Aficio

Color Laser Printer

AP204

OPERATING INSTRUCTIONS

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 before using this machine. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

Power Source

220-240 V, 50/60Hz, 4A or more

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

Operator Safety:

This machine is considered a class 1 laser device, safe for office/EDP use. The machine contains a 5-milliwat, 760 - 800 nanometer wavelength, GaAIAs laser diode. Direct (or indirect reflected) eye contact with the laser beam might cause serious eye damage. Safety precautions and interlock mechanisms have been designed to prevent any possible laser beam exposure to the operator.
The following label is attached on the back side of the machine.

CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
LASER KLASSE 1 PRODUKT

Laser Safety:

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

Caution:

Use of controls or adjustment or performance of procedures other than those specified in this manual might result in hazardous radiation exposure.
Do not attempt any maintenance or troubleshooting other than that mentioned in this manual. This machine contains a laser beam generator and direct exposure to laser beams can cause permanent eye damage.
Two kinds of size notation are employed in this manual. With this machine refer to the Metric version
Ricoh shall not be responsible for any damage or expense that might result from the use of parts other than genuine Ricoh parts in your Ricoh office product.
For good copy quality, Ricoh recommends that you use genuine Ricoh toner.

Trademarks

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Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights in those marks.

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.

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.

Declaration of Conformity

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

$$\mathsf{C}\,\mathsf{E}$$

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.

Warning

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

In accordance with ISO Standard 7001, this machine uses the following symbols for the main power switch:

   ❘ means POWER ON.
   〇 means POWER OFF.

Safety Information

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

Safety During Operation

In this manual, the following important symbols are used:

⚠ *WARNING*

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

⚠ *CAUTION*

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

⚠WARNINGS

- **Connect the power cord directly into a wall outlet and never use an extension cord.**
- **Disconnect the power plug (by pulling the plug, not the cable) if the power cable or plug becomes frayed or otherwise damaged.**

- **To avoid hazardous electric shock or laser radiation exposure, do not remove any covers or screws other than those specified in this manual.**

- **Turn off the power and disconnect the power plug (by pulling the plug, not the cable) if any of the following conditions exists:**
  - **You spill something into the equipment.**
  - **You suspect that your equipment needs service or repair.**
  - **Your equipment's cover has been damaged.**

- **Do not incinerate spilled toner or used toner. Toner dust might ignite when exposed to an open flame.**
- **Disposal can take place at our authorized dealer or at appropriate collection sites.**
- **If you dispose of the used toner containers yourself, dispose of them according to your local regulations.**

⚠CAUTIONS

- *Protect the equipment from dampness or wet weather, such as rain, snow, and so on.*

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

- *When you disconnect the power plug from the wall outlet, always pull the plug (not the cable).*

- *Do not allow paper clips, staples, or other small metallic objects to fall inside the equipment.*

- *Do not eat or swallow toner.*
- *Keep toner (used or unused) and toner cassette out of reach of children.*

- *For environmental reasons, do not dispose of the equipment or expended supply's wastes at a household waste collection point. Disposal can take place at out authorized dealer or at appropriate collection site.*

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

- *The inside of the machine could be very hot. Do not touch the parts with a label indicating a hot surface. Otherwise, it could cause a personal burn.*

ENERGY STAR Program

ENERGY STAR®

As an ENERGY STAR Partner, we have determined that this machine model meets the ENERGY STAR Guidelines for energy efficiency.

The ENERGY STAR Guidelines intend to establish an international energy-saving system for developing and introducing energy-efficient office equipment to deal with environmental issues, such as global warming.

This product was designed to reduce the environmental impact associated with office equipment by means of energy-saving features, such as Low-power mode (Energy Saver mode).

This printer automatically lowers its power consumption 60 minutes after the last operation has been completed. To exit the Low-power (Energy Saver) mode, press any key on the operation panel. To change the setting of the Energy Saver mode, see page 99.
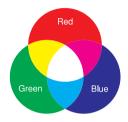
Recycled paper

Please contact your sales or service representative for recommended recycled paper types that may be used in this machine.

Color Guide

Color Printing Basics

Additive (Emitted) and Subtractive (Reflected) Color Models

All light is a mixture of red, green, and blue, which is normally called the RGB model. When red, green, and blue are of equal intensities, the RGB color model produces white.

🖉 **Note**

❐ RGB is also called additive or emitted color. The colors on your computer screen are produced by varying the intensities of RGB.
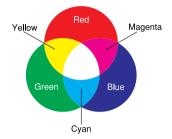
Printed color is a mixture of cyan, magenta, and yellow, which is normally called the CMY color model. When mixed in equal proportions the CMY color model produces black.

🖉 **Note**

❐ CMY is also called subtractive or reflective color. Your printer uses CMY toner plus K (black) toner (CMYK color model) to provide full color printing.

The colors of the RGB color model can be mixed to produce the cyan, magenta, and yellow of the CMY color model and vice versa. Two colors of one model are mixed to produce the color of the other model (mixing blue and green produces cyan, for example). The remaining color is the compliment of the color produced (red in this example). Complimentary colors are: red and cyan, green and magenta, blue and yellow.
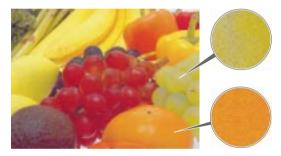
Printed Color

Your printer produces full-color output using four toner colors: cyan, magenta, yellow, and black. These four colors make up the CMYK color model.
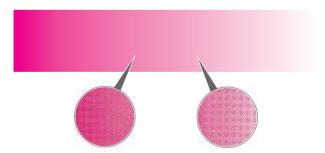
🖉 Note

❒ Mixing CMY in equal proportions should hypothetically produce pure black, but imperfections in the ink cause an equal measure of these colors to produce a muddy or dark brown. Black toner is added to the color model in order to make it possible to produce pure black.

If an image consisted of nothing by cyan, for example, cyan toner would be used by itself and there would be no problem producing the desired color. Full-color printing, on the other hand, required reproduction of tens of thousands of subtle colors. These can be produced by controlling the relative proportions of the CMYK toner particles printed within a unit area.

Relatively dense and light shades of the same color also can be reproduced by controlling the volume of toner in a unit area.

Example of Color Adjustments Using the Printer Driver

The following provides a number of examples to show you what happens when you change the various color settings provided in the printer driver.

Quality Settings

Resolution

Resolution is the number of dots the printer can print within one inch. The higher the resolution, the better the quality of the printed image. Resolution is expressed in units of dpi, which stands for dots per inch.

📎 Note

❒ Printing at a high resolution takes longer and requires more printer memory.

600dpi   300dpi

Toner Saving

Turning on Toner Saving reduces the amount of toner used for printing. This setting does not help to improve printout quality, but instead is used when printing preliminary drafts of a document.

☕Limitation

- Turning on the Toner Saving can cause output to become blurred and result in very thin lines not printing at all. It can cause colors to be different than expected when printing color.

Off   On

Image Printing

This setting lets you select the resolution for printing of image data.

Standard   Fast   Fine

Color Settings

The colors produced by the printer do not exactly match those you see on your monitor. This is because the computer uses the reflected color model (RGB) while the printer uses the emitted color model (CMYK). For details, see => P.iv "Color Printing Basics". The color settings provide you with a number of adjustments that you can use to bring printed colors closer to what they look like on your monitor. You can also use these settings to perform color correction, which changes the clarity of the image.

You can change the color settings with the printer driver.

Color Correction

Use these settings to adjust the color correction pattern.

Off

Photographic

This setting enhances midtone colors similar to those seen in photographs.

Vivid

OHP Transparency

This setting enhances the basic colors for text and graphics. This setting is best for printing tables, graphs, and presentation materials that contain color.
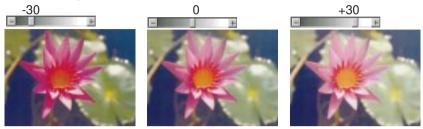
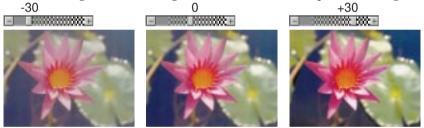This setting adjusts density to an optimal level for printing OHP transparencies.

Brightness

This setting controls the overall brightness of the image. Moving the slider to the plus (+) side increase brightness, while moving it to the minus (-) side decreases brightness.

-30	0	+30

Contrast

This setting controls the range between the darkest and lightest shade of an image. Moving the slider to the plus (+) side decreases the range and makes contrast stronger, while moving it to the minus (-) side expands the range.

-30	0	+30

Saturation

This setting controls the purity of a color. Moving the slider to the plus (+) side increases saturation and makes colors more vivid, while moving it to the minus (-) side decreases saturation.
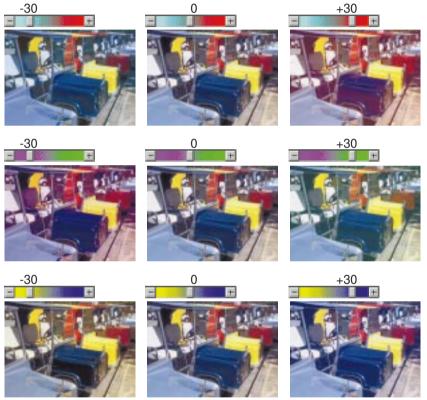
-30	0	+30

Color Balance

These settings let you control the relative intensity of the individual colors of the additive color model (red, green, blue).

🔖 Note

❐ The position of the color bar also affects the complementary color relationship. Red, for example, is printed using magenta and yellow toner, so increasing the level of red also decreases the level of cyan.

Manuals for Your Printer

There are two manuals that describe the procedures separately for the installation of your printer and for the operation and maintenance of your printer and its optional equipment.

To enhance safe and efficient operation of your printer, all users should read and follow the instructions contained in the following manuals.

❖ Quick Installation Guide

Describes the procedures for installing your printer.

❖ Operating Instructions

Describes the procedures and necessary information on setting up and using your printer and its optional equipment. (This Manual)

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 miss-operation.

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 built into the machine's operation panel. Keys on the computer's keyboard.

[ ]

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

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1. Getting Acquainted

2. Installing Options

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1. Getting Acquainted

Features of Your Printer

Office Color Printer

You can enjoy the versatility of a full color printer and the performance of a monochrome laser in a single compact unit. Text, spreadsheets, presentations, design and other documents containing images can be beautifully printed in full color. Windows applications using monochrome text or gray scale images are rendered quickly in razor-sharp detail. Its compact design allows you to locate it in a small convenient place. The efficient design of the internal mechanism make it easy to access and replace consumables as paper and toner cartridge.

Guide to the Printer

Exterior - Front View

TPOH010E

1. Operation Panel

Contains keys for printer operation and a display that shows the printer status. =>P.5 "*Operation panel*"

2. Top Cover

Open this cover when accessing the inside of the printer.

3. Front Cover

Open this cover when accessing the inside of the printer.

4. Power Switch

Use this switch to turn printer power on and off.
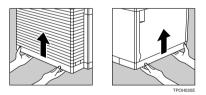
5. Paper Tray

Load up to 250 sheets of plain paper*1 into this tray for printing. You can also load OHP transparencies and custom paper sizes. => P.51 "*Loading Paper in the Paper Tray*"

*1: 80 g/m^2 (metric version),
    20 lb (inch version)

6. Inset Grips

Hold the printer at the location indicated in the illustration when transporting it. Note that there are four grips, two on the left side and two on the right side of the printer.

TPOH020E

7. Front Cover Open Lever

Press this lever to open the front cover.
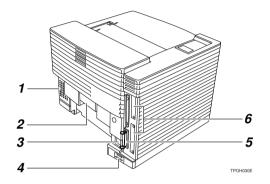
8. Top Cover Open Lever

Press this lever to open the top cover.

9. Output Tray

Printed pages are stacked here with the print side down.

Exterior - Rear View

1

TPOH030E

1. Ventilator

These holes help to keep components inside the printer from overheating. Also, this cover should be removed to replace the ozone filter.

Note

❒ Do not leave the ventilator obstructed or blocked. Doing so creates the danger of malfunction due to overheating.

2. Rear Cover

Open this cover to remove misfed paper.

3. Power Connector

Connect the power cord to this connector.

4. Optional Paper Feed Unit Connector Cover

When installing the optional paper feed unit, plug its cable into this connector.
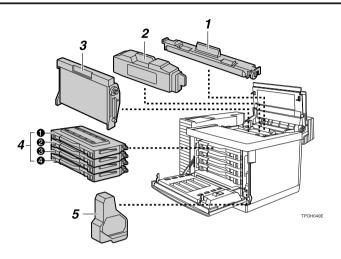
5. Parallel Interface Connector

Plug the interface cable that connects the printer to your computer into this connector.

6. Metal Plates

Remove to install certain options.

1

Interior

TPOH040E

1. Fuser Cleaner

This cleans unnecessary toner from the fuser roller.

2. Fuser Oil Bottle

This bottle holds oil used for fusing toner on the paper.

3. Photoconductor Unit

This contains a photoconductor unit belt that is used to compose the image being printed.

Note

❒ The condition of the photoconductor unit belt directly affects output appearance and quality. Always be careful to prevent the green film in this unit from becoming dirty or damaged.

4. Toner Cartridges

❶ K: black toner

❷ Y: yellow toner

❸ M: magenta toner

❹ C: cyan toner

5. Waste Toner Bottle

This bottle is a receptacle for waste toner generated during the printing process.

1

Operation Panel

⚠️Important

❐ Never press any operation panel keys while the Data In indicator is flashing on the operation panel.

1. **Panel Display**

The display shows the current status of the printer and error messages. => P.56 *"Error & Status Messages on the Operation Panel"*

2. **On Line indicator**

Tells you whether the printer is on-line or off-line.

Stays on while the printer is on-line (a state in which the printer can receive data from the computer).

Stays off when the printer is off-line (a state in which printer can not receive data).

3. **Power indicator**

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

4. 【**On Line**】**key**

Press this key to switch the printer between on-line and off-line conditions.

5. **Error indicator**
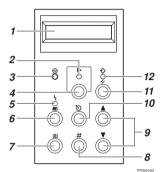
Lights up whenever any printer error occurs. A message describing the cause of the error also appears on the panel display.

6. 【**Menu**】**key**

Press this key to make and check the printer settings.

7. 【**Media**】**key**

Use this key to select a tray, change the paper size, and to make other settings for printing.

TPOS010G

8. 【**Enter**】**key**

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

9. 【**▲**】【**▼**】**keys**

Use these keys to increase and decrease values on the panel display, and toggle menus when making settings.

10.【**Escape**】**key**

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

11.【**Reset**】**key**

Pressing this key when the printer is off-line resets the printer to its power on default settings.

Pressing this key during the on-line condition cancels the ongoing print job.

12.**Data In indicator**

Blinks while the printer is receiving data from the computer.

Stays on if there is data to be printed.

1

2. Installing Options
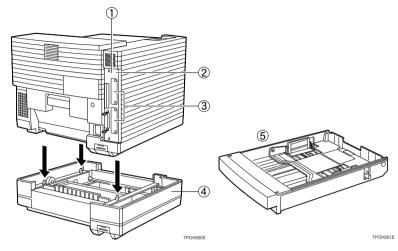
⚠ **CAUTION**
- Make sure to turn off the printer and wait for about 30 minutes before installing options. Not waiting for the printer to cool down can result in a burn.
- It is recommended that at least two persons are used to lift the machine. Otherwise, the machine might fall and cause personal injury.
- When lifting the machine, use the inset grips on both sides of the machine. Otherwise, the machine might fall and cause personal injury.

⚠ **CAUTION**
- When you move the machine, unplug the power cord from the wall outlet to avoid a fire or an electric shock.

Available Options

The following options can be installed to your printer.

TPOH350E   TPOH351E

1. Memory Unit

You can install one of the following memory units.

- Memory Unit Type204 (16MB)
- Memory Unit Type204 (32MB)

2. RICOH-SCRIPT 2 Type204

3. Interface Board

You can install up to two interface boards. However, you cannot install two boards of the same type at the same time. The following board are available.

- Network Interface Board Type204
- IEEE 1284 Parallel Type204

4. Paper Feed Unit Type204

5. Paper Cassette Type204
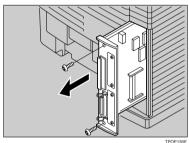
Note

❐ You cannot install more than one paper feed unit at a time.

❐ The standard tray or the tray of the optional paper feed unit can be replaced with Paper Cassette Type204.

Installing the Memory Unit

⚠️Important
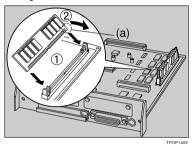
❒ The memory unit can be damaged by small amounts of static electricity. Before touching it, touch something metal to remove static electricity from you.

A Turn off the printer's power switch and remove all cables and cords from the printer.

B Remove both screws and remove the printer board from the printer as shown in the illustration.

TPOP130E

📝Note

❒ A coin can be used to remove the screws.

C Align the memory unit as shown in the illustration. Tilt it backwards so that it is 45 degrees from perpendicular to the printer board (①), and slide it into the slot. Then tilt it forwards so that it is perpendicular to the board (②). It should make an audible click as it pops into place.

TPOP140E

📝Note

❒ When aligning the memory unit, notice that the lower corner of one side has a notch (a). This is to prevent you from installing the unit backwards.

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4 **Insert the printer board into the printer. Fasten both screws.**

TPOP150E

Important

❒ Make sure that both screws are used to secure the printer board.

