



Aficio[™] cl4000HDN/Cl4000DN

Maintenance Guide



- 1 Paper and Other Media
- 2 Replacing Consumables and Maintenance Kit
- 3 Cleaning the Printer
- 4 Adjusting the Printer
- 5 Troubleshooting
- 6 Removing Misfed Paper
- 7) Appendix

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

Introduction

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

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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[®] 2000 are as follows: Microsoft[®] Windows[®] 2000 Advanced Server Microsoft[®] Windows[®] 2000 Server Microsoft[®] Windows[®] 2000 Professional
- The product names of Windows[®] XP are as follows: Microsoft[®] Windows[®] XP Professional Microsoft[®] Windows[®] XP Home Edition
- The product names of Windows ServerTM 2003 are as follows: Microsoft[®] Windows ServerTM 2003 Standard Edition Microsoft[®] Windows ServerTM 2003 Enterprise Edition Microsoft[®] Windows ServerTM 2003 Web Edition
- The product names of Windows NT[®] 4.0 are as follows: Microsoft[®] Windows NT[®] Server 4.0 Microsoft[®] Windows NT[®] Workstation 4.0

How to Read This Manual

The following set of symbols is used in this manual.

A WARNING:

This symbol indicates a potentially hazardous situation that might result in death or serious injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

A CAUTION:

This symbol indicates a potentially hazardous situation that might result in minor or moderate injury or property damage that does not involve personal injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

* The statements above are notes for your safety.

∰Important

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

Preparation

This symbol indicates information or preparations required prior to operating.

🔗 Note

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

Limitation

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

PReference

This symbol indicates a reference.

[]

Keys that appear on the machine's 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. Paper and Other Media

Paper and Other Media Supported by This Printer

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

🖉 Note

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

In this manual	On the display	Paper feed direction
□ ↑ (Food dimention)	A4 (210 x 297)	Chart adaption direction
□ + (reed direction)	8 1/2 x 11	Short-edge leed 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)	Bypass Tray	Tray 1	Paper Feed Unit (Tray 2/3)
A4	₽	210 × 297	☆	Ø	Ø
B5	₽	182 × 257	☆	☆	☆
A5	₽	148×210	☆	Ø	Ø
B6	₽	128 × 182	☆	☆	☆
A6	₽	105×148	☆	Ø	×
Legal (LG, $8^1/_2 \times 14$ inches)	₽	216 × 356	☆	Ø	Ø
Letter (LT, $8^1/_2 \times 11$ inches)	₽	216 × 279	☆	Ø	Ø
$5^1/_2 \times 8^1/_2$ inches	₽	140 × 216	☆	☆	☆
Executive (Exec., $7^1/_4 \times 10^1/_2$ inches)	₽	184 × 276	☆	Ø	Ø
Folio $(8^1/_4 \times 13 \text{ inches})$	₽	210 × 330	☆	☆	☆
Foolscap (F4, $8^1/_2 \times 13$ inches)	₽	216 × 330	☆	☆	☆
F/GL (8 × 13 inches)	₽	203 × 330	☆	☆	☆
Com#10 Env (4 $^{1}/_{8} \times 9 ^{1}/_{2}$ inches)	₽	104.8 × 241.3	☆	☆	☆
C5 Env (6.38 × 9.02 inches)	₽	162 × 229	☆	☆	☆
C6 Env (4.49 × 6.38 inches)	₽	114 × 162	☆	☆	☆
DL Env (4.33 × 8.66 inches)	₽	110 × 220	☆	☆	☆
Monarch Env (3 $^7/_8 \times 7 ^1/_2$ inches)	₽	98.4×190.5	☆	☆	☆
Custom Size	-	-	*	*	*
$16K (7.68 \times 10^{1}/_{2} \text{ inches})$	₽	195 × 267	☆	☆	☆

0 ٠

The size is supported and the printer selects it automatically.

☆

The size is supported, but it should be selected using the control panel.

*

The size is supported, but it should be set as a custom size using the control panel.

The supported size may differ depending on the printer language you use. Set as a custom size setting using the control panel.

The following sizes are supported:

- Tray 1: approximately 100 216 mm in width, and 148 355.6 mm in length.
- Bypass Tray: approximately 70 216 mm in width, and 140 900 mm in length.
- Paper Feed Unit (Tray 2/3): approximately 100 216 mm in width, and 210 - 355.6 mm in length.

×

The size is not supported.

1

Input Paper Sizes (Inch version)

	Feed direction	Size (inch)	Bypass Tray	Tray 1	Paper Feed Unit (Tray 2/3)
A4	₽	8.26" × 11.69"	☆	Ø	O
B5	₽	7.17" × 10.12"	☆	☆	☆
A5	₽	5.83" × 8.26"	☆	☆	☆
B6	₽	5.04" × 7.17"	☆	☆	☆
A6	₽	4.13" × 5.63"	☆	☆	×
Legal (LG)	₽	$8^1/_2'' \times 14''$	☆	Ø	Ø
Letter (LT)	₽	$8^1/_2'' \times 11''$	☆	Ø	Ø
$5^{1}/_{2} \times 8^{1}/_{2}$ inches	₽	$5^1/_2'' \times 8^1/_2''$	☆	Ø	Ø
Executive (Exec.)	₽	$7^1/_4'' \times 10^1/_2''$	☆	Ø	Ø
Folio	₽	$8^1/_4'' \times 13''$	☆	☆	☆
Foolscap F4	₽	$8^1/_2'' \times 13''$	☆	☆	☆
F/GL	₽	8" × 13"	☆	☆	☆
Com#10 Env	₽	$4^{1}/_{8}'' \times 9^{1}/_{2}''$	☆	☆	☆
C5 Env	₽	6.38" × 9.02"	☆	☆	☆
C6 Env	₽	$4.49'' \times 6.38''$	☆	☆	☆
DL Env	₽	4.33" × 8.66"	☆	☆	☆
Monarch Env	D	$3^{7}/_{8}'' \times 7^{1}/_{2}''$	☆	☆	☆
Custom Size	-	-	*	*	*
16K	₽	$7.68'' \times 10^1/2''$	☆	☆	☆

• (0)

The size is supported and the printer selects it automatically.

• ☆

The size is supported, but it should be selected using the control panel.

• *

The size is supported, but it should be set as a custom size using the control panel.

The supported size may differ depending on the printer language you use. Set as a custom size setting using the control panel. The following sizes are supported:

The following sizes are supported:

- Tray 1: approximately 3.94 8.5 inches in width, and 5.5 14 inches in length.
- Bypass Tray: approximately 2.79 8.5 inches in width, and 5.5 35.43 inches in length.
- Paper Feed Unit (Tray 2/3): approximately 3.94 8.5 inches in width, and 8.27 14 inches in length.
- ×

The size is not supported.

Paper weight and number of sheets to be set

	Supported paper weight	Maximum number of sheets (plain paper)
Tray 1	52 - 216 g/m ² (14 - 58 lb.)	550 (80 g/m ² , 20 lb.)
Bypass Tray	52 - 216 g/m ² (14 - 58 lb.)	100 (80 g/m ² , 20 lb.)
Paper Feed Unit (Tray 2, Tray 3)	52 - 216 g/m ² (14 - 58 lb.)	550 (80 g/m ² , 20 lb.)

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

1

Paper Recommendations

Loading Paper

Important

- Do not use ink-jet printer paper because it may stick to the fusing unit and cause a paper misfeed.
- When printing on OHP transparencies that have a print side, load them with the print side over on the bypass tray. Not taking this precaution may cause them to stick to the fusing unit and cause misfeeds.
- □ Set the paper as described below
 - Tray 1: Print side facing up
 - Bypass Tray: Print side facing down
 - Paper Feed Unit (Tray 2, Tray 3): Print side facing up
- Print quality cannot be guaranteed if paper other than the ones recommended is used. For more information about recommended paper, contact your sales or service representative.
- D Do not use paper that has already been printed onto by other printers.

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	60.2 - 104.7 g/m ² (16 - 28 lb.)		
	• [Plain Paper 1]: $60.2 - 90.2 \text{ g/m}^2 (16 - 24 \text{ lb.})$		
	• [Plain Paper 2]: $90.2 - 104.7 \text{ g/m}^2 (24 - 28 \text{ lb.})$		
Printer setup	Make the following two settings using the control panel:		
	• Press [Paper Input] menu, [Paper Type], and then [Plain Paper].		
	• Press [Maintenance] menu, [Plain Paper], and then [Plain Paper 1] or [Plain Paper 2].		
Printer driver setup	Click [Plain] or [Plain & Recycled] in the [Type:] list.		
Enabled paper feeding tray	Any input tray can be used.		
Number of sheets that can be set	• Tray 1: 550		
	• Tray 2, Tray 3 (Paper Feed Unit Type 4000): 550		
	• Bypass Tray: 100		
	□ Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray.		
Both-side printing	Possible		
Additional cautions	When printing on the reverse side of plain paper that is already printed on, select [Plain:Dup.Back] from [Paper Type] using the control panel or printer driver.		

Thick Paper

Paper thickness	104.7 - 216 g/m ² (28 - 58 lb.)		
	• [Thick Paper 1]: $104.7 - 157 \text{ g/m}^2 (28 - 42 \text{ lb.})$		
	• [Thick Paper 2]: $157 - 216 \text{ g/m}^2 (42 - 58 \text{ lb.})$		
Printer setup	Press [Paper Input] menu, [Paper Type] and then [Thick Paper 1] or [Thick Paper 2] on the control panel.		
Printer driver setup	Click [Thick1] or [Thick2] in the [Type:] list.		
Enabled paper feeding tray	Any input tray can be used.		
	 ✓ Note D Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray. 		
Both-side printing	• [Thick Paper 1]: Possible		
	• [Thick Paper 2]: Not possible		
Additional cautions	 Print speed is slightly slower than when using plain paper. When printing on the reverse side of thick paper that is already printed on, select [Thick1:Dup.Back] from [Paper Type] using the control panel or printer driver. 		

