4 size paper is printed using PDF Direct Print and letter size paper is installed in the paper tray, the file will print out. This applies similarly to the opposite case.

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

# **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 of service representative.
No e-mail is received when an Alert occurs, and after resolving an Alert.	Confirm [Notify by Email] is [On] using the System Menu on the Control Panel. See "System" Menu, <i>Administrator Reference</i> .
	Access the printer through the Web Browser, log on as an Administrator on the Web Image Monitor, and then confirm the following settings in [Notification]:
	Device E-mail Address
	Groups to Notify
	Select Groups/Items to Notify
	For details about the settings, see Web Image Monitor Help.
	Access the printer through the Web Browser, log on as an Administrator on the Web Image Monitor, and then confirm the settings of the SMTP server in <b>[E-mail]</b> .
	Reference For details about the settings, see Web Image Monitor Help.
	When the power is turned off before the e-mail is transmitted, the e-mail will not be received.
	Check the e-mail address set for the destination. Confirm the printer's operation history using the Web Image Monitor's System Log menu in [Network]. If the e-mail was sent but not received, it is possible the destination was incorrect. Also check the information concerning error mail from the e-mail server.
The setting for [Notify by Email] on the System Menu was changed from [Off] to [On], but email is not arriving.	After changing the setting, turn the main unit's power off and then back on again.
Error notification e-mail was received, but no error-solved e-mail is received.	Check e-mail is set for sending using the Web Image Monitor's [Notification] at the time the error was fixed. You must click the [Edit] button of [Detailed Settings of Each Item] in [Notification], and set [Notify when error:] to [Occurs & Fixed] on the displayed screen.
	Reference
	For details about the settings, see Web Image Monitor Help.

Problems	Solutions
Alert Resolving is set for sending e-mail, but no Alert-resolved e-mail is sent.	If the power of the main unit is turned off after an Alert occurs, the Alert is resolved during the time the power is off: no Alert-resolved e-mail is sent.
Alert Occurrence and Alert Resolving are set for sending email, but while no Alert Occurrence mail is received, Alert-resolved e-mail is received.	Alert-notification e-mail is not sent if the problem is resolved before sending. However, an Alert-resolved e-mail is sent.
Alert-notification level was changed, and e-mail stopped arriving.	If an Alert-notification e-mail, set with the earlier notification level, arrives, later e-mail will not be sent, even if the notification level is changed after.
When no date information is included in sent e-mail, the mail server has a malfunction.	Make the setting for obtaining time information from the SNTP server. Refer to the Web Image Monitor's Help to the settings.
Printing using Bluetooth™ is slow.	<ul> <li>When using the optional Bluetooth™ interface unit, do the following;</li> <li>Transmit fewer print jobs.</li> <li>Make sure no IEEE 802.11b (wireless LAN) or other Bluetooth™ devices are in use.</li> <li>Note</li> <li>Interference may occur with the IEEE 802.11b wireless</li> </ul>
	LAN interface board. Such interference may affect the transmission speed and other functions.  Transmissions between the client computer and the machine can be blocked by obstructions. Move the machine or client computer if necessary.
	<ul> <li>✓ Note</li> <li>□ When you use a Bluetooth<sup>TM</sup> connection, print jobs are transmitted relatively slowly.</li> </ul>

If the machine 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.

# **Removing Misfed Paper**

When a paper misfeed occurs, an error message appears on the panel display. Remove the misfed paper from the location indicated.

# **∰**Important

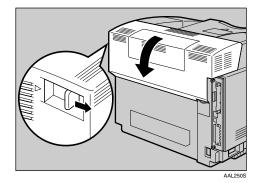
- ☐ Toner dust may be on the misfed paper after removal. Be careful not to get it on your hands or clothes.
- ☐ Toner dust may be on the paper printed after removing misfed paper. Make a few prints until smears do not appear any more.
- ☐ Forcefully removing misfed paper may cause paper to tear and leave scraps of paper in the printer. This might cause a misfeed and damage the printer.

# When "Remove Misfeed Internal Path" Appears

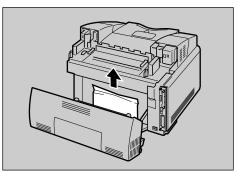
A misfeed has occurred in the output unit.

#### **A CAUTION:**

- The inside of the machine becomes very hot. Do not touch the parts with a "\(\textit{\tex
- 1 Pull the rear cover open lever, and then open the rear cover.

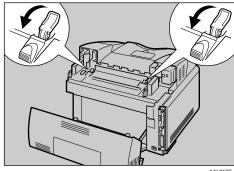


**2** Remove the misfed paper slowly.



AAL310S

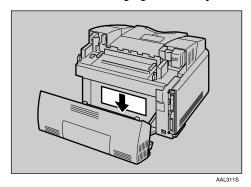
**3** Lift up the left and right green release levers on the top of the fusing unit.



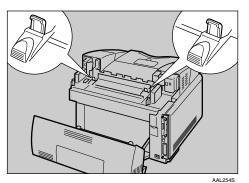
AAL312

# **𝚱** Note

- ☐ Lift the release levers firmly, since they are locked tightly into position.
- 4 Remove misfed paper slowly.



