PRINTER Controller
Type 450e (Option)

PRINTER REFERENCE 2

ND0A0101

Read this manual carefully before you use this product and keep it handy for future reference.
For safety, please follow the instructions in this manual.

Introduction

This manual contains detailed instructions on the operation and maintenance of this machine. To get maximum versatility from this machine all operators should carefully read and follow the instructions in this manual.

Please keep this manual in a handy place near the machine.

Please read the Safety Information in the "Copy Reference" before using this machine. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

Important

Parts of this manual are subject to change without prior notice. In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

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Warning:

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

Notes:

Some illustrations might be slightly different from your machine.

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

The model names of the machines do not appear in the following pages. Confirm of the type of the machine before reading this manual. ⇒ P.1 *"Machine Types"*

Manuals for This Machine

There are six manuals that separately describe the operational procedures for the operation and maintenance of the machine.

This manual, Printer Reference 2, contains detailed instructions for using this machine as a printer.

To ensure safe and efficient operation of the machine, all users should read and follow the instructions contained in the following manuals.

❖ **System Settings**

Describes the procedures and functions for adjusting the settings and defaults of this machine for the copier.

❖ **Copy Reference**

Describes the procedures and functions for using this machine as a copier.

❖ **Printer Reference 1**

Describes the system settings, procedures and functions for using this machine as a printer.

❖ **Printer Reference 2**

Describes the procedures and provides necessary information about using this machine as a printer. The manual is included as a PDF file on the CD-ROM labeled "Printer Drivers and Utilities". (This Manual)

❖ **PostScript 3 Operating Instructions Supplement (option)**

Describes the menus and features you can set using the PostScript printer driver. The manual is provided as a PDF file which is included on the CD-ROM labeled "Printer Drivers and Utilities".

❖ **Network Interface Board Quick Configuration Guide (option)**

Describes the procedures and provides necessary information about setting up and using the machine under the network environment. The manual is provided as a PDF file which is included on the CD-ROM labeled "Printer Drivers and Utilities". Read this manual as your first choice before referring to the paper version of the Quick Configuration Guide which comes with optional Network Interface Board Type 450-E.

How to Read This Manual

Symbols

In this manual, the following symbols are used:

⚠ *WARNING:*

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

⚠ *CAUTION:*

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

* The statements above are notes for your safety.

✸Important

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

📓 Preparation

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

✎ Note

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

�器 Limitation

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

🔍Reference

This symbol indicates a reference.

【　】

Keys that appear on the machine's panel display.

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

【　】

Keys built into the machine's operation panel.

Keys on the computer's keyboard.

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5. Appendix

Machine Types

There are two models of this machine. The main differences between them are print speed and available options.

📝 Note

❐ Please see the inside of the front cover of the "Copy Reference" to confirm which model (Type 1 or Type 2) you use.

	Type 1	Type 2
Printing Speed	35 ppm (A4▯, $8^1/_2$" × 11"▯)	45 ppm (A4▯, $8^1/_2$" × 11"▯)
3000-Sheet Finisher	—	Option
Punch Kit	—	Option (with the 3000-sheet finisher)

1. Uninstalling the Printer Driver and Software

Uninstalling the PCL 6/5e Printer Driver

This section describes how to uninstall the printer driver. The actual procedure may differ depending on the operating system.

Follow the appropriate procedure below.

Windows 95/98 - Uninstalling the PCL 6/5e Printer Driver

A **Close all the applications that are currently running.**

B **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

C **Click the icon of the printer you want to remove.**

D **On the [File] menu, click [Delete].**

A confirmation dialog box appears.

E **Click [Yes] to uninstall the printer driver.**

Windows NT 4.0 - Uninstalling the PCL 6/5e Printer Driver

🔧 **Limitation**
❒ Uninstalling the printer driver requires Full Control access Permission. Members of the Administrators, Server Operators, Print Operators, and Power Users groups have Full Control permission by default. When you uninstall a printer driver, log on under Full Control permission.

A **Close all the applications that are currently running.**

B **Click [Start] on the task bar, point to [Settings], and click [Printers].**

The **[Printers]** window appears.

C **Click the icon of the printer you want to remove.**

D **On the [File] menu, click [Delete].**

A confirmation dialog box appears.

E **Click [Yes] to uninstall the printer driver.**

Uninstalling the PostScript Printer Driver

This section describes instructions for uninstalling the PostScript printer driver. The actual procedure may differ depending on the operating system.

Follow the appropriate procedure below.

Windows 95/98 - Uninstalling the PostScript Printer Driver

A **Close all applications that are currently running.**

B **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

C **Click the icon of the printer you want to remove.**

D **On the [File] menu, click [Delete].**

A confirmation dialog box appears.

E **Click [Yes] to uninstall the printer driver.**

Windows NT 4.0 - Uninstalling the PostScript Printer Driver

❖ **Limitation**
❑ Uninstalling the printer driver requires Full Control access Permission. Members of the Administrators, Server Operators, Print Operators, and Power Users groups have Full Control permission by default. When you uninstall a printer driver, log on under Full Control permission.

A **Close all applications that are currently running.**

B **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

C **Click the icon of the printer you want to remove.**

D **On the [File] menu, click [Delete].**

A confirmation dialog box appears.

E **Click [Yes] to uninstall the printer driver.**

Macintosh - Uninstalling the PostScript Printer Driver

A **Drag the "AdobePS" file inside the [Extensions] folder in [System Folder] to [Trash].**

B **Drag the "Proof Print" file inside the [Printer Descriptions] folder in the [Extensions] folder in [System Folder] to [Trash].**

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2. Setting Up the Printer Driver and Canceling a Print Job

PCL 6/5e - Accessing the Printer Properties

Windows 95/98 - Accessing the Printer Properties

There are two methods you can use to open the Printer Properties.

Making Printer Default Settings

To make the printer default settings, first open the Printer Properties from the **[Printers]** window.