Thin Paper

Paper thickness	52 - 60.2 g/m ² (14 - 16 lb.)	
Printer setup	Press [Paper Input] menu, [Paper Type] and then [Thin Paper] on the control panel.	
Printer driver setup	Click [Thin] in the [Type:] list.	
Enabled paper feeding tray	y Any input tray can be used.	
	 ✓ Note □ Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray. 	
Both-side printing	Not possible	

Adhesive labels

Printer setup	Press [Paper Input] menu, [Paper Type] , and then [Labels] on the control panel.
Printer driver setup	Click [Labels] in the [Type:] list.
Enabled paper feeding tray	 Any input tray can be used. ✓ Note □ Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray.
Both-sided printing	Not possible
Additional cautions	Print speed is slightly slower 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 [Transparency] in the [Type:] list.	
Enabled paper feeding tray	Any input tray can be used.	
Number of sheets that can be set	 Tray 1: 100 Tray 2, Tray 3 (Paper Feed Unit Type 4000): 100 Bypass Tray: 100 ✓ Note □ Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray. 	
Both-sided printing	Not possible	
Additional cautions	 Print speed for OHP transparencies is slower than for plain paper. Due to switching modes, the machine will be on standby for thirty or forty seconds after the job was received. We recommend that you use a 4000 ANSI lumen or brighter overhead projector to project OHP transparencies. 	

Envelopes

Printer setup	Make the following settings using the control panel:			
	• Press [Paper Input] menu, [Paper Type], and then [Plain Paper].			
	• Press [Maintenance] menu, [Plain Paper], and then [Plain Paper 2].			
Printer driver setup	Click [Plain Paper] in the [Type:] list.			
Enabled paper feeding tray	Any input tray can be used.			
	□ Make sure paper is not stacked higher than the upper limit mark (▼) inside the tray. Make sure paper is not stacked higher than the paper guides inside the bypass tray.			
Both-sided printing	Not possible			
Additional cautions	• If printed envelopes come out badly creased, load the enve- lopes in the opposite direction. Also, configure the printer driver to rotate the print object 180 degrees.			
	• Load envelopes print side down on the bypass tray.			
	• Load envelopes print side up in the input tray or optional paper feed unit.			
	Check there is no air in the envelopes before loading.			
	• For better print quality, we recommend the right, left, top, and bottom print margins to be at least 20 mm (0.8") each.			
	 Load only one size and type of envelope at a time. 			
	• Before loading envelopes, flatten their leading edges (the edge going into the printer) by running a pencil or ruler across them.			
	 Some kinds of envelope might cause misfeeds, wrinkles or print poorly. 			
	• Print quality on envelopes may be uneven if parts of an enve- lope have differing thicknesses. Print one or two envelopes to check print quality.			

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



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

🖉 Note

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

Envelope



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

🖉 Note

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

Loading Paper

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

A CAUTION:

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

Loading Paper in Tray 1 and the optional paper feed unit

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

∰Important

- □ Make sure paper is not stacked above the limit mark inside the tray. Misfeeds might occur.
- Do not put different types of paper in a single paper tray.
- Slowly slide out the paper tray (Tray 1), until it stops. Then, lift the front of the tray slightly, and then pull the tray completely out.



Place the tray on a flat surface.

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



B Slide the green switch on the front of the tray to the type of paper to be loaded. When loading paper of 75 g/m², 20 lb., or thicker, slide the switch to the right.



4 Load the new paper stack print side up, making sure the paper is flush against the paper guides. Adjust the paper guides to close any gaps.



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



PReference

For details about paper types supported by the printer, see p.8 "Paper Recommendations"

If you load a paper size that is not selected automatically

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

Press the [Menu] key.



"Menu" appears on the display.

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

Menu: Paper Input

The paper selection menu appears.

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

The paper tray selection menu appears.

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

Tray Paper Size: Tray 2

The paper size selection menu appears.

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

Tray 2: 8 1/2 X 13

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

Press the [Online] key.

"Ready" appears on the display. This completes the setting change.

Important

After printing on a paper size that was not selected automatically, to print on an automatically selectable paper size again, load the new paper, proceed to the next step , and return the setting to "Auto".

2 Press the [Menu] key.



"Menu" appears on the display.

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

The paper selection menu appears.

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

The paper tray selection menu appears.

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

Tray Paper Size: Tray 2

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

Tray 2: *Auto

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

Press the [Online] key.

"Ready" appears on the display.

🖉 Note

- □ Paper sizes not selected automatically for Tray 1 are B5 □, B6 □, $5^{1}/_{2} \times 8^{1}/_{2}$ □, 8×13 □, $8^{1}/_{2} \times 13$ □, $8^{1}/_{4} \times 13$ □, 16K (195 × 267) □, $4^{1}/_{8} \times 9^{1}/_{2}$ □, $3^{7}/_{8}$ × $7^{1}/_{2}$ □, C6 Env (114 × 162) □, C5 Env (162 × 229) □, DL Env (110 × 220) □, and Custom Size.
- □ Paper sizes not selected automatically for optional paper feed unit are B5 □, B6 □, $5^{1}/_{2} \times 8^{1}/_{2}$ □, 8×13 □, $8^{1}/_{2} \times 13$ □, $8^{1}/_{4} \times 13$ □, 16K (195 × 267) □, $4^{1}/_{8} \times 9^{1}/_{2}$ □, $3^{7}/_{8} \times 7^{1}/_{2}$ □, C6 Env (114 × 162) □, C5 Env (162 × 229) □, DL Env (110 × 220) □, and Custom Size.

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

∰Important

- When printing on custom size paper, specify the paper size using the control panel or printer driver.
- □ The custom size paper selected using the printer driver overrides that selected using the control panel. Do not make settings using the control panel if you have already made settings using the printer driver. However, when printing with a printer driver other than the RPCS printer driver, you must configure the settings using control panel.
- The following is the range of paper sizes that can be loaded in each type of the paper trays:
 - Tray 1: 100 216 mm in width and 148 355.6 mm in length.
 - Optional paper feed unit (Tray 2, Tray 3): 100 216 mm in width and 210 355.6 mm
- The printer cannot print from applications that do not support custom size paper.

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

The paper selection menu appears.

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

The paper tray selection menu appears.

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

Tray Paper Size: Tray 2

The paper size selection menu appears.

- Deress the [▲] or [▼] key to display "Custom Size", and then press the [# Enter] key.
- C Press the [▲] or [▼] key to set horizontal value, and then press the [# Enter] key.



Press the $[\checkmark]$ or $[\land]$ key scrolls the value in increments of 0.1 mm. Pressing the $[\checkmark]$ or $[\land]$ key scrolls the value in increments of 1 mm.

The screen for entering the length appears.

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

Custom Size: 297.0 mm Uert.

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

8 Press the [Online] key.

"Ready" appears on the display. This completes the setting change.

Important

□ When you return the paper size settings to "Auto" after printing with the custom paper size, reload the paper before you proceed to the following procedure.

Press the [Menu] key.



"Menu" appears on the display.

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

The paper selection menu appears.

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

The paper tray selection menu appears.

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

Tray Paper Size: Tray 2

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

Tray 2: *Auto

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

Press the [Online] key.

"Ready" appears on the display.

🖉 Note

- □ Press the 【▼】 or 【▲】 key scrolls the value in increments of 0.1 mm. Pressing the 【▼】 or 【▲】 key scrolls the value in increments of 1 mm.
- □ For details about the printer driver, see Help.

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

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

Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Preprinted, Labels (adhesive label paper), Bond Paper, Cardstock, Transparency (OHP transparency), Thick Paper 1, Thick Paper 2 (157 - 209.4 g/m²), Thin Paper, Plain:Dup.Back (reverse side of plain paper), Thick1:Dup.Back (reverse side of thick paper)

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

The paper type selection menu appears.

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

The paper tray selection menu appears.

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

When the optional paper feed units are installed in the printer, "Tray 2" and "Tray 3" appears (depending on how many units are installed).

Paper	Type:	
Tray	2	

The paper type selection menu appears.

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

Tray 2: *Thick Paper 1

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

OPress the [Online] key.

"Ready" appears on the display.

The following message appears on the display:

🖉 Note

- □ When selecting Plain Paper, select "Plain Paper 1" or "Plain Paper 2" for "Plain Paper" in the "Maintenance" menu.
- The following paper types cannot be printed on both sides:
- Special Paper, Labels (adhesive label paper), Cardstock, Transparency (OHP transparency), Thick Paper 2 (157 - 209.4 g/m²), Thin Paper, Plain:Dup.Back (reverse side of plain paper), Thick1:Dup.Back (reverse side of thick paper)

Loading Paper in the Bypass Tray

Specifying standard size paper for the Bypass Tray

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

Important

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

Press the mark in the centre of the bypass tray.



Open the bypass tray.



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



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



4 Adjust the side guides to fit the paper width.



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



"Menu" appears on the display.

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

Menu: Paper Input

The paper selection menu appears.

Check "Bypass Size" appears, and then press the [# Enter] key

The paper size selection menu appears.

Press the [▲] or [▼] key to display the size and orientation of the paper in the bypass tray.

Bypass Size: *A5 (148 X 210)

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

Press the [Online] key.

"Ready" appears on the display.

🖉 Note

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

P Reference

For details about control panel settings for custom size paper or special paper, see p.23 "Specifying custom size paper for the Bypass Tray".

To select custom size paper (148 - 900 mm in length, 70 - 216 mm in width), see p.23 "Specifying custom size paper for the Bypass Tray".

For control panel settings when using thick paper, OHP transparencies, or post cards, see p.24 "Specifying a paper type for the Bypass Tray".

Specifying custom size paper for the Bypass Tray

∰Important

- When loading custom size or special paper, specify the paper size using the control panel and printer driver.
- Paper sizes between 140 190 mm in length and 70 - 216 mm in width can be loaded in the bypass tray. However, the printer can be set to print on paper up to 680 mm in length when using RPCS for the printer driver, 677 mm when using PS3, and 432 mm when using PCL.
- □ The custom paper size selected using the printer driver overrides that selected using the control panel. Do not configure settings using the control panel if you have already made settings using the printer driver. However, when printing with a printer driver other than the RPCS printer driver, you must configure the settings using the control panel.
- You cannot print on custom size paper with an application that does not support the custom size setting.

