



version C

Brother Laser Printer

HL-3260N

USER'S GUIDE

Please read this manual thoroughly before using the printer.
Keep this manual in a convenient place for quick reference at all times.

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Brother is a registered trademark of Brother Industries, Ltd.

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Centronics is a trademark of Genicom Corporation.

EPSON is a registered trademark, and FX-850 and FX-80 are trademarks of Seiko Epson Corporation.

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PostScript is a registered trademark of Adobe Systems Incorporated.

This printer contains UFST and Micro Type from Agfa Division.

ENERGY STAR is a U.S. registered mark.

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Compilation and Publication

Under the supervision of Brother Industries Ltd., this manual has been compiled and published, covering the latest product descriptions and specifications.

The contents of this manual and the specifications of this product are subject to change without notice.

Brother reserves the right to make changes without notice in the specifications and materials contained herein and shall not be responsible for any damages (including consequential) caused by reliance on the materials presented, including but not limited to typographical and other errors relating to the publication.

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Shipment of the Printer

If for any reason you must ship your Printer, carefully package the Printer to avoid any damage during transit. We recommend that you save and use the original packaging. The Printer should also be adequately insured with the carrier.

WARNING

When shipping the Printer, the TONER CARTRIDGES and ALL CONSUMABLES must be removed from the Printer. **Failure to remove the CONSUMABLES during shipping will cause severe damage to the Printer and will VOID THE WARRANTY (refer to the User's Guide).**



Laser Printer

HL-3260N

USER'S GUIDE

(For USA & CANADA Only)

IMPORTANT NOTE: For technical and operational assistance, you must call the country where you purchased the printer. Calls must be made *from within* that country.

In USA 1-800-276-7746

In Canada 1-800-853-6660
1-514-685-6464 (within Montreal)

If you have comments or suggestions, please write us at:

In USA Printer Customer Support
Brother International Corporation
15 Musick
Irvine, CA 92618

In Canada Brother International Corporation (Canada), Ltd.
- Marketing Dept.
1, rue Hôtel de Ville
Dollard-des-Ormeaux, PQ, Canada H9B 3H6

BROTHER FAX-BACK SYSTEM

Brother Customer Service has installed an easy to use fax-back system so you can get instant answers to common technical questions and product information for all Brother products. This is available 24 hours a day, 7 days a week. You can use the system to send the information to any fax machine, not just the one from which you are calling.

Call and follow the voice prompts to receive faxed instructions on how to use the system and your index of fax-back subjects.

In USA 1-800-521-2846

In Canada 1-800-685-5381
1-514-685-5381 (within Montreal)

DEALERS/SERVICE CENTERS (USA only)

For the name of a Brother authorized dealer or service center, call 1-800-284-4357.

SERVICE CENTERS (Canada only)

For service center addresses in Canada, call 1-800-853-6660.

INTERNET ADDRESS

For technical questions and downloading drivers: <http://www.brother.com>

brother[®]



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SERVICE CENTERS (Canada only)

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INTERNET ADDRESS

For technical questions and downloading drivers: <http://www.brother.com>

Definitions of Warnings, Cautions and Notes

The following conventions are used in this User's Guide:



Warning

-
- Indicates warnings that must be observed to prevent possible personal injury.
-



Caution

-
- Indicates cautions that must be observed to use the printer properly or prevent damage to the printer.
-

Note

-
- Indicates notes and useful tips to remember when using the printer.
-

To Use the Printer Safely



Warning

- **Connect the power cord directly into a wall outlet and never use an extension cord.**
 - **Confirm that the wall outlet is near the machine and freely accessible, so that in event of an emergency, it can be unplugged easily.**
 - **Disconnect the power plug (by pulling the plug, not the cord) if the power cord or plug becomes frayed or 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 cord) if any of the following conditions exist:**
 - 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 is flammable and might ignite when exposed to an open flame.**
 - **Disposal should take place at an authorized dealer or appropriate collection site.**
 - **If you dispose of the used toner containers yourself, dispose of them according to local regulations.**
-



Caution

- **Protect the equipment from dampness or wet weather.**
 - **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 from the wall outlet, always pull the plug, not the cord.**
 - **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 cartridges out of the reach of children.**
 - **For environmental reasons, dispose of the equipment and supplies through an authorized dealer or an appropriate collection site. Contact your local waste disposal facility for further specific instructions for your area.**
 - **Our products are engineered to meet the highest standards of quality and functionality. When purchasing consumables or supplies, we recommend those specified by an authorized dealer.**
 - **The inside of the machine becomes very hot. Do not touch the parts with a label indicating a “hot surface”. Touching a “hot surface” could result in a burn injury. (⚠ : means “hot surface”)**
-

TABLE OF CONTENTS

TABLE OF CONTENTS

CHAPTER 1 ABOUT THIS PRINTER

What is included in the Carton	1-1
Components	1-1
General view.....	1-6
Positioning the Printer	1-9
Power supply	1-9
Environment	1-10
What kind of paper can I use	1-13
Print media and sizes	1-14
Printing methods.....	1-18
Paper handling	1-19
Loading paper in the standard paper tray	1-20
Changing the paper size of the Paper tray.....	1-22
Printing on Labels, Transparencies etc.....	1-29

CHAPTER 2 DRIVER AND SOFTWARE

Printer driver.....	2-1
Features in the PCL printer driver (only for Windows)	2-2
Features in the PS printer driver (only for Windows).....	2-9
Features in the bonus software (only Windows users).....	2-14
Software for network.....	2-16
Software for Windows computers	2-18
Software for Macintosh computers (only via Network)	2-19
Automatic emulation selection.....	2-21
Automatic interface selection.....	2-23
Printer settings.....	2-24
Factory settings	2-24

CHAPTER 3 CONTROL PANEL

Control panel.....	3-1
SWITCHES	3-2
GO switch.....	3-3
JOB CANCEL switch.....	3-4
SECURE PRINT switch.....	3-5
REPRINT switch.....	3-6
+ , – Switch.....	3-14
SET switch.....	3-15
BACK Switch.....	3-16
LEDs.....	3-17
LCD MESSAGES.....	3-18
Menus.....	3-22

CHAPTER 4 OPTIONS

TABLE OF CONTENTS

Optional Accessories	4-1
Installing Options	4-2
Option Installation Sequence	4-3
Lower Tray Unit (LT-5100, LT-5200)	4-4
Installing the Lower paper tray	4-4
Loading Paper into the Lower tray unit	4-12
Setting the Media from the Printer Driver	4-13
Interchange Unit (SP-5000)	4-14
Installing the Interchange unit	4-14
Duplex unit (DX-5000)	4-20
Installing the Duplex Unit	4-20
Multi-purpose tray (MP-5000)	4-29
Manual Feed	4-29
Installing the Multi-purpose tray	4-29
Loading paper on the Multi-purpose tray	4-35
Mailbox unit (MX-5000)	4-39
Installing the Mailbox	4-39
Bridge Unit (BU-5000)	4-44
Installing the Bridge Unit	4-44
Finisher/Stapler (FS-5050)	4-50
Installing the Finisher/Stapler	4-50
CompactFlash card	4-55
Installing a CompactFlash Card	4-55
RAM Expansion	4-57
Minimum Memory Recommendation (Including 16 Megabytes of internal memory)	4-57
Installing additional memory	4-59
HDD (Hard Disk Drive)	4-62

CHAPTER 5 MAINTENANCE

<i>Supplies</i>	5-1
<i>Toner bottle</i>	5-1
TONER LOW message.....	5-2
<i>Drum unit</i>	5-7
Cleaning	5-13
Adding Staples	5-20

CHAPTER 6 TROUBLE SHOOTING

TABLE OF CONTENTS

LCD MESSAGES	6-1
Error messages	6-1
Maintenance messages	6-4
Service call messages	6-5
Removing jammed Staples.....	6-6
Paper jams and How to clear them	6-8
When “Jam: A” appears	6-9
When “Jam: B” appears	6-10
When “Jam: C” appears	6-12
When “Jam: D” appears	6-15
When “Jam: E” appears	6-17
When “Jam: R” appears	6-18
When “Jam: Y” appears	6-19
When “Jam: Z” appears	6-20
“COVER OPEN” message	6-22
Printer doesn’t print	6-23
Improving print quality	6-24
Stains and Stripes	6-27
White Spots	6-28
Toner Scatter.....	6-28
Black Page	6-29
White Page	6-29
Dropout.....	6-30
Poor Halftone or Grayscale Transitions	6-30

APPENDICES

PRINTER SPECIFICATIONS.....	Appendix-1
Printer Engine.....	Appendix-1
CONTROLLER.....	Appendix-2
SOFTWARE	Appendix-4
Electrical and Mechanical	Appendix-5
OTHERS.....	Appendix-5
OPTIONS	Appendix-7
500x2 sheets paper tray (LT-5100).....	Appendix-7
2000 sheets paper tray (LT-5200)	Appendix-7
Multi-purpose tray (MP-5000)	Appendix-8
Interchange unit.....	Appendix-8
Duplex unit.....	Appendix-9
Mailbox	Appendix-9
Bridge unit	Appendix-10
Finisher/Stapler	Appendix-10
RAM	Appendix-10
PAPER SPECIFICATIONS	Appendix-11
SYMBOL/CHARACTER SETS	Appendix-14
OCR Symbol Sets.....	Appendix-16
HP LaserJet Mode	Appendix-17
EPSON Mode	Appendix-17
IBM Mode	Appendix-18
HP-GL Mode.....	Appendix-18
Symbol Sets Supported by the Printer's TrueType™, Type 1 Compatible Fonts and Original Typefaces	Appendix-21
Bar Code Control.....	Appendix-23

INDEX

IMPORTANT INFORMATION: REGULATIONS

Federal Communications Commission(FCC) Declaration of Conformity (For USA Only)

Responsible Party : Brother International Corporation
100 Somerset Corporate Boulevard
Bridgewater, NJ 08807-0911, USA
TEL : (908) 704-1700

declares, that the products

Product Name : Brother Laser Printer HL-3260N
Model Number : HL-3260N
Product Options : ALL

complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Important

A shielded interface cable should be used in order to ensure compliance with the limits for a Class B digital device. Changes or modifications not expressly approved by Brother Industries, Ltd. could void the user's authority to operate the equipment.

Industry Canada Compliance Statement (For Canada Only)

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

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

International ENERGY STAR Compliance Statement

The purpose of the International ENERGY STAR Program is to promote the development and popularization of energy-efficient office equipments.

As an ENERGY STAR Partner, Brother Industries, Ltd. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.



Laser Safety (110-120 V model only)

This printer is certified as a Class I laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation.

Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape from the machine during any phase of user operation.

FDA Regulations (110-120 V model only)

U.S. Food and Drug Administration (FDA) has implemented regulations for laser products manufactured on and after August 2, 1976. Compliance is mandatory for products marketed in the United States. The label shown on the back of the printer indicates compliance with the FDA regulations and must be attached to laser products marketed in the United States.

MANUFACTURED:

BROTHER INDUSTRIES, LTD.

15-1 Naeshiro-cho, Mizuho-ku, Nagoya, 467-8561 Japan

This product complies with FDA radiation performance standards, 21 CFR Subchapter J.

- **Caution:** Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

DECLARATION OF CONFORMITY (EUROPE)

We, Brother Industries, Ltd.,
15-1, Naeshiro-cho, Mizuho-ku, Nagoya 467-8561, Japan.

declare that this product is in conformity with the following normative documents:

Safety: EN 60950, EN 60825
EMC: EN 55022 Class B, EN 55024
: EN61000-3-2, EN61000-3-3

following the provisions of the Low Voltage Directive 73/23/EEC and the Electromagnetic Compatibility Directive 89/336/EEC (as amended by 91/263/EEC and 92/31/EEC).

Issued by:

Brother Industries, Ltd.
Information & Document Company

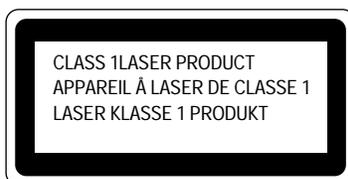
Radio Interference(220-240 V model only)

This printer complies with EN55022(CISPR Publication 22)/Class B.

Before this product is used, ensure that you use a double-shielded interface cable with twisted-pair conductors and that it is marked “IEEE1284 compliant”. The cable must not exceed 1.8 metres in length.

IEC 60825 Specification (220-240 V model only)

This printer is a Class 1 laser product as defined in IEC 60825 specifications. The label shown below is attached in countries where required.



This printer has a Class 3B Laser Diode which emits invisible laser radiation in the Scanner Unit. The Scanner Unit should not be opened under any circumstances.

☛ **Caution:** Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

For Finland and Sweden
LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT

- ☛ **Varoitus!** Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.
- ☛ **Varning** –Om apparaten används på annat sätt än i denna Bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

IMPORTANT - For Your Safety

To ensure safe operation the three-pin plug supplied must be inserted only into a standard three-pin power point which is properly earthed through the normal household wiring.

Extension cords should not be used with the equipment. If it is essential that an extension cord has to be used, it must be a three-pin plug type and correctly wired to provide proper grounding. Incorrectly wired extension cords may cause personal injury and equipment damage.

The fact that the equipment operates satisfactorily does not imply that the power is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective grounding of the power, consult a qualified electrician.

Operator Safety

This machine is considered a CDRH class 1 laser device, safe for office/EDP use. The machine contains 5-milliwatt, 700 – 800 nanometer wavelength, GaAlAs laser diodes. 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.

Caution

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

Disconnect Device

This printer must be installed near a power outlet that is easily accessible. In case of emergencies, you must disconnect the power cord from the power outlet to shut off the power completely.

Geräuschemission / Acoustic Noise Emission (For Germany Only)

L_{pa} < 70dB (A) DIN 45635-19-01-KL2

Wiring Information (For U.K. only)

Important

If the mains plug supplied with this printer is not suitable for your socket outlet, remove the plug from the mains cord and fit an appropriate three pin plug. If the replacement plug is intended to take a fuse then fit the same rating fuse as the original.

If a moulded plug is severed from the mains cord then it should be destroyed because a plug with cut wires is dangerous if engaged in a live socket outlet. Do not leave it where a child might find it!

In the event of replacing the plug fuse, fit a fuse approved by ASTA to BS1362 with the same rating as the original fuse.

Always replace the fuse cover. Never use a plug with the cover omitted.

WARNING - THIS PRINTER MUST BE EARTHED

The wires in the mains cord are colored in accordance with the following code :

GREEN AND YELLOW : EARTH
BLUE : NEUTRAL
BROWN : LIVE

The colors of the wires in the mains lead of this printer may not correspond with the colored markings identifying the terminals in your plug.

If you need to fit a different plug, proceed as follows.

Remove a length of the cord outer sheath, taking care not to damage the colored insulation of the wires inside.

Cut each of the three wires to the appropriate length. If the construction of the plug permits, leave the green and yellow wire longer than the others so that, in the event that the cord is pulled out of the plug, the green and yellow wire will be the last to disconnect.

Remove a short section of the colored insulation to expose the wires.

The wire which is colored green and yellow must be connected to the terminal in the plug which is marked with the letter "E" or by the safety earth symbol \perp , or colored green or green and yellow.

The wire which is colored blue must be connected to the terminal which is marked with the letter "N" or colored black or blue.

The wire which is colored brown must be connected to the terminal which is marked with the letter "L" or colored red or brown.

The outer sheath of the cord must be secured inside the plug. The colored wires should not hang out of the plug.

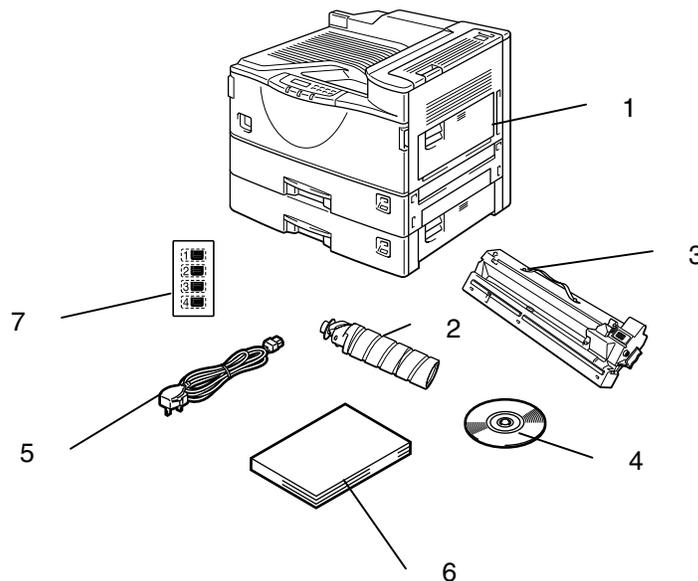
CHAPTER 1

ABOUT THIS PRINTER

What is included in the Carton

Components

When you unpack the printer, check to see that you have all of the following parts:



1. Printer
2. Toner (in the standard tray)
3. Drum (pre-installed)
4. CD-ROM*
5. AC power cord*
6. Documents*
7. Tray number seal

*These parts are in the Localization kit in Europe.

Fig. 1-1

Note

You may have additional parts that are not listed above depending on the country where you purchased the printer.

•↔ **Note**

Parallel Interface Cable

- An interface cable is not supplied as standard. Please purchase an appropriate cable according to the interface you intend to use. The power cord may differ slightly from this figure depending on the country where you purchased the printer.
 - For parallel connections, an IEEE 1284 bi-directional parallel cable is recommended. Most parallel cables support bi-directional communication, but some might have an incompatible pin assignment or may not be IEEE 1284 compliant.
 - Do not use a parallel cable that is longer than 3 meters (10 feet).
-

❖ What is on the CD-ROM



Fig. 1-2

1 *Install software*

For all users

- Printer driver (For more information, [see Chapter 2](#))
- Automatic e-mail printing (For more information, [see Chapter 2](#))

For administrators

- BRAdmin Professional
- Network Printer Driver Wizard
- Network Print Software
- Storage Manager
- Analysis Tool Software

2 *Manual*

- User's guide
- Network Guide
- Technical Reviewer's Guide

These guides are in PDF format.

3 *Brother Solutions Center*

Introduction to our user support web page. You can easily access it and receive the latest drivers and information for this printer.

4 *Maintenance Tutorial*

See the maintenance videos for this printer. We recommend that you view the videos before getting started.

5 *Make Disk sets*

Copy the contents of the CD-ROM to floppy disks if you do not have a CD-ROM drive.

❖ What is on the CD-ROM for Macintosh users

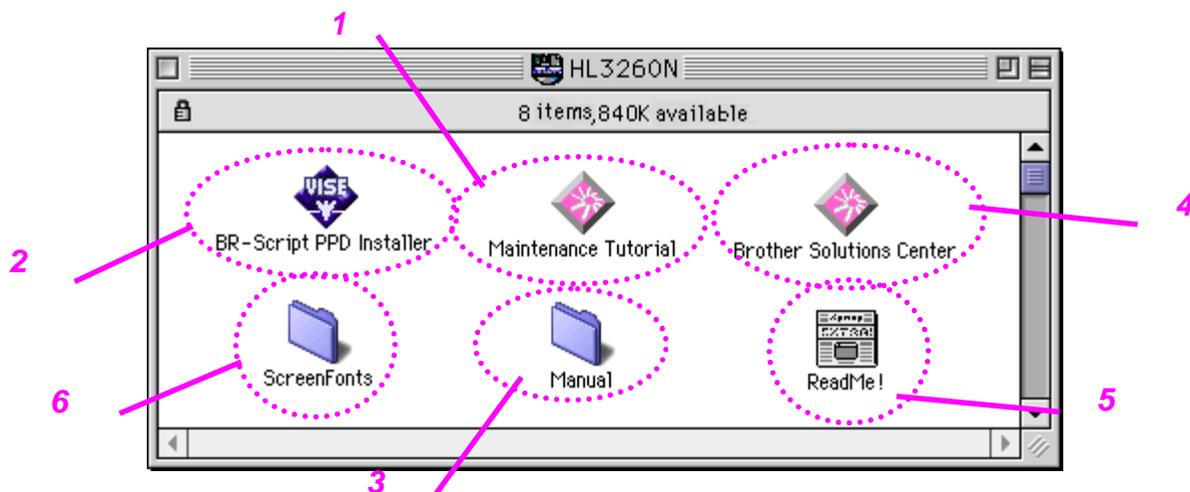


Fig. 1-3

1 **Maintenance Tutorial**

See the maintenance videos for this printer. We recommend that you look at the video first before getting started.

2 **BR-Script PPD Installer**

- Printer driver (For more information, [see Chapter 2](#))

This printer supports with Mac OS 8.0, and 9.0 versions.

3 **Manual**

- User's guide
- Network Guide
- Technical Reviewer's Guide

These guides are in PDF format.

4 **Brother Solutions Center**

Introduction to our user support web page. You can easily access it and receive the latest drivers and information for this printer.

5 **Readme**

6 **Screen Fonts**

When you use BR-Script 3 (PostScript level 3 language emulation), you can use Agfa PostScript Fonts. We recommend that you install these fonts.

General view

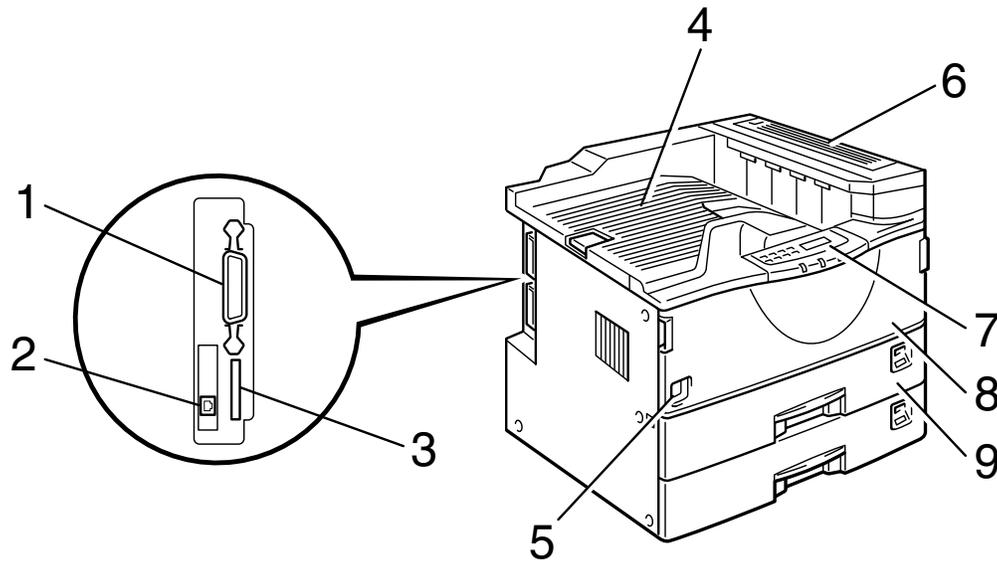


Fig. 1-4

- 1 Parallel interface port
- 2 Network interface port
- 3 CompactFlash slot (for optional memory expansion)
- 4 Output tray
- 5 Power switch
- 6 Upper right cover
- 7 Control panel
- 8 Front cover
- 9 Paper tray

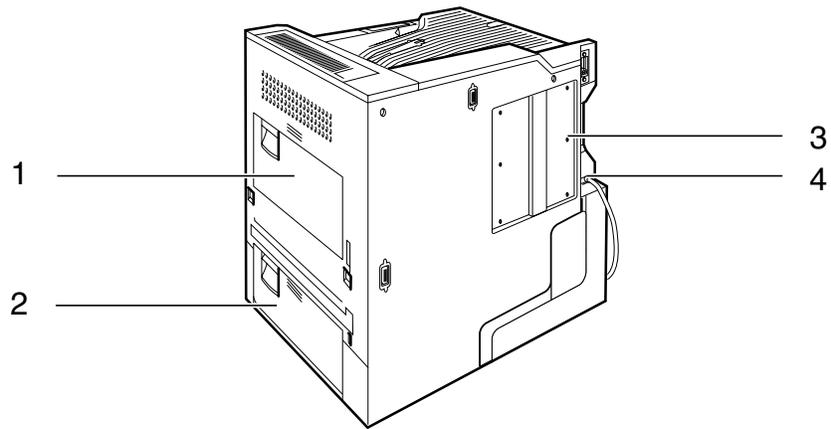


Fig. 1-5

- 1 Right cover
- 2 Lower right cover
- 3 Printer board cover
- 4 Power cord inlet

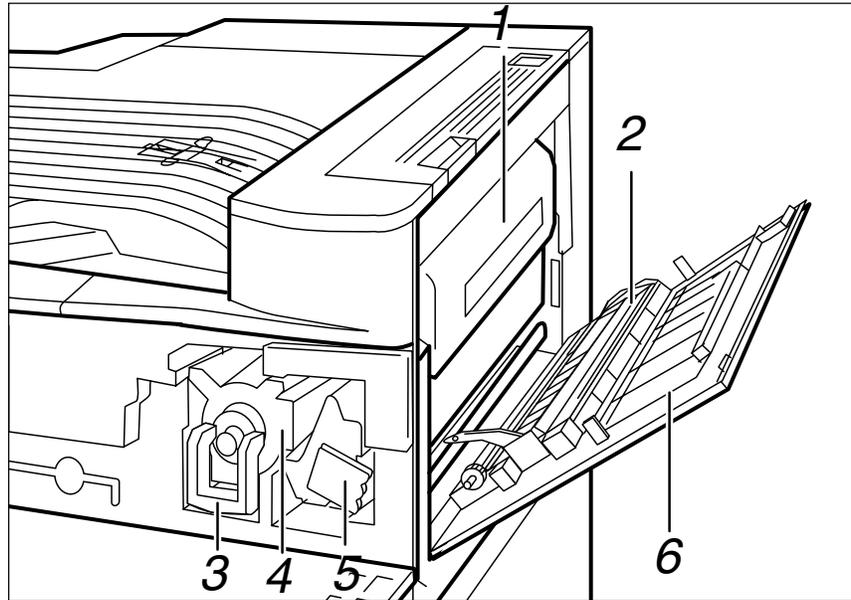


Fig. 1-6

- 1 Fusing unit
- 2 Transfer unit
- 3 Toner lock lever
- 4 Toner holder
- 5 Drum unit
- 6 Right cover

Positioning the Printer

Please take note of the following before using the printer.



Caution

- Install this printer on a flat and level surface. The printer base may be damaged if it is not installed on a level surface.
 - If you install the optional Lower tray, please be careful not to move the printer onto an uneven or sloping floor surface. The printer base may be damaged.
-

Power supply

Use the printer within the specified power range.

AC power: $\pm 10\%$ of the rated power voltage
Frequency: 50/60 Hz (220-240 V) or 60 Hz (110-120 V)

Do not use an extension power cord. Connect the printer power cord directly to the power socket.

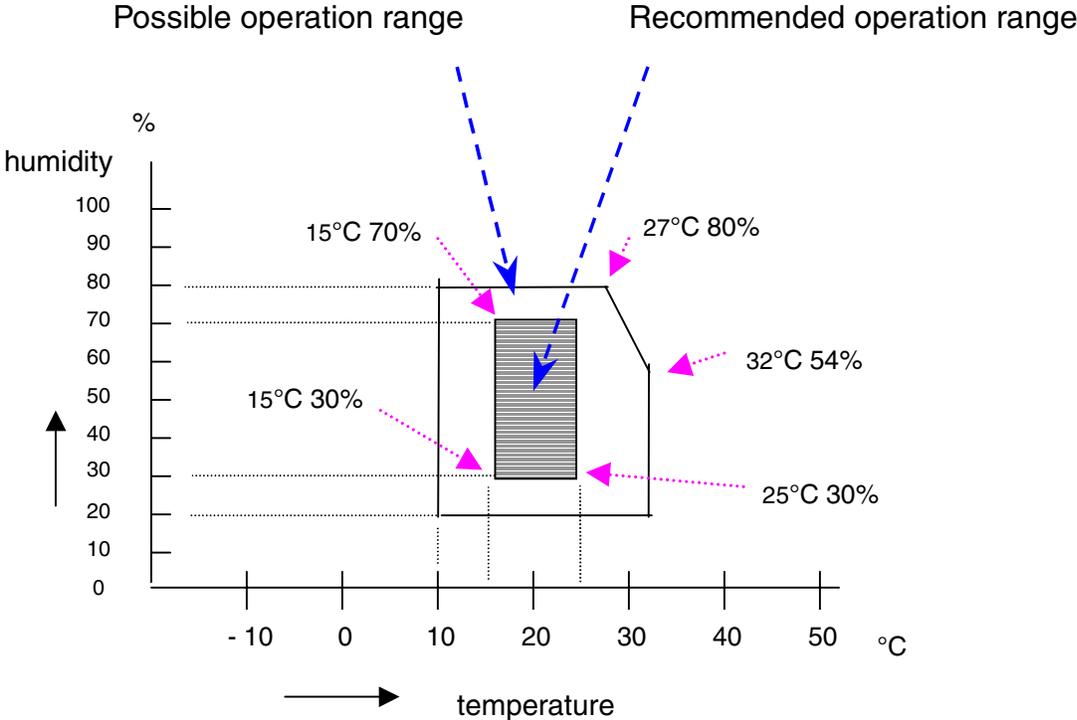
Do not share the same power circuit with other high-power appliances, particularly an air conditioner, copier, shredder, etc. If it is unavoidable that you must use the printer with these appliances, we recommend you use a voltage transformer or a high-frequency noise filter.

Use a voltage regulator if the power source is not stable.

Environment

❖ Optimum environmental conditions

Use the printer only within the following ranges of temperature and humidity.



❖ *Space required for installation*

Leave enough space around the printer. This space is necessary to operate the printer. The recommended (or minimum) space requirements are as follows:

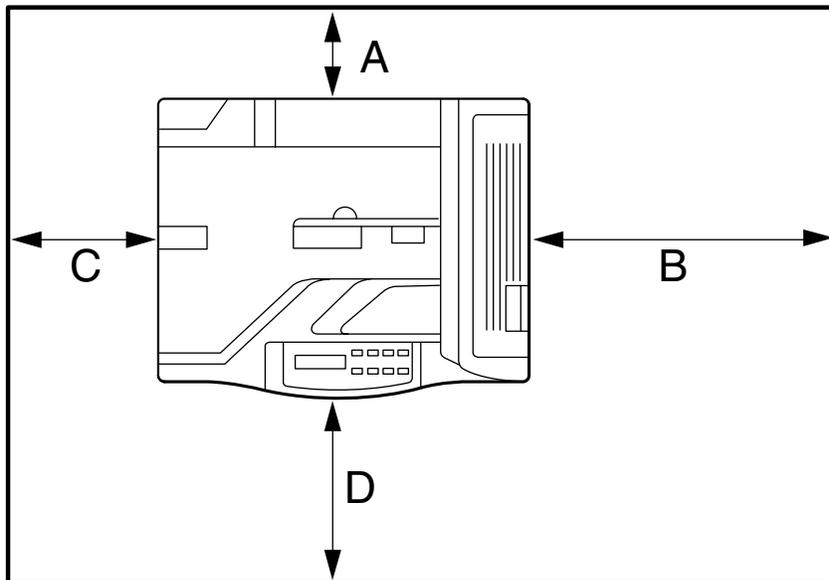


Fig. 1-7

- A: more than 10cm (4.0")
- B: more than 45cm (17.8")
- C: more than 75cm (29.6")
- D: more than 10cm (4.0")



Environments to Avoid

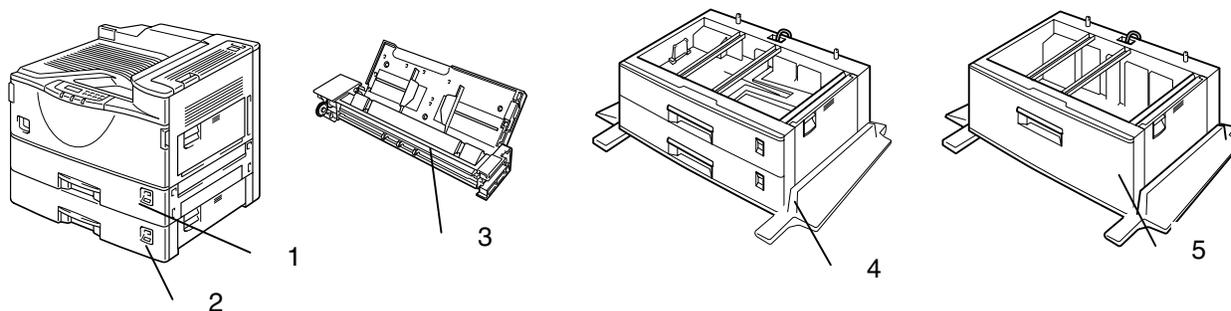
- Do not place the printer where it is exposed to direct sunlight. Use a blind or a heavy curtain to protect the printer from direct sunlight if the printer is unavoidably set up near a window.
 - Do not install the printer near other electronic equipment.
 - Do not subject the printer to strong physical shocks or vibrations. Do not expose the printer to open flames or salty or corrosive gasses.
 - Keep the printer clean. Do not install the printer in a dusty place.
 - Do not install the printer near an air conditioner or humidifier.
 - Do not handle the plug with wet hands. Doing this might cause an electrical shock.
-



Caution

- Avoid the use of multiway extension leads.
 - Confirm that the wall outlet is near the machine and freely accessible, so that, in the event of an emergency, it can be easily unplugged.
 - Only connect the machine to the power source described under Power Supply in this User's guide.
 - Place the printer on a flat, horizontal surface to ensure that the machine cannot fall over and injure someone.
 - Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could damage the cord. A frayed or damaged cord might cause an electrical and fire hazard.
 - Ventilate the room where you are using the printer.
 - Do not place the printer where the ventilation hole of the printer is obstructed. Keep a gap of approximately 100mm (4inches) between the ventilation hole and the wall.
-

What kind of paper can I use



1. Paper tray 1
2. Paper tray 2
3. Optional multi-purpose tray (MP-5000)
4. Optional 500x2 sheets paper tray (LT-5100)
5. Optional 2000 sheets paper tray (LT-5200)

Fig. 1-8

The printer loads paper from the installed standard paper trays, optional Multi-purpose tray, or optional Lower paper trays.

◆ **Note**

-
- This section refers to the standard paper tray. For information about the optional Lower paper trays, see “Lower Tray Unit” in Chapter 4.
-

Print media and sizes

Paper source	Media capacity	Media sizes	Media types and weights
Paper tray 1	500 sheets (cut sheet)	A3, JIS B4, Ledger, A4, ISO B5, A5, Legal, Letter, Executive	Plain paper 60 – 105 g/m ² (16-28 lb)
Paper tray 2	500 sheets (cut sheet)	A3, JIS B4, Ledger, A4, ISO B5, A5, A6, Legal, Letter, Executive Envelopes: Com10, C5, DL, Monarch	Plain paper, Thick paper, Transparencies 60 – 157 g/m ² (16-42 lb)
Optional multi-purpose tray (MP-5000)	100 sheets (cut sheet)	Custom Size: 90-297 x 148-432mm (3.54-11.69 x 5.83-17.01)	Plain paper, Thick paper, Transparencies 60 – 157 g/m ² (16-42 lb)
Optional 500x2 sheets paper tray (LT-5100)	500x2 sheets (cut sheet)	A3, JIS B4, Ledger, A4, ISO B5, A5, Legal, Letter, Executive	Plain paper 60 – 105 g/m ² (16-28 lb)
Optional 2000 sheets paper tray (LT-5200)	2000 sheets (cut sheet)	A4 or Letter	Plain paper 60 – 105 g/m ² (16-28 lb)

Media type

You can select the following Media types in the driver settings. Please see, “Paper handling” in this chapter.

- Plain paper : 60 g/m² to 105 g/m²
- Thick paper : 105 g/m² to 157 g/m²
- Transparencies

Recommended paper

	Europe	USA
Plain paper	A4: Xerox Premier (80 g/m ²) A3, A4, A5: Neusiedler BIO TOP 3 (80g/m ²)	Letter: Xerox 4024 (20 lb) Legal: Xerox 4024 (20 lb)
Transparencies	3M CG3300	3M CG3300
Envelopes	Metric	Crane Crest

- ◆ *Before purchasing the large paper quantities, please confirm by testing small quantities that no problems will occur with the printer.*
- ◆ *Use paper made for plain paper copying*
- ◆ *Use paper which is 75 to 90 g/m²*
- ◆ *Use neutralized paper, avoid acidic or alkaline paper*
- ◆ *Use Long grain paper*
- ◆ *Use paper which has a Moisture content of around 5%.*

Plain paper

The printer is designed to work well with most types of xerographic and bond paper. However, some paper variables may have an effect on print quality or handling reliability. Always test samples of paper before buying to ensure that it provides acceptable performance. Some important guidelines when selecting paper are:

- ☛ **1.** Your supplier should be informed that the paper or envelopes will be used in a laser printer.
- ☛ **2.** Preprinted papers must use inks that can withstand the printer's fusing temperature. (392 degrees Fahrenheit or 200 degrees centigrade)
- ☛ **3.** If selecting a cotton bond paper, paper with a rough surface such as cockle or laid finished paper, or paper that is wrinkled or puckered, you may experience less than optimal performance.

☛ **Note**

The manufacturer does not warrant the use of any particular paper. The operator is responsible for the quality of paper used with the printer.

Paper types to avoid

Some types of paper might not perform well or may cause damage to your printer.

Types of paper to avoid are:

1. Highly textured paper.
2. Smooth or shiny paper.
3. Paper that is coated or has a chemical finish.
4. Damaged, wrinkled or prefolded paper.
5. Paper exceeding the recommended weight specified in this manual.
6. Paper with tabs and staples.
7. Letterheads using low temperature dyes or thermography.
8. Multipart or carbonless paper.

DAMAGE OR OTHER DEFECTS CAUSED BY THE USE OF PAPER LISTED UNDER “PAPER TYPES TO AVOID” WILL NOT BE COVERED UNDER ANY WARRANTY OR SERVICE AGREEMENTS.

For more information about Special paper, see [“Printing on Labels, Transparencies etc”](#) in this chapter.

Printing methods

This printer has various printing methods.
Choose the best printing method that you require for your print job.

- ◆ **To print from the standard paper tray 1 or 2.**
See “Loading Paper in the Standard paper tray” in this chapter.
- ◆ **To print from the optional Multi-purpose tray**
See “Multi-purpose tray” in chapter 4.
- ◆ **To print from the optional Lower tray**
See “Lower Tray Unit” in chapter 4.

Paper handling

Paper source	Media capacity	Media sizes	Media types and weights
Paper tray 1	500 sheets (cut sheet)	A3,  JIS B4, Ledger, A4,  ISO B5,  A5, Legal, Letter,  Executive	Plain paper 60 – 105 g/m ² (16-28 lb)
Paper tray 2	500 sheets (cut sheet)	A3,  JIS B4, Ledger, A4,  ISO B5,  A5, A6, Legal, Letter,  Executive  Envelopes: Com10, C5, DL, Monarch	Plain paper, Thick paper, Transparencies 60 – 157 g/m ² (16-42 lb)

◆ Note

-
- If you load Thick paper or Envelopes, set the printer to the “Thick paper” mode using the printer driver.
 - If you load Transparencies, set the printer to the “Transparencies” mode using the printer driver.
 - If you set a paper size marked with a , set the dial in the paper tray to “*” and set the paper size on the Control Panel. (For more information about the Control Panel, see Menus in Chapter 3).
 - Confirm that the setting of the paper size dial in the paper tray matches the paper size and feed direction of the paper in the Paper tray, otherwise paper misfeeds or unexpected print results might occur.
-

Loading paper in the standard paper tray

This section describes instructions for loading paper whose size and feed direction is already set in the standard paper tray. If you want to change the paper size or feed direction, see “Changing the paper size of the Paper tray”. If you want to load paper in an Optional 500x2 Sheets Paper tray or Optional 2000 Sheets Paper tray, see “Loading Paper into the Lower tray unit” in chapter 4. If you want to load paper in the Multi-purpose tray, see “Loading paper in the Multi-purpose tray” in chapter 4.

Follow these steps to set paper and install the paper tray:

1. Slide the paper tray out until it stops.

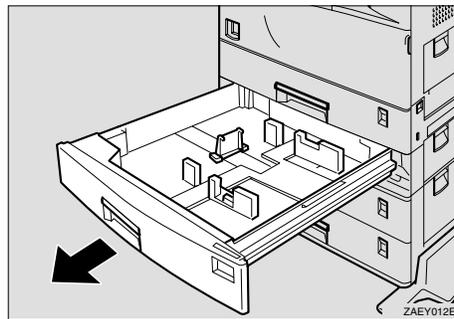


Fig. 1-9

- ☛ **2.** Align all four sides of the paper stack, and load it into the Paper tray.

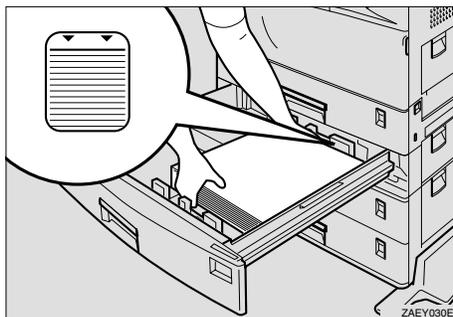


Fig. 1-10

◆ **Note**

-
- Do not stack paper over the limit mark.
 - When you set custom size or thick paper in Paper tray 2, do not stack paper above the lower limit mark (①) in Paper tray 2.

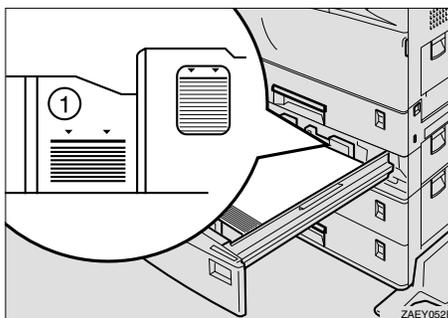


Fig. 1-11

- Set the paper after shuffling the sheets.
 - Load paper face up into the Paper tray.
-

- ☛ **3.** Slide the Paper tray into the printer until it stops.

Changing the paper size of the Paper tray

For more information about the size and feed direction of paper that can be set in the Paper tray, see “Print media and sizes” in this chapter.

1. Slide the Paper tray out until it stops.

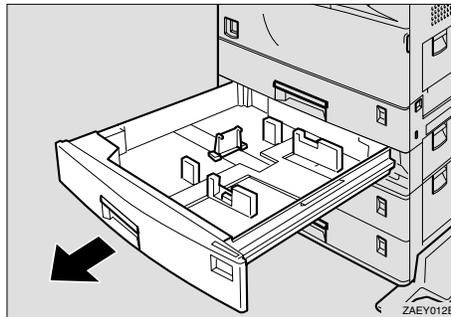


Fig. 1-12

2. Set the Paper guide lock to the “unlocked” position.

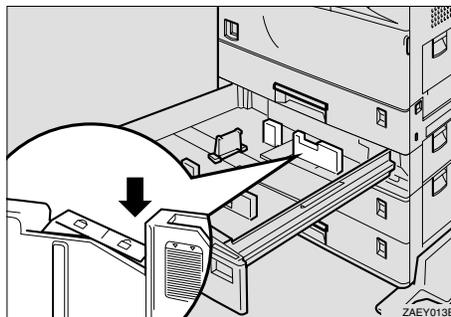


Fig. 1-13



Caution

Confirm that the lever of the paper guide lock is released before sliding the guides, otherwise it can be damaged.

- 3. Slide the side paper guide wide open (2) while pressing the release lever of the side guide (1).

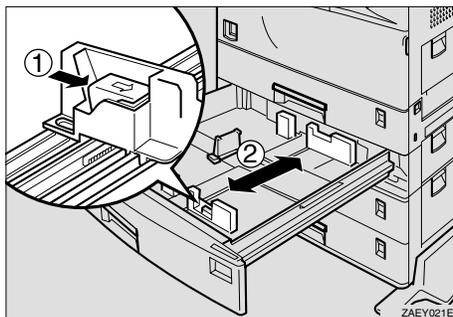


Fig. 1-14

- 4. Slide the rear guide fully to the left while pressing the release lever of the rear guide.

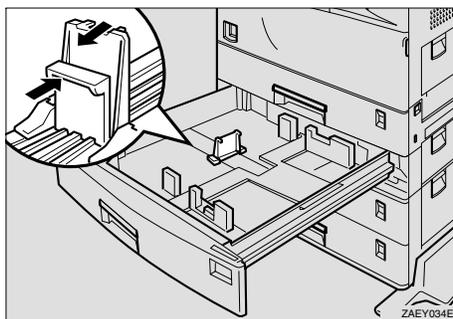


Fig. 1-15

- 5. Align all four sides of the paper stack, and load it into the Paper tray.