A **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

B **Click the icon of the printer whose default settings you want to change.**

C **On the [File] menu, click [Properties].**

The Printer Properties appear.

D **Set desired settings and click [OK].**

Making Printer Settings from an Application

To make the printer settings for a specific application, open the Printer Properties from that application. The following example describes how to make settings for the WordPad application that comes with Windows 95/98.

✐ **Note**

❒ The actual procedures you should follow to open the Printer Properties may differ depending on the application. For more information about the procedures, see the documentation that comes with the application you are using.

❒ When you use some applications, the driver's initial default settings of the applications might be applied over the printer driver's setting.

❒ Any settings you make in the following procedure are valid for the current application only.

A **On the [File] menu, click [Print].**

The **[Print]** dialog box appears.

B **From the [Name:] list, select the printer you want to use, and then click [Properties].**

The Printer Properties appear.

C **Set desired settings and click [OK].**

D **Click [OK] to start printing.**

Windows NT 4.0 - Accessing the Printer Properties

Making Printer Default Settings - Printer Properties

❤ Limitation

❒ Changing the settings of the printer requires Full Control access permission. Members of the Administrators, Server Operators, Print Operators, and Power Users groups have Full Control permission by default. When you set up options, log on under Full Control permission.

A **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

B **Click the icon of the printer whose default setting you want to change.**

C **On the [File] menu, click [Properties].**

The Printer Properties appear.

D **Set desired settings and click [OK].**

✎ Note

❒ Settings you make here are used as the default settings for all applications.

Making Printer Default Settings – Default Document Properties

❤ Limitation

❒ Changing the settings of the printer requires Full Control access permission. Members of the Administrators, Server Operators, Print Operators, and Power Users groups have Full Control permission by default. When you set up options, log on under Full Control permission.

A **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

B **Click the icon of the printer whose default settings you want to change.**

C **On the [File] menu, click [Document Defaults].**

The Default Document Properties appear.

D **Set desired settings and click [OK].**

✎ Note

❒ Settings you make here are used as the default settings for all applications.

Making Printer Settings from an Application

To make the printer settings for a specific application, open the Document Properties from that application. The following example describes how to make settings for the WordPad application that comes with Windows NT 4.0.

Note

❒ The actual procedures you should follow to open the Document Properties may differ depending on the application. For more information about the procedures, see the documentation that comes with the application you are using.

❒ Any settings you make in the following procedure are valid for the current application only.

A **On the [File] menu, click [Print].**

The **[Print]** dialog box appears.

B **From the [Name:] list, select the printer you want to use, and then click [Properties].**

The Document Properties appear.

C **Set desired settings and click [OK].**

D **Click [OK] to start printing.**

PostScript - Setting Up for Printing

Windows 95/98 - Accessing the Printer Properties

There are two methods you can use to open the Printer Properties.

Making Printer Default Settings

To make the printer default settings, first open the Printer Properties from the **[Printers]** window.

A **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

B **Click the icon of the printer whose default settings you want to change.**

C **On the [File] menu, click [Properties].**

The Printer Properties appear.

D **Set desired settings and click [OK].**

Making Printer Settings from an Application

To make the printer settings for a specific application, open the Printer Properties from that application. The following example describes how to make settings for the WordPad application that comes with Windows 95.

Note

❐ The actual procedures you should follow to open the Printer Properties may differ depending on the application. For more information about the procedures, see the documentation that comes with the application you are using.

❐ When you use some applications, the driver's initial default settings of the applications might be applied over the printer driver's setting.

❐ Any settings you make in the following procedure are valid for the current application only.

A **On the [File] menu, click [Print].**

The **[Print]** dialog box appears.

B **From the [Name:] box, select the printer you want to use, and then click [Properties].**

The Printer Properties appear.

C **Set desired settings and click [OK].**

D **Click [OK] to start printing.**

Windows NT 4.0 - Accessing the Printer Properties

Making Printer Default Settings - Printer Properties

♥ Limitation

❒ Changing the settings of the printer requires Full Control access permission. Members of the Administrators, Server Operators, Print Operators, and Power Users groups have Full Control permission by default. When you set up options, log on under Full Control permission.

A **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

B **Click the icon of the printer whose default settings you want to change.**

C **On the [File] menu, click [Properties].**

The Printer Properties appear.

D **Set desired settings and click [OK].**

✐ Note

❒ Settings you make here are used as the default settings for all applications.

Making Printer Default Settings - Default Document Properties

♥ Limitation

❒ Changing the settings of the printer requires Full Control access permission. Members of the Administrators, Server Operators, Print Operators, and Power Users groups have Full Control permission by default. When you set up options, log on under Full Control permission.

A **Click [Start] on the task bar, point to [Settings], and then click [Printers].**

The **[Printers]** window appears.

B **Click the icon of the printer whose default settings you want to change.**

C **On the [File] menu, click [Document Defaults].**

The Default Document Properties appear.

D **Set desired settings and click [OK].**

✐ Note

❒ Settings you make here are used as the default settings for all applications.

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Making Printer Settings from an Application

To make the printer settings for a specific application, open the Document Properties from that application. The following example describes how to make settings for the WordPad application that comes with Windows NT 4.0.

Note

❒ The actual procedures you should follow to open the Document Properties may differ depending on the application. For more information about the procedures, see the documentation that comes with the application you are using.

❒ Any settings you make in the following procedure are valid for the current application only.

A **On the [File] menu, click [Print].**

The **[Print]** dialog box appears.

B **From the [Name:] box, select the printer you want to use, and then click [Properties].**

The Document Properties appear.

C **Set desired settings and click [OK].**

D **Click [OK] to start printing.**

Macintosh - Setting Up for Printing

Making Paper Settings from an Application

A **Open the file you want to print.**

B **On the [File] menu, click [Page Setup].**

[AdobePS Page Setup] appears.