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

The paper selection menu appears.

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

The paper size selection menu appears.

- 4 Press the [▲] or [▼] key to display "Custom Size", and then press the [# Enter] key.
- 5 Press the [▲] or [▼] key to set the horizontal value, and then press the [# Enter] key.

Custom Size: Horiz. 210.0mm

By pressing the key, the value increases or decreases by 0.1 mm. By pressing and holding the key, the value varies by 1 mm.

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



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

Press the [Online] key.

"Ready" appears on the display.

Reference

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

Specifying a paper type for the Bypass Tray

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

 Plain Paper, Recycled Paper, Special Paper, Color Paper, Letterhead, Preprinted, Labels (adhesive label paper), Bond Paper, Cardstock, Transparency (OHP transparency), Thick Paper 1, Thick Paper 2, Thin Paper, Plain:Dup.Back (reverse side of plain paper), Thick1:Dup.Back (reverse side of thick paper)

∰Important

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

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

The paper selection menu appears.

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

The paper tray selection menu appears.

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

The paper type selection menu appears.

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

Bypass Tray: Recycled Paper

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

O Press the [Online] key.

"Ready" appears on the display.

The following message appears on the display:

🖉 Note

- When selecting Plain Paper, select "Plain Paper 1" or "Plain Paper 2" for "Plain Paper" in the "Maintenance" menu.
- The following paper types cannot be printed on both sides:
 - Special Paper, Labels (adhesive label paper), Cardstock, Transparency (OHP transparency), Thick Paper 2 (157 209.4 g/m²), Thin Paper, Plain:Dup.Back (reverse side of plain paper), Thick1:Dup.Back (reverse side of thick paper)

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.

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

The paper selection menu appears.

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

The paper tray selection menu appears.

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

The following message appears on the display:

Tray Priority: *Tray 2

5 Press the [Online] key.

"Ready" appears on the display.

2. Replacing Consumables and Maintenance Kit

Replacing the Toner Cartridge

A 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.
- Do not store toner, used toner, or toner containers in a place with an open flame. The toner might ignite and cause burns or a fire.

A CAUTION:

- Keep toner (used or unused) and the toner cartridge out of reach of children.
- If toner or used toner is inhaled, gargle with plenty of water and move into a fresh air environment. Consult a doctor if necessary.
- If your skin comes into contact with toner or used toner, wash the affected area thoroughly with soap and water.
- If toner or used toner gets into your eyes, flush immediately with large amounts of water. Consult a doctor if necessary.

A CAUTION:

- If toner or used toner is swallowed, dilute by drinking a large amount of water. Consult a doctor if necessary.
- Avoid getting toner on your clothes or skin when removing a paper jam or replacing toner. If your skin comes into contact with toner, wash the affected area thoroughly with soap and water.
- If toner gets on your clothing, wash with cold water. Hot water will set the toner into the fabric and may make removing the stain impossible.

🖉 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.
- Actual printable numbers vary depending on image volume and density, number of pages printed at a time, paper type and size, and environmental conditions such as temperature and humidity. Toner quality degrades over time. You may have to replace the toner cartridge prematurely. We recommend you prepare a new toner cartridge beforehand.

The color of the lit LED indicates the toner status for each color. A red light indicates the toner cartridge must be replaced.

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



Add Toner XXX/XXX

🖉 Note

- A combination of one to four colors, yellow, magenta, cyan, black, appears in "XXX".
- If cyan, magenta, or yellow toner runs out, you can print in black and white using black toner. Change the color mode setting to "Black and White" using the printer driver.
- If black toner runs out, you cannot print in black and white or color until the black toner cartridge is replaced.
- **1** Open the top cover by grasping the left and right side handles.



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



2 Remove the toner cartridge, you want to replace.

Turn the locking lever of the toner cartridge towards the triangle mark (①), and then lift out the toner cartridge (②).



∰Important

- Do not shake the removed toner cartridge. Remaining toner may leak.
- Pull the toner cartridge out slowly and carefully to prevent leakage.

🖉 Note

Place the old toner cartridge on paper or some other material to avoid dirtying your workspace.

U Take the new toner cartridge out of the box.

4 Shake the toner cartridge up and down seven or eight times.



∰Important

- Even distribution of toner within the bottle improves print quality.
- **5** Remove the masking tape from the toner cartridge.



1 Install the toner cartridge. Holding the toner cartridge horizontally (1) with the locking lever on the upper side, install the toner cartridge bottom first, and then move the locking lever to the triangle mark (2).



Turn the locking lever to the circle mark. Pull the locking lever toward you, until it locks into place.



Important

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

8 Close the top cover.

Wait while the toner loads.

The following message appears on the display:

Loading Toner...

∰Important

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

🖉 Note

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 the Photo Conductor Unit

Replace the black photo conductor unit if the following message appears on the display:

Replace Black PCU

Replace the three color photo conductor units if the following message appears on the display:

Replace Color PCU

The color photo conductor units (yellow, cyan, and magenta) are supplied as a single item.

Important

- Exposure to light reduces photo conductor unit performance. Replace the unit as quickly as possible.
- Do not pull out the photo conductor unit with force or haste - it may fall and you may damage the machine.
- Take care that nothing comes into contact with the surface of the photo conductor.
- Place no objects on the left or inner cover.

🖉 Note

The following procedure describes replacing the first photo conductor unit from the right. The procedure is the same for all four photo conductor units.

- **1** Turn off the power, and then unplug the power cable.
- **2** Carefully open left cover.



B Turn the two green levers counterclockwise (①), and then slowly open the inner cover (②).



The photo conductor units are installed as shown. From the right, the units are attached in the order of black (K), magenta (M), cyan (C), and yellow (Y).



4 Remove the photo conductor unit you want to replace. Turn the green lever counterclockwise to unlock the unit. (The black photo conductor unit is used in this example.)



5 Pull out the ring pull handle of the photo conductor unit.



Hook your finger through the ring pull handle, and then slowly pull out the photo conductor unit. When you have pulled the unit half way out, support the photo conductor unit using your other hand, and then pull the unit completely out.



∰Important

- Do not hold any protruding areas of the photo conductor unit.
 Doing so may break the photo conductor unit.
- Do not touch any protruding areas of the photo conductor unit. These may stain your hands or clothes.

2 Remove the new photo conductor unit from its box.

For black, install one; for color, install all three.



Remove the protecting cover. Do not remove the tape yet.



Check the installation position of the photo conductor unit. Install the unit where the colored labels correspond.



Install the photo conductor unit with the tape still attached. Align the tip of the photo conductor unit with the opening, and then slowly insert the unit, until it stops.



∰Important

□ Take care that nothing comes into contact with the surface of the photo conductor unit.

Use a finger to push the label with three green lines, and then push in the photo conductor unit, until it clicks into position. If the installation fails, the small, pentagonal window turns red.



Hold the photo conductor unit firmly in place, and then pull out the tape.



Important

- Remember to pull out the tape. Malfunctions occur if you attempt to print while the tape is still attached.
- The removed tape is dirty. Be careful not to let it touch your hands or clothes.
E Turn the green lever clockwise to lock the unit.



Close the inner cover. Lock the inner cover by pressing in (①) and then turning the two green levers clockwise (②).



- Carefully close the left cover.
- Plug in the power cable, and then turn on the power.

The printer starts calibration. Wait until it stops. The following message appears on the display:

Calibratin8...

Wait until "Ready" appears on the display panel.

Important

Do not turn off the power during calibration. Doing so results in malfunction.

Replacing the Intermediate Transfer Unit

A CAUTION:

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

Replace the transfer unit if the following message appears on the display:

Replace Transfer Unit

- **1** Turn off the power, and then unplug the power cable.
- **2** Carefully open the left cover of the printer.



3 Turn the two green levers of the inner cover anticlockwise (①), and then slowly open the inner cover (②).



Carefully open the printer's front cover (A) by pulling the left and right side levers.



5 Turn the green lever of the transfer unit counterclockwise to unlock the unit.



Pull out the handle of the transfer unit. Grasp the handle and the green lever firmly, and then slowly pull out the transfer unit, until the green line marked on the upper surface of the unit appears.



∰Important

- Do not touch any protruding areas on the transfer unit. These may stain your hands or clothes.
- When the green line appears, pull up the handles on the upper surface and support the transfer unit with your other hand.



B Grasp the raised up handles with both hands, and then pull the transfer unit completely out.



Important

- Use both hands and both handles when you pull out the unit.
- Do not touch the belt area (underside) of the unit.

2 Take the new transfer unit out of its box.



Hold both upper handles, and then slide the transfer unit along the guide rails into the printer.



🖉 Note

- □ The upper handles must be raised to insert the unit.
- When the upper handles touch the printer body, lower the handles, and then push in the transfer unit, until it stops.



Turn the green lever clockwise to lock the unit.



- **E** Carefully close the front cover (A).
- Close the inner cover. Lock the inner cover by pressing in (①) and then turning the two green levers clockwise (②).



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E Carefully close the left cover.

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

The printer starts calibration. Wait until it stops. The following message appears on the display:

Calibrating...

Wait until "Ready" appears on the display panel.

₿Important

Do not turn off the power during calibration. Doing so results in malfunction.

Replacing the Waste Toner Bottle

\land WARNING:

- Do not incinerate spilt or used toner. Toner dust is flammable and ignites when exposed to naked flame.
- Dispose at an authorized dealer or approved collection site. If you dispose of the used toner containers yourself, do so according to local regulations.

A CAUTION:

- Keep toner (used or unused) and the toner bottle out of reach of children.
- Place no objects on the left cover when it is open.

Replace the waste toner bottle if the following message appears on the display:

Replace Waste Toner Bottle

∰Important

- □ Waste toner bottles cannot be reused.
- We recommend you purchase extra waste toner bottles and keep them on hand for when replacement becomes necessary.

🖉 Note

□ Before removing the waste toner bottle from the printer, spread paper or some other material around the area to keep toner from dirtying your workspace.