Note

❒ A coin can be used to fasten the screws.

5 **Plug the printer's power cord back into the printer and the wall outlet. Turn on the printer's power switch.**

6 **Print a configuration page to confirm that the memory unit is properly installed.**

Reference

❒ =>P.101 "*Printing the Configuration Page*"

Note

❒ You can check if the memory unit is installed properly by checking the "Total Installed RAM" item of the "Reference" on the configuration page.

❒ If the memory unit is not properly installed, repeat steps **1**-**6** again. If you fail again, contact your sales or service representative.

Important

❒ To make the printer recognize the installed option properly, you must set up the option with the printer driver. => P.36, 40, or 44 "*Setting Up Options*"

# Installing the RICOH-SCRIPT 2 Type204

Important
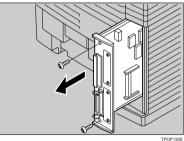
❒ The RICOH-SCRIPT 2 can be damaged by small amounts of static electricity. Before touching it, touch something metal to remove static electricity from you.

A **Check the contents of the box for the following items.**
   • **DIMM (Dual Inline Memory Module)**
   • **Installation Guide**
   • **Operating Instructions**

B **Turn off the printer's power switch and remove all cables and cords from the printer.**

C **Remove both screws and remove the printer board from the printer as shown in the illustration.**

TPOP130E

Note

❒ A coin can be used to remove the screws.
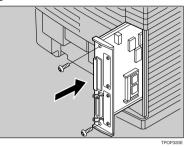
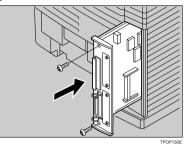D **Align the module as shown in the illustration. Tilt it upwards so that it is 45 degrees from parallel to the printer board (①), and slide it into the slot. Then tilt it down so that it is parallel to the board (②). It should make an audible click as it pops into place.**

TPOP160E

Note

❒ If the optional interface board has been installed to the printer board, you should remove it from the board before installing the module. After installing the module, reattach the interface board to its original position.

❒ Be careful to notice that one side of the module has a notch (a). This is to prevent you from installing the module backwards.

2

11

E **Insert the printer board into the printer. Fasten both screws.**

TPOP320E

🔧**Important**

❒ Make sure that both screws are used to secure the printer board.

📝**Note**

❒ A coin can be used to fasten the screws.

F **Plug the printer's power cord back into the printer and the wall outlet. Turn on the printer's power switch.**

G **Print a configuration page to confirm that the module is properly installed.**

🔍**Reference**

❒ => P.101 "*Printing the Configuration Page*"

📝**Note**

❒ You can check if the module is installed properly by checking the "Firmware Version" item of the "Reference" on the configuration page.

❒ If the module is not properly installed, repeat steps **A**-**F** again. If you fail again, contact your sales or service representative.

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Installing the Network Interface Board Type204
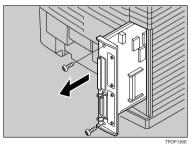
Note

❒ Use a shielded network interface cable.

❒ The network interface board can be attached to either the front or the back side of the printer board. This procedure is for attaching to the front side.

❒ You cannot install two network interface boards at a time.

A **Check the contents of the box for the following items.**
- **Network interface board**
- **Ferrite core**
- **Installation Guide**

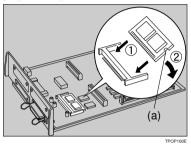B **Turn off the printer's power switch and remove all cables and cords from the printer.**

C **Remove both screws and remove the printer board from the printer as shown in the illustration.**


TPOP130E

Note

❒ A coin can be used to remove the screws.

D **Remove both screws and the metal plate from the printer board.**

TPOP170E

E **Insert the network interface board into the slot and fasten it with both screws that were removed in step D, as shown in the illustration.**

TPOP180E

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6 **Insert the printer board into the printer. Fasten both screws.**

TPOP330E

Important

❒ Make sure that both screws are used to secure the printer board.

Note

❒ A coin can be used to fasten the screws.
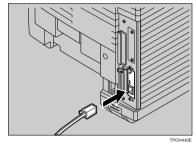
7 **Loop the network interface cable. The loop should be about 15 cm (6") from the end of the cable.**

8 **Attach the ferrite core to the loop.**

TPOH390E

9 **Attach the network interface cable to the network interface connector of the printer as shown in the illustration.**

TPOH440E

10 **Connect the other end of the network interface cable to the network.**

11 **Plug the printer's power cord back into the printer and the wall outlet. Turn on the printer's power switch.**

12 **Print a configuration page to confirm that the network interface board is properly installed.**

Reference

❒ => P.101 "*Printing the Configuration Page*"

Note
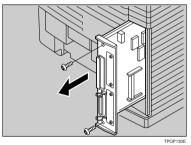
❒ You can check if the network interface board is installed properly by checking the "Network" item of the "Status List" on the configuration page.

❒ If the network interface board is not properly installed, repeat the above steps again. If you fail again, contact your sales or service representative.

❒ After installing the network interface properly, set up the printer's network environment using the operation panel. => P.23 "*Configuring the Printer for the Network with the Operation Panel*"

Installing the IEEE 1284 Parallel Type204

2

📎**Note**
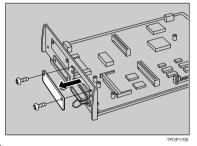
❒ The parallel interface board can be attached to either the front or the back side of the printer board. This procedure is for attaching to the front side.

❒ You cannot install two parallel interface boards at a time.

A **Check the contents of the box for the following items.**

- **Parallel interface board**

- **Installation Guide**

B **Turn off the printer's power switch and remove all cables and cords from the printer.**
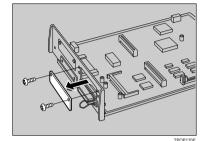
C **Remove both screws and remove the printer board from the printer as shown in the illustration.**
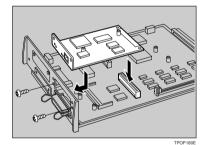

TPOP130E
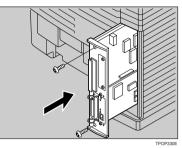
📎**Note**

❒ A coin can be used to remove the screws.

D **Remove both screws and the metal plate from the printer board.**

TPOP170E
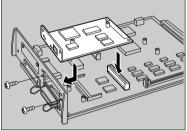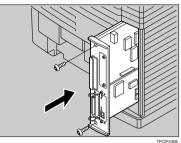
E **Insert the IEEE 1284 Parallel Type 204 board into the slot and fasten it with both screws that were removed in step D, as shown in the illustration.**

TPOP180E

15

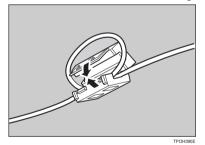**F** **Insert the printer board into the printer. Fasten both screws.**

TPOP330E

✋**Important**

❒ Make sure that both screws are used to secure the printer board.

📝**Note**

❒ A coin can be used to fasten the screws.
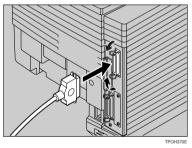
G **Attach the interface cable to the parallel interface connector of the printer. Secure the cable with the metal fittings as shown in the illustration.**

TPOH370E

H **Attach the other end of the interface cable to the interface connector of the computer, and secure the cable.**

I **Plug the printer's power cord back into the printer and the wall outlet. Turn on the printer's power switch.**

J **Print a configuration page to confirm that the IEEE 1284 Parallel Type 204 board is properly installed.**

🔎**Reference**

❒ => P.101 "Printing the Configuration Page"

📝**Note**

❒ You can check if the board is installed properly by checking the "Option Interface" item of the "Reference" on the configuration page.

❒ If the board is not properly installed, repeat the above steps again. If you fail again, contact your sales or service representative.

16
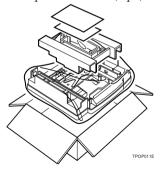
Installing the Paper Feed Unit Type204
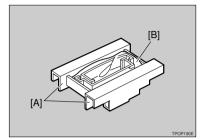
⚠ CAUTION

- *It is recommended that at least two persons are used to lift the machine. Otherwise, the machine might fall and cause personal injury.*

- *When lifting the machine, use the inset grips on both sides of the machine. Otherwise, the machine might fall and cause personal injury.*

1 Check the contents of the box for the following items.
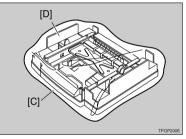
- Installation Guide (1 pc)
- Right side cover (1 pc)
- Left side cover (1 pc)
- Screw (2 pcs)
- Securing bracket (2 pcs)
- Paper Feed Unit (1 pc)

TPOP011E
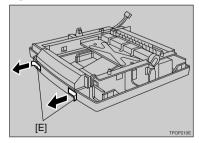
2 Remove the styrofoam packing [A] and the bag [B] from the side covers.

TPOP190E

3 Remove the bag [C] and the styrofoam packing [D] from the paper feed unit.

TPOP200E
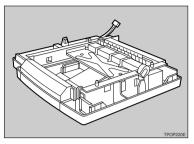
4 Remove both pieces of adhesive tape [E].

TPOP210E

5 Turn off the printer's power switch, and remove all cables and cords from the printer.

2

F **Place the paper feed unit on a flat surface.**

TPOP220E
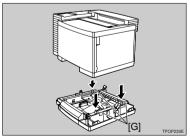
G **Lift the printer using the inset grips on both sides of the printer.**

TPOH110E
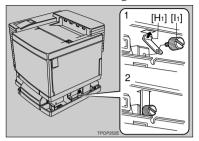
⚠️Important
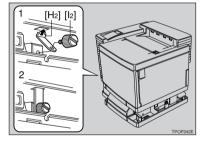
❒ It is recommended that at least two people are used to lift the printer.

H **Align the printer onto the 3 upright pins [G] on the paper feed unit and then lower it gently.**

[G]

TPOP230E
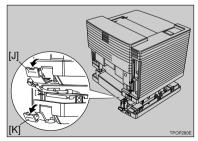
I **Insert the securing bracket [H1] into the rectangular hole on the right lower side of the printer. Secure the bracket using a screw [I1].**

1 [H1] [I1]

2

TPOP252E
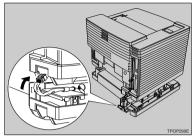
J **Insert the securing bracket [H2] into the rectangular hole on the left lower side of the printer. Secure the bracket using a screw [I2].**

1 [H2] [I2]

2

TPOP242E
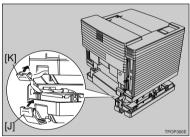
K **Remove the connector cover [J] from the printer, and the connector cover [K] from the paper feed unit.**

[J]

[K]

TPOP280E

18
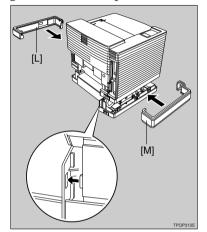
12 Attach the paper feed unit cable to the socket inside the printer securely.

TPOP290E

13 Attach the connector cover [J], removed from the printer in step **11**, to the paper feed unit. Attach the connector cover [K], removed from the paper feed unit in step **11**, to the printer.

[K]

[J]

TPOP300E

14 Attach the right side [L] and the left side [M] covers onto the printer. When attaching them, make sure the projections on the covers are inserted into the rectangular holes on the printer.

[L]

[M]

TPOP310E

15 Connect all of cables that were removed in step **5**.

16 Turn on the printer's power switch.

17 Print out the configuration page to confirm that the paper feed unit is properly installed.

Reference

❒ => P.101 "*Printing the Configuration Page*"

Note

❒ If the paper feed unit is properly installed, you can see "Tray2" under the "Printer Information" of the configuration page.

❒ If the paper feed unit does not work, follow the above instructions to reinstall it. If it still does not work, contact your sales or service representative.

Important

❒ To make the printer recognize the installed option properly, you must set up the option with the printer driver. => P.36, 40 or 44 "*Setting Up Options*"

Installing the Paper Cassette Type204
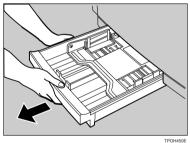
📎**Note**

❒ The standard tray (tray 1) or the tray of the optional paper feed unit (tray2) can be replaced with the Paper Cassette Type204.
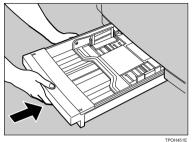
1 **Check the contents of the box for the following items.**
- **Paper cassette**
- **Installation Guide**

2 **Carefully pull the paper tray (tray1 or tray2) out of the printer and place it on a flat surface.**

TPOH450E

📎**Note**

❒ Keep the paper tray with paper in a cool and dark place.

3 **Slide the Paper Cassette Type 204 completely into the printer.**

TPOH451E

📎**Note**

❒ When loading paper, => P.51 *"Loading Paper"*

2

3. Configuring the Printer for the Network with the Operation Panel

Configuring the Printer for the Network with the Operation Panel

After installing the optional network interface board, configure it for the network using the printer's operation panel.

🖉 Note

❐ If you want to print from your Macintosh computer, the optional RICOH-SCRIPT 2 Type204 is required.

The following table shows the operation panel settings and their default settings. These are included in the "System Menu".

	Items	Default Settings
32	IP Address	011.022.033.044
33	Subnet Mask	000.000.000.000
34	Gateway Add (Gateway Address)	000.000.000.000
35	Access CTL. (Access Control Address)	000.000.000.000
36	Access Mask (Access Control Mask)	000.000.000.000
37	Net Boot (Network Boot)	None
38	Frame NW (Frame type NetWare)	Auto Select
39	Active PTL. (Active Protocol)	All Active

1 **Press 【Menu】.**

2 **Check if the following message appears on the panel display. If not, press 【▲】【▼】 until the following message appears.**

```
    <Menu>          ▲
    System Menu     ▼
```

3 **Press 【Enter】.**

The following message appears.

```
    <System Menu>   ▲
      1.Paper Tray  ▼
```

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D **Select the protocol you want to use. You can select one of items on the table below.**

Menu item on the panel display	Active Protocol			
	TCP/IP	NetWare	EtherTalk	NetBEUI *1
All Active (Default)	✓	✓	✓	–
None				–
TCP/IP Only	✓			–
NetWare Only		✓		–
TCP & NetWare	✓	✓		–
EtherTalk Only			✓	–
TCP & EtherTalk	✓		✓	–
NetW & EtherTalk		✓	✓	–
TCP & NW & EtherTK	✓	✓	✓	–
NetBEUI Only				–
TCP & NetBEUI	✓			–
NetW & NetBEUI		✓		–
TCP & NW & NB	✓	✓		–
ETalk & NetBEUI			✓	–
TCP & ETK & NB	✓		✓	–
NW & ETK & NB		✓	✓	–

· ✓ means that this protocol is active.
· Blank cell means that this protocol is not active.
· – means that this protocol is not supported.

*1: NetBEUI appears on the panel display, but is not supported.

📎**Note**

❒ It is recommended that you should not select protocols that are not used on your network.

📌 **Limitation**

❒ If you want to select EtherTalk, you should install the optional RICOH-SCRIPT 2 Type204.

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A **Press 【▲】【▼】 until the following message appears.**

```
<System Menu>   ▲
 39.Active PTL.▼
```

B **Press 【Enter】.**

The current setting appears on the panel display.

```
<Active PTL.>   ▲
*All Active     ▼
```

C **Press 【▲】【▼】 until the protocol you want to use appears.**

D **Press 【Enter】.**

E **If you use TCP/IP, you should assign the IP address to your printer.**

Note

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

A **Press 【▲】【▼】 until the following message appears.**

```
<System Menu>   ▲
 32.IP Address ▼
```

B **Press 【Enter】.**

The current IP address appears on the panel display.

```
011.022.033.044
▲            ▲▼/#
```

C **Use 【▲】【▼】 to specify the leftmost digit of the IP address.**

```
111.022.033.044
▲            ▲▼/#
```

D **Press 【Enter】.**

The pointer (▲) moves to the next digit as shown.

```
111.022.033.044
  ▲          ▲▼/#
```

Note

❒ You can return the pointer (▲) to the previous (left) digit by pressing 【Escape】.

❒ If you press 【Escape】 when the pointer (▲) is on the leftmost position, the specified IP address is reset.

E **Use 【▲】【▼】 to specify the second digit of the IP address.**

```
191.022.033.044
  ▲          ▲▼/#
```

F **Press 【Enter】.**

G **Repeat steps E and F to specify the rest digit of IP address.**

```
191.168.015.016
                 ▲
```

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⑧ **Check if the pointer (▲) is at the rightmost digit, press 【Enter】 to register the IP address you specified.**

F **If you use TCP/IP, you should assign "33. Subnet Mask", "34. Gateway Add", "35. Access CTL" and "36. Access Mask" using the same procedure for specifying the IP address.**
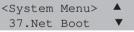
G **If you use TCP/IP, you should make settings for "37 Net Boot". You can select how to assign the printer's address using the computer. Select one of items on the table below.**

Menu item on the panel display	Available method			
	ARP+PING	RARP+TFTP	BOOTP	DHCP
ARP+PING	✓			
ARP & RARP	✓	✓		
ARP & BOOTP	✓		✓	
ARP & RARP & BOOT	✓	✓	✓	
None (Default)				
RARP+TFTP		✓		
BOOTP			✓	
RARP & BOOTP		✓	✓	
DHCP				✓

Note

❒ Select "None", if you want to specify the address using the printer's operation panel.

❒ You should set up your server, if you want to use "RARP+TFTP", "BOOTP", or "DHCP".