C **Confirm that the printer you want to use is shown in the [Format for:] box.**

Note

❒ If the printer is not shown in the **[Format for:]** box, use the pop-up menu to display a list of available printers.

Reference

The actual appearance of the Page Setup depends on the application you are using. For more information, see the documentation that comes with the Macintosh.

D **From the [Paper:] box, select the paper size.**

E **Set desired settings and click [OK].**

Setting up for Printing from an Application

A **Open the file you want to print.**

B **On the [File] menu, click [Print].**

The Printer Settings appear.

C **Confirm that the printer is selected in the [Printer:] box.**

D **Set desired settings and click [Print].**

Canceling a Print Job

Windows 95/98 - Canceling a Print Job

A **Double-click the printer icon on the task bar.**

This opens a window that shows all the print jobs that are currently queued for printing. Check the current status of the job you want to cancel.

B **Click the name of the job you want to cancel so that it is highlighted.**

C **On the [Document] menu, click [Cancel Printing].**

✐ **Note**
❒ You can also open the print job queue window by double-clicking the printer icon in the **[Printers]** window.

D **Press the printer's [Job Reset] key.**

The message appears on the panel display indicating that the print job is being canceled.

⚠ **Important**
❒ When the printer is being shared by multiple computers, be careful not to accidentally cancel someone else's print job.

✐ **Note**
❒ You cannot stop printing the data that has already been processed internally by the printer. Because of this, printing might continue for a few pages after you press **[Job Reset]**.
❒ A print job that contains a large volume of data might take considerable time to stop.
❒ It takes about 5 minutes to reset the print job, after 5 minutes the printer returns to the ready condition.

Windows NT 4.0 - Canceling a Print Job

A **Double-click the printer icon on the task bar.**

This opens a window that shows all the print jobs that are currently queued for printing. Check the current status of the job you want to cancel.

B **Click the name of the job you want to cancel so that it is highlighted.**

C **On the [Document] menu, click [Cancel].**

✐ **Note**
❒ You can also open the print job queue window by double-clicking the printer icon in the **[Printers]** window.

4 **Press the printer's [Job Reset] key.**

The message appears on the panel display indicating that the print job is being canceled.

⚠️Important

❒ When the printer is being shared by multiple computers, be careful not to accidentally cancel someone else's print job.

📝 Note

❒ You cannot stop printing data that has already been processed internally by the printer. Because of this, printing might continue for a few pages after you press **[Job Reset]**.

❒ A print job that contains a large volume of data might take considerable time to stop.

❒ It takes about 5 minutes to reset the print job, after 5 minutes the printer returns to the ready condition.

Macintosh - Canceling a Print Job

1 **Double-click the printer icon on the desktop.**

This opens a window that shows all the print jobs that are currently queued for printing. Check the current status of the job you want to cancel.

2 **Click the name of the job you want to cancel so that it is highlighted.**

3 **Click the pause icon, and then click the trash icon.**

4 **Press the printer's [Job Reset] key.**

The message appears on the panel display indicating that the print job is being canceled.

⚠️Important

❒ When the printer is being shared by multiple computers, be careful not to accidentally cancel someone else's print job.

📝 Note

❒ You cannot stop printing data that has already been processed internally by the printer. Because of this, printing might continue for a few pages after you press **[Job Reset]**.

❒ A print job that contains a large volume of data might take considerable time to stop.

❒ It takes about 5 minutes to reset the print job, after 5 minutes the printer returns to the ready condition.

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3. Troubleshooting

Error and Status Messages on the Operation Panel

Messages	Description	Comments
Add paper Add ### paper in xxx, or press Reset to cancel current job.	There is no paper in the selected input tray, although the paper size selected from the computer and that from the operation panel are the same. The print job is suspended. ### : Paper size and paper direction icon xxx : Tray name	Set the selected paper in the selected input tray. The print job will be resumed automatically.
		To cancel the current job, press **[Reset]** .
	The paper size selected from the computer is not set in any trays when the tray selection is set to "Auto". The print job is suspended. ### : Paper size and paper direction xxx : Tray name	Set the selected paper in any of the input trays, and the print job will be resumed automatically.
		To continue the print job using incorrect paper, press **[Continue]**.
		To cancel the print job, press **[Reset]**.
		If you do not press any key, the print job will be canceled automatically after a few seconds.
	The paper size selected from the computer and that from the operation panel are different for the input tray for the current print job. The print job is suspended. ### : Paper size and paper direction icon xxx : Tray name	Set the selected paper in the selected tray and change the paper settings of the User Tools correctly. The print job will be automatically resumed.
		To continue the print job using the incorrect paper, press **[Continue]**.
		To cancel the print job, press **[Reset]**.
		If you do not press any key, the print job will be canceled automatically after a few seconds.

Messages	Description	Comments
Add ### paper to Bypass Tray, or press Reset to cancel current job.	The bypass tray is out of paper. The print job is suspended. ### : Paper size and paper direction icon xxx : Tray name	Set the selected paper in the bypass tray, and the print job will be resumed automatically.
		To cancel the print job, press **[Reset]**.
		If you do not press any key, the print job will be canceled automatically after a few seconds.
Add Staples	The stapler is almost empty.	Replace the staple refill with a new one. ⇒ "Adding Staples" in the "Copy Reference"
		This message remains until the next print job which does not require stapling begins.
Empty Hole Punch receptacle	The punch waste box is full.	Remove punch waste from the punch waste box. ⇒ "Removing Punch Waste" in the "Copy Reference"
		This message remains until the next print job begins.
Engine HDD is full. Sort uncompleted.	The engine HDD is full during the current collate operation.	The current collation ends and the pages that are already on the hard disk are printed without the collation.
		This message remains until the next print job begins.
Functional Problem SC2000 Turn Main Power Switch off then on. If the error appears again, call service. <Tel> 0000-0000-0000	A controller diagnostic error has occurred while the power is on.	Turn the main power switch off and on. If the message appears again, contact your sales or service representative.
		Even if this error occurs, other functions (Copy, Fax and Scanner) are still available.