Prepare a new waste toner bottle. A new waste toner bottle is supplied with 6 seals (including one spare) and a plastic bag.

2 Carefully open the left cover.



Use the supplied seals to avoid toner spills before removing the filled waste toner bottle. Attach the seals to the five sponge pads, allowing them to act as covers.



4 Slide the green lever to the unlock position.



5 Lift the waste toner bottle with the seals still attached, and then remove the waste toner bottle from the left cover.



6 Put the used waste toner bottle into the supplied plastic bag, taking to prevent toner from leaking out of the bottle, and then seal the bag.

2 Insert the projection part into the pivot inside the left cover, and then place the waste toner bottle in the horizontal position.



U The green lever will slide automatically when the waste toner bottle is set.



- Check the waste toner bottle is correctly locked.
- Carefully close the left cover.

Replacing the Maintenance Kit

\land WARNING:

 Do not risk electric shock by handling the power cord or plug with wet hands.

A CAUTION:

- The inside of this printer becomes very hot. Do not touch parts labelled "A" (indicating a hot surface). Touching these parts will result in burns.
- Grip the plug, not the cord, when pulling the plug from the socket. Pulling the cord causes wear and tear that can result in fire or electric shock.
- Wait at least one hour after power off before replacing parts. Not allowing the printer to cool may result in burns.

The maintenance kit contains parts for maintaining the printer.

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

> Replace Maint. Kit soon

Before Replacing

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

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

#Important

Wait at least an hour after power off to allow internal parts to cool down before replacing the Maintenance Kit.

2 Check the box contains the following items:

- Friction Pad × 3 See p.40 "Replacing the Friction Pad".
- Paper Feed Roller × 3 See p.41 "Replacing the Paper Feed Roller".
- Transfer Roller See p.43 "Replacing the Transfer Roller".
- Fusing Unit See p.44 "Replacing the Fusing Unit".
- Dustproof Filter × 2 See p.45 "Replacing the Dustproof Filter".

Replacing the Friction Pad

Replace all the friction pads in the tray. The following procedure shows how to replace the tray's friction pad (Tray 1).

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



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



Use a pointed implement such as a ball-point pen, to carefully press down the two catches securing the friction pad.

🔗 Note

- The friction pad may fall away when released. Place your hand over the friction pad while pressing the catches.
- □ The friction pad spring may come loose. Be careful not to lose the friction pad.



4 Turn the paper tray right way up, and remove the friction pad from the tray.

🖉 Note

□ The friction pad spring may come loose. Be careful not to lose the friction pad spring.



5 Insert the new friction pad in the paper tray.

Place the spring over the central prong of the new friction pad and align the friction pad with the grooves of the paper tray. Then push down friction pad (as shown in the illustration), until it clicks.



After pushing down the friction pad, check it is properly installed by pressing it lightly. If it is properly installed, it will spring back up.

6 Follow the same procedure to replace optional Paper Feed Unit friction pads.

Replacing the Paper Feed Roller

Replace all feed rollers including the printer and the optional Paper Feed Unit(s). The following procedure shows how to replace the printer's paper feed rollers.

A CAUTION:

 The printer weights approximately 50 kg (110.3 lb.). When moving the printer, use the inset grips on both sides, and lift slowly. The printer will break or cause injury if dropped.

A CAUTION:

- Lifting the paper feed unit carelessly or dropping it may cause injury.
- **1** Move the printer to the edge of a sturdy and stable table or desk.



Important

- □ Make sure the printer is lifted by at least two people.
- Always move the printer horizontally. Turning the printer sideways or tilting it backward or forward while moving will result in toner leakage.
- Do not put the printer on an unstable or sloped surface.

🖉 Note

□ If the printer is equipped with the optional Paper Feed Unit, do not move the printer and the unit together, they are not securely attached.

2 Slide the green lock lever to the right (①), remove the paper feed roller (②).

The illustration shows the paper feed roller installed in the printer.



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



🖉 Note

Check the green lock lever secures the roller correctly by making sure the new roller rotates smoothly. 4 If the printer has the optional paper feed unit(s) installed, follow the same procedure or remove only the additional tray to replace the paper feed roller.

If you have two paper feed units installed, also replace both paper feed rollers.

5 Place paper in the paper trays and additional removed paper trays. Lift the front of the tray, and slide it carefully into the printer, until it stops.



Replacing the Transfer Roller

1 Carefully open the printer's front cover (A) of by pulling left and right side levers.



2 Pinch the green clips on both ends of the transfer roller.



∰Important

Do not touch the roller area of the transfer roller. It may stain your hands or clothes.

3 Pull out the transfer roller.



Insert the new transfer roller by placing it's underside edge into the grooves shown in the illustration.



5 Secure the transfer roller using the green fastening clips mentioned in step **2**.



🖉 Note

- □ The transfer roller appears insecurely set, but this is intentional.
- **6** Close the front cover (A).

Replacing the Fusing Unit

A CAUTION:

- The fusing unit becomes very hot. When installing a new fusing unit, turn off the printer and wait at least an hour. before replacing the old fusing unit. Not allowing the unit to cool may result in burns.
- Slowly open the printer's front cover (A) by pulling the left and right side levers.



2 Unlock the fusing unit by lowering the fixing levers on both sides.



B Pull out the fusing unit.



Prepare a new fusing unit.



5 Align the new fusing unit with the left and right rails.



2

6 Push the fusing unit carefully in, until it stops. Then, pull up the fixing lever.





Replacing the Dustproof Filter

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



- **1** Turn off the power, and then unplug the power cable.
- **2** Use the grips on both sides to turn and then remove the dustproof filter cover.



🖉 Note

Place the removed dustproof filter cover down on a stable and level surface.



Important

- Handle removed dustproof filters with care. If you shake them, dust might scatter.
- Attach the new dustproof filters to the covers at a time. The dustproof filters are all the same size.



5 Reattach the dustproof filter covers to the machine one at a time.





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

3. Cleaning the Printer

Cautions to Take When Cleaning

A 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 cracking, do not use volatile chemicals, such as benzine and thinner, or spray insecticide on the printer.
- □ If there is dust or grime inside the printer, wipe with a clean, dry cloth.
- You must disconnect the plug from the wall outlet at least once a year. Clean away any dust and grime from the plug and outlet before reconnecting. Accumulated dust and grime pose a fire hazard.

Cleaning the Friction Pad

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

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



- **2** Place the tray on a flat surface. When there is paper in the tray, remove paper.
- Wipe the friction pad with a soft damp cloth. After that, wipe it with a dry cloth to remove the water.



∰Important

Do not use chemical cleaner or organic solvent such as thinner or benzene. Lift the front of the tray, and slide it carefully into the printer until it stops.



#Important

Do not slide the paper tray in with force. If you do, the front and side guides might move.

🖉 Note

If misfeeds or multi-feeds of paper occur after cleaning the friction pad, contact your sales or service representative.

Cleaning the Paper Feed Roller

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

A CAUTION:

- When lifting the printer, use the grips on both sides of the printer, otherwise the printer might fall and cause personal injury.
- When you move the printer, unplug the power cord from the wall outlet to avoid a fire or an electric shock.
- When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing a fire or an electric shock.
- **1** Turn off the power switch.
- **2** Pull out the plug from the socket. Remove all the cables from the printer.
- Slowly slide the paper tray (Tray 1) out, until it stops. After that, lift the front of the tray slightly, and then pull the tray completely out.



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



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∰Important

- Do not put the printer on an unstable or tilted surface.
- □ If the printer is equipped with the optional Paper Feed Unit, do not move the printer and unit together as they are not securely attached.
- When lifting the printer, confirm that the optional Paper Feed Unit is not attached to the printer.
- Slide the green lock lever to the right (①), so that the paper feed roller can be released (②).



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

Important

Do not use chemical cleaner or organic solvent such as thinner or benzene.

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



🖉 Note

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

B Move the printer back to its original position. Lift the front of the tray, and slide it carefully into the printer until it stops.



∰Important

- Do not slide the paper tray in with force. If you do, the front and side guides might move.
- Insert the plug of the power cord into the wall socket securely. Connect all the interface cables that were removed.
- U Turn on the power switch.

🖉 Note

□ Follow the same procedure to clean the paper feed roller of the optional Paper Feed Unit.

Cleaning the Registration Roller

A CAUTION:

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

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

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

2 Carefully open the printer's front cover (A) of by pulling left and right side levers.



Set the registration roller as shown.



Clean the registration roller by applying a soft damp cloth while turning it.



Important

- Do not use chemical cleaners or organic solvents such as thinners or benzene.
- □ Do not touch the belt of the transfer unit and transfer roller.
- 4 Carefully close the front cover (A).
- **5** Plug in the power cable, and then turn on the power.

4. Adjusting the Printer

Adjusting the Color Registration

After moving the printer, printing on thick paper, or printing repeatedly for some time, color degradation may occur. By performing color registration adjustment, you can restore optimum print quality.

If documents show color degradation after the printer is moved, perform automatic color adjustment.

Press the [Menu] key.



"Menu" appears on the display.

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

Menu: Maintenance

The maintenance menu appears.

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

The check message appears.

Press # to adjust

Press the [# Enter] key.

Automatic color adjustment begins, and the following message appears.

Adjustin§...

∰Important

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

Automatic color adjustment takes about 50 seconds. A confirmation message appears when complete.

Completed

5 Press the [Escape] key.

The maintenance menu returns.

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

"Ready" appears on the display.

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.

🖉 Note

- If suitable results cannot be obtained after a single operation, repeat the correction several times, as needed.
- Corrections to color gradation will be applied to all user jobs.
- Use the same 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.

Press the [Menu] key.



"Menu" appears on the display.

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

Menu: Maintenance

The maintenance menu appears.

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

🖉 Note

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

- **5** Check "Yes" is displayed, and press **[# Enter]** key to print gradation correction sheet 1.
- G Set the gradation correction value of the highlighted part using correction 1. For setting K (black) gradation, hold the correction value (0-6) for "K" of the correction value setting sheet 1 over the color sample (K) for gradation correction 1 of the Color Calibration Sample Sheet, and set the numerical value of the closest color using either the [▲] or [♥] key.