**5** Turn the release levers.



**6** Close the rear cover slowly.

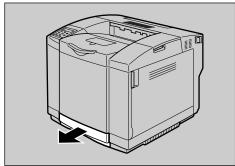
# When "Remove Misfeed Paper Tray" Appears

#### **CAUTION:**

 When pulling the paper tray out, be careful not to pull it strongly. If you do, the tray might fall and cause an injury.

A misfeed has occurred in the paper tray.

1 Pull the paper tray out slowly.

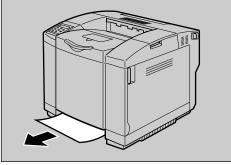


AAL255S

# ∰Important

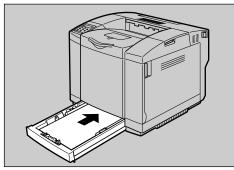
☐ Do not pull out the paper tray with excessive force. This will cause it to fall out of the printer, possibly resulting in injury.

# 2 Remove misfed paper slowly.



#### Note

- ☐ A sheet may have jammed in the rear. If you cannot find the jammed sheet, try searching at the very back. OHP sheets are especially hard to find.
- 3 Slide the paper tray completely into the printer.

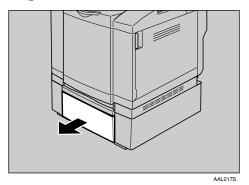


AAL214S

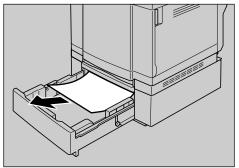
## **∰**Important

 $\square$  Be sure to insert the paper tray completely. Otherwise, misfeeds might occur.

4 If the optional paper feed unit is installed, pull the paper tray out of the paper feed unit until it stops.

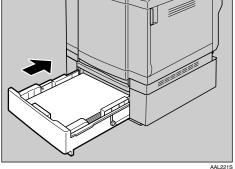


**5** Remove the misfed paper slowly.



AAL257S

**6** Slide the paper tray into the paper feed unit until it stops.



## #Important

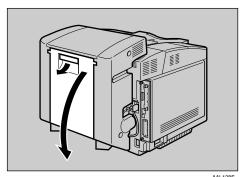
 $\square$  Be sure to insert the paper tray completely, or paper misfeeds might occur.

# When "Remove Misfeed Duplex Unit" Appears

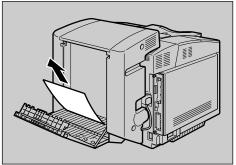
A misfeed has occurred in the optional duplex unit.

#### **⚠** CAUTION:

- The inside of the machine becomes very hot. Do not touch the parts with a "▲" label (means hot surface). Touching a part with a "▲" label (means hot surface) could result in a burn.
- 1 Pull the lever in the center of the duplex unit to open its rear cover.

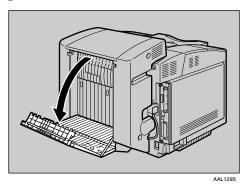


**2** Remove the misfed paper slowly.

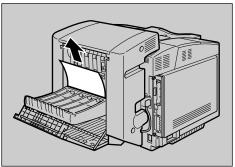


AAL258S

Open the inside cover of the duplex unit.

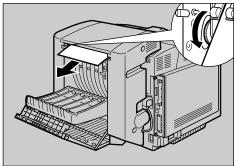


4 Remove the misfed paper slowly.



AAL259S

Turn the green dial located in the upper left corner of the inside of the duplex unit to push out misfed paper, and then remove it.



AAL260

- 6 Close the inside cover of the duplex unit.
- Close the rear cover of the duplex unit.

# 6. Appendix

# **Consumables**

#### **A** CAUTION:

 Our products are engineered to meet the highest standards of quality and functionality. When purchasing expendable supplies, we recommend using only those specified by an authorized dealer.

# **Toner cartridge**

Toner cartridge	Average printable number of pages per cartridge
Black	9,800 pages *1
	(8,200 pages *2)
Cyan	6,500 pages *3
	(6,500 pages *4)
Magenta	6,500 pages *5
	(6,500 pages *6)
Yellow	6,500 pages * <sup>7</sup>
	(6,500 pages *8)

<sup>\*1</sup> Based on a standard A4/letter 5% test chart when printing continuously in black and white

\*3 Based on a standard A4/letter 5% test chart when printing continuously in cyan.

\*5 Based on a standard A4/letter 5% test chart when printing continuously in magenta.

<sup>\*7</sup> Based on a standard A4/letter 5% test chart when printing continuously in yellow.

<sup>\*2</sup> Based on a standard A4/letter 5% test chart when printing a series of two-page print jobs in black and white.

<sup>\*4</sup> Based on a standard A4/letter 5% test chart when printing a series of two-page print jobs in cyan.

<sup>\*6</sup> Based on a standard A4/letter 5% test chart when printing a series of two-page print jobs in magenta.

<sup>\*8</sup> Based on a standard A4/letter 5% test chart when printing a series of two-page print jobs in yellow.