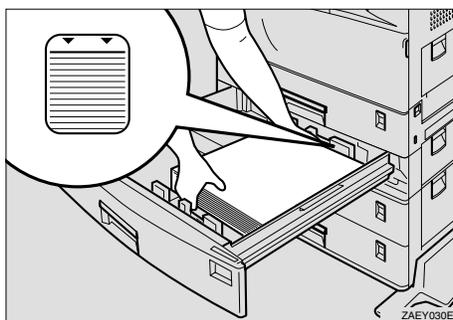


Fig. 1-16

◆ **Note**

- Do not stack paper over the limit mark.
- When you set thick paper in Paper tray 2, do not stack paper above the lower limit mark (①) in Paper tray 2.

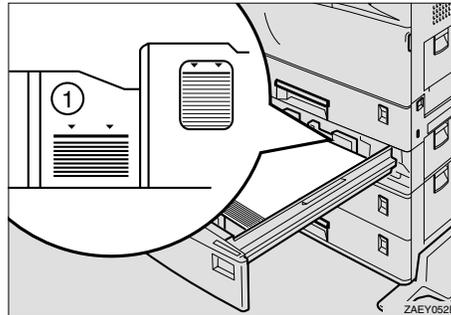


Fig. 1-17

- Fan the paper before setting it in the Paper tray.
- Load paper face up into the Paper tray.

☞ **6.**

Align the side guide to the loaded paper size (②) while pressing the release lever of the side guide (①).

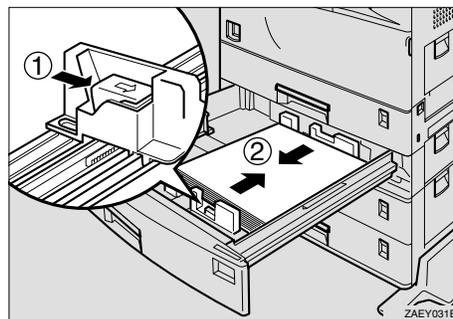


Fig. 1-18

☞ **7.**

Set the paper guide lock to the “locked position”.

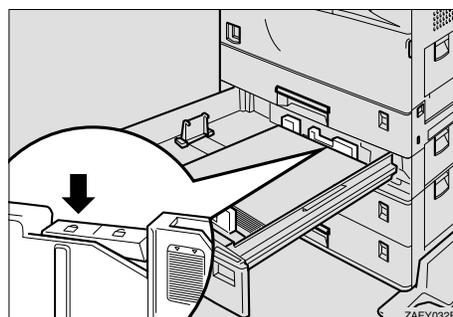


Fig. 1-19

8. Align the rear guide to the loaded paper size while pressing the release lever of the rear guide.

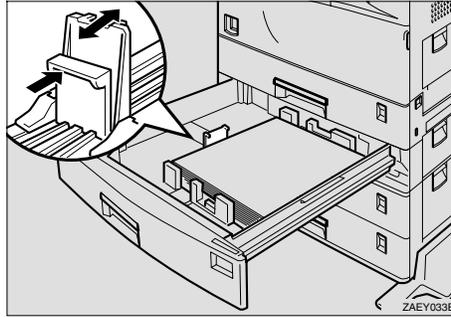


Fig. 1-20

9. Adjust the paper size dial in the paper tray for the loaded paper size.

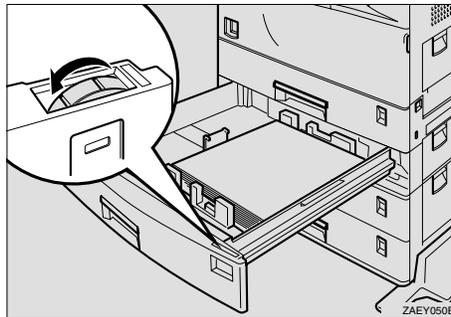


Fig. 1-21

Note

-
- Confirm that the setting of the paper size dial matches the paper size and feed direction of the paper in the Paper tray, otherwise paper misfeeds or unexpected printing results might occur.
 - Confirm that the paper size dial matches the actual paper size loaded in the Paper tray. If the actual paper size is not shown on the dial, set the dial to “*” and specify the paper size using the Control panel. For more information on specifying the paper size, see [“Paper handling” in this chapter](#).
-

10. Slide the Paper tray into the printer until it stops.

11. Set the paper sensor.

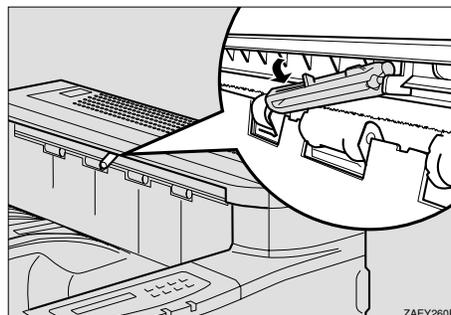


Fig.1-22

◆ *Setting the Media from the Printer driver*

1. Open the File menu and choose print.
2. Open Properties and choose the Paper tab.
3. Choose the paper size you want to use.

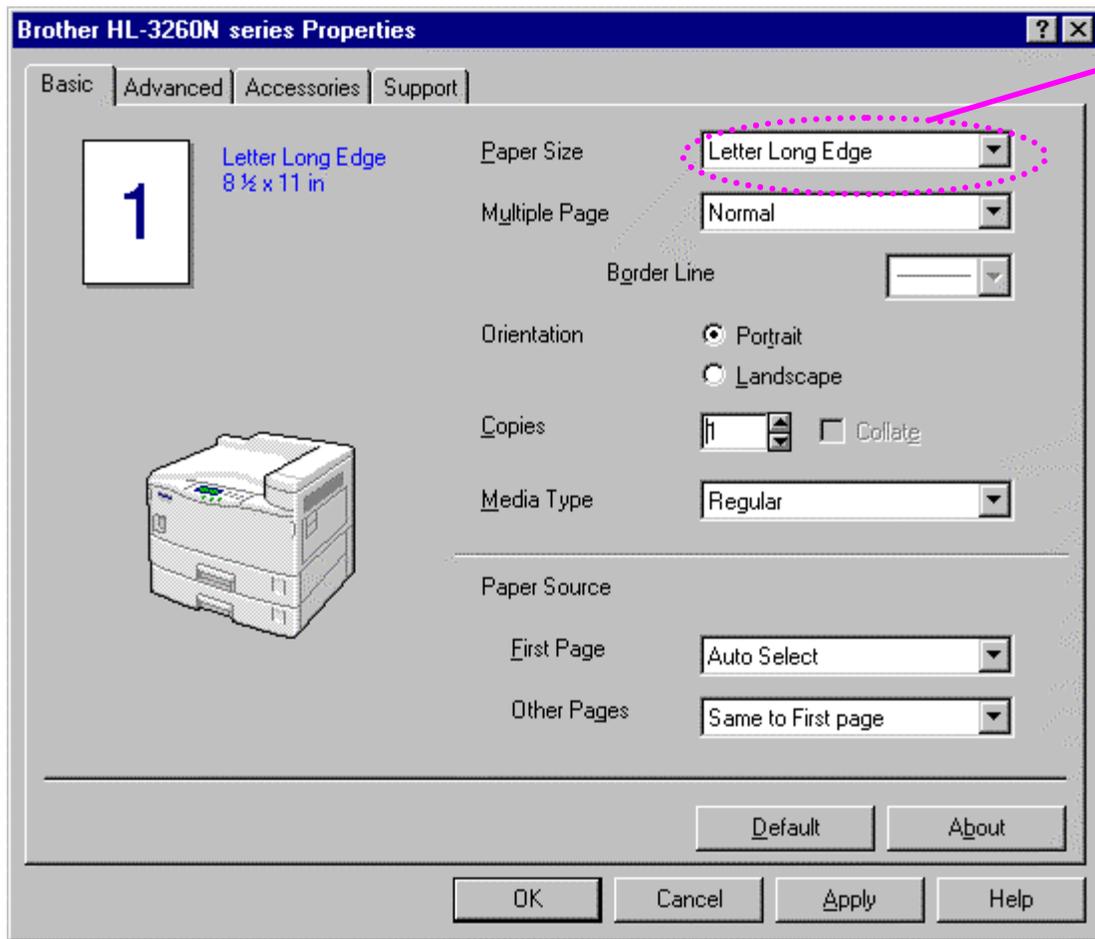


Fig. 1-23

- 4. Choose the Paper tray which you want to print from.

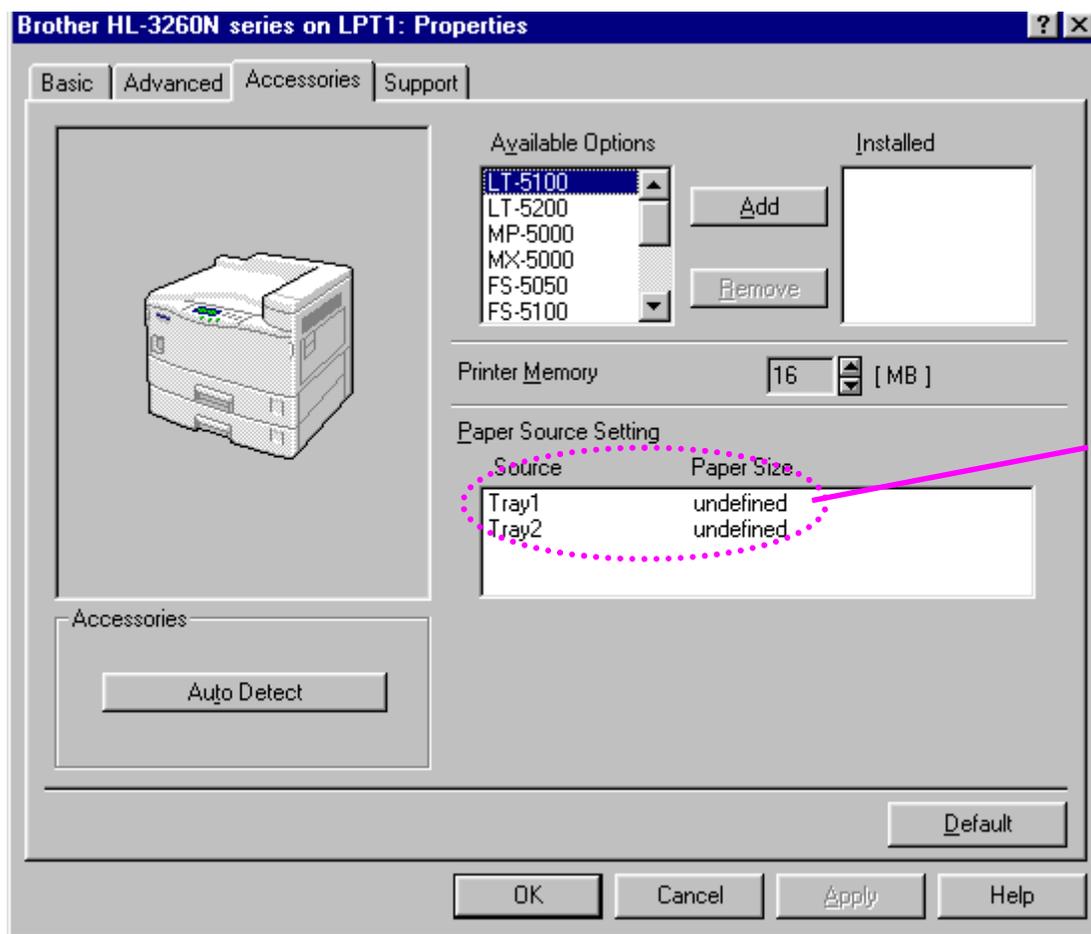


Fig. 1-24

5. Choose the Media Type.

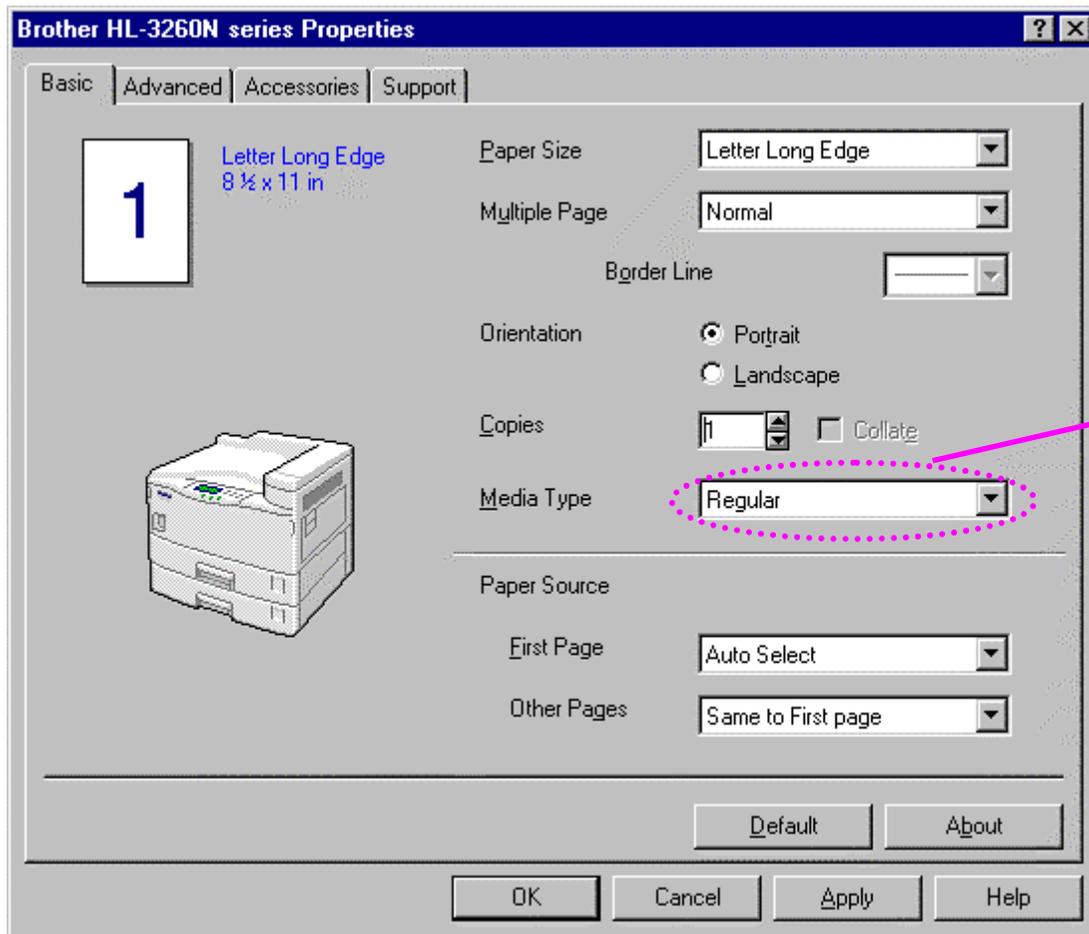


Fig. 1-25

6. Click OK.

Printing on Labels, Transparencies etc.

Paper source	Media capacity	Media sizes	Media types and weights
Paper tray 2	500 sheets (cut sheet)	A3, A4, JIS B5, ISO B5, A5, Legal, Letter, Executive Envelopes: Com10, C5, DL, Monarch	Plain paper, Thick paper, Transparencies 60 – 157 g/m ² (16-42 lb)
Optional Multi-purpose tray (MP-5000)	100 sheets (cut sheet)	Custom Size: 90-297 x 148-432mm (3.54-11.69 x 5.83-17.01)	Plain paper, Thick paper, Transparencies 60 – 157 g/m ² (16-42 lb)

❖ Notes

- Be sure to select the same paper size as the paper to be used in your application software, or correct printing cannot be obtained.
- If your application software does not support paper size selection in its print menu, you can change the paper size with the MP Size setting in the Paper menu on the Control panel switch. **For more information, see “Multi-purpose tray” in chapter 4.**

You can load Thick paper, Envelopes or Transparencies into Paper tray 2. When Thick paper or Transparencies are loaded, change the lever on the paper size dial inside the paper tray to the “Thick paper” setting.

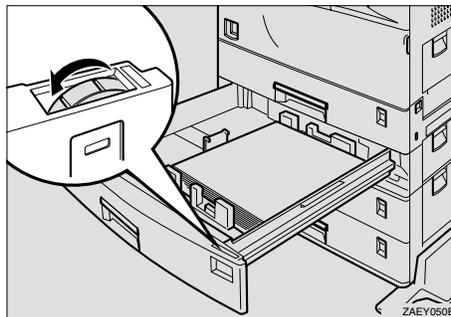


Fig. 1-26

For more information about special paper, see “Labels and Transparencies” and “Envelope types to avoid” in this chapter.

◆ **Note**

When you set thick paper in Paper tray 2, do not stack paper above the lower limit mark (①) of Paper tray.

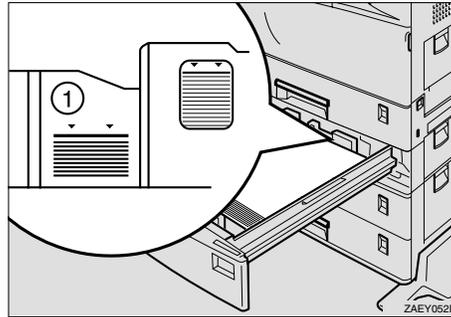


Fig. 1-27

◆ **1.**

Change the lever on the paper size dial of the Paper tray 2 to the “Thick paper” mode.

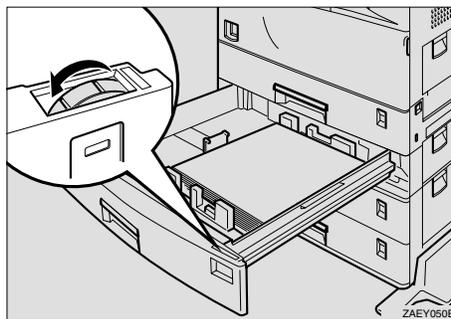


Fig. 1-28

◆ **Note**

If the “Thick paper” mode is selected, the following functions using Paper tray 2 are not available.

- Duplex print
- Sort, Shift sort
- Staple

A yellow line appears under the paper size indicator on the front of the Paper tray.

◆ **Note**

Reset the lever to the left side after you have finished printing on thick paper.

◆ **Note**

For making settings from the printer driver, see [“Settings the Media from the Printer driver”](#) in this chapter.

Labels and Transparencies

The printer will print on most type of labels and transparencies designed for use with a laser printer. Labels should have an adhesive that is acrylic-based since such material is more stable at the high temperatures in the fusing unit. Adhesives should not come in contact with any part of the printer, because the label stock may stick to the drum or rollers and cause jams and print quality problems. No adhesive should be exposed between the labels. Labels should be arranged so that they cover the entire page with the only exposed spaces being lengthwise down the sheet. Using labels with spaces may result in labels peeling off and causing serious jam or print problems.

All labels and transparencies used in this printer must be able to withstand a temperature of 200 degrees centigrade (392 degrees Fahrenheit) for a period of 0.1 seconds.

Label and transparency sheets should not exceed the paper weight specifications described in the User's Guide. Labels and transparencies exceeding this specification may not feed or print properly and cause damage to your printer.

Print quality, reliability and performance of labels and transparencies cannot be guaranteed.

DAMAGE CAUSED BY THE USE OF UNSATISFACTORY LABELS OR TRANSPARENCIES IS NOT COVERED UNDER ANY WARRANTY OR SERVICE AGREEMENTS.

Envelope types to avoid

- Damaged, curled, wrinkled, or irregularly shaped envelopes or those which do not lie flat.
- Envelopes with self-adhesive closures
- Envelopes of baggy construction
- Envelopes not sharply creased
- Embossed envelopes
- Envelopes already printed by a laser printer
- Envelopes pre-printed on the inside
- Envelopes that cannot be arranged uniformly when placed in a pile
- Envelopes made of paper with a weight exceeding the paper weight specifications for the printer.
- Poorly manufactured envelopes with edges that are not straight or consistently square.
- Envelopes with transparent windows, holes, cutouts or perforations.
- Envelopes with clasps, snaps or tie strings.
- Envelopes made of smooth or shiny paper.
- Envelopes that are rough or highly textured.
- Envelopes having an open flap with an adhesive that seals the envelope.

USE OF ANY OF THE ENVELOPES LISTED ABOVE MAY CAUSE DAMAGE TO YOUR PRINTER. SUCH DAMAGE IS NOT COVERED UNDER ANY WARRANTY OR SERVICE AGREEMENT.

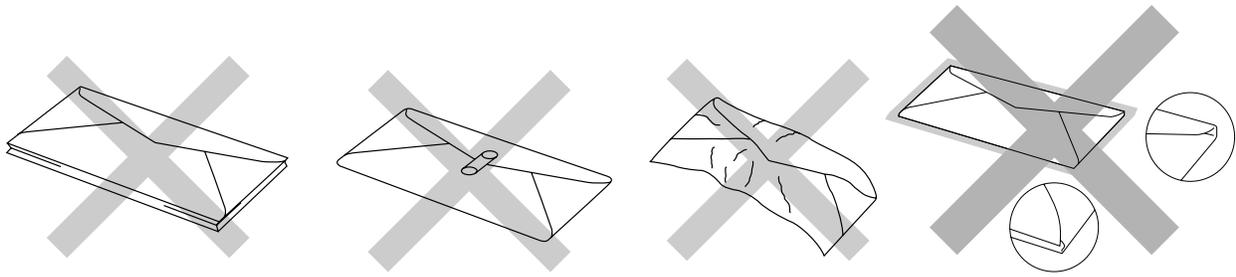
Note

-
- Before printing envelopes, you must fan the stack well to avoid paper jams and misfeeds.



Fig. 1-29

- Different types of paper should not be loaded at the same time in the paper tray, it may cause paper jams or misfeeds.
 - Do not print envelopes by Duplex printing.
 - Be sure to select the same paper size as the paper to be used from your application software, or correct printing cannot be obtained.
 - If your application software does not support paper size selection on its print menu, you can change the paper size with the MP Size setting in the Paper Menu on the Control Panel. [For more information, see Menus in Chapter 3.](#)
-



• Note

If envelopes get smudged during printing, set the print density to a higher value in the QUALITY settings with the panel operation switch for darker printouts. To adjust the print density setting, see “Control Panel” in Chapter 3.

- Envelope joints that are sealed by the manufacturer should be secure.
- All sides should be properly folded without any wrinkles or creases.

Most envelopes will perform acceptably on your printer. However, some envelopes will have feeding and print quality problems because of their construction. A suitable envelope should have edges with a straight, well creased folds and should not have more than two thickness of paper along the lead edge. The envelope should lie flat and not have baggy or flimsy construction. Purchase quality envelopes only from a supplier who understands that the envelopes will be used in a laser printer. All envelopes should be tested prior to use to ensure desirable print results.

• Note

The manufacturer neither warrants nor recommends the use of a particular envelope because envelope properties are subject to change by the envelope manufacturer. The entire responsibility for the quality and performance of the envelope lies with the customer.

CHAPTER 2

DRIVER AND SOFTWARE

Printer driver

The Printer driver is Software that translates data in the format used by a computer into the format required by a particular printer, typically a printer command language or page description language.

The following printer drivers for each Operating System are supplied on the CD-ROM provided with the printer. The latest printer driver can also be downloaded from [Brother Solutions Center http://solutions.brother.com](http://solutions.brother.com).

For Windows 95/98/Me, Windows NT 4.0 and Windows 2000.

- PCL (Hewlett-Packard laser printer-LaserJet 5) driver
- BR-Script (PostScript Level3 language emulation) driver

For Macintosh

- BR-Script (PostScript Level3 language emulation) driver ([For more information, refer to the Network user's Guide on the CD-ROM.](#))

	PCL driver	PS driver
Windows 95/98/Me	✓	✓
Windows 2000	✓	✓
Windows NT4.0	✓	✓
Macintosh (via Network)		✓

Features in the PCL printer driver (only for Windows)

For more detailed information, please see the on-line help in the printer driver.

You can also change settings by clicking on the illustration on the left side of the tab.

❖ Basic tab

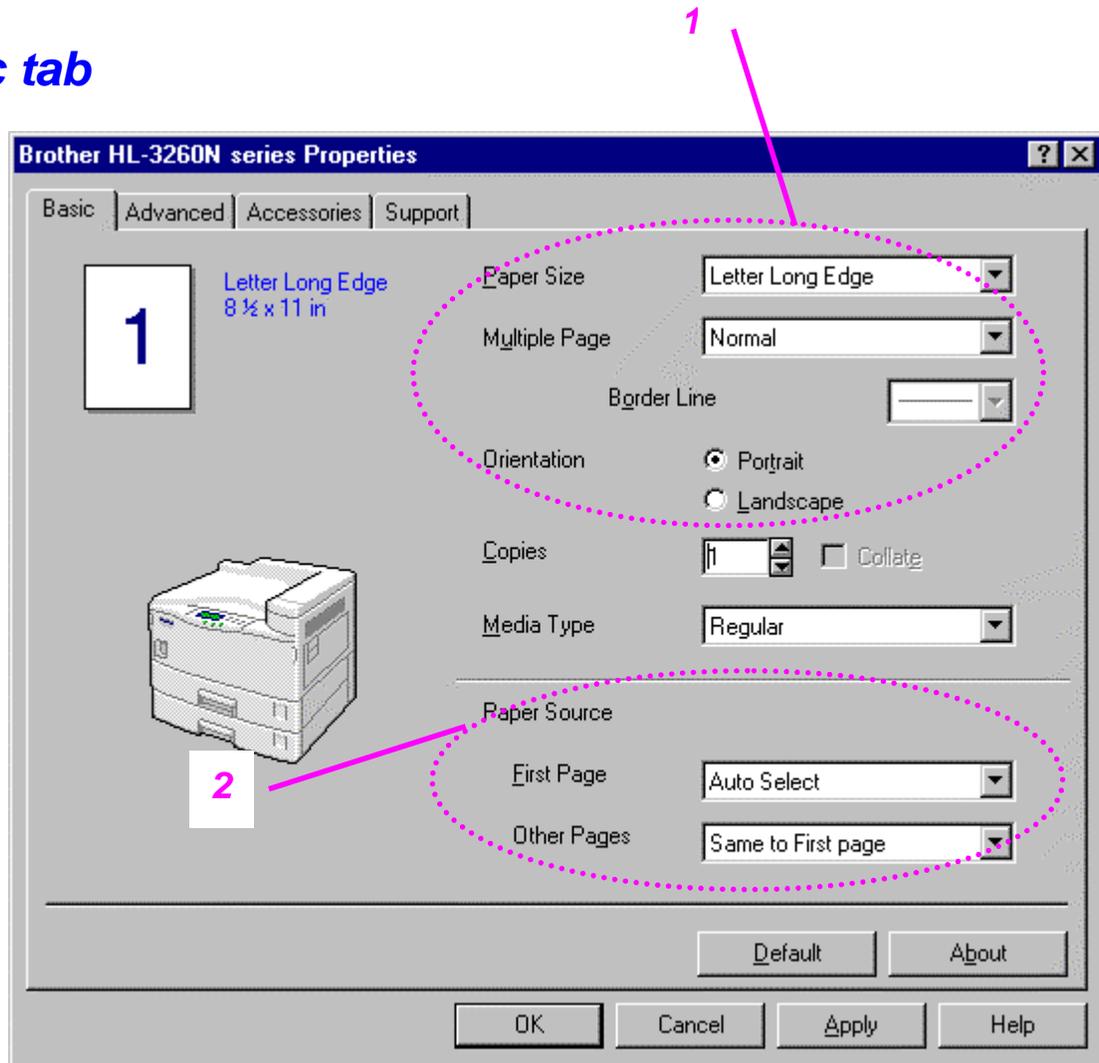


Fig. 2-1

- 1 Select the Paper size, Multi-page, Orientation etc.
- 2 Select the Paper source etc.

❖ *Advanced tab*

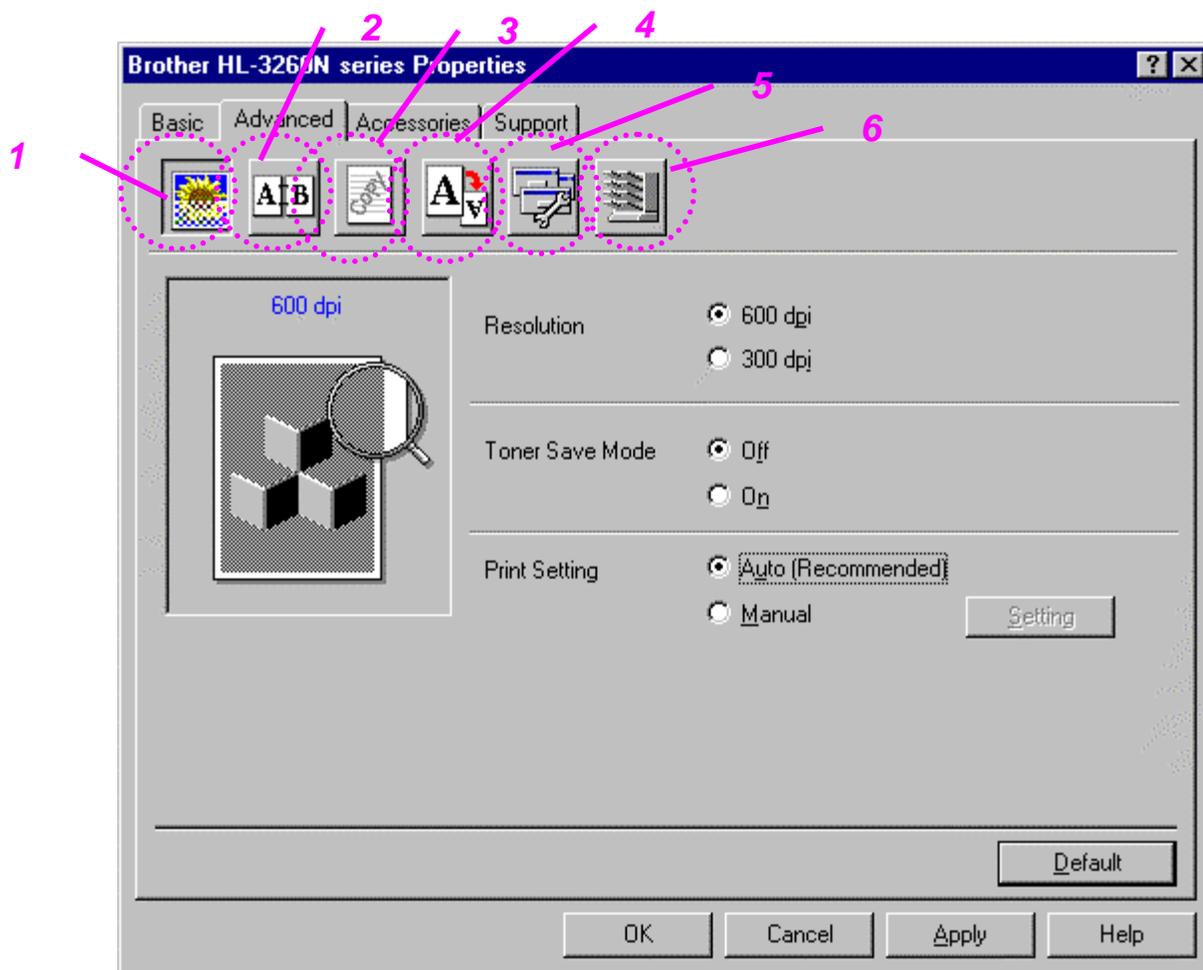


Fig. 2-2

Tab selection

Change the tab setting by clicking on the icons as follows:

- 1 Print Quality
- 2 Duplex
- 3 Watermark
- 4 Page Setting
- 5 Device options
- 6 Destination

◆ **Print Quality settings**

Select the Resolution, Toner save mode and Print settings.

- You can change the resolution as follows:
300 dpi
600 dpi
- Toner Save mode
You can save running costs by turning on the Toner Save mode, which reduces the print density on the page.
- With Print setting selected to manual, you can change the Brightness, Contrast, Graphics mode settings and True Type mode options manually.

◆ **Duplex function**

To use duplex printing, you need to install the optional Duplex unit and Interchange unit onto your printer. If you select the duplex button, the dialogue box for making duplex settings appears. 6 types of duplex binding direction are available for each orientation.

◆ **Watermark**

You can put a watermarked logo or text into your documents.
When you use a bitmap file as a watermark, you can change the size of the watermark and place it anywhere you like on the page.
When you use a text as a watermark, you can change the font, darkness and angle settings.

◆ **Page Setting**

Change the print image scaling and select Mirror / Reverse printing options.

◆ Device options

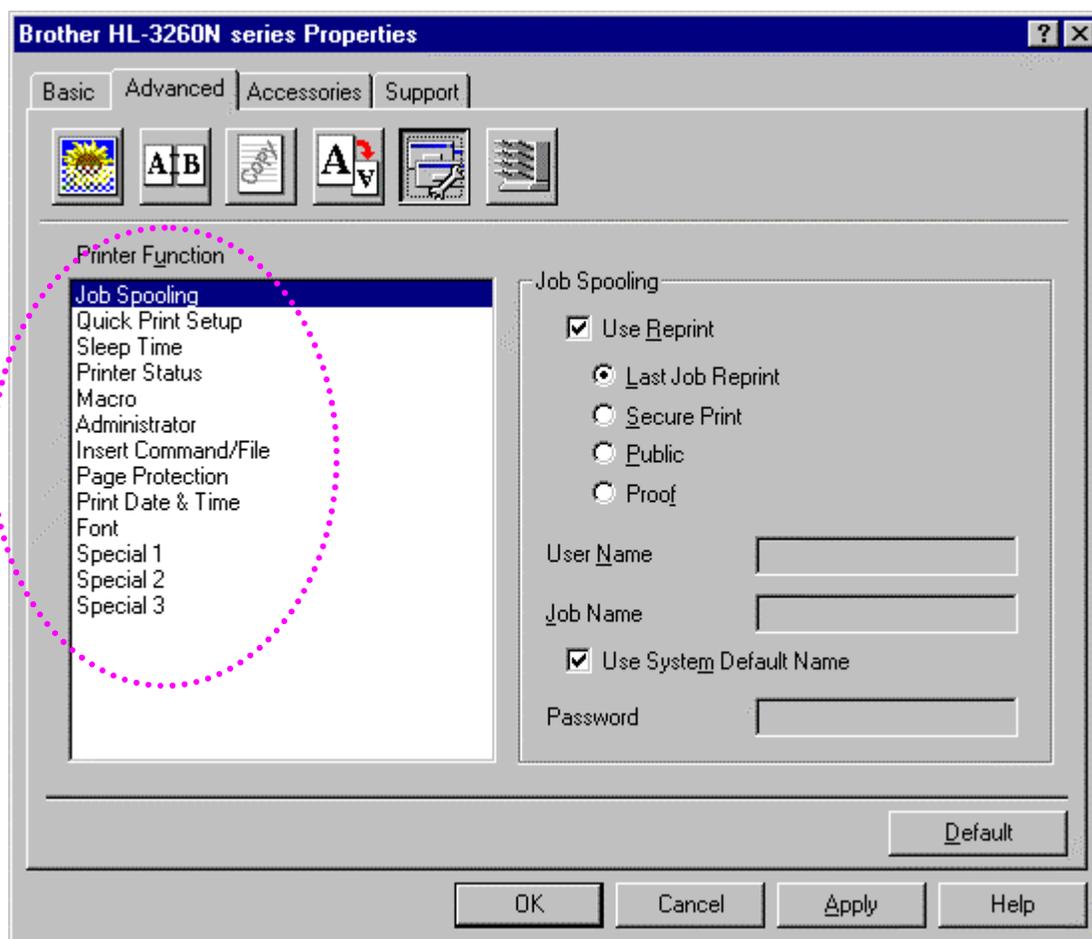


Fig. 2-3

- 1 You can change the settings of the following printer functions in this tab

Job Spooling
 Quick Print Setup
 Sleep Time
 Status Monitor
 Macro
 Administrator
 Insert Command File
 Page Protection
 Print Date & Time

Job spooling

You can reprint a document without sending the data from your PC again as the printer saves data that you identify as being required for reprinting.

- Last job reprint : Reprint the last job
- Secure Print : Save the data with a password
- Public : Save the data without a password
- Proof : Save the data and print it

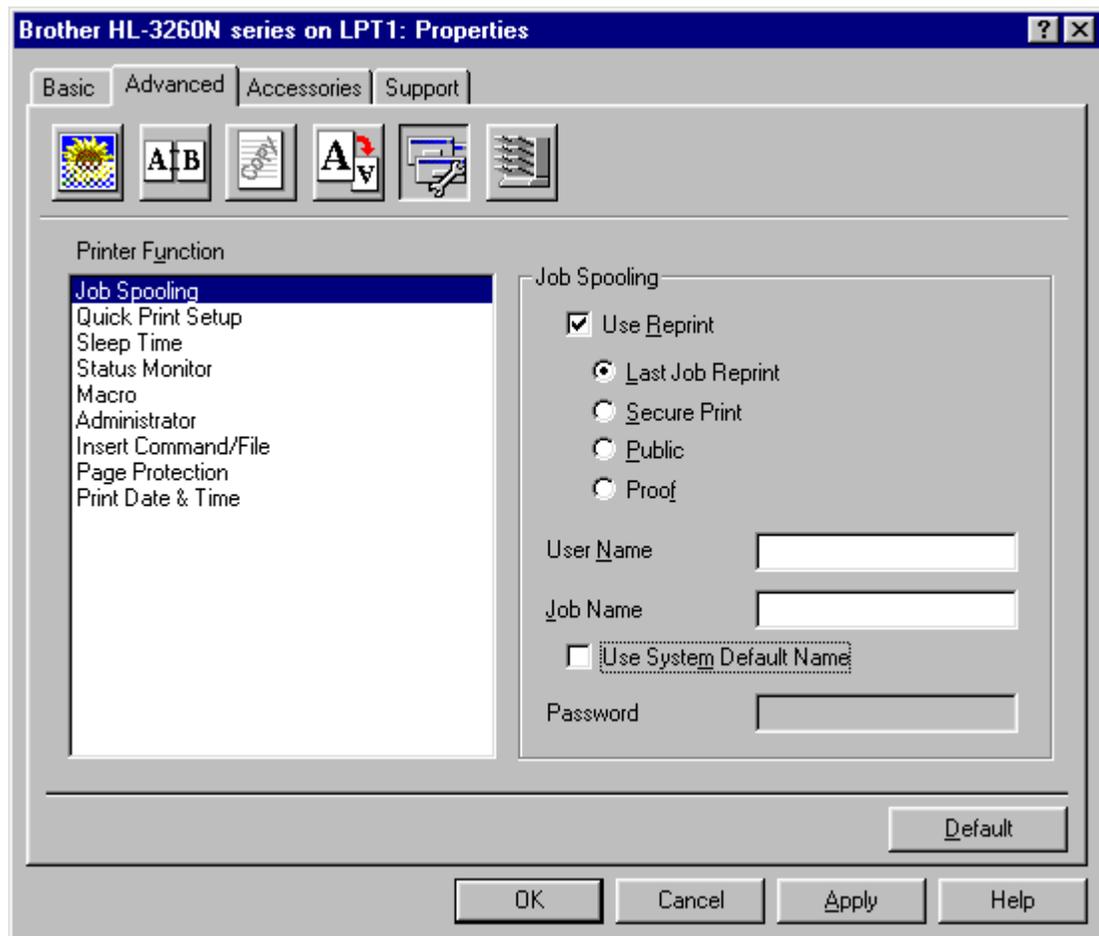


Fig. 2-4

For more information about reprint function, see “REPRINT switch” in Chapter 3.

❖ Accessories tab

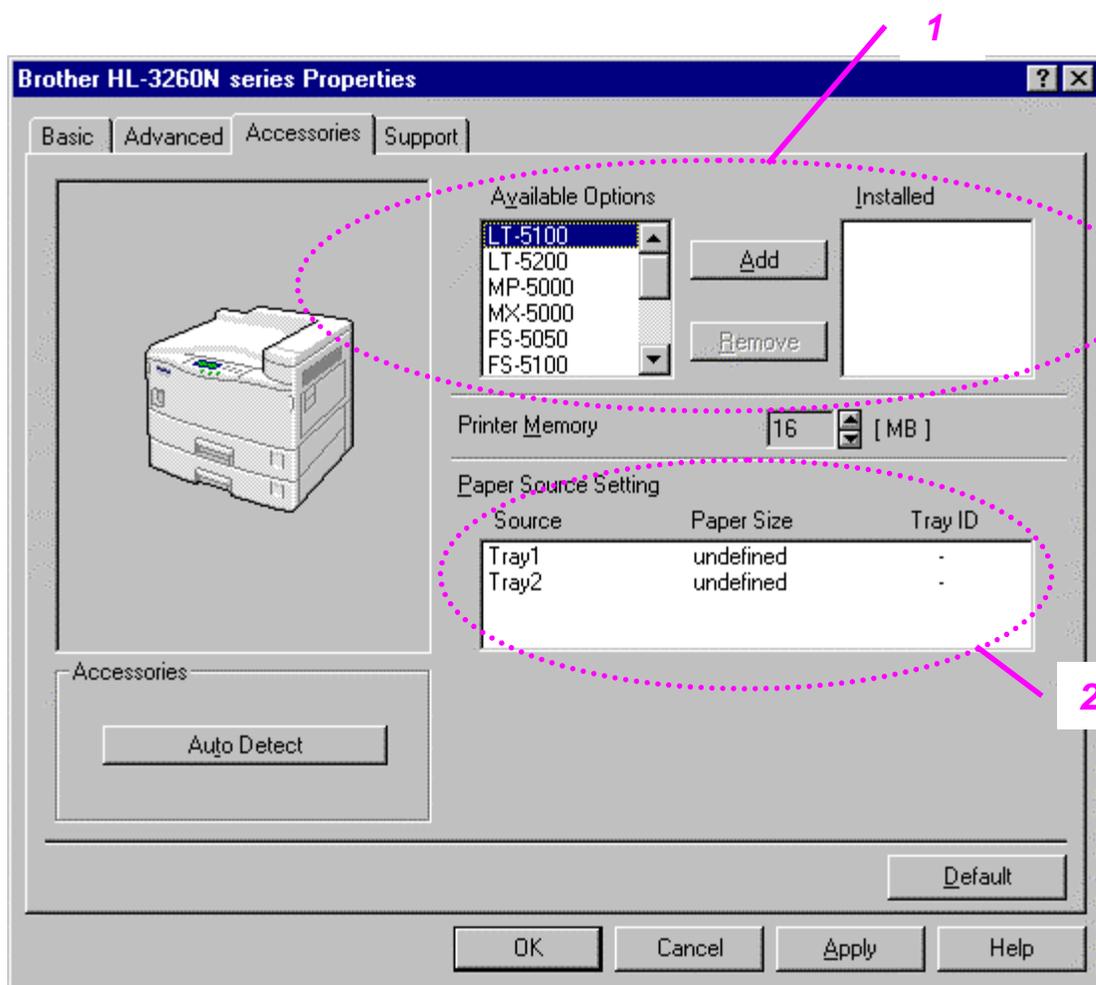


Fig. 2-5

1 Automatic Detection of Printer Options

This function detects the current optional unit devices automatically and the available functions are reflected in the printer driver.

Recognize the Option automatically by pressing “Auto”, options that are installed onto the printer will be listed. You can manually add or delete options. Tray settings etc. will match the fitted options.

2 Advanced Paper Source Setting

Recognizes the paper size in each paper tray automatically.

❖ *Support tab*

- You can download the latest driver by accessing the Brother Solutions Center site.
- You can see the printer driver version.
- You can check the current driver settings.
- You can print the Configuration page, Test page, etc.