Set the correction value using the supplied Color Calibration Sample Sheet and the gradation correction sheet 1 printed in the previous step.

Set M (magenta), C (cyan), and Y (yellow) using the same method.

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

🖉 Note

- □ 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.
- Press the [# Enter] key after setting the K (black) gradation. The cursor shifts to M (magenta).

Calibrate 1: K:2 M:3 C/Y:3/3 Set the gradation correction values for M (magenta), C (cyan), and Y (yellow) using the same procedure as for the K (black).

If you finished all settings, ensure that the cursor is on the correction value for Y (yellow), and then press the [# Enter] key.

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

The example shows the display of the control panel when the correction value for each color is changed to 2.

- Check "Yes" is displayed, and press the [# Enter] key to print the correction result.
- 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.

🖉 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
```

This concludes the setting for correction 1. Next, proceed to correction 2.

- Press the [▼] key to display "Start Calibr. 2", and then press the [# Enter] key.
- Check "Yes" is displayed, and then press the [# Enter] key to print gradation correction sheet 2.
- Perform the same operations as used for setting the gradation correction value using correction 1 to set the gradation correction value of the middle part using correction 2.
- After completing all settings, press the [Online] key.

"Ready" appears on the display.

🖉 Note

□ Displays on the screen are just examples.

Viewing the Color Calibration Sample Sheet and Gradation Correction Sheet

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.

🖉 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.



Relationship between gradation correction sheet and display

The printed gradation correction sheet and 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.





Panel display (correction value setting screen)



🖉 Note

- □ XXXX represents the printer model name.
- ① K (black) correction values

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

② M (magenta) correction values

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

③ C (cyan)/Y (yellow) correction values

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.

Press the [Menu] key.



"Menu" appears on the display.

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

Menu: Maintenance

The maintenance menu appears.

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

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



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

6 Press the [Online] key.

"Ready" appears on the display.

Adjusting Tray Registration

You can adjust the registration of each tray. The vertical adjustment is used for all trays. Normally, you need not update the registration. But when the optional paper feed unit or the duplex unit is installed, updating is useful in some cases. The following procedure describes how to adjust tray 2. The same procedure applies to other trays as well.

Press the [Menu] key.



"Menu" appears on the display.

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

Menu: Maintenance

The maintenance menu appears.

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

The registration menu appears.

4 Print the test sheet to preview the settings. Confirm that "Prt. Test Sheet" is displayed, and then press the [# Enter] key.

A screen prompting you to select the tray to be adjusted appears.

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

Prt. Test Sheet: Tray 2

The test sheet prints out. The display returns to the registration menu. Press the **[Escape]** key.

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



In this setting, adjust the margins of the test sheet so that they are equal in size. Press the [▲] or [▼] key to display "Adjustment", and then press the [# Enter] key.

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



Press the [▲] or [▼] key to set the registration value (mm).

Horiz: Tray 2 (-5.0 + 5.0) 0.0

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

🖉 Note

□ Pressing the [▲] or [▼] key makes the value increase or decrease by 1.0 mm steps.

Press the [# Enter] key.

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

ReSistration: Adjustment

Print the test sheet to confirm the adjustment result.

Press the [Online] key.

"Ready" appears on the display.

5. Troubleshooting

Error & Status Messages on the Control Panel

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

Messages	Description	Recommended Action
Add Toner Black	The printer is out of toner (B).	Replace the toner cartridge (B).
		See p.27 "Replacing the Toner Cartridge".
Add Toner Cvan	The printer is out of toner (C).	Replace the toner cartridge (C).
		See p.27 "Replacing the Toner Cartridge".
Add Toner Magenta	The printer is out of toner (M).	Replace the toner cartridge (M).
8		See p.27 "Replacing the Toner Cartridge".
Add Toner Yellow	The printer is out of toner (Y).	Replace the toner cartridge (Y).
		See p.27 "Replacing the Toner Cartridge".
Add Toner XXX/XXX	The printer is out of the indi- cated toner(s).	Replace the toner cartridge of the indicated color(s).
	XXX: Yellow/Magenta/Cy- an/Black	See p.27 "Replacing the Toner Cartridge".
Calibrating	The printer is calibrating the color.	Wait a while.
Call Service: EC	A communication error sent	A communication error sent
Power Off On	from the engine to the control-	from the engine to the con-
/ If Error Reoccur	161.	uoner.
Call Service		
Cannot check	An attempt to check the radio	To check the radio signal, se-
Signal in Ad hoc	signal was made while the communication mode was set	munication mode settings.
	to [Ad hoc] in the interface set- tings.	

Messages (in alphabetical order)

Messages	Description	Recommended Action
Change Setting Tray # / Paper Size: Paper Type:	The paper size and type set- ting in the tray differs from that of actual paper size and type in the tray.	Load paper of the selected size in the tray, and then change the paper size setting with the control panel. Or, press [Form Feed] , and then select the tray using the con- trol panel. Or, press [Job Re- set] to cancel the print job.
Check Toner Btl. XXX/XXX	The indicated toner cartridge is not set correctly. XXX: Yellow/Magenta/Cy- an/Black	Set the indicated toner car- tridge(s) correctly. See p.27 "Replacing the Toner Cartridge".
Close Top Cover	The top cover is open.	Close the top cover.
Close Front/Left Cover	The front cover or left cover is open. The waste toner bottle is not set correctly, or not set.	Close the front cover or left cover. Set the waste toner bottle cor- rectly.
Cooling down	The printer is cooling down.	Wait a while.
DHCP assigned Cannot change	An attempt to change the IP address, subnet mask or gate- way address was made while DHCP was set to [0n] .	Make the change after setting DHCP to [Off] .
Energy Save Mode	In Energy Save Mode level 2.	No action required.
Error: Enter 10 or 26 characters	An ID with an invalid number of digits was entered for the WEP key.	Enter the correct number of digits for the WEP key.
Error: Enter 5 or 13 characters	An ID with an invalid number of digits was entered for the WEP key.	Enter the correct number of digits for the WEP key.
Hardware Problem Ethernet	The printer identified an Eth- ernet error.	Turn the power off, and then on. If the message appears again, contact your sales or service representative.
Hardware Problem HDD	The printer identified a HDD Board error.	Turn the power off, and then on. Remove and re-install the HDD board correctly. If the message appears again, con- tact your sales or service rep- resentative. See "Attaching Hard Disk Drive Type 4000", Setup Guide.

Messages	Description	Recommended Action
Hardware Problem IEEE1394	The printer identified an IEEE 1394 interface board error.	Turn the power off, and then on. Remove and re-install the IEEE 1394 interface board cor- rectly.
		 Check the IEEE 1394 inter- face board is correctly at- tached to the computer.
		② Check the IEEE 1394 inter- face cable is securely con- nected.
		③ Unplug the IEEE 1394 in- terface cable which is con- nected to the printer.
		④ Restart the computer. If the message appears even after executing above op- eration, proceed to the fol- lowing steps.
		(5) Execute the utility tool for IEEE 1394 interface board that is stored in the follow- ing path in the CD-ROM labeled "Printer Drivers and Utilities": UTILITY 1394
		∰Important
		□ For details about using the utility tool for IEEE 1394, see the README file in the same directory in the CD-ROM. If the message appears again, contact your sales or service representative.
		See "Attaching IEEE 1394 In- terface Board Type B", Setup Guide.
Hardware Problem Option RAM	The printer identified an op- tional RAM error.	Turn the power off, and then on. Remove and re-install the optional RAM. If the message appears again, contact your sales or service representative.
		See "Attaching Memory Unit Type D 128MB, Memory Unit Type E 256MB(SDRAM Mod- ule)", Setup Guide.

Messages	Description	Recommended Action
Hardware Problem Parallel I/F	There is a problem with the parallel interface.	If you use the parallel I/F, re- place the interface cable that caused the error. Turn the power off, and then on. Re- move and re-install the IEEE 1284 interface board correctly. If the message appears again, contact your sales or service representative.
Hardware Problem Printer font	Problems with the font file for the Printer module.	It is necessary to replace the print module.
Hardware Problem USB	There is a problem related to the Universal Serial Bus Con- nection and Hardware.	Turn the power off, and then on. If the message appears again, contact your sales or service representative.
Hardware Problem Wireless Board	An error was detected in the IEEE 802.11b interface unit or the Bluetooth interface unit.	Turn the power off, and then on. Remove and re-install the IEEE 802.11b interface unit or the Bluetooth interface unit correctly. If the message appears again, contact your sales or service representative. See "Attaching IEEE 802.11b Interface Unit Type H" or "Attaching Bluetooth Inter- face Unit Type 3245", Setup Guide.
Hardware Problem Wireless Card	The IEEE 802.11b interface unit or the Bluetooth interface unit could not be detected when the power was turned on. The IEEE 802.11b interface card or the Bluetooth interface card was removed after the power was turned on. An er- ror was detected in the IEEE 802.11b interface card or the Bluetooth interface card.	Turn the power off, and then on. Remove and re-install the IEEE 802.11b interface unit or the Bluetooth interface unit correctly. If the message appears again, contact your sales or service representative. See "Attaching IEEE 802.11b Interface Unit Type H" or "Attaching Bluetooth Inter- face Unit Type 3245", Setup Guide.
Hex Dump Mode	In Hex Dump Mode.	No action required.
I/O Buffer Overflow	The maximum size of the I/O buffer has been exceeded.	Increase the size of the I/O buffer through the I/F Setup.

Messages	Description	Recommended Action