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Messages	Description	Comments
Functional Problem SC2001 Turn Main Power Switch off then on. If the error appears again, call service. <Tel> 0000-0000-0000	A controller exception error occurred on the printer controller.	Turn the main power switch off and on. If the message appears again, contact your sales or service representative. Even if this error occurs, other functions (Copy, Fax and Scanner) are still available.
Functional Problem SC2002 Turn Main Power Switch off then on. If the error appears again, call service. <Tel> 0000-0000-0000	An exception error occurred on the software.	Turn the main power switch off and on. If the message appears again, contact your sales or service representative. Even if this error occurs, other functions (Copy, Fax and Scanner) are still available.
Going Offline	The machine is shifting from online to offline.	Wait until it shifts to offline.
< xxx > is not set correctly. Set < xxx > correctly.	The selected input tray is not set correctly. xxx : Tray name	Close the selected input tray, and the print job will be resumed automatically.
Memory overflow Press Reset to cancel current job.	Memory overflow occurred during the print job. After a part of the data on the page is printed, the print job is suspended. This is because the emulation language sent a file too complex for the printer to interpret with the available memory, or there is not enough memory space to download the fonts.	To cancel the print job, press **[Reset]**.
		If you do not press any key, the print job will be canceled automatically after a few seconds.
		To print the image correctly, add memory to the machine. This message remains until the next print job.
Network Board Firmware downloading….	The new Network Interface Board firmware is being downloaded.	Wait until it is downloaded.
Network Board Initializing…	The Network Interface Board firmware is being initialized.	Wait until it is initialized.

Messages	Description	Comments
Network failure. Network communication is not available. Check the Network setting.	Network communication is not available. An installed network card fails to correctly establish communication with the network.	Press **[Continue]** and confirm the network settings. The printer will start without the network capability. Even if a network card is installed, no error will occur when it is not plugged into a network connection.
Offline	The printer is offline. The printer cannot accept or print out data.	If you want to put the printer online, press **[Online]**.
Open Duplex Unit side tray, or press Reset to cancel current job.	The duplex unit cover is not open when one of the following paper sizes is selected for duplex printing. 11×17, $8^1/_2 \times 14$, A3, B4, $8^1/_4 \times 13$, 8×13, $8^1/_2 \times 13$	Open the duplex unit cover, and the print job will be resumed automatically.
		Press **[Reset]** to cancel the current job.
		If you do not press any key, the print job will be canceled automatically after a few seconds.
Output tray is full. Remove the paper on < xxxx >	The selected output tray of the print job is full, and the print job is suspended. xxxx : Tray name	Remove the output from the selected output tray. The print job will be resumed automatically.
Paper is left in Duplex Unit Open Duplex Unit and remove paper	Paper remains in the duplex tray, when the duplex job is started.	Remove the paper from the duplex tray, and the print job will be resumed automatically.
Paper is left in Staple Tray	Paper jam occurred and the jammed paper has removed but paper still remains in the staple tray.	Remove the paper from the staple tray, and the print job will be resumed automatically.
Paper is left in Staple Tray. Open Finisher and remove paper.	Paper remains in the staple tray, though the stapling job is canceled or a new stapling job is being started.	Remove the paper from the staple tray, and the print job will be resumed automatically.
Paper misfeed has interrupted Printing. Press Reset to cancel Current job, or press Continue to Print.	A paper misfeed occurred. You have removed all the misfed paper, but the print job has been interrupted.	To cancel the print job, press **[Reset]**.
		To make the jam recovery operation, press **[Continue]**.

Messages	Description	Comments
Parallel communication Error. Please set up communication parameters in parallel menu. Press Reset to cancel current job.	A parallel communication error occurred during the print job via the parallel port.	Press **[Reset]** to cancel the print job. Check the parallel communication settings again.
Please Wait.	The printer is warming up or processing internally.	Wait until the machine returns to the ready condition.
Printer HDD Error Printer HDD cannot be used.	An error with the printer HDD has occurred.	Turn the main power switch off and on. If the message appears again, contact your sales or service representative.
Printer HDD Error Press Reset to cancel the current job.	An error with the printer HDD has occurred while a macro or font is being downloaded from the computer.	Press **[Reset]** to cancel the current job.
		Turn the main power switch off and on. If the message appears again, contact your sales or service representative.
Printer HDD is full. Press Reset to reset current job.	The printer HDD becomes full while downloading a macro or font from the computer.	To cancel the print job, press **[Reset]**.
		If you do not press any key, the print job will be canceled automatically after a few seconds.
		To execute the operation correctly, clear room on the disk partition priority.

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Messages	Description	Comments
Print overrun. Press Reset to cancel current job, Or press Continue to print.	A print overrun occurred on a file being printed. Only part of the data on the page will be printed, and the print job is suspended.	To ignore this error, press **[Continue]**. The print job will be resumed.
		To cancel the print job, press **[Reset]**.
		If you do not press any key, the print job will be canceled automatically after a few seconds.
		To print the image correctly, add memory to the machine, or reduce the resolution of the image and re-send the print job.
Ready	The printer is online and ready for printing.	—
The job has been reset.	The current job has been reset.	—
< xxx > Tray is not available. Press Reset to cancel current job.	Something is wrong with the specified input tray. The print job is suspended. xxx : Tray name	Press **[Reset]** to cancel the current job.
		If you do not press any key, the print job will be canceled automatically after a few seconds.