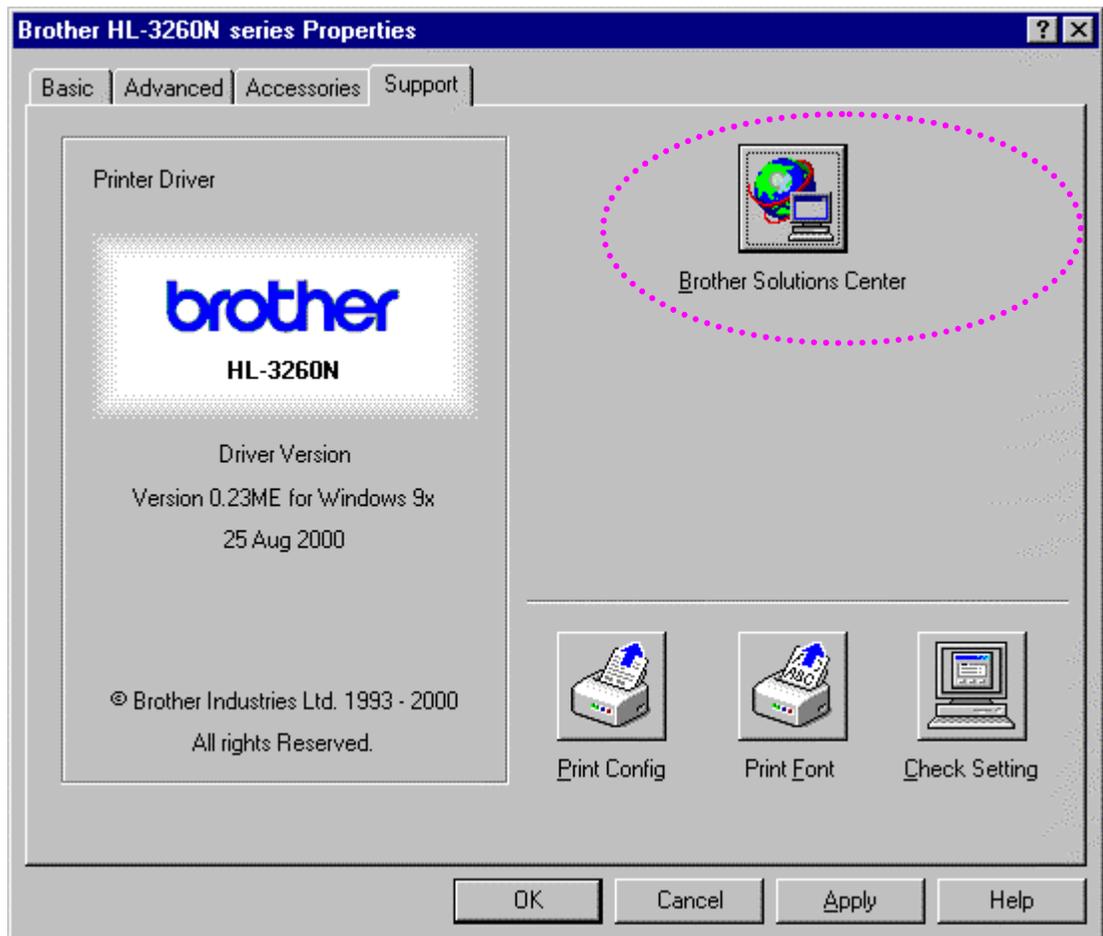


Fig. 2-6

Features in the Post script compatible printer driver (only for Windows)

For more information, please see the on-line help in the printer driver.

❖ Details tab

Select the port your printer is connected to or the path to the network printer you are using.

Select the printer driver which you installed.

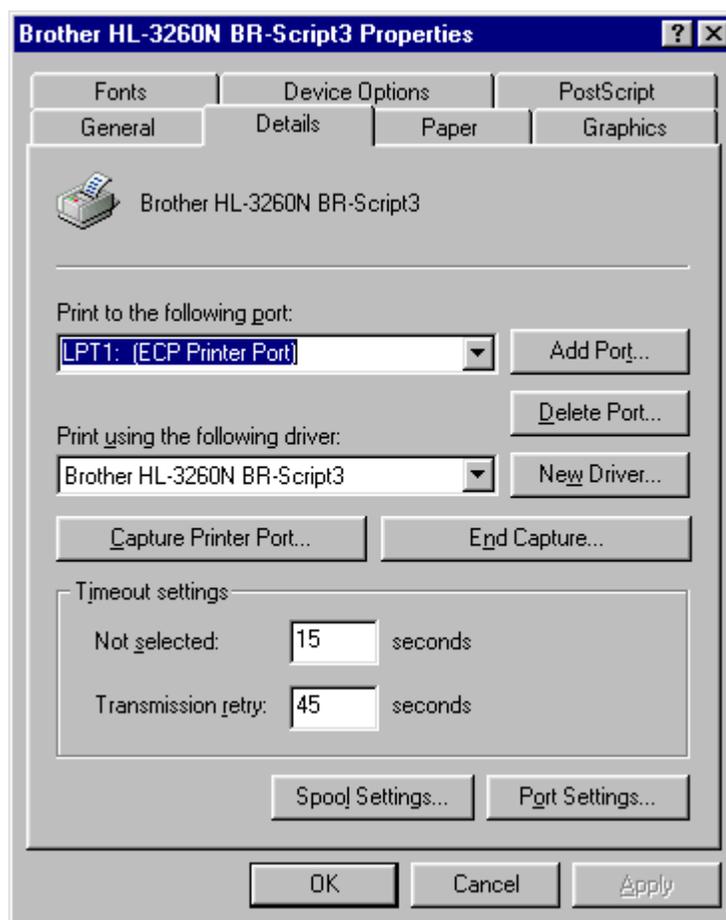


Fig. 2-7

❖ Paper tab

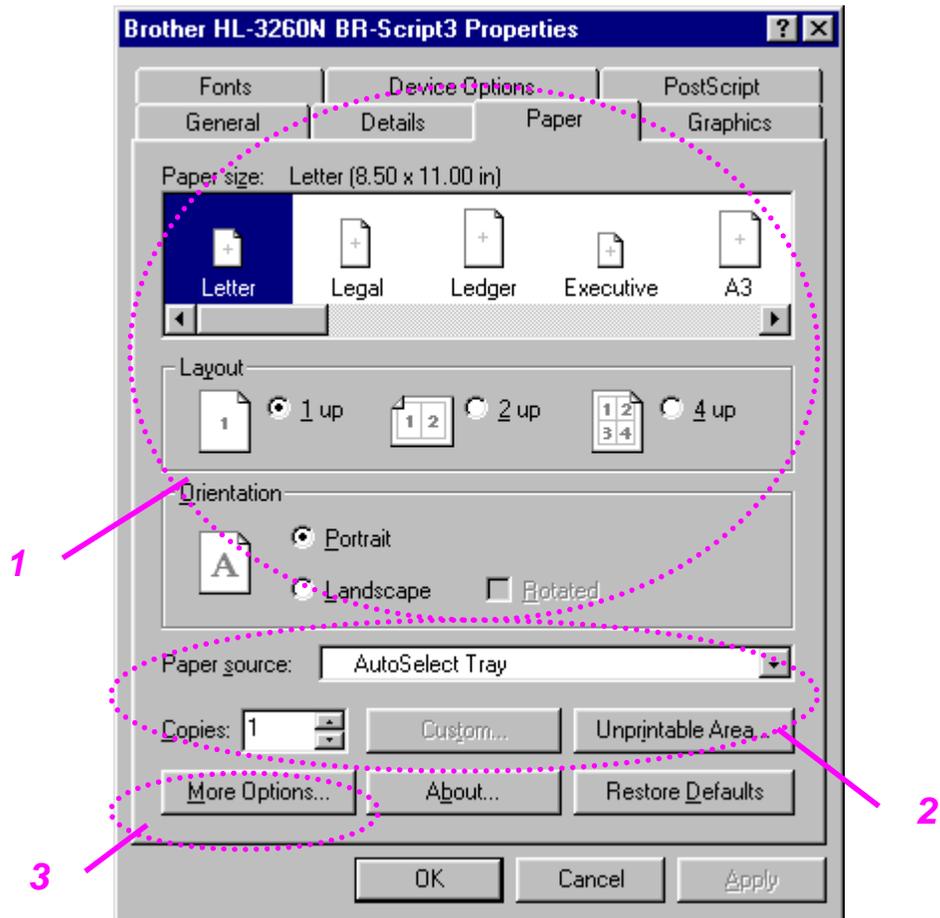


Fig. 2-8

- 1 Select the Paper size, Multi-page, Orientation etc.
- 2 Select the Paper source.
- 3 When the Duplex unit or Mailbox unit is installed in the printer, add the installed options in the Device Options Tab first. The set the function for those devices by pressing this icon.

❖ Graphics

Set the print quality etc.

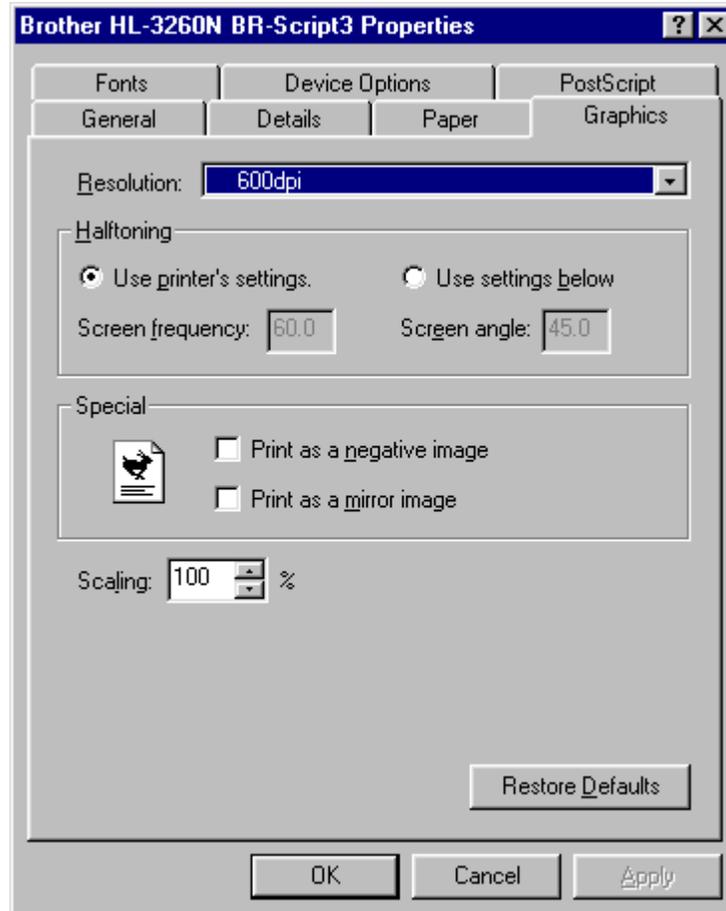


Fig. 2-9

❖ Device Options

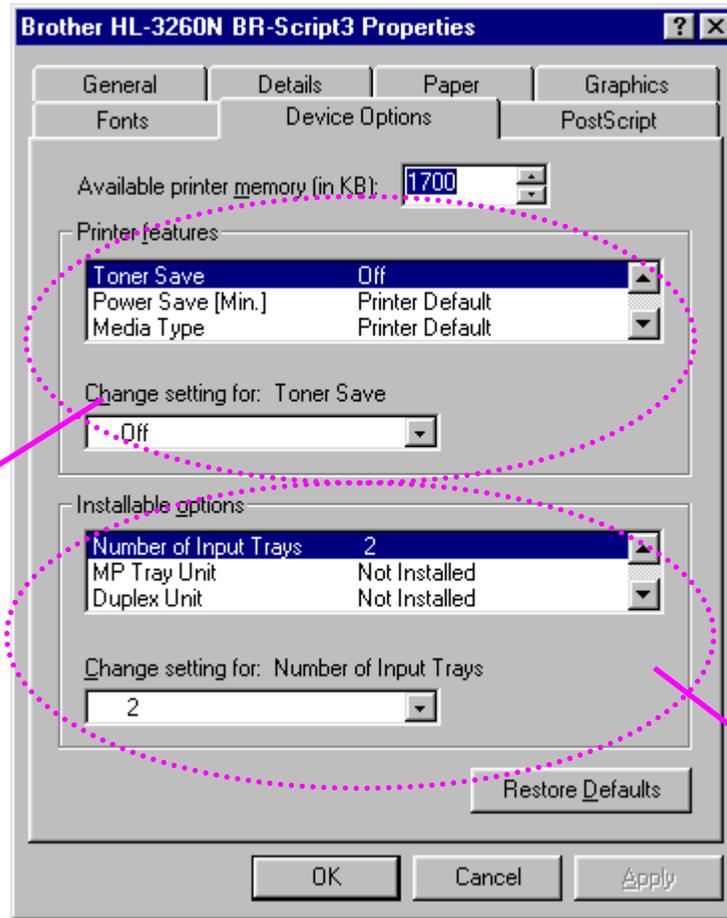


Fig. 2-10

- 1 You can change the settings by clicking the setting and then select a new value in the Change Settings box.

Toner save Mode

Sleep Mode

Media Type

HRC setting

Collate (only install the HDD or CompactFlash card)

Job spooling (only install the HDD or CompactFlash card)

- 2 Select the installed options from the lists.

◆ *Job Spooling*

You can print a document without resending the data or sending the password from your PC because the printer saves data that you specify reprinting.

For more information, see “REPRINT Switch” in Chapter 3.

- Secure Print : Print the data with a password
- Public : Save the data without a password
- Proof : Save the data and print it

Features in the bonus software (only Windows users)

◆ *Automatic E-mail Printing*

Automatic E-mail printing is used to download e-mail automatically, receive mail at the selected time and print it automatically. You can also set it to select the mail to be printed automatically depending on the sender and the subject of the e-mail.

Search E-mail by the sender and subject, and auto print

As soon as an E-mail is received, the printer prints it without your having to start the print operation. You can choose the mail you want to print by having the printer search by sender and subject.

Auto access at the selected time

You can check incoming e-mail by accessing the server at the time you set.

Several mail users can share a PC

Usually, it is difficult to share E-mail software on one PC with several people. But Automatic E-mail Printing supports multi-users, so several people can use their E-mail software on one PC.

You can keep the current E-mail software.

Even if you use Netscape or Microsoft Internet Mail, you can use Automatic E-mail Printing and get additional functions not supplied in the original e-mail software.

Software for network

◆ *BR-Admin Professional*

BRAdmin professional is a utility for managing your Brother network enabled printers, which runs on Windows 95/98/Me, Windows 2000 and Windows NT 4.0 and allows you to easily configure and check the status of your network enabled printer.

◆ *Storage Manager*

Brother Storage Manager software can manipulate the printer forms that you may have stored in the CompactFlash or 2.5" HDD.

You can print the fixed form document at any time by operating the Control panel.

To make the fixed document, you must write Fonts, Macros, or fixed forms to the Storage Device in your printer.

◆ *Analysis Tool Software*

By adding an HDD to the HL 3260 printer, you can gain a cost analysis capability.

Analysis Tool Software is a 32-bit Windows® application designed to manage important information about the print job, such as the username, job name, number of printed pages, etc. Using this software you can easily associate printing costs with users or groups of users.

◆ **Network Printer Driver Wizard**

Save time and effort by using the Brother Network Printer Driver Wizard software to automate the installation and configuration of Brother networked printers in a TCP/IP environment.

Use the Wizard to configure the printer TCP/IP settings and specify the Printer driver to be used. The Wizard can then create an Executable file which can be e-mailed to other network users. When run, the Executable file installs the appropriate printer driver and network printing software directly on the remote PC.

To access the Network Printer Driver Wizard, insert the CD-ROM supplied with the printer, click the Install Software icon and select the Network Printer Driver Wizard.

Software for Windows computers

You can install the Software from the supplied CD-ROM by following these simple steps:

- ☛ **1.** Insert the CD-ROM into the CD-ROM drive. The opening screen appears automatically.

If the screen does not appear, click Start and choose Run, enter the CD drive letter and type `START . EXE`.

- ☛ **2.** Select the LANGUAGE, and then follow the on-screen instructions, the printer driver will complete the installation.

Software for Macintosh computers (only via Network)

This printer supports Mac OS 8.0 and 9.0 versions.

❖ Apple LaserWriter 8 Driver

The Apple LaserWriter Driver may have been installed with your system software. It is also available at <http://www.apple.com>. LaserWriter 8 version 8.6 and 8.7 have been tested for use with the Brother HL-3260.

❖ PostScript Printer Description Files (PPDs)

PPDs, in combination with the Apple LaserWriter 8 Driver, access the printer features and allow the computer to communicate with the printer. An installation program for the PPDs (“BR-Script PPD Installer”) is provided on the CD-ROM supplied with your printer.

❖ *Installing the printer driver for Macintosh*

<For Network user>

1. Turn on your Macintosh computer. Insert the CD-ROM into the CD-ROM drive. The following Window will appear automatically.

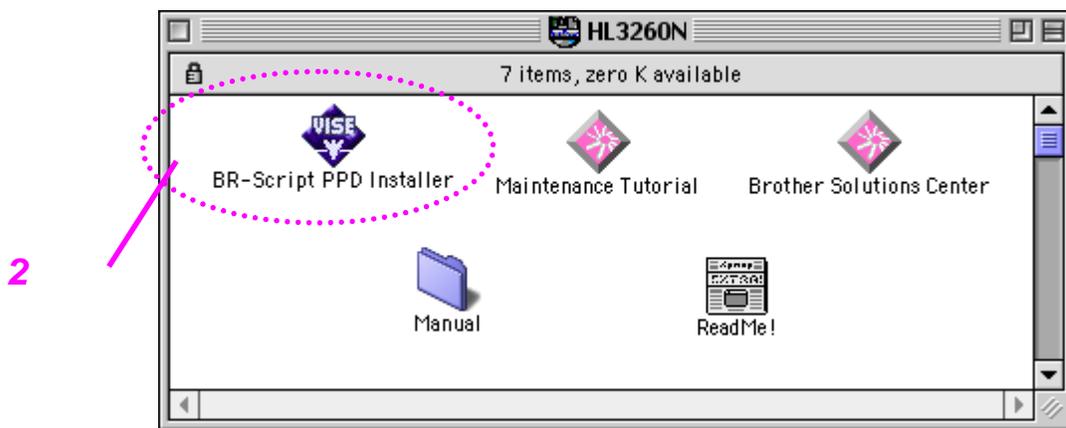


Fig. 2-11

2. To install the BR-Script PPD file, click this icon.
3. Set up the LaserWriter referring to the Network user's guide.

Automatic emulation selection

This printer has an Automatic emulation selection function. When the printer receives data from the computer, it automatically selects the emulation mode. This function has been factory set to ON.

The printer can select the emulation among the following combinations:

<i>EPSON (default)</i>	<i>IBM</i>
HP LaserJet	HP LaserJet
BR-Script 3	BR-Script 3
HP-GL	HP-GL
EPSON FX-850	IBM Proprinter XL

You can also select the emulation mode manually with the EMULATION menu in PRINT MENU mode by using the Control panel. [For more information, see Chapter 3.](#)

• Note

When you use the Automatic emulation selection, note the following:

- The EPSON or IBM emulation mode priority must be selected, as the printer cannot distinguish between them. Since the factory setting is the EPSON emulation mode, you might need to select the IBM emulation mode with EMULATION menu in SETUP mode by using the Control panel when you need to use this emulation.
 - Try this function with your application software or network server. If the function does not work properly, select the required emulation mode manually using the printer panel switches or use emulation selection commands from your software.
-

Automatic interface selection

This printer has an Automatic interface selection function. When the printer receives data from the computer, it automatically selects the interface as appropriate.

When you use the parallel interface, you can turn the high-speed and bi-directional parallel communications on or off with parallel menu in INTERFACE mode by using the Control panel. For further information, see Chapter 3. Since the automatic interface selection mode has been factory set to ON, simply connect the interface cable to the printer.

If a Network board (Brother NC-4100h) has been installed, Select NETWORK mode by using the Control panel

When necessary, select the interface or the network communications parameters manually with the INTERFACE mode by using the Control panel. For further information, see Chapter 3. For the settings on the computer, see the manual of the computer or software you are using.

◆ Note

When you use the Automatic interface selection, note the following:

- This function takes a few seconds to work. If you want to speed up printing, select the required interface manually with the SELECT menu in INTERFACE mode by using the Control panel.
-

If you constantly use only one interface, we recommend that you select that interface in the INTERFACE mode. The printer allocates all of the input buffer to that interface if only one interface is selected.

Printer settings

Factory settings

The printer settings have been set at the factory before shipment. They are called “Factory settings.” Although you can operate the printer with these factory settings unchanged, you can tailor the printer by making user settings. [Please see “List of Factory settings” in Chapter 3.](#)

◆ Note

Changing the user settings does not affect factory settings. You cannot modify the preset factory settings.

The changed user settings can be restored to the factory default settings with the RESET MENU mode. [For further information, see Chapter 3.](#)

CHAPTER 3

CONTROL PANEL

Control panel



Fig. 3-1

SWITCHES

You can control the basic printer operations and change various printer settings with 8 switches (**Go**, **Job Cancel**, **Secure Print**, **Reprint**, **+**, **-**, **Set**, **Back**). Functions available are shown above the panel switches.

Key		Function
Go		Exit from the Control panel menu, Reprint settings and Clear error messages. Pause / Continue printing.
Job Cancel		Stop and cancel the printer operation in progress.
Secure Print		Print secure documents.
Reprint		Select the Reprint menu.
Menu	+	Move forwards and backwards through Menus.
	-	Move forwards and backwards through selectable options.
	Set	Select the Control panel menu. Set the selected menu and setting values.
	Back	Go back one level in the menu structure.

GO switch

You can change from the current status (MENU, ERROR and REPRINT settings) by pressing the **Go** switch once. For ERROR indications, the panel will change only when it is possible to clear the error.

You can PAUSE printing with the **Go** switch during a print job. Pressing the **Go** switch again makes the print job restart and clears the PAUSE. During PAUSE, the printer is in the off-line state.

❖ Note

If you do not wish to print the remaining data when the printer is in PAUSE, you can cancel the job by pressing the **Job Cancel** switch before pressing the **Go** switch to clear the PAUSE.

JOB CANCEL switch

You can cancel the processing or printing of data with the **Job Cancel** switch.

When the printer is in any state except receiving data or printing, the display shows "NO DATA!!!" and you cannot cancel the job.

The display shows "JOB CANCELLING" until the print job been completely cancelled. After cancelling the job, the printer returns to the "READY" state.

SECURE PRINT switch

This function makes it possible to submit a print job to the printer and have that job print only when you interact with the printer via the front panel, or via a web browser. This functionality allows you to print secure data to be printed only while you are at the printer.

You can use the secure print function when the printer is READY or in the menu settings.

- ☛ 1. Press the **Secure Print** switch.
- ☛ 2. Select the user name, the job, password and the print copy quantity.
- ☛ 3. Press the **Set** or the **Secure Print** switch to start printing.

🔗 Notes

-
- The secure print function does not support off-line or paused printing.
 - When there is no secure data and you press the **Secure Print** switch, the LCD shows “NO DATA STORED” for a short time.
-

When you want to use the secure print function, refer to “Operations for printing SECURE data” in this chapter.

REPRINT switch

If you want to reprint a document that has just been printed, you can reprint it by pressing the **Reprint** switch. Also, if you have created a document that you wish to share with colleagues, simply spool the document to a non-secure area of the printer. This document can then be re-printed by anyone who is on the network or at the printer Control panel.

You can use the reprint function when the printer is `READY` or in the settings menu.

When you want to print `PROOF`, `PUBLIC` or `SECURE` data, we recommend installing the optional HDD or Compact Flash.

If you do not install an HDD ([See HDD in Chapter 4](#)) or Compact Flash Card ([see Compact Flash Card in Chapter 4](#)), you can reprint from RAM.

When you use RAM to reprint;

1. Press the **Set** switch on the Control panel to exit from the `READY` status and select `RAMDISK SIZE` in the `SETUP` mode.
2. The default RAM is `0MB`. Press the **+** switch to increase the reprint RAM size in `1MB` steps.

❖ Notes

-
- When you increase the RAM size to use for secure printing, the work area of the printer is decreased and the printer performance will reduce. Ensure that you reset the `RAMDISK SIZE` to `0MB` when you have finished using secure printing.
 - When you store the data in RAM, the data is deleted when the printer power is turned off.
-

We also recommend adding additional RAM when you want to secure print a large amount of data. ([See RAM expansion in Chapter 4](#))

❖ **Reprinting the Last JOB**

You can reprint the last print job data without sending it from the computer again.

❖ **Notes**

-
- When REPRINT is selected off on the panel and you press the **Reprint** switch, the LCD shows “NO DATA STORED” for a short time.
 - If you want to cancel reprinting, press the **Job Cancel** switch.
 - If the printer does not have enough memory to spool the print job data, it prints the last page only.
 - Pressing the – or + switch makes the number of reprint copies decrease or increase. You can select between COPIES= 1 and COPIES=999.
-

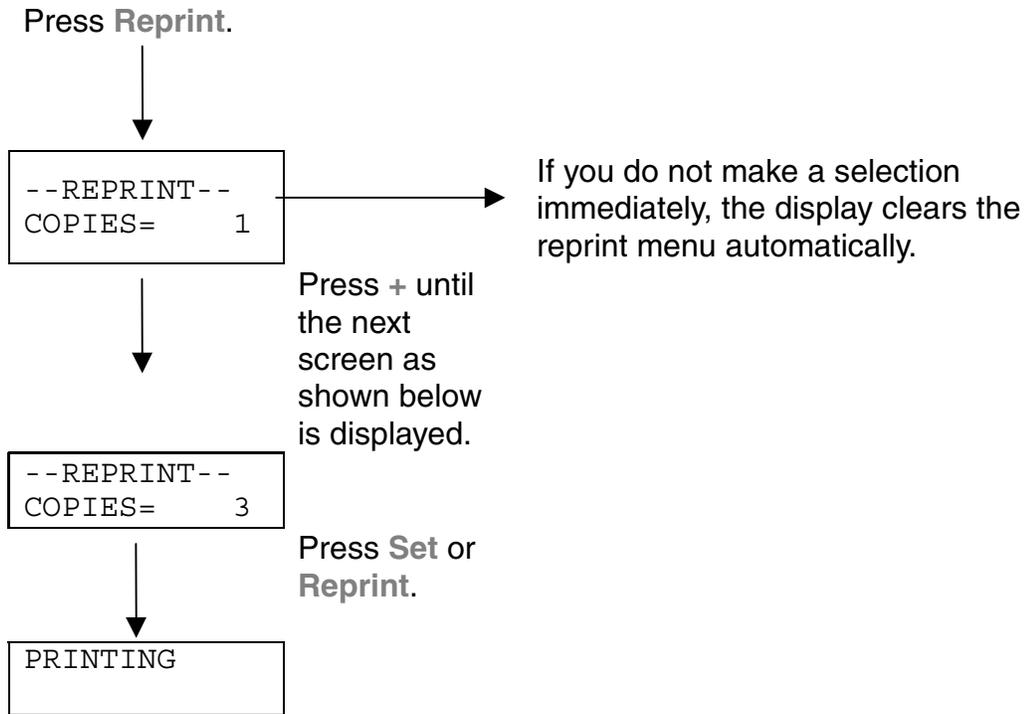
[Reprint the last JOB 3 times]

- 1. Set the reprint function ON in the Control panel settings.

Notes

If you print using this printer's own driver, the settings for Job Spooling in the printer driver will take priority over the settings made in the Control Panel. For more information, see "Job Spooling" in Chapter 2.

- 2. Press the **Reprint** switch.



Notes

If you want to reprint the data and have pressed the **Go** switch, the display shows "PRESS SET TO PRINT". Press the **Set** switch to start the reprint job or press the **Go** switch to cancel the reprint job.

❖ **Printing PROOF data**

You can use this function to reprint PROOF data that has just been printed and has no security settings. Documents that are placed in the PROOF area are available to anyone. This function can also be used if it is a document that will be moved over to the public folder at a later date.

When the area to spool data is full, the earliest data is automatically deleted first. The order of deleting data is not connected to the order of reprinting.

When you reprint PROOF data, refer also to “Operations for reprinting SECURE data” in this chapter.

◆ **Notes**

-
- If you have not installed the optional HDD or Compact Flash, the reprint data is deleted when off the printer is turned off.
 - If there is data in the job information which cannot be displayed on the LCD, the display shows “?”.
 - You can also reprint the job by using the supplied printer driver.
-

❖ **Printing PUBLIC data**

You can use this function to reprint documents stored in a PUBLIC area of the printer memory. Any documents here will not be password protected and anyone can access them using the Control panel or a web browser. The printer will not print a PUBLIC document when you send it to the printer. You must use the Control panel of the printer or connect to the printer through a web browser.

Public data can be deleted through the Control panel of the printer or from the web based management software.

When you reprint PUBLIC data, refer also to “Operations for reprinting SECURE data” in this chapter.

◆ **Notes**

- If there is data in the job information that cannot be displayed on the LCD, the display shows “?”.
 - You can also reprint the job by using the supplied printer driver.
-

❖ **Printing SECURE data**

Secure documents are password protected and only those people that know the password will be able to print the document. The printer will not print the document when you send it for printing, to print the document you must use the control panel of the printer or connect to the printer using a web browser.

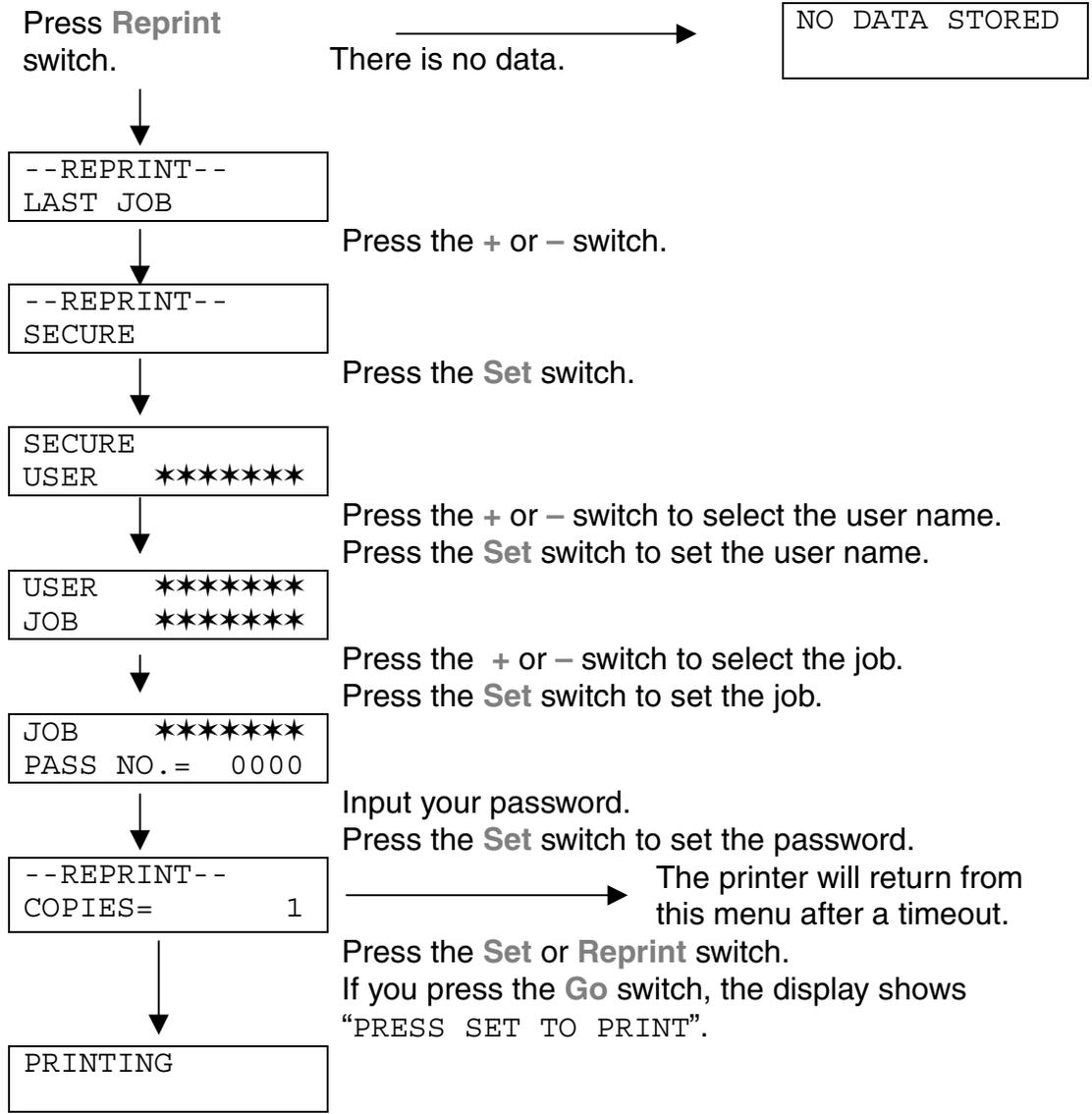
When you want to delete the spooled data, you can carry out this operation on the control panel or in the web based management software.

❖ **Notes**

-
- If there is data in the job information which cannot be displayed on the LCD, the display shows “?”.
 - You can also reprint the job by using the supplied printer driver.
-

For more information about the settings in the printer driver, see [“Job Spooling” in Chapter 2](#).

Operations for reprinting SECURE data



◆ ***When there is no reprint data in memory***

If the printer does not have reprint data in buffer memory and you press the **Reprint** switch, the LCD shows “NO DATA STORED” for a short time.

◆ ***To delete the job***

Select the ‘DELETE STORAGE’ menu under the SETUP menu of the Control panel. Select the user name and the job to delete (you need to input the password to delete secure data).

◆ ***To cancel the reprint job***

Press the **Job Cancel** to cancel the current reprinting job. The **Job Cancel** switch also allows you to cancel a reprint job which is paused by the **Go** switch.

+ , – Switch

When you press the + or – switch when the printer is the on-line state it goes off-line and the LCD goes to the menu.

❖ To display menus in the current mode

When you press the + or – switch when the printer is the on-line state, it goes off-line and the LCD displays the current mode.

You can enter other menus in the current mode by pressing the + or – switch. Pressing the + or – switch scrolls the menus and settings forward or backward respectively on the display. Press or keep pressing the switch until you access the desired item.

❖ To set numbers

When you want to set numbers, there are two ways to input numbers, either by scrolling up or down through the available setting range or by selecting the digit to change and the setting just that digit. When you keep the + or – switch pressed, the display scrolls up or down faster.

SET switch

When you press the **Set** switch when the printer is the on-line state, it turns off-line and the LCD goes to the menu display.

Pressing the **Set** switch allows you to set the selected menu or the default number. After changing the menu or the number, the asterisk mark appears on the right side for a short time.

BACK Switch

When you press the **Back** switch when the printer is the on-line state, it turns off-line and the LCD goes to the menu display.

Pressing the **Back** switch allows you to return to the previous level from the current menu level.

The **Back** switch also allows you to move the selected digit to the next left digit when you input numbers by digits.

When the most left digit is selected, the **Back** switch allows you to go up one level in the menu.

When a menu or number without an asterisk (**Set** switch not pressed) is selected, the **Back** switch allows you to return to the previous menu level with the original setting unchanged.

◆ **Notes**

When you press the **Set** switch to select a setting, an asterisk appears at the end of the display for a short time. Since the asterisk indicates the selection, you can easily find the current setting when you scroll through the display.

LEDs

The lamps light or blink to indicate the current printer status.

❖ **READY - Green LED**

LED indication	Meaning
On	Ready to print Printing
Blinking	Warming up
Off	Off-line

❖ **POWER - Green LED**

LED indication	Meaning
On	The printer power is on.
Off	The printer power is off.

❖ **ALARM - Red LED**

LED indication	Meaning
On	An error has occurred in the printer.

❖ **DATA - Green LED**

LED indication	Meaning
On	Data remains in the printer buffer.
Blinking	Receiving or processing data
Off	No remaining data

LCD MESSAGES

You can choose the messages to display on the second line on the LCD message as shown below.

Choose NONE/PAGE COUNTER/JOB NAME in the LOWER LCD menu of the SETUP mode.

READY

READY
PAGE = xxx

READY
JOB NAME

❖ **Printer status messages**

The following table shows the printer status messages that are displayed during normal operation:

Printer Status Message	Meaning
READY	The printer is ready to print.
PROCESSING	The printer is busy processing data.
SLEEP	The printer is in sleep (power save) mode.
PRINTING	The printer is printing.
SELF TEST	The printer is performing self-diagnosis.
PAUSE	The printer has suspended printing or feeding paper. Pressing the Go switch resumes printing/paper feeding.
NOW INITIALIZING	The printer is setting up.
WARMING UP	The printer is warming up.
MEMORY SIZE=xx MB	This printer has xx MB memory.
JOB CANCELLING	The printer is cancelling the job.
RESOLUTION ADAPT	Printing with reduced resolution.
PRESS SET TO PRINT	Press the Set switch to start printing.
RESET TO FACTORY SETTING	The printer settings have been restored to the factory settings.

❖ *How to use the control panel*

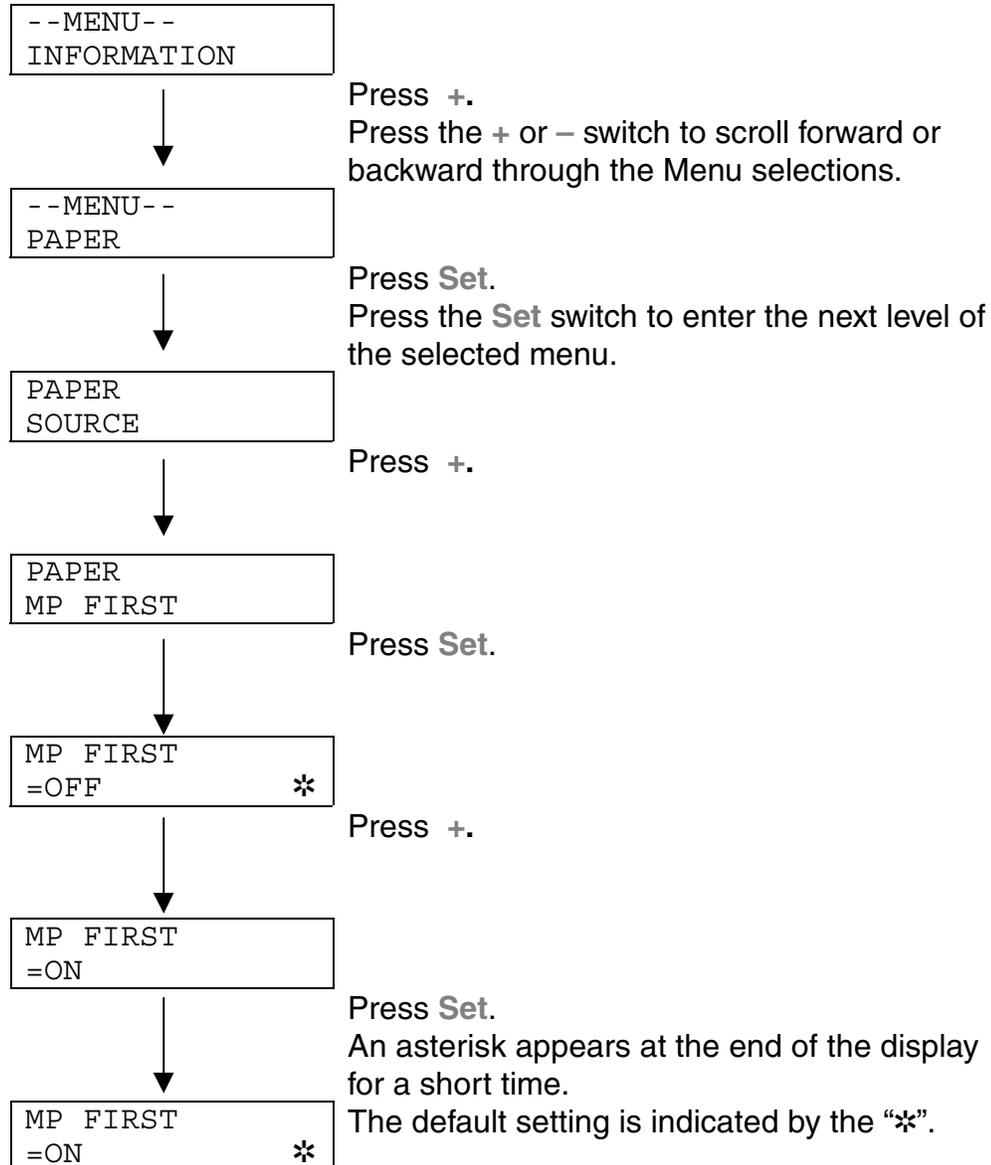
When you operate the **Menu** switches (+&-, **Set**, **Back**), remember the following basic steps:

- If you have made no selections in the **Menu** switch operation for 30 seconds, the LCD changes automatically from the reprint setting menu to **READY**. If the LCD shows **PAUSE**, it will not reset to **READY** in 30 seconds.
- When you press the **Set** switch to select a setting, an asterisk appears at the end of the display for a short time. After that, the display returns to the previous menu level.
- Pressing the **Back** switch before you press the **Set** switch after changing the status or a number, will return to the next previous menu level with the original settings unchanged.
- When you input numbers, you can do this by scrolling through the available setting range or by setting digits one by one. When setting digits one by one, the blinking digit is the rewritable digit.

[For example]

To select first priority feeding from the Multi-purpose tray.

- ☛ 1. Press any of the **Menu** switches to set the printer off-line.
- ☛ 2. The first mode menu appears on the display.



Menus

There are 8 modes. If you want to see more information about each mode, refer to the displays below.

INFORMATION

PAPER

QUALITY

SETUP

PRINT MENU

NETWORK

INTERFACE

RESET MENU

INFORMATION

Setting Menu	Description	
PRINT SETTINGS		
PRINT TEST	Print the test page.	
PRINT DEMO	Print the demonstration page.	
PRINT FILE LIST	Print the card / HDD list.	
PRINT FONTS	Print the list of internal or resident fonts.	
	Sub-Setting Menu	Description
VERSION	SER.NO	=##### Printer serial number.
	ROM VER	=### ROM firmware version
	ROM DATA	=##/##/## ROM date
	NET VER	=### Network firmware version
	NET DATE	##/##/## Network date
	RAM SIZE	=###MB The memory size which is installed this printer.
MAINTENANCE	PAGE COUNTER	=##### The current total printed pages.
	REMAIN DRUM	=##### Remaining drum life
	REMAIN 120K KIT	=##### Remaining 120K Kit Life

PAPER

Setting Menu	Description
SOURCE	=AUTO/MP TRAY/TRAY1/TRAY2/TRAY3/TRAY4
MP FIRST	=OFF/ON Load paper from the MP tray first.
MP SIZE	=A4/LETTER/LEGAL/.... Loaded paper size in the MP tray, A4/Letter/Legal/...
MANUAL FEED	=OFF/ON
TRAY1 * SIZE	= A3/B4/LEDGER/A4/B5/A5/LETTER/LEGAL/EXECUTIVE
TRAY2 * SIZE	= A3/B4/LEDGER/A4/B5/A5/LETTER/LEGAL/EXECUTIVE/ENVELOPES
TRAY3 * SIZE	= A3/B4/LEDGER/A4/B5/A5/LETTER/LEGAL/EXECUTIVE
TRAY4 * SIZE	= A3/B4/LEDGER/A4/B5/A5/LETTER/LEGAL/EXECUTIVE
DUPLEX	=OFF/ON(LONG BIND)/ON(SHORT BIND)
OUTPUT	=STANDARD/FINISHER/MAILBOX xx/MX STACK/MX SORT
JOB OFFSET	=ON/OFF

QUALITY

Setting Menu	Description
RESOLUTION	=300/600 You can choose a resolution of 300 or 600 dpi.
HRC	=ON/OFF HRC: High Resolution Control offers improved print quality of characters and graphics that conventional laser printers cannot attain with a resolution of 300 or 600 dpi.
TONER SAVE	=OFF/ON
DENSITY	=-2: 2 Increase or decrease the print density.

SETUP

Setting Menu	Description
LANGUAGE	=ENGLISH/FRANCAIS/...
LOWER LCD	=NONE/PAGE COUNTER/JOB NAME
POWER SAVE	=ON/OFF
POWER SAVE TIME	=1: 240 Min.
AUTO CONTINUE	=OFF/ON
LOCK PANEL	=OFF/ON Turn on/off lock panel function. PASS NO. =###
REPRINT	=ON/OFF
PAGE PROTECTION	= AUTO/ OFF/ LETTER/ A4/ LEGAL
EMULATION	=AUTO(EPSON)/AUTO(IBM)/HP LASERJET/...
KEEP PCL	=OFF/ON
RAMDISK SIZE	=0/1/2...MB RESTART?
DELETE STORAGE	Delete the data in compact Flash or HDD.
	Sub-Setting Menu
SECURE FILE	USER NAME JOB NAME/PASSWORD
PUBLIC FILE	USER NAME JOB NAME
PROOF FILE	USER NAME JOB NAME
	Description
DATA ID (HD)	=#####
DATA ID (CF)	=#####
MACRO ID (HD)	=#####
MACRO ID (CF)	=#####
FONT ID (HD)	=#####
FONT ID (CF)	=#####
FORMAT ID (HD)	OK?
FORMAT ID (CF)	OK?
TIME STYLE	=yy/mm/dd, mm/dd/yy, dd/mm/yy

Setting Menu		Description
	Sub-Setting Menu	Description
DATE & TIME	DISPLAY	????/??/?? ??:??
	YEAR	=####
	MONTH	=##
	DAY	=##
	HOUR	=##
	MINUTE	=##

PRINT MENU

Setting Menu		Description
MEDIATYPE	=PLAIN PAPER/TRANSPARENCIES/THICK PAPER	
PAPER	Set cut sheet paper size to LETTER, LEGAL, A4, A5, A6, B5, B6, EXECUTIVE, COM10, MONARCH, C5 and DL	
COPIES	=1:999 You can set the number of copies to print. Shows the number of copies still to print.	
ORIENTATION	PORTRAIT or LANDSCAPE This printer can print pages in portrait or landscape orientation.	
PRINT POSITION	This printer can be adjusted to align the page format.	
	Sub-Setting Menu	Description
	X OFFSET= 0	Move the print start position (at the upper left corner on pages) horizontally up to -500 (up) to +500 (down) dots in 300dpi dot unit increments.
Y OFFSET= 0	Move the print start position (at the upper left corner on pages) vertically up to -500 (up) to +500 (down) dots in 300dpi dot unit increments.	
AUTO FF=OFF	=OFF/1: 99 (sec) Allows you to print out the remaining data without pressing the Go switch after the selected delay time.	
FF SUPPRESS	=OFF/ON Turn on/off the form feed suppress function.	