Invalid Data Power Off On	The printer has received irreg- ular data.	Turn the power off, and then on. If the message appears again, contact your sales or service representative.
Invalid Password Try again	The password entered using the control panel is not correct.	Enter the correct password using the control panel.
Irregular Toner	The toner is set irregularly.	Replace the toner to appropri- ate one.
Load Paper:Tray # or Form Feed / Paper Size: Paper Type:	The indicated tray is out of pa- per. #: tray number	Load paper into the indicated paper tray.
Load Paper or Form Feed / Paper Size: Paper Type:	 The printer received a request for a paper type, or paper size not supported by printer, and Tray Locking is not applicable. The paper type and size loaded in the tray which the printer searched using Tray Locking is invalid for Duplex Print. 	Change the setting of the indi- cated paper input tray, or press [Job Reset] key. Form Feed is not possible here.
Loading Toner	The printer is loading toner.	Wait a while.
Menu Protected Cannot change	The menu is protected and the setting cannot be changed.	Wait for two seconds until the previous display appears.
No Files exist	There are no files available for Sample Print job or Locked Print job.	Wait for two seconds until the previous display appears.
Offline	The printer is offline and can- not print data.	Press [Online] key.
Please wait	The printer is initializing the development unit.	Wait a while.
Processing	Print data is being processed.	Wait a while.
RC Gate connection error	Cannot communicate with RC Gate.	Check the device or the RC Gate network connection.
Ready	The default ready message. The printer is ready to use.	No action required.
Remove Misfeed A: Internal Path / See Instructions in Front Cover	There is a misfeed in the printer.	Remove the misfed paper fol- lowing the instructions inside the front cover (A). For details, see p.84 "When "Remove Misfeed A: Internal Path" Appears".

Messages	Description	Recommended Action
Remove Misfeed Z: Duplex Unit / Open	There is a misfeed in the print- er.	Remove the misfed paper fol- lowing the instructions inside the front cover (Z).
Front Cover(Z)		For details, see p.86 "When "Remove Misfeed Z: Duplex Unit" Appears".
Remove Paper Standard Tray	Standard tray is full.	Remove the paper from the standard tray.
Replace Black PCU	It is time to replace the black PCU.	Replace the black PCU. See p.30 "Replacing the Photo Conductor Unit".
Replace Black PCU soon	The time to replace the black PCU is soon.	Prepare to replace the black PCU when the message "Re- place Black PCU" appears on the display.
Replace Color PCU	It is time to replace the color PCU.	Replace the color PCU. See p.30 "Replacing the Photo Conductor Unit".
Replace Color PCU soon	The time to replace the color PCU is soon.	Prepare to replace the color PCU when the message "Re- place Color PCU" appears on the display.
Replace Maintenance Kit	It is time to replace the mainte- nance kit (Paper Feed Roller, Transfer Roller and Fusing Unit).	Replace the new maintenance kit. See p.39 "Replacing the Main- tenance Kit".
Replace Maint. Kit soon	The time to replace the mainte- nance kit is soon.	Prepare to replace the mainte- nance unit when the message "Replace Maint. Kit soon" ap- pears on the display.
Replace Transfer Unit	It is time to replace the transfer unit.	Replace the transfer unit. See p.34 "Replacing the Inter- mediate Transfer Unit".
Replace Transfer Unit soon	The time to replace the trans- fer unit is soon.	Prepare to replace the transfer unit when the message "Re- place Transfer Unit" appears on the display.
Replace Waste Toner bottle	It is time to replace the waste toner bottle.	Replace the waste toner bot- tle. See p.37 "Replacing the Waste Toner Bottle".
Reset Fusing Unit correctly	There is no fusing unit, or the fusing unit is not installed correctly.	Set the fusing unit correctly.
Messages	Description	Recommended Action
--	---	---
Reset PCU correctly XXX/XXX	The indicated photo conduc- tor unit(s) is/are not set cor- rectly, or not set. XXX: Yellow/ Magenta/Cy- an/Black	Set the indicated photo con- ductor unit(s) correctly. See p.30 "Replacing the Photo Conductor Unit".
Reset Transfer Unit correctly	The intermediate transfer unit is not set correctly, or is not set.	Set the intermediate transfer unit correctly.
Reset Tray # or Form Feed	The indicated paper input tray is not set correctly, or not set.	Set the indicated paper input tray correctly.
Resetting Job	A job is being reset.	Wait a while.
ROM Update Waiting for Data	The printer is waiting for up- dated data.	Don't turn off the printer while it is waiting for data.
ROM Update Receiving Data	The printer is receiving updat- ed data.	Don't turn off the printer while it is receiving data.
SC XXX-X Power Off On / If Error Reoccur Call Service	Turn the power off and then on. If the message appears again, contact your sales or service representative.	Turn the power off, and then 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 message appears again, con- tact your sales or service rep- resentative.
Setting change in process	The settings are being changed.	Wait a while.
SSID not entered	This message appears if the SSID has not been entered.	Enter the SSID.
Supply order failed	Supply order has failed.	The use is required to reset the job.
Toner is almost empty: Black	The printer is almost out of toner (K).	Prepare to replace the toner cartridge (K) when the mes- sage "Add Toner Black" ap- pears on the display.
Toner is almost empty: Cyan	The printer is almost out of toner (C).	Prepare to replace the toner cartridge (C) when the mes- sage "Add Toner Cyan" ap- pears on the display.
Toner is almost empty: Magenta	The printer is almost out of toner (M).	Prepare to replace the toner cartridge (M) when the mes- sage "Add Toner Magenta" appears on the display.

Messages	Description	Recommended Action
Toner is almost empty: Yellow	The printer is almost out of toner (Y).	Prepare to replace the toner cartridge (Y) when the mes- sage "Add Toner Yellow" ap- pears on the display.
Update Mode Err. Power Off On	The printer has failed to start updating data.	Turn the printer OFF and then back ON to restart.
Waiting	The printer is waiting for the next data to print.	Wait a while.
Warming up	The printer is warming up and not ready.	Wait until the printer signals Ready.
Waste Toner is almost full	The waste toner bottle is al- most full.	Prepare to replace the waste toner bottle. See p.37 "Replacing the Waste Toner Bottle".

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 Online indicator stay on?	If not, press [Online] key to light it.
Does the Alert indicator stay red?	If so, check the error message on the display and take the required action.
Is paper loaded?	Load paper into the paper tray or onto the bypass tray. See p.15 "Loading Paper".
Can you print a configura- tion page?	If you cannot print a configuration page, it probably indicates a printer malfunction. Contact your sales or service representative. See "Test Printing", Setup Guide.
Is the interface cable con- nected securely to the printer and the computer?	Connect the interface cable securely. If it has a fastener, fasten it securely as well.
Are you using the correct interface cable?	The type of interface cable you should use depends on the compu- ter you use. Be sure to use the correct one.
	If the cable is damaged or worn, replace it with a new one.
	See p.92 "Specifications".
Is the Data In indicator	If not blinking or lit, the data is not being sent to the printer.
the print job?	 If the printer is connected to the computer using the in- terface cable
	Check the port connection setting is correct. For details about checking the port connection, see p.73 "Checking the port connection".
	Network Connection
	Contact your network administrator.
How is the signal strength	Ad hoc Mode or 802.11 Ad hoc Mode
when using the wireless LAN?	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.

Possible Cause	Solutions
How is the signal strength	Try the following:
when using Bluetooth?	Check the Bluetooth interface unit is installed properly.
	• Check there are no obstructions between computer, printer and other devices.
	Change the location of the computer.
	Change the location of the printer.
When you use the optional	SPP
Bluetooth interface unit.	 Make sure the machine you want to use appears in the 3Com Bluetooth Connection Manager.
	② Make sure "Bluetooth Serial Client (COMx)" appears under Client Ports in the 3Com Bluetooth Connection Manager.
	Restart computer, this printer, and the other devices.
	④ Make sure no IEEE 802.11b (wireless LAN) or other Bluetooth devices are in use.
	Note
	Interference may occur with the IEEE 802.11b wireless LAN interface board. Such interference may affect the transmission speed and other functions.
	(5) Transmissions between computers, other devices, and this printer can be blocked by obstructions. Move this printer, com- puters, and other devices, if necessary.
	HCRP, BIP
	① Restart the computer, this printer, and other devices.
	② Make sure no IEEE 802.11b (wireless LAN) or other Bluetooth devices are in use.
	Interference may occur with the IEEE 802.11b wireless LAN interface board. Such interference may affect the transmission speed and other functions.
	③ Transmissions between computers, other devices, and this printer can be blocked by obstructions. Move this printer, com- puters, other devices, if necessary.

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

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.
- For a IEEE 1394 (SCSI print) port connection, port 1394_00(n) *1 should be set.
- ^{*1} (n) is the number of printers connected.

Windows 95/98/Me

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

Windows 2000

- Click [Start], point to [Settings] and then click [Printers].
- 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

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

- 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].
- **5** 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

- Click [Start], point to [Settings] and then click [Printers].
- **2** Click to select the icon of the printer. After that, 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.	The paper setting may not be correct. For example, although you are using thick paper, the setting for thick paper may not be set.Check the paper settings.
	See p.9 "Types of Paper and Other Media".
	• Check the printer driver's paper settings. See the printer driver Help.
	When "Replace Black PCU" or "Replace Color PCU" appears on the display, replace the photo conductor unit.
	See p.30 "Replacing the Photo Conductor Unit".
	Confirm that the paper is not curled or bent. Envelopes can be curled easily. Flatten paper before loading.
	See p.3 "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 in- side the tray.
	See p.15 "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.15 "Loading Paper".
	Paper is either too thick or too thin.
	See p.3 "Paper and Other Media".
	Paper is bent or wrinkled. Use paper that have no bents or wrinkles.
	See p.3 "Paper and Other Media".
	Paper has already been printed on.
	See p.3 "Paper and Other Media".