Machine Does not Print

Possible Cause	Solutions
Is the power on?	If not, confirm that the cord is securely plugged into the outlet and the machine. Turn on the main power switch.
Is the machine online?	If not, press **[Online]** so that it is highlighted.
Does the **【Printer】** key stay red?	Check the error message on the panel display and take the required action.
Are there any error message on the panel display?	Check the error message on the panel display and take the required action.
Is the paper set?	Load paper into the paper tray.
Is the specified paper size correct?	Set the specified paper in any of the input trays.
Is the specified paper type correct?	Set the specified paper in any of the input trays.
Is the interface cable between the machine and the computer connected securely?	Connect the interface cable correctly. If there are any connectors or screws, confirm they are fastened securely.
Are you using a correct interface cable?	The type of interface cable you should use depends on the computer. Be sure to use the correct one. ⇒ "Connecting the Machine" in "Printer Reference 1" of the paper manual If the cable is damaged or worn, replace it with new one.
Did you connect the interface cable after turning on the main power switch?	Connect the interface cable before turning on the main power switch.
When you print using the PostScript driver in a network, data is received by the printer, but is not printed.	❖ **Windows 95/98** On the **[PostScript]** tab of the Printer Properties, click **[Advanced]** and then clear both **[Send CTRL+D before job]** and **[Send CTRL+D after job]**. ❖ **Windows NT 4.0** Open the **[Advanced]** tab of the Printer Properties. From **[PostScript Options]**, select **[No]** for both **[Send CTRL-D Before Each job:]** and **[Send CTRL-D After Each job:]**.

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Possible Cause	Solutions
If you print using the PostScript driver, printing does not start or is interrupted.	The data is cleared when the Job Timeout period is exceeded. ❖ **Windows 95/98** Set a longer **[Job Timeout]** period with the **[PostScript]** tab of the Printer Properties. ❖ **Windows NT 4.0** Set a longer **[Job Timeout]** period with the **[Device Settings]** tab of the Printer Properties.
	A PostScript error might occur if there is not enough memory in the machine, or there are errors in the print data sent to the machine. • Print the configuration page to check the amount of available memory. • If the memory size is full, increasing the memory may solve this problem. If you still cannot clear the problem, contact your sales or service representative.

	The print job might be reset. Do the following.
	
	• Confirm that you have selected the correct printer driver. Try printing again.
	
	• Set a longer Wait Timeout.
	
	  ❖ **Windows 95/98**
	  Set a longer **[Wait Timeout]** period with the **[PostScript]** tab of the Printer Properties.
	
	  ❖ **Windows NT 4.0**
	  Set a longer **[Wait Timeout]** period with the **[Device Settings]** tab of the Printer Properties.
	
	  ❖ **Macintosh**
	  You can specify a longer "**[I/O Timeout]**" period on the operation panel. ⇒ P.29 *"Using the Operation Panel"*

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Possible Cause	Solutions
Is the **Data In** indicator blinking or lit after starting the print job, when using the PCL printer?	If not, the data is not being sent to the machine, or the machine may be resetting the print job because there was a long delay in receiving the data from the computer. ❖ **If the printer is using "I/O Timeout"** Increase the value of the "I/O Timeout" setting of the "Parallel" menu or the "Network" menu. ⇒ P.29 *"Using the Operation Panel"* ❖ **If the machine is connected to the computer using the parallel cable** Confirm that the printer port settings are correct. For a parallel port connection, port LPT1 or LPT2 should be set. For more information about the printer port settings, see the Note after this table. ❖ **Network Connection** Contact the network administrator.
Can you print a configuration page?	If you cannot print a configuration page, it probably indicates machine malfunction. You should contact your sales or service representative. If you can print a configuration page but cannot get the machine to print when you issue a print command from the computer, it probably means there is a problem with the computer. Also keep it in mind that large, complex data might take a long time for the printer to process.

✐ Note

❒ The following procedure describes the printer port settings.

- **Windows 95/98**

  ① Click **[Start]**, point to **[Settings]**, and then click **[Printers]**.

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

  ③ Click the **[Details]** tab.

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

- **Windows NT 4.0**

  ① Click **[Start]**, point to **[Settings]**, and then click **[Printers]**.

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

  ③ Click the **[Port]** tab.

  ④ Confirm that the correct port is selected.

- **Macintosh**

  ① Click **[Apple Menu]**, point to **[Control Panels]**, and then select **[Apple Talk]**.

  ② Confirm that **[Ethernet]** is selected in the **[connect via:]** list.

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Other Printing Problems

Problem	Action
Image is printed on the reverse side of the paper.	Set the paper upside down.
Multiple pages are fed through the machine at once.	Remove all the paper from the tray and shuffle through the paper.
Paper misfeeds occur frequently.	Confirm the paper size settings. Use recommended paper. ⇒ "Copy Reference"
	Avoid using curled, folded, or wrinkled paper, perforated paper, or glossy paper.
The operation panel error message stays on after removing the misfed paper.	Open the front cover of the machine and close it.
It takes a long time for the machine to start printing.	The machine might be in Energy Saver mode or Low Power mode, which requires more time for warming up and resuming the print job. If you cannot wait, change the settings of Low Pwr. Shift Time and Low Power Timer. ⇒the "System Settings"
It takes too much time to complete the print job.	The data is so large or complex that it takes time to process it.
	If the **Data In** indicator is blinking, the data processing is being done.
	Just wait until it is finished.
Windows 95/98, NT 4.0 : The computer does not recognize the installed printer options.	If the connection to the machine is not bi-directional, the computer does not recognize the installed options.
	Setting of the options might not be specified correctly.
	In this case, specify which options you have installed using the printer driver.
	$\mathcal{P}$ **Reference** For more information about the setting options when installing the printer driver. ⇒ "Installing the Printer Driver and Software" in "Printer Reference 1" of the paper manual

Problem	Action
Desired tray isn't used for the output.	Check the tray of the finisher or the mailbox. With the optional mailbox and the optional 3000 sheet finisher installed, B4, $8^1/_2$" × 14" or larger sized paper (300 mm or longer) will be automatically delivered to the "Mailbox Proof" tray or "Finisher Proof" tray even if you specified "Inner Tray" as the output tray.

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4. Using the Operation Panel

This section provides information about how to adjust the printer settings using the "Printer Features" menus.