① **Press 【▲】【▼】 until the following message appears.**

```
<System Menu>    ▲
 37.Net Boot     ▼
```

② **Press 【Enter】.**

The current setting appears on the panel display.

```
<Net Boot>       ▲
*ARP+PING        ▼
```

③ **Press 【▲】【▼】 until the method you want to use appears.**

④ **Press 【Enter】.**

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

- Auto Select (Default)
- Ethernet 802.3
- Ethernet 802.2
- Ethernet2
- Ethernet SNAP

*✐***Note**

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

A **Press 【▲】 【▼】 until the following message appears.**

```
<System Menu>   ▲
  38. Frame NW
```

B **Press 【Enter】.**

The current setting appears on the panel display.

```
<Frame NW>      ▲
*Auto Select    ▼
```

C **Press 【▲】 【▼】 until the frame type you want to use appears.**

D **Press 【Enter】.**

You have completed the printer's network settings.

E **Press 【On Line】.**

This returns to the normal display screen.

9 **Print the configuration page to check settings you have made.**

A **Press 【Menu】.**

B **Press 【▲】 【▼】, until the following message appears.**

```
<Menu>          ▲
List Print      ▼
```

C **Press 【Enter】.**

D **Check if the following message appears. If not, press 【▲】 【▼】 until the following message appears.**

```
<List Print>    ▲
  Config.Page   ▼
```

E **Press 【Enter】.**

The following message appears.

```
<Config.Page>   ▲
  Press # key   ▼
```

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❻ **Press 【Enter】.**

The configuration page is now printed. Check the contents of the configuration page.

❼ **Press 【On Line】.**

The normal display screen appears.

❽ **Press 【On Line】 to enter the off-line condition.**

The On Line indicator turns off.

❾ **Press 【Reset】.**

🔆**Address**

❖ **Subnet Mask**

A number used to mathematically "mask" or hide the IP addresses on the network by eliminating those parts of the address that are alike for all the machines on the network.

❖ **Gateway Address**

A gateway is a connection or interchange point that connects two networks. A gateway address is for the router or host computer used as a gateway.

📝**Note**

❒ To get the addresses, contact your network administrator.

❒ If you do not know the addresses, please use the default settings.

🔆**Access Control Address and Access Control Mask**

Access Control Address and Access Control Mask are used to control the IP addresses that have access to the computer used for printing, with the IP address. If it is not necessary for you to control the access right, select "0.0.0.0".

📝**Note**

❒ When the setting of Access Control Address coincides with the masked result of the IP address of the computer, print jobs from that IP address can be accepted by the network interface board.

❒ For example, if you assign 192.168.15.16 as the Access Control Address to the network interface board, the combination of the Access Control Mask and IP address that can have access are as follows.

Access Control Mask	IP Address that have access
0. 0. 0. 0	xxx.xxx.xxx.xxx
255. 0. 0. 0	192.xxx.xxx.xxx
255.255. 0. 0	192.168.xxx.xxx
255.255.255. 0	192.168. 15.xxx
255.255.255.255	192.168. 15. 16

4. Installing the IPDL-C Printer Driver

Before Installing the Printer Drivers

To print, you must first install software called a printer driver on your computer. The required printer driver is supplied on the CD-ROM that comes with your printer.

📑 Preparation

❒ Set up the printer and connect it to your computer as described in the "Quick Installation Guide".

❒ The procedures in this section assume that the printer is connected to your printer by a parallel interface cable.

🔧Important

❒ Some applications require their own specific settings, which may be different from those provided by the printer driver. Be sure to check the documentation that comes with your applications for details.

❒ Considerable hard disk space is required on your computer for printing complex documents.

📝Note

❒ All of the procedures in this manual assume that you are familiar with general Windows procedures and practices. If you are not, see the documentation that comes with Windows for details.

Installing the Printer Drivers

🍖 Limitation

❒ The printer drivers supplied with this printer do not support operation under a system running Windows NT® with a RISC based processor (MIPS R Series, Alpha AXP, Power PC).

📝Note

❒ Recommended PC requirements:

- Memory: 32MB or more
- CPU: Pentium® 100Mhz or more
- Free Hard disk space: 100MB or more

❖ Supported Operating Systems

❒ Microsoft® Windows® 95 operating system

❒ Microsoft® Windows® 98 operating system

❒ Microsoft® Windows® for Workgroups operating system 3.1x

❒ Microsoft® WindowsNT® Server network operating system Version4.0

❒ Microsoft® WindowsNT® Workstation Network operating system Version4.0

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Windows 95/98 - Installing the IPDL-C Printer Driver

📄 Preparation

❒ Before starting installation, be sure to carefully read the README file that is on the CD-ROM containing the printer driver.

🔧Important
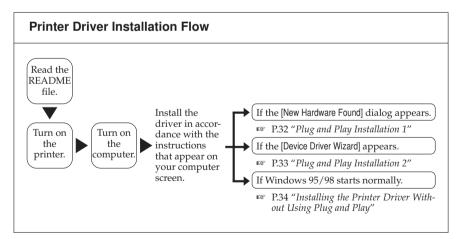
❒ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Normally you can use plug and play to install the printer driver. If your system does not support plug and play, add the printer from the [Printers] window.

❖ Plug and Play

Plug and play automatically makes the required software settings whenever it detects that a new peripheral device has been connected to the computer. Plug and Play operates when the following conditions are present.

- The computer supports plug and play (see the computer's documentation for details).

- The printer is connected to the computer by a bi-directional interface cable.

- Printer power is turned on first, and then the computer is turned on.

Printer Driver Installation Flow

Read the README file.

Turn on the printer.

Turn on the computer.

Install the driver in accordance with the instructions that appear on your computer screen.

If the [New Hardware Found] dialog appears.
☞ P.32 "*Plug and Play Installation 1*"

If the [Device Driver Wizard] appears.
☞ P.33 "*Plug and Play Installation 2*"

If Windows 95/98 starts normally.
☞ P.34 "*Installing the Printer Driver Without Using Plug and Play*"

Installing the Printer Driver Using Plug and Play

📑 Preparation

❒ Check to make sure that the printer is connected properly to your computer, and that computer power is turned off.

A **Turn on the printer.**

B **Turn on your computer.**

Continue with one of the procedures below in accordance with what appears on your computer's screen.

🔧 Note

❒ What happens after you turn on your computer depends on which version of Windows 95/98 you are running and on your system setup.

When the [New Hardware Found] dialog appears

This dialog indicates that plug and play is working. Continue with the procedure under "Plug and Play Installation 1" on page 32.

When the [Device Driver Wizard] appears

This indicates that plug and play is working. Continue with the procedure under "Plug and Play Installation 2" on page 33.

When Widows 95/98 starts normally

This indicates that plug and play is not working. Continue with the procedure under "Installing the Printer Driver Without Using Plug and Play" on page 34.

Plug and Play Installation 1

Use the following procedure to install the printer when the [New Hardware Found] dialog appears after you turn on the printer and then your computer.

A **Insert the CD-ROM that comes with the printer, into your computer's CD-ROM drive.**

B **Click [Browse].**

The Windows 95/98 printer driver is on the following directory on the CD-ROM:DRIVERS\IPDL_C\WIN95_98.

C **Select the CD-ROM drive using the [Drives] list box.**

D **In the Folders box, double-click [DRIVERS], [IPDL_C] and then [WIN95_98]. Finally, click [OK].**

E **Click [OK].**

The installer copies the printer driver files from the CD-ROM to your computer's hard disk.

F **Restart Windows after completing the installation.**

Important

❒ If your printer is equipped with certain options (ex. paper feed unit or memory unit), you should set up the options with the printer driver. => P.36 "*Setting Up Options*"

Plug and Play Installation 2

Use the following procedure to install the printer when the [Device Driver Wizard] appears after you turn on the printer and then your computer.

A **Insert the CD-ROM that comes with the printer into your computer's CD-ROM drive, and then click [Next].**

B **Click [Finish].**

C **Change the name of the printer, if you want, and then click [Finish].**

D **If the next dialog appears, click [OK].**

E **If the next dialog asking you to specify the CD-ROM drive appears, select the CD-ROM drive from the listbox. Finally, click [OK].**

F **Follow the instructions on the screen.**

G **Restart Windows after completing the installation.**

⚙️**Important**

❐ If your printer is equipped with certain options (ex. paper feed unit or memoryunit), you should set up the options with the printer driver.
=> P.36 "*Setting Up Options*"

4

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Installing the Printer Driver Without Using Plug and Play

Turn on the printer and then your computer, and then use the following procedure to install the printer driver.

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

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

The [Printers] window appears.

C **Double-click the [Add Printer] icon.**

The Add Printer Wizard appears.

D **Click [Next].**

A dialog for specifying the port where the printer is connected appears.

E **After confirming that the [Local Printer] option is selected, click [Next].**

A dialog for selecting the printer manufacturer and model name appears.

F **Click [Have Disk].**

A dialog for driver installation from a disk appears.

G **Insert the CD-ROM that comes with the printer into your computer's CD-ROM drive.**

H **Click [Browse].**

The Windows 95/98 printer driver is on the following directory on the CD-ROM: DRIVERS\IPDL_C\WIN95_98.

I **Use the [Drives] listbox to select the CD-ROM drive.**

J **In the [Folders] box, double-click [DRIVERS], [IPDL_C] and then [WIN95_98]. Finally, click [OK].**

K **Click [OK].**

A port selection dialog appears.

L **Select the name of the printer whose driver you want to install by clicking it, and then click [Next].**

A port selection dialog appears.

M **In the [Available Ports] box, select [Printer Port] by clicking it, and then click [Next].**

A dialog for changing the printer name appears.

N **Change the name of the printer if you want, and then click [Next].**

O **Specify whether or not you want to print a test page, and then click [Finish].**

The printer driver files are copied from the CD-ROM to your computer's hard disk.

P **If you are asked if you restart Windows, select [Yes]. If you are not asked, restart Windows after completing the installation.**

Q **After Windows restarts, set up any options you have installed on the printer.**

🔖**Reference**

❏ => P.36 "*Setting Up Options*".

4

Setting Up Options

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

The [Printers] window appears.

2 **Select the icon of the printer you want to use by clicking it. On the [File] menu, click [Properties].**

3 **Click [Setup] tab, and then click [Installable Options].**

The **[Installable Options]** dialog appears.

4 **Use the [Option Tray] listbox, to specify the optional tray unit.**

Specifying the wrong tray here will make it impossible to install your tray correctly.

5 **Use the [Total Printer Memory] listbox to specify how much memory is installed on the printer.**

Specifying the wrong amount of memory here may cause printing problems. Be sure to change this setting whenever you add more memory.

*✐***Reference**

❒ You can find out how much memory is currently stored in memory by printing a Configuration Page on the printer. => P.101 "*Printing the Configuration Page*".

6 **Click [OK] to close the dialog.**

7 **Click [OK] to close the printer's Properties dialog.**

Canceling a Print Job

A **Double-click the printer icon on the Windows 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 **Select the name of the job you want to cancel by clicking it.**

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 [Printer] window.

D **Make sure that the printer's On Line indicator is lit, press the printer's【Reset】key.**

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

   Important

   ❒ The above procedure cancels the print job that is currently being processed by the printer. In some cases, the printer may already be processing data for the next print job following the one currently being output. In such a case, the next print job is also canceled when you press【Reset】.

   ❒ When your printer is being shared by multiple computers, be careful you don't accidentally cancels someone else's print job.

   Note

   ❒ You cannot stop printing data that has already been processed internally by the printer. Because of this, printing may continue for a few pages after you press【Reset】.

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

Windows 3.1x - Installing the IPDL-C Printer Driver

Preparation

❒ Before starting installation, be sure to carefully read the README file that is on the CD-ROM containing the printer driver.

Important

❒ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new printer driver version, uninstall the old version, and then install the new one.

Installing the Printer Driver

A **From the Program Manager [Main] group, open the [Control Panel] and double-click the [Printers] icon.**

The [Printers] dialog appears.

B **Click [Add] to expand the dialog and display the [List of Printers].**

If there are no printers installed on your computer, the [List of Printers] appears automatically when you display the [Printers] dialog, and the [Add] button is grayed out. If this is the case, perform the next step, below.

C **In the [List of Printers], select [Install Unlisted or Updated Printer] by clicking it, and then click [Install...].**

The [Install Drivers] dialog appears.

D **Insert the CD-ROM that comes with the printer into your computer's CD-ROM drive.**

E **Click [Browse...].**

The Windows 3.1x printer driver is on the following directory on the CD-ROM:DRIVERS \IPDL_C\WIN31.

F **Use the Drives listbox to select the CD-ROM drive.**

G **In the [Directories] box, double-click [DRIVERS], [IPDL_C] and then [WIN31]. Finally, click [OK].**

H **Click [OK].**

I **In the [List of Printers] box, select the name of the printer whose driver you want to install by clicking it, and then click [OK].**

The printer driver files are copied from the CD-ROM to your computer's hard disk.

10 **After installation is complete, click [Close] to close the [Printers] dialog.**

11 **Restart Windows.**

12 **After Windows restarts, setup any options you have installed on the printer.**
Reference

❒ => P.40 "*Setting Up Options*".

4

Setting Up Options

A **From the Program Manager [Main] group, open the [Control Panel] and double-click the [Printers] icon.**

The [Printers] dialog appears.

B **In the [Installed Printers] box, select the name of the printer you want to use by clicking on it, and then click [Setup...].**

A dialog for making printer driver settings appears.

C **Click [Setup] tab, and then click [Installable Options].**

The [Installable Options] dialog appears.

D **Use the [Option Tray] listbox, to specify the optional tray unit.**

Specifying the wrong tray here will make it impossible to install your tray correctly.

E **Use the [Total Printer Memory] listbox to specify how much memory is installed on the printer.**

Specifying the wrong amount of memory here may cause printing problems. Be sure to change this setting whenever you add more memory.

Reference

❒ You can find out how much memory is currently stored in memory by printing a Configuration Page on the printer. => P.101 "*Printing the Configuration Page*"

F **Click [OK] to close the dialog.**

G **Click [OK] to close the dialog.**

H **Click [Close] to close the [Printers] dialog.**

Canceling a Print Job

A **In the [Main] group, double-click the [Print Manager] icon.**

A window that shows all the print jobs that are currently queued for printing appears.

B **Select the name of the job you want to cancel by clicking it.**

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

D **Click [Close] to close the dialog.**

E **Click [Close] to close the dialog.**

F **Make sure that the printer's On Line indicator is lit, press the printer's【Reset】key.**

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

Important

❒ The above procedure cancels the print job that is currently being processed by the printer. In some cases, the printer may already be processing data for the next print job following the one currently being output. In such a case, the next print job is also canceled when you press【Reset】.

❒ When your printer is being shared by multiple computers, be careful you don't accidentally cancels someone else's print job.

Note

❒ You cannot stop printing data that has already been processed internally by the printer. Because of this, printing may continue for a few pages after you press【Reset】.

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

Windows NT4.0 - Installing the IPDL-C Printer Driver

Preparation

❒ Before starting installation, be sure to carefully read the README file that is on the CD-ROM containing the printer driver.

Important

❒ Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new printer driver version, uninstall the old version, and then install the new one.

Limitation

❒ Printer driver installation requires full control access rights. To install the printer driver, log on as an Administrators or Power Users group member.

Installing the Printer Driver

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

The [Printers] window appears.

B **Double-click the [Add Printer] icon.**

The Add Printer Wizard appears.

C **After Confirming that [My Computer] option is selected, click [Next].**

A dialog for specifying the port where the printer is connected appears.

D **Click a check box to select the port you want to use, and click [Next].**

A dialog for the manufacturer and model of the printer appears.

E **Click [Have Disk...].**

A dialog for driver installation from a disk appears.

F **Insert the CD-ROM that comes with the printer into your computer's CD-ROM drive.**

G **Change the drive name in the listbox to the name of the CD-ROM drive, and then click [Browse...].**

The Windows NT4.0 printer driver is on the following directory on the CD-ROM:DRIVERS\IPDL_C\NT4.

H **Double-click [DRIVERS], [IPDL_C] and then [NT4]. Finally, click [Open].**

I **Click [OK].**

A printer model selection dialog appears.

10 Select the name of the printer whose driver you want to install by clicking it, and then click [Next].

A dialog for changing the printer name appears.

11 Change the name of the printer if you want, and then click [Next].

12 If the printer is to be shared over a network, click [Shared] to select it.

Selecting [Shared] causes the computer you are on to operate as the printer server. If you select [Not shared] here, skip step **13**.

13 In the [Shared Name] box, type in the name that printer should use on the network.

The initial default Shared name is the same name as the Name box in step **11**, above. You can leave this name as it is, or change to a different one.

14 Click [Next].

15 Specify whether or not you want to print a test page, and then click [Finish].

The printer driver files are copied from the CD-ROM to your computer's hard disk.

After installation is complete, the [Printers] window appears with the icon of the newly installed printer.

16 Restart Windows.

17 After Windows restarts, set up any options you have installed on the printer.

Reference

❒ => P.44 "*Setting Up Options*".

Setting Up Options

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

The [Printers] window appears.

B **Select the icon of the printer you want to use by clicking it. On the [File] menu, click [Properties].**

The printer properties dialog appears.

C **Click the [Installable Options] tab.**

D **Use the [Option Tray] listbox, to specify the optional tray unit.**

Specifying the wrong tray here will make it impossible to install your tray correctly.

E **Use the [Total Printer Memory] listbox to specify how much memory is installed on the printer.**

Specifying the wrong amount of memory here may cause printing problems. Be sure to change this setting whenever you add more memory.