	Paper is damp. Use paper that has been stored properly.
	See p.3 "Paper and Other Media".
	When loading paper, separate paper from each other.

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.15 "Loading Paper".
	Paper is either too thick or too thin.
	See p.3 "Paper and Other Media".
	Paper has already been printed on. See p.3 "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.3 "Paper and Other Media".
	Paper is static. Use paper that has been stored properly. See p.3 "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.3 "Paper and Other Media".
	Paper is too thin.
	See p.3 "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.15 "Loading Paper".
	The fusing unit is deteriorated or damaged. Replace the unit. See p.44 "Replacing the Fusing Unit".
Paper is not fed from the select- ed tray.	When you are using a Windows operating system, the print- er driver settings override those set using the control panel. Set the desired input tray using the printer driver. See the printer driver Help.
A printed image is different from the image on the compu- ter's display.	When you use some functions, such as enlargement and re- duction, the layout of the image might be different from that displayed in the computer display.
	You might have selected to replace True Type fonts with printer fonts in the printing process.
	To print an image similar to the image on the computer, make the settings to print out True Type fonts as an image. See the printer driver Help.

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 Data In indicator is blinking, the data is being proc- essed. 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] in the System menu.
It takes too much time to com- plete the print job.	Photographs and other data intensive pages take a long time for the printer to process, so simply wait when printing such data.
	Changing the settings with printer driver may help to speed up printing.
	See the printer driver Help.
	The data is so large or complex that it takes time to process it. If the Data In indicator is blinking, the data is being proc- essed. Just wait until it resumes.
	If "Waiting" appears on the 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 Help.
The color of the printout is dif- ferent from the color on the	The colors made using color toner are different from colors displayed on the display in its production system.
computer's display.	When [Toner Saving] is checked under the [Print Quality] tab in the printer driver's dialog box, the color gradation may ap- pear differently. See the printer driver Help.
The color of the printout is dif- ferent from the color specified.	If a specific color is missing, turn the power switch off and on. If this does not solve the problem, contact your sales or service representative.
Color changes extremely when adjusted with the printer driver.	Do not extreme settings for the color balance under the [Print Quality] tab in the printer driver's dialog box.
	See the printer driver Help.
Photo images are coarse.	Some applications lower the resolution for making prints.
Color documents are printed in black and white.	The printer driver is not set up for color printing. See the printer driver Help.
	Some applications print color files in black and white
Fine dot pattern does not print.	Change the [Dithering:] setting in the printer driver's dialog
	See the printer driver Help.

Status	Possible Causes, Descriptions, and Solutions
Solid areas, lines or text are shiny or glossy when created as a mixture of cyan, magenta, yel- low.	Select [K (Black)] for [Gray Reproduction (Text/Line Art):] in the printer driver's dialog box. See the printer driver Help.
Black gradation is not natural.	Select [CMY + K] for [Gray Reproduction (Text/Line Art):] in the printer driver's dialog box. See the printer driver Help.
Solid lines are printed as broken lines.	Change the [Dithering:] setting in the printer driver's dialog box. See the printer driver Help.
A color is missing or partially blurred.	Paper is damp. Use paper that has been stored properly. See p.3 "Paper and Other Media".
	Toner is almost depleted. When the "Add Toner XXX" or "Toner is almost empty" message appears on the display panel, or the toner end LED on the control panel is lit, replace the toner cartridge of the displayed color. See p.27 "Replacing the Toner Cartridge".
	When "Replace Black PCU" or "Replace Color PCU" appears on the display, replace the photo conductor unit. See p.30 "Replacing the Photo Conductor Unit".
	Condensation may have collected. If rapid change in temper- ature or humidity occurs, use this printer only after it has ac- climatized.
The whole printout is blurred.	Paper is damp. Use paper that has been stored properly. See p.3 "Paper and Other Media".
	If you select [Toner Saving] on the [Print Quality] tab in the printer properties dialog box, printing is generally less dense. See the printer driver Help.
	Toner is almost depleted. When the "Add Toner XXX" or "Toner is almost empty" message appears on the display panel, or the toner end LED on the control panel is lit, replace the toner cartridge of the displayed color. See p.27 "Replacing the Toner Cartridge".
	When "Replace Black PCU" or "Replace Color PCU" appears on the display, replace the photo conductor unit. See p.30 "Replacing the Photo Conductor Unit".
	Condensation may have collected. If rapid change in temper- ature or humidity occurs, use this printer only after it has ac- climatized.

Status	Possible Causes, Descriptions, and Solutions
White streaks or color streaks appear.	Toner is almost depleted. When the "Add Toner XXX" or "Toner is almost empty" message appears on the display panel, or the toner end LED on the control panel is lit, replace the toner cartridge of the displayed color. See p.27 "Replacing the Toner Cartridge".
	When "Replace Black PCU" or "Replace Color PCU" appears on the display, replace the photo conductor unit. See p.30 "Replacing the Photo Conductor Unit".
White or color rivers appear.	When "Replace Black PCU" or "Replace Color PCU" appears on the display, replace the photo conductor unit. See p.30 "Replacing the Photo Conductor Unit".
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 dirt- ied.
If rubbed with your finger, it smears out.	 The setting of the paper may not be correct. For example, although thick paper is used, the setting for thick paper may not be set. Check the paper settings of this machine. See p.9 "Types of Paper and Other Media". Check the paper settings of the printer driver. See the printer driver Help. The fusing unit is deteriorated or damaged. Replace the unit. See p.44 "Replacing the Fusing Unit".
When printing on OHP trans-	The registration roller is dirty. Clean the registration roller.
parencies, a color is missing or black or white dots are obvious.	See p.51 "Cleaning the Registration Roller".
When printing on plain paper, white dots are obvious.	The registration roller is dirty. Clean the registration roller. See p.51 "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 [RAM Disk] in the System Menu to 2 MB or higher.
	\mathcal{P} Reference
	See "Attaching Hard Disk Drive Type 4000", Setup Guide for optional hard disk drive installation.
	For [RAM Disk] , see the "System Menu", Software Guide.
	After adding a memory unit and set the value of the [RAM Disk] in the System Menu to 16 MB, value of the [RAM Disk] returns to 0 MB if the memory unit is removed. If this happens, reset the value of the [RAM Disk] to 2 MB or higher.
	\mathcal{P} Reference
	For [RAM Disk] , see the "System Menu", Software Guide.
	When printing a PDF with a password set, set the password of the PDF file using the [PDF: Change PW] menu in [PDF Menu] or Web Image Monitor.
	₽Reference
	For [PDF: Change PW] , see the "PDF Menu", Software Guide.
	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 [Sub Paper Size] in the System Menu is set to [Auto] , printing is performed assuming letter size and A4 size to be the same size. For example, When a PDF file set to A4 size paper is printed using PDF Direct Print and letter size paper is installed in the paper tray, the file will print out. This applies similarly to the opposite case.

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

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, con- tact your sales or service representative.
No e-mail is received when an Alert occurs, and after resolving	Confirm [Notify by Email] is [On] using the System Menu on the Control Panel. See "System Menu", Software Guide.
an Alert.	 Access the printer through the Web browser, log on as an Administrator on the Web Image Monitor, and then confirm the following settings in [E-mail Notification]: Device E-mail Address Groups to Notify
	Select Groups/Items to Notify
	PReference For details about the settings, see Web Image Monitor Help.
	Access the printer through the Web browser, log on as an Administrator on the Web Image Monitor, and then confirm the settings of the SMTP server in [E-mail] .
	\mathcal{P} Reference
	For details about the settings, see Web Image Monitor Help.
	When the power is turned off before the e-mail is transmit- ted, 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 e- mail is not arriving.	After changing the setting, turn the main unit's power off and then back on again.
Error notification e-mail was re- ceived, but no error-solved e- mail is received.	Check e-mail is set for sending using the Web Image Moni- tor's [E-mail Notification] at the time the error was fixed. You must click the [Edit] button of [Detailed Settings of Each Item] in [E-mail 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 send- ing e-mail, but no Alert-re- solved e-mail is sent.	If the power of the main unit is turned off after an Alert oc- curs, the Alert is resolved during the time the power is off: no Alert-resolved e-mail is sent.
Alert Occurrence and Alert Re- solving are set for sending e- mail, but while no Alert Occur- rence mail is received, Alert-re- solved 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 notifi- cation level is changed after.
When no date information is in- cluded in sent e-mail, the mail server has a malfunction.	Make the setting for obtaining time information from the SNTP server. Refer to the Web Image Monitor's Help to the settings.
Printing using Bluetooth is slow.	 When using the optional Bluetooth interface unit, do the following: Transmit fewer print jobs. Make sure no IEEE 802.11b (wireless LAN) or other Bluetooth devices are in use. Note Interference may occur with the IEEE 802.11b wireless 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. Note When you use a Bluetooth connection, print jobs are transmission speed.

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.

6. Removing Misfed Paper

Removing Misfed Paper

An error message appears if a paper misfeed occurs. The error message gives the location of the misfeed.

∰Important

- □ Misfed paper may be covered in toner. Be careful not to get toner on your hands or clothes.
- □ Toner on prints made after removing misfed paper may be loose (inadequately fused). Make a few test prints until smudges no longer appear.