Setting Menu		Description
	Sub-Setting Menu	Description
HP LASERJET	FONT NO.	=#####
	FONT PITCH/POINT	=#####
	SYMBOL/CHARACTER SET	=PC-8/... Set the symbol set or the character set.
	TABLE PRINT	Print code table.
	AUTO LF	=OFF/ON ON : CR→CR+LF, OFF : CR→CR
	AUTO CR	=OFF/ON ON : LF→LF+CR, FF→FF+CR, or VT→VT + CR OFF : LF→LF, FF→FF, or VT→VT
	AUTO WRAP	=OFF/ON line feed and carriage return occur when the printer position reaches the right margin.
	AUTO SKIP	=ON/OFF line feed and carriage return occur when the printer position reaches the bottom margin.
	LEFT MARGIN	=##### Set the left margin at column 0 to 126 columns at 10 cpi.
	RIGHT MARGIN	=##### Set the right margin at column 10 to 136 columns at 10 cpi.
	TOP MARGIN	=##### Set the top margin at a distance from the top edge of the paper: 0, 0.33, 0.5, 1.0, 1.5, or 2.0" Factory setting = 0.33 (Non-HP), 0.5 (HP)
	BOTTOM MARGIN	=##### Set the bottom margin at a distance from the bottom edge of the paper: 0, 0.33, 0.5, 1.0, 1.5, or 2.0" Factory setting = 0.33 (Non-HP), 0.5 (HP)
	LINES	=##### Set the number of lines per page from 5 to 128 lines.

Setting Menu		Description
	Sub-Setting Menu	Description
EPSON FX-850	FONT NO.	=#####
	FONT PITCH/POINT	=####
	SYMBOL/CHARACTER SET	=PC-8/... Set the symbol set or the character set.
	TABLE PRINT	Print code table.
	AUTO LF	=OFF/ON
		ON : CR→CR+LF, OFF : CR→CR
	AUTO MASK	=OFF/ON
	LEFT MARGIN	=#### Set the left margin at column 0 to 126 columns at 10 cpi.
	RIGHT MARGIN	=#### Set the right margin at column 10 to 136 columns at 10 cpi.
	TOP MARGIN	=#### Set the top margin at a distance from the top edge of the paper: 0, 0.33, 0.5, 1.0, 1.5, or 2.0" Factory setting = 0.33 (Non-HP), 0.5 (HP)
BOTTOM MARGIN	=#### Set the bottom margin at a distance from the bottom edge of the paper: 0, 0.33, 0.5, 1.0, 1.5, or 2.0" Factory setting = 0.33 (Non-HP), 0.5 (HP)	
LINES	=#### Set the number of lines per page from 5 to 128 lines.	

Setting Menu		Description
	Sub-Setting Menu	Description
IBM PROPRINTER	FONT NO.	=#####
	FONT PITCH/POINT	=####
	SYMBOL/CHARACTER SET	=PC-8/... Set the symbol set or the character set.
	TABLE PRINT	Print code table.
	AUTO LF	=OFF/ON ON : CR→CR+LF, OFF : CR→CR
	AUTO CR	=OFF/ON
	AUTO MASK	=OFF/ON
	LEFT MARGIN	Set the left margin at column 0 to 126 columns at 10 cpi.
	RIGHT MARGIN	Set the right margin at column 10 to 136 columns at 10 cpi.
	TOP MARGIN	Set the top margin at a distance from the top edge of the paper: 0, 0.33, 0.5, 1.0, 1.5, or 2.0" Factory setting = 0.33 (Non-HP), 0.5 (HP)
	BOTTOM MARGIN	Set the bottom margin at a distance from the bottom edge of the paper: 0, 0.33, 0.5, 1.0, 1.5, or 2.0" Factory setting = 0.33 (Non-HP), 0.5 (HP)
	LINES	Set the number of lines per page from 5 to 128 lines.
HP-GL	PAPER	Set cut sheet paper size to LETTER, LEGAL, A4, A5, A6, B5, B6, EXECUTIVE, COM10, MONARCH, C5 and DL
	CHARACTER SET(STD)	=#####
	CHARACTER SET(ALT)	=#####
	PEN # SIZE	=##dots PEN1 to 6 (Set size and gray percentage for the selected pen.)
	PEN # GRAY	=###% PEN1 to 6 15, 30, 45, 75, 90, or 100% (# is the selected pen number.)
BR-SCRIPT	ERROR PRINT	=OFF/ON

NETWORK

Setting Menu	Description	
	Sub-Setting Menu	Description
TCP/IP	TCP/IP ENABLE	=ON/OFF
	IP ADDRESS =	###.###.###.###
	SUBNET MASK =	###.###.###.###
	GATEWAY =	###.###.###.###
	IP BOOT TRIES	=#
	IP METHOD	=AUTO/STATIC/RARP/BOOTP/DHCP
NETWARE	NETWARE ENABLE	=ON/OFF
	NET FRAME	=AUTO/8023/ENET/8022/SNAP
APPLETALK	=ON/OFF	
NETBEUI	=ON/OFF	
DLC/LLC	=ON/OFF	
BANYAN	=ON/OFF	
LAT	=ON/OFF	
NETBIOS/IP	=ON/OFF	
ENET	=AUTO/100B-FD/100B-HD/10B-FD/10B/HD	

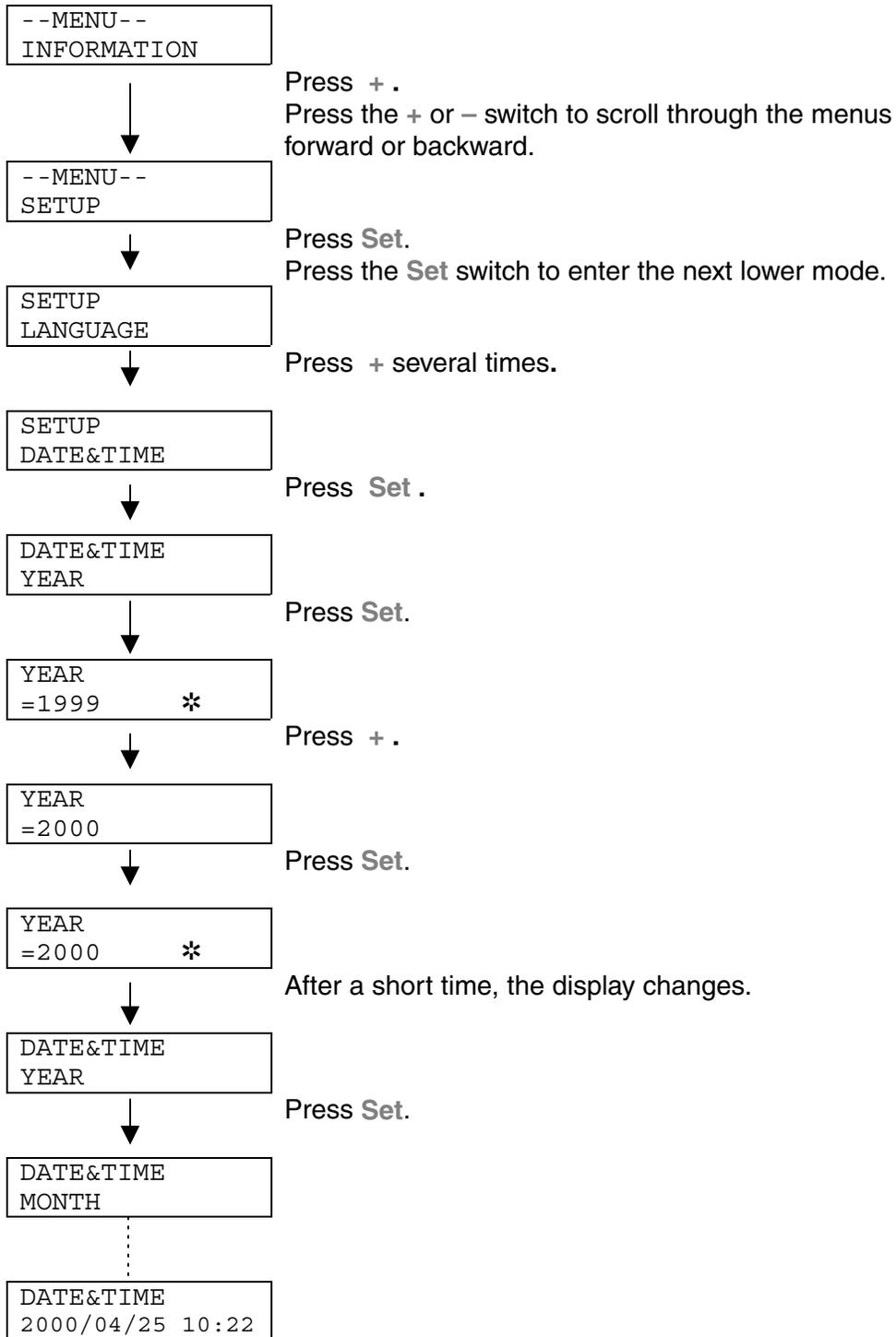
INTERFACE

Setting Menu	Description	
SELECT	=AUTO/PARALLEL/NETWORK	
AUTO IF TIME	=1:99 (sec) Set the time out for the auto interface selection delay.	
INPUT BUFFER	=Level 1:15 Increase or decrease the input buffer capacity.	RESTART PRINTER?
PARALLEL	When using the parallel interface	
	Sub-Setting Menu	Description
	HIGH SPEED	Turns ON/OFF the high speed parallel communications.
BI-DIR	Turns ON/OFF the bi-directional parallel communications.	

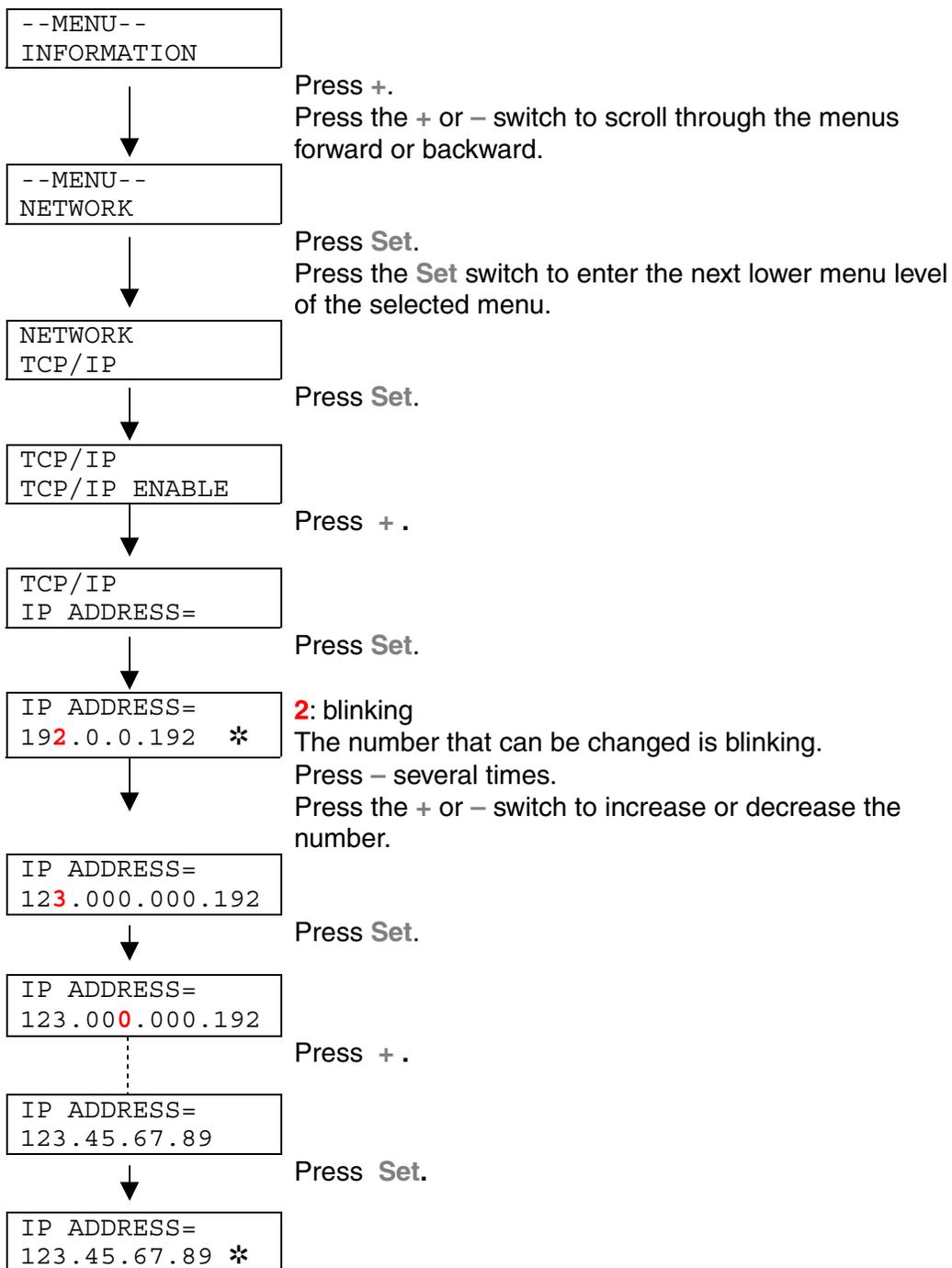
RESET MENU

Setting Menu	Description
RESET PRINTER	Resets the printer and restores all printer settings – including command settings – to settings you have previously made with the panel buttons.
FACTORY RESET	Resets the printer and restores all printer settings – including command settings – to the factory settings. See “List of Factory Settings”.

❖ Set date and time



❖ Set IP address



❖ **About emulation modes**

This printer has the following emulation modes:

■ HP LaserJet Mode

The HP LaserJet mode (or HP mode) is the emulation mode where this printer emulates the Hewlett-Packard LaserJet laser printer. A large number of software applications support this type of laser printer. Using this mode will allow your printer to operate at its optimum performance with these applications.

■ BR-Script 3 Mode

BR-Script is a Brother original page description language and it is a PostScript® language emulation interpreter. This printer supports level 3. The BR-Script interpreter of this printer can control text and graphics on pages completely and satisfactorily.

If you want to obtain technical information about PostScript commands, see the following commercial manuals:

- Adobe Systems Incorporated. *PostScript Language Reference Manual, 3rd Edition*. Menlo Park: Addison-Wesley Publishing Company, Inc., 1999.
- Adobe Systems Incorporated. *PostScript Language Program Design*. Menlo Park: Addison-Wesley Publishing Company, Inc., 1988.
- Adobe Systems Incorporated. *PostScript Language Reference Manual*. Menlo Park: Addison-Wesley Publishing Company, Inc., 1985.
- Adobe Systems Incorporated. *PostScript Language Tutorial and Cookbook*. Menlo Park: Addison-Wesley Publishing Company, Inc., 1985.
- Adobe Systems Incorporated. *PostScript Language Reference Manual, third Edition*. Addison-Wesley Longman, Inc., 1999.

■ HP-GL Mode

The HP-GL mode is the emulation mode where this printer emulates the Hewlett-Packard plotter model HP-7475A. Many graphics and CAD applications support this type of plotter. Use this mode for optimum performance when printing from these types of applications

■ EPSON FX-850 and IBM Proprinter XL Mode

The EPSON FX-850 and IBM Proprinter XL modes are the emulation modes that this printer emulates to meet the industry-standard for dot matrix printers of their respective manufacturers. Some applications support these dot matrix printer emulations. Use these emulation modes for optimum performance when printing from those types of applications.

❖ List of Factory settings

The following table shows the factory settings initially set before shipment.

❖ Notes

- The settings are subject to the emulation mode. Effective modes are indicated in parentheses in the following table.
- The following settings cannot be restored to the factory settings with the RESET menu in the "FACTORY SETTINGS" mode: INTERFACE MODE, HRC SETTING, PAGE PROTECTION, SCALABLE FONT, LOCK PANEL, PAGE COUNTER and local language for display messages.
- The COPY setting is always restored to the factory setting when the printer is turned off and on again.
- It is not possible to reset NETWORK settings from the Control panel. If you need to reset the Network card, press the Test button on the rear of the Network board (NC-4100h) more than 5 seconds.

MODE	MENU	Factory Setting
PAPER	SOURCE	=AUTO
	MP FIRST	=OFF
	MP SIZE	=A4/LETTER
	MANUAL FEED	=OFF
	TRAY1 * SIZE	=A4/LETTER
	TRAY2 * SIZE	=A4/LETTER
	TRAY3 * SIZE	=A4/LETTER
	TRAY4 * SIZE	=A4/LETTER
	DUPLEX	=OFF
	OUTPUT	=STANDARD
JOB OFFSET	=ON	
QUALITY	RESOLUTION	=600
	HRC	=ON
	TONER SAVE	=OFF
	DENSITY	=0
SETUP	LOWER LCD	=NONE
	POWER SAVE	=30M
	AUTO CONTINUE	=OFF
	LOCK PANEL	=OFF
	REPRINT	=ON
	EMULATION	=AUTO(EPSON)
	KEEP PCL	=OFF

MODE	MENU	Factory Setting	
PRINT MENU	MEDIATYPE	=PLAIN PAPER	
	PAPER	=A4/LETTER	
	COPIES	=1	
	ORIENTATION	=PORTRAIT	
	PRINT POSITION	X OFFSET=0 Y OFFSET=0	
	AUTO FF TIME	=5	
	FF SUPPRESS	=OFF	
	HP LASERJET	FONT NO.	
		FONT PITCH/POINT	
		SYMBOL CHARACTER SET	
		TABLE PRINT	
		AUTO LF=OFF	
		AUTO CR=OFF	
		AUTO WRAP=OFF	
		AUTO SKIP=ON	
		LEFT MARGIN	
		RIGHT MARGIN	
		TOP MARGIN	
		BOTTOM MARGIN	
		LINES	
	EPSON FX-850	FONT NO.	
		FONT PITCH/POINT	
		SYMBOL CHARACTER SET	
		TABLE PRINT	
		AUTO LF=OFF	
		AUTO MASK=OFF	
		LEFT MARGIN	
RIGHT MARGIN			
TOP MARGIN			
BOTTOM MARGIN			
LINES			

MODE	MENU	Factory Setting
	IBM PROPRINTER	FONT NO.
		FONT PITCH/POINT
		SYMBOL CHARACTER SET
		TABLE PRINT
		AUTO LF=OFF
		AUTO CR=OFF
		AUTO MASK=OFF
		LEFT MARGIN
		RIGHT MARGIN
		TOP MARGIN
		BOTTOM MARGIN
	LINES	
	HP-GL	CHAR SET(STD)
		CHAR SET(ALT)
		PEN * SIZE=## DOTS
PEN * GRAY=## #%		
BR-SCRIPT	ERROR PRINT=OFF	
	APT=OFF	
NETWORK	TCP/IP	TCP/IP ENABLE=ON
		IP METHOD=AUTO
	NETWARE	NETWARE ENABLE=ON
		NET FRAME=AUTO
	APPLETALK	=ON
	NETBEUI	=ON
	DLC/LLC	=ON
	BANYAN	=ON
	LAT	=ON
	NETBIOS/IP	=ON
ENET	=AUTO	

CHAPTER 4

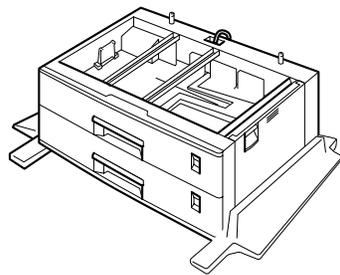
OPTIONS

Optional Accessories

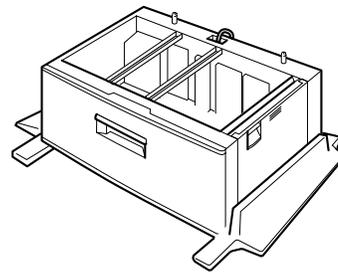
This printer has the following optional accessories. You can increase the printer's capability with these items:

◆ Options

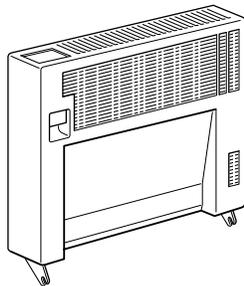
A	500x2 sheets paper tray	LT-5100
B	2000 sheets paper tray	LT-5200
C	Duplex unit	DX-5000
D	Multi-purpose tray	MP-5000
E	Finisher/Stapler	FS-5050
F	Bridge Unit	BU-5000
G	Mail Box	MX-5000
H	Interchange unit	SP-5000
I	Hard Disk Drive	HD-6G/HD-EX



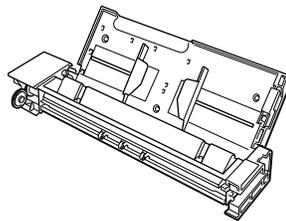
A



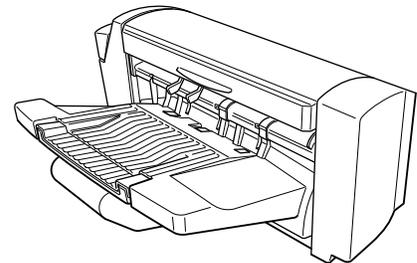
B



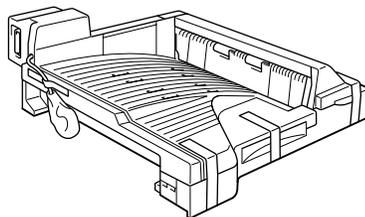
C



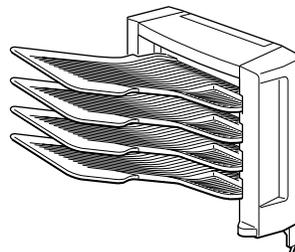
D



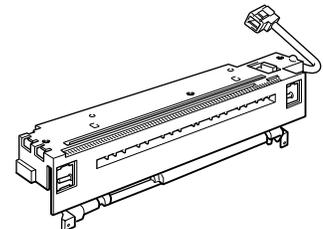
E



F



G



H

Fig. 4-1

Installing Options

⚠ Caution

- Before installing options, the machine should be turned off and unplugged for at least thirty minutes. Components inside the machine become very hot, and can cause a burn injury if touched.
 - Before moving the machine, unplug the power cord from the outlet. Pulling the power cord can cause damage. Damaged plugs or cords can cause an electrical or fire hazard.
 - When lifting the machine, use the handholds on both sides of the printer to prevent damage to the machine or injury.
-

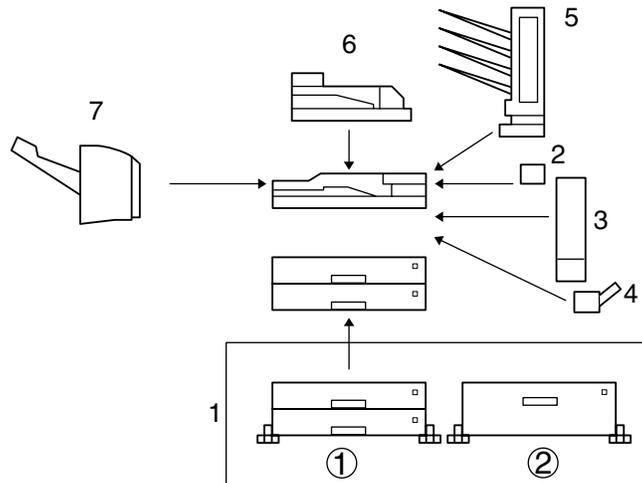


Fig. 4-2

◆ Note

Rating voltage of the connector for options: max. DC 24V.

Option Installation Sequence

When you install options, they should be installed in the sequence described below.

<p>☛ 1. Installing Lower paper tray (LT-5100 or LT-5200)</p>	<p>There are two types of paper trays: A 500x2 sheets paper tray (LT-5100) and a 2000 sheets paper tray (LT-5200) Only one of them can be installed at any time. See “Installing the Lower paper tray” in this chapter.</p>
<p>☛ 2. Installing Interchange unit (SP-5000)</p>	<p>The Interchange unit is used for Duplex printing or Mailbox operation. If you intend to install a Duplex unit or Mailbox, an Interchange unit must be installed first. See “Installing the Interchange unit” in this chapter.</p>
<p>☛ 3. Installing Duplex unit (DX-5000)</p>	<p>Install the Duplex Unit on the right hand side of the printer, after installing the Interchange Unit. See “Installing the Duplex unit” in this chapter.</p>
<p>☛ 4. Installing Multi-purpose tray (MP-5000)</p>	<p>Install the Multi-purpose tray on the right hand side of the printer. See “Installing the Multi-purpose tray” in this chapter.</p>
<p>☛ 5. Installing Mailbox (MX-5000)</p>	<p>Install the Mailbox on top of the Interchange Unit after installing the Interchange unit. See “Installing the Mailbox” in this chapter.</p>
<p>☛ 6. Installing Bridge Unit (BU-5000)</p>	<p>Install the Bridge unit on the standard output tray. See “Installing the Bridge Unit” in this chapter.</p>
<p>☛ 7. Installing Finisher/Stapler (FS- 5050)</p>	<p>Install the Finisher/Stapler after installing the Interchange unit. See “Installing the Finisher/Stapler” in this chapter.</p>

◆ Notes

- If you want to install a Finisher/Stapler (FS-5050), a Bridge unit (BU-5000) is required.
- If you want to install a Mailbox unit (MX-5000) or Duplex unit (DX-5000), an Interchange unit (SP-5000) is required.
- If you install the optional lower tray (LT-5100 or LT-5200), only one of them can be installed at any time.

Lower Tray Unit (LT-5100, LT-5200)

A lower tray unit expands the paper source capacity. You can load extra paper and switch between the upper and lower paper sources automatically. There are two types of paper feed units that are described below. LT-5100 can be loaded with 500 x 2 sheets. LT-5200 can be loaded with 2000 sheets.

Installing the Lower paper tray



Warning

- Be careful not to trip on legs of the optional Lower tray unit.
-



Caution

- Before installing options, the machine should be turned off and unplugged for at least thirty minutes. Components inside the machine become very hot, and can cause a burn injury if touched.
 - When lifting the machine, use the hand holds on both sides of the printer. The machine could be damaged cause an injury if dropped. It is dangerous to handle the plug with wet hands. Doing this may result in receiving an electric shock.
 - Before moving the machine, unplug the power cord from the outlet. If the cord is unplugged abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.
-

Place the printer on the paper feed unit and fasten the screws that secure the printer and the paper feed unit together. There are two types of paper feed units that are described below. Only one of them can be installed at any time.

- 500x2 sheets paper tray (LT-5100)
With this option, you can load 500 x 2 sheets.
- 2000 sheets paper tray (LT-5200)
With this option, you can load 2000 sheets.

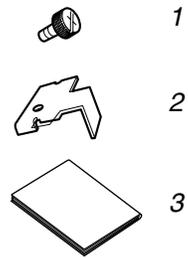
The installation of the LT-5200 is described below.

⇒ Note

If you want to change the paper size of the LT-5200, contact your sales or service representative.

☛ 1.

Confirm that the box also contains the following items.



ZAE380E

Fig. 4-3

1. Screws (4 pieces)
2. Securing brackets (2 pieces)
3. Installation Guide

•❖ Note

Tray number seal is only included with the printer.

2. Turn off the printer, and remove all cables and the power cord from the printer.
3. Remove the adhesive tape and the packing materials.

❖ **Note**

Remove the adhesive tape fixing the cable to the paper feed unit after positioning the printer.

[LT-5100]

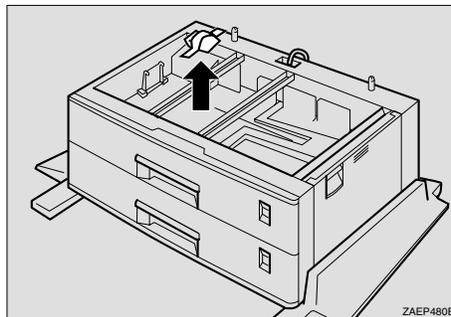


Fig. 4-4

[LT-5200]

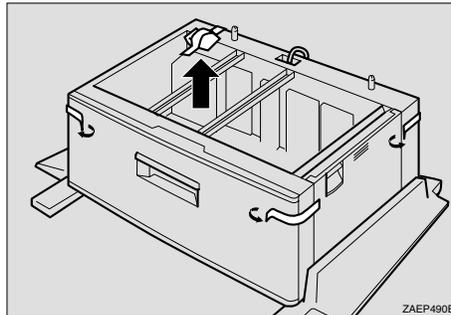


Fig. 4-5

4. Slide out the four handles on both sides of the printer.

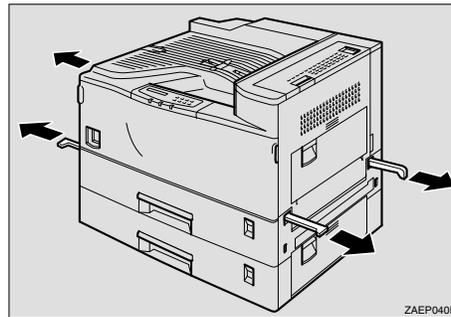


Fig. 4-6

5. Holding the handles, lift the printer and align the front faces of the printer and the paper feed unit, then place the printer onto the paper feed unit.

⇒ **Note**

- When lifting the printer, pull out the grips from the front of the printer. Hold the grips at the front, and hold the inset grips at the rear. The printer should be lifted by at least two people.

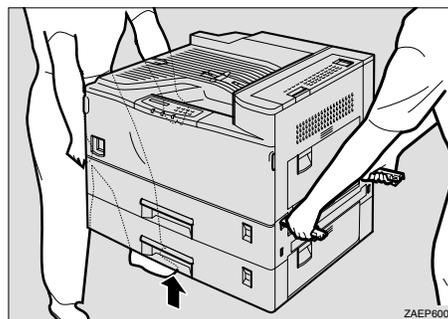


Fig. 4-7

- Do not trap the harness between the back of the paper feed unit and the printer.

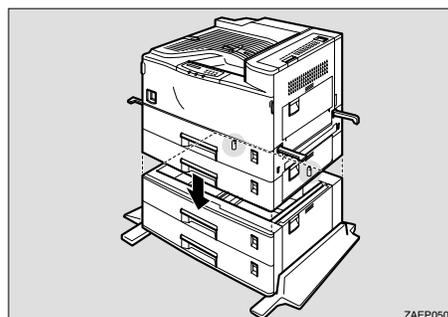


Fig. 4-8

6. Return the handles that were pulled out in step 4 to their original position.

7. Slide Paper tray 2 out until it stops. Lift the front of the tray and then pull it out completely.

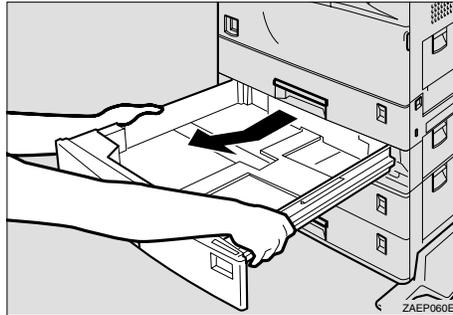


Fig. 4-9

8. Use a coin to fasten the two screws that secure the paper feed unit and the printer.

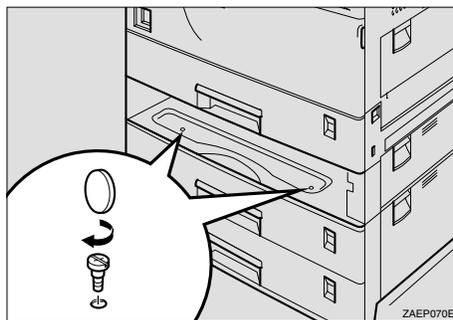


Fig. 4-10

9. Refit Paper tray 2.

10. Attach the two securing brackets on the back of the printer and the paper feed unit, and fasten the screws using a coin.

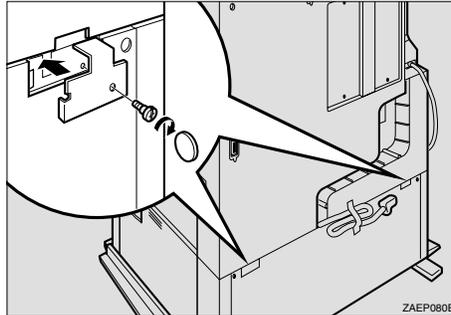


Fig. 4-11

11. Remove the adhesive tape holding the cable and connect the harness to the back of the printer.

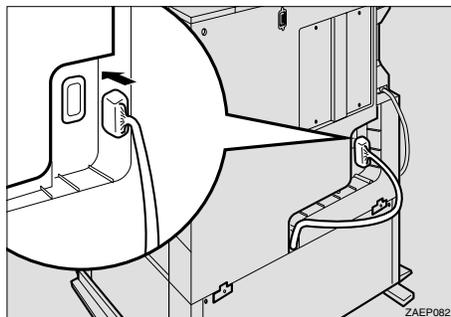


Fig. 4-12

12. Push the cable of the connected harness into the groove provided until it stops.

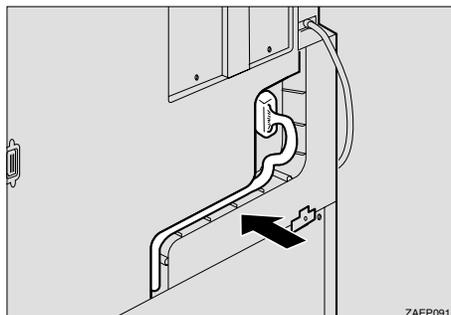


Fig. 4-13

- ☛ **13.** Attach cover 1 ① and secure it to the printer with the screws ②.

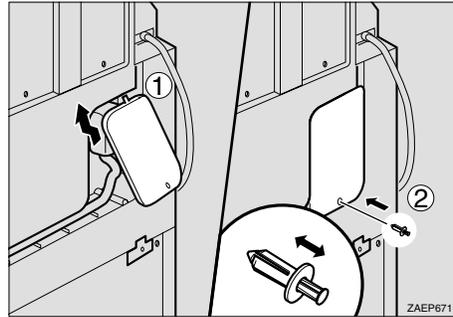


Fig. 4-14

↔ **Note**

Insert the fastener into the hole after ensuring that the center push-in peg is pulled out from the fastener as shown in the illustration.

- ☛ **14.** Attach cover 2 and secure cover 2 to the printer with the two screws.

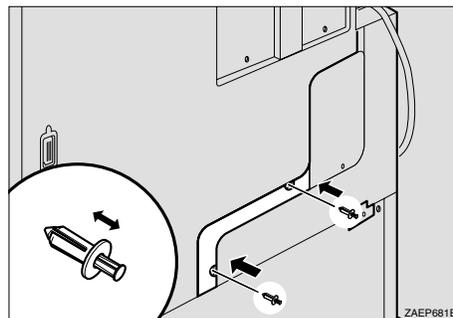


Fig. 4-15

- ☛ **15.** Turn the adjuster at the center bottom of the paper feed unit clockwise until it touches the floor.

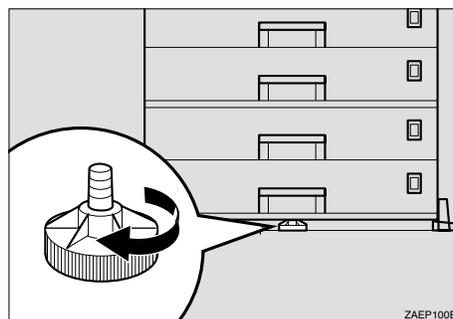


Fig. 4-16

- ☛ **16.** Fit the tray number seal directly below the paper size display on the front of the paper feed tray.

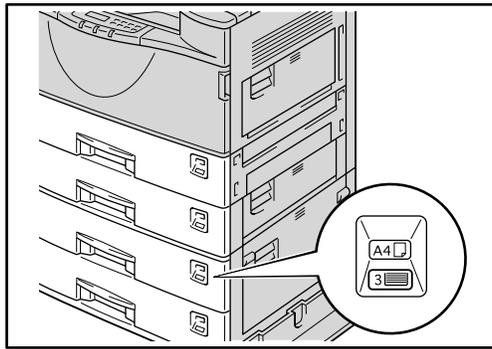


Fig. 4-17

☛ **Note**

-
- Use the tray number seal included with the printer.
-

Loading Paper into the Lower tray unit

This section describes instructions for loading paper in the optional paper feed unit LT-5100 and LT-5200. For supply of the optional lower tray unit, consult the dealer where you purchased the printer.

The paper sizes available for the lower paper tray are not the same as for the upper paper tray as shown below.

Paper Source	Media capacity	Media Sizes	Media Types and Weights
500x2 Sheets Paper Tray (LT-5100)	500 x 2 sheets	A3,  JIS B4, Ledger, A4,  ISO B5,  A5, Legal, Letter,  Executive	Plain paper 60 – 105 g/m ² (16-28 LB)
2000 Sheets Paper Tray (LT-5200)	2000 sheets	 A4 or  Letter	Plain paper 60 – 105 g/m ² (16-28 lb)

Note

If you set a paper size marked with an  in the table above, set the dial in the paper tray to the “*” position and set the paper size on the Control Panel. (For more information about the Control Panel, see [Menus in Chapter 3](#)).

With the lower tray unit installed, load paper into the lower paper tray in the same way as you do the upper paper tray.

See “Loading paper in the standard paper tray” in Chapter 1.

Setting the Media from the Printer Driver

See “Setting the Media from the Printer Driver” in Chapter 1.

Interchange Unit (SP-5000)

With this option, printouts are sent to the Duplex unit or Mailbox.

Installing the Interchange unit

- ☛ **1.** Confirm that the box also contains the following items.
 - Installation Guide
- ☛ **2.** Turn off the printer, and remove all cables and power cords from the printer.
- ☛ **3.** Remove the adhesive tape and the packing materials.

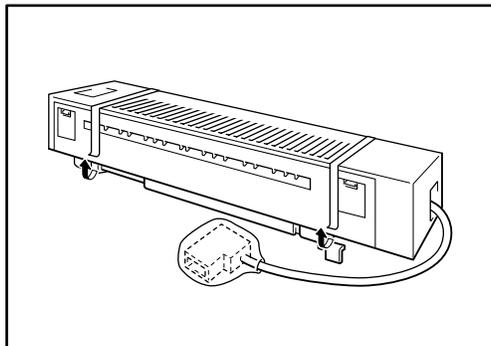


Fig. 4-18

- ☛ **4.** Open the right cover of the printer by lifting the catch.

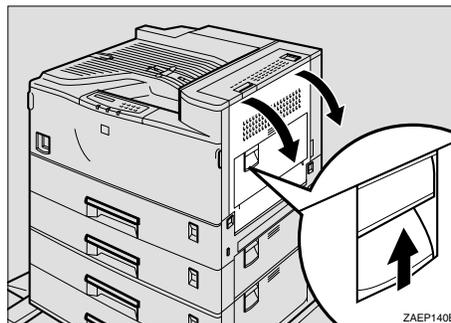


Fig. 4-19

5. Open the upper right cover by lifting the handle.

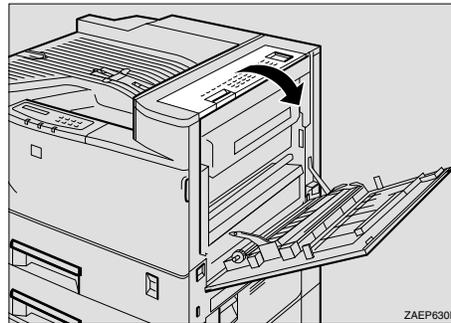


Fig. 4-20

6. Press the upper right cover in the direction as shown in the illustration (①), and remove the upper right cover (②).

• Note

The upper right cover is no longer required but should be kept safely if you want to remove the Interchange unit in the future.

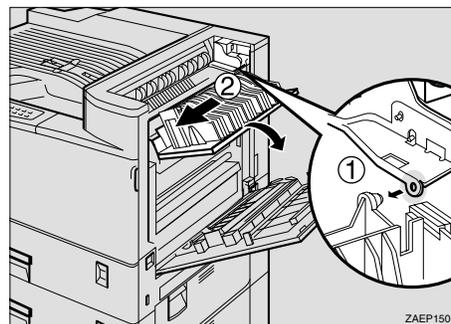


Fig. 4-21

7. Use a coin to remove the screw from the upper cover of the printer.

Note

The removed screw is no longer required but should be kept safely if you want to remove the Interchange unit in the future.

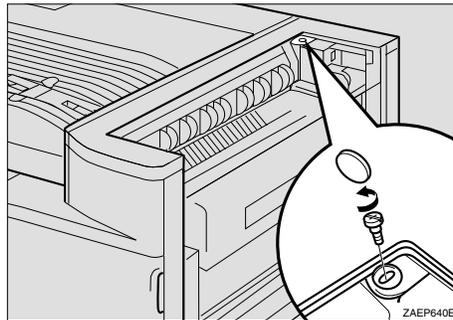


Fig. 4-22

8. Put your fingers inside the upper cover of the printer and remove the cover by pulling it upwards.

Note

The upper cover of the printer is no longer required but should be kept safely if you want to remove the Interchange unit in the future.

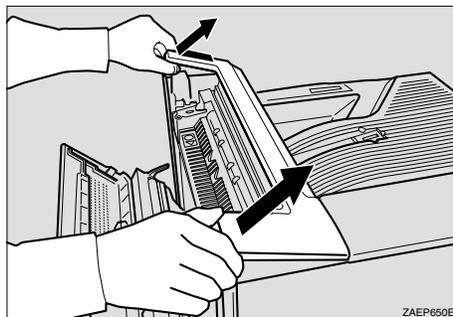


Fig. 4-23

9. Remove the interchange unit cover from the interchange unit.

Note

The removed cover is required in Step 15.

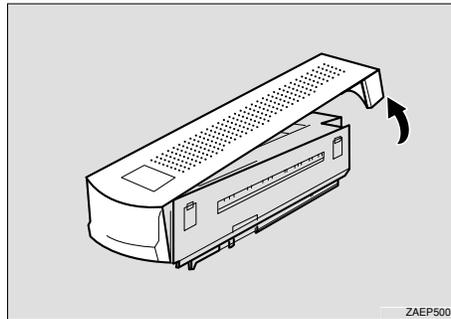


Fig. 4-24

10. Position the cable towards the back of the printer. Place the interchange unit onto the printer as shown in the illustration.

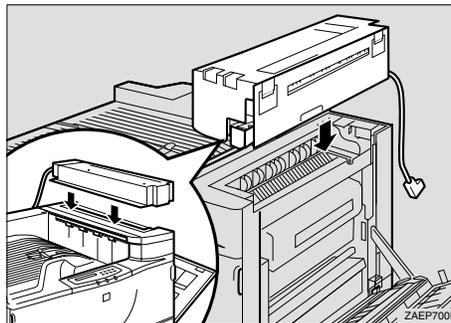


Fig. 4-25

- ☛ **11.** Open the upper right cover (①) of the Interchange unit and slide the Interchange unit to the left while keeping the Upper cover right perpendicular to the printer (②). Confirm that the projection (③) locates in the hole as shown in the illustration.

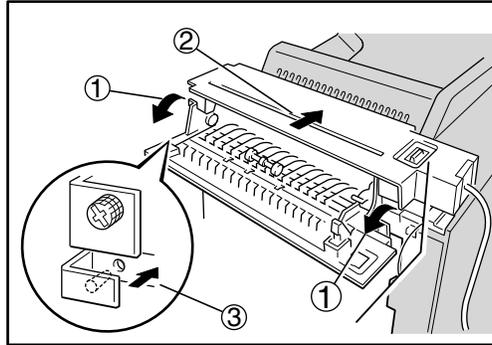


Fig. 4-26

- ☛ **12.** Fasten the two screws finger tight and secure the Interchange unit to the printer. Use a coin to tighten the screws.

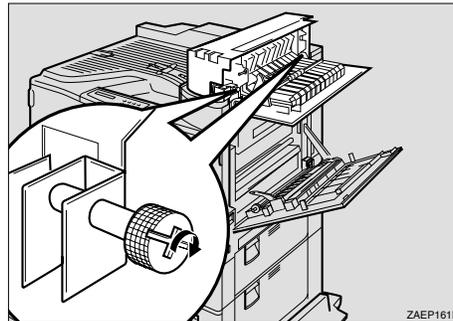


Fig. 4-27

- ☛ **13.** Close the Upper right cover of the Interchange unit.