Reference

❒ You can find out how much memory is currently stored in memory by printing a Configuration Page on the printer. => P.101 *"Printing the Configuration Page"*

F **Click [OK] to close the printer properties.**

Canceling a Print Job

A **Double-click the printer icon on the Windows Task Bar.**

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

B **Select the name of the job you want to cancel by clicking it.**

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 [Printer] window.

D **Make sure that the printer's On Line indicator is lit, press the printer's【Reset】key.**

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

Important

❒ The above procedure cancels the print job that is currently being processed by the printer. In some cases, the printer may already be processing data for the next print job following the one currently being output. In such a case, the next print job is also canceled when you press【Reset】.

❒ When your printer is being shared by multiple computers, be careful you don't accidentally cancels someone else's print job.

Note

❒ You cannot stop printing data that has already been processed internally by the printer. Because of this, printing may continue for a few pages after you press【Reset】.

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

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5. Paper and Other Media

Paper and Other Media Supported by this Printer

Paper Types and Sizes

The following tables show the type, size, and feed direction of paper that can be loaded in the printer's paper trays. They also show the maximum number of sheets that can be loaded.

🖉 **Note**

❒ The " ⤵ " symbol means short-edge feed direction.

❒ This printer supports short-edge feed direction (⤵) only.

The supported paper size varies depending on the amount of memory in your printer. => P107 *"Memory Capacity and Paper Size"*

❖ **Standard Paper Tray**

Paper Size	Maximum number of sheets to be set[1]
A4 ⤵ (210 × 297 mm), JIS B5 ⤵ (182 × 257 mm), $8^1/_2$" × 11" ⤵ (Letter), $7^1/_4$" × $10^1/_2$" ⤵ (Executive)	250 sheets
Custom size[2] (Length: 210 to 297 mm, Width: 100 to 216 mm)	

[1]: Based on paper that is 80 g/m^2 (metric version), 20 lb (inch version) in weight.
[2]: You should specify the paper size with the printer driver and operation panel.

❖ **Optional 250-sheet Paper Tray (Paper Feed Unit Type204)**

Paper Size	Maximum number of sheets to be set[1]
A4 ⤵ (210 × 297 mm), JIS B5 ⤵ (182 × 257 mm), $8^1/_2$" × 11" ⤵ (Letter), $7^1/_4$" × $10^1/_2$" ⤵ (Executive)	250 sheets

[1]: Based on paper that is 80 g/m^2 (metric version), 20 lb (inch version) in weight.

❖ **Optional Paper Tray (Paper Cassette Type204[1])**

Paper Size	Maximum number of sheets to be set[4]
A4 ⤵ (210 × 297 mm), JIS B5 ⤵ (182 × 257 mm), $8^1/_2$" × 11" ⤵ (Letter), $7^1/_4$" × $10^1/_2$" ⤵ (Executive), $8^1/_2$" × 14" ⤵ (Legal)	250 sheets
Custom size[2, 3] (Length: 210 to 356 mm, Width: 100 to 216 mm)	

[1]: This tray can be replaced with both the standard tray (tray 1) and the tray of the optional paper feed unit.
[2]: You can load the custom paper size only when you replace this tray with the tray 1.
[3]: You should specify the paper size with the printer driver and operation panel.
[4]: Based on paper that is 80 g/m^2 (metric version), 20 lb (inch version) in weight.

Precautions for Paper

Note the following precautions when handling or selecting paper to be used with this printer.

Cautions in loading paper

❒ Use only the recommended paper types. Print quality cannot be guaranteed if other paper types are used.

❒ Do not use paper that is already printed on.

❒ When loading paper into the paper tray, make sure that the top of the stack is not higher than the limit mark inside the tray.

❒ When loading paper into the paper tray, make sure that the print side is facing up.

Cautions in storing paper

Paper should always be stored properly. Improperly stored paper might damege the paper, resulting in poor print quality, paper misfeeds, or printer damage.

Follow the precautions below.

- Avoid storing paper in humid areas.
- Avoid exposing paper to direct sunlight.
- Store on a flat surface.
- Keep open reams of paper in the package in which the paper came.

Paper types and cautions

❖ Plain Paper
❒ The paper tray can support paper 60 - 162 g/m^2 (16 - 43 lb) in weight.

❒ If you print on the paper heavier than 90 g/m^2 (24 lb), you should select the thick paper mode with the printer driver.

❒ If paper is curled or bent, correct it before loading.

❖ Thick Paper
❒ Printing is supported on thick paper up to 160g/m^2 (43 lb). The print quality on paper that is thicker cannot be guaranteed.

❒ Make sure that the stack of paper is no higher than the LABEL upper limit mark (▼) inside the tray.

❖ Adhesive Labels

❒ Load adhesive labels into the tray with the print side up.

❒ Remove any unused adhesive labels from the tray after you are finished printing. Leaving them in the tray can cause them to curl.

❒ The paper tray can hold up to 30 adhesive labels. Make sure that the stack of paper is no higher than the LABEL upper limit mark (▼) inside the tray.

❒ Use adhesive labels which can be printed on the whole side.

❒ Avoid using the adhesive labels on which glue is exposed.

❒ If the print side is coated, the print quality might be reduced, as the toner might fuse well.

❒ When printing on adhesive labels, you should select the thick paper mode with the printer driver.

❖ OHP Transparencies

❒ When printing on an OHP transparency that has a print side, load it face up in the paper tray.

❒ When printing on an OHP transparency that has tape on it, load it in the paper tray so that the edge with tape is the trailing edge.

❒ When printing on the OHP transparencies, you should select the OHP transparency mode with the printer driver.

❒ Remove any unused OHP transparencies from the tray after you are finished printing. Leaving them in the tray can cause them to curl.

❒ The paper tray can hold up to 50 OHP transparency sheets. Make sure that the stack of paper is no higher than the OHP upper limit mark (▼) inside the tray.

❒ Be careful not to touch the print side of the OHP transparencies. Otherwise, the print side may be dirty or damaged, resulting in poor print quality.

Paper not supported by this printer

❒ Avoid using the following types of paper that are not supported by this printer.

- Paper whose weight is heavier or lighter than the limitation
- Bent, folded, or creased paper
- Curled or twisted paper
- Torn paper
- Wrinkled paper
- Damp paper
- Papers that are stuck together
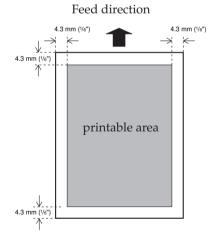- Paper that is dry enough to emit static electricity

- Paper that has already been printed on (with the exception of preprinted letterhead)

∅ **Note**

❒ The ink used for the former printing by a copier, or an inkjet printer and so on might do harm to the fusing unit of this printer due to a difference in fusing temperatures.

- Coated paper (except the recommended one)
- Special paper like thermal paper, aluminum foil, carbon paper and conductive paper
- Heavily textured paper
- Glued paper
- Label paper on which glue or base paper is exposed
- Paper with clips or staples
- Paper with tape or ribbons attached
- Postcards

Printable Area

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

Feed direction

4.3 mm (1/6")   4.3 mm (1/6")

4.3 mm (1/6")

printable area

4.3 mm (1/6")

∅ **Note**

❒ The printable area may vary depending on paper size, printer language and printer driver settings.

Loading Paper

Loading Paper in the Paper Tray

⚠ *CAUTION*

- *The paper tray does not have a stopper. When pulling it out, be careful not to pull it strongly. If you do, the tray might fall and cause a personal injury.*
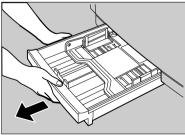
📍Important

❒ After you load paper, you must use the printer driver's [Option Setup] tab to specify the paper size for the computer to be able to know what size is loaded.

📖Reference

❒ See "Paper Types and Sizes" on page 47 for details on supported paper types and sizes.

❒ Custom size paper is supported by the standard paper tray (Tray 1) only.
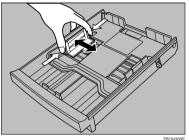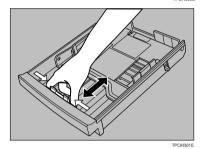
Loading paper

A **Carefully pull the paper tray out of the printer and place it on a flat surface.**
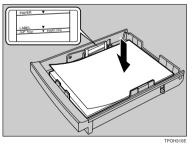

TPOH450E

B **Slide the paper guides to positions that match the size of paper you want to load.**

TPOH300E

TPOH301E

C **Load paper into the tray with the print side up.**

TPOH310E

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Important

❒ Make sure that the stack of paper is no higher than the top-most limit mark (▼) inside the tray.

❒ The front and side guides should be set to the correct paper size to avoid paper feed problems.

❒ Do not load different kinds of paper in the tray at a time.

D **Slide the paper tray completely into the printer.**

Important

❒ Be sure to insert the paper tray completely. Otherwise, paper misfeeds might occur, or the front cover might touch the paper tray.

Specifying paper size using the operation panel

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

Note
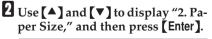
❒ You can set the custom paper in the standard tray (tray 1) only.

❒ To switch to the tray 1, => P54 *"Switching between Paper Trays"*.

❒ The custom paper size setting is cleared when the printer is turned off.

❒ After pressing a key, wait until the display changes as described before performing the next key operation.

A **Press 【Media】.**

TPOS050G

The "Media" menu appears.

```
<Media>          ▲
1.Paper Tray     ▼
```

B **Use 【▲】 and 【▼】 to display "2. Paper Size," and then press 【Enter】.**

```
<Media>          ▲
2.Paper Size     ▼
```

The "Paper Size" menu appears.

```
<Paper Size>     ▲
*Auto Detect     ▼
```

C Use 【▲】 and 【▼】 to display "Custom," and then press 【Enter】.

This following message appears.

```
<Custom>        ▼
▲▼/# Width 140mm
```

D Use 【▲】 and 【▼】 to change the third (leftmost) digit of the paper width.

```
<Custom>        ▼
▲▼/# Width 140mm
```

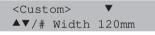**E** When the third digit is the value you want, press 【Enter】 to move the ▼ pointer to the second digit.

```
<Custom>        ▼
▲▼/# Width 140mm
```

Note

❒ You can press 【Escape】 to move the pointer to the left.

F Use 【▲】 【▼】 to change the second (center) digit of the paper width.

```
<Custom>        ▼
▲▼/# Width 120mm
```

G Repeat steps **E** and **F** to set the value of the first (rightmost) digit of the width.

H While the pointer is located at the first digit (rightmost) of the width, press 【Enter】 to advance to the length setting display.

```
<Custom>        ▼
▲▼/# Length216mm
```

I Use the same procedure as that for the width to set the three length digits. Move the ▼ pointer to the left with 【Escape】 and to the right with 【Enter】. Use 【▲】 and 【▼】 to change the digit where the pointer is located.

J While the ▼ pointer is located at the first (rightmost) digit of the length, press 【Enter】.

The "Paper Size" menu appears.

K Press 【On Line】.

The normal display screen appears.

Note

❒ To change back from the "Custom" size setting to automatic paper size detection, use 【▲】 and 【▼】 in step **C** of the above procedure to scroll to "Auto Detect", and then press 【Enter】.

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Switching between Paper Trays

You can use the following procedure to switch between paper feed when the optional paper feed unit is installed on the printer.

❒ The paper tray you specify in the following procedure is cleared when the printer is turned off.

A **Press 【Media】.**

TPOS050G

The "Media" menu appears.

```
<Media>        ▲
1.Paper Tray   ▼
```

B **After confirming that "1. Paper Tray" is on the display, press 【Enter】.**

The Paper Tray menu appears.

• Metric version

```
<Paper Tray>   ▲
*Tray1/A4      ▼
```

• Inch version

```
<Paper Tray>   ▲
*Tray1/LT      ▼
```

Note

❒ An asterisk (*) indicates the currently selected paper tray.

C **Use 【▲】 and 【▼】 to display "Tray2/ (paper size)", and then press 【Enter】.**

This selects the optional tray unit and the "Media" menu appears.

D **Press 【On Line】.**

The normal display screen appears.

Note

❒ To return the setting to the standard tray, select "Tray 1/ (paper size)" in step 3 of the above procedure.

6. Troubleshooting

Error & Status Messages

There are two types of error messages:

❐ Printed error message

❐ Displayed error message

The displayed error messages appear on the printer's panel display.

Printed Error Message

The error message shown below is output by the printer whenever there is not enough memory to print your data.

Error Message	Required Action
There is not enough memory in your printer to print this page. Change the resolution to 300 dpi in the printer driver and try again. For details, please refer to the troubleshooting section in your manual.	The following are the actions you should take when you encounter memory shortage problems. If these actions do not solve the problem individually, try them in combination with each other. => P.108 "*Low Memory*" 1. Increase printer memory. Install the optional memory unit to increase printer memory capacity. => P.9 "*Installing the Memory Unit*" 2. Reduce resolution. Use the printer driver to set resolution to 300dpi. => Help of the printer driver => "RICOH-SCRIPT 2 Operating Instructions" 3. Turn on "Image Memory". Use the printer's "System Menu" to turn on "Image Memory". => P.91 "*Making Printer Settings with the Operation Panel*"

Error & Status Messages on the Operation Panel

📎 Note
❒ The panel display can show only one error message at a time. Printing a Configuration Page shows all current printer errors under the Printer Error item of the Printer Information section. => P.101 "Printing the Configuration Page"

Message	Description	Comments
Add Fuser Oil (on the upper line)	The fuser oil bottle is empty.	Replace the fuser oil bottle. => P.87 *"Replacing the Fuser Oil Bottle and Ozone Filter"*
Add Fuser Oil (on the lower line)	Fuser oil is low.	Prepare a new fuser oil bottle for replacement. You can print about 30 more pages after this message appears. => P.87 *"Replacing the Oil Bottle and Ozone Filter"*
Add Toner Black	The printer is out of black toner.	Replace the black toner cartridge. => P.80 *"Replacing the Toner Cartridges"*
Add Toner Cyan	The printer is out of cyan toner.	Replace the cyan toner cartridge. => P.80 *"Replacing the Toner Cartridges"*
Add Toner Magenta	The printer is out of magenta toner.	Replace the magenta toner cartridge. => P.80 *"Replacing the Toner Cartridges"*
Add Toner Yellow	The printer is out of yellow toner.	Replace the yellow toner cartridge. => P.80 *"Replacing the Toner Cartridges"*
Call Service SC:xx	There is a serious problem with the printer mechanism.	Contact your sales or service representative.
Change 120K	It is time for scheduled maintenance.	Contact your sales or service representative.
Change Fuser	The fusing unit is at the end of its service life.	Contact your sales or service representative.
Change Fuser Cleaner	The fuser cleaner is at the end of its service life.	Replace the fuser cleaner. => P.89 *"Replacing the Fuser Cleaner"*
Change PCU	The photoconductor unit is nearly at the end of its life.	=> P.82 *"Replacing the Photoconductor Unit"*
Chg. Cleaner	The fuser cleaner is dirty.	You can print about 1,000 more pages after this message appears.
Close Front Cover	The front cover is open.	Close the front cover.
Close Rear Cover	The rear cover is open.	Close the rear cover.
Close Top Cover	The top cover is open	Close the top cover.

Message	Description	Comments
Load {paper size}	The indicated paper tray is out of paper.	Load paper into the indicated paper tray. => P.51 "*Loading Paper in the Paper Tray*"
Low on: All	All four toners are low.	Replace the indicated color toner as soon as possible. You can print about 300 pages (A4 5% chart) after this message appears for black toner, and about 500 pages (A4 5% chart) after this message appears for cyan, magenta, or yellow toner. Printing is disabled when the printer runs out of any one toner color. => P.80 "*Replacing the Toner Cartridges*"
Low on: C	Cyan toner is low.	
Low on: C, M	Cyan and magenta toners are low.	
Low on: C, Y	Cyan and yellow toners are low.	
Low on: C, K	Cyan and black toners are low.	
Low on: C, M, Y	Cyan, magenta, and yellow toners are low.	
Low on: C, M, K	Cyan, magenta, and black toners are low.	
Low on: C, Y, K	Cyan, yellow, and black toners are low.	
Low on: M	Magenta toner is low.	
Low on: M, Y	Magenta and yellow toners are low.	
Low on: M, K	Magenta and black toners are low.	
Low on: M, Y, K	Magenta, yellow, and black toners are low.	
Low on: Y	Yellow toner is low.	
Low on: Y, K	Yellow and black toners are low.	
Low on: K	Black toner is low.	
Open Rear Cover Remove Misfeed	There is a paper misfeed in the printer.	Remove the misfed paper. => P.71 "*Removing Misfed Paper*"
Paper Type Error	There is a difference between the paper type in the tray and the requested paper type from the computer.	Check if the correct paper is set. => P.51 "*Loading Paper in the Paper Tray*"
Remove Misfeed From Output Tray	There is a paper misfeed in the printer.	Remove the misfed paper. => P.71 "*Removing Misfed Paper*"
Remove Misfeed From Tray #	There is a paper misfeed in the printer.	Remove the misfed paper. => P.71 "*Removing Misfed Paper*"
Reset Cleaner Correctly	The fuser cleaner roller is not installed in the printer.	Install the fuser cleaner. => P.89 "*Replacing the Fuser Cleaner*"

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Message	Description	Comments
Reset Fusing Unit Correctly	The fusing unit is not installed in the printer.	Contact your sales or service representative.
Reset PCU Correctly	The photoconductor unit is not installed in the printer.	Install the photoconductor unit. => P.82 "*Replacing the Photoconductor Unit*"
Reset Tray Correctly	The paper tray is not installed correctly.	Install the paper tray correctly.
Reset xxx Toner Correctly	The indicated toner cartridge is not installed correctly.	Install the indicated toner cartridge correctly. => P.80 "*Replacing the Toner Cartridges*"
Waste Toner is Full	The waste toner bottle is full, or the waste toner bottle is not installed in the printer.	Check if a waste toner bottle is installed in the printer. If there is a bottle installed, replace the waste toner bottle. => P.86 "*Replacing the Waste Toner Bottle*"
A3: Error	There is too much data for the I/O buffer to handle.	Check if the interface cable is inserted into the printer and your computer securely.
		Check if the interface cable is not damaged or broken.
		Increase the printer's I/O buffer. =>P. 91 "*Making Printer Setting with the Operation Panel*"
A6: Error	There is not enough printer memory to print one or more of the pages in the print job.	=> P.108 "*Low Memory*"
AB: Error	The printer is unable to process the data you are trying to print.	Install an optional memory unit (SIMM) to increase printer memory capacity.
		Reduce the amount of data being sent to the printer.
B0: Error	An error has occurred in the optional memory unit (SIMM).	Remove the memory unit from the printer and turn off and on the printer's power switch. Then, try to perform your printer job. ✏️**Note** ❐ If you remove the memory unit, you might not perform your print job including the large complex data.
		If the same message appears again, contact your sales or service representative.
B1: Error	An error has occurred in the standard parallel interface.	Contact your sale or service representative.