✎ Note

❐ After using User Tools, be sure to return to printer mode.

❐ The settings are not canceled even if the operation switch is turned off or the **[Escape]** key is pressed.

⌕ Reference

For more information about specifying the network settings, see "Configuring the Printer for the Network" in "Printer Reference 1" of the paper manual.

For more information about the Copy Features, Fax Features, Scanner Features and Specify the System Settings, see the "Copy Reference", the "Fax Reference", the "Scanner Reference" and the "System Settings".

Adjusting Printer Features

Printer Features Menu

There are eight menu items in the "Printer Features" menu.

- PCL
- PostScript
- Paper Feed
- Parallel
- Network
- Configuration
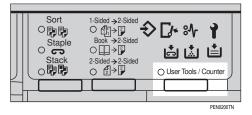- List Print
- Reset Select

You can select functions shown in the following table.

Category	Function Menu
1 PCL	1 Orientation
	2 Form Lines
	3 Font Source
	4 Font Number
	5 Point Size
	6 Font Pitch
	7 Symbol Set

Category	Function Menu		
2 PostScript	Print Errors		
3 Paper Feed	1 Input	1 Page Size	
		2 Tray Priority	
		3 Auto Tray Switch	
		4 Bypass Paper Type	
	2 Output	1 Duplex	
		2 Sort	
		3 Staple	
		4 Punch	
		5 Mailbox Tray Prio.	
4 Parallel	1 Emulation		
	2 Bi-Direction		
	3 I/O Timeout		
5 Network	1 I/O Timeout		
	2 TCP/IP Menu	1 IP Address	
		2 Subnet Mask	
		3 Gateway Address	
6 Configuration	1 Resolution		
	2 Auto Continue		
	3 Edge Smoothing		
	4 Autocont. Timeout		
7 List Print	1 PS Font List		
	2 PCL Font List		
	3 PS Demo Page		
	4 PCL Demo Page		
	5 Configuration Page		
8 Reset Select	1 Job Reset		
	2 Menu Reset		
	3 System Reset		

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Making Printer Settings with the Operation Panel

A **Press 【User Tools/Counter】.**

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The "User Tools Main Menu" appears.

B **Press 【4】 on the number keys.**

The "Printer Features" menu appears.

C **Search for the desired menu with [↓Next] or [↑Prev.].**

The desired menu or parameter appears.

Note

❒ **[↓Next]**: Press to go to the next page.

❒ **[↑Prev.]**: Press to go back to the previous page.

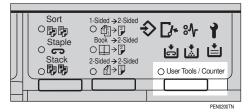❒ "*" shown in front of a item indicates that the item is currently selected.

D **Change the settings by following the instructions on the panel display. Then press [OK].**

Note

❒ **[OK]**: Press to set the new settings and return to the previous menu.

❒ **[Cancel]**: Press to return to the previous menu without changing any data.

Exiting from User Tools

A **After making the printer settings, press 【User Tools/Counter】.**

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✒ Note

❒ You can also exit from user tools by pressing **[Exit]** on the "User Tools Main Menu".

❒ After making the printer's settings, press **[Online]** to return to the ready condition. ⇒ "Online and Offline" in "Getting Started" in "Printer Reference 1" of the paper manual

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PCL Menu

There are seven menus in the "PCL" menu.

- Orientation

- Form Lines

- Font Source

- Font Number

- Point Size

- Font Pitch

- Symbol Set

PCL Parameters

❖ **PCL 1/2**

Menu	Description
1 Orientation	You can specify the page orientation. The tray selection specified with the printer driver overrides the one specified here. • Portrait • Landscape ✎ **Note** ❒ Default: *Portrait*
2 Form Lines	You can specify the number of lines per page. 5 to 128 ✎ **Note** ❒ Default: *60*
3 Font Source	You can specify the location of the default font. • Internal Specifies that you want to use the resident font as the default font. • Soft Specifies that you want to use the font downloaded from the computer as the default font. ✎ **Note** ❒ Default: *Internal*

Menu	Description
4 Font Number	You can specify the ID for the default font you want to use. • 0 to 52 (for Internal) • 1 to N (for Download source) ✐ **Note** ❒ Default: *0* ❒ "N" depends on how many fonts you have downloaded.

❖ **PCL 2/2**

Menu	Description
5 Point Size	You can specify the value for the point size you want to use for the selected font. 4.00 to 999.75 by 0.25 ✐ **Note** ❒ Default: *10.00* ❒ This setting is effective only for a variable-space font. ❒ When an incorrect size is entered, it blinks for about 2 seconds. Enter the correct size at that time.
6 Font Pitch	You can specify the number of characters per inch you want to use for the selected font. 0.44 to 99.99 by 0.01 ✐ **Note** ❒ Default: *10.00* ❒ This setting is effective only for a fixed-space font.
7 Symbol Set	You can specify the set of print characters for the selected font. The available options are as follows. Roman-8, Win L1, Win L2, Win L5, Win Baltic, Win 3.0, Legal, ISO L1, ISO L2, ISO L5, ISO 4, ISO 6, ISO 11, ISO 15, ISO 17, ISO 21, ISO 60, ISO 69, PC-8, PC-850, PC-852, PC-1004, PC-8 D/N, PC-8 Tk, VN Math, VN US, VN Intel, MS Pub1, Pifont, Desktop, Math-8, PS Math, PS Text, MC Text ✐ **Note** ❒ Default: *Roman-8*

PostScript Menu

There is one menu in the "PostScript" menu.

- Print Errors

PostScript Parameters

❖ PostScript

Menu	Description
Print Errors	You can specify whether the PostScript error sheet should be printed out. • Off • On 📝 **Note** ❒ Default: *Off*

Paper Feed Menu

There are two menus in the "Paper Feed" menu.