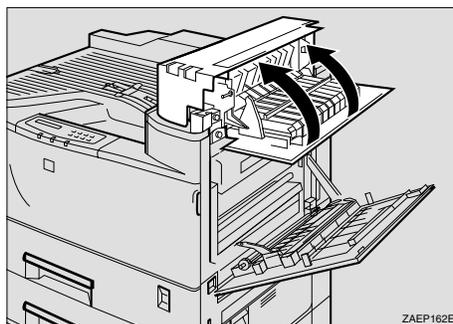


Fig. 4-28

- ☛ **14.** Close the Right cover by pushing the area as shown in the illustration.

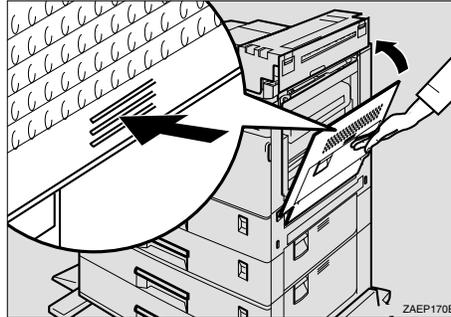


Fig. 4-29

- ☛ **15.** If a mailbox unit is not to be installed, attach the Interchange unit cover that was removed in step 9. Attach the side of the cover facing the front of the printer first (①) and then the other side of the cover (②).

↔ **Note**

To attach the mailbox, go to Installing the Mailbox, Step 6.

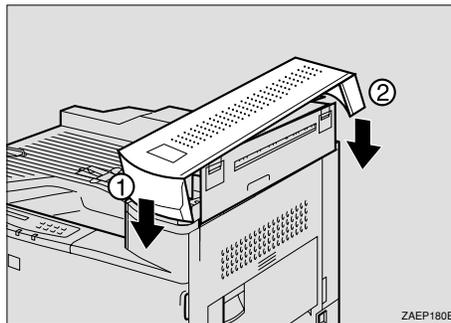


Fig. 4-30

- ☛ **16.** Attach the connector of the Interchange unit to the socket on the back of the printer as shown in the illustration.

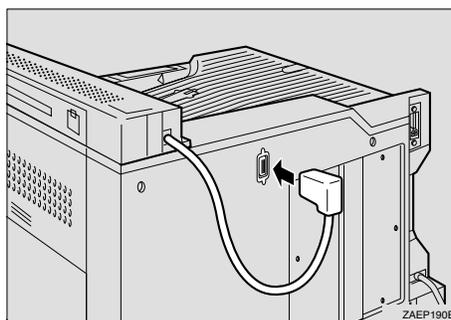


Fig. 4-31

Duplex unit (DX-5000)

After installing the Interchange unit, install the Duplex unit on the right hand side of the printer.

The Duplex unit is an optional device that allows printing on both sides of pages. When it is installed, you can select either duplex printing or simplex printing from the Control panel or the printer driver. [For more information about the control panel, see “Control Panel” in Chapter 3.](#)

If you want to duplex print, it is necessary to increase the installed RAM depending on the data you want to print. If the printer cannot manage all the data for duplex printing at 600 dpi resolution, it will automatically switch to simplex printing or decrease the resolution from 300 or 600 dpi to a lower resolution.

Installing the Duplex Unit

The installation procedure for the Duplex unit when the Multi-purpose tray unit is not yet installed is described below.

If the Multi-purpose tray unit is already installed, perform Steps 8 to 10 of “Installing the Multi-purpose tray” and skip Steps 5 to 8 below.

❖ Note

To install the duplex unit, the interchange unit must be installed first.

1. Confirm that the box also contains the following items.

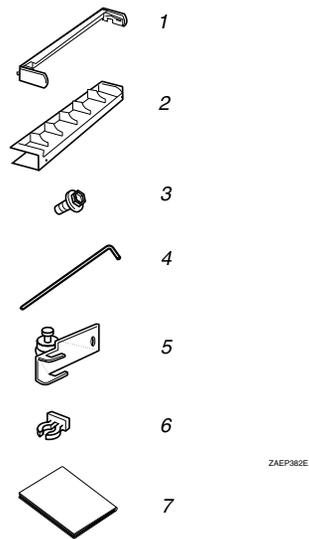


Fig. 4-32

1. Holder
2. Cover of the holder
3. Socket screws (3 pieces)
4. Allen Key
5. Hook
6. Hook holder
7. Installation Guide

2. Turn off the printer, and remove all cables and the power cord from the printer.
3. Remove the adhesive tape and the packing materials.

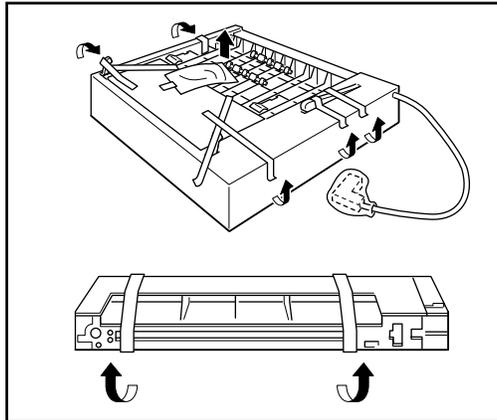


Fig. 4-33

4. Remove the two small covers from the top right hand side of the Interchange unit.

Note

The removed small covers are no longer required.

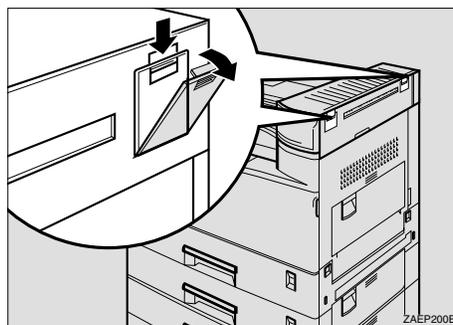


Fig. 4-34

5. Use a coin to remove the two screws on the right hand side of the printer.

• Note

The removed screws are no longer required.

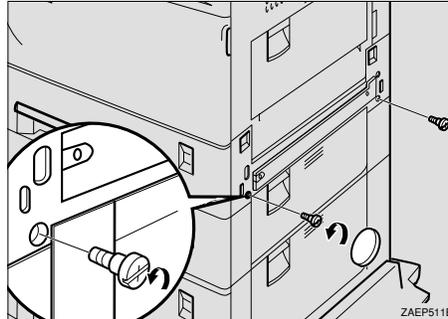


Fig. 4-35

6. Use the Allen Key to remove the two screws from the cover on the right hand side of the printer and remove the cover.

• Note

The removed screws and cover are no longer required.

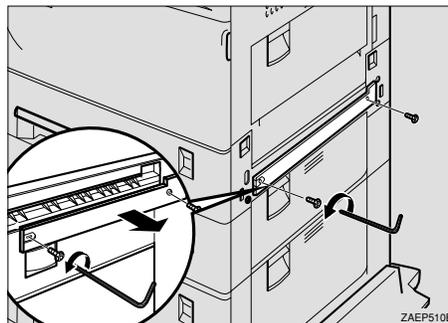


Fig. 4-36

7. Fit the brackets of the holder into the slots on the side of the printer and push downwards slightly.

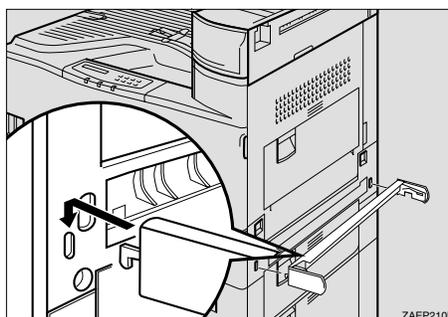


Fig. 4-37

8. Use the Allen Key to fasten the four socket screws in the order shown in the illustration (①-④) to secure the holder to the printer.

• Note

The order to fasten the screws is, top right, top left, bottom right and bottom left as viewed from the right hand side of the printer. If the screws are not fastened in that order, the duplex unit might not close completely or the Multi-purpose tray might not work correctly.

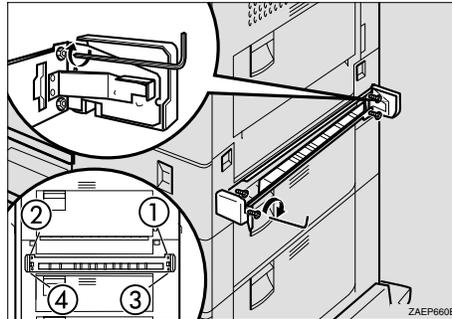


Fig. 4-38

9. Remove the small cover on the right hand side of the printer.

• Note

The removed small cover is no longer required.

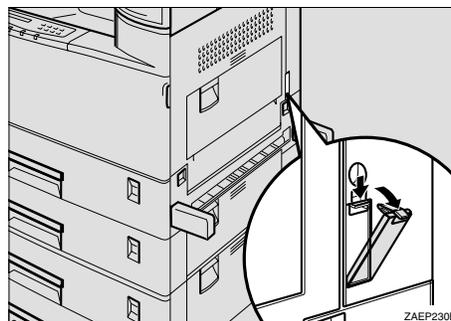


Fig. 4-39

- **10.** Fit the brackets of the hook into the holes inside the cover that was removed in Step 9. Use the Allen Key to fasten the screw to secure the hook to the printer.

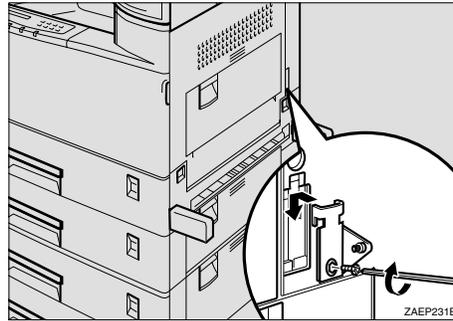


Fig. 4-40

- **11.** Lower the duplex unit so that the groove in each arm of the unit locates onto the pin inside the holder as shown in the illustration.

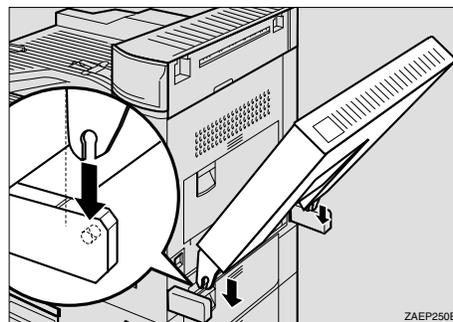


Fig. 4-41

- **12.** Locate the hole in the support bar of the duplex unit onto the pin on the hook that was attached in Step 10 (①), and secure the bar by attaching the hook holder to the joint (②).

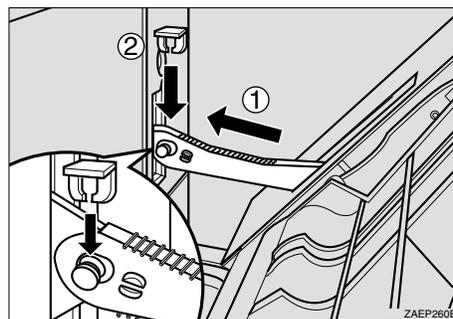


Fig. 4-42

☛ **13.** Close the duplex unit.

❖ **Note**

If the duplex unit will not close completely, the holder was not installed correctly in Steps 7 and 8. Fasten the socket screws securely in the order described in Step 8.

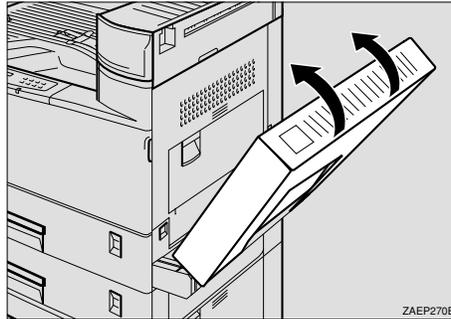


Fig. 4-43

☛ **14.** Attach the connector of the duplex unit to the socket.

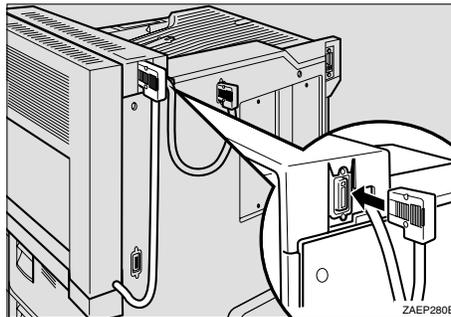


Fig. 4-44

- ☛ **15.** If the Multi-purpose tray is not attached, attach the cover of the holder. Use the Allen key to fasten the two screws in the order as shown in the illustration to secure the cover to the holder.

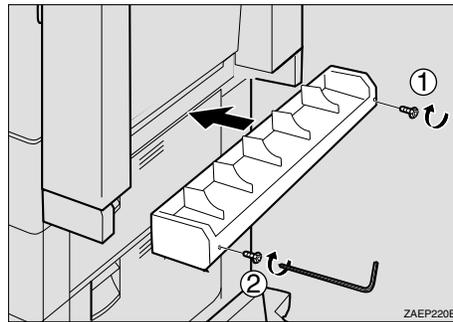


Fig. 4-45

☛ **Note**

-
- When attaching the Multi-purpose tray, the cover of the holder is not required.
 - Keep the Allen Key in the housing inside the front cover.

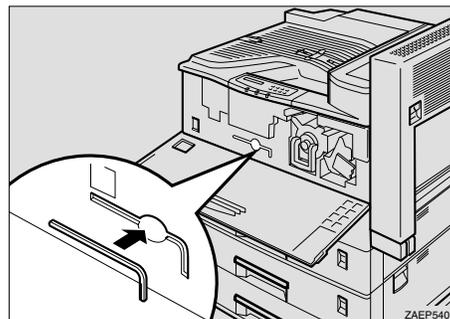


Fig. 4-46

◆ **Paper sizes for Duplex printing**

Paper Source	Media Sizes	Media Types and Weights
Duplex Unit (DX-5000)	A3, JIS B4, Ledger, A4, ISO B5, A5, Legal, Letter, Executive	Plain paper 60 – 105 g/m ² (16-28 lb)

◆ **Note**

- The Duplex unit can handle cut sheet paper of the sizes shown above [Weight = 60 to 105 g/m² (16 to 28 lb)].
- When the Duplex unit is installed, legal size paper cannot be loaded into the standard paper tray with the standard paper guide. Be sure to replace it with the duplex paper guide for both simplex and duplex printing.
- When the printer automatically reduces the resolution to 300 dpi, the display temporarily shows “RESOLUTION ADAPT” during printing.

Multi-purpose tray (MP-5000)

With this option, you can print on paper that is custom size or on thicker types of paper. You can load up to 100 sheets of plain paper.

Manual Feed

When you set paper in the Multi-purpose tray with the setting `MANUAL FEED=ON` selected in PAPER mode, the printer loads paper first from the Multi-purpose tray regardless of the previous feeder selection. You can set the paper feed operation in PAPER mode and set the paper size in PAPER mode. [For further information, see “Control Panel” in Chapter 3.](#)

⇒ Note

When you feed paper manually, note the following:

- If your application software supports a manual feed selection in the print menu, you can select it through the software.
-

Installing the Multi-purpose tray

The installation procedure for installing the Multi-purpose tray when the Duplex unit is not yet installed is described below.

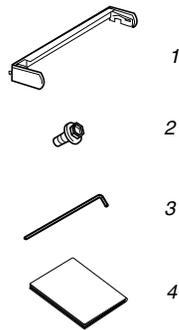
If the Duplex unit is already installed, remove the holder cover [referring to “Installing the Duplex unit” section 15.](#)

⇒ Note

-
- If you want to install the Duplex unit and the Multi-purpose tray, the duplex unit must be installed first.
 - If the Duplex unit is already installed, perform steps 1 to 3 and then go to step 8.
-

☛ 1.

Confirm that the box also contains the following items.



ZAEP430E

Fig. 4-47

1. Holder
2. Socket screws (2pieces)
3. Allen key
4. Installation Guide

☛ 2.

Turn off the printer, and remove all cables and the power cord from the printer.

3. Remove the adhesive tape and the packing materials.

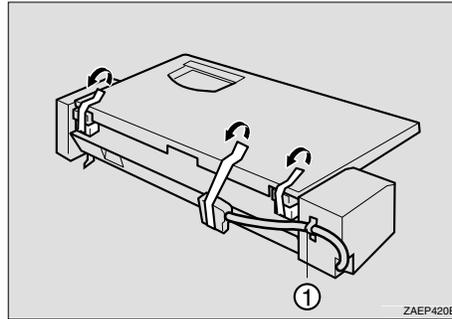


Fig. 4-48

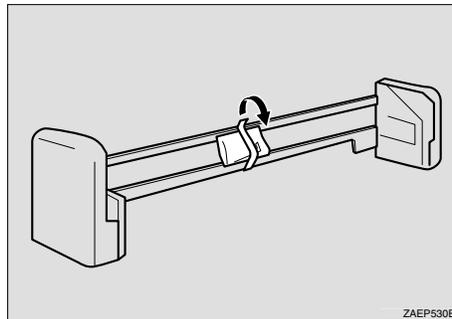


Fig. 4-49

⇒ **Note**

If the Duplex unit is already installed, the holder is no longer required. Go to step 8.

4. Use a coin to remove the two screws from the right hand side of the printer.

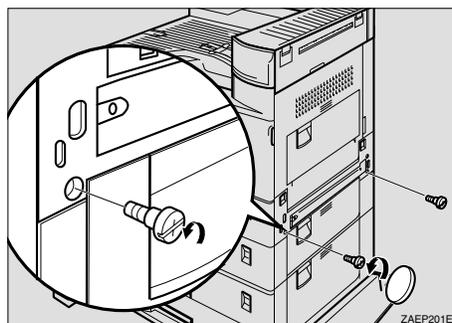


Fig. 4-50

5. Remove the two screws holding the cover on the right hand side of the printer using the Allen key and remove the cover.

❖ **Note**

The two removed screws and the cover are no longer required.

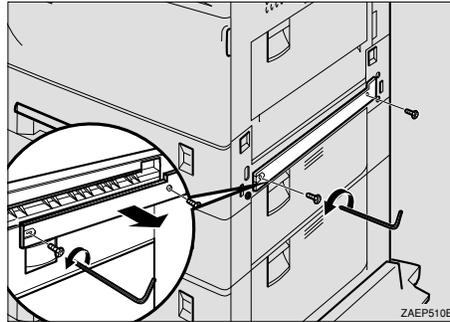


Fig. 4-51

6. Fit the brackets of the holder into the slots in the printer and push downward slightly.

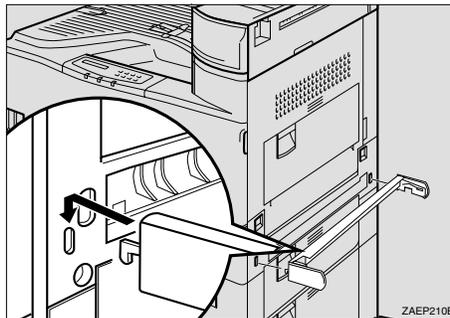


Fig. 4-52

7. Use the Allen key to fasten the four screws in the order shown in the illustration (①-④) to secure the holder to the printer.

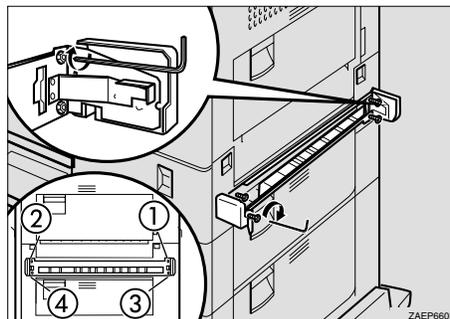


Fig. 4-53

• Note

The order to fasten the screws is, top right, top left, bottom right and bottom left as viewed from the right hand side of the printer. If the screws are not fastened in that order, the Duplex unit may not close completely or the Multi-purpose tray may not work correctly.

8. If the Duplex unit is not installed, skip this step and go to step 9. If the Duplex unit is installed, the plastic edges on each side of the unit must be removed. The edges are held in place by four small posts. Twist the edges to break the posts and remove them from the unit.

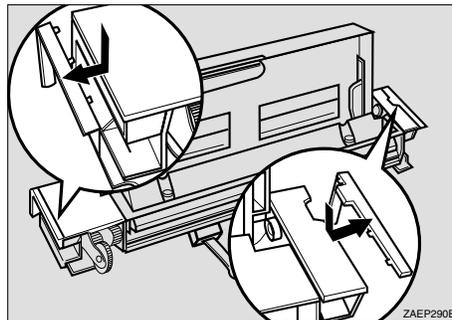


Fig. 4-54

9. Slide the Multi-purpose tray into the printer by aligning the grooves of the right and left sides of the Multi-purpose tray onto the rails inside the holder.

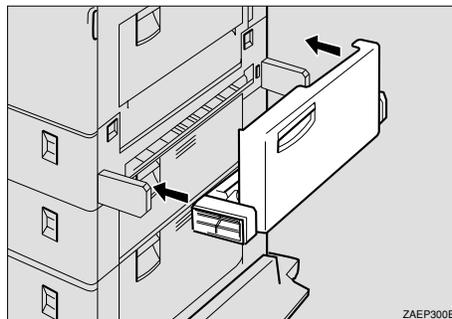


Fig. 4-55

10. Use the Allen key to fasten the 2 screws to secure the Multi-purpose tray to the holder. Fasten the screws in the order shown in the illustration. (①→②)

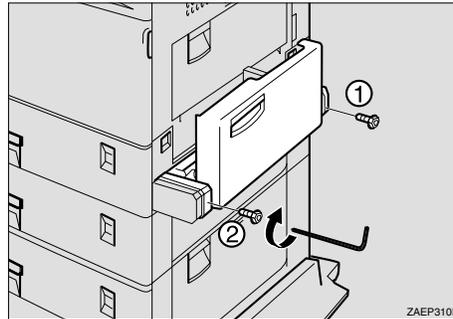


Fig. 4-56

11. Remove the adhesive tape holding the Multi-purpose tray and cable, and attach the connector to the socket on the bottom left hand side of the back of the printer.

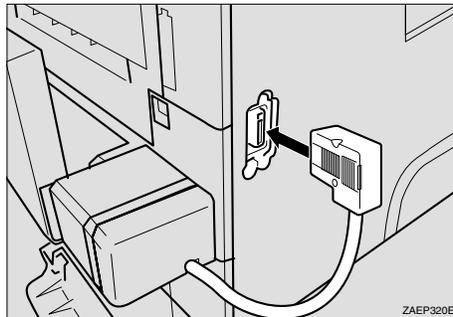


Fig. 4-57

❖ **Note**

- Keep the Allen key in the housing inside the front cover. Only one Allen key can be kept in the housing.

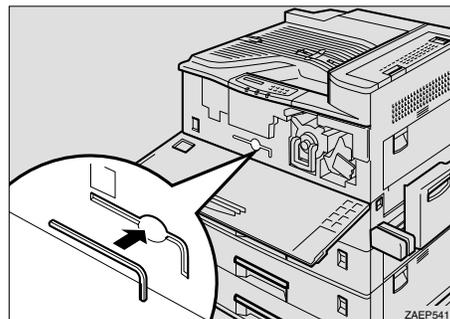


Fig. 4-58

Loading paper on the Multi-purpose tray

Paper Source	Media capacity	Media Sizes	Media Types and Weights
Multi-purpose Tray (MP-5000)	100 sheets	Custom Size: 90-297 x 148-432mm (3.54-11.69 x 5.83-17.01)	Plain paper, Thick paper, Transparencies 60 – 157 g/m ² (16-42 lb)

❖ Note

-
- Set the required custom paper size from either the printer driver or the Control panel. [For more information on using the Control panel, see “Control Panel” in Chapter 3.](#)
 - If you load Thick paper or Envelopes, set the printer to the “Thick paper” mode using the printer driver.
 - If you load Transparencies, set the printer to the “Transparencies” mode using the printer driver.
 - [For more information on setting from the Printer driver, see “Setting the Media from the Printer driver” in Chapter 1.](#)
-

❖ Note

-
- The following functions are not available when using the Multi-purpose tray.
- DX-5000
 - MX-5000
 - FS-5050
-

1. Open the Multi-purpose tray.

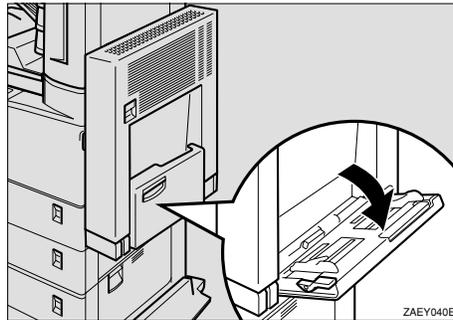


Fig. 4-59

⇒ **Note**

-
- If the paper guides do not match the paper size, image skew or a paper misfeed may occur.
 - Swing out the paper support extender when using paper sizes longer than A4 short-edge feed (220-240V models) or Letter 8½"X11" short-edge feed (110-120V models).
-

2. Lift the paper guide lever.

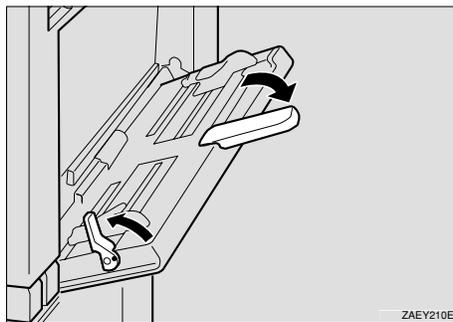


Fig. 4-60

3. Load the paper and adjust the paper guides to the sides of the paper.

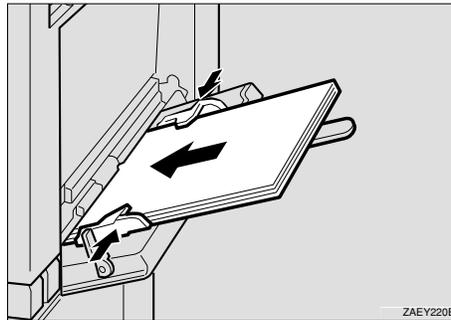


Fig. 4-61

Note

When you place paper on the Multi-purpose tray, note the following:

- Do not stack paper over the limit mark, otherwise image skew or paper misfeeds might occur.
 - When you set custom size or thick paper on the Multi-purpose tray, do not stack paper above the lower limit mark of the Multi-purpose tray.
 - Shuffle the paper before setting it in the tray.
 - Check the print side of Transparencies. Some Transparencies can only be printed on the specified side.
-

- ☛ 4. Push down the paper guide lever.

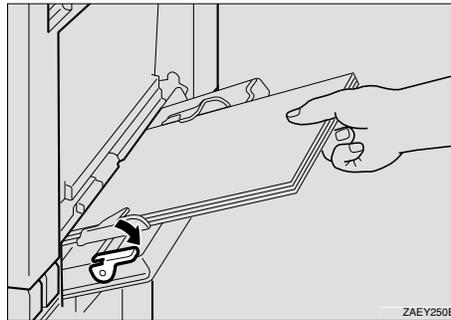


Fig. 4-62

☛ **Note**

If the paper guide lever is not pushed down, paper misfeeds may occur.

- ☛ 5. Turn on the printer.

- ☛ 6. Configure the paper feed unit direction and the paper size.

☛ **Note**

The paper size specified with the printer driver overrides the one specified here.

Mailbox unit (MX-5000)

With this option, printed pages can be sent to four output trays. After installing the Interchange unit, install the Mailbox on the top of the Interchange unit.

The Mailbox unit is an optional device that is installed onto the this laser printer that allows you to direct your printouts to any bin that you have specified.

Installing the Mailbox

Warning

When lifting the machine, use the hand holds on both sides of the printer. If dropped, the machine could be damaged or cause an injury

Note

-
- To install the mailbox, the Interchange unit must be installed first.
 - If you install the Mailbox and the Lower tray unit, it is recommended that the Lower tray unit is installed first.
-

-  **1.** Confirm that the box also contains the following items.

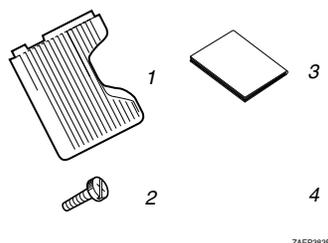


Fig. 4-63

1. Mailbox output trays (4 pieces)
2. Screws (2 pieces)
3. Installation Guide
4. Output tray number seal

2. Turn off the printer, and remove all cables and the power cord from the printer.

3. Remove the adhesive tape.

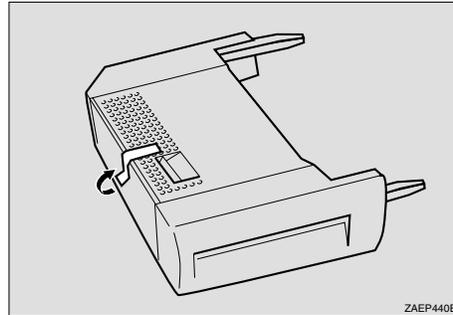


Fig. 4-64

4. If you installed the Duplex unit, open the Duplex unit by lifting the catch.

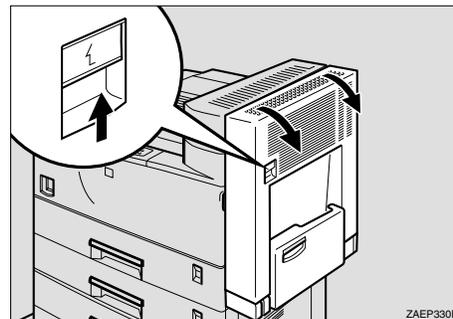


Fig. 4-65

5. Open the right cover by lifting the catch.

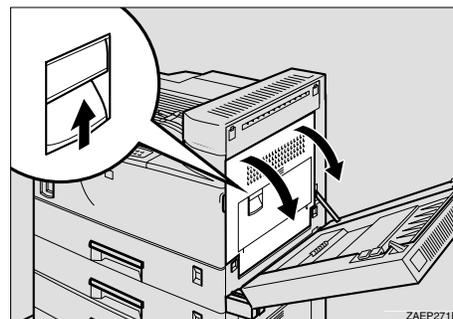


Fig. 4-66

6. If the cover of the Interchange unit is attached, remove it by lifting the cover at the rear of the printer first as shown below.

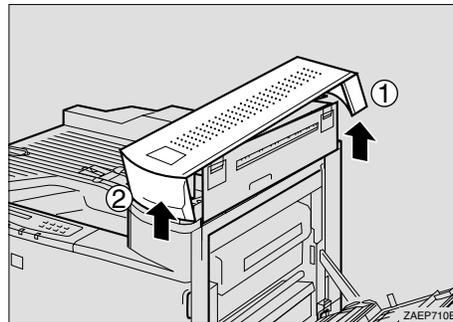


Fig. 4-67

⇒ **Note**

-
- If the cover of the Interchange unit is already removed, go to Step 7.
 - The removed cover is no longer required.
-

7. Hold the Mailbox on both sides and fit it onto the top of the Interchange unit.

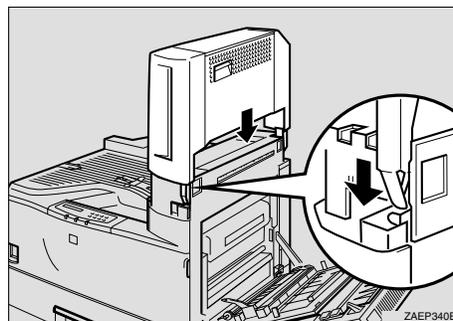


Fig. 4-68

8. Fasten the two screws hand tight and secure the Mailbox to the printer. Use a coin to tighten the screws securely.

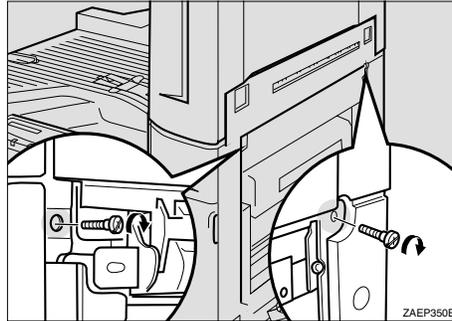


Fig. 4-69

9. Close the Right cover by pushing the area as shown in the illustration.

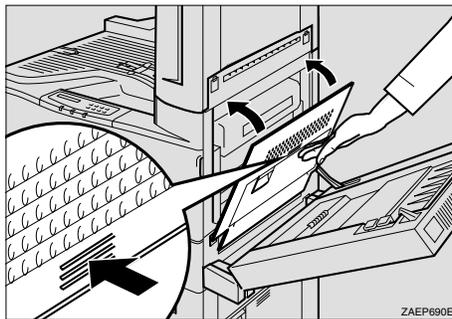


Fig. 4-70

10. If the Duplex unit is already attached, close the unit.

11. Slide the four mailbox output trays into the Mailbox unit starting from the bottom tray.

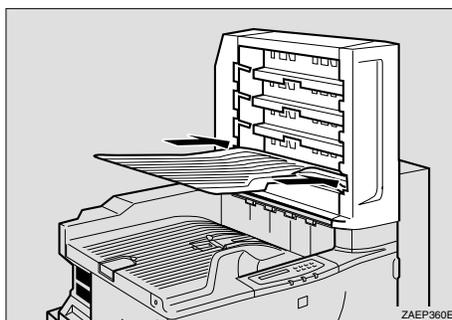


Fig. 4-71

Paper Requirements for printing into the Mailbox

Type	Paper
Size	A3, JIS B4, Ledger, A4, ISO B5, A5, Legal, Letter, Executive
Capacity	125 sheets per bin (based on the following condition)
Weight	60 to 105 g/m ² (16 to 28 lb.)

◆ **Mailbox function**

This option allows you to direct your printouts to any bin that you specify.

◆ **Sorter function**

When you want to print multiple copies, print each copy into the bin you selected. You do not need to sort the copies manually.

◆ **Stacker function**

You can print large print jobs when nobody is in the office. You can print up to 125 sheets of plain paper into each Mailbox bin.

Bridge Unit (BU-5000)

With this option, printed pages are sent to the Finisher/Stapler.

❖ Note

- If this Bridge unit is installed, the optional Finisher must be installed later.
 - If the mailbox is already installed, remove the four mailbox trays from the mailbox.
-

Installing the Bridge Unit

- ☛ 1. Confirm that the box also contains the following items.

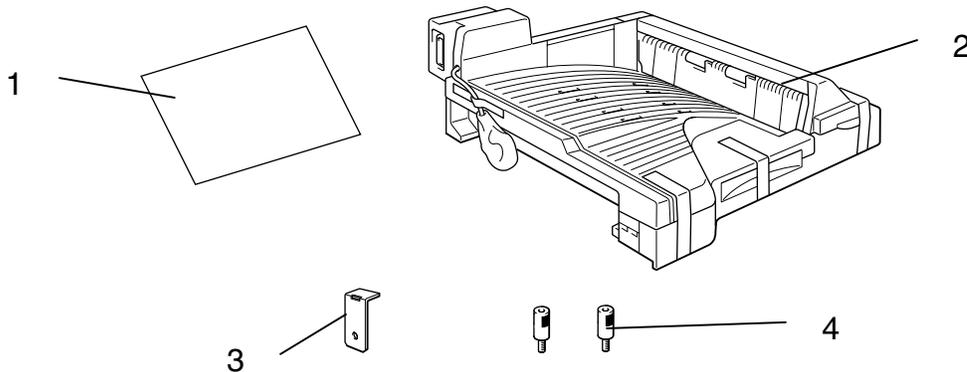


Fig. 4-72

1. Installation Guide
2. Bridge unit
3. Securing Plate
4. Knob Screw

⚠ Caution

Unplug the printer power cord before starting the following procedure.

2. Turn off the printer and remove all cables and cords from the printer.
3. Remove the adhesive tape.

Caution

Do not remove the adhesive tape (①) holding the cable and the Bridge unit, until the Bridge unit is attached in step 14.

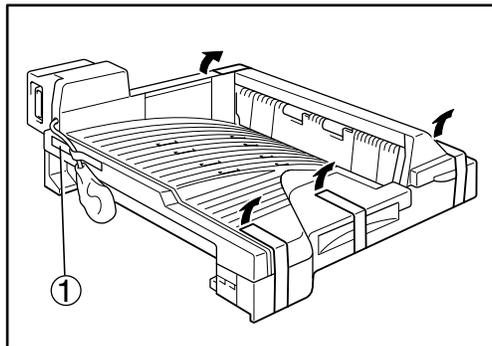


Fig. 4-73

4. If you installed the Duplex unit, open the Duplex unit by lifting the catch.

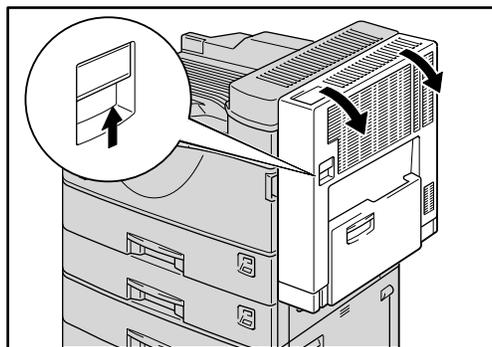


Fig. 4-74

5. Open the Right cover of the printer by lifting the catch.

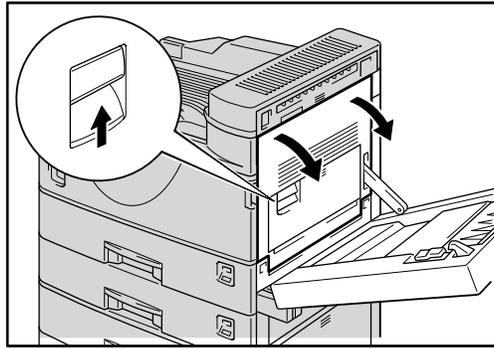


Fig. 4-75

6. Use a coin to remove the screw from the Front right cover and then remove the Front right cover.

• Note

-
- The Front right cover has a clear film to prevent the removed screw falling in the printer. Do not remove the screw from the film.
-

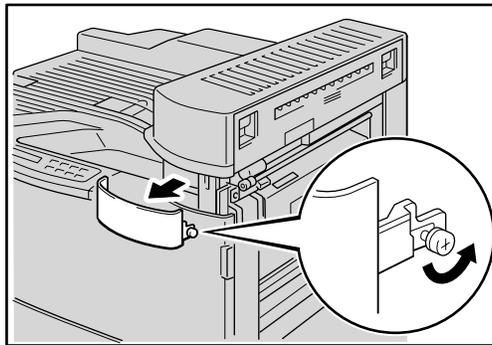


Fig. 4-76

- The removed screw and cover are required in step 11.

- ☛ 7. Use a coin to remove the screw, and then remove the cover as shown in the illustration

☛ **Note**

- The removed screw and cover are no longer required.

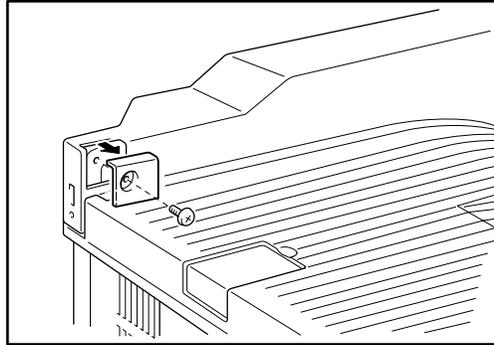


Fig. 4-77

- ☛ 8. Return the Paper sensor into the Output tray as shown in the illustration.

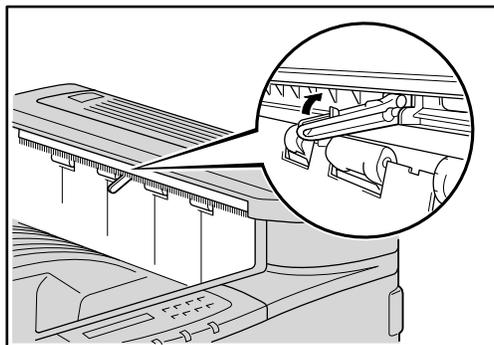


Fig. 4-78

- ☛ 9. Place the Bridge unit on the Output tray and slide the unit along the output part of the printer.

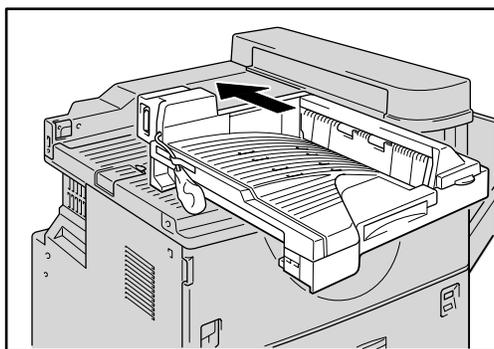


Fig. 4-79

10. Fasten the two Knob screws and secure the Bridge unit.

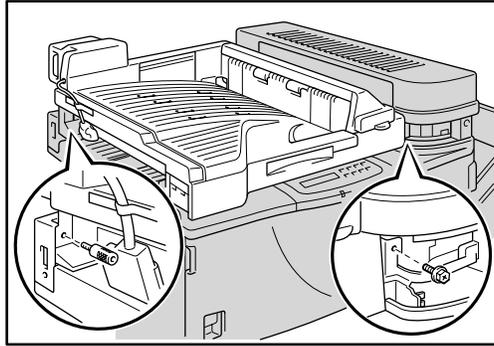


Fig. 4-80

11. Replace the Front right cover removed in step 6, and then fasten the screw.

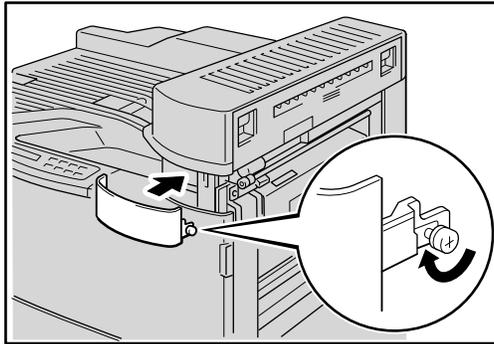


Fig. 4-81

12. Close the Right cover by pushing the area as shown in the illustration.

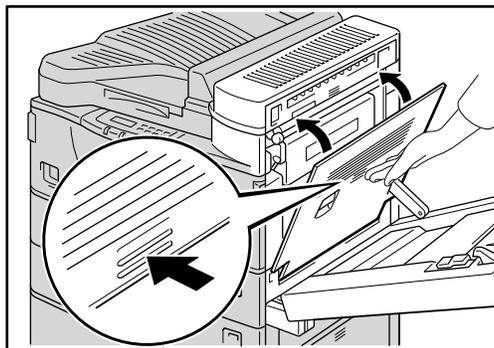


Fig. 4-82

- ☛ 13. If the Duplex unit is already attached, close the unit.

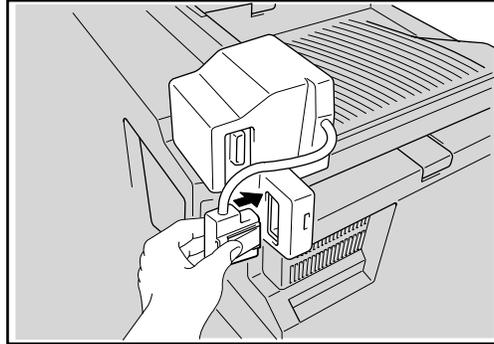


Fig. 4-83

- ☛ 14. Remove the adhesive tape holding the Bridge unit and cable and packing material, and attach the connector to the socket on the right top side of the back of the printer.

- ☛ 15. Attach the securing plate as shown in the illustration.

❖ **Note**

The plate fastens with a screw when installing the Finisher.

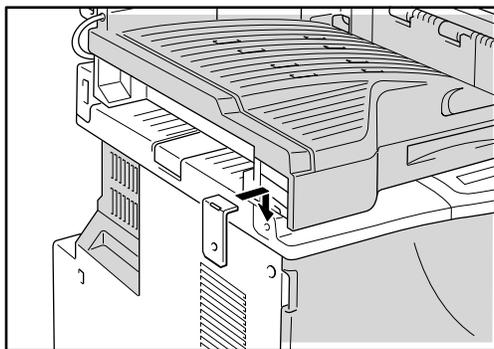


Fig. 4-84

Finisher/Stapler (FS-5050)

With this option, printed pages can be sorted or stapled. If you want to install the Finisher/Stapler, contact your sales or service representative. The optional Bridge unit must be installed before the Finisher/Stapler can be used.

•❖ **Note**

-
- See “Adding Staples” in Chapter 5.
 - See “Jammed Staples” in Chapter 6.
-

Installing the Finisher/Stapler

•❖ **Note**

If you install the Finisher, the Bridge unit must be installed first.