Message	Description	Comments
B3: Error	The printer setting is wrong.	Reset the printer using "Menu Reset" of the "Maintenance" menu. => P.91 "*Making the Printer Settings with the Operation Panel*" If this does not clear the error message, contact your sales or service representative.
B5: Error	An error has occurred in the optional RICOH-SCRIPT 2 kit.	Remove the RICOH-SCRIPT 2 kit from the printer and turn off and on the printer's power switch. Then, try to perform your printer job.
		If the same message appears again, contact your sales or service representative.
B6: Error	An error has occurred in the optional parallel interface board.	Remove and reinstall the optional parallel interface board. If this does not clear the error message, contact your sales or service representative.
B7: Error.	An error has occurred in the optional network interface board.	Remove the network interface board from the printer and turn the printer's power switch off and on. Try to print again. ✏ **Note** ❐ If you remove the network interface board, you cannot perform your print job over the network. You can send your print job to the printer only via a parallel cable connection.
		If the same message appears again, contact your sales or service representative.
85: Error	An error has occurred in the printer's standard memory.	Turn off and on the printer's power switch.
		If the same message appears again, contact your sales or service representative.
86: Error	You might not use the correct interface cable.	Make sure you are using the correct printer driver.
	You may be trying to print with the wrong printer driver.	Make sure you are using the correct interface cable. => P.110 "*Specifications*"
91: Error	An error has occurred in the printer's standard memory.	Turn the printer's power switch off and on.
		If the same message appears again, contact your sales or service representative.

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Message	Description	Comments
94: Error	The amount of the memory is not set correctly.	Specify the correct memory capacity using the printer driver. => P.36, 40, or 44 "*Setting Up Options*"

🖉 Note

❒ If you cannot solve the problem by taking above actions, turn the printer power off and then back on again. If this does not clear the error message, write down the error number and the message, and contact your sales or service representative.

Getting Printer Information over the Network

🖉 Note

❒ The optional network interface board is required to get the information over the network.

Printer Current Status

You can check the printer's current status using the following method.

❖ UNIX

Use the lpq command or stat parameter of rsh, rcp, or ftp.

For more information, => "Operating Instructions" of the optional network interface board.

❖ mshell

Use status command.

For more information, => "Operating Instructions" of the optional network interface board.

Status	Description	Comments
Normal	Printer works properly.	—
Add Fuser Oil	The fuser oil bottle is empty.	Replace the fuser oil bottle. => P.87 "*Replacing the Fuser Oil Bottle and Ozone Filter*"
Add Toner: All	All toner (black, cyan, magenta, and yellow) has run out.	Replace the toner cartridge. => P.86 "*Replace the Toner Cartridge*"
Add Toner: Black	Black toner has run out.	Replace the black toner cartridge. => P.80 "*Replace the Toner Cartridge*"
Add Toner: Cyan	Cyan toner has run out.	Replace the cyan toner cartridge. => P.80 "*Replace the Toner Cartridge*"

Status	Description	Comments
Add Toner: K,M,Y,C*	Indicated toner has run out. * : K: black, M: magenta, Y: yellow, and C: cyan	Replace the toner cartridges. => P.80 "*Replace the Toner Cartridge*"
Add Toner: Magenta	Magenta toner has run out.	Replace the magenta toner cartridge. => P.80 "*Replace the Toner Cartridge*"
Add Toner: Yellow	Yellow toner has run out.	Replace the yellow toner cartridge. => P.80 "*Replace the Toner Cartridge*"
Call Service	There is a malfunction in the printer.	Turn the printer off and on. If this doesn't clear the problem, contact your sales or service representative.
Change 120K	It is time for scheduled maintenance.	Contact your sales or service representative.
Change Fuser Cleaner	The fuser cleaner is dirty.	The fuser cleaner is dirty. It should be changed soon.
	The fuser cleaner is at the end of its life.	Replace the fuser cleaner. => P.89 "*Replacing the Fuser Cleaner*"
Change Fusing Unit	The fusing unit is at the end of its life.	Contact your sales or service representative.
Change PCU	The photoconductor unit is nearly at the end of its life.	=> P.82 "*Replacing the Photoconductor Unit*"
Close Front Cover	The front cover is open.	Close the front cover.
Close Rear Cover	The rear cover is open.	Close the rear cover.
Close Top Cover	The top cover is open.	Close the top cover.
Energy Save Mode	The printer is in Energy Saver mode.	Wait for a while.
Fuser Oil is Low	Fuser oil is low.	Prepare a new fuser oil bottle for replacement. You can print about 30 pages or more after this message appears. => P.87 "*Replacing the Fuser Oil Bottle and Ozone Filter*"
Load Paper	There is no paper in the tray.	Load paper. => P.51 "*Loading Paper*"
Misfeed: Output Tray	There is a paper misfeed in the printer.	Remove the misfed paper. => P.71 "*Removing Misfed Paper*"
Misfeed: Paper Tray	There is a paper misfeed in the printer.	Remove the misfed paper. => P.71 "*Removing Misfed Paper*"
Misfeed: Rear Cover	There is a paper misfeed in the printer.	Remove the misfed paper. => P.71 "*Removing Misfed Paper*"

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Status	Description	Comments
Paper Type Error	There is a difference between the paper type in the paper tray and the requested paper type from the computer.	Check if the correct paper is set. => P.51 "*Loading Paper in the Paper Tray*"
Performing Self Check	The printer is now preparing for printing.	Wait for a while.
Please Wait	The printer is now preparing for printing.	Wait for a while.
Ready	The printer is ready for printing.	—
Reset PCU Correctly	The photocontductor unit is not installed in the printer.	Install the photoconductor unit correctly.
Reset Fuser Cleaner	The fuser cleaner is not installed in the printer.	Install the fuser cleaner. => P.89 "*Replacing the Fuser Cleaner*"
Reset Fusing Unit	The fusing unit is not installed in the printer.	Contact your sales or service representative.
Reset Toner Correctly	The toner cartridge is not installed correctly.	Install the cartridge correctly. => P.80 "*Replacing the Toner Cartridge*"
Reset Toner: All	All of four toner cartridges are not installed correctly.	Install the cartridges correctly. => P.80 "*Replacing the Toner Cartridge*"
Reset Toner: Black	The black toner cartridge is not installed correctly.	Install the cartridge correctly. => P.80 "*Replacing the Toner Cartridge*"
Reset Toner: Cyan	The cyan toner cartridge is not installed correctly.	Install the cartridge correctly. => P.80 "*Replacing the Toner Cartridge*"
Reset Toner: K,Y,M,C*	Indicated toner cartridge is not installed correctly. *: K: black, M: magenta, Y: yellow, C: cyan	Install the cartridge correctly. => P.80 "*Replacing the Toner Cartridge*"
Reset Toner: Magenta	The magenta toner cartridge is not installed correctly.	Install the cartridge correctly. => P.80 "*Replacing the Toner Cartridge*"
Reset Toner: Yellow	The yellow toner cartridge is not set correctly.	Install the cartridge correctly. => P.80 "*Replacing the Toner Cartridge*"
Reset Tray Correctly	The paper tray is not installed correctly.	Install the paper tray correctly. => P.80 "*Loading Paper in the Paper Tray*"
Toner is Low: All	All four toners are low.	Replace the toner cartridge. => P.80 "*Replacing the Toner Cartridge*"
Toner is Low: Black	The black toners is low.	Replace the toner cartridge. => P.80 "*Replacing the Toner Cartridge*"

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Status	Description	Comments
Toner is Low: Cyan	The cyan toner is low.	Replace the toner cartridge. => P.80 *"Replacing the Toner Cartridge"*
Toner is Low: K,Y,M,C*	The indicated toner is low. *: K: black, M: magenta, Y: yellow, C: cyan	Replace the toner cartridge. => P.80 *"Replacing the Toner Cartridge"*
Toner is Low: Magenta	The magenta toner is low.	Replace the toner cartridge. => P.80 *"Replacing the Toner Cartridge"*
Toner is Low: Yellow	The yellow toner is low.	Replace the toner cartridge. => P.80 *"Replacing the Toner Cartridge"*
Warming Up	The printer is now preparing for printing.	Wait for a while.
Waste Toner is Full	The waste toner bottle is not install correctly.	Install the waste toner bottle correctly. => P.86 *"Replacing the Waste Toner Bottle"*.
	The waste toner bottle is full.	Replace the waste toner bottle. => P.86 *"Replacing the Waste Toner Bottle"*.

Printer Configuration

You can check the printer's settings using the following methods.

❖ **UNIX**
Use the info command of rsh, rcp, or ftp.

For more information, => "Operating Instructions" of the optional network interface board.

❖ **mshell**
Use info command.

For more information, => "Operating Instructions" of the optional network interface board.

🔗 **Note**

❒ "*" (asterisk) is displayed with the current setting.

❒ Regarding *1-*3, see the attached table.

Item	Description
Input Tray	
No.	ID number of the paper tray
Name*1	Name of the paper tray
Paper Size*2	Paper size loaded in the paper tray
Status*3	Current status of the paper tray

Item	Description
Output Tray	
No.	ID number of the output tray (not used for this printer)
Name	Name of the output tray
Status	Current status of the output tray
Emulation	
No.	ID number of the emulation used by the printer
Name	Name of the emulation used in the printer
Version	Version of the emulation
Program	Not used for this printer

■ ***1: Input Tray:Name**

Messages	Description
Tray1	Standard tray (Tray1)
Tray2	Optional tray (Tray2)

■ ***2: Input Tray: Paper Size**

Messages	Description
A4R	A4 $\square$
B5R	B5 $\square$
LTR	$8^1/_2" \times 11"$ $\square$
LGR	$8^1/_2" \times 14"$ $\square$
EXR	$7^1/_4" \times 10^1/_2"$
FRE	Custom size

■ ***3: Input Tray: Status**

Messages	Description
Normal	—
NoTray	There is no paper tray
PaperEnd	There is no paper in the paper tray

Printer Doesn't Print

Possible Causes	Solutions
Is the power on?	Make sure that the power cord is securely plugged into the power outlet and the printer. Also make sure the printer's power switch in the ON position.
Does the On Line indicator stays on?	If the On Line indicator is off, press 【On Line】 to light it up. => P.5 "*Operation Panel*"
Does the Error indicator stay red?	Check the error message on the panel display and do the required action. => P.56 "*Error & Status Messages on the Operation Panel*"
Is paper loaded in the paper tray?	Load paper. => P.51 "*Loading Paper in the Paper Tray*"
Can you print a test page (configuration page)?	If you can't print a test page, it probably indicates printer malfunction. You should contact your sales or service representative. => P.101 "*Printing the Configuration Page*" If you can print a test page but cannot get the printer to print when you issue a print command from your computer, it probably means there is a problem with your computer. Also keep in mind that large, complex data might take long time for printer process.
Is the parallel interface cable connecting the printer to your computer connected securely?	Connect the interface cable properly. If there are any connectors or screws, make sure they are fastened securely.
Are you using the correct interface cable?	The type of parallel interface cable you should use depends on your computer. Be sure to use the correct one. => P.110 "*Specifications*" If the cable is damaged or worn, replace it with a new one.

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Possible Causes	Solutions

Is the Data In indicator blinking or lit after starting the print job?	If not, the data is not being sent to the printer.
	❖ **If your printer is connected to the computer using the interface cable**
	Check if the printer port settings are correct. For a parallel port connection, port LPT1 or LPT2 should be set.
	• Windows 95/98
	  1. Click [Start], point to [Settings], and then click [Printers].
	  2. Highlight the icon of the printer by clicking it. Next, on the [File] menu click [Properties].
	  3. Click [Details] tab.
	  4. Check the [Print to the following port] box to make sure the correct port is selected.
	• Windows 3.1x
	  1. On the [Control Panel], double-click the [Printers] icon.
	  2. Confirm that this printer is specified as the default printer.
	  3. Click [Connect].
	  4. Check the [Ports] box to make sure the correct port is selected.
	• Windows NT 4.0
	  1. Click [Start], point to [Settings], and then click [Printers].
	  2. Highlight the icon of the printer by clicking it. Next, on the [File] menu click [Properties].
	  3. Click [Ports] tab.
	  4. Check [The Print to port box] to make sure the correct port is selected.
	❖ **Network connection**
	Contact your network administrator.

	If the Data In indicator is blinking or lit The printer may be resetting the print job. Take the following steps to correct the situation. • Increase the "Job Timeout" setting of the "IPDL-C Menu". • Make sure your printer driver settings are correct. • Change the setting of the "Transfer" of the "System Menu". • Make sure the "Parallel" of the "System Menu" is correct.

📎 Note

❒ If you cannot solve the problem by taking above actions, contact your sales or service representative.

Other Printing Problems

Status	Possible Causes, Descriptions, and Solutions

The printer prints a message indicating insufficient memory.	This message is printed when the printer does not have enough memory to print a page.
	The following are the actions you should take when you encounter memory shortage problems. If these actions do not solve the problem individually, try them in combination with each other. => P.108 "*Low Memory*"
	1. Increase printer memory.
	   Install the optional memory unit to increase printer memory capacity. => P.9 "*Installing the Memory Unit*"
	2. Reduce resolution.
	   Use the printer driver to set resolution to 300dpi.
	   => Help of the printer driver
	   => "RICOH-SCRIPT 2 Operating Instructions"
	3. Turn on "Image Memory".
	   Use the printer's "System Menu" to turn on "Image Memory". => P.91 "*Making Printer Settings with the Operation Panel*"

Image is printed on the reverse side of the paper.	The paper in the paper tray is upside down. Load paper with the print side up.
Paper misfeeds occur frequently.	Make sure you are removing misfed paper correctly. Pull the misfed paper out of the printer and double-check to make sure you are removing all the paper that was misfed. => P.71 "*Removing the Misfed Paper*"
	Paper is not loaded correctly in the paper tray. Remove the paper from the tray and reload it correctly. => P.51 "*Loading Paper in the Paper Tray*"
	Check if the paper tray is set correctly. If not, set it correctly.
	You might use paper not supported by this printer. Use the appropriate type of paper. => P.49 "*Paper not supported by this printer*"
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 processing is being done. Just wait until it resumes.
	The Energy Saver mode might be enabled. In the Energy Saver mode, it takes time for the machine to warm up.