- Input
- Output

Paper Feed Parameters

❖ Input

Menu	Description
1 Input	**1 Page Size** In DOS printing, you should select the paper size when it is not specified in the applications. A3 , 11×17 , B4 , $8^1/_2 \times 14$, $8^1/_4 \times 13$, 8×13 , $8^1/_2 \times 13$, A4 , $8^1/_2 \times 11$, $7^1/_4 \times 10^1/_2$, B5 , A5 , $5^1/_2 \times 8^1/_2$, A6 Default: *$8^1/_2 \times 11$*
	2 Tray Priority You can specify the default tray. The tray selection specified with the printer driver overrides the one specified here. In DOS printing, the tray specified here is used, when no tray is specified for a print job. Auto, LCT, Bypass, Tray1, Tray2, Tray3, Tray4 🖉 **Note** ❒ Default: *Auto* ❒ Only the installed trays appear on the panel display. ❒ It is recommended that you load paper having the size and direction you frequently use in the tray selected with the "Tray Priority".
	3 Auto Tray Switch When paper runs out in the currently selected tray, you can specify whether or not the machine chooses another tray loaded with paper of the same size, media type and feed direction. - Off - On 🖉 **Note** ❒ Default: *On*

Menu	Description
1 Input	4 Bypass Paper Type
	You can specify the type of paper in the bypass tray.
	• Normal
	• OHP
	• Thick Paper
	✎ **Note**
	❒ Default: *Normal*

❖ **Output 1/2**

Menu	Description
2 Output	1 Duplex
	You can specify the direction for duplex printing.
	• Off
	• Long Edge
	• Short Edge
	✎ **Note**
	❒ Default: *Off*
	2 Sort
	You can specify the type of sort printing.
	• Off
	• Shift
	• Rotate
	✎ **Note**
	❒ Default: *Off*
	❒ "Shift" is available when the optional finisher is installed on the machine.

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Menu	Description
2 Output	3 Staple You can specify the position where you want paper to be stapled. ❖ **1000-sheet finisher** 　Off, Left Slant Port, Left Slant Land, Righit Slant Port, Right Slant Land ❖ **3000–sheet finisher** 　Off, Left Slant Port, Left Slant Land, Left Vart Port, Left Vart Land, Left Horiz Port, Left Horiz Land, Left 2 Port, Left 2 Land, Right Slant Port, Right Slant Land, Right Vart Port, Right Vart Land, Right Horiz Port, Right Horiz Land, Right 2 Port, Right 2 Land, Top 2 Port, Top 2 Land 🖉 **Note** ❒ Default: *Off* ❒ "Staple" is available when the optional finisher is installed on the machine. ❒ The selection depends on which option is equipped on the machine.

❖ **Output 2/2**

Menu	Description
2 Output	4 Punch You can specify the position where you want paper to be punched. Off, Left Portrait, Left Landscape, Right Portrait, Right Landscape, Top Portrait, Top Landscape 🖉 **Note** ❒ Default: *Off* ❒ "Punch" is available only for Type 2 in which the optional 3000–sheet finisher and punch kit are installed. For more information about the type of the machine, see P.1 *"Machine Types"*.
	5 Mailbox Tray Prio. You can specify to which trays print out should be delivered. Tray1, Tray2, Tray3, Tray4, Tray5, Tray6, Tray7, Tray8, Tray9 🖉 **Note** ❒ Default: *Tray1* ❒ "Mailbox Tray Prio." is available when the optional mailbox is installed on the machine.

Parallel Menu

There are three menus in the "Parallel" menu.

- Emulation
- Bi-Direction
- I/O Timeout

Parallel Parameters

❖ **Parallel**

Menu	Description
1 Emulation	You can specify the printer language you want to use for the print jobs received through the parallel port. When "Auto" is specified, the machine will automatically switch from one language to the right one. • Auto • PCL • PostScript ✐ **Note** ❒ Default: *Auto*
2 Bi-Direction	You can specify the machine response mode for status fetch requests when the standard parallel interface is being used. Set this feature to "Off" when you are experiencing problems while the machine is connected to another manufacturer's print box. • Off • On ✐ **Note** ❒ Default: *On*
3 I/O Timeout	You can specify how many seconds the machine should wait before ending a print job. If data from other ports often appears in the middle of the print job, you should increase the timeout value. 5 to 300 sec. ✐ **Note** ❒ Default: *30 sec.*

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Network Menu

There are two menus in the "Network" menu.

- I/O Timeout
- TCP/IP

Network Parameters

❖ Network

Menu	Description
1 I/O Timeout	You can specify how many seconds the machine should wait before ending a print job. If data from other ports often appears in the middle of the print job, you should increase the timeout value. 5 to 300 sec. **Note** ❒ Default: *30 sec.*
2 TCP/IP Menu	1 IP Address You can specify the IP Address. **Note** ❒ Default: *All zero*
	2 Subnet Mask You can specify the Subnet Mask. **Note** ❒ Default: *All zero*
	3 Gateway Address You can specify the Gateway Address. **Note** ❒ Default: *All zero*

Configuration Menu

There are four menus in the "Configuration" menu.

- Resolution
- Auto Continue
- Edge Smoothing
- Autocont.Timeout

Configuration Parameters

❖ **Configuration**

Menu	Description
1 Resolution	You can specify the print resolution in dots per inch. • 300dpi • 600dpi **Note** ❐ Default: *600dpi*
2 Auto Continue	You can specify whether the Auto Continue feature is enabled. When it is On, printing continues after a system error occurs. • Off • On **Note** ❐ When it is On, and certain types of error occur, the current job might be canceled, and the machine automatically resumes the next job. ❐ Default: *On*
3 Edge Smoothing	You can specify whether the Edge Smoothing feature is enabled. • Off • On **Note** ❐ Default: *On*
4 Autocont. Timeout	You can specify how many seconds to wait until the Auto Continue feature should end. 5 to 300 sec. by 1 **Note** ❐ Default: *30 sec.*

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List Print Menu

There are five menus in the "List Print" menu.