#### Note

- ☐ After the message "Toner is Almost Empty: XXX" appears where XXX stands for black, cyan, magenta or yellow, about 250 pages can still be printed (when continuously printing a 5% chart on A4/letter size paper). We recommend that you change the toner cartridge soon.
- ☐ If toner cartridges are not changed when necessary, printing will become impossible. We recommend keeping a stock of cartridges or purchasing them soon.
- ☐ The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- ☐ Toner cartridges may need to be changed sooner than indicated above due to deterioration over the period of use.
- ☐ Toner cartridges (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.
- □ Numbers of pages that can be printed using the toner cartridge supplied with this printer is as follows:

Toner cartridge	Average printable number of pages per cartridge
Black, Cyan, Magenta, Yellow	1,500 pages

#### Waste toner bottle

Name	Average printable number of pages
Waste Toner Bottle Type 140	11,000 pages *1
	(9,200 pages *2)
	2,750 pages *3
	(2,300 pages *4)

<sup>\*1</sup> Based on a standard A4/letter 5% test chart when printing continuously in black and white.

 $^{*3}$  Based on a standard A4/letter 5% test chart when printing continuously in color.

Based on a standard A4/letter 5% test chart when printing a series of two-page print jobs in color.

#### Note

- ☐ After the message "Waste Toner is Almost Full" appears, about 200 pages can still be printed. (When continuously printing at 5% test chart on A4/letter ☐ in black and white).
- ☐ 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 toner cartridges are not changed when necessary, printing will become impossible. We recommend keeping a stock of cartridges or purchasing them soon.

<sup>\*2</sup> Based on a standard A4/letter 5% test chart when printing a series of two-page print jobs in black and white.

### Photo conductor unit

Name	Average printable number of pages
Photo Conductor Unit Type 140	60,000 pages *1
	(27,000 pages *2)
	15,000 pages *3
	(9,000 pages *4)

<sup>\*1</sup> Based on a standard A4/letter 5% test chart when printing continuously in black and white.

#### Note

- $\square$  After the message "Replace PCU soon" appears, about 750 pages can still be printed. (When continuously printing at 5% test chart on A4/letter  $\square$  in black and white).
- ☐ 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 photo conductor unit is not changed when necessary, the quality of printing is not guaranteed. We recommend keeping a stock of photo conductor units or purchasing one soon.
- ☐ Photo conductor unit (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.

<sup>\*2</sup> Based on a standard A4/letter 5% test chart when printing a series of two-page print jobs in black and white.

 $<sup>^{*3}</sup>$  Based on a standard A4/letter 5% test chart when printing continuously in color.

<sup>\*4</sup> Based on a standard A4/letter 5% test chart when printing a series of two-page print jobs in color.

# **^** (

# Moving and Transporting the Printer

#### riangle CAUTION:

- When moving the machine, each person should hold the handles that are located on opposite sides, and then lift it slowly. Lifting it carelessly or dropping it may cause an injury.
- When you move the printer, remember to unplug the power cord from the wall outlet to avoid a fire or an electric shock.
- When you pull out the plug from the socket, grip the plug, not the cord, to avoid damaging the cord and causing a fire or an electric shock.
- When moving the printer after use, do not take out any of the Toners, Photo Conductor Units, nor the Waste Toner Bottle to prevent toner spill inside the machine.

Repack the printer in its original packing materials for transporting.

#### Note

☐ The printer weighs approximately 31.5 kg (69.4 lb.).

# **∰**Important

- ☐ Be sure to disconnect all cables from the printer before transporting it.
- ☐ The printer is a precision piece of machinery. Take care to avoid damage during shipment.
- ☐ If the optional paper feed unit is installed, remove it from the printer, and then move them separately.

G

# **Moving the Printer**

#### riangle CAUTION:

- When lifting the machine, use the inset grips on both sides. Otherwise the printer could break or cause an injury if dropped.
- Before moving the machine, unplug the power cord from the wall outlet. If the cord is unplugged abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.

#### Moving the printer in a short distance

- **1** Be sure to check the following points:
  - The power switch is turned off.
  - The power cable is unplugged from the wall outlet.
  - The interface cable is unplugged from the printer.
- 2 If the external options are installed, remove them. See *Option Setup Guide* and follow the steps backwards for removing options.
- 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.



4 If you removed options in step 2, reinstall them.

### Note

☐ See *Option Setup Guide* for installing options.

## ∰Important

- ☐ 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.

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#### **Declaration of Conformity**

"The Product complies with the requirements of the EMC Directive 89/336/EEC and its amending directives and the Low Voltage Directive 73/23/EEC and its amending directives."



#### **Notice to Users in EEA Countries**

802.11b interface unit:

This product complies with the essential requirements and provisions of Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

This product is only for use in EEA or other authorized countries. Outdoor use of this product in Belgium, France, Germany, Italy, or the Netherlands is prohibited.

The CE Declaration of Conformity is available on the Internet at URL:

http://www.ricoh.co.jp/fax/ce\_doc/.

In accordance with IEC 60417, this machine uses the following symbols for the main power switch:

means POWER ON.

O means POWER OFF.