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Status	Possible Causes, Descriptions, and Solutions
It takes too much time to print.	Photographs and other data intensive pages take a long time for the printer to process, so simply wait when printing such data. You can also speed up printing by using the printer driver to select [Fast] as the print mode, and by setting the resolution to 300dpi.
	The printer takes more time to print documents that contain a large volume of data. A blinking or lit Data In indicator means that data is reaching the printer, so just wait for the data to be processed and printed.
	If "Warming Up" appears on the panel display, the printer is now warming up. Wait for a while.
It takes too much time to perform black and white printing.	[Color] is selected on the printer driver's [Setup] tab. Change this setting to [Black & White]. Note, however, that some applications ignore the color mode setting made with the printer driver.
Desired tray isn't used for the out put.	The printer driver setting is not correct. Change the setting. => "*Printer Driver's online help*"
Printed side gets dirty.	If the message "Change PCU" appears on the panel display, replace the photoconductor unit. => P.82 "*Replacing the Photoconductor Unit*"
	Check the image density setting. => P.77 "*Adjusting the Image Density*"
	The charge wire is dirty. Clean the charge wire. => P.75 "*Cleaning the Charge Wire*"
Image density is too light.	If turning on the [Toner Saving] setting on [Quality Setting] tab, it can cause blurring or fine lines might not be printed. With color printing, toner saving can cause abnormal coloring. Try printing again after turning [Toner Saving] off. See the printer driver's online help for further details about toner saving.
	If the message "Low on: xxxx" is on the panel display, replace the toner cartridge for the indicated color. => P.80 "*Replacing the Toner Cartridges*"
	Check if the paper tray is set correctly. If not, set it correctly.
	You might use paper not supported by this printer. Use the appropriate type of paper. => P.49 "*Paper not supported by this printer*"

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Status	Possible Causes, Descriptions, and Solutions
Part of the printout is blurred or light.	Make the image density darker. => P.77 "*Adjusting the Image Density*"
	Check if the toner cartridge or photoconductor unit is installed correctly. => P.80 "*Replacing the Toner Cartridges*" and P.82 "*Replacing the Photoconductor Unit*"
	Check if the paper tray is set correctly. If not, set it correctly.
	You might use paper not supported by this printer. Use the appropriate type of paper. => P.49 "*Paper not supported by this printer*"
	Check if the surface where the printer is located is level, and not angled in anyway.
White lines appear on the print side.	If white lines appear only within a particular color, remove and reinstall the corresponding toner cartridge. => P.80 "*Replacing the Toner Cartridges*"
Toner is not fused well when printing on thick paper.	The printer is not in "Thick Paper" mode. Select [Thick Paper] in the [Paper Type] box of the printer driver's [Setup] tab.
Toner is not fused well when printing on the OHP transparencies.	The printer is not in "OHP Transparency" mode. Select [OHP transparency] in the [Paper Type] box of the printer driver's [Setup] tab.
The color of the printout does not match the color on the computer's display.	The toner based color system used by the printer is different from the light based color system of the computer screen. => P.iv "*Color Guide*"
	Turning on the [Toner Saving] feature of the printer driver's [Quality Setting] tab can cause color irregularities. See the printer driver's online help for details about changing the settings on this tab.
	Check the settings of the printer driver's [Color Setting] tab. See the printer driver's online help for details about changing the settings on this tab.
The printout does not match the image on the computer screen.	Certain applications or image creation methods produce images that cannot be printed exactly as they appear on the computer screen. Checking the [Print as bitmap] item of the printer driver's [Setup] tab causes the print data to be converted to image data before it is sent to the printer, which produces a printout that is closest to what appears on your computer screen. ✎**Note** ❐ This setting also causes large-volume print jobs to take longer to print because of the required conversion process.

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Status	Possible Causes, Descriptions, and Solutions
Changing the color settings with the printer driver causes a drastic change in printout color.	Do not made radical changes in the settings of the [Color Setting] tab. Also note that the sample shown by the printer driver is intended to show what processes are being applied, not exactly what your printout will look like. See the printer driver's online help for details about making these settings.
Photograph printing looks rough.	Select [Fine] on the [Print Quality] tab.
	Printing from some applications results in a loss of resolution.
Color documents are printed in black and white.	The printer driver is not set up for color printing. Select [Color] on the printer driver's [Setup] tab. See the printer driver's online help for details about making this setting.
	Some applications normally print color text as black and white. You can obtain correct color printing with such applications by checking the [Use 24 bit colors] option in the printer driver's [Setup] tab. See the printer driver's online help for details about making this setting.
Fine dot patterns do not print.	Select [Text] in the [Dithering] list box of the [Color Setting] tab. See the printer driver's online help for details about making this setting.
Printer driver settings do not produce the desired results.	Install the latest version of the printer driver.
	Your printer driver may not be installed correctly. Delete the printer driver, and then re-install it.
	Some applications ignore the settings of the printer driver. Check the settings of the application and printer driver settings to make sure they are the same, and then try printing again.

✒️**Note**

❒ If you cannot solve the problem by taking above actions, contact your sales or service representative.

Removing Misfed Paper

When a paper misfeed occurs, an error message appears on the panel display. The procedure you should follow to remove the misfed paper depends on its location which is indicated on the panel display.

🖐️**Important**

❐ Toner printed on misfed paper is not fused and can make your hands or clothing dirty. Take care to avoid contact with the toner as you remove misfed paper.

❐ Check the following points if paper continues to misfeed.

- Make sure the paper in the tray matches the size for which the tray is set up.
- Make sure the number of sheets do not exceed the maximum capacity of the tray.
- Make sure misfed paper is still not inside the printer when you resume printing.
- Make sure paper is properly loaded in the paper tray.
- Make sure you are using only the appropriate type of paper.

If misfeeds persist, contact your sales or service representative.

❐ Do not touch the photoconductor unit when removing misfed paper. If you do, the photoconductor unit might be damaged.

❐ To reset the printer after a misfeed, it is necessary to open and close any of covers.
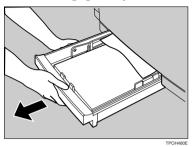
⚠️ *CAUTION*

- *When accessing the inside of the machine, do not touch any sections other than those specified in this manual. If you do, it might result in receiving a burn or injury.*


⚠️ *CAUTION*

- *The paper tray does not have a stopper. When pulling it out, be careful not to pull it strongly. If you do, the tray might fall and cause personal injury.*
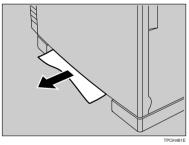
When the Message "Remove Misfeed From Tray" Appears

A **Pull out the paper tray.**

TPOH480E

📝Note

❒ If your printer has an optional paper feed unit installed, check all paper trays for misfeeds.

B **Carefully pull the misfed paper. Make sure that you do not leave any misfed paper in the printer.**
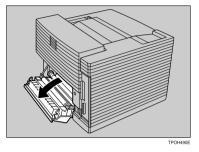
TPOH481E

C **Slide the paper tray completely into the printer.**

🔒Important
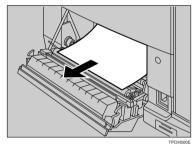
❒ Be sure to insert the paper tray completely. Otherwise, misfeeds might occur, or the front cover might touch the paper tray.

When you cannot find the misfeed near a tray

A If you cannot remove the misfed paper in step **B**, open the rear cover of the printer.

TPOH490E

B Check for misfed paper. If you find paper, carefully pull it. Make sure not to leave any paper inside the printer.

TPOH500E

C Close the rear cover.
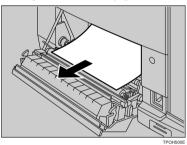
When the Message "Open Rear Cover Remove Misfeed" Appears

⚠️Important
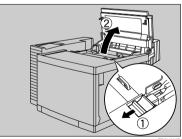
❒ Toner printed on misfed paper is not fused and can make your hands or clothing dirty. Take care to avoid contact with the toner as you remove misfed paper.

A **Open the rear cover of the printer.**
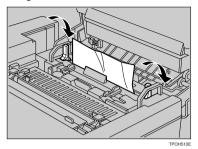
B **If the paper has not entered the fusing unit, carefully pull it out.**

TPOH500E
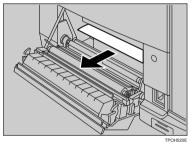
C **If the paper is inside the fusing unit, open the top cover.**

TPOH620E

D **Slide the pressure release levers towards the "OPEN" mark to release the pressure between the rollers.**

TPOH510E

E **Carefully pull the misfed paper from the rear cover side.**

TPOH520E

F **Return the pressure release levers to their original positions ("SET" mark).**

G **Close the top cover and rear cover, and press the center of the top cover until is lock securely into place.**

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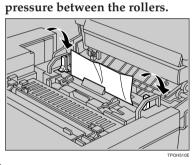
When the Message "Remove Misfeed From Output Tray" Appears
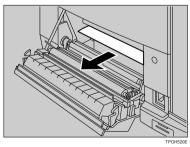
⚠️Important

❒ Toner printed on misfed paper is not fused and can make your hands or clothing dirty. Take care to avoid contact with the toner as you remove misfed paper.

A **Open the printer's rear cover.**

B **Open the top cover, and then slide the pressure release levers towards the "OPEN" mark to release the pressure between the rollers.**

TPOH510E

C **Carefully pull the misfed paper from the rear cover side.**

TPOH520E

D **Return the pressure release levers to their original positions ("SET" mark).**

E **Close the top cover and rear cover, and press the center of the top cover until it locks securely into place.**

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Cleaning and Adjusting the Printer

Cleaning the Charge Wire

The charge wire requires cleaning when your printouts appear dirty.

⚠ **CAUTION**
- *When accessing the inside of the machine, do not touch any sections other than those specified in this manual. If you do, it might result in receiving a burn or an injury.*
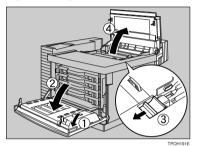
⚠ **CAUTION**
- *Do not open the front cover when the paper tray is pulled out halfway. If you do, it might cause a personal injury.*
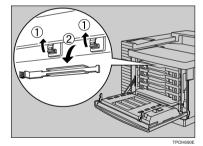
🔔**Important**

❒ Do not touch the surface of the photoconductor unit. If you do, the photoconductor unit might be damaged and the print quality might be reduced.

❒ Do not expose the photoconductor unit to a light source greater than 800 luxes for more than two minutes. If you do, the photoconductor unit might be damaged and the print quality might be reduced.

❒ Do not touch the photoconductor unit on any surface. It you do, the photoconductor unit might be damaged and the print quality might be reduced.
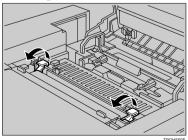
🄰 **Press the printer's power switch to turn off power.**

🄱 **Open the front cover by pulling the front cover open lever and open the top cover by pulling the top cover open lever.**

TPOH191E
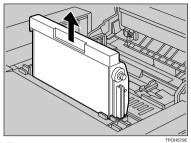
🄲 **Release the brush locks (①) and remove the wire brush (②).**
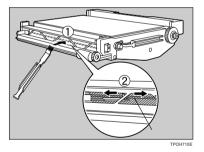
TPOH690E

🄳 **Stand up the green lock levers to a vertical position.**

TPOH560E

6

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

TPOH570E

⚠️**Important**
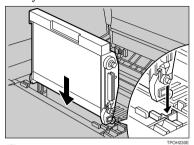
❒ Exposing the photoconductor unit to light for too long can reduce its performance. Clean the charge wire as quickly as possible.

F **Use the wire brush to clean off the charge wire. Insert the wire brush between the case and guide (①), and then move it left and right (②).**

TPOH710E
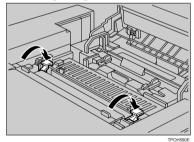
G **Insert the photoconductor unit so that the protruding green axles on both sides are aligned with the tracks inside the green lock levers. Lower it until the gears mesh securely.**

TPOH230E

⚠️**Important**

❒ When inserting the photoconductor unit, be careful not to damage the surface of it.

H **Return the green lock levers to their original positions.**

TPOH590E

⚠️**Important**
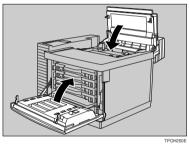
❒ Do not return lock levers with force. If you cannot lock them easily, pull the photoconductor unit from the printer. Then reinsert it again until the gears mesh securely. After that, try returning the levers to their original positions.

9 **Replace the wire brush to its original position.**

TPOH700E

10 **Close the top cover and front cover. Press the center of the top cover and front cover until they lock into place.**

TPOH250E

11 **Press the power switch to turn on printer power.**

Adjusting the Image Density

Changing the image density setting might cause a deterioration of color balance. We recommend that you normally leave image density at its factory default setting without changing it.

The following procedure describes how to change the magenta image density. You can use the same procedure to change the image density for the other toner colors as well.
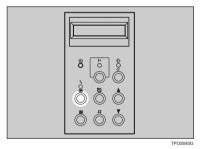
⚠️**Important**

❒ Image density settings should be made from your application or the printer driver whenever possible.

📝**Note**

❒ After pressing a key, wait until the display changes as described, until you perform the next key operation.

1 **Press the printer's power switch to turn on power.**

2 **Press 【Menu】.**

TPOS040G

The following message appears on the panel display.

```
    <Menu>              ▲
    IPDL-C Menu         ▼
```

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C **Use 【▲】 and 【▼】 to display "Main-tenance," and then press 【Enter】.**

The following message appears on the panel display.

```
<Maintenance>   ▲
  1.Toner Level  ▼
```

D **After confirming that "1. Toner Level" is on the display, press 【Enter】.**

The following message appears on the panel display.

```
<Toner Level>   ▲
  Cyan          ▼
```

E **Use 【▲】 and 【▼】 to display "Magenta," and then press 【Enter】.**

The following message appears on the panel display.

```
<Magenta>    ▲▼/#
<◆--3--6--9--->
```

F **Use 【▲】 and 【▼】 to adjust the toner density, and then press 【Enter】.**

The "Toner Level" menu appears.

📌**Note**

❒ To make the image density darker, move the ◆ to the right. To make lighter, to the left.

G **Press 【On Line】.**

The normal display screen appears.

Adjusting the Setting of "Registration" of the Optional Tray

Adjusting the registration refers to changing the position of the printed image on paper fed from the optional tray so it matches that of the standard tray. Probably you will never need to perform this procedure.

📌**Note**

❒ After pressing a key wait until the display changes as described until you perform the next key operation.

❒ Use A4 or 8½" x 11" paper to print the configuration page.

A **Press the printer's power switch to turn on power.**

B **Press 【Menu】.**

TPOS040G

This displays the Printer Menu.

```
<Menu>          ▲
  IPDL-C Menu   ▼
```

C **Use 【▲】 and 【▼】 to display "List Print," and then press 【Enter】.**

This displays the "List Print" menu.

```
<List Print>    ▲
  Config.Page   ▼
```

6

4 After confirming that "Config. Page" is on the display, press【Enter】.

5 Press【Enter】again.

This prints the Configuration Page.

Important

❒ If printing does not start, check the panel display for any error messages and take the action required to correct the problem. => P.56 "*Error & Status Messages on the Operation Panel*"

6 After confirming that the "Config. Page" Menu on the display, press【Escape】.

The following display appears.

```
<Menu>            ▲
List Print        ▼
```

7 You can find the crop marks on the trailing edge of the configuration page. Check if the left (①) and right (②) margins on the trailing edge of the configuration page as shown in the illustration.
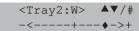
8 If the left and right margins are not the same, use【▲】and【▼】to display "Maintenance", and then press【Enter】.

The "Maintenance" menu appears.

```
<Maintenance>    ▲
1.Toner Level    ▼
```

9 Use【▲】and【▼】to display "4. Registration", and then press【Enter】.

The following display appears.

```
<Tray2:W>    ▲▼/#
-<-----+---◆->+
```
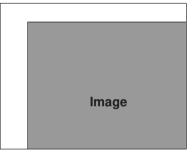
10 Use【▲】and【▼】to adjust the registration.

```
<Tray2:W>    ▲▼/#
-<-----◆----->+
```

The above shifts the image to the right.

Image

11 After you are finished, press【Enter】.

This registers your setting and returns to the "Maintenance" menu.

12 Press【On Line】.

The normal display screen appears.

6

Replacing Consumables

Replacing the Toner Cartridges

You should replace toner cartridges whenever the message "Add Toner" appears on the panel display.

The following procedure describes how to replace the magenta toner cartridge. You can use the same procedure to replace the toner cartridges for the other toner colors as well.

⚠ **WARNING**

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

- **Disposal can take place at our authorized dealer or at appropriate collection sites.**

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

⚠ **CAUTION**

- *When accessing the inside of the machine, do not touch any sections other than those specified in this manual. If you do, it might result in receiving a burn or injury.*

⚠ **CAUTION**

- *Do not open the front cover when the paper tray is pulled out halfway. If you do, it might cause personal injury.*

Important

❐ Exposing the photoconductor unit to light for too long can reduce its performance. Replace the toner cartridge as quickly as possible.

❐ Pull the toner cartridge out slowly and carefully to prevent spilling of toner.
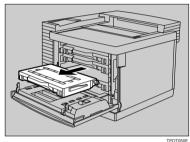
Note

❐ When handling toner cartridges, never stand them up on either end or position them upside down.

❐ Store toner cartridges under the conditions below.

- Temperature: 10°C to 32.5°C (50°F to 90.5°F)

- Humidity: 20% to 80% RH (no condensation)

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

❐ Do not insert the toner cartridge into the printer with force. If you do, the printer might be damaged.

A Open the front cover by pulling the front cover open lever.

TPOH540E

B Carefully pull out the toner cartridge for the color indicated on the panel display.

TPOT050E
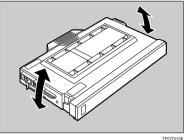
⚠️**Important**

❒ Pull the toner cartridge out slowly and carefully to prevent spilling of toner.
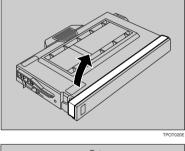
📝**Note**
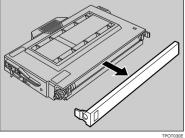
❒ Place the old toner cartridge on paper or some other material to avoid making the area you are working dirty with toner.

C Hold the new toner cartridge and shake it well, about 10 times, as shown in the illustration.

TPOT010E

⚠️**Important**

❒ If toner cartridge is not shaken enough, toner might not be evenly distributed in the cartridge. In this case, the print quality might be reduced.

D Remove the tape from the new toner cartridge and remove the protective cover.

TPOT020E

TPOT030E

6

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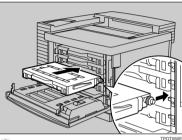
Important

❒ Once the protective cover is removed, toner can spill from the cartridge easily. Take care to avoid subjecting the toner cartridge to vibration and impact after removing the protective cover.
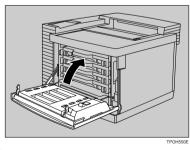
E **Slowly and carefully slide the new toner cartridge into the printer.**

TPOT060E

Important

❒ Do not push the toner cartridge with force. If you do, the printer might be damaged. If it sticks, pull it out and try again.