Caution

-
- Before installing options, the machine should be turned off and unplugged for at least thirty minutes. Components inside the machine become very hot, and can cause a burn injury if touched.
 - When lifting the machine, use the grips on both sides. The machine could break or cause an injury if dropped.
 - It is dangerous to handle the plug with wet hands. Doing this may result in receiving an electric shock.
 - Before moving the machine, unplug the power cord from the outlet. If the cord is unplugged abruptly, it could become damaged. Damaged plugs or cords can cause an electrical or fire hazard.
-

- ☛ 1. Confirm that the box also contains the following items.

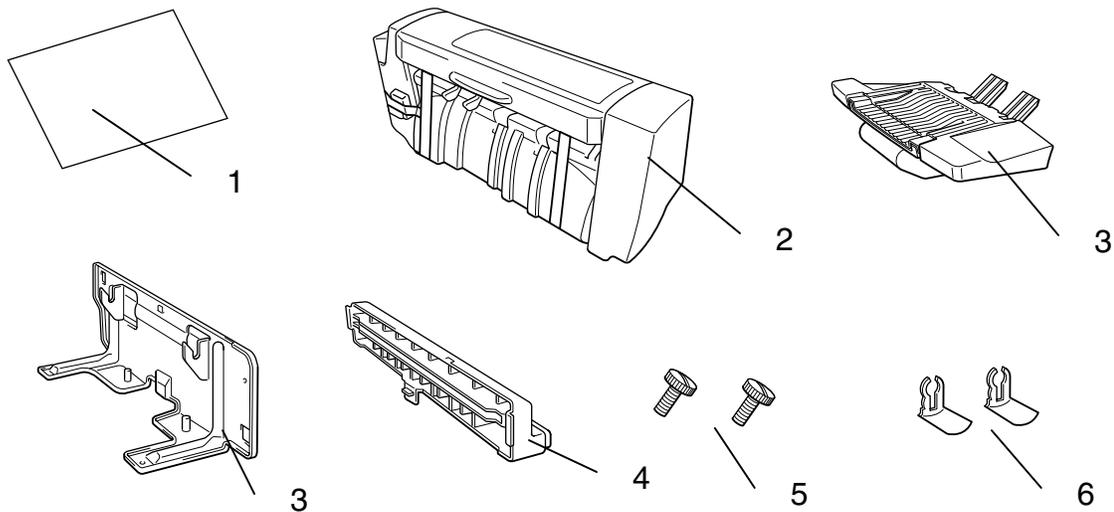


Fig. 4-85

1. Installation Guide
2. Finisher
3. Finisher tray
4. Finisher stand
5. Output guide
6. Screw (2pieces)
7. Stopper (2pieces)

- ☛ 2. Turn off the printer and remove all cables and the power cord from the printer.

- ☛ 3. Remove the adhesive tape.

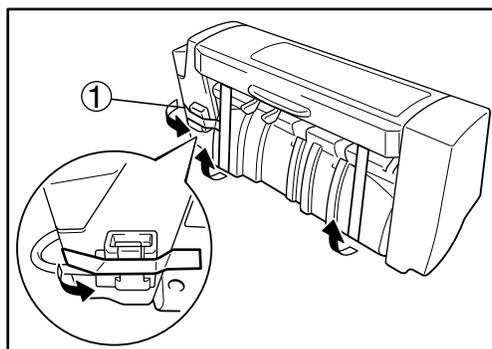


Fig. 4-86

⇒ **Note**

Do not remove the adhesive tape holding the Finisher and cable (①), until the Finisher is attached in step 10.

4. Insert the Output guide between the Printer and the Bridge unit.

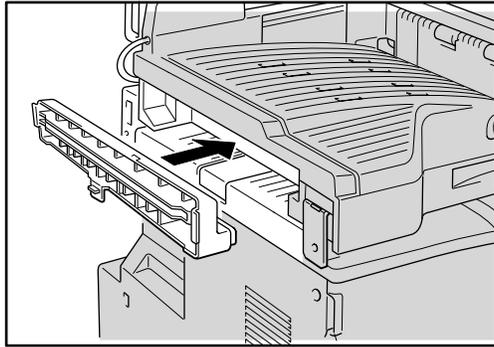


Fig. 4-87

5. Mount the brackets of the Finisher stand by placing them in the printer and then push it downwards slightly with catching it on the projection of the output guide (①).

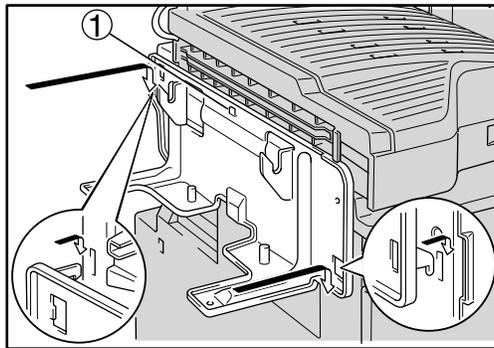


Fig. 4-88

6. Use a coin to fasten the two screws that secure the Finisher stand to the Printer.

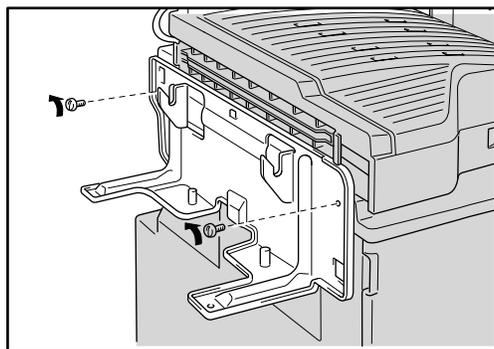


Fig. 4-89

7. Hold the Finisher with both hands and keep it horizontal. Align the holes of the Finisher over the brackets of the Finisher stand and then push it downwards slightly.

❖ **Note**

-
- If you do not keep the Finisher horizontal, you can not install it correctly. In this case, remove the Finisher and reinstall it.
-

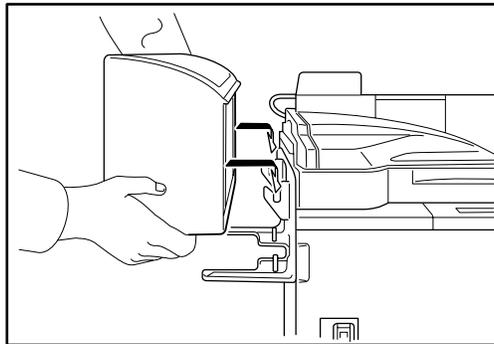


Fig. 4-90

8. Insert the Finisher tray into the hole of the Finisher(①).

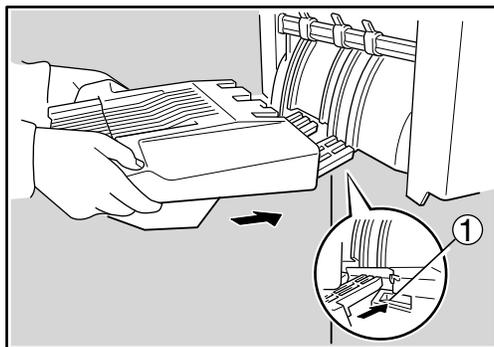


Fig. 4-91

9. Attach the two stoppers to the lower of the Finisher output tray to lock the tray.

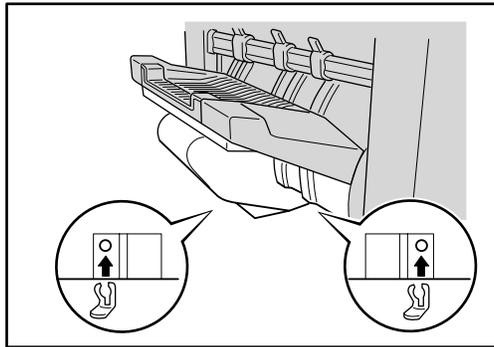


Fig. 4-92

10. Remove the adhesive tape holding the Finisher and cable and packing material, and attach the connector to the socket on the Bridge unit.

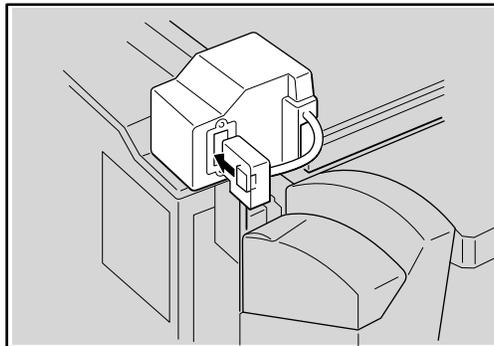


Fig. 4-93

CompactFlash card

This printer has a slot for optional CompactFlash memory.

If you install the optional CompactFlash memory card, you can save macros and fonts on it.

❖ Note

- Do not install or remove cards with the printer power on, as you may lose all data from the card, or may seriously damage the card.
 - For more information about the cards, consult the dealer where you purchased the printer.
-

Installing a CompactFlash Card

Follow these steps to install or remove a card:

1. Make sure that the printer is turned off.
2. Fit a compact flash card into the slot with the label facing you. Make sure it is inserted correctly.

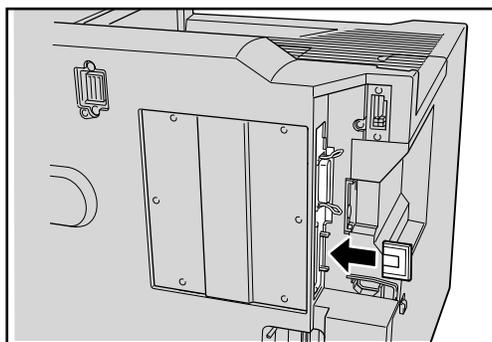


Fig. 4-94

To remove the card, power the printer off and then pull the card out of the slot.

The following type of flash memory card can be installed:

<SanDisk (or SanDisk OEM Products)>

RAM Expansion

This printer has 16 Megabytes of standard memory and 2 slots for optional expansion memory. The memory can be expanded up to 272 Megabytes by installing commercially available dual in-line memory modules (DIMMs). (The standard memory fitted can vary depending on the printer model and country.)

Minimum Memory Recommendation (Including 16 Megabytes of internal memory)

◆ *HP LaserJet, HP-GL, EPSON FX-850 and IBM Proprinter XL emulation modes*

Page Protect = Off

	300 dpi	600 dpi
Letter/A4	standard	standard
Legal	standard	standard
Ledger/A3	standard	standard

Page Protect = On

	300 dpi(simplesx/duplex)	600 dpi(simplesx/duplex)
Letter/A4	standard/standard	standard/standard
Legal	standard/standard	standard/standard
Ledger/A3	standard/standard	standard/option

◆ *BR-Script 3 mode*

	300 dpi	600 dpi
Letter/A4	standard	standard
Legal	standard	standard
Ledger/A3	standard	standard

Installing additional memory

To install additional memory (DIMMs), follow these steps:

1. Turn off the printer and unplug the power cord from the AC outlet.

⇒ **Note**

-
- Be sure to turn off the power to the printer before installing or removing the DIMMs.
-

2. Use a coin to remove the six screws and remove the Printer board cover.

⇒ **Note**

-
- The removed cover and screws are required in step 6.
-

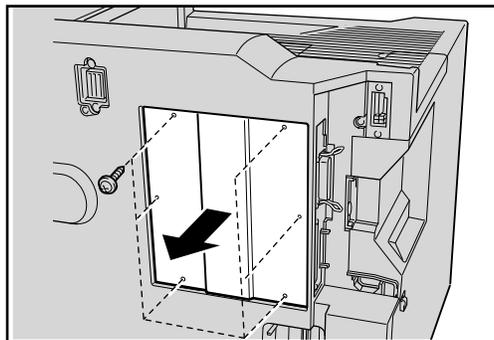


Fig. 4-95

3. Unpack the DIMM and hold it by its edge.

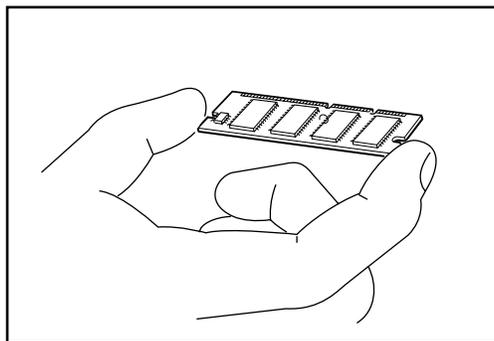


Fig. 4-96

4. Hold the DIMM with your fingers against the side edges and thumb against the back edge. Align the notches on the DIMM with the DIMM slot. (Check that the locks on each side of the DIMM slot are open, or outward.)

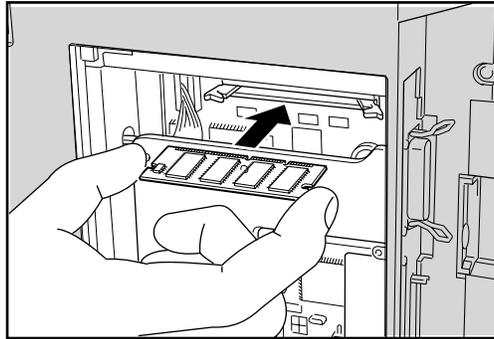


Fig. 4-97

5. Press the DIMM straight into the slot (press firmly). Make sure the locks on each side of the DIMM snap inwards into place. (To remove a DIMM, the locks must be released.)

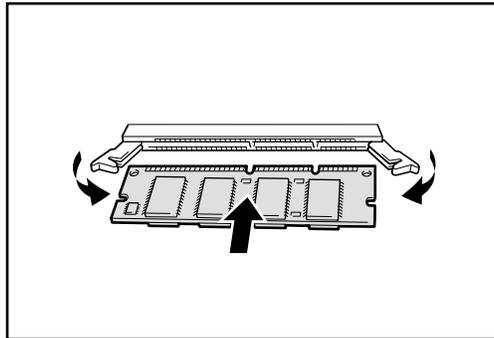


Fig. 4-98

- ☛ **6.** Attach the printer board cover that was removed in step 2, and use a coin to fasten the six screws.

↔ **Note**

-
- If you are going to install the hard disk at the same time, it is not necessary to reattach the cover at this stage.
-

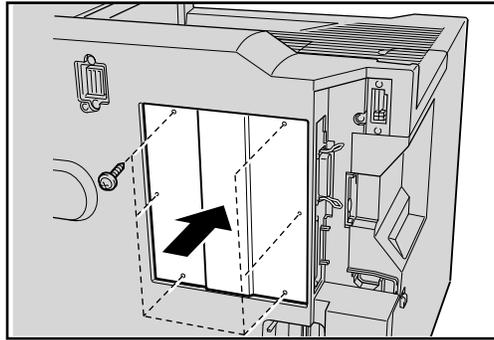


Fig. 4-99

- ☛ **7.** Reconnect the printer cable from your computer. Plug the power cord into the AC outlet and turn on the printer.
- ☛ **8.** To check whether the DIMM has been installed correctly, you may perform a Test Print “Print Configuration” that will print the current memory size.

HDD (Hard Disk Drive)

By installing an optional HDD, you can save multiple print jobs onto it. You can also select your print job and re-print it through the network.

- ☛ **1.** Confirm that the box contains the following items.

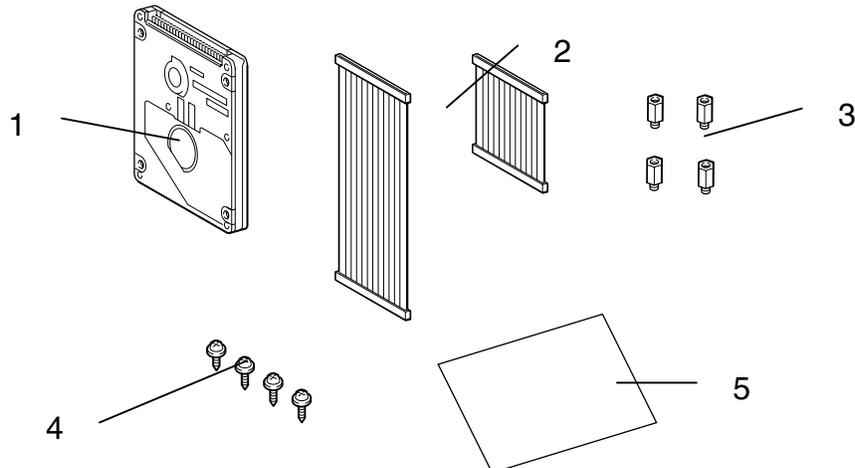


Fig. 4-100

1. HD-6G/HD-EX
2. Hard disk cables (2) [Use the longer one]
3. Shoulder screws (4)
4. Screws (4)
5. Setup guide

- ☛ **2.** Turn off the printer and unplug the power cord from the AC outlet. Disconnect the interface cable from the printer.
- ☛ **3.** Use a screwdriver to remove the six screws, and remove the printer board cover.

❖ **Note**

The removed cover and screws are required in step 9.

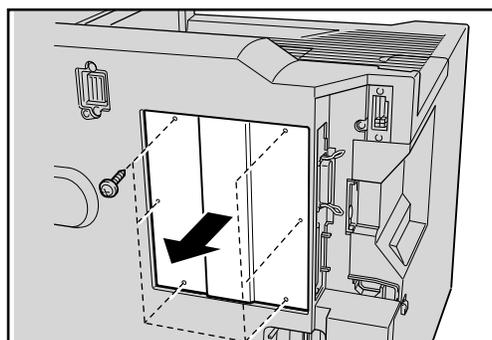


Fig. 4-101

4. Use a screwdriver to remove the three screws and remove the HDD base plate.

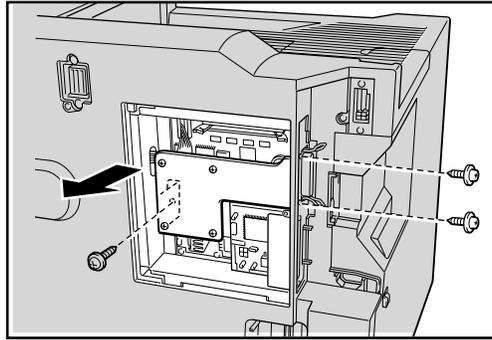


Fig. 4-102

5. Insert the 4 shoulder screws supplied with the HD-6G/HD-EX unit into the bottom of the HD-6G/HD-EX.

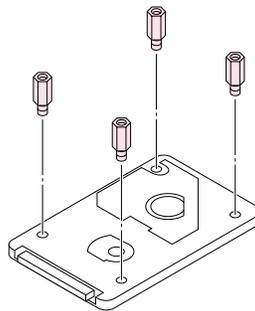


Fig. 4-103

6. Fit the HDD base plate by fitting the 4 Screws into the 4 holes of the HDD base plate and secure the base plate to the shoulder screws with a screwdriver.

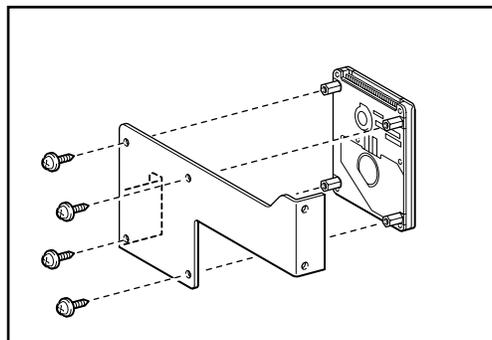


Fig. 4-104

7. Connect the longer cable to the HD-6G/HD-EX with the keyed side upwards, ensuring it is correctly aligned.

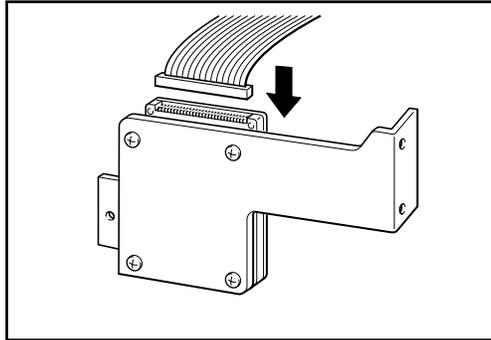


Fig. 4-105

8. Connect the flat cable to the main controller board.

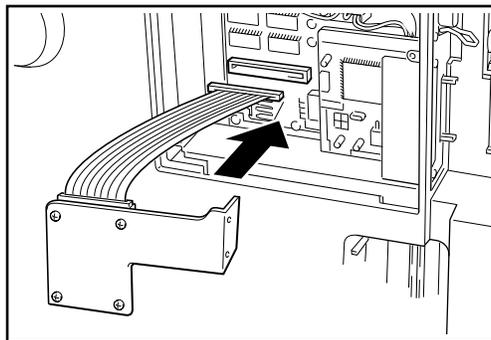


Fig. 4-106

9. Mount the HDD base plate and HD-6G/HD-EX assembly using the 3 screws that were removed in step 4 using a screwdriver to fasten the three screws.

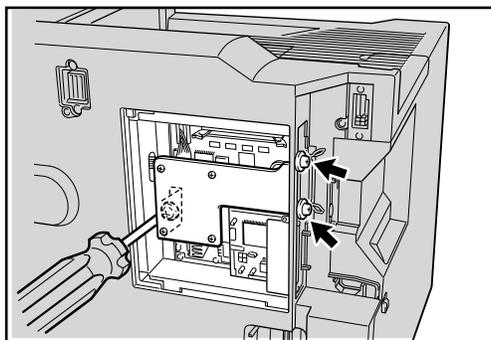


Fig. 4-107

- ☛ **10.** Attach the printer board cover that was removed in step 3, and use the screwdriver to fasten the six screws.

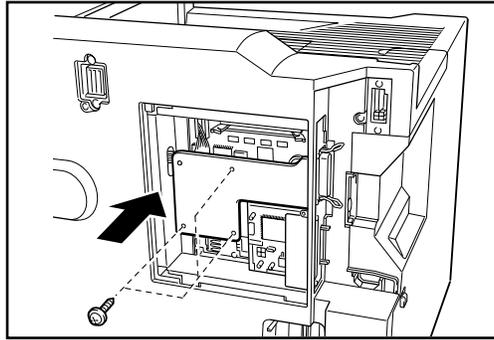


Fig. 4-108

- ☛ **11.** Reconnect the interface cable to the printer. Plug the power cord into the AC outlet, and then turn on the printer.
- ☛ **12.** Format the HD-6G/HD-EX from the Control panel. [See Chapter 3 for details.](#)

CHAPTER 5

MAINTENANCE

Supplies

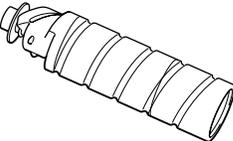
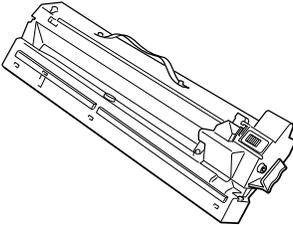
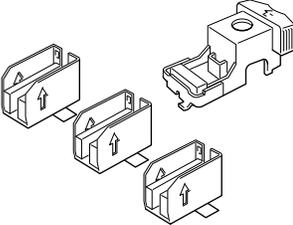
Toner bottle TN-1200	Drum unit DR-1200	Staples ST-5000
		

Fig. 5-1

Toner bottle

A new toner bottle contains enough toner to print approximately 12,000 A4/Letter-size, single-sided pages at about 5% coverage (if the print density is set at level 0).

Note

- Toner consumption varies according to the image coverage on the page and the print density setting.
 - The Toner bottle is a single-component cartridge and contains microfine toner which does not become magnetized.
 - The greater the image coverage, the greater the toner consumption.
 - If you change the print density setting for lighter or darker printing, the toner consumption varies accordingly.
-

TONER LOW message

Check printed pages, page counter and display messages periodically. If the display shows the message below, the printer has almost run out of toner or the toner is not evenly distributed inside the bottle.

TONER LOW

TONER EMPTY

Although you can print about 50 additional pages after the “TONER LOW” message first appears, be sure to replace the toner bottle with a new one before it becomes completely empty.

You can select the printer’s action when the “TONER LOW” message appears, to stop or continue printing.

Note

-
- Do not incinerate spilled toner or used toner. Toner dust is flammable and might ignite when exposed to an open flame.
 - If you dispose of the used toner containers yourself, dispose of them according to local regulations.
-

Warning

-
- The inside of the machine becomes very hot. Do not touch the parts which are labeled “Hot Surface”. Touching a “hot surface” could result in a burn injury.
 - Do not eat or swallow toner.
 - Keep the toner (used or unused) and the toner bottle out of the reach of children.
 - Our products are engineered to meet the highest standards of quality and functionality. When purchasing expendable supplies, we recommend using only those provided by a Brother authorized dealer.
-

❖ Replacing the Toner bottle

✍ Note

- If the “Toner empty” message does not disappear after replacing the Toner bottle, follow these instructions:
 - Confirm the printer power is on.
 - Leave the Front cover open for more than 10 seconds.
 - Close the Front cover.

Follow these steps to change the toner bottle:

- ☛ 1. Open the Front cover.

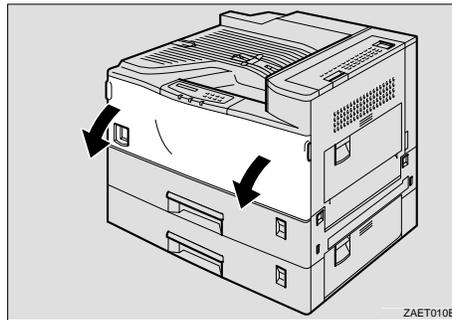


Fig. 5-2

- ☛ 2. Lift the green handle.

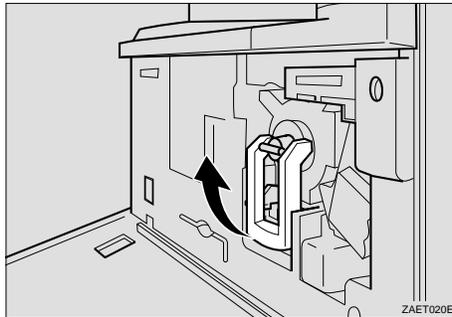


Fig. 5-3

- ☛ 3. While pushing the green lever downwards (①), use the green handle to slide the Toner holder out slightly (②).

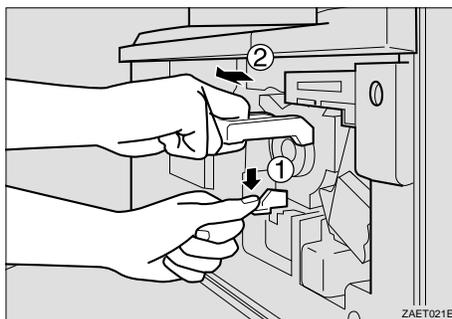


Fig. 5-4

4. Release the green lever and then continue to gently slide the Toner holder out until it stops.

Caution

- If you continue to push the green lever down while you continue to slide the Toner holder out, the toner holder may fall out.

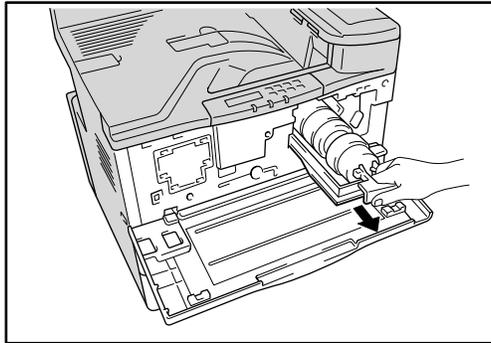


Fig. 5-5

5. Push the Toner bottle backwards slightly (①) until you can lift the top of the bottle upwards (②) and gently pull out the bottle.

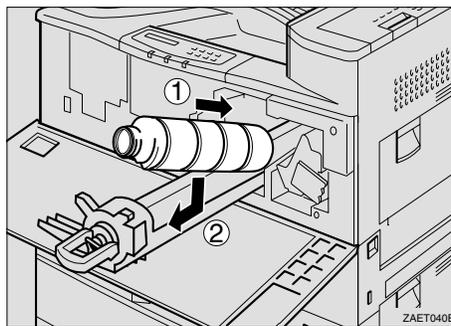


Fig. 5-6

6. Move the new toner bottle back and forth about 5 – 6 times (①) and remove the black cap of the new toner bottle by turning it counterclockwise (②).

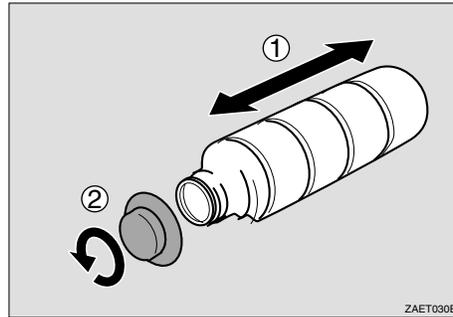


Fig. 5-7

⇒ **Note**

-
- Do not remove the inside cap.
 - After removing the black cap from the bottle, the toner can scatter easily. Do not shake or jar the bottle.
-

7. Push the Toner bottle into the toner holder (①) and push the top of the bottle downwards to lock it in place (②).

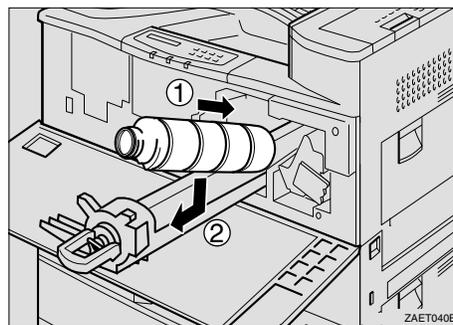


Fig. 5-8

8. Slide the toner holder into the printer until it clicks into place, and push down the green handle.

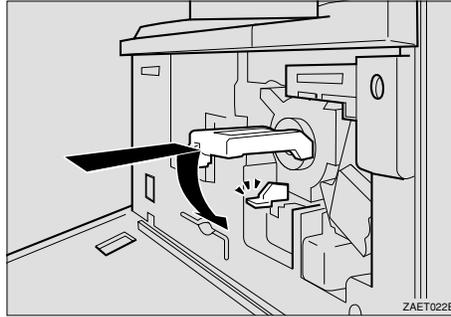


Fig. 5-9

9. Close the Front cover.

Drum unit

❖ Replacing the Drum unit

If the display shows the following message, the Drum should be changed.

CHANGE DRUM SOON

Warning

- Do not incinerate the used drum unit. Toner dust might ignite when exposed to an open flame.
 - Disposal should take place at an authorized dealer or an appropriate collection site.
 - If you dispose of the used parts yourself, dispose of them according to local regulations.
-

-  **1.** Turn off the printer.

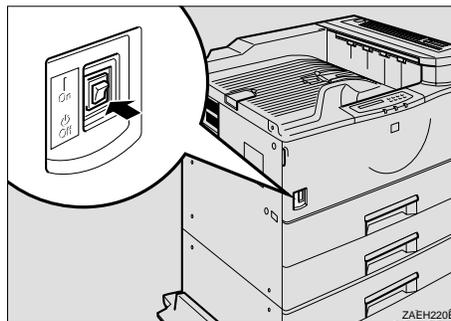


Fig. 5-10

2. If the Duplex unit is installed, open the Duplex unit by lifting the catch.

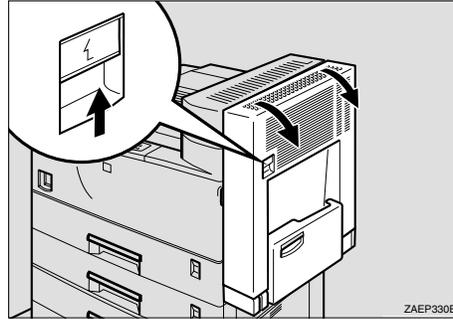


Fig. 5-11

3. Open the Right cover of the printer by lifting the catch.

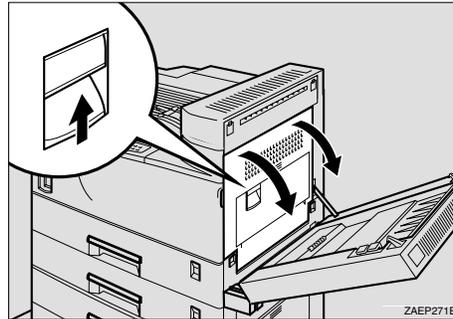


Fig. 5-12

4. Open the Front cover.

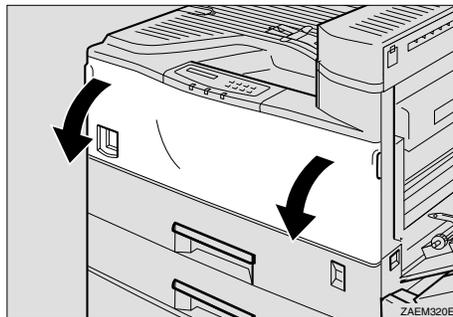


Fig. 5-13

5. While pressing the green button, slide the Drum unit out until it stops.

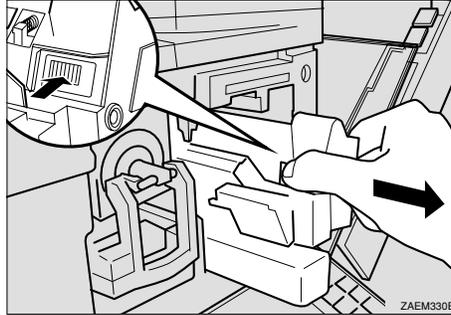


Fig. 5-14

6. Raise the green carrying handle and slide the Drum unit out.

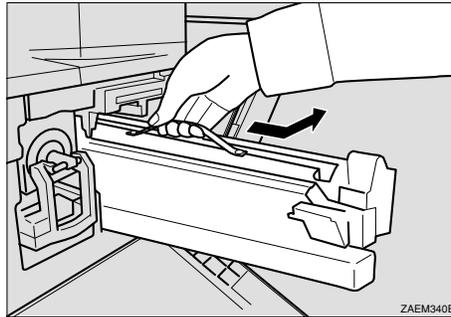


Fig. 5-15

❖ **Note**

-
- Do not tilt or drop the removed Drum unit. Moving the unit abruptly can scatter toner.
 - While the Drum unit is removed, do not change the toner.
-

7. Take the new drum unit from the box and remove the plastic bag, holding the Drum unit by the carrying handle.

❖ **Note**

-
- Do not drop or refit the removed Drum.
 - Do not touch the side of the Drum.
-

- ☛ **8.** Put the Drum unit removed in Step 6 into the plastic bag emptied in Step 7, keeping the unit at the same angle as when it was installed. Then, seal the plastic bag.
- ☛ **9.** Remove the two red sheets from the Drum unit in the order shown in the illustration. (① → ②)

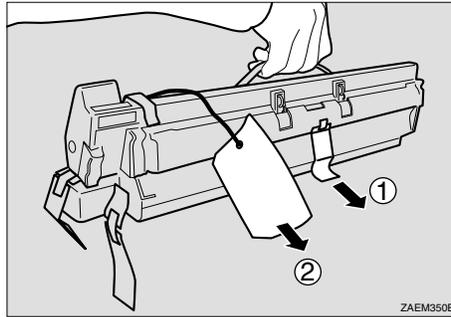


Fig. 5-16

☛ **Note**

-
- Remove the drum unit keeping the unit parallel to the ground as shown in the illustration, otherwise the toner in the unit might scatter.
 - Do not touch the inside of the unit or the green parts after the black protection sheet is removed.
-

- ☛ **10.** Align the new Drum unit onto the rail of the printer. Slide the unit all the way into the printer.

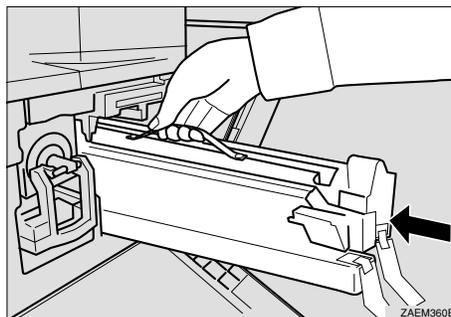


Fig. 5-17

11. Push the Drum unit into the printer until it clicks into place.

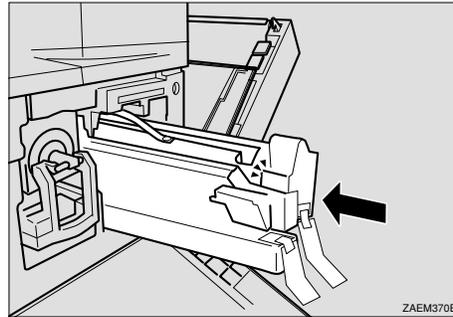


Fig. 5-18

12. Remove the red sheet from the Drum unit and remove the two pieces of tape.

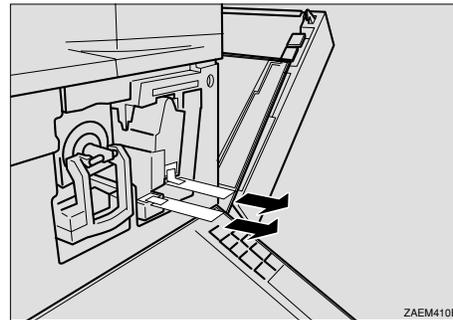


Fig. 5-19

13. Close the right side cover of the printer.

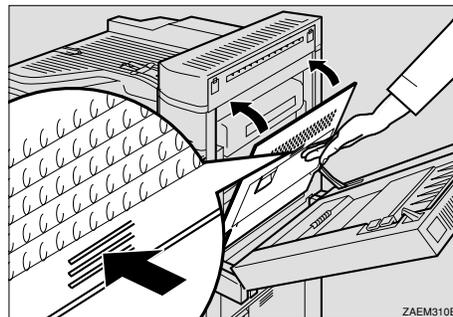


Fig. 5-20

❖ **Note**

If the Right side cover of the printer cannot be closed, it means that the Drum unit has not been properly installed. Slide the Drum unit out and push it into the printer again until it clicks into place.

- ☛ **14.** Close the Front cover.

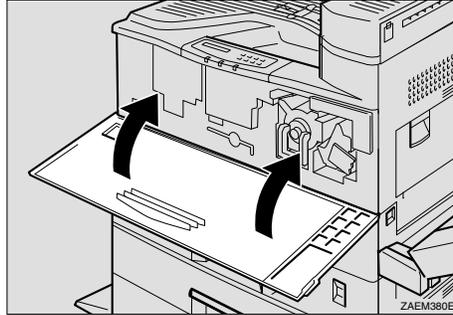


Fig. 5-21

- ☛ **15.** If the Duplex unit is installed, close the Duplex unit cover.

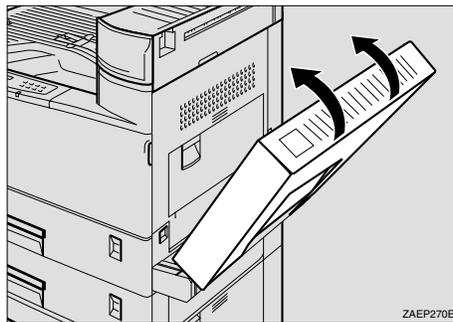


Fig. 5-22

- ☛ **16.** Turn on the printer.

Cleaning

Clean the printer exterior and interior periodically with a dry soft cloth. When you replace the toner bottle, be sure to clean the printer interior with a dry soft cloth. If the printed page gets stained with Toner, clean the printer interior with a dry soft cloth.

Warning

- Turn off the printer power and allow it to cool down before cleaning.

❖ **Cleaning the Paper feed roller**

If the paper feed rollers are dirty with paper dust, the paper may not feed correctly or paper jam. In this case, clean the paper feed rollers. Follow these steps to clean the paper feed rollers in standard paper tray 1 and paper tray 2.

1. Turn off the printer power.
2. Slide Paper tray 1 and Paper tray 2 out until they stop. Raise the front end slightly and pull the paper trays forward to remove them from the printer.

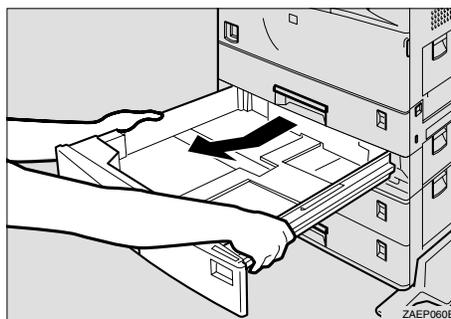


Fig. 5-23

3. Locate the position of the Paper feed rollers as shown in the illustration below.

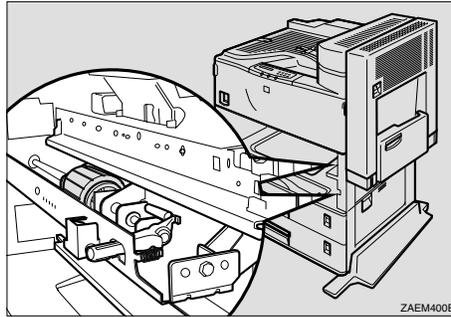


Fig. 5-24

4. Lift the green lever that is attached to the Paper feed rollers inside the printer on the lower right hand side and pull it towards you.

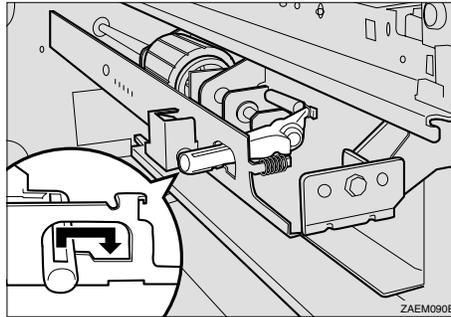


Fig. 5-25

5. Pull the Paper feed roller towards you (1), then push it in a diagonally downward direction away from you and remove it (2).

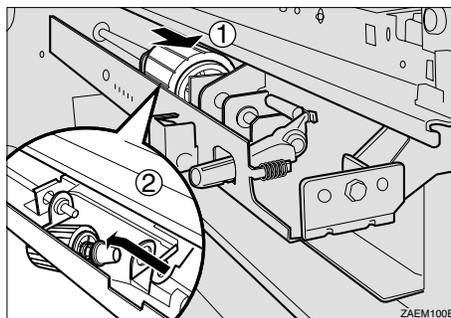


Fig. 5-26

6. Wipe the rubber of the Paper feed roller with a dry cloth.

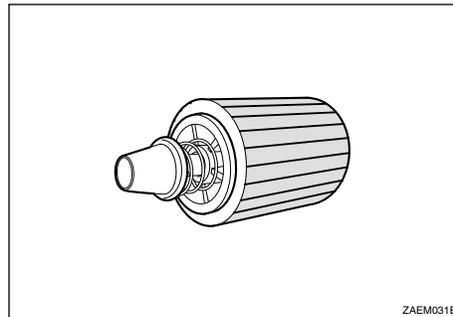


Fig. 5-27

Note

- Do not wipe with a wet cloth, alcohol or cleanser.

7. Insert the projection of the Paper feed roller into the hole (①). While pulling the roller towards you, insert the roller onto the rear shaft (②).

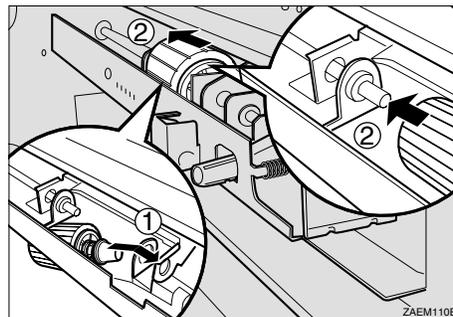


Fig. 5-28

8. Check the motion of the Paper feed roller to confirm that it can rotate smoothly.

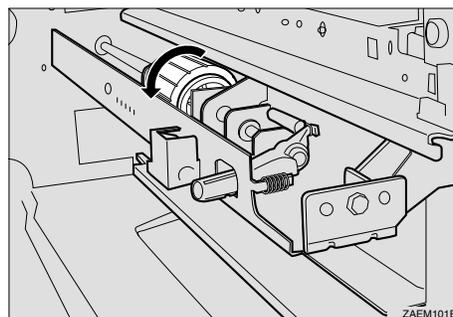


Fig. 5-29

- ☛ **9.** Return the green lever to its original position.

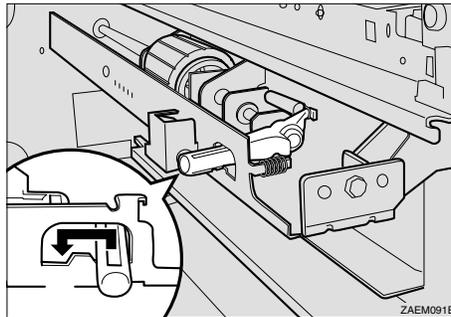


Fig. 5-30

- ☛ **10.** Clean the paper feed rollers of Paper tray 2 by following steps 2 to 8.

- ☛ **11.** Hold Paper tray 2 (which has a lever on the paper size dial) with both hands, and slide it slowly into the second slot from the top until it stops.

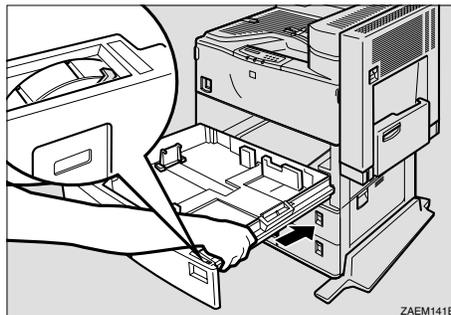


Fig. 5-31

- ☛ **12.** Hold Paper tray 1 with both hands, and slide it slowly into the slot until it stops.