- Do not forcefully remove misfed paper, it will tear. Torn pieces remaining inside the printer will cause further misfeeds and possibly damage the printer.

When "Remove Misfeed A: Internal Path" Appears

"Remove Misfeed A: Internal Path" appears when a paper misfeed occurs in the paper feeding. Open the front cover (A) to remove the misfed paper.

A CAUTION:

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

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.

🖉 Note

- Remove the paper from the bypass tray before opening the front cover.
- If a misfeed occurs when using the bybass tray, open the front cover, and then remove the misfed paper.
- Carefully open the printer's front cover (A) of by pulling left and right side levers.



2 Remove misfed paper slowly.





- □ If you cannot find the misfed paper, look inside the printer.
- **B** If a misfeed occurs in the output area of the fusing unit, open the output cover by pulling back the levers marked "A1" (left and right on the fusing unit's upper side).



 Remove misfed paper slowly.

5 Close the output cover of the fusing unit.

Carefully close the front cover (A).

If the error message remains displayed even you have removed the misfed paper, check the input tray for a paper misfeed.

Pull out the paper tray, and then carefully remove any misfed paper.



U Push in the paper tray. Make sure the tray is securely inserted to avoid paper jams.

- When a paper form the paper tray 3 causes a misfeed, pull out the paper tray 1 and 2 to remove the jammed paper. Pull out the paper tray with force if it is difficult to pull it out completely.
- When closing the front cover, push the upper side of the cover firmly. After closing the cover, check that the error is cleared.

When "Remove Misfeed Z: Duplex Unit" Appears

"Remove Misfeed Z: Duplex Unit" is an error message which appears when a paper misfeed occurs in the both-side printing unit inside the printer. Open the front cover (Z) to remove the misfed paper.

Open the printer's front cover (Z) by pressing the button on the right side.



2 Carefully remove misfed paper.



Carefully close the front cover (Z).

🖉 Note

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

7. Appendix

Moving and Transporting the Printer

A 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 50 kg (110.3 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.

Moving the Printer

A 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

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 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.



If you removed options, reinstall them.

See Setup Guide for installing options.

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

Consumables

A CAUTION:

 Our products are engineered to meet 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 bottle *1
Black	15,000 pages, 5,000 pages
Cyan	15,000 pages, 5,000 pages
Magenta	15,000 pages, 5,000 pages
Yellow	15,000 pages, 5,000 pages

^{*1} A4/letter 5% test chart, 2 pages/ job.

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

- If toner cartridges are not changed when necessary, printing will become impossible. We recommend keeping a stock of bottles or purchasing them soon.
- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- Toner cartridges may need to be changed sooner than indicated above due to deterioration over the period of use.
- □ Toner cartridges (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.
- □ When you first use this printer, use the four toner cartridges packaged with the printer.
- Numbers of pages that can be printed using the toner cartridge supplied with this printer are as follows:

Toner Cartridge	Average printable number of pages per bottle
Black, Cyan, Magenta, Yellow	3,000 pages

Waste Toner Bottle

Name	Average printable number of pages ^{*1}
Waste Toner Bottle Type 145	50,000 pages

¹ A4/letter 5% test chart, 2 pages/ job.

🖉 Note

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

Photo Conductor Unit

Name	Average printable number of pages ^{*1}
Photo Conductor Unit Type 145 Black	50,000 pages
Photo Conductor Unit Type 145 Color	50,000 pages

^{*1} A4/letter 5% test chart, 2 pages/job.

- 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.

Intermediate Transfer Unit (Transfer Unit)

Name	Average printable number of pages *1
Intermediate Transfer Unit Type 145	100,000 pages

^{*1} A4/letter 5% test chart, 2 pages/job.

🖉 Note

- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- If the transfer unit is not changed when necessary, the quality of printing is not guaranteed. We recommend keeping a stock of transfer unit or purchasing one soon.

Maintenance Kit

Maintenance Kit Type 4000

Name	Average printable number of pages *1
Fusing Unit	100,000 pages
Transfer Roller	100,000 pages
Paper Feed Roller × 3	100,000 pages
Friction Pad × 3	100,000 pages
Dustproof Filter × 2	100,000 pages

^{*1} A4/letter 5% test chart, 2 pages/job.

- The actual number of printable pages varies depending on the image volume and density, number of pages to be printed at a time, paper type and paper size used, and environmental conditions such as temperature and humidity.
- □ The maintenance kit (consumables) are not covered by warranty. However, if there is problem, contact the store where they were purchased.

Specifications

Mainframe

Configuration:

Desktop

Print Process:

Laser beam scanning & Electrophotographic printing 4 drums tandem method

First Print Speed:

Monochrome: 10 sec or less (A4 \square) Color: 15 sec or less (A4 \square)

🖉 Note

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

Printing Speed:

Monochrome: Maximum 25 pages per minute $(A4 \Box)^{*1}$

Color: Maximum 25 pages per minute $(A4 \square)^{*1}$

^{*1} Printing speed may vary depending on the setting up environment.

Resolution:

 $1200 \times 1200 \text{ dpi (RPCS, PostScript 3, PCL 6)} \\ 1200 \times 600 \text{ dpi (RPCS, PostScript 3, PCL 6)} \\ 600 \times 600 \text{ dpi (RPCS, PostScript 3, PCL 5c/e/6)} \\ 300 \times 300 \text{ dpi (PCL 5c/e^{*1})} \\ ^{*1} \text{ monochrome only} \\ \end{cases}$

Paper size:

See p.3 "Paper and Other Media"

Paper Weight:

See p.3 "Paper and Other Media"

Media Type: See p.3 "Paper and Other Media"

Paper Output Capacity:

Standard 500 sheets (80 g/m^2 , 20 lb.)

Paper Input Capacity:

Standard Paper Tray	550 sheets *1
Bypass Tray	100 sheets *1
Optional Paper Feed Units	550 sheets \times 1, 550 sheets \times 2 *1

^{*1} Paper weight: 80 g/m² (20 lb. bond)

Power Source:

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

Power Consumption:

Printing	1200 W or less (No power is used during power off.)
Energy Saver	6 W or less

✤ Warm-up Time:

Less than 30 seconds (23°C, 71.6 F) *1

^{*1} When no error.

Dimensions:

	Width	Depth	Height
Printer only (tray not extended)	446 mm (17.4 inches)	589.5 mm (23.2 inches)	487 mm (19.2 inches)

Weight:

Approximately 50 kg (110.3 lb.) (toner cartridges and power cord included)

Noise Emission ^{*1}:

Sound Power Level

	Mainframe only
Stand-by	39 dB (A)
During Printing	Monochrome: 63 dB (A)
	Color: 64 dB (A)

Sound Pressure level *2

	Mainframe only
Stand-by	25 dB (A)
During Printing	51 dB (A)

^{*1} The preceding measurements made in accordance with ISO7779 are actual values.

^{*2} Measured at the position of a bystander.

✤ Memory:

Standard 128/256 MB, up to 512 MB (with the optional Memory Unit)

Interface:

Standard:

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

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

- IEEE 1394 (SCSI print, IP over 1394)
- IEEE 802.11b (Wireless LAN)
- Parallel (Bidirectional IEEE1284)
- Bluetooth

Printer Language: RPCS, PJL, PCL 5c/e/6, PostScript Level 3, PDF

Fonts:

PCL 5c/e/6 Agfa Monotype 35 Intellifonts, 10 TrueType fonts, 13 International fonts, and 1 Bitmap font. PostScript 3, PDF 136 fonts (Type 2:24, Type 14:112)

Options

Paper Feed Unit Type 4000

Paper size:

A4, B5, B5, A5, B6, Letter ($8^{1}/_{2} \times 11$ inches), Legal ($8^{1}/_{2} \times 14$ inches), $5^{1}/_{2} \times 8^{1}/_{2}$ inches), Executive ($7^{1}/_{4} \times 10^{1}/_{2}$ inches), Folio ($8^{1}/_{4} \times 13$ inches), Foolscap ($8^{1}/_{2} \times 13$ inches), F/GL (8×13 inches), Com#10 Env ($4^{1}/_{8} \times 9^{1}/_{2}$ inches), C5 Env (6.38×9.02 inches), C6 Env (4.49×6.38 inches), D, DL Env (4.33×8.66 inches), Monarch Env ($3^{7}/_{8} \times 7^{1}/_{2}$ inches), A6K ($7.68 \times 10^{1}/_{2}$ inches), and Custom Size

The Second Sec

 $460 \times 576 \times 150$ mm ($18.2 \times 22.7 \times 5.9$ inches)

* Paper weight: $52 - 216 \text{ g/m}^2$ (14)

52 - 216 g/m², (14 - 58 lb.)

Weight:

Less than 8.5 kg (18.8 lb.)

Hard Disk Drive Type 4000

Storage Capacity (Formatted): 20 GB

Specifications:

- Spool print data to collate
- Spool Sample Print/Locked Print data
- Store PostScript fonts
- Store log data

🖉 Note

You can install PostScript fonts with this optional hard disk drive. With Mac OS, types of fonts supported are PostScript Type 1 and PostScript Type 2. To download them, use Printer Utility for Mac.

User Account Enhance Unit Type E

Capacity:

128 KB

• Store User Code (up to 500 users)

Memory Unit Type D 128MB/Memory Unit Type E 256MB

Module Type:

SO-DIMM (Small Outline Dual-in-line Memory Module)

- Memory Type: SDRAM (Synchronous Dynamic RAM)
- Number of Pins: 200 pins

IEEE 1394 Interface Board Type B

Interface: IEEE Std. 1394-1955 compliant, IEEE Std. 1394-2000 compliant.

Interface Connector: IEEE 1394 (6 pins × 2)

 Required cable: IEEE 1394 interface cable (6 pins x 4 pins, 6 pins x 6 pins)

Important

- □ You cannot plug devices together to create loops.
- Do not use a cable more than 4.5 meters long.
- Connectable number of devices in a bus: Maximum 63
- Allowed cable hops in a bus: Maximum 16
- Data Transmission: 400 Mbps (Maximum)
- Power supply: Non power supply Cable Power repeated (IEEE 1394a-2000 compliant)

IEEE 802.11b Interface Unit Type H

 Transmission Spec.: Based on IEEE 802.11b (Wireless LAN)

Protocol:

TCP/IP, NetBEUI, IPX/SPX, AppleTalk

🖉 Note

□ SmartDeviceMonitor and Web Image Monitor are supported.

Data Transfer Speed:

Auto select from below speed 1 Mbps, 2 Mbps, 5.5 Mbps, 11 Mbps

Frequency Range:

- Inch version: 2412-2462 MHz (1-11 channels)
- Metric version: 2412-2472 MHz (1-13 channels)

Transmittable Distance:

- 1 Mbps 400 m *1
- 2 Mbps 270 m *1
- 5.5 Mbps 200 m *1
- 11 Mbps 140 m *1
- ^{*1} These figures are a guideline for outdoor use. In general, the transmittable distance indoors is 10-100 m, depending on the environment.

Transmission Mode:

ad hoc mode and infrastructure mode

IEEE 1284 Interface Board Type A

Transmission Spec.:

IEEE 1284

Required cable:

Standard IEEE 1284 compliant Micro Centronics 36 pin cable

Bluetooth Interface Unit Type 3245

Supported Profiles:

- SPP (Serial Port Profile)
- HCRP (Hardcopy Cable Replacement Profile)
- BIP (Basic Imaging Profile)

✤ Frequency Range:

2 GHz ISM band

Data Transmission Speed:

732 kbps

🖉 Note

□ The transmission speed is adjusted according to factors such as the distance and obstacles between the devices, radio signal condition and Bluetooth adaptor.

Maximum Range:

10 m

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