F **Close the front cover. Press the center of the cover until it locks securely into place.**

TPOH550E

G **At this time, the "Add Toner" message clears from the panel display and the printer starts warming up.**

Replacing the Photoconductor Unit

The message shown below indicates that the photoconductor unit is approaching the end of its life.

```
IPDL-C
Change PCU
```

You can still continue using the current photoconductor unit if you are satisfied with the quality of the output being produced by the printer. When the printed image starts looking soiled (horizontal lines along the edges of the page, for example), replace the photoconductor unit as soon as possible.

⚠ WARNING

- *Do not incinerate the photoconductor unit. Toner dust might ignite when exposed to an open flame.*

- *Disposal can take place at our authorized dealer or at appropriate collection sites.*

- *If you dispose of the used photoconductor unit yourself, dispose of it according to your local regulations.*

⚠ CAUTION

- *When accessing the inside of the machine, do not touch any sections other than those specified in this manual. If you do, it might result in receiving a burn or injury.*

- *Do not open the front cover when the paper tray is pulled out halfway. If you do, it might cause personal injury.*

6
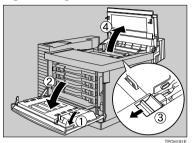
- ❒ Exposing the photoconductor unit to light for too long can reduce its performance. Replace the unit as quickly as possible.

- ❒ Do not touch the surface of the photoconductor unit. If you do, it may damage the photoconductor unit and reduce the print quality.

- ❒ Do not expose the photoconductor unit to a light source greater than 800 luxes for more than two minutes. If you do, the photoconductor unit will be damaged and the print quality might be reduced.

📎 **Note**

- ❒ Before removing the photoconductor unit from the printer, spread paper or some other material around the area you are working to keep toner from making floor dirty.

- ❒ Display of the "Change PCU" message is based on a printed page counter kept internally by the printer. It is meant as a general guide to photoconductor unit life only. Actual photoconductor unit life depends on the printing conditions.

A **Make sure that the Data In indicator is not lit or flashing, press the printer's power switch to turn off power.**
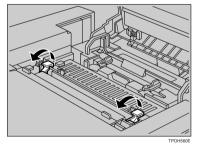
B **Open the front cover by pulling the front cover open lever and open the top cover by pulling the top cover open lever.**

TPOH191E
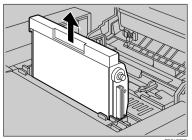
⚙️**Important**

- ❒ Be sure to open both the top and front cover before removing the photoconductor unit. Failure to do so can result in damage to the surface of the photoconductor unit.
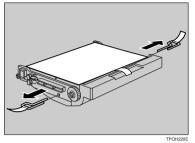
C **Stand up the green lock levers to a vertical position.**

TPOH560E

D **Hold the inset grip of the photoconductor unit, pull it straight up, and remove it from the printer.**

TPOH570E

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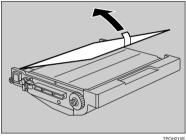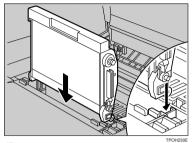
E **Remove the left and right pins from the new photoconductor unit.**

TPOH220E

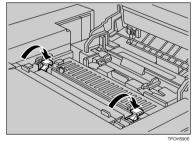**F** **Remove the protective sheet from the new photoconductor unit.**

TPOH210E

6

📝**Note**

❒ The white powder on the photoconductor unit is to protect it after installation into the printer. This white powder does not have any adverse effect on the interior of the printer.

G **Insert the new photoconductor unit so that the protruding green axles on both sides are aligned with the tracks inside the green lock levers. Lower it until the gears mesh securely.**

TPOH230E

⚠**Important**

❒ When inserting the photoconductor unit, be careful not to damage the surface of it.

H **Return the green lock levers to their original positions.**

TPOH590E

⚠**Important**

❒ Do not return lock levers with force. If you cannot lock them easily, pull the photoconductor unit from the printer. Then reinsert it again until the gears mesh securely. After that, try returning the levers to their original positions.

I Close the top cover and front cover. Press the center of the top cover and front cover until they lock into place.

TPOH250E

J Press the power switch to turn on printer power.

K Press 【Menu】.

TPOS040G

This displays the Printer Menu.

```
<Menu>
  IPDL-C Menu
```

L Use 【▲】 and 【▼】 to display "Maintenance", and then press 【Enter】.

The "Maintenance" menu appears.

```
<Maintenance>  ▲
  1.Toner Level ▼
```

M Use 【▲】 and 【▼】 to display "2. Reinstall", and then press 【Enter】.

The "Reinstall" menu appears.

```
<Maintenance>  ▲
  2.Reinstall   ▼
```

N Use 【▲】 and 【▼】 to display "PCU", and then press 【Enter】.

The photoconductor unit reinstall screen appears.

```
<PCU>
  Press # key
```

O Press 【Enter】.

The reinstall operation and returns to the "Maintenance" menu.

P Press 【On Line】.

The normal display screen appears.

6

Replacing the Waste Toner Bottle

⚠ **WARNING**

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

- *Disposal can take place at our authorized dealer or at appropriate collection sites.*

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

⚠ **CAUTION**

- *Do not open the front cover when the paper tray is pulled out halfway. If you do, it might cause personal injury.*

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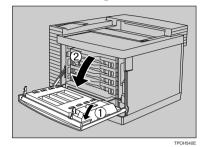
❒ Waste toner bottles are consumable items and cannot be reused. We recommend that you purchase extra waste toner bottles and keep them on hand for replacement when necessary.

❒ The message shown below appears on the panel display when the waste toner bottle becomes full. Replace the used toner bottle when this message appears.

```
Waste Toner is
Full
```

Note
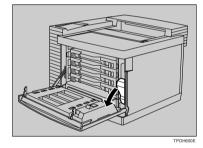
❒ Before removing the waste toner bottle from the printer, spread paper or some other material around the area you are working to keep toner from making floor dirty.
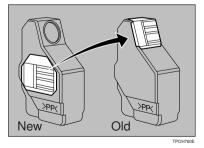
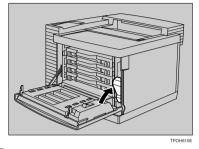A **Open the front cover by pulling the front cover open lever.**

TPOH540E

B **Angling the waste toner bottle as shown in the illustration, pull it out of waste toner bottle holder.**

TPOH600E

C **Remove the sticker from the side of the new waste toner bottle and use it to seal the old waste toner bottle.**

New   Old

TPOH760E

4 **Insert the new waste toner bottle into the waste toner bottle holder, and return the holder to its original position.**

TPOH610E

5 **Close the front cover. Press the center of the front cover until it locks into place.**

Replacing the Fuser Oil Bottle and Ozone Filter

Replace the oil bottle and ozone filter after the message shown below appears on the panel display.
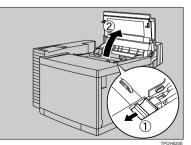
```
Add Fuser Oil
```

⚠ *CAUTION*

- *Do not incinerate the oil bottle. This action could cause a fire or getting burned.*

⚠ *CAUTION*

- *Spilt oil is very slippery. If oil is spilt, wipe it with alkaline cleaner. Otherwise, the oily surfaces can create the danger of slipping and personal injury.*

- *When accessing the inside of the machine, do not touch any sections other than those specified in this manual. If you do, it might result in receiving a burn or injury.*
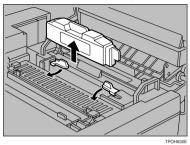
🔲Important

❐ Dispose of used ozone filters as general burnable refuse.

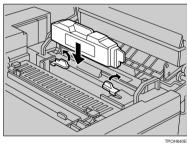**1** **Slide the top cover open lever towards the front of the printer, and open the top cover.**

TPOH620E

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B Rotate the oil bottle lock levers to release the bottle, and then remove the oil bottle from the printer.
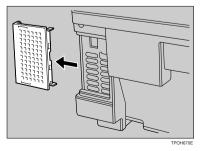

TPOH630E

C Insert the oil bottle into the printer. When inserting, the side with the label should be facing towards you, and the mouse of the bottle facing down. Rotate the oil bottle lock levers back to their original positions to lock the bottle in place.
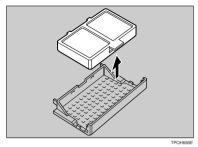

TPOH640E

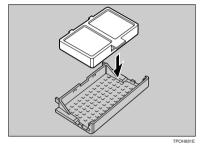**D** Close the top cover. Press the center of the top cove until it locks into place.
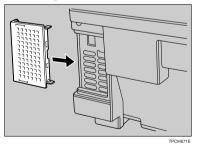
E Remove the ventilator cover.

TPOH670E

F Remove the ozone filter from inside the ventilator hole cover.

TPOH680E

G Install a new ozone filter on the ventilator cover.

TPOH681E

H Replace the ventilator hole cover onto the printer.
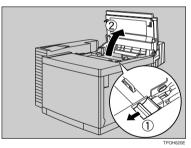

TPOH671E

Replacing the Fuser Cleaner

Replace the fuser cleaner after the message shown below appears on the panel display.
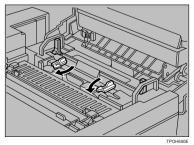
```
         Change
     Fuser Cleaner
```

⚠ *CAUTION*

- *When accessing the inside of the machine, do not touch any sections other than those specified in this manual. If you do, it might result in receiving a burn or an injury.*
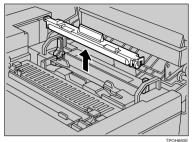
A **Slide the top cover open lever towards the front of the printer, and open the top cover.**
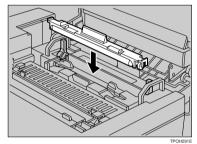

TPOH620E

B **Rotate the lock levers to release the lock.**

TPOH650E

C **Grasping the fuser cleaner by its tab, remove it from the printer.**
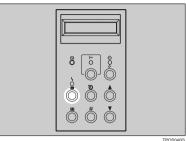

TPOH660E

D **With its roller facing toward you, install a new fuser cleaner into the printer.**

TPOH291E

E **While pressing down on the oil bottle and the fuser cleaner, turn the lock levers to their original positions.**

F **Close the top cover. Press the center of the top cover until it locks into place.**
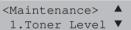
6

89

7 **Press** 【**Menu**】**.**

TPOS040G

This displays the Printer Menu.

```
        <Menu>
          IPDL-C Menu
```

8 **Use** 【▲】 **and** 【▼】 **to display "Main-
tenance", and then press** 【**Enter**】**.**

The Maintenance menu appears.

```
        <Maintenance>   ▲
          1.Toner Level ▼
```

9 **Use** 【▲】 **and** 【▼】 **to display "2. Re-
install", and then press** 【**Enter**】**.**

The "Reinstall" menu appears.

```
        <Maintenance>   ▲
          2.Reinstall   ▼
```
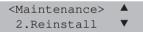
10 **Use** 【▲】 **and** 【▼】 **to display "Fuser
Cleaner", and then press** 【**Enter**】**.**

The fuser cleaner reinstall screen
appears.

```
        <Fuser Cleaner>
          Press # key
```

11 **Press** 【**Enter**】**.**

This performs the reinstall opera-
tion and returns to the "Mainte-
nance" menu.

12 **Press** 【**On Line**】**.**

The normal display screen appears.

7. Making Printer Settings with the Operation Panel

Though the factory default settings of the printer are suitable for most printing jobs, the Printer Menu gives you access to a number of settings that control basic printer operations. Printer Menu settings you make are retained even when you turn off the printer.

This section provides the following Printer Menu Information.

❖ **Setting Menus**
   Describes the basic procedure for changing Printer Menu settings.

❖ **Protecting the Menus**
   Describes how to protect Printer Menu settings against accidental changes.

❖ **Menu Table**
   A table chart that shows all of the Printer Menu.

❖ **Menu Settings**
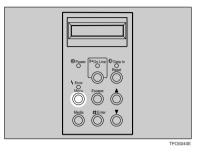   Provides short explanations of each Printer Menu setting and what it does.

🔆【Menu】and【Media】setting priorities
   Some of the settings accessed by【Menu】can be accessed by【Media】. Settings made by【Menu】take priority over settings by【Media】.

Setting Menus

⚓ Press 【**Menu**】**.**

TPOS040E

The following message appears on the panel display.

```
<Menu>            ▲
   IPDL-C Menu    ▼
```

⚓ Use 【▲】 **and** 【▼】 **to display the screen for the setting you want to change, and then press** 【**Enter**】**.**

The menu for the setting you selected in step 2 appears on the panel display.

```
<System Menu>   ▲
  1.Paper Tray   ▼
```

⚓ Use 【▲】 **and** 【▼】 **to display the menu item whose setting you want to change, and then press** 【**Enter**】**.**

```
<System Menu>   ▲
  2.I/O Buffer   ▼
```

The available settings for the menu item you selected in step ⚓ appears. An asterisk (*) is located to the left of the menu item's current setting.

```
<2.I/O Buffer>  ▲
  *128KB         ▼
```

⚓ Use 【▲】 **and** 【▼】 **to select the setting you want, and then press** 【**Enter**】**.**

```
<2.I/O Buffer>  ▲
  256KB          ▼
```

This registers the setting.

⚓ Repeat steps ⚓ **and** ⚓ **to change the settings of other items.**

6 Press 【On Line】 to put the printer on line.

The message appears.

```
     Take Offline
     Then Press Reset
```

7 Press 【On Line】 again to put the printer off-line.

The On Line indicator stays off.

8 Press 【Reset】.

This restarts the printer with the new settings.

Note
❒ You can check the current Menu settings by printing a Configuration Page.
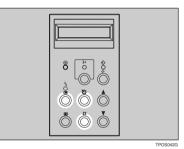=> P.101 *"Printing the Configuration Page"*

Protecting the Menus

This procedure lets you protect Printer Menu settings against accidental changes. It makes it impossible to change the Printer Menu settings you make with the normal procedure unless you perform the required key operation. In a network environment, protecting settings restricts changes to Printer Menu settings to network administrators.

Protecting the Menus

A **Check if the On Line indicator stays on. If not, press【On Line】 to enter the on-line condition.**

B **Press【Enter】, then【Escape】, and then【Menu】.**

TPOS042G

The Printer Menu appears.

C **Use【▲】and【▼】to display "Maintenance", and then press【Enter】.**
An expanded "Maintenance" menu appears.

D **Use【▲】and【▼】to display "5. Menu Protect", and then press【Enter】.**
The "Menu Protect" menu appears.

```
   <Menu Protect> ▲
   Off            ▼
```

E **Use【▲】and【▼】to select "On", and then press【Enter】.**
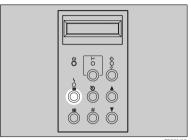This registers the setting and the "Maintenance" menu appears.

F **Press【On Line】.**
The normal display screen appears.

Changing the Menu Settings without Removing Protect

This procedure allows you to change Printer Menu settings without turning off menu protection. The changes you make are automatically protected as soon as you register them.

A **Press 【Menu】.**

TPOS040G

B **Use 【▲】 and 【▼】 to display "System Menu", and then press 【Enter】.**

A message telling you that Printer Menu settings are protected appears.

```
Menu Protected
Press Escape Key
```

C **Press 【Media】.**
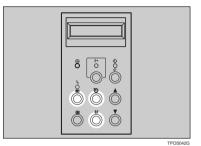

TPOS050G

The Printer Menu appears.

D **Change the setting following the normal procedure.**

=> P.92 *"Setting Menus"*.

Removing Protect

A **Check if the On Line indicator stays on. If not, press 【On Line】 to enter the on-line condition.**

B **Press 【Enter】, then 【Escape】, and then 【Menu】.**

TPOS042G

This displays the Printer Menu.

C **Use 【▲】 and 【▼】 to display "Maintenance", and then press 【Enter】.**

An expanded "Maintenance" menu, which also includes a menu protect item appears.

D **Use 【▲】 and 【▼】 to display "5. Menu Protect", and then press 【Enter】.**

The "Menu Protect" menu appears.

```
<Menu Protect> ▲
On            ▼
```

E **Use 【▲】 and 【▼】 to select "Off", and then press 【Enter】.**

This turns off protection and the "Maintenance" menu appears.

F **Press 【On Line】.**

The normal display screen appears.

Menu Table

IPDL-C	1. Job Timeout
	2. I/O Timeout

System	1. Paper Tray
	2. I/O Buffer
	3. Energy Saver
	4. Transfer (Rate)
	5. Image Memory
	6. Parallel 1
	7. Parallel 2
	8. Bi-direction
	9. Printer Lang (Printer Language)
	10. Language
	32. IP Address~39. Active PTL.

Maintenance	1. Toner Level => P.77 *"Adjusting the Image Density"*
	2. Reinstall => P.82 *"Replacing the Photoconductor Unit"* => P.89 *"Replacing the Fuser Cleaner"*
	3. Menu Reset => P.105 *"Resetting Menus"*
	4. Registration =>P.78 *"Adjusting the Setting of "Registration" of the Optional Tray"*
	5. Menu Protect => P.94 *"Protecting the Menus"*

List Print	Config.Page => P.101 *"Printing the Configuration Page"*
	Color Sample => P.104 *"Printing the Color Sample"*

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Menu Settings

IPDL-C Menu

The following are the settings you can make with the "IPDL-C Menu".

Note

❒ Shaded settings indicate default settings.

❖ **1. Job Timeout**
You can specify how long the printer waits before terminating a print job when the printer doesn't receive the end of that print job.