- ☛ **13.** If the optional Lower tray (LT-5100 or LT-5200) is installed, clean the Paper feed rollers of Paper tray 3 or Paper tray 4 following the steps for Paper tray 1 and Paper tray 2.

❖ **Cleaning the Friction pad**

If the Friction pads are dirty, the printer may feed multiple pages or paper jam. In this case, clean the Friction pads of each paper tray. Follow these steps to clean the Friction pads in standard Paper tray 2.

1. Turn off the printer power.
2. Slide Paper tray 2 out until it stops.

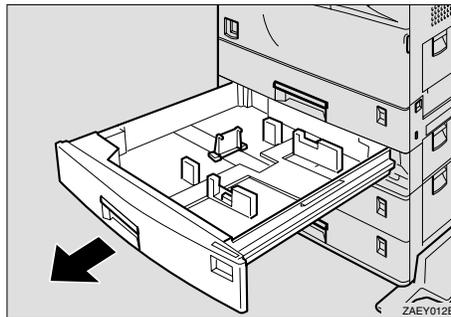


Fig. 5-32

3. Wipe the top of the Friction pad with a dry cloth.

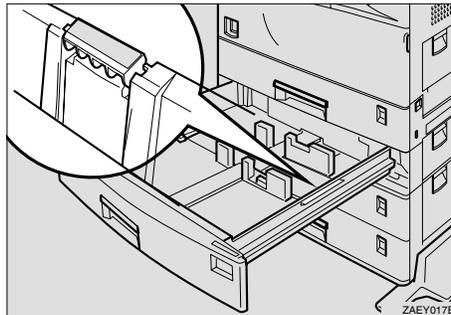


Fig. 5-33

❖ **Note**

-
- Do not wipe with a wet cloth, alcohol or cleanser.
-

4. Slide Paper tray 2 into the slot slowly until it stops.
5. If 2000 Sheets paper tray (LT-5200) is installed, clean the Friction pads of Paper tray 3 or Paper tray 4 following the steps for Paper tray 1 and Paper tray 2.

❖ **Cleaning the Pad inside the Paper tray**

If the Pad inside the paper tray is dirty multiple pages may print when a small amount of paper is stacked. In this case, clean the Pad inside the paper tray. Follow these steps to clean the Pad inside standard Paper tray 2.

1. Turn off the printer power.
2. Slide Paper tray 2 out until it stops.

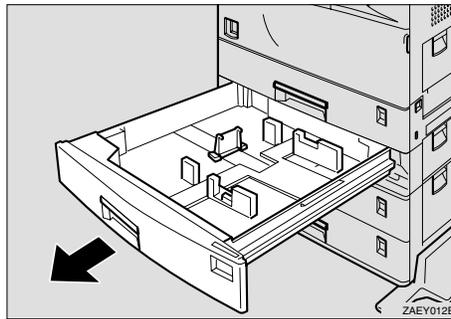


Fig. 5-34

3. If there is paper in the Paper tray, remove the paper.
4. Wipe the pad inside the Paper tray with a dry cloth.

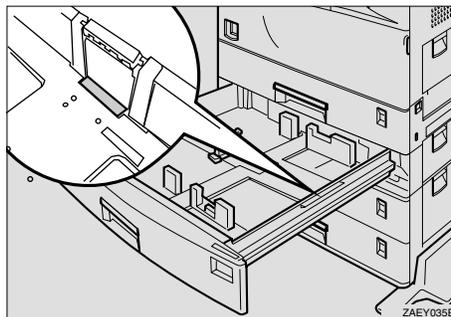


Fig. 5-35

❖ **Note**

Do not wipe with a wet cloth, alcohol or cleanser.

5. Load paper and slide Paper tray 2 into the printer slowly until it stops.

6. If the 2000 Sheets paper tray (LT-5200) is installed, clean the Friction pads of Paper tray 3 or Paper tray 4 following the steps for Paper tray 1 and Paper tray 2.

Adding Staples

When the message “Add Staples” appears on the Control panel, the staples have run out. Follows these steps to add a new staple refill.

❖ **Note**

After adding the Staple refill, Staples might not be ejected for the first few times.

1. Open the Rear cover of the Finisher.

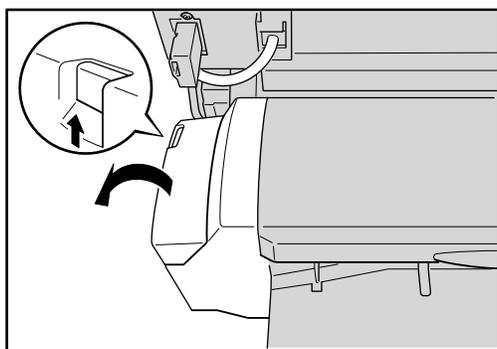


Fig. 5-36

2. Remove the empty cartridge.

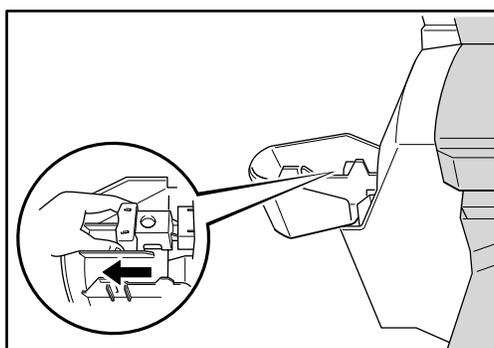


Fig. 5-37

3. Remove the empty refill case as shown in the illustration.

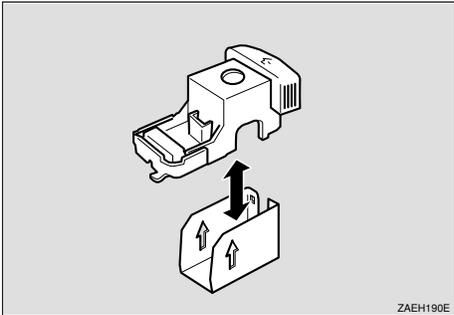


Fig. 5-38

4. Align the arrows on the new refill case and the cartridge, and push the new refill case in until it clicks.

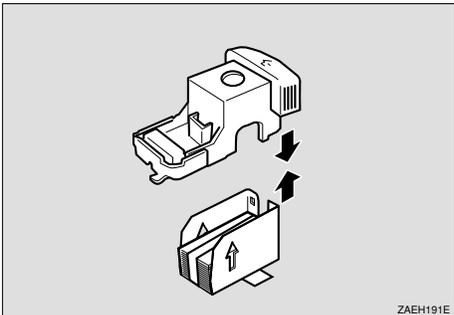


Fig. 5-39

Note

Do not remove the ribbon securing the staples before installing the cartridge.

5. Pull out the ribbon securing the Staples. Push the staples at the bottom of the staple stack forwards with your finger to ensure that the stapler will operate correctly straight away. If you do not, it will take a number of staple operations before the stack is fed properly and the stapler will start to work.

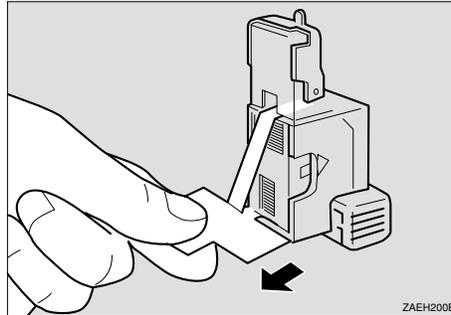


Fig. 5-40

6. Reinstall the cartridge. It should click into place.

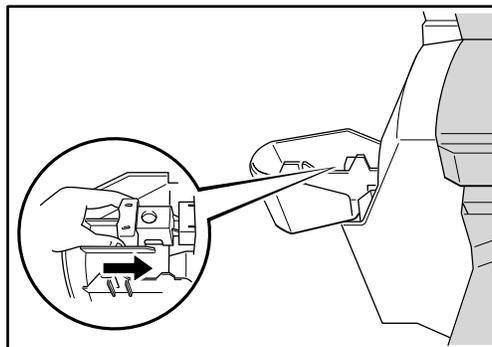


Fig. 5-41

7. Close the Front cover of the Finisher.

CHAPTER 6

TROUBLE SHOOTING

LCD MESSAGES

Error messages

Operator Call Message	Action
TONER EMPTY Replace the toner bottle	The Toner bottle is empty. Replace the Toner bottle. If the "TONER EMPTY" message does not disappear after replacing the Toner bottle, follow these instructions: <ul style="list-style-type: none"> - Confirm the printer power is on. - Leave the Front cover open for over 10 seconds. - Close the Front cover.
COVER OPEN Close the front cover	The Front cover is open. Close the Front cover.
COVER OPEN Ensure that the Cover of the Duplex unit is closed.	The Duplex cover is open. Close the Duplex cover.
COVER OPEN Ensure that the Cover of the Mailbox Unit is closed	The Mailbox cover is open. Close the Mailbox cover.
COVER OPEN Close the Bridge Unit Cover	The Bridge unit cover is open. Close the Bridge unit cover.
COVER OPEN Close the Finisher Cover	The Finisher cover is open. Close the Finisher cover.
COVER OPEN Close the Right Cover	The Right cover is open. Close the Right cover.
COVER OPEN Close the Paper Tray Right Cover	The Paper tray right cover is open. Close the Paper tray right cover.
COVER OPEN CLOSE UPPER RIGHT COVER	The Upper right cover is open. Close the Upper right cover.
COVER OPEN Close the Interchange Unit Cover	The Interchange unit cover is open. Close the Interchange unit cover.
PAPER JAM: (XX) Open the Printer Front Cover and refer to the diagram for more information	Check where the jam is referring to the diagram inside the front cover of the printer.
JAM TANDEM FENCE Remove jammed paper from the tandem fence (paper divider) of the LT-xxxx paper tray	A paper jam has occurred at the Tandem fence. Remove the jammed paper from the Tandem fence.

Operator Call Message	Action
NO TRAY xx The indicated paper Tray was not detected, install it, or ensure it is inserted correctly.	There is no Paper cassette in Tray xx. Install the Paper cassette into Tray xx.
NO MP TRAY Install the MP Tray	There is no MP tray. Install the MP tray.
NO PAPER T xx Load paper into Tray xx	There is no paper in Tray xx. Load paper into Tray xx.
NO PAPER MP Load paper into the Multipurpose (MP) Tray	There is no paper on the Multi-purpose tray. Load paper onto the Multi-purpose tray.
SIZE ERROR T xx Specify the correct paper size for the indicated tray	Paper size in Tray xx is wrong. Load the right size of paper.
SIZE ERROR DX The duplex unit can only print in the sizes specified. Specify the correct paper size: A4 or Letter	Paper size in the Duplex unit is wrong. Load the right size of paper.
SIZE ERROR FS The Finisher does not accept the size specified.	Paper size in the Finisher is wrong. Load the right size of paper.
SIZE ERROR ST The Stapler does not accept the size specified.	Paper size in the Stapler is wrong. Load the right size of paper.
SIZE ERROR MX The Mailbox unit does not accept the size specified. Specify the correct paper size A4 or Letter	Paper size in the Mailbox unit is wrong. Load the right size of paper for use in the Mailbox
SIZE MISMATCH Paper mismatch between the Printer and the Printer Driver setting. Load Paper xx size into Tray xx	Paper size is wrong. Load the right size of the paper.
MANUAL FEED Load Paper xx size into the Manual Feeder, and press the Go button.	Paper size on the Multi-purpose tray is wrong. Load the right size of paper on the Multi-purpose tray.
NO DX UNIT Install the Duplex Tray	There is no Duplex unit. Install the Duplex unit.
NO MX UNIT Change the properties of the job or install an MX Unit.	There is no Mailbox unit. Install the Mailbox unit.
NO DRUM UNIT A Drum Unit was not detected, please install one	There is no Drum unit. Install the Drum unit.
NO FUSING UNIT A fusing Unit was not detected, please install one	There is no Fusing unit. Install the Fusing unit.

Operator Call Message	Action
NO SP-5000 Install the Interchange unit	There is no Interchange unit. Install the Interchange unit.
NO BU-5000 Install the Bridge unit	There is no Bridge unit. Install the Bridge unit.
NO FS-5050 Install the Finisher unit or check your printer driver is configured correctly	There is no Finisher unit. Install the Finisher unit.
CARD ERROR An error when accessing the Flash card, check the driver is formatted and not in Write Protect mode	It is impossible to access the card. Turn off the printer and then turn it back on again.
CARD REMOVAL The Flash card was removed while the printer was powered on. Power cycle the printer	The card was removed while the printer was turned on. Turn off the printer and then turn it back on again.
BUFFER ERROR Check the cable connection between the computer and printer	Interface communication error. Check the interface setting.
DOWNLOAD FULL The download buffer of the printer is full. Add more memory to the printer	Download font overflow. Add memory.
FONT FULL The font memory area is full. Delete fonts or add more memory to the printer.	Download font overflow. Add memory.
IGNORE DATA Check that the correct driver is being used and/or try adding more printer memory.	Postscript error occurred. Add memory.
MEMORY FULL The printer memory is full and the printer is unable to print the page. Add more memory.	The memory is full. Add memory.
PRINT OVERRUN Select a lower resolution or set the page protect option in the driver to the correct size.	There is an error inside the printer. Use a lower resolution or set the page protection to the correct size for the paper size you are using.

Operator Call Message	Action
STACKER FULL Remove the paper from specified output tray.	The stacker is full. Remove the printed paper from the stacker.
HDD ERROR An error occurred accessing the HDD, power cycle the printer and check that it is formatted	Communication error with the Internal HDD. Turn off the printer and then turn it back on again.
T2 LEVER ERROR Check the Lever in tray 2 is set for the type of paper specified in the print job.	When you use thick paper, set the lever on the paper size dial to the thick setting.
MEDIATYPE ERROR Specify the correct media type: xx	Load correct media / type of paper.
DIMM ERROR Ensure that the DIMM is installed correctly	Installed DIMM is poor or incorrectly connected. Turn off the printer and check the DIMM.
STORAGE FULL There is no more space on the device, delete some files or format the drive	The HDD or the Compact flash is full. Delete unwanted storage data.

Maintenance messages

Warning Message	Action
CHANGE DRUM SOON	See Replacing the drum unit in Chapter 5.
TONER LOW	Replace the toner bottle.
REPLACE 120K KIT	Replace the 120K kit. If you want to replace it, consult your dealer or our authorized service representative.
STAPLE EMPTY	Add staples. See Adding staples in Chapter 5.

Service call messages

When any of the following messages appear on the LCD, turn the printer Off, wait 5 seconds and then turn the printer On again. If this does not clear the problem, consult your dealer or our authorized service representative.

Service Call Message	Action
ERROR ###	Turn off the printer. Wait a few seconds, then turn it on again.
SERVICE CALL	

Removing jammed Staples

If staples do not eject properly, they might be jammed.

• Note

- Staples might jam because of curled paper. In this case, try turning the paper over in the tray.
 - After removing the jammed staples, staples might not be ejected for the first few times.
-

1. Open the Front cover of the finisher.

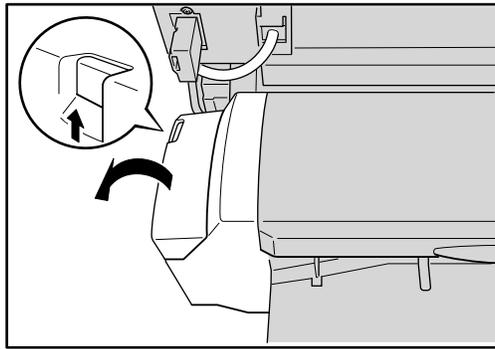


Fig. 6-1

2. Remove the cartridge.

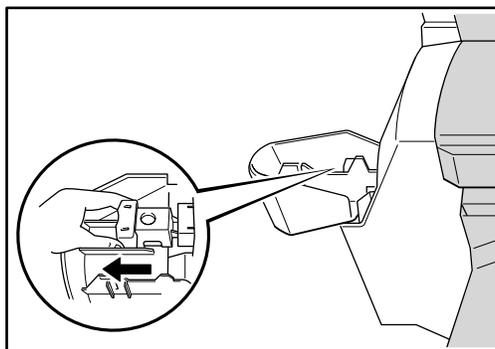


Fig. 6-2

3. Open the Face plate of the cartridge.

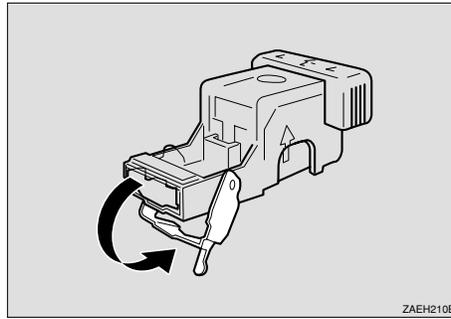


Fig. 6-3

4. Remove the jammed Staples.

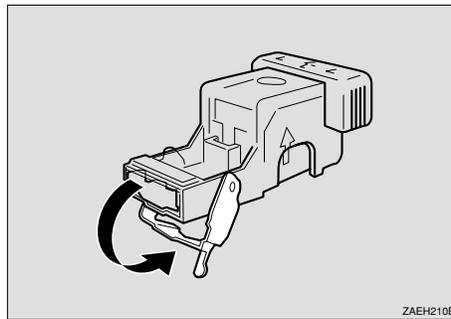


Fig. 6-4

5. Close the Face plate of the cartridge.

6. Reinstall the cartridge. It should click into place.

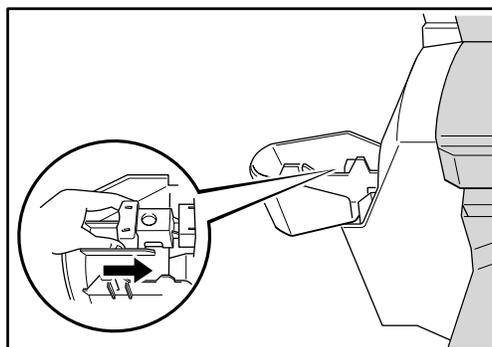


Fig. 6-5

7. Close the Front cover of the Finisher.

Paper jams and How to clear them

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



Caution

- When removing jammed paper, do not touch the fusing section because it becomes very hot.
-

• Note

- More than one jammed area might be indicated. In this case, check every applicable area. See the following illustrations.

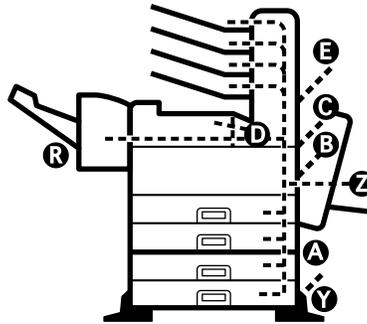


Fig. 6-6

- If paper continues to jam, check the following points.
 - Confirm that the setting of the paper size dial matches the size and feeding direction of the paper loaded in the paper tray.
 - Confirm that the toner bottle is installed correctly.
 - If a paper jam still occurs, contact your sales or service representative.
 - Do not leave any torn paper scraps within the printer.
-

When “Jam: A” appears

1. Open the Lower right cover 1.

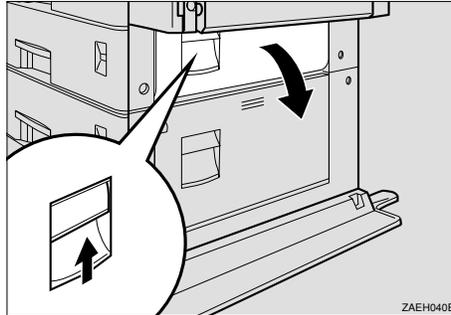


Fig. 6-7

2. Remove the jammed paper from inside the Lower right cover 1.

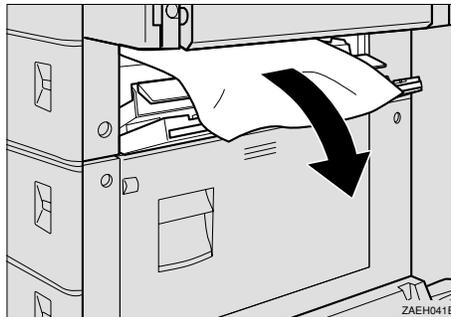


Fig. 6-8

3. Close the Lower right cover 1.

◆ **Note**

Close the cover by pushing the center area of the cover.

When “Jam: B” appears

1. Open the Duplex unit by lifting the catch.

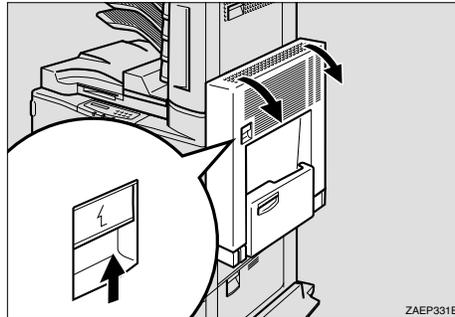


Fig. 6-9

2. Open the Right cover by lifting the catch.

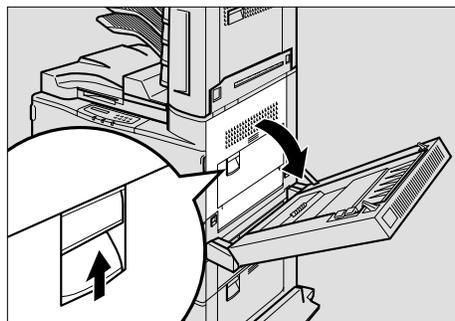


Fig. 6-10

3. Remove the jammed paper from inside the Right cover.

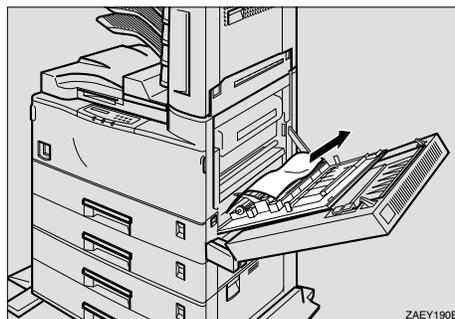


Fig. 6-11

4. Close the Right cover before closing the Duplex unit.
5. If the jammed paper is inside the Multi-purpose tray, while lifting the Paper guide lever (①), remove the jammed paper (②).

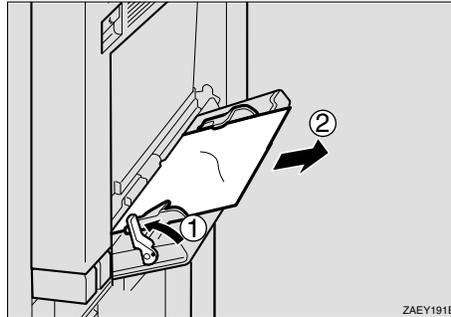


Fig. 6-12

When “Jam: C” appears

❖ When the Interchange unit is not installed

1. Open the Right cover by lifting the catch.

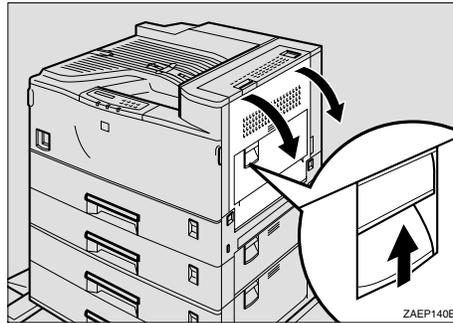


Fig. 6-13

2. Open the Upper right cover by pulling the handle and remove the jammed paper.

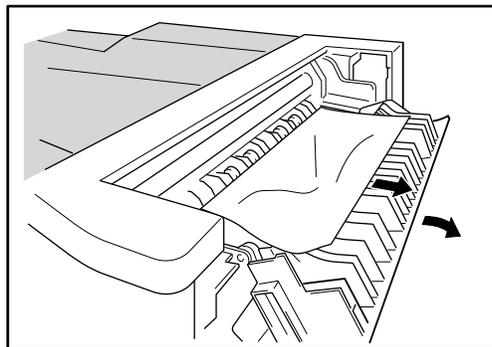


Fig. 6-14

3. Close the Upper right cover before closing the Right cover.

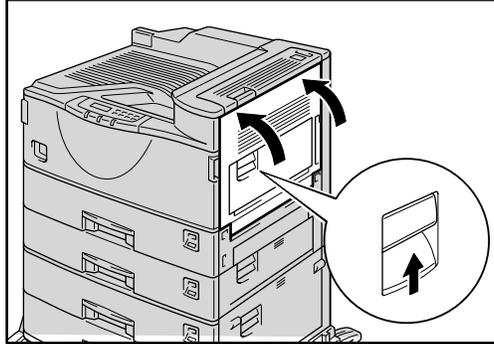


Fig. 6-15

❖ *When the Interchange unit is installed*

1. Open the Duplex unit by lifting the catch.

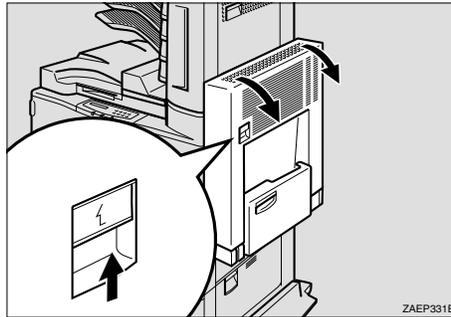


Fig. 6-16

2. Open the Right cover by lifting the catch (①) and open the Upper cover of the interchange unit by pulling the handle (②).

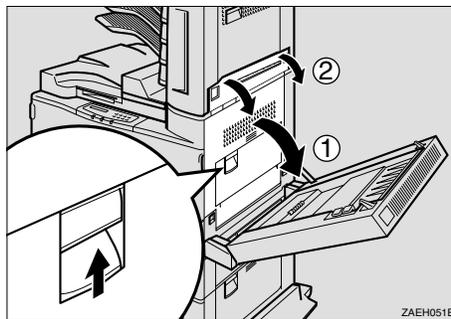


Fig. 6-17

3. Remove the jammed paper.



Fig. 6-18

4. Close the covers in the following order: the Upper right cover, the Right cover and the Duplex unit.

When “Jam: D” appears

1. Open the duplex unit by lifting the catch.

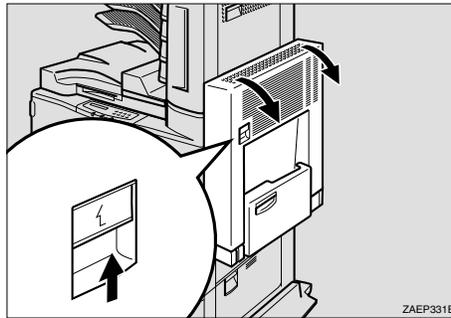


Fig. 6-19

2. Open the Right cover by lifting the catch (①) and open the Upper cover of the Interchange unit by pulling the handle (②).

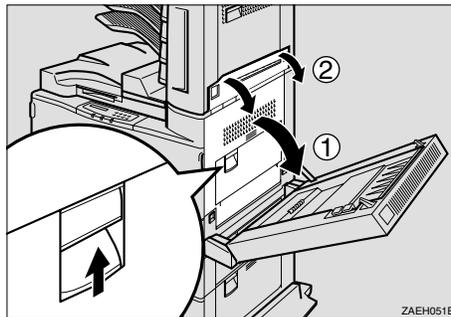


Fig. 6-20

3. Remove the jammed paper.

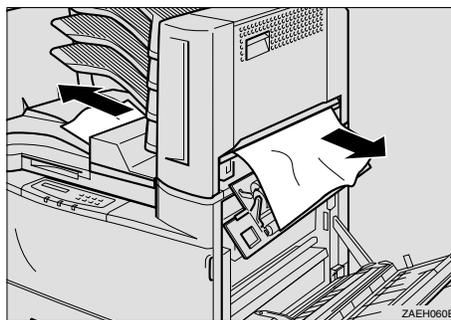


Fig. 6-21

4. If the jammed paper is not removed in step 3, open the Upper cover of the Bridge unit and remove the jammed paper.

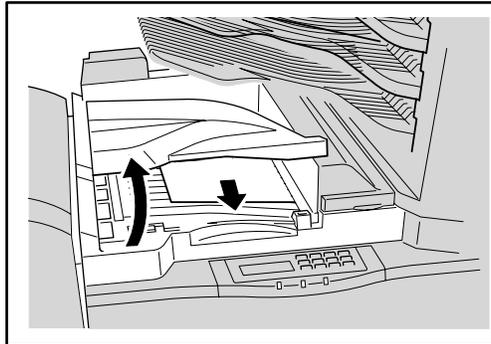


Fig. 6-22

5. If the jammed paper is not removed in step 4, open the Right cover of the Bridge unit (①) and remove the jammed paper (②).

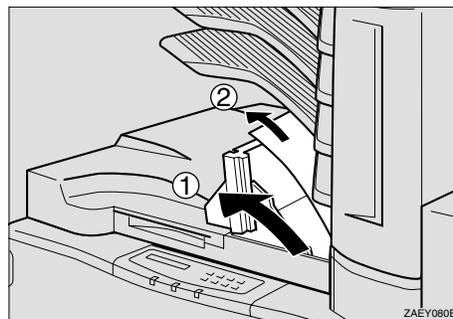


Fig. 6-23

6. Close the cover of the Bridge unit.

When “Jam: E” appears

1. Open the cover of the Mailbox.

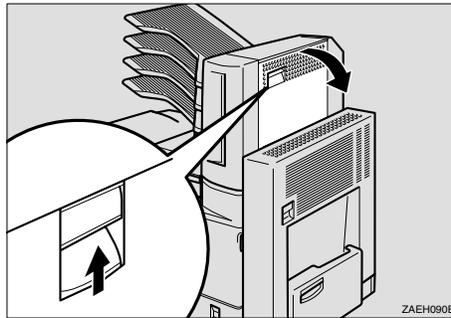


Fig. 6-24

2. Remove the jammed paper.

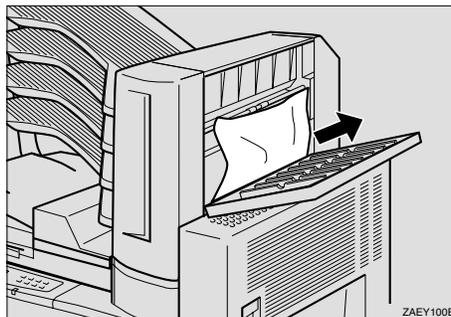


Fig. 6-25

3. Close the cover of the Mailbox.

When “Jam: R” appears

1. Remove the jammed paper inside the Finisher tray.

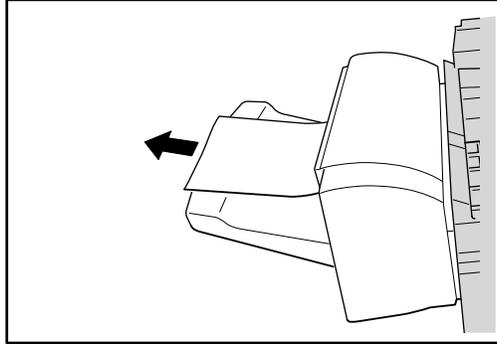


Fig. 6-26

2. If the jammed paper is not removed in step 1, open the Top cover of the Finisher.

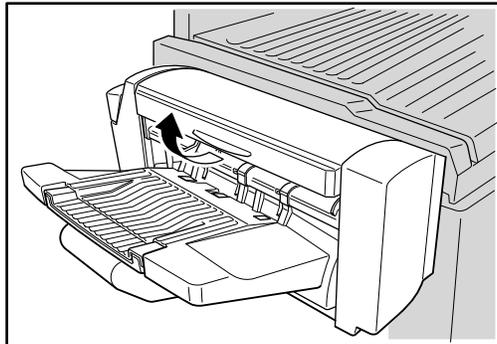


Fig. 6-27

3. Remove the jammed paper inside the cover.

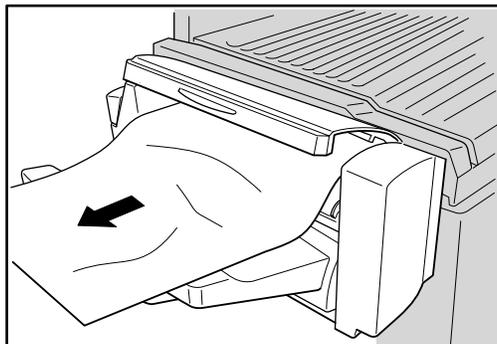


Fig. 6-28

4. Close the cover of the Finisher.

When “Jam: Y” appears

1. Open the Lower right cover 2.

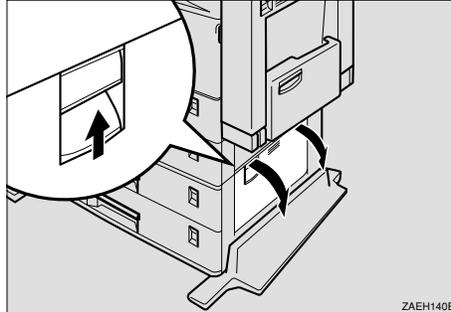


Fig. 6-29

2. Remove the jammed paper inside the cover.

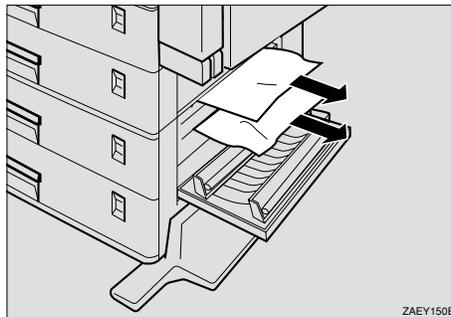


Fig. 6-30

3. Close the Lower right cover 2.

When “Jam: Z” appears

1. Open the Duplex unit by lifting the catch.

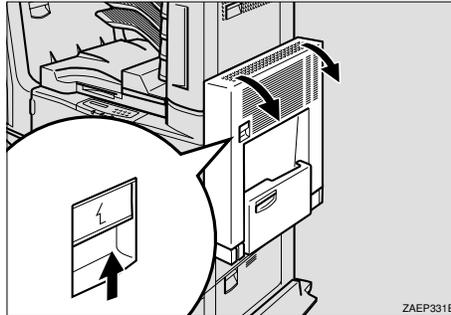


Fig. 6-31

2. While lifting the lever, lift cover Z1 (①) and remove the jammed paper (②).

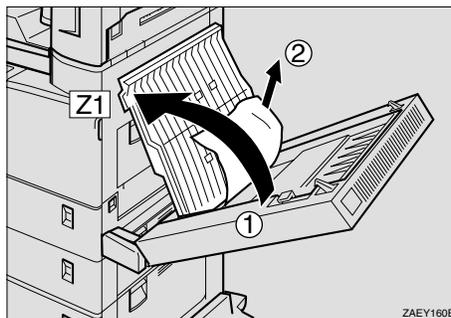


Fig. 6-32

3. If the jammed paper is not removed in step 2, while lifting the lever, lift cover Z2 (①) and remove the jammed paper (②).

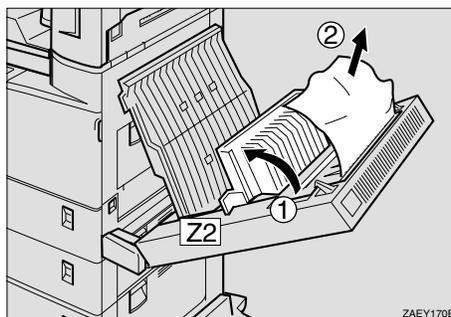


Fig. 6-33

- 4. Close cover Z2 and then cover Z1.

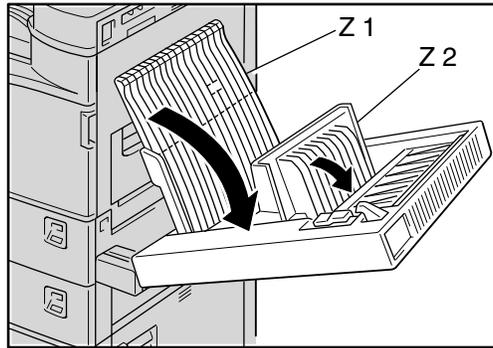


Fig. 6-34

- 5. Close the Duplex unit.

“COVER OPEN” message

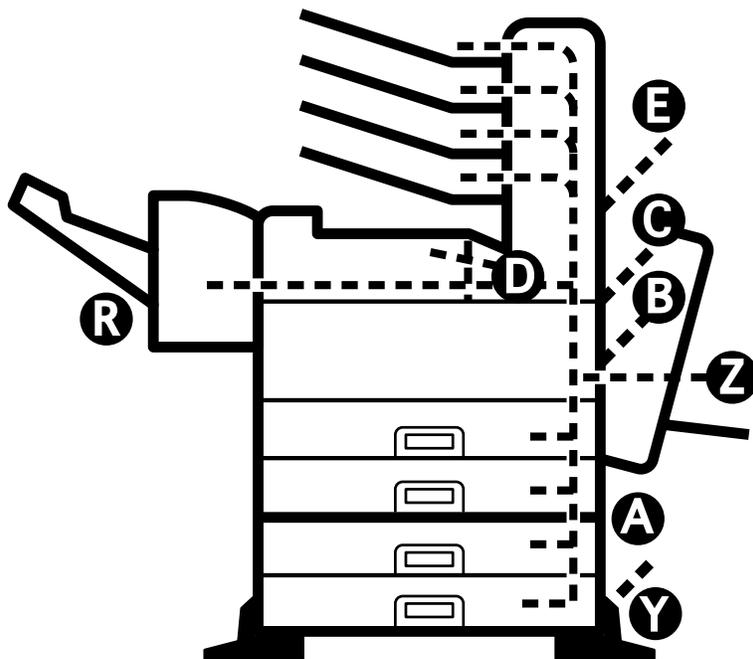


Fig. 6-35

Printer doesn't print

Possible Cause	Solutions
Is the power on?	If not, confirm that the cord is securely plugged into the power outlet and the printer. Turn on the printer power.
Is the paper set?	Load paper into the paper tray. See "Loading paper in the standard paper tray" in Chapter 1.
Is your specified paper size correct?	Set the specified paper in any of the input trays. Adjust the paper size dial to match the size and feed direction of the paper in the paper tray. See "Paper handling" in Chapter 1.
Is your specified paper type correct?	Set the specified paper in any of the input trays. Adjust the paper type using the Control panel. See "Control panel" in Chapter 3.
Can you print a configuration page?	If you cannot print a configuration page, it probably indicates a printer malfunction. You should contact your sales or service representative. If you can print a configuration 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 it in mind that large, complex data might take a long time for the printer to process.
Is the interface cable between the printer and your computer connected securely?	Connect the interface cable correctly. If there are any securing clips or screws, confirm they are fastened securely.
Are you using a correct interface cable?	The type of interface cable you should use depends on your computer. Be sure to use the correct one. See "Parallel Interface cable" in Chapter 1. If the cable is damaged or worn, replace it with a new one.
Did you connect the interface cable after turning on the main switch?	Check the interface cable is connected before turning on the power switch.

Improving print quality

If you are not satisfied with the printout quality, check the problem and take the necessary action to clear it.

◆ Note

- It is possible that paper could meet all of the guidelines listed in the specifications and still not print satisfactorily. This may be due to temperature, humidity or other variables over which the printer has no control. If you cannot clear print problems, consult the dealer where you purchased the printer.
-

Status	Possible Causes, Descriptions, and Solutions
The area on the page that should be white or free of toner is a hazy gray.	Adjust the image density correctly. See “Control Panel” in Chapter 3.
The edge of the paper is hazy gray.	If paper is curled, replace the paper.
The back of the printed output is hazy gray.	Check if the size setting on the paper tray dial matches the setting on Control panel. If not, set it to the size and feed direction of the paper loaded in the tray. If you print something after printing on paper whose size is smaller than the actual document size, the back of the next output may be hazy gray. See “Print Media and Sizes” and “Settings from the printer driver” in Chapter 1.
Image quality varies when printing on thick paper or on transparencies.	Set to “Thick paper” by switching the lever inside the tray 2 or by specifying this for the Multi-purpose tray from the printer driver. See “Control Panel” in Chapter 3.
Print image is too light.	Adjust image density to darker. See “Control Panel” in Chapter 3.
	If the toner save mode is specified using the Control panel, the whole image gets lighter.

Status	Possible Causes, Descriptions, and Solutions
Print image is too dark.	Adjust image density to lighter. See “Control Panel” in Chapter 3.
Some parts of the print image are not clear.	Due to a sudden change in temperature, condensation might appear inside the machine and reduce the print quality. If this occurs when you move the printer from a cold room to a warmer room, don't use the printer until it has come up to room temperature.
Multiple pages are fed through the printer at once.	Clean the Friction pad if it is dirty. See “Cleaning the Friction Pad” in Chapter 5.
	Clean the Pad inside the tray if it is dirty. See “Cleaning the Pad inside the tray” in Chapter 5.
Image is printed on the reverse side of the paper.	The paper is upside down in the tray, turn it over.
Paper jams occur frequently.	Check the paper size settings. The size specified with the paper size dial might be different from the actual paper size. Make the correct dial setting. See “Changing the paper size of the paper tray” in Chapter 1.
	Use the recommended paper. Avoid using curled, folded, or wrinkled paper, perforated paper, or glossy paper. See “Recommended Paper” in Chapter 1.
	Confirm that the side guides and the rear guide of the paper tray are set correctly. See “Loading paper in the standard paper tray” in Chapter 1.
	Clean the Friction pad and the Paper feed roller, if it is dirty. See “Cleaning the Friction Pad” or “Cleaning the Paper Feed Roller” in Chapter 5.
The Control panel error message stays on after removing the jammed paper.	Open the Front cover of your printer and then close it. Be sure to close the lower vertical paper feed cover. See “Paper Jams and How to clear them” in this chapter.

Status	Possible Causes, Descriptions, and Solutions
Desired tray isn't used for the output.	<p>Check the paper size settings. The size specified with the paper size dial might be different from the actual paper size. Set the dial to the correct setting. See "Paper handling" in Chapter 1.</p> <p>When you are using a Windows operating system, the printer driver settings override those specified using the Control panel. Specify the desired output tray using the printer driver. See "Setting the Media from the Printer driver" in Chapter 1.</p>
The printed image is different from the image in the computer.	When you use some features such as enlargement and reduction, the layout of the image might be different from that shown in the computer display. Before printing, use the print preview to see how the page will look when printed. If necessary, adjust the settings.
It takes a long time to resume printing.	The data is so large or complex that it takes time to process it. If the Data lamp is blinking, the data processing is being done. Just wait until it resumes.
Image is printed in the wrong orientation.	Specify the correct orientation in the printer driver. See "Features in the PCL printer driver" or "Features in the PS printer driver" in Chapter 2.
Part of the image cannot be printed.	A paper size which is smaller than that specified in the application is used for printing. Load the correct size of paper.
The output from Finisher is curled and a paper jam has occurred in the Finisher.	A paper jam may have occurred because of curled paper in the output tray. If the output paper is curled, remove the paper from the paper tray and load it again after turning it over.

Stains and Stripes

If the printed page is stained with toner or has vertical stripes, clean the printer interior. See “Cleaning” in Chapter 5.

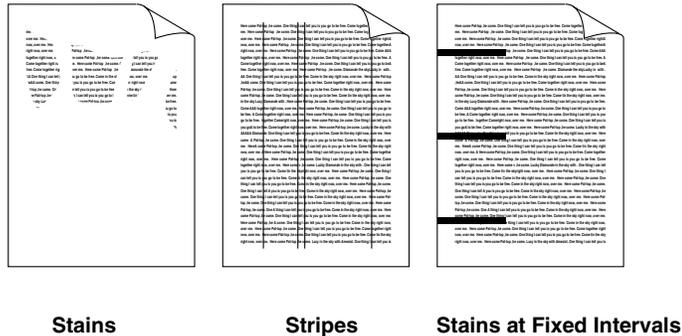


Fig. 6-36

If the same print problem occurs after cleaning, take any of the following actions:

- Make sure that you use paper or Transparencies that meet specifications and have the correct printing surface.
- Check that the toner bottle is not damaged. If it is damaged, replace it with a new one.

White Spots

The printed page may have white spots in black text and graphics areas. Make sure that you use paper or Transparencies that meet the printer's specifications and have the correct printing surface.

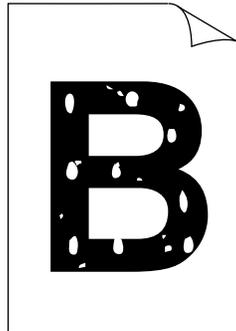


Fig. 6-37

Toner Scatter

If toner scatters around printed characters and stains the printed page, clean the printer interior. See [“Cleaning” in Chapter 5](#).