- PS Font List
- PCL Font List
- PS Demo Page
- PCL Demo Page
- Configuration Page

List Print Parameters

❖ **List Print**

Menu	Description
1 Print PS Fonts	You can print a list of installed PS font.
2 Print PCL Fonts	You can print a list of installed PCL font.
3 Print PS Demo	You can print a PS demonstration page which shows information about the machine.
4 Print PCL Demo	You can print a PCL demonstration page which shows information about the machine.
5 Print Configuration Page	You can print the current configuration of the machine.

Reset Select Menu

There are three menus in the "Reset Select" menu.

- Job Reset
- Menu Reset
- System Reset

Reset Select Parameters

❖ **Reset Select**
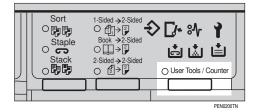
Menu	Description
1 Job Reset	You can cancel the print job currently being processed.

2 Menu Reset	You can reset the menu settings to the factory default.
	
	📎 **Note**
	❒ The following parameters do not change back to their factory defaults.
	   • Bi-Direction
	   • TCP/IP Menu

3 System Reset	You can reset the system (including the menu settings).
	
	📎 **Note**
	❒ The following parameters also change back to their factory defaults.
	   • Bi-Direction
	   • TCP/IP Menu

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Printer Condition

We recommend that you print the configuration page and check its settings, before changing settings of the machine.

The following example describes how to print a configuration page.

A **Press 【User Tools/Counter】.**

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The "User Tools Main Menu" appears.
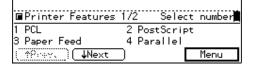
```
User Tools Main Menu    Select Item
1 System      2 Copy     3 Fax
4 Printer     5 Scanner
Counter                      Exit
```

B **Press 【4】 on the number keys.**

The "Printer Features" menu appears.

```
Printer Features 1/2   Select number
1 PCL              2 PostScript
3 Paper Feed       4 Parallel
↑Prev.   ↓Next             Menu
```

C **Press [↓Next] to display "7 List Print".**

```
Printer Features 1/2   Select number
1 PCL              2 PostScript
3 Paper Feed       4 Parallel
↑Prev.   ↓Next             Menu
```


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The following message appears on the panel display.

```
Printer Features 2/2   Select number
5 Network          6 Configuration
7 List Print       8 Reset Select
↑Prev.   ↓Next             Menu
```

D **Press 【7】 on the number keys.**

The following message appears on the panel display.

```
List Print 1/2        Select number
1 PS Font List     2 PCL Font List
3 PS Demo Page     4 PCL Demo Page
↑Prev.   ↓Next           PrevMenu
```

E **Press [↓Next] to display "5 Configuration Page".**

```
List Print 1/2        Select number
1 PS Font List     2 PCL Font List
3 PS Demo Page     4 PCL Demo Page
↑Prev.   ↓Next           PrevMenu
```


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The following message appears on the panel display.

```
List Print 2/2        Select number
5 Configuration Page

↑Prev.   ↓Next           PrevMenu
```

F **Press 【5】 on the number keys.**

This starts printing the configuration page.

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5. Appendix

Moving and Transporting the Printer

⚠ *CAUTION:*

- *When lifting the machine, use the grips on both sides of the machine. If you drop the machine, it could break or cause an injury.*

- *When you move the machine, remember to unplug the power cord from the outlet. When you pull the plug out of the socket, hold it by the plug. If the cord is pulled out of the socket abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.*

When transporting paper, repack it with its original packing materials.

❋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.

Specifications

This section contains electrical and hardware specifications for the printer, including information about options.

Component	Specification
Resolution	600 dpi ; PCL 5e, PCL 6, PostScript 3
	400 dpi ; PostScript 3
	300 dpi ; PCL 5e
Printing Speed	35/45 [*1] pages per minute (A4 $\square$, $8^1/_2" \times 11"\square$)
Parallel Interface	Standard 36-pin printer cable and a parallel port on the host computer.
	IEEE1284B
	📝 **Note**
	❐ Do not use a parallel cable that is longer than 3 meters (10 feet).
Printer Language	PCL 5e , PCL 6,
	Post Script 3 (option)
Fonts	**PCL 5e, PCL 6**
	35 Intellifonts, 10 TrueType fonts, and 1 Bitmap font
	Font Manager available.
	PostScript
	136 Adobe Type 1 fonts
Memory	Standard 8 MB, up to 72 MB
Hard Disk	**Storage capacity :**approx. 1.6 GB
Operation System Supported by this printer	Windows 95/98
	Windows NT 4.0
	Macintosh 7.6.1 (required the optional PostScript 3 and Network Interface Board Type 450–E)
Network	**Topology :** Ethernet 10BASE-T/100BASE-TX
(option)	**Protocol :** TCP/IP, IPX/SPX, AppleTalk
Network Cable (option)	10BASE-T/100BASE-TX shielded twisted-pair (STP, Category/Type5) cable.

[*1] Printing speed depends on your machine type. ⇒ P.1 *"Machine Types"*

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Note to users in the United States of America

Notice:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution (in case of 100BaseTX environment):

Properly shielded and grounded cables (STP) and connectors must be used for connections to host computer (and/or peripheral) in order to meet FCC emission limits.

Declaration of Conformity

Product Name: Printer Controller

Model Number: Type 450e

Responsible party: Ricoh Corporation

Address: 5 Dedrick Place, West Caldwell, NJ 07006

Telephone number: 973-882-2000

This device complies with part 15 of FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. this device must accept any interference received,

including interference that may cause undesired operation.

Properly shielded cables must be used for connections to host computer (and/or peripheral) in order to meet FCC emission limits.

Network cable with ferrite core must be used for RF interference suppression.

Note to users in Canada

Note:

This Class B digital apparatus complies with Canadian ICES-003.

Remarque concernant les utilisateurs au Canada

Avertissement:

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

PRINTER Controller Type 450e (Option)
OPERATING INSTRUCTIONS