- 000 second (off: endless wait)
- 001 to 999 seconds

❖ **2. I/O Timeout**
You can specify how long the printer waits for more print data before ending its waiting condition for data and terminating a job.

- 001 to 999 seconds

  300 seconds
- 000 seconds (off: endless wait)

System Menu

The following are settings you can make with the "System Menu".

Note

❒ Shaded settings indicate default settings.

❖ **1. Paper Tray**
You can specify the default paper tray that is selected whenever you turn on the printer.

- Tray 1
- Tray 2 (option)

❖ **2. I/O Buffer**
You can specify the size of the I/O buffer. Normally it is not necessary to change this setting.

- 16KB
- 32KB
- 64KB
- 128KB
- 256KB
- 512KB

❖ **3. Energy Saver**

You can specify after how many minutes the printer should enter the Energy Saver mode if no operation is performed. The Energy Saver mode reduces electric power consumption.

- Off
- 5 minutes
- 15 minutes
- 30 minutes
- 45 minutes
- 60 minutes

⚙️**Important**

❒ After the printer enters the Energy Saver mode, it takes some time to warm up again when print data is received.

❖ **4. Transfer**

You can specify the data transfer speed of the parallel interface. If you are having trouble with data transfers, try changing this setting to "Normal".

- Hi-speed
- Normal

✐**Note**

❒ This setting is effective only for "Parallel 1".

❖ **5. Image Memory**

This setting controls what the printer does when the printer memory is not enough to print a certain page.

- On
- Off

"Off" causes the message shown below to be printed when there is not enough memory to process.

There is not enough memory in your printer to print this page.
Change the resolution to 300 dpi in the printer driver and try again.
For details, please refer to the troubleshooting section in your manual.

Selecting "On" reduces the resolution of the image to reduce memory requirements.

❖ **6. Parallel 1**

You can specify the parallel interface timing setting. Normally it is not necessary to change this setting.

- ACK inside
- ACK outside
- STB down

❖ **7. Parallel 2**
You can specify the optional parallel interface timing setting. Normally it is not necessary to change this setting.

- ACK inside
- ACK outside
- STB down

Note

❒ Do not use the "ACK outside" setting.

❖ **8. Bi-direction**
You can specify the printer response mode for status fetch requests when the standard parallel interface is being used. Use the "Standard" setting when you are experiencing problems while the printer is connected to another manufacturer's print box.

- Original Mode
- Standard

Note

❒ This setting is effective only for "Parallel 1".

❖ **9. Printer Lang (Printer Language)**
You can specify the printer language that is automatically set when the printer is turned on.

- IPDL-C
- RPS 2

❖ **10. Language**
You can specify the language of the text that appears on the panel display.

- English
- French
- German
- Italian
- Dutch
- Japanese

❖ **32. IP Address - 39. Active Protocol**
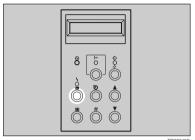These items appear when an optional network interface board is installed in the printer.

Reference

❒ => P.23 "*Configuring the Printer for the Network with the Operation Panel*".

Printing the Configuration Page

Use the following procedure to print the Configuration Page which shows the current printer settings.

A **Press 【Menu】.**

TPOS040G

The Printer Menu appears.

B **Use 【▲】 and 【▼】 to display "List Print", and then press 【Enter】.**

The "List Print" menu appears.

```
    <List Print>    ▲
      Config.Page   ▼
```

C **Confirm that "Config. Page" is displayed and then press 【Enter】.**

The following message appears.

```
    <Config.Page>
     Press # key
```

D **Press 【Enter】.**

This starts printing of the Configuration Page.

E **Press 【On Line】.**

The normal display screen appears.

7

101

Interpreting Configuration Page

Reference

❖ **Firmware Version**
This shows the printer firmware version.

❖ **Printer ID**
This is the serial number assigned to the printer board by its manufacturer.

❖ **Total Installed RAM**
This is the total amount of memory installed on the printer.

❖ **Option Interface**
This indicates whether there is an optional parallel interface board or network interface board installed in the printer.

Printer Information

❖ **Tray 1, Tray 2**
This is the paper size specified for the standard paper tray and the optional paper tray unit.

📝**Note**

❒ If "FRE" is indicated for Tray 1, it means "Custom Size" is set for Tray 1.

"R" after paper size (A4, for example) means that paper is set in the short-edge ⬚ feed direction.

❖ **Pages Printed**
This is the total number of pages printed by the printer to date.

❖ **Printer Error**
This shows information about the status of consumable items, etc.

Status List

❖ **IPDL-C**
This shows current "IPDL-C Menu" settings.

❖ **System**
This shows current "System Menu" settings.

❖ **Network**
These are the settings and status of the optional network interface board. They appear when an optional network interface board is installed on the printer.

Error Log

This is a log of printer errors.

Printing the Color Sample

Use the following procedure to print the Color Sample.

📝 **Note**

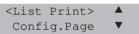❒ You should select A4 or $8\frac{1}{2}" \times 11"$ paper to print the Color Sample.

🔘 Press 【Menu】.

TPOS040G

The Printer Menu appears.

🔘 Use 【▲】 and 【▼】 to display "List Print", and then press 【Enter】.

The List Print Menu appears.

```
<List Print>    ▲
  Config.Page   ▼
```

🔘 Use 【▲】 and 【▼】 to display "Color Sample", and then press 【Enter】.

```
<Color Sample>
 Press # key
```

🔘 Press 【Enter】.

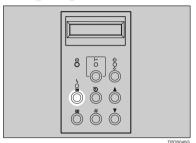This starts printing of the Color Sample.

🔘 Press 【On Line】.

The normal display screen appears.

Resetting Menus

Use the following reset procedure to return the settings of all menus to their initial default settings.

⓵ Turn on printer power.

⓶ Press 【Menu】.

TPOS040G

This displays the Printer Menu.

⓷ Use 【▲】 and 【▼】 to display "Maintenance", and then press 【Enter】.

The "Maintenance" menu appears.

```
<Maintenance>   ▲
  1.Toner Level  ▼
```

⓸ Use 【▲】 and 【▼】 to display "3. Menu Reset", and then press 【Enter】.

The "Menu Reset" screen appears.

```
<Menu Reset>    ▲
  Press # key    ▼
```

⓹ Press 【Enter】.

This deletes all menu settings and the "Maintenance" menu appears.

⓺ Press 【On Line】 to put the printer on line.

The following message appears.

```
Take Offline
Then Press Reset
```

⓻ Press 【On Line】 again to put the printer off line.

⓼ Press 【Reset】.

This resets all menus to their initial factory defaults, and returns to the normal display screen.

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7

Memory Capacity and Paper Size

The following table shows the relationship between printable paper sizes and memory capacity.

❖Resolution: 300dpi

Total Printer Memory	Paper Size					
	JIS B5 (182 x 257 mm)	$7^1/_4" \times 10^1/_2"$ (Executive)	$8^1/_2" \times 11"$ (Letter)	A4 (210 x 297 mm)	$8^1/_2" \times 14"$ (Legal)	Custom (Maximum: 216mm (Width) × 356mm (Length))
16 MB	○	○	○	○	○	○
32 MB	○	○	○	○	○	○
48 MB	○	○	○	○	○	○

○: Printing is possible regardless of data volume.

❖Resolution: 600dpi

Total Printer Memory	Paper Size					
	JIS B5 (182 x 257 mm)	$7^1/_4" \times 10^1/_2"$ (Executive)	$8^1/_2" \times 11"$ (Letter)	A4 (210 x 297 mm)	$8^1/_2" \times 14"$ (Legal)	Custom (Maximum: 216mm (Width) × 356mm (Length))
16 MB	▲	▲	▲	▲	▲	▲
32 MB	○	○	○	○	▲	▲
48 MB	○	○	○	○	○	○

○: Printing is possible regardless of data volume.

▲: Print jobs including large data might not be printed.

Low Memory

The error message shown below is output by the printer whenever there is not enough memory to print your data.

> There is not enough memory in your printer to print this page.
> Change the resolution to 300 dpi in the printer driver and try again.
> For details, please refer to the troubleshooting section in your manual.

✐Note

❒ If you are using the RICOH-SCRIPT 2, see the documentation that comes with it for information about its memory.

The following are the actions you should take when you encounter memory shortage problems. If these actions do not solve the problem individually, try them in combination with each other.

1. Increase printer memory.
   Install the optional memory unit to increase printer memory capacity. => P.9 "*Installing the Memory Unit*"
2. Reduce resolution.
   Use the printer driver to set resolution to 300dpi.
   => The printer driver online help.
   => "RICOH-SCRIPT 2 Operating Instructions"
3. Turn on "Image Memory".
   Use the printer's "System Menu" to turn on "Image Memory". => P.91 "*Making Printer Settings with the Operation Panel*"

8

Moving and Transporting the Printer

⚠ *CAUTION*

- *When moving the printer a consumable items installed, be sure to keep it level to avoid spilling the fusing oil. If oil is spilt, wipe it with alkaline cleaner. Otherwise, the oily surfaces can create the danger of slipping and personal injury.*

- *It is recommended that at least two persons are used to lift the machine. Otherwise, the machine might fall and cause personal injury. When lifting the machine, use the inset grips on both sides of the machine. Otherwise, the machine might fall and cause personal injury.*

🔩**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.

8

Specifications

Mainframe

❖ **Configuration:**
Desktop

❖ **Print Process:**
Laser beam and dry toner electrical photographic system

❖ **Printing Speed:**
Monochrome: 16 pages per minute (A4, $8\frac{1}{2}$" × 11")

Color: 4 pages per minute (A4, $8\frac{1}{2}$" × 11")

❖ **Resolution:**
Printer: 600 × 600dpi

IPDL-C: 300dpi, 600dpi

RICOH-SCRIPT 2: 300dpi, 600dpi

❖ **Parallel Interface**
Conforms to the standard centronics

Inteface

A standard 36-pin printer cable and a parallel port on the host computer

Mode

Compatible, Nibble

Connector

IEEE P1284-B

*Do not use a cable more than 2.5 meters (8.2 feed) long.

❖ **Printer Language:**
IPDL-C, RICOH-SCRIPT 2

❖ **Paper Size:**
=> P.47 "*Paper and Other Media Supported by this Printer*"

❖ **Paper Weight:**
=> P.47 "*Paper and Other Media Supported by this Printer*"

❖ **Power Source:**
=> Inside of the front cover of this manual

❖ Power Consumption:

Stand by (Maximum)	1,000 W or less
Stand by (Average)	150 W
Printing (Maximum)	1,000 W or less
Printing (Average)	450 W
Energy Saver (Maximum)	37 W or less

❖ Noise Emission (Sound Power Level):

Printing	Less than 55 dB(A)
Stand-by	Less than 48 dB(A)

*The above measurements are made in accordance with ISO7779 at operation position.

❖ Dimensions:

	Width	Depth	Height
Printer only	500 mm (19.7")	490 mm (19.3")	388 mm (15.3")
With optional paper feed unit	500 mm (19.7")	490 mm (19.3")	488 mm (19.3")
With optional paper feed unit and optional paper cassette	500 mm (19.7")	560 mm (22.1")	488 mm (19.3")

*With paper tray closed.

❖ Weight:
Approximately 36 kg (79.4 lb) (including consumables)

❖ Warm-up Time:
Less than 210 seconds (20°C)

❖ Paper Capacity:

Standard paper tray	250 sheets[1]
Optional paper feed unit	250 sheets[1]

*1: 80 g/m^2 (metric version), 20 lb (inch version)

❖ Paper Output Capacity:
250 sheets (80 g/m^2 (metric version), 20 lb (inch version))

❖ CPU:
VR4300-133MHz

❖ Memory:
Standard 16MB, Up to 48MB (with optional memory unit)

❖ **Network (optional network interface board required):**
Topology: Ethernet (10BaseT/100Base TX)

Protocol: TCP/IP, IPX/SPX, AppleTalk

❖ **Optional Equipment:**
- **PAPER FEED UNIT Type204**
- **Paper Cassette Type204**
- **RICOH-SCRIPT 2 Type204**
- **Network Interface Board Type204**
- **IEEE 1284 Parallel Type204**
- **Memory Unit Type204 (16MB)**
- **Memory Unit Type204 (32MB)**

Options

Paper Feed Unit Type204

❖ **Paper Size:**
=> P.47 "*Paper and Other Media Supported by this Printer*"

❖ **Paper Weight:**
=> P.47 "*Paper and Other Media Supported by this Printer*"

Paper Cassette Type204

❖ **Paper Size:**
=> P.47 "*Paper and Other Media Supported by this Printer*"

❖ **Paper Weight:**
=> P.47 "*Paper and Other Media Supported by this Printer*"

RICOH-SCRIPT 2 Type204

An interpreter that conforms to PostScript Level 2, developed independently by Ricoh Company, Ltd..

IEEE 1284 Parallel Type204

❖ **Mode:**
Compatible

❖ **Interface Connector:**
IEEE P1284-B

Network Interface Board Type204

❖ **Topology:**
Ethernet (10BaseT/100Base TX)

❖ **Protocols:**
TCP/IP, IPX/SPX, AppleTalk

❖ **Interface Connector:**
RJ45

❖ **Required Cable:**
STP (Shielded Twisted Pair) cable

Category/Type 5 or better

*A cable is not included with this option.

Memory Unit Type204 (16MB) and Memory Unit Type204 (32MB)

❖ **Memory Type:**
EDO (Extended Data Output) RAM

❖ **Number of Pins:**
72 pins

❖ **Access Time:**
60 ns

8

Comsumbles

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

❖Toner Cartridge

	Average number of pages per cartridge[1]
COLOR TONER Type204 Cyan	6,000 pages
COLOR TONER Type204 Magenta	6,000 pages
COLOR TONER Type204 Yellow	6,000 pages
TONER Type204 Black	10,000 pages

*1: A4, 5% chart

📌 **Note**

❒ The actual number of printed pages you get from a particular toner cartridge depends on the type and size of paper you are using, the contents of your print images, and printing environment conditions. The life of a toner cartridge also shortens as the cartridge becomes older. All this means that a toner cassette might require replacement sooner than the normal life described above.

❒ Toner cartridges that come with the printer are for setup purposes, and will not provide the number of pages described above.

❖Other Consumables

📌 **Note**

❒ Actual life of consumables depends on the type and size of paper you are using, the contents of your print images, and printing environment conditions. The life of consumables also shortens as the consumables become older. All that means that consumables might require replacement sooner than the life indicated.

	Service life[1]
Waste Toner Bottle Type204	12,000 pages[2]
	3,000 pages[3]
Photo Conductor Unit Type204	50,000 pages[2]
	12,500 pages[3]
Fuser Cleaner Type204	12,000 pages
Fuser Oil Type204[4]	12,000 pages

*1: A4, 5% chart
*2: For monochrome printing
*3: For color printing
*4: The Fuser Oil Type204 includes an fuser oil bottle and ozone filter.

Glossaries

❖ **Color Correction**
This is the process of making adjustments in order to more closely match colors produced by the RGB model of your computer display with those produced by the CMYK model of the printer.

❖ **CMYK**
Cyan (C), magenta (M), yellow (Y), and black (K) toner colors that are combined to produce other colors for color printing.

❖ **dpi (dots per inch)**
A measure of resolution that indicates the number of dots that can be printed in one inch (25.4mm). Detail is greater as the dots per inch increases.

❖ **Dithering**
Creating the illusion of colors and shades by varying the pattern of dots, as done with newspaper photographs. In printing, dithering is usually called halftoning, and shades of gray are called halftones.

❖ **Ethernet**
A network protocol used by Local Area Networks (LANs). Installing an optional network board in the printer allows it to be connected to a network and serve as a network printer.

❖ **Graphics Command**
Command is for printing lines, circles, ellipses, and other graphics.

❖ **I/O Buffer**
Temporary memory area for receiving data from the computer.
Automatically smoothes edges of characters and figures.

❖ **Page Description Language**
A command system for printing data sent from a computer on a page printer. Generally, computer data is converted to commands that a printer can interpret. The command system that can be interpreted by the printer is called printer commands, and the command system used by a page printer is called the page description language.

❖ **Plug and Play**
A function that automatically specifies the necessary information and allows immediate use of new peripherals, expansion cards, and other options connected to a computer (Windows 95/98). Peripherals must support Plug and Play for this capability to be available.

❖ **PostScript**
A page description language developed by Adobe Systems Incorporated.

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❖ **Printer Port**
Output port of print data from the computer to the printer. With a parallel connection, for example, your computer outputs data from its LPT1 printer port. In the case of a network printer, data is output from the port that is configured for printing.

❖ **Printer Properties**
A screen for specifying print conditions in accordance with printer functions when printing in Windows 95.

❖ **Proportional Fonts**
Fonts for which the widths of characters are varied in order to achieve a balanced look in the printed text. MSP Mincho and MSP Gothic, included in Windows95, are proportional fonts.

❖ **RGB**
Red (R), green (G), and blue (B) colored light that are combined to produce other colors on a computer display screen.

❖ **RPS2**
An optional interpreter that conforms to PostScript Level 2, developed independently by Ricoh Company, Ltd..

❖ **Toner Saving**
A print mode that saves toner.

❖ **TrueType Fonts**
Windows standard outline fonts that make it possible to print screen fonts as image data. TrueType fonts make it easier to produce printed output that closely resembles the image on your computer screen.

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