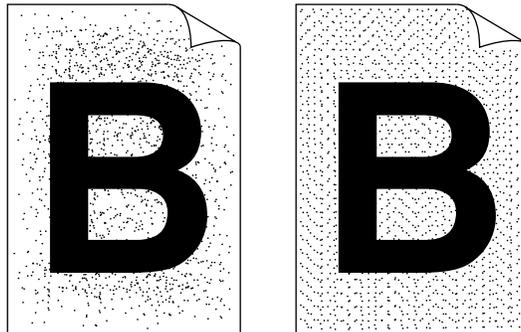


Fig. 6-38

If the same print problem occurs after cleaning, take any of the following actions:

- Make sure that you use paper, Transparencies, or envelopes that meet the printer's specifications.
- Check for glue on the paper. Glue causes toner to scatter.
- If toner scatters over the entire printing surface, adjust the print density.

Black Page

If an entire page is printed in black, make sure that the toner bottle is properly installed. Never use heat-sensitive paper, or it may cause this problem.

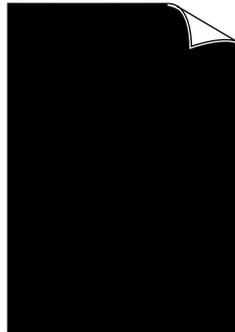


Fig. 6-39

White Page

If nothing is printed on pages, make sure that the toner bottle is not empty and that you are using paper, Transparencies, or envelopes that meet the printer's specifications.

If a stack of paper is not fanned, more than one sheet may be loaded at a time, which may cause blank pages to be ejected.

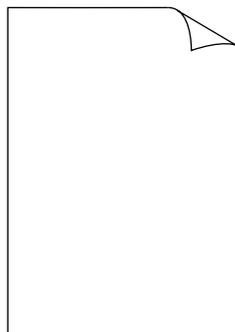


Fig. 6-40

Dropout

If the page has areas with missing print, make sure that the Toner bottle is not empty or the Toner is evenly distributed in the bottle.

Also, make sure that you use paper, Transparencies or envelopes that meet the printer's specifications. Moist paper causes this problem.

If the print density is set too low, this problem may occur. Adjust the print density to the proper setting.

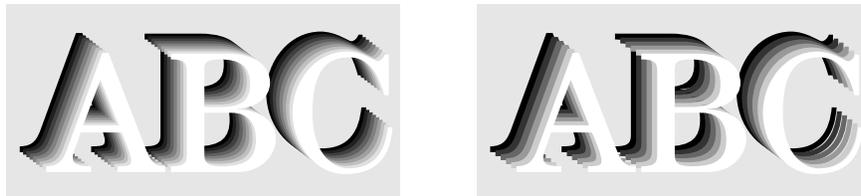


Fig. 6-41

Poor Halftone or Grayscale Transitions

If images do not have smooth transitions in gray, turn off the high resolution control (HRC SETTING) under “QUALITY” from the printer’s Control panel.

See “Control panel” in Chapter 3.



HRC = OFF

HRC = MEDIUM

Fig. 6-42



Caution

- Operation of the printer outside the specifications shall be deemed abuse and all repairs thereafter shall be the sole liability of the end user/purchaser.

APPENDICES

PRINTER SPECIFICATIONS

Printer Engine

Print Method Electrophotography by semiconductor laser beam scanning

Resolution

Windows 95/98/Me and 2000/NT4.0	600, 300dpi
DOS	600dpi
Mac OS 8.0 and 9.0	600, 300dpi
HRC(High Resolution Control)	For 300/600dpi

(The resolution can be enhanced by using the high resolution control feature.)

Print Speed 32 pages per minute (600 or 300 dpi / A4 & Letter size, simplex)
25 pages per minute (600 or 300 dpi / A4 & Letter size, duplex)

Warm Up Less than 45 seconds at 20°C (68°F)

First Print Less than 5 seconds
(Letter/A4 size by face down print delivery from Paper tray 1)
From picking up paper to ejecting paper into the output tray

<i>Storage Device</i>	HD-6G/HD-EX CompactFlash Type II
<i>Emulation</i>	Automatic emulation selection <ul style="list-style-type: none">• PCL6• BR-Script Level 3• HP-GL• EPSON FX-850• IBM Proprinter XL
<i>Resident Printer Fonts</i>	<ul style="list-style-type: none">• HP LaserJet, EPSON FX-850, and IBM Proprinter XL modes 66 scalable fonts, 12 bitmapped fonts and 11 bar codes• BR-Script Level 3 mode 165 scalable fonts

SOFTWARE

Printer Driver

PCL Driver for Windows® 95/98/Me, Windows NT® 4.0, Windows® 2000
BR-Script 3 which is a PostScript level 3 language emulation (PPD file for Windows® 95/98/Me and Windows NT® 4.0, Windows® 2000 and Apple® Mac OS 8.0 and 9.0, Ethertalk only)

Utility Software

- Automatic E-mail Printing
Utility software that automatically prints specified E-mail message at a prescheduled time: Windows 95/98/Me
- Storage Manager
HDD or CompactFlash can be controlled: Windows 95/98/Me
- Analysis Tool Software
The printer log can be investigated.
- Network Print Software
- Network Printer Driver Wizard

Electrical and Mechanical

Power Source	U.S.A. and Canada:	AC 110 to 120 V, 60 Hz
	Europe and Australia:	AC 220 to 240 V, 50/60 Hz

Slots	Compatible for CompactFlash Type I and II
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Diagnostics	Self-diagnostic program
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OTHERS

Power Consumption	Printing (full options):	Less than 1,000 WH
	Stand-by:	Less than 145 WH
	Sleep:	Less than 40 WH

Noise Level	Printing (Mainframe only):	Less than 53 dB
	Stand-by:	Less than 30 dB

Ecology	Power Saving:	Yes
	Toner Saving:	Yes

Temperature	Operating:	10°C to 32°C (50°F to 90°F)
	Storage:	0 to 35°C (38°F to 95°F)

Humidity Operating: 20 to 80% (without condensation)
Storage: 15 to 80% (without condensation)

Dimensions [Printer only (tray not extended)]:
550 (W) x 538 (H) x 516 (D) mm
(21.7 x 21.8 x 20.3 inches)
[With full options]
950 (W) x 538 (H) x 1140 (D) mm
(37.4 x 21.8 x 44.9 inches)

Weight Approx. 40 kg (88.18 lbs.)
Without options

SUPPLIES

Toner Toner is a single-component toner bottle
Life Expectancy: 12,000 single-sided pages/bottle
(A4 or letter size paper with the print density set at level 7 with
about 5% coverage).

Drum 60,000 A4/LTR pages (1 page/ job and long edge feeding)

Staples Min. 3000 staples/cartridge

OPTIONS

500x2 sheets paper tray (LT-5100)

Paper Size & Weight & Capacity:

See “Print Media and Sizes” in Chapter 1.

Power Consumption: 17W or less (Average)

Dimensions: 550 (W) x 520 (D) x 271 (H) mm
(21.7 x 20.5 x 10.7 inches)

Weight: 25kg (55.6lb)

2000 sheets paper tray (LT-5200)

Paper Size & Weight & Capacity:

See “Print Media and Sizes” in Chapter 1.

Power Consumption: 14W or less (Average)

Dimensions: 550 (W) x 520 (D) x 271 (H) mm
(21.7 x 20.5 x 10.7 inches)

Weight: 25kg (55.6lb)

Multi-purpose tray (MP-5000)

Paper Size & Weight & Capacity:

See “Multi-purpose tray” in Chapter 4.

Power Consumption: 10W or less (Average)

Dimensions: 125 (W) x 495 (D) x 163 (H) mm
(4.9 x 19.5 x 6.4 inches)

Weight: 2.5kg (5.6lb)

Interchange unit

Power Consumption: 10W or less (Average)

Dimensions: 135(W) x 515 (D) x 123 (H) mm
(5.3 x 20.3 x 4.8 inches)

Weight: 1kg (2.2lb)

Duplex unit

Paper Size & Weight:

See “Duplex unit” in Chapter 4.

Power Consumption: 10W or less (Average)

Dimensions: 90 (W) x 495 (D) x 452 (H) mm
(3.5 x 19.5 x 17.8 inches)

Weight: 7kg (15.6lb)

Mailbox

Paper Size & Weight & Capacity:

See “Mailbox” in Chapter 4.

Power Consumption: 17W or less (Average)

Dimensions: 440 (W) x 520 (D) x 370 (H) mm
(17.3 x 20.5 x 14.6 inches)

Weight: 7 kg (15.6lb)

Bridge unit

Paper Size & Weight & Capacity:

See “PAPER SPECIFICATION” in Appendix.

Power Consumption: 10W or less (Average)

Dimensions: 443 (W) x 497 (D) x 156 (H) mm
(17.4 x 19.6 x 6.1 inches)

Weight: 5 kg (11.1lb)

Other: Full stack detection is available.

Finisher/Stapler

Paper Size & Weight & Capacity:

See “PAPER SPECIFICATION” in Appendix.

Power Consumption: 48 W

Dimensions: 149 (W) x 490 (D) x 230 (H) mm
(5.9 x 19.3 x 9.1 inches)

Weight: 10 kg (22.2 lb)

HDD

See “HDD” in Chapter 4.

RAM

See “RAM Expansion” in Chapter 4.

PAPER SPECIFICATIONS

Paper Input

Paper Source	Media capacity	Media Sizes	Media Types and Weights
Paper Cassette 1	500 sheets (cut sheet)	A3, JIS B4, Ledger, A4, ISO B5, A5, Legal, Letter, Executive	Plain paper 60 – 105 g/m ² (16-28 lb)
Paper Cassette 2	500 sheets (cut sheet)	A3, JIS B4, Ledger, A4, ISO B5, A5, A6, Legal, Letter, Executive Envelopes: Com10, C5, DL, Monarch	Plain paper, Thick Paper, Transparencies 60 – 157 g/m ² (16-42 lb)
Optional Multi- purpose Tray (MP- 5000)	100 sheets	Custom Size: 90-297 x 148-432mm (3.54-11.69 x 5.83- 17.01)	Plain paper, Thick paper, Transparencies 60 – 157 g/m ² (16-42 lb)
500x2 sheets paper cassette (LT-5100)	1000 sheets (cut sheet)	A3, JIS B4, Ledger, A4, ISO B5, A5, Legal, Letter, Executive	Plain paper 60 – 105 g/m ² (16-28 lb)
2000 sheets paper cassette (LT-5200)	2000 sheets (cut sheet)	A4 or Letter	Plain paper 60 – 105 g/m ² (16-28 lb)

Paper Output

Paper Source	Output capacity	Media Sizes	Media Weights
Output tray	500 sheets (cut sheet)	A3, JIS B4, Ledger, A4, ISO B5, A5, A6, Legal, Letter, Executive Envelopes: Com10, C5, DL, Monarch	60 – 157 g/m ² (16-42 lb)
Bridge unit	250 sheets (A4) 125 sheets (larger than Ledger size)	(as a Proof tray) A3, JIS B4, Ledger, A4, ISO B5, A5, A6, Legal, Letter, Executive Envelopes: Com10, C5, DL, Monarch	Proof tray 60 – 157 g/m ² (16-42 lb) Bridge to the finisher 60 – 105 g/m ² (16-28 lb)
Finisher	500 sheets	A4, Legal, Letter, Executive	
	250 sheets	A3, JIS B4, Ledger	
Stapler	One staple for 20 sheets	A3, JIS B4, Ledger, Legal	
	One staple for 30 sheets	A4, Letter	
Mailbox	125 sheets per bin* ¹	A3, JIS B4, Ledger, A4, ISO B5, A5, Legal, Letter, Executive	60 – 105 g/m ² (16-28 lb)
Duplex unit		A3, JIS B4, Ledger, A4, ISO B5, A5, Legal, Letter, Executive	60 – 105 g/m ² (16-28 lb)

*¹ Stack Capacity: 125 sheets (A4 long-edge feed, 8½"x11" long-edge feed: 80g/m², 22lb) in each bin

Printer driver functions

PCL Driver only

Page Layout

N-up Printing	2, 4, 9, 16, 25, in 1 page
Poster Printing	1 in 4, 9, 16, 25
Watermark Printing	Yes

Other

Quick Print Setup*1	Yes
Secure Printing	Yes*2

*1 A printer driver function that enables you to change the driver settings without opening the Property dialog box

*2 When the optional HD-6G/HD-EX is installed.
(Proof/Public/Private/Print Only)

DIMENSIONS / WEIGHT

Dimensions 550 x 538 x 516mm (21.65 x 21.81 x 20.31 inches) – printer

Weight 40kg (88.18 lbs.)

SYMBOL/CHARACTER SETS

List of Fonts

For specific characters in resident bitmapped and scalable fonts, [see “SYMBOL/CHARACTER SETS” in Appendix.](#)

Display Message	Font
BROUGHAM	Scalable Brougham
LETTERGOTHIC	Scalable LetterGothic
OCR-A	Bitmapped OCR-A 12 cpi
OCR-B	Bitmapped OCR-B 12 cpi
LETTERGOTH16.6	Bitmapped Letter Gothic 16.66 cpi
LTRGOTH16 LTN2	Bitmapped Letter Gothic 16.66 cpi ISO 8859-1 Latin2
LTRGOTH16 LTN5	Bitmapped Letter Gothic 16.66 cpi ISO 8859-1 Latin5
LTRGOTH16 LTN6	Bitmapped Letter Gothic 16.66 cpi ISO 8859-1 Latin6
PcTENNESSEE	Scalable PC Tennessee
OKLAHOMA	Scalable Oklahoma
CONNECTICUT	Scalable Connecticut
CLEVELAND Cd	Scalable Cleveland Condensed
PCBRUSSELS	Scalable PC Brussels
UTAH	Scalable Utah
UTAH CONDENSED	Scalable Utah Condensed
AntiqueOAKLAND	Scalable Antique Oakland
GUATEMALA	Scalable Guatemala Antique
MARYLAND	Scalable Maryland
ALASKA	Scalable Alaska
HELSINKI	Scalable Helsinki
BR SYMBOL	Scalable BR Symbol
TENNESSEE	Scalable Tennessee
W DINGBATS	Scalable W Dingbats
GERMANY	Scalable Germany
SAN DIEGO	Scalable San Diego
BERMUDA SCRIPT	Scalable Bermuda Script
US ROMAN	Scalable US Roman
ATLANTA	Scalable Atlanta
COPENHAGEN	Scalable Copenhagen
PORTUGAL	Scalable Portugal
CALGARY	Scalable Calgary

List of Symbol/Character Sets

The symbol sets and character sets are subject to the current emulation mode. For specific symbol/character sets, see [“SYMBOL/CHARACTER SETS”](#) in Appendix.

HP LaserJet	EPSON	IBM
ROMAN 8	US ASCII *	PC-8 *
ISO LATIN1	GERMAN	PC-8 D/N
ISO LATIN2	UK ASCII I	PC-850
ISO LATIN5	FRENCH I	PC-852
ISO LATIN5		
PC-775		
PC-8 *	DANISH I	PC-860
PC-8 D/N	ITALY	PC-863
PC-850	SPANISH	PC-865
PC-852	SWEDISH	PC-8 TURKISH
PC-8 TURKISH	JAPANESE	
PC-1004		
WINDOWS LATIN1	NORWEGIAN	
WINDOWS LATIN2	DANISH II	
WINDOWS LATIN5	UK ASCII II	
WINDOWS BALTIC		
LEGAL	FRENCH II	
ISO 2 IRV	DUTCH	
ISO 4 UK	SOUTH AFRICAN	
ISO 6 ASCII	PC-8	
ISO10 SWE/FIN	PC-8 D/N	
ISO11 SWEDISH	PC-850	
ISO14 JISASCII	PC-852	
ISO15 ITALIAN	PC-860	
ISO16 POR	PC-863	
ISO17 SPANISH	PC-865	
ISO21 GERMAN	PC-8 TURKISH	
ISO25 FRENCH		
ISO57 CHINESE		
ISO60 NOR v1		
ISO61 NOR v2		
ISO69 FRENCH		
ISO84 POR		
ISO85 SPANISH		
HP GERMAN		
HP SPANISH		
VENTURA MATH		
VENTURA INTL		
VENTURA US		
PS MATH		
PS TEXT		
MATH-8		
PI FONT		
MS PUBLISHING		
WINDOWS 3.0		
MC TEXT		
DESKTOP		

•❖ **Note**

The factory settings are indicated by an asterisk “ * ” in the table above.

You can select the symbol and character sets from the FONT menu in the HP LaserJet, EPSON FX-850, and IBM Proprinter XL emulation modes. See “Control Panel” in Chapter 3.

When you have selected the HP-GL emulation mode, you can select the standard or alternate character set from the control panel. See “Control Panel” in Chapter 3.

OCR Symbol Sets

When the OCR-A or OCR-B font is selected, the corresponding symbol set is always used.

HP LaserJet Mode

Symbol (19M)
Windings (579L)

The following table shows characters available only in the corresponding character set. The numbers at the top of the table are hexadecimal code values with which characters are to be replaced in the Roman 8 character set. For other characters, see the Roman 8 character set.

EPSON Mode

The following table shows characters available only in the corresponding character set. The numbers at the top of the table are hexadecimal code values with which characters are to be replaced in the US ASCII character set. For other characters, see the US ASCII character set.

IBM Mode

HP-GL Mode

Symbol Sets Supported by the Printer's Intellifont Compatible Typefaces

PCL Symbol Set		Typeface						
Set ID	Symbol Set	Alaska	Antique Oakland	Brougham	Cleveland Cond.	Connect-Guatemala icut	Letter Antique	Letter Gothic
8U	Roman-8	•	•	•	•	•	•	•
0N	ISO 8859-1 Latin1	•	•	•	•	•	•	•
2N	ISO 8859-2 Latin2	•	•	•	•	•	•	•
5N	ISO 8859-9 Latin5	•	•	•	•	•	•	•
6N	ISO 8859-10 Latin6	•	•	•	•	•	•	•
10U	PC-8	•	•	•	•	•	•	•
11U	PC-8 D/N	•	•	•	•	•	•	•
12U	PC-850	•	•	•	•	•	•	•
17U	PC-852	•	•	•	•	•	•	•
26U	PC-775	•	•	•	•	•	•	•
9T	PC-Turk	•	•	•	•	•	•	•
19U	Windows 3.1 Latin1	•	•	•	•	•	•	•
9E	Windows 3.1 Latin2	•	•	•	•	•	•	•
5T	Windows 3.1 Latin5	•	•	•	•	•	•	•
7J	DeskTop	•	•	•	•	•	•	•
9J	PC-1004 (OS/2)	•	•	•	•	•	•	•
10J	PS Text	•	•	•	•	•	•	•
13J	Ventura International	•	•	•	•	•	•	•
14J	Ventura US	•	•	•	•	•	•	•
6J	Microsoft Publishing	•	•	•	•	•	•	•
8M	Math-8	•	•	•	•	•	•	•
5M	PS Math	•	•	•	•	•	•	•
6M	Ventura Math	•	•	•	•	•	•	•
15U	PI Font	•	•	•	•	•	•	•
1U	Legal	•	•	•	•	•	•	•
1E	ISO 4: United Kingdom*	•	•	•	•	•	•	•
0U	ISO 6: ASCII*	•	•	•	•	•	•	•
2U	ISO 2: IRV*	•	•	•	•	•	•	•
0S	ISO 11: Swedish: names*	•	•	•	•	•	•	•
0I	ISO 15: Italian*	•	•	•	•	•	•	•
1S	HP Spanish*	•	•	•	•	•	•	•
2S	ISO 17: Spanish*	•	•	•	•	•	•	•
3S	ISO 10: Swedish*	•	•	•	•	•	•	•
4S	ISO 16: Portuguese*	•	•	•	•	•	•	•
5S	ISO 84: Portuguese*	•	•	•	•	•	•	•
6S	ISO 85: Spanish*	•	•	•	•	•	•	•
0G	HP German*	•	•	•	•	•	•	•
1G	ISO 21: German*	•	•	•	•	•	•	•
0D	ISO 60: Norwegian 1*	•	•	•	•	•	•	•
1D	ISO 61: Norwegian 2*	•	•	•	•	•	•	•
0F	ISO 25: French*	•	•	•	•	•	•	•
1F	ISO 69: French*	•	•	•	•	•	•	•
0K	ISO 14: JIS ASCII*	•	•	•	•	•	•	•
2K	ISO 57: Chinese*	•	•	•	•	•	•	•
9U	Windows 3.0 Latin1	•	•	•	•	•	•	•
12J	MC Text	•	•	•	•	•	•	•
19M	Symbol							
19L	Windows Baltic	•	•	•	•	•	•	•
579L	Wingdings							

*These symbol sets are variations of the Roman-8 symbol set.

PCL Symbol Set		Typeface(Continued)						
Set ID	Symbol Set	LetterGothic 16.66**	Mary- land	Oklahoma	PC Brussels	PC Tennessee	Utah	Utah Cond.
8U	Roman-8	•	•	•	•	•	•	•
0N	ISO 8859-1 Latin1	•	•	•	•	•	•	•
2N	ISO 8859-2 Latin2	•	•	•	•	•	•	•
5N	ISO 8859-9 Latin5	•	•	•	•	•	•	•
6N	ISO 8859-10 Latin6	•	•	•	•	•	•	•
10U	PC-8	•	•	•	•	•	•	•
11U	PC-8 D/N	•	•	•	•	•	•	•
12U	PC-850	•	•	•	•	•	•	•
17U	PC-852	•	•	•	•	•	•	•
26U	PC-775	•	•	•	•	•	•	•
9T	PC-Turk	•	•	•	•	•	•	•
19U	Windows 3.1 Latin1	•	•	•	•	•	•	•
9E	Windows 3.1 Latin2	•	•	•	•	•	•	•
5T	Windows 3.1 Latin5	•	•	•	•	•	•	•
7J	DeskTop	•	•	•	•	•	•	•
9J	PC-1004(OS/2)	•	•	•	•	•	•	•
10J	PS Text	•	•	•	•	•	•	•
13J	Ventura International	•	•	•	•	•	•	•
14J	Ventura US	•	•	•	•	•	•	•
6J	Microsoft Publishing	•	•	•	•	•	•	•
8M	Math-8	•	•	•	•	•	•	•
5M	PS Math	•	•	•	•	•	•	•
6M	Ventura Math	•	•	•	•	•	•	•
15U	PI Font	•	•	•	•	•	•	•
1U	Legal	•	•	•	•	•	•	•
1E	ISO 4: United Kingdom*	•	•	•	•	•	•	•
0U	ISO 6: ASCII*	•	•	•	•	•	•	•
2U	ISO 2: IRV*	•	•	•	•	•	•	•
0S	ISO 11: Swedish: names*	•	•	•	•	•	•	•
0I	ISO 15: Italian*	•	•	•	•	•	•	•
1S	HP Spanish*	•	•	•	•	•	•	•
2S	ISO 17: Spanish*	•	•	•	•	•	•	•
3S	ISO 10: Swedish*	•	•	•	•	•	•	•
4S	ISO 16: Portuguese*	•	•	•	•	•	•	•
5S	ISO 84: Portuguese*	•	•	•	•	•	•	•
6S	ISO 85: Spanish*	•	•	•	•	•	•	•
0G	HP German*	•	•	•	•	•	•	•
1G	ISO 21: German*	•	•	•	•	•	•	•
0D	ISO 60: Norwegian 1*	•	•	•	•	•	•	•
1D	ISO 61: Norwegian 2*	•	•	•	•	•	•	•
0F	ISO 25: French*	•	•	•	•	•	•	•
1F	ISO 69: French*	•	•	•	•	•	•	•
0K	ISO 14: JIS ASCII*	•	•	•	•	•	•	•
2K	ISO 57: Chinese*	•	•	•	•	•	•	•
9U	Windows 3.0 Latin1	•	•	•	•	•	•	•
12J	MC Text	•	•	•	•	•	•	•
19M	Symbol	•	•	•	•	•	•	•
19L	Windows Baltic	•	•	•	•	•	•	•
579L	Wingdings	•	•	•	•	•	•	•

*These symbol sets are variations of the Roman-8 symbol set.

**LetterGothic 16.66 is a bitmapped font.

Symbol Sets Supported by the Printer's TrueType™, Type 1 Compatible Fonts and Original Typefaces

PCL Symbol Set		Typeface							
Set ID	Symbol Set	Atlanta	BR Symbol	Copenhagen	Calgary	Helsinki	Portugal	Tennes-see	W Dingbats
8U	Roman-8	•		•	•	•	•	•	
0N	ISO 8859-1 Latin1	•		•	•	•	•	•	
2N	ISO 8859-2 Latin2					•		•	
5N	ISO 8859-9 Latin5					•		•	
6N	ISO 8859-10 Latin6					•		•	
10U	PC-8	•		•	•		•	•	
11U	PC-8 D/N	•		•	•	•	•	•	
12U	PC-850	•		•	•	•	•	•	
17U	PC-852					•		•	
26U	PC-775					•		•	
9T	PC-Turk					•		•	
19U	Windows 3.1 Latin1	•		•	•	•	•	•	
9E	Windows 3.1 Latin2					•		•	
5T	Windows 3.1 Latin5					•		•	
7J	DeskTop	•		•	•		•	•	
9J	PC-1004 (OS/2)					•		•	
10J	PS Text	•		•	•	•	•	•	
13J	Ventura International	•		•	•	•	•	•	
14J	Ventura US	•		•	•	•	•	•	
6J	Microsoft Publishing	•		•	•	•	•	•	
8M	Math-8					•		•	
5M	PS Math					•		•	
6M	Ventura Math					•		•	
15U	PI Font							•	
1U	Legal	•		•	•	•	•	•	
1E	ISO 4: United Kingdom*	•		•	•	•	•	•	
0U	ISO 6: ASCII*	•		•	•	•	•	•	
2U	ISO 2: IRV*	•		•	•	•	•	•	
0S	ISO 11: Swedish: names*	•		•	•	•	•	•	
0I	ISO 15: Italian*	•		•	•	•	•	•	
1S	HP Spanish*	•		•	•	•	•	•	
2S	ISO 17: Spanish*	•		•	•	•	•	•	
3S	ISO 10: Swedish*	•		•	•	•	•	•	
4S	ISO 16: Portuguese*	•		•	•	•	•	•	
5S	ISO 84: Portuguese*	•		•	•	•	•	•	
6S	ISO 85: Spanish*	•		•	•	•	•	•	
0G	HP German*	•		•	•	•	•	•	
1G	ISO 21: German*	•		•	•	•	•	•	
0D	ISO 60: Norwegian 1*	•		•	•	•	•	•	
1D	ISO 61: Norwegian 2*	•		•	•	•	•	•	
0F	ISO 25: French*	•		•	•	•	•	•	
1F	ISO 69: French*	•		•	•	•	•	•	
0K	ISO 14: JIS ASCII*	•		•	•	•	•	•	
2K	ISO 57: Chinese*	•		•	•	•	•	•	
9U	Windows 3.0 Latin1	•		•	•	•	•	•	
12J	MC Text	•		•	•	•	•	•	
19M	Symbol		•						
19L	Windows Baltic					•		•	
579L	Wingdings								•

*These symbol sets are variations of the Roman-8 symbol set.

PCL Symbol Set		Typeface			
Set ID	Symbol Set	Bermuda Script	Germany	San Diego	US Roman
8U	Roman-8	•	•	•	•
0N	ISO 8859-1 Latin1	•	•	•	•
2N	ISO 8859-2 Latin2				
5N	ISO 8859-9 Latin5				
6N	ISO 8859-10 Latin6				
10U	PC-8	•	•	•	•
11U	PC-8 D/N	•	•	•	•
12U	PC-850	•	•	•	•
17U	PC-852				
26U	PC-775				
9T	PC-Turk				
19U	Windows 3.1 Latin1	•	•	•	•
9E	Windows 3.1 Latin2				
5T	Windows 3.1 Latin5				
7J	DeskTop	•	•	•	•
9J	PC-1004 (OS/2)				
10J	PS Text	•	•	•	•
13J	Ventura International	•	•	•	•
14J	Ventura US	•	•	•	•
6J	Microsoft Publishing	•	•	•	•
8M	Math-8				
5M	PS Math				
6M	Ventura Math				
15U	PI Font				
1U	Legal	•	•	•	•
1E	ISO 4: United Kingdom*	•	•	•	•
0U	ISO 6: ASCII*	•	•	•	•
2U	ISO 2: IRV*	•	•	•	•
0S	ISO 11: Swedish: names*	•	•	•	•
0I	ISO 15: Italian*	•	•	•	•
1S	HP Spanish*	•	•	•	•
2S	ISO 17: Spanish*	•	•	•	•
3S	ISO 10: Swedish*	•	•	•	•
4S	ISO 16: Portuguese*	•	•	•	•
5S	ISO 84: Portuguese*	•	•	•	•
6S	ISO 85: Spanish*	•	•	•	•
0G	HP German*	•	•	•	•
1G	ISO 21: German*	•	•	•	•
0D	ISO 60: Norwegian 1*	•	•	•	•
1D	ISO 61: Norwegian 2*	•	•	•	•
0F	ISO 25: French*	•	•	•	•
1F	ISO 69: French*	•	•	•	•
0K	ISO 14: JIS ASCII*	•	•	•	•
2K	ISO 57: Chinese*	•	•	•	•
9U	Windows 3.0 Latin1	•	•	•	•
12J	MC Text	•	•	•	•
19M	Symbol				
19L	Windows Baltic				
579L	Wingdings				

*These symbol sets are variations of the Roman-8 symbol set.

Bar Code Control

The printer can print bar codes in the HP LaserJet, EPSON FX-850 and IBM Proprinter XL emulation modes.

Print Bar Codes or Expanded Characters

Code ESC i
Dec 27 105
Hex 1B 69

Format: ESC i n ... n \

Creates bar codes or expanded characters according to the segment of parameters “n ... n”. For further information about parameters, see the following “Definition of Parameters.” This command must end with the “\” code (5CH).

[Definition of Parameters]

This bar code command can have the following parameters in the parameter segment (n ... n). Since parameters are effective within the single command syntax ESC i n ... n \, they don't take effect in the subsequent bar code commands. If certain parameters are not specified, they take the default settings. The last parameter must be the bar code data start (“b” or “B”) or the expanded character data start (“l” or “L”). Other parameters can be specified in any sequence. The prefix of each parameter can be a lower-case or upper-case character: for example, “t0” or “T0”, “s3” or “S3”, etc.



Bar Code Mode

n = "t0" or "T0"	CODE 39 (default)
n = "t1" or "T1"	Interleaved 2 of 5
n = "t3" or "T3"	FIM (US-Post Net)
n = "t4" or "T4"	Post Net (US-Post Net)
n = "t5" or "T5"	EAN 8, EAN 13, or UPC A
n = "t6" or "T6"	UPC E
n = "t9" or "T9"	Codabar
n = "t12" or "T12"	Code 128 set A
n = "t13" or "T13"	Code 128 set B
n = "t14" or "T14"	Code 128 set C
n = "t130" or "T130"	ISBN (EAN)
n = "t131" or "T131"	ISBN (UPC-E)
n = "t132" or "T132"	EAN 128 set A
n = "t133" or "T133"	EAN 128 set B
n = "t134" or "T134"	EAN 128 set C

This parameter selects the bar code mode as above. When n is "t5" or "T5", the bar code mode (EAN 8, EAN 13, or UPC A) varies according to the number of characters in the data.

■ Bar Code, Expanded Character, Line Block Drawing & Box Drawing

n = "s0" or "S0" 3 : 1 (default)

n = "s1" or "S1" 2 : 1

n = "s3" or "S3" 2.5 : 1

This parameter selects the bar code style as above. When the EAN 8, EAN 13, UPC-A, Code 128 or EAN 128 bar code mode is selected, this bar code style parameter is ignored.

Expanded Character

"S" 0 = White

1 = Black

2 = Vertical stripes

3 = Horizontal stripes

4 = Cross hatch

eg. "S" n1 n2

n1 = Background fill pattern

n2 = Foreground fill pattern

If "S" is followed by only one parameter, the parameter is a foreground fill pattern.

Line Block Drawing & Box Drawing

"S" 1 = Black

2 = Vertical stripes

3 = Horizontal stripes

4 = Cross hatch

■ Bar Code

n = "mnnn" or "Mnnn" (nnn = 0 ~ 32767)

This parameter specifies the bar code width. The unit of "nnn" is %.

■ Bar Code Human Readable Line On or Off

n = "r0" or "R0" Human readable line OFF
n = "r1" or "R1" Human readable line ON

Default: Human readable line ON
(1) "T5" or "t5"
(2) "T6" or "t6"
(3) "T130" or "t130"
(4) "T131" or "t131"

Default: Human readable line OFF
All others

This parameter specifies whether or not the printer prints the human readable line below the bar code. Human readable characters are always printed with OCR-B font of 10 pitch and all the current character style enhancements are masked. Note that the default setting is subject to the bar code mode selected by "t" or "T".

■ Quiet Zone

n = "onnn" or "Onnn" (nnn = 0 ~ 32767)

Quiet Zone is the space on both side of the bar codes. Its width can be specified using the units which are set by the "u" of "U" parameter. (For the description of "u" or "U" parameter, see the next section.) The default setting of Quiet Zone width is 1 inch.

■ Bar Code, Expanded Character Unit, Line Block Drawing & Box Drawing

n = "u0" or "U0" Millimeters (default)
n = "u1" or "U1" 1/10"
n = "u2" or "U2" 1/100"
n = "u3" or "U3" 1/12"
n = "u4" or "U4" 1/120"
n = "u5" or "U5" 1/10 Millimeters
n = "u6" or "U6" 1/300"
n = "u7" or "U7" 1/720"

This parameter specifies the measurement units of X-axis offset, Y-axis offset, and bar code height.

■ Bar Code, Expanded Character, Line Block Drawing & Box Drawing Offset in X-axis

n = “xnnn” or “Xnnn”

This parameter specifies the offset from the left margin in the “u”- or “U”-specified unit.

■ Bar Code & Expanded Character Offset in Y-axis

n = “ynnn” or “Ynnn”

This parameter specifies the downward offset from the current print position in the “u”- or “U”-specified unit.

■ Bar Code, Expanded Character, Line Block Drawing & Box Drawing Height

n = “hnnn”, “Hnnn”, “dnnn”, or “Dnnn”

- | | | |
|-----|---|-------|
| (1) | EAN13, EAN8, UPC-A, ISBN (EAN13, EAN8, UPC-A),
ISBN (UPC-E): | 22 mm |
| (2) | UPC-E: | 18 mm |
| (3) | Others: | 12 mm |

Expanded characters	→ 2.2 mm (default)
Line Block Drawing & Box Drawing	→ 1 dot

This parameter specifies the height of bar codes or expanded characters as above. It can take the prefix “h”, “H”, “d”, or “D”. The height of bar codes is specified in the “u”- or “U”-specified unit. Note that the default setting of the bar code height (12 mm, 18 mm or 22 mm) is subject to the bar code mode selected by “t” or “T”.

■ Expanded Character Width, Line Block Drawing & Box Drawing

n = “wnnn” or “Wnnn”

Expanded character	→ 1.2 mm
Line Block Drawing & Box Drawing	→ 1 dot

This parameter specifies the width of expanded characters as above.

■ Expanded Character Rotation

n = "a0" or "A1"	Upright (default)
n = "a1" or "A1"	Rotated 90 degrees
n = "a2" or "A2"	Upside down, rotated 180 degrees
n = "a3" or "A3"	Rotated 270 degrees

■ Bar Code Data Start

n = "b" or "B"

Data that follows "b" or "B" is read in as bar code data. Bar code data must end with the "\ " code (5CH), which also terminates this command. The acceptable bar code data is subject to the bar code mode selected by "t" or "T".

- When CODE 39 is selected with the parameter "t0" or "T0":

Forty three characters "0" to "9", "A" to "Z", "-", ".", " (space)", "\$", "/", "+", and "%" can be accepted as bar code data. Other characters cause data error. The number of characters for bar codes is not limited. The bar code data automatically starts and ends with an asterisk "*" (start character and stop character). If the received data has an asterisk "*" at its beginning or end, the asterisk is regarded as a start character or stop character.

- When Interleaved 2 of 5 is selected with the parameter "t1" or "T1":

Ten numerical characters "0" to "9" can be accepted as bar code data. Other characters cause data error. The number of characters for bar codes is not limited. Since this mode of bar codes require even characters, if the bar code data has odd characters, the zero character "0" is automatically added to the end of the bar code data.

- When FIM (US-Post Net) is selected with the parameter "t3" or "T3":

Characters "A" to "D" are valid and 1 digit of data can be printed. Uppercase and lowercase alphabet characters can be accepted.

- When Post Net (US-Post Net) is selected with the parameter "t4" or "T4":

Characters "0" to "9" can be data and it must be terminated by a check digit. "?" can be used in place of the check digit.

- When EAN 8, EAN 13, or UPC A is selected with the parameter “t5” or “T5”:

Ten numerical characters “0” to “9” can be accepted as bar code data. The number of characters for bar codes is limited as follows.

EAN 8: Total 8 digits (7 digits + 1 check digit)
 EAN 13: Total 13 digits (12 digits + 1 check digit)
 UPC A: Total 12 digits (11 digits + 1 check digit)

A number of characters other than above causes data error and the bar code data is printed as normal print data. If the check digit is incorrect, the printer calculates the correct check digit automatically so that the correct bar code data will be printed. When EAN13 is selected, adding “+” and a 2-or 5-digit number after the data can create an add-on code.
- When UPC-E is selected with the parameter “t6” or “T6”:

The numerical characters “0” to “9” can be accepted as bar code data.

 - 8 digits Standard format. The first character must be “0” and the data must be terminated by a check digit.
 Total 8 digits = “0” + 6 digits + 1 check digit.
 - 6 digits The first character and the last check digit are removed from the 8 digit data.

*1: For 8 digits, “?” can be used in place of a check digit.
 *2: Adding “+” and 2- or 5-digit number after the data creates an add-on code for all 6 and 8 digit formats.
- When Codabar is selected with the parameter “t9” or “T9”:

Characters “0” to “9”, “-”, “.”, “\$”, “/”, “+”, “:” can be printed. Characters “A” to “D” can be printed as a start-stop code, which can be uppercase or lowercase. If there is no start-stop code, errors occur. A check digit cannot be added and using “?” causes errors.
- When Code 128 Set A, Set B, or Set C is selected with the parameter “t12” or “T12,” “t13” or “T13,” or “t14” or “T14” respectively:

Code 128 sets A, B and C are individually selectable. Set A encodes characters Hex 00 ... 5F. Set B encodes characters Hex 20 ... 7F. Set C encodes numeric pairs 00 ... 99. Switching is allowed between the code sets by sending %A, %B, or %C. FNC 1, 2, 3, and 4 are produced with %1, %2, %3, and %4. The SHIFT code, %S, allows temporary switching (for 1 character only) from set A to set B and vice versa. The “%” character can be encoded by sending it twice.

- When ISBN (EAN) is selected with the parameter “t130” or “T130”:
Same rules apply as for “t5” or “T5”
- When ISBN (UPC-E) is selected with the parameter “t131” or “T131”:
Same rules apply as for “t6” or “T6”
- When EAN 128 set A, set B or set C is selected with the parameter “t132” or “T132”, “t133” or “T133” or “t134” or “T134” respectively:
Same rules apply as for “t12” or “T12”, “t13” or “T13”, or “t14” or “T14”.

■ Box Drawing

ESC i ... E (or e)

“E” or “e” is a terminator.

■ Line Block Drawing

ESC i ... V (or v)

“V” or “v” is a terminator.

■ Expanded Character Data Start

n = “I” or “L”

Data that follows “I” or “L” is read in as expanded character data (or labeling data). Expanded character data must end with the “\” code (5CH), which also terminates this command.

[Example Program Listings]

```
WIDTH "LPT1:",255
'CODE 39
LPRINT CHR$(27);"it0r1s0o0x00y00bCODE39?\";
'Interleaved 2 of 5
LPRINT CHR$(27);"it1r1s0o0x00y20b123456?\";
'FIM
LPRINT CHR$(27);"it3r1o0x00y40bA\";
```

```
'Post Net
LPRINT CHR$(27);"it4r1o0x00y60b1234567890?\\";

'EAN-8
LPRINT CHR$(27);"it5r1o0x00y70b1234567?\\";

'UPC-A
LPRINT CHR$(27);"it5r1o0x50y70b12345678901?\\";

'EAN-13
LPRINT CHR$(27);"it5r1o0x100y70b123456789012?\\";

'UPC-E
LPRINT CHR$(27);"it6r1o0x150y70b0123456?\\";

'Codabar
LPRINT CHR$(27);"it9r1s0o0x00y100bA123456A\\";

'Code 128 set A
LPRINT CHR$(27);"it12r1o0x00y120bCODE128A12345?\\";

'Code 128 set B
LPRINT CHR$(27);"it13r1o0x00y140bCODE128B12345?\\";

'Code 128 set C
LPRINT CHR$(27);"it14r1o0x00y160b";CHR$(1);CHR$(2);"?\\";

'ISBN(EAN)
LPRINTCHR$(27);"it130r1o0x00y180b123456789012?+12345\\";

'EAN 128 set A
LPRINT CHR$(27);"it132r1o0x00y210b1234567890?\\";

LPRINT CHR$(12)
END
```

INDEX

-
- 3-2
- +
- + 3-2
- + &- switch 3-14
- A**
- accessory 2-7
- alarm 3-17
- Analysis Tool Software 2-16
- automatic e-mail printing 2-14
- automatic emulation selection 2-21
- automatic interface selection 2-23
- B**
- back switch 3-2
- Back switch 3-16
- bar code control Appendix-23
- bonus software 2-14
- BR-Admin Professional 2-16
- Bridge unit Appendix-10
- Bridge Unit 4-44
- Brother Storage Manager 2-16
- BR-Script 3 2-1
- BR-Script 3 mode 3-34
- C**
- character set Appendix-15
- CD-ROM 1-3
- CD-ROM for Macintosh users 1-5
- cleaning 5-13
- compact flash memory card 4-55
- D**
- data 3-17
- date and time setting 3-32
- Device 2-5
- DIMM 4-57, 4-59
- drum Appendix-6
- drum unit 5-7
- duplex 2-4
- duplex unit 4-20
- Duplex unit Appendix-9
- Duplex Unit 6-20
- E**
- emulation Appendix-3
- emulation mode 3-34
- envelop 1-29
- environment 1-10
- EPSON FX-850 mode 3-35
- EPSON Mode Appendix-17
- error messages 6-1
- F**
- factory setting 2-24
- factory settings 3-36
- Finisher 6-18
- Finisher/Stapler 4-50, Appendix-10
- font list Appendix-14
- friction pad 5-17
- G**
- go switch 3-2, 3-3
- H**
- Hard Disk Drive 4-62
- HDD 4-62, Appendix-10
- HP LaserJet mode 3-34
- HP LaserJet Mode Appendix-17
- HP-GL mode 3-35
- HP-GL Mode Appendix-18
- I**
- IBM Mode Appendix-18
- IBM Proprinter XL mode 3-35
- Interchange unit 4-14, Appendix-8
- IP address 3-33
- J**
- job cancel switch 3-2, 3-4
- L**
- label 1-29
- LCD 3-18, 6-1
- LED 3-17
- loading paper 1-20
- Localization kit 1-1
- LT-5100 4-4, 4-12, Appendix-7
- LT-5200 4-4, 4-12, Appendix-7
- M**
- Macintosh 2-19
- mailbox 6-17
- Mailbox 4-43, Appendix-9
- Mailbox unit 4-39
- maintenance messages 6-4
- manual feed 4-29

memory 4-57, Appendix-2
 multi-purpose tray 4-29, 4-35, Appendix-8

O

OCR symbol setAppendix-16
 option..... 4-1
 Option..... 2-5

P

pad 5-18
 paper feed roller 5-13
 paper handling..... 1-19
 paper jam 6-8
 paper size 1-22
 paper specification..... 1-14
 Parallel Interface Cable..... 1-2
 PCL6 2-1
 power..... 3-17
 power supply 1-9
 PPD 2-19, 2-20
 print media..... 1-14
 print quality 6-24
 print speed.....Appendix-1
 printer driver 2-1, 2-2, Appendix-4
 printer status message 3-19
 private data..... 3-11
 proof data 3-9
 public data 3-10

R

RAM 4-57, Appendix-10
 ready 3-17

Rear View 1-7
 reprint 2-6, 2-13, 3-6
 reprint switch..... 3-2, 3-6
 resolution Appendix-1

S

secure print..... 3-5
 secure print switch 3-2, 3-5
 service call message 6-5
 set switch 3-2
 Set switch 3-15
 Sorter..... 4-43
 special paper 1-29
 specification
 Appendix-1, Appendix-11
 Stacker..... 4-43
 staple 5-20, 6-6
 switch..... 3-2
 symbol list..... Appendix-15
 symbol/character set..... Appendix-14

T

toner Appendix-6
 toner bottle..... 5-1
 toner empty..... 5-2
 TRANSPARENCIES 1-31
 transparency 1-29

W

watermark..... 2-4