brother®

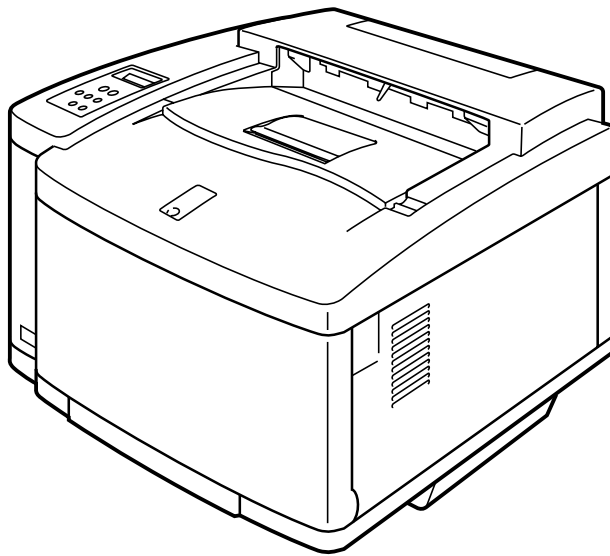## Brother Color Laser Printer

HL-2600CN Series

User's Guide

Version 0

Before you can use the printer, you must set up the hardware and install the driver. Please set up the printer while referring to the Quick Setup Guide.

Please read this manual thoroughly before using the printer and keep the CD-ROM in a convenient place for quick and easy reference at all times.

Please visit our user support web site, Brother Solutions Center, at *http://solutions.brother.com*. You can download driver updates and product information.

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Microsoft and MS-DOS are registered trademarks of Microsoft Corporation.
Windows is a registered trademark of Microsoft Corporation in the United States and other countries.
PostScript is a registered trademark of Adobe Systems Incorporated.
This printer contains UFST and Micro Type from Agfa Division.
PANTONE Colors generated by the HL-2600CN are four- and /or three-color process simulations and may not match PANTONE-identified solid color standards. Use current PANTONE Color Reference Manuals for accurate color.
PANTONE Color simulations are only obtainable on this product when driven by qualified Pantone-licensed software packages. Contact Pantone Inc. for a current list of qualified licensees.
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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.

©2001 Brother Industries Ltd.

Shipment of the Printer

If for any reason you must ship your Printer, carefully package the Printer to avoid any damage during transit. It is recommended 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 CONSUMABLE ITEMS during shipping will cause severe damage to the Printer and will VOID THE WARRANTY**.

brother®

Brother Laser Printer

HL-2600CN Series

User's Guide

(For USA & CANADA Only)

For technical and operational assistance, please call:

In USA   1-800-276-7746

In CANADA   1-800-853-6660
              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

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 you are calling from.
Please call 1-800-521-2846 (USA) or 1-800-681-9838 (Canada) and follow the voice prompts to receive faxed instructions on how to use the system and your index of Fax-Back subjects.

DEALERS/SERVICE CENTERS (USA only)
For the name of an 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

Brother Global Web Site: *http://www.brother.com*

For Frequently Asked Questions (FAQs), Product Support and Technical Questions, and Driver Updates:
http://solutions.brother.com

(USA Only) For Brother Accessories & Supplies: *http://www.brothermall.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.
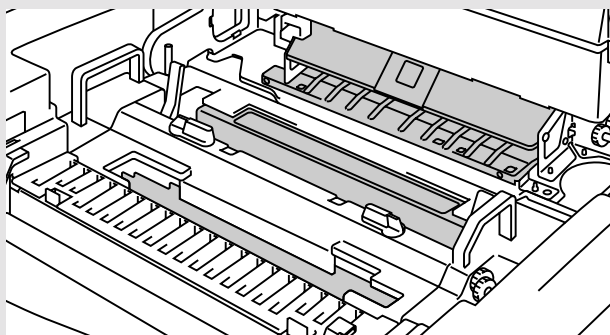
TO USE THE PRINTER SAFELY

! Warning

This printer is heavy and weighs approximately 39kg (86lbs). When you move or lift this printer, be sure at least 2 people lift it together.

! Warning

The Fusing Unit becomes extremely HOT during operation. Wait until it has cooled down sufficiently before replacing consumables.

! Warning

If the printer becomes hot, blows smoke, or generates obscure odor, turn the printer off immediately and unplug the printer. Contact your dealer.

! Warning

If metal objects, water or other liquids get inside the printer, turn the printer off immediately and unplug the printer. Contact your dealer.

! Warning

Do not put consumables such as the Toner Cartridges and the Waste Toner Pack into a fire. Some consumables can be flammable under certain conditions.

! Warning

Do not look directly at the laser beam light. It might cause damage to your eyesight. Do not remove or break open the printer's safety interlocks.

! Warning

Do not run the printer with the Top Cover, Front Cover and Rear Access Covers open and the interlocks removed.

! Warning

Turn off the printer before replacing consumables.

! Warning

Do not place any items on the printer.

! Warning

In case of a fuser oil spill, you must clean it up immediately. Contact your dealer.
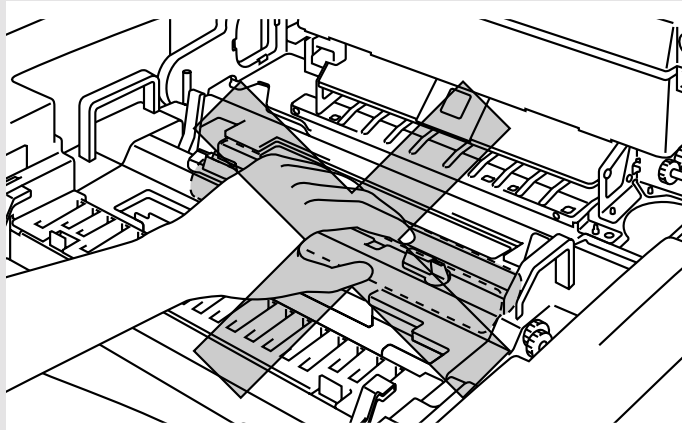
PRINTER DO'S AND DON'TS FOR OPTIMUM PRINT QUALITY

!　Caution

Before you move or lift the printer, remove the Toner Cartridges, Waste Toner Pack, Oil Bottle and Fusing Unit to avoid spills. Be sure to keep the printer as level as possible. Damage caused by failure to remove the supplies will void your warranty.

!　Caution

Do not touch the rollers of the Fusing Unit. This can degrade print quality.

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CHAPTER 4 CONTROL PANEL OPERATION

CHAPTER 5 MAINTENANCE

CHAPTER 6 TROUBLESHOOTING

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IMPORTANT INFORMATION: REGULATIONS

ELECTRONIC EMISSION NOTICES

Federal Communications Commission (FCC) Compliance Notice (For U.S.A. 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-2600CN
Model Number: HL-2600CN
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 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.

Declaration of Conformity (For 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
	EN 61000-3-2,	EN 61000-3-3

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 is marked "IEEE 1284 compliant". The cable must not exceed 1.8 meters in length.

International ENERGY STAR® Compliance Statement

ENERGY STAR® is a U.S. registered mark.
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.

<u>Laser Notices</u>

Laser Safety (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. However, the machine contains 5-milliwat, 700-800 nanometer wavelength, GaAIAs 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.

FDA Regulations (For 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.

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.

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

This printer has a Class 3B Laser Diode that 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.

The following caution label is attached on the cover of the scanner unit.

```
                      5mW
                      780nm-800nm

DANGER — INVISIBLE LASER RADIATION WHEN OPEN.
         AVOID DIRECT EXPOSURE TO BEAM.
VORSICHT-UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG
         GEOFFNET UND SICHERHEITSVERRIEGELUNG
         UBERBRUCKT. NICHT DEM STRAHL AUSSETZEN.
DANGER — RAYON LASER INVISIBLE LORS DE L'OUVER TURE
         EVITER L'EXPOSITION DIRECTE.
PELIGRO — RADIACION LASER INVISIBLE AL ABRIR EVITAR
          LA EXPOSICION DIRECTA AL HAZ
危 険   開けたときレーザ放射の危険有り。
         ビームに直接当たらないように注意して下さい。    MAS
```

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.

<u>Safety Information</u>

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.

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.

Caution for batteries
Do not replace the battery. There is a danger of explosion if the battery is incorrectly replaced. Do not disassemble, recharge or dispose of in fire. Used batteries should be disposed of according to local regulations.

Caution for LAN connection
Connect this product to the LAN connection which is not subjected to overvoltages.

IT power system (For Norway only)
This product is also designed for IT power system with phase to phase voltage 230V.

Opmerking / Oplaadbare Batterij Recycle Informatie (For Netherlands Only)

Bij dit product zijn batterijen geleverd. Wanneer deze leeg zijn,
moet u ze niet weggooien maar inleveren als Klein Chemisch Afval.
•
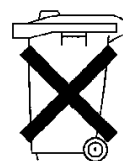
Geräuschemission / Acoustic Noise Emission (For Germany Only)

Lpa < 70 dB (A) DIN 45635-19-01-KL2

Wiring Information (For U.K. only)

<u>Important</u>

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 PROPERLY EARTHED.

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

>   Green and yellow: Earth
>   Blue: Neutral
>   Brown: Live

The colours of the wires in the main 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 ⏚ 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
INTRODUCTION

ABOUT THIS USER'S GUIDE

This manual acts as your guide to the setup and operation of your printer and covers the following topics:

CHAPTER 1 INTRODUCTION provides an overview of the printer. Read this chapter first to get familiar with the printer.

CHAPTER 2 DRIVER AND SOFTWARE gives you general information about the printer driver and the software. Be sure to read this chapter before you use the printer.

CHAPTER 3 BEFORE WORKING WITH THE PRINTER provides detailed information for setting up the printer to work with your computer and software. Be sure to read this chapter *before* you work with the printer.

CHAPTER 4 CONTROL PANEL OPERATION details the functions of the panel buttons and LEDs.

CHAPTER 5 MAINTENANCE provides guidance on how to maintain your printer.

CHAPTER 6 TROUBLESHOOTING helps you troubleshoot any printer problems.

APPENDIX contains printer specifications and paper specifications.

INDEX provides an alphabetical list of the contents of this User's Guide.

Note

When you read this User's Guide, note the following:

- This User's Guide contains instructions or steps to teach you the various operations of the printer. Please remember that the instructions always assume you started with the factory settings, particularly in Chapter 2 and Chapter 3. If you change the settings, particularly the emulation mode, the display messages change accordingly.

- The paper size has been factory set to letter or A4, depending upon the final destination of the printer. Some display messages vary according to this setting.
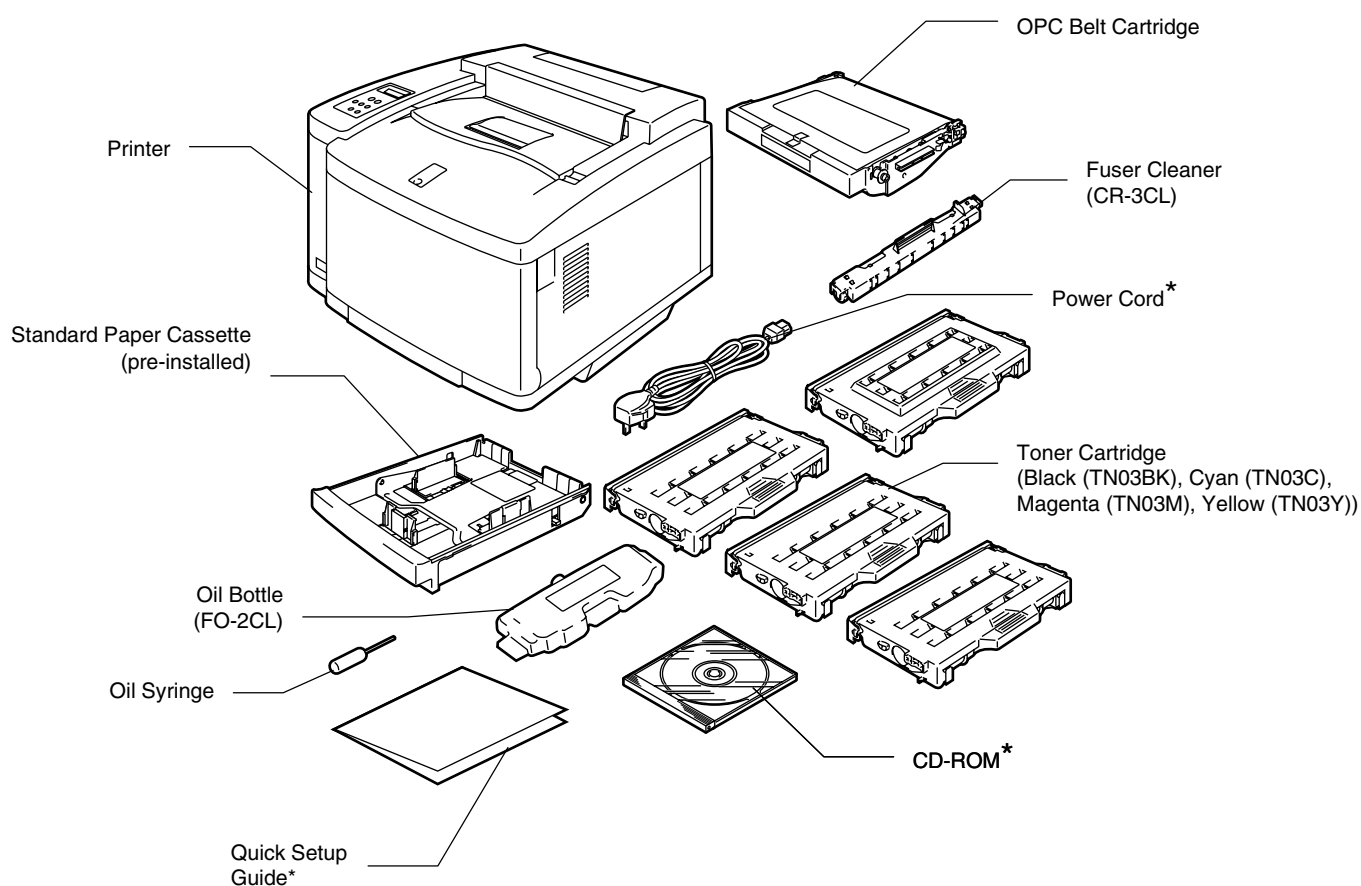
ABOUT THIS PRINTER

!   Warning

This printer is heavy and weighs approximately 39kg (86 lbs). To avoid injury when moving or lifting this printer, be sure to use at least two people.

CHECKING THE CARTON COMPONENTS

After unpacking the printer, check to see that you have all of the following parts:

Printer

Standard Paper Cassette (pre-installed)

Oil Bottle (FO-2CL)

Oil Syringe

Quick Setup Guide*

OPC Belt Cartridge

Fuser Cleaner (CR-3CL)

Power Cord*

Toner Cartridge (Black (TN03BK), Cyan (TN03C), Magenta (TN03M), Yellow (TN03Y))

CD-ROM*

*These parts are in the Localization Kit in Europe.

Fig. 1-1

Note

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

! Caution

The Toner Cartridges, OPC Belt cartridge, Oil Bottle and Fuser Cleaner are packed inside a separate carton as a starter kit. Do NOT open them now. Only open them when you are ready to install them. The OPC Belt Cartridge must not be exposed to light for any length of time or it will be damaged.

Note

An interface cable is not a standard accessory. Please purchase the appropriate cable for the interface you intend to use. Parallel cables should be IEEE 1284 compliant and should not exceed 1.8 meters (6 feet) in length. Depending on the country where you purchased the printer, the power cord may differ slightly from this diagram.

Note

Depending on the country you live in and the HL-2600CN series model purchased, you may have additional parts not listed above.

Note

We recommend keeping spares of the following consumables at all times. When these are exhausted, the printer will cease printing.

- Toner Cartridges (TN-03BK, TN-03C, TN-03M, TN-03Y)

- Waste Toner Pack (WT-3CL)

- Oil Bottle (FO-2CL)

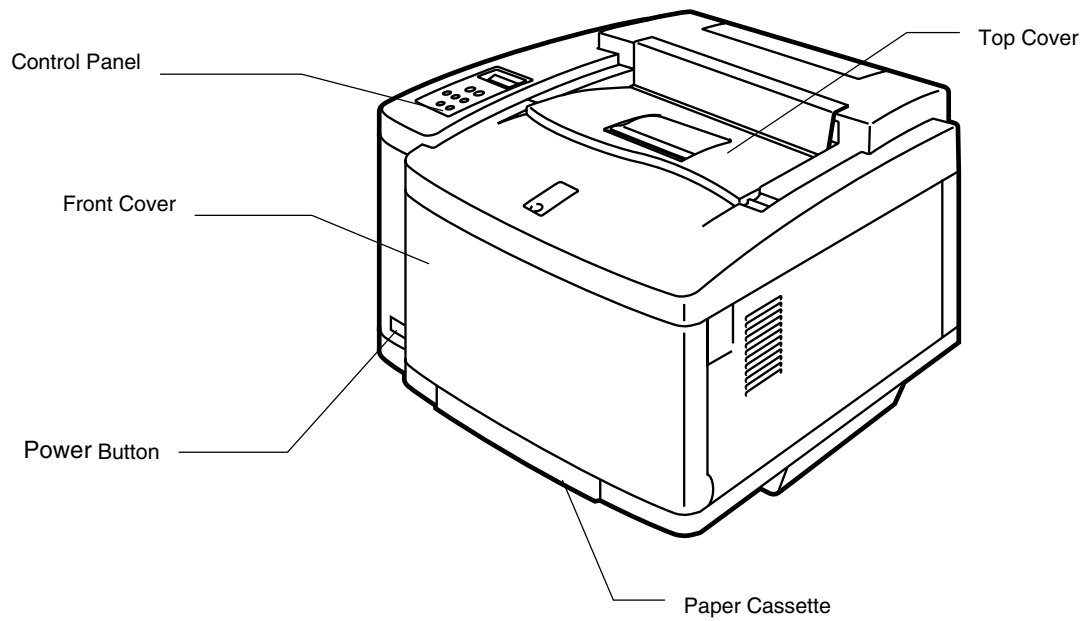- Fuser Cleaner (CR-3CL)

- OPC Belt Cartridge (OP-3CL)

GENERAL VIEW

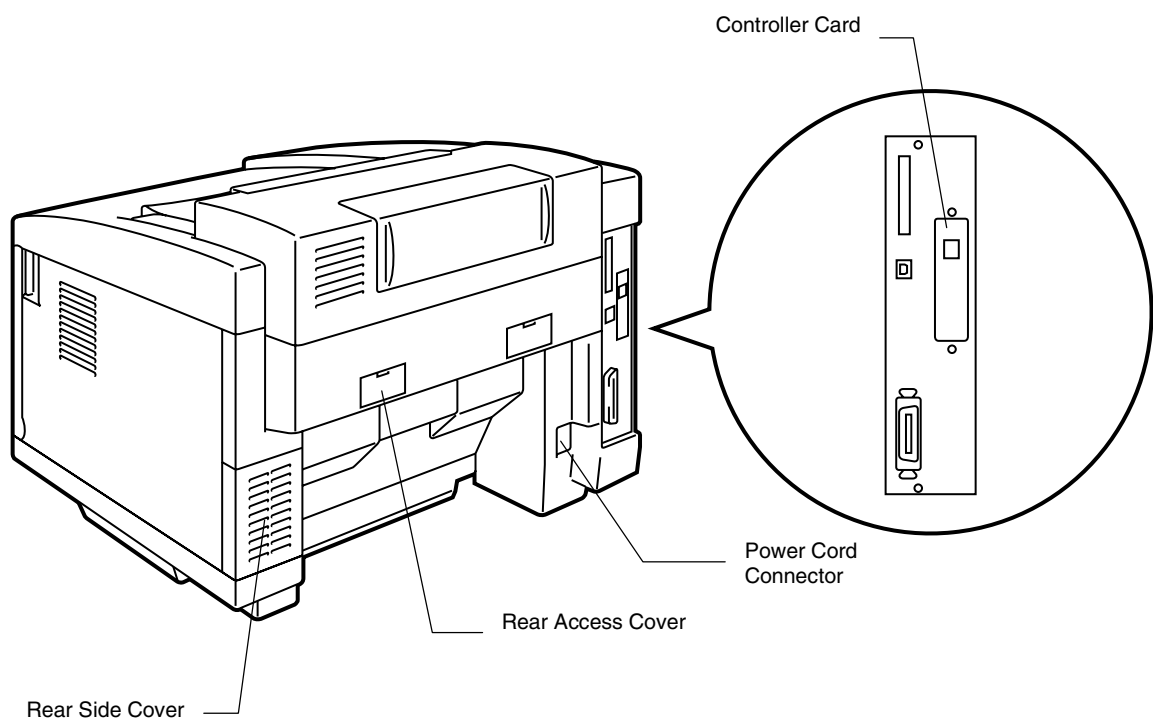Control Panel

Top Cover

Front Cover

Power Button

Paper Cassette

Fig. 1-2

Controller Card

Power Cord
Connector

Rear Access Cover

Rear Side Cover

Fig. 1-3

FEATURES

This printer has the following standard features.

2400 DPI Class Resolution

This printer prints at a default resolution of 600 dots per inch (dpi). You can achieve a higher print quality equivalent to 2400 dpi class resolution by utilizing these Brother technologies: High Resolution Control (HRC) and Color Advanced Photoscale Technology (CAPT).

High Speed and Color Laser Printing

You can print crisp images in brilliant 24-bit color.

This printer can print at speeds up to 24 pages per minute in monochrome mode and 6 pages per minute in full color mode. The HL-2600CN controller utilizes a high speed 64-bit RISC microprocessor and special hardware chips, to ensure fast print job processing.

Color Advanced Photoscale Technology (CAPT)

This printer can print graphics in 256 shades for each color in HP® color printer PCL5C™ emulation and BR-Script level 3, producing nearly photographic quality. CAPT is most effective when printing photographic images.

High Resolution Control (HRC)

The High Resolution Control (HRC) technology provides clear and crisp printouts and improves even 600-dpi resolution output. HRC is most effective when printing text.

Maintenance-Free and Economical Toner Cartridge

The toner cartridge can print up to 12,000 (Black) and 7,200 (Cyan, Magenta and Yellow) single-sided pages at 5% coverage. This printer uses one piece, easy-to-replace toner cartridges.

Universal Paper Cassette

This printer loads paper automatically from the paper cassette. Since the paper cassette is a universal type, a number of different paper sizes can be used. Even envelopes can be loaded from the paper cassette. For detailed paper specifications, see 'Paper Handling' in Chapter 3.

Three Interfaces

This printer has a high speed, bi-directional parallel interface, USB and Ethernet 10/100BaseTX.

If your application software supports the bi-directional parallel interface, you can monitor the printer status. It is fully compatible with the industry-standard bi-directional parallel interface.

The Brother network board (NC-4100h) is factory installed in the HL-2600CN, which enables you to use this printer in the TCP/IP, IPS/SPX, AppleTalk, DLC/LLC, Banyan VINES, DEC LAT and NetBEUI environments. Also, many useful utilities, such as BRAdmin Professional for the administrator and Brother network printing software, are included in the CD-ROM supplied with the HL-2600CN printer. For setup, see the Network User's Guide.

Automatic Interface Selection

This printer can automatically select the bi-directional parallel, USB or Ethernet 10/100BaseTX interface, depending on the interface port through which it receives data. With this feature, the printer can be connected to more than one computer.

Five Emulation Modes

This printer can emulate the Hewlett-Packard® Color PCL® 5C language (PCL6® in monochrome printing) printers, PostScript®3 language emulation (Brother BR-Script3) printers, the industry-standard HP-GL™ plotter as well as EPSON® FX-850™ and IBM® Proprinter XL® printers (for monochrome printing only). You can print with all application programs that support one of these printers.

Automatic Emulation Selection

This printer can automatically select the printer emulation mode, depending on the print commands it receives from the computer software. With this feature, many users can share the printer on a network.

Data Compression Technology

This printer can internally compress the received graphics and font data in its memory so it can print larger graphics and more fonts without the need for additional memory.

Fonts

This printer has 66 scalable and 12 bitmapped fonts. The fonts that can be used will vary according to the selected emulation mode.

In PCL mode, you can also print the 13 kinds of bar codes listed below. In BR-Script mode, the printer has 165 scalable fonts.

Bar Code Printing

This printer can print the following 13 types of bar codes:

- Code 39
- Interleaved 2 of 5
- EAN-8
- EAN-13
- EAN- 128
- Code 128
- UPC-A

- UPC-E
- Codabar
- FIM (US-PostNet)
- Post Net (US-PostNet)
- ISBN (EAN)
- ISBN (UPC-E)

Panel Lock Function

If the panel key settings have been changed, the printer may not work as you expect. If you are an administrator of this printer, you can lock your settings to prevent changes from being made. See "LOCK PANEL" in the "SETUP" menu in Chapter 4.

Power Save Mode

This printer has a power saving mode. Since laser printers consume power to keep the fixing assembly at a high temperature, this feature can save electricity when the printer is on but not being used. The factory setting of the Power Save mode is ON so that it complies with the new EPA Energy Star specification.

Toner Save Mode

This printer has an economical Toner Save Mode. By using this feature you can substantially reduce operating costs and extend the life expectancy of the toner cartridges.

Reprint Function

You can reprint the last print job with a touch of a panel button. This feature allows reprinting of multiple copies of the job without sending the data again from the computer.

If you do not install an HDD in or CompactFlash card, you can reprint from RAM. See "REPRINT BUTTON" in Chapter 4 for more information.

When there is not enough memory to print the last job, you can reprint the last print page.

PANTONE® Calibrated

There are many variables in process reproduction of colors generated by the HL-2600CN, any one of which may affect the quality of the PANTONE Color simulation, including:

1. Type of paper used
2. Type of toner used
3. Effective final resolution
4. Dot structure/halftones

For optimal results, we recommend that the following materials and settings be used:

> NEUSIEDLER Color Copy 90g
>
> Brother Toner Cartridges TN-03 BK/C/M/Y for "2" above.
>
> Pantone Mode (600 x 600 dpi)

Network

Ethernet 10/100BaseTX enables you to use the printer in the following environments:

(TCP/IP, IPX/SPX, AppleTalk, DLC/LLC, VINES, LAT, NetBEUI)
Also, many useful utilities, such as BRAdmin Professional and Brother Network Printing software for the Network administrator, are included. For details of the utilities, see the documentation included on the CD-ROM.

OPTIONS

The following options are available for this printer:

Paper Handling

Lower Tray Unit (LT-26CL)

A lower tray unit expands the paper source capacity. You can load extra paper or different sizes of paper. You can load Letter, A4, B5 (JIS and ISO) or Executive size (176x250 to 215.9x297mm) paper into this cassette.

Legal Cassette (LC-26LG)

If you wish to print on Legal sized paper, you must use this cassette. However, since it is not restricted to Legal size paper, you can choose to load Letter, A4, B5 (JIS/ISO), Executive or Envelopes in this cassette.

Duplex Unit (DX-2600)

By installing the Duplex Unit DX-2600, you can perform duplex printing. You can print on Letter, A4, B5 (JIS/ISO), Executive and Legal size paper with the Duplex Unit installed.

Hard Disk Drive (HD-6G/HD-EX)

By installing the Hard Disk Drive, HD-6G/HD-3X, you can save macros, print log and fonts on it, and also select your print job and re-print it through the network.

RAM

RAM Expansion

By installing commercial memory modules you can expand the memory capacity up to 384 Mbytes.

Note
Installation instructions for each of these options will be included with the optional accessory.

OPERATING AND STORAGE ENVIRONMENT

Please note the following requirements before using the printer.

Power Supply

Use the printer within the specified power range.

AC power: ±10% of the rated power voltage

Frequency: 50/60 Hz (120V or 220-240 V)

The power cord, including extensions, should not exceed 5 meters (16.5 feet).

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

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

Environment

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

Ambient temperature: 20°C to 32.5°C (50°F to 90.5°F)

Ambient humidity: 20% to 80% (without condensation)

Do not block the air exit on top of the printer. Do not place objects on top of the printer, especially on the air exit.

Ensure that the printer Ozone Filter is installed at all times.

Ventilate the room where you use the printer.

Do not place the printer where it will be exposed to direct sunlight. If set up near a window is unavoidable, use blinds to protect the printer from direct sunlight.

Do not install the printer near devices that contain magnets or generate magnetic fields.

Do not subject the printer to strong physical shocks or vibrations. Do not expose the printer to open flames or salty or corrosive gasses.

Place the printer on a flat, horizontal surface.

Keep the printer clean. Do not install the printer in a dusty place.

Do not install the printer near an air conditioner.

The following figure details the recommended area around the printer for proper ventilation, operation and maintenance.
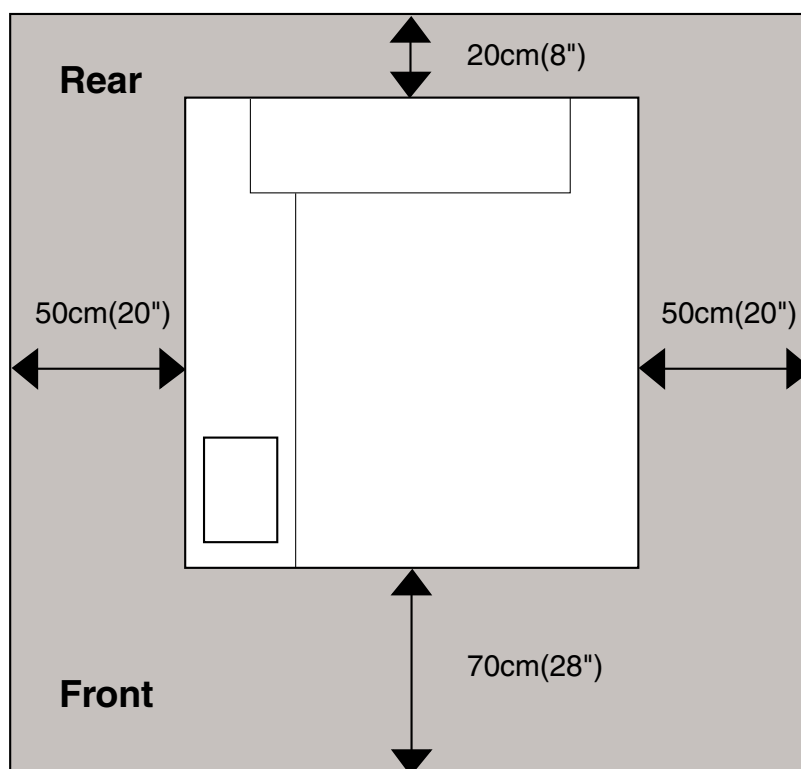

Fig. 1-4

Note

- Ensure that there is enough space behind the printer so you can easily access the rear cover or Duplex unit if a paper jam occurs.

- Make sure the Paper Cassette does not extend past the edge of the table where the printer is located.

CHAPTER 2
DRIVER AND SOFTWARE

PRINTER DRIVER

A Printer Driver is software that translates data from the format used by a computer into the format required by a particular printer. Typically, this format is a printer command language or page description language.

The printer drivers for the following operating systems are on the supplied CD-ROM. Printer driver updates can be downloaded from the Brother Solutions Center at *http://solutions.brother.com*.

For Windows® 95/98/Me, Windows NT® 4.0 and Windows® 2000/XP

- PCL (Hewlett-Packard laser printer-LaserJet) driver

- BR-Script (PostScript3 language emulation) driver

For Macintosh

- BR-Script (PostScript3 language emulation) driver (For more information, see the Network User's Guide on the CD-ROM.)

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

Note

- For more information about emulations, see Chapter 3.

- If you want to print from a DOS application, see Chapter 6.

- The screen shot may vary depending on the OS you are using.

FEATURES IN THE PCL PRINTER DRIVER (WINDOWS 95/98/ME USERS ONLY)

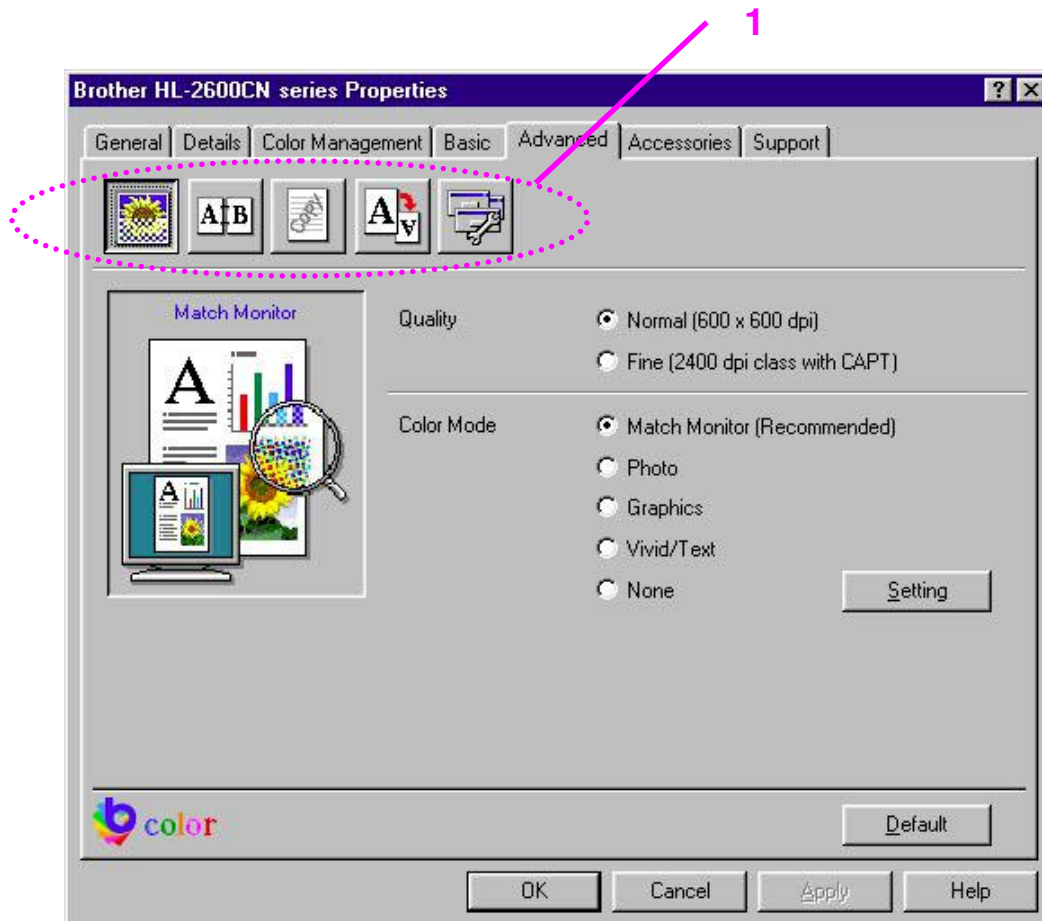For more information, please see the on-line Help in the printer driver.

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

Basic Tab
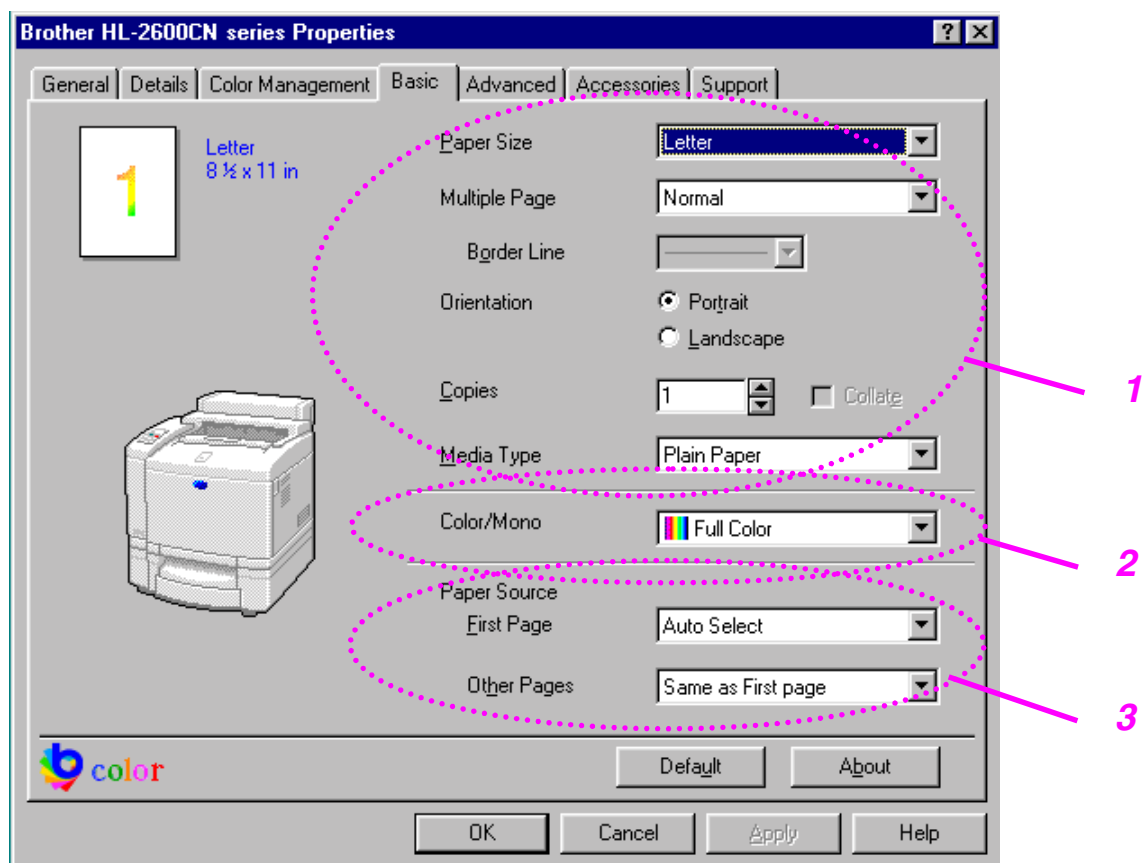
1. **1.** Select the Paper size, Multiple page, Orientation etc.

2. **2.** Select the Color Mode.

3. **3.** Select the Paper Source, etc.

Advanced Tab

1. Change the tab settings by clicking the following icons:

> Print Quality
>
> Duplex
>
> Watermark
>
> Page Setting
>
> Device Options

Print Quality

Select the Quality, Color matching mode, and Calibration settings.

- You can change the Quality as follows:

     Normal   600 dpi

     Fine   2400 dpi class with CAPT*

          *CAPT (Color Advanced PhotoScale Technology)
                    = The finest print mode. Use this mode to print precise
                    images such as photographs. Since the print data is
                    much larger than in normal mode, processing time / data
                    transfer time and printing time will be longer.

- You can change the Color Matching mode as follow:

     Match Monitor

     Photo

     Graphics

     Vivid / Text

     None

Duplex

To use duplex printing, you will need to install the optional Duplex unit onto your printer. If you select the duplex button, the dialogue box for making duplex settings will appear. Six types of duplex binding directions are available for each orientation.

Watermark

You can place a watermarked logo or text in your documents.

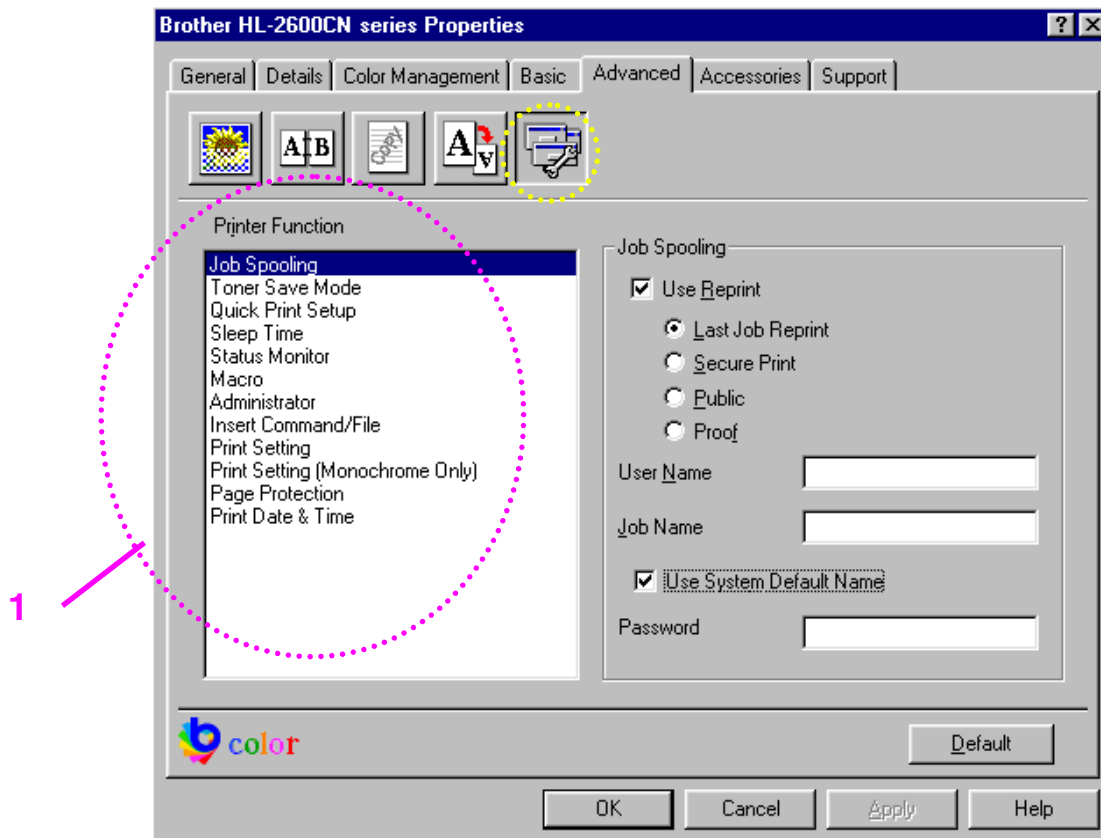When you use a bitmap file as a watermark, you can change the size of the watermark and place it anywhere you like on the page.

When you use text as a watermark, you can change the font, darkness and angle settings.

Page Setup

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

Device Options

1. Set the following print function modes in this tab:

> Job Spooling
>
> Toner Save Mode
>
> Quick Print Setup
>
> Sleep Time
>
> Status Monitor
>
> Macro
>
> Administrator
>
> Insert Command/File
>
> Print Setting
>
> Print Setting (For monochrome only)
>
> Page Protection
>
> Print Date & Time

Job Spooling

You can reprint a document without sending the data again from your PC (except for secure printing) because the printer will save data that you specify for reprinting.

- Last job reprint: Reprint the last job

- Secure Print: Print the data with a password

- Public: Save the data without a password

- Proof: Save the data and print it

For more information about the Reprint function, see "REPRINT BUTTON" in Chapter 4.

Note

If you want to prevent other people from using the Reprint function to print your data, remove the "Use Reprint" check mark in Job Spooling settings.

Accessories Tab

When you install options, add those options and choose the settings for them in the Accessories tab as follows.
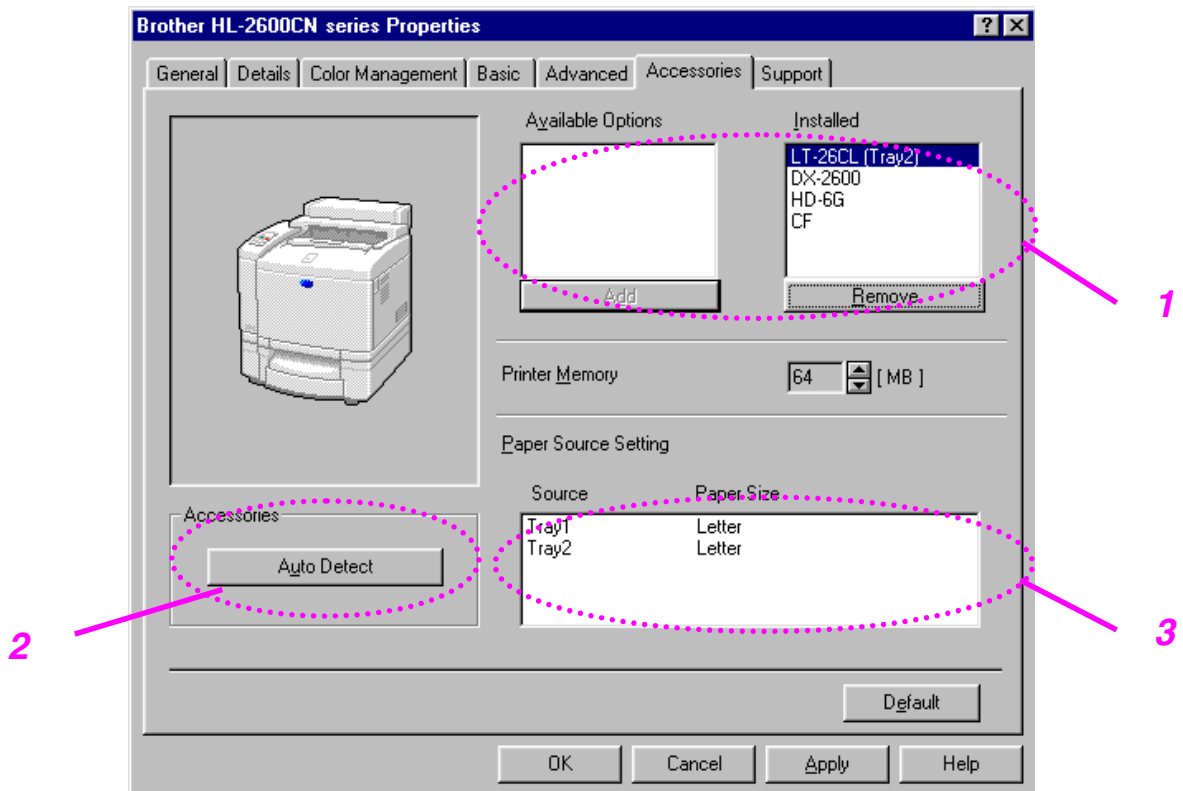
1. You can manually add or remove any of the printer's optional components. The paper tray settings will match the installed options.

2. Automatic Detection of Printer Options

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

   When you press "Auto Detect," options that are installed on the printer will be listed. You can manually add or delete options.

3. Paper Source Setting

   This feature recognizes the size of paper in each paper tray automatically.

Support Tab

- You can download the latest driver by accessing the Brother Solutions Center.

- You can see the printer driver version.

- You can check the current driver settings.

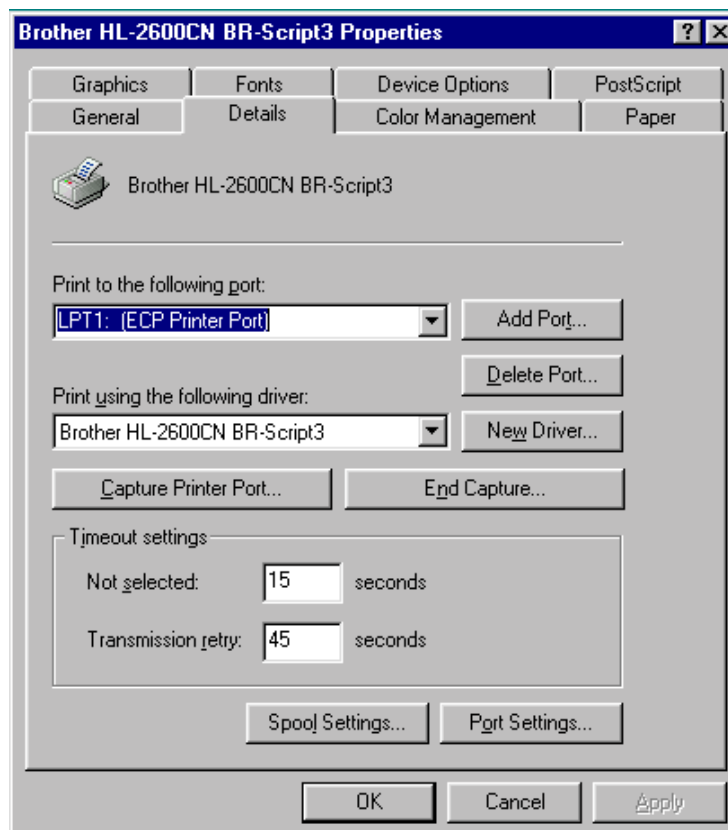- You can print the Configuration page and Font page(s).

FEATURES IN THE PS PRINTER DRIVER (WINDOWS 95/98/ME USERS ONLY)

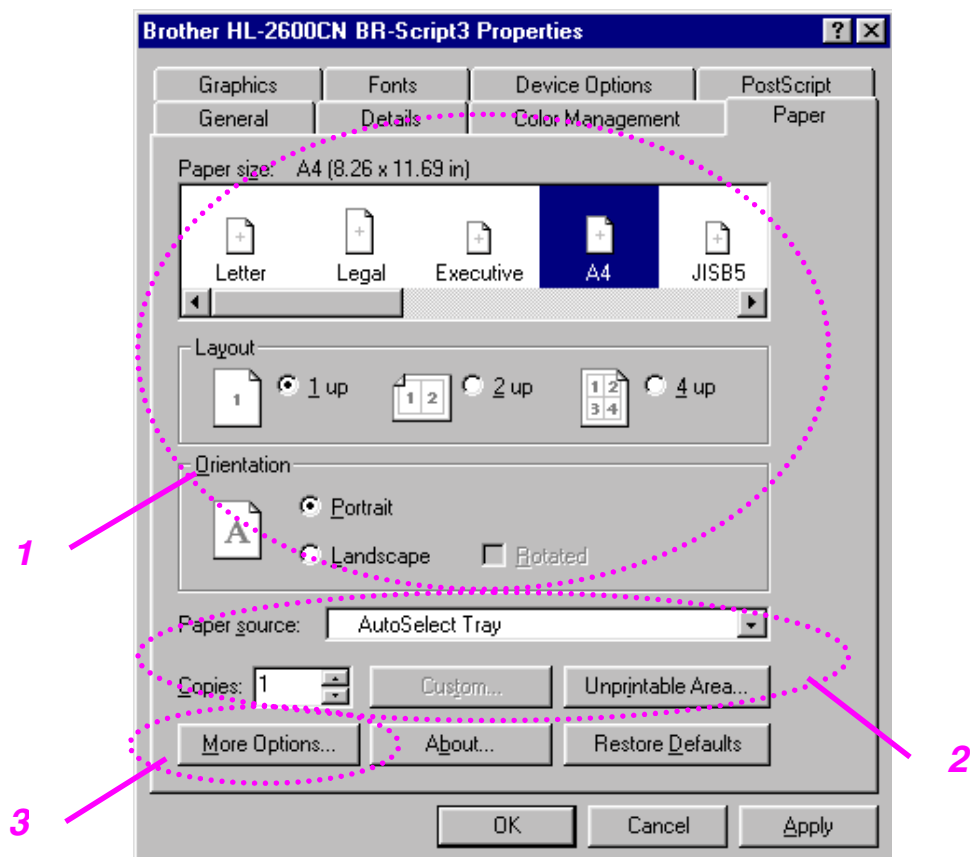For more information, please see the on-line Help in the printer driver.

Details Tab

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

Select the printer driver that you installed.

Paper Tab

1. Select the Paper size, Layout and Orientation.

2. Select the Paper Source.

3. When the Duplex unit is installed onto the printer, you will need to add the duplex unit as one of the installed options first (see Device Options Tab – Installable Options). Click on the More Options button to choose between Flip on Short edge, Flip on Long edge or None for Duplex printing.

Graphics Tab

1. Set the print quality, etc.
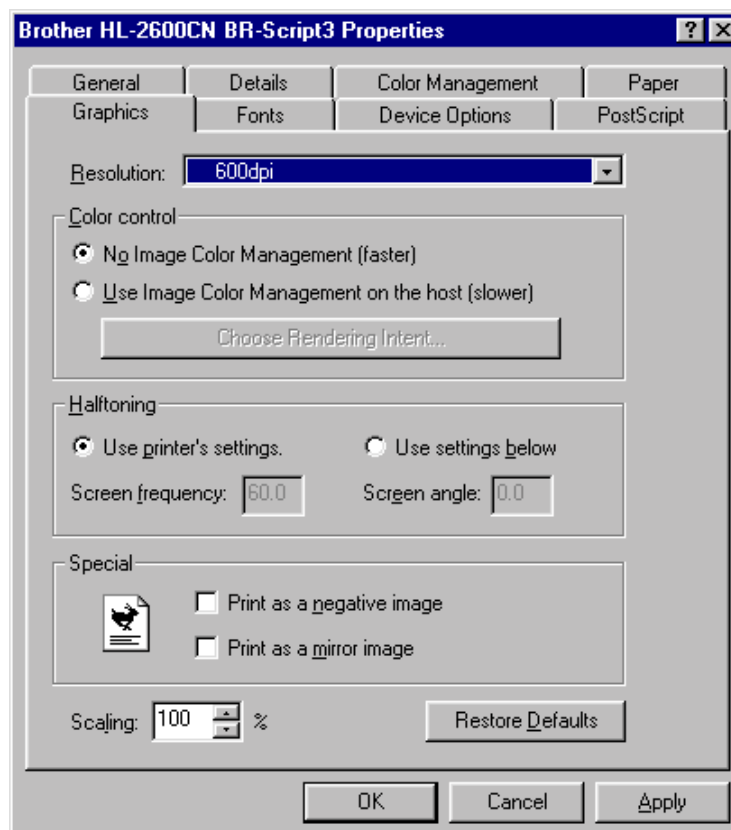
Device Options Tab
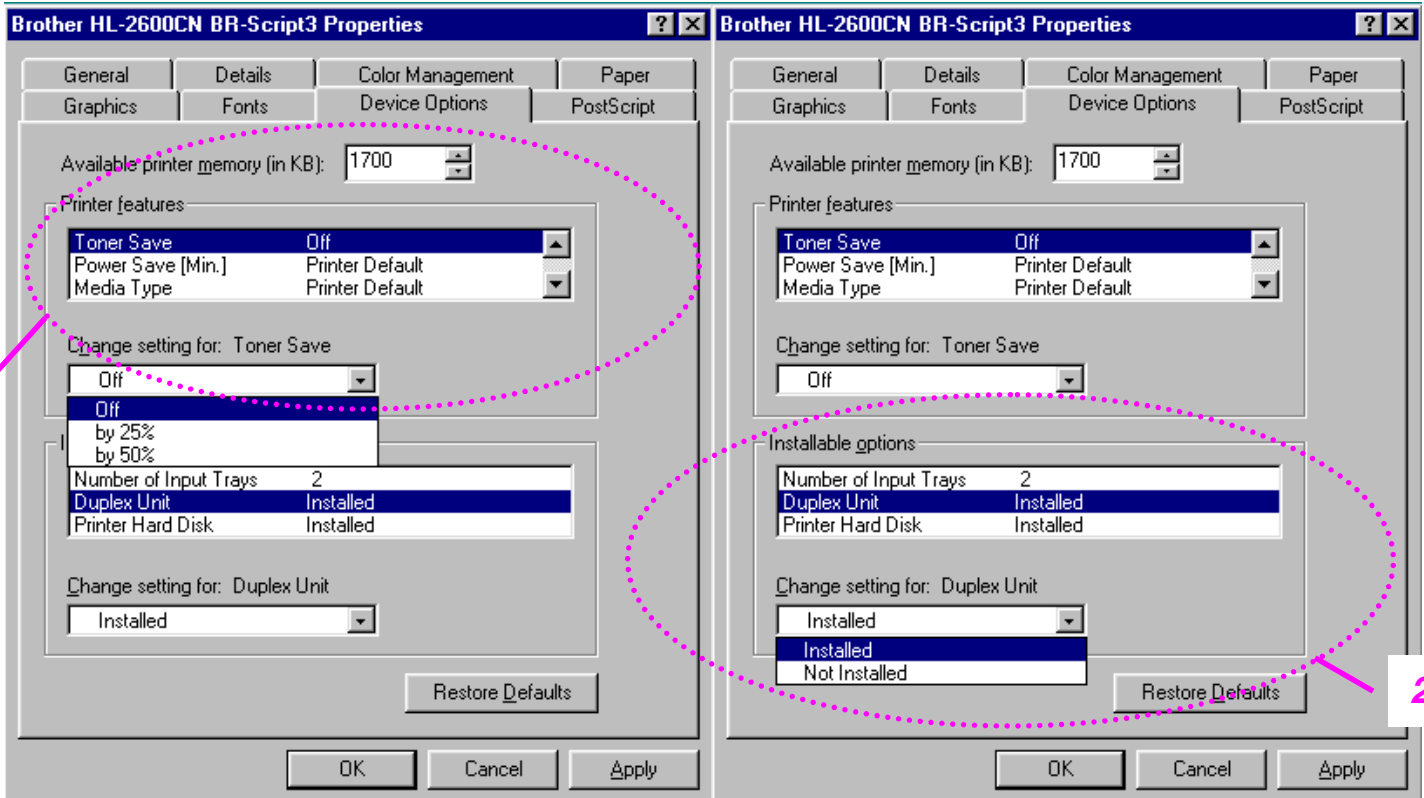
1. You can change settings by clicking on a setting in the Printer features list box, then select a new value for that setting from the Change Settings for: xxxxx   list box.

> Toner Save Mode
> Sleep Mode
> Media Type
> HRC setting
> Collate (Only when an HDD or CompactFlash card is installed)
> Job spooling
> Pass Word
> Quality
> Color / Mono
> Color Matching
> Halftone Screen Lock
> User Name
> Job Name

2. Select the installed options from the list.

You can change settings by clicking on a setting in the Installable options list box, then select a new value for that setting from the Change Settings for: xxxx   list box.

Job Spooling

Because the printer will save data that you specify for reprinting, you can print a document without resending the data from your PC or sending the password again (except Secure printing).

* Secure Print: Print the data with a password

* Public: Save the data without a password

* Proof: Save the data and print it

SOFTWARE FOR NETWORKS

BRAdmin Professional

BRAdmin professional is a utility for managing your Brother network enabled printers that are running under Windows 95/98/Me, Windows 2000 and Windows NT 4.0. It 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 a CompactFlash or 2.5" HDD.

You can print a fixed form document at any time from the control panel.

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

Analysis Tool Software

By adding a HDD or CompactFlash Card to the printer, you can obtain print logs by enabling the log function with the embedded web management. Then you can gain cost analysis capability by loading these print logs into the Analysis Tool Software.

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

Driver Deployment Wizard

Save time and effort by using the Brother Driver Deployment 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 to specify the Printer driver to be used. The Wizard can then create an Executable file that can be e-mailed to other network users. When run, the Executable file installs the appropriate printer driver and network print software directly on the remote PC.

To access the Driver Deployment Wizard, insert the CD-ROM supplied with the printer into your CD-ROM drive, click the Install Software icon, and then select the Driver Deployment Wizard.

SOFTWARE FOR WINDOWS COMPUTERS

You can install the Software from the supplied CD-ROM as follows:

1. Insert the CD-ROM into the CD-ROM drive. The opening screen appears automatically. Follow the instructions on the screen.

2. Click the Install Software icon on the Menu screen.

3. Click "Printer Driver", and then follow the on screen instructions. The printer driver will complete the installation.

SOFTWARE FOR MACINTOSH COMPUTER

This printer supports Mac OS versions 8.6, 9.0, 9.04, 9.1, 9.2 and X.

Apple LaserWriter 8 Driver

The Apple LaserWriter Driver may have been installed with your system. It is also available at *http://www.apple.com*.

LaserWriter 8 version 8.6.5 and 8.7 have been tested for use with the Brother HL-2600CN.

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.

Installing the Printer Driver for Macintosh

*For Network users**

For Mac OS 8.6 to 9.2 Users

1. Turn on your Macintosh computer. Insert the CD-ROM into your CD-ROM drive. Double-click the Start Here! Icon. Follow the instructions on the screen.
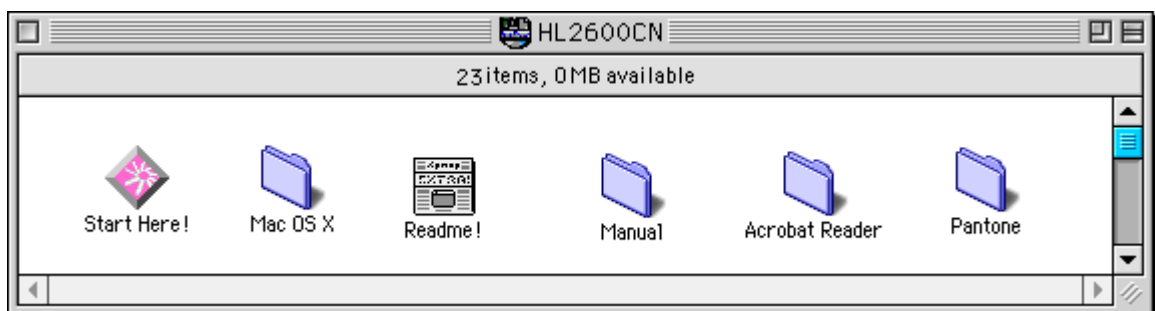
2. To install the BR-Script PPD file, click the Install Software icon on the Menu screen.

3. To set up the LaserWriter driver, refer to the Network User's Guide.

For Mac OS X Users

(It is not possible to install the BR-Script PPD file from the Install Software icon, please follow the instructions below.)

1. Turn ON your Macintosh computer.

2. Turn OFF your printer.

3. Connect one end of the network cable to your printer and the other end to a free port on your hub.

4. Turn ON your printer.

5. Insert the CD-ROM into your CD-ROM drive. Open the Mac OS X folder.

6. Open your language folder.

7. Double-click the install icon. Follow the instructions on the screen.

8. Open the Macintosh HD icon.

9. Open the Applications folder. Open the Utilities folder.

10. Open the Print Center icon.

11. Click the Add Printer button.

12. Select BRN_xxxxxx_P1_AT and then click the Add button. (xxxxxx is the last six digits of the Ethernet address. For more information, see Chapter 7 of the Network User's Guide.)

13. Select Quit Print Center from the Print Center menu.

14. The Setup is now complete.

* For USB users, please see the "Driver Installation Guide" for installing the printer driver.

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 with user settings. Please see "List of Factory Settings" in Chapter 4.

Note

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

The changed user settings can be restored to the default factory settings with the RESET MENU mode. For more information, see Chapter 4.

CHAPTER 3
BEFORE WORKING WITH THE PRINTER

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 from the following combinations:

EPSON (Default)	*IBM*
HP LaserJet	HP LaserJet
BR-Script 3	BR-Script 3
HP-GL	HP-GL
EPSON FX-850	IBM Proprinter XL

To get the most out of this laser printer, we recommend that you use the Brother BR-Script 3 emulation.

The printer is set to the HP color printer emulation (PCL5C) mode automatically. Since PCL5C mode takes the highest priority in the automatic emulation selection, in most cases you can start using the printer as it is with the factory settings.

Note

Emulation modes other than PCL5C and BR-Script 3 are monochrome emulation modes.

You can select the emulation mode manually by using the control panel to access the EMULATION menu in SETUP mode. For more information, see Chapter 4.

Note

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

- The EPSON or IBM emulation mode priority must be selected, because the printer cannot distinguish between them. Since the factory setting is EPSON emulation mode, you might need to select the IBM emulation mode by using the control panel to access the EMULATION menu in SETUP mode.

- Try Automatic emulation selection with your application software or network server. If it does not work properly, select the emulation mode manually by using either the printer control panel or the 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 IEEE 1284 Parallel or USB interface whichever is appropriate.

When you use the parallel interface, you can turn the high-speed and bi-directional parallel communications on or off by using the control panel to access the PARALLEL menu in INTERFACE mode. For more information, see Chapter 4. Since the automatic interface selection mode has been factory set to ON, simply connect the interface cable to the printer. (Note: Always turn off both your computer and printer when connecting or disconnecting the cable).

When necessary, select the interface or the serial communications parameters manually by using the control panel to access the INTERFACE mode. For more information, see Chapter 4. For the settings on your the computer, please refer to your user's manual for your computer or application software.

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 by using the control panel to access the SELECT menu in INTERFACE mode.

If you typically use only one interface, we recommend you select that interface in the INTERFACE mode. If only one interface is selected, the printer will allocate the entire input buffer to that interface.

PAPER HANDLING

PRINT MEDIA

Paper Size

THE STANDARD PAPER CASSETTE

Since the Paper Cassette is a universal type, you can use any of the paper sizes listed below. The cassette can hold up to 250 sheets of paper (75 g/m^2 or 20 lbs.) or up to 15 envelopes (paper can be loaded up to the top line on the sliding guide).

- Plain Paper: A4, Letter, B5 (JIS/ISO), Executive

- Transparencies (up to 50 sheets can be loaded)

- Envelopes: COM10, DL (Up to 15 sheets or 7 sheets for H/H condition can be loaded)

- Thick Stock (Up to 120 sheets can loaded)

- Labels (Up to 80 sheets can loaded)

- Other Sizes: 104.8 mm - 215.9 mm (4.1" - 8.5") wide,
  220 mm - 297 mm (8.7" - 11.7") long
  [Weight = 64 to 163 g/m^2 (18 to 43 lbs)]

THE OPTIONAL LOWER TRAY CASSETTE (LT-26CL)

The cassette can hold up to 500 sheets of paper (75 g/m^2 or 20 lbs.). The maximum capacity is 52 mm paper height.

- Plain Paper: A4, Letter, B5 (JIS/ISO), Executive

- From 176 mm x 250 mm (6.9" x 9.8") to 215.9 mm x 297 mm (8.5" - 11.7") [Weight = 64 to 105 g/m^2 (18 to 28 lbs)]

- Thick Stock [Weight = 90 to 105 g/ m^2 (24 to 28 lbs)], and the maximum capacity is 52 mm loading height.

- Other Sizes: 176 mm - 215.9 mm (6.9" - 8.5") wide,
  250 mm - 297 mm (9.8" - 11.7") long
  [Weight = 64 to 105 g/m^2 (18 to 28 lbs)]

THE OPTIONAL LEGAL CASSETTE (LC-26LG)

The cassette can hold up to 250 sheets of paper (75 g/m^2 or 20 lbs.). **If you want to print on legal size paper, you must use this cassette.**

- Plain Paper: A4, Letter, B5 (JIS/ISO), Executive, Legal

- Thick Stock (Up to 120 sheets can loaded)

- Labels (Up to 80 sheets can loaded)

- Transparencies (up to 50 sheets can be loaded)

- Envelopes: COM10, DL (Up to 15 sheets or 7 sheets for H/H condition can be loaded)

- Other Sizes: 104.8 mm - 215.9 mm (4.1" - 8.5") wide,
  220 mm - 355.6 mm (8.7" - 14") long
  [Weight = 64 to 163 g/m^2 (18 to 43 lbs)]

THE OPTIONAL DUPLEX UNIT (DX-2600)

- Plain Paper: A4, Letter, B5 (JIS/ISO), Executive, Legal

- Other Sizes: 104.8 mm - 215.9 mm (4.1" - 8.5") wide,
                220 mm - 355.6 mm (8.7" - 14") long
                [Weight = 64 to 105 g/m^2 (18 to 28 lbs)]

SUITABLE PAPER SPECIFICATIONS

The following paper specifications are suitable for this printer.

Item	Recommended Paper Specification	Xerox 4024	Hammermill Laserprint
Basis Weight (g/m^2)	82±5	75	90
Thickness (µm)	95±6	102	105
Smoothness (Bekk)	90±20	35	120
Stiffness (Clark)	100±15	100	90
Surface Resistance X10^9(Ω)	10-100	10-100	10-100
Brightness (%)	85±2	80	85
Grain Direction	Long	Long	Long

Paper Source	Available Size and Paper Type	Capacity
Standard Paper Cassette	Cut sheet: Letter, A4, B5(JIS/ISO), Executive,	250
	Envelopes: COM 10, DL	15
	Transparencies: Letter, A4	50
	Other Sizes: 104.8-215.9mm wide (4.1"-8.5") 220-297mm long (8.7"-11.7")	Up to approx. 250 sheets of 75g/m^2 (20 lbs.) paper
Optional Lower Tray Cassette (LT-26CL)	Cut Sheet: Letter, A4, B5 (JIS/ISO), Executive	500
Optional Legal Cassette (LC-26LG)	Cut Sheet: Legal, Letter, A4, B5(JIS/ISO), Executive	250
	Envelopes: COM10, DL	50
	Transparencies: A4, letter	5
	Other Sizes: 104.8-215.9mm wide (4.1"-8.5") 220-355.6mm long (8.7"-14")	Up to approx. 250 sheets of 75g/m^2 (20 lbs.) paper
Optional Duplex Unit (DX-2600)	Cut Sheet: Legal, Letter, A4, B5 (JIS/ISO), Executive	

Recommended Paper

The recommended paper for this printer is:

Xerox 4024, Hammermill Laserprint, NEUSIEDLER Color Copy 90g or equivalent

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Note

- To get the best output quality and to avoid any damage, use smooth white paper.

- We recommend that you test paper, especially special sizes and types of paper, on this printer before purchasing large quantities.

- Print quality will vary depending on the paper being used.

Note

Do not load Envelopes, Transparencies, Labels or Thick Stock (29lb or more) into the Optional Lower Tray Unit. It may cause paper jams.

Printable Area

The Printable Area depends on the settings in your application. The figure below shows the physical printable area and non-guaranteed print area for the various types of paper that can be used with this printer.

Cut Sheets

Envelopes

■ **Unprintable Area**

■ **Non guaranteed Print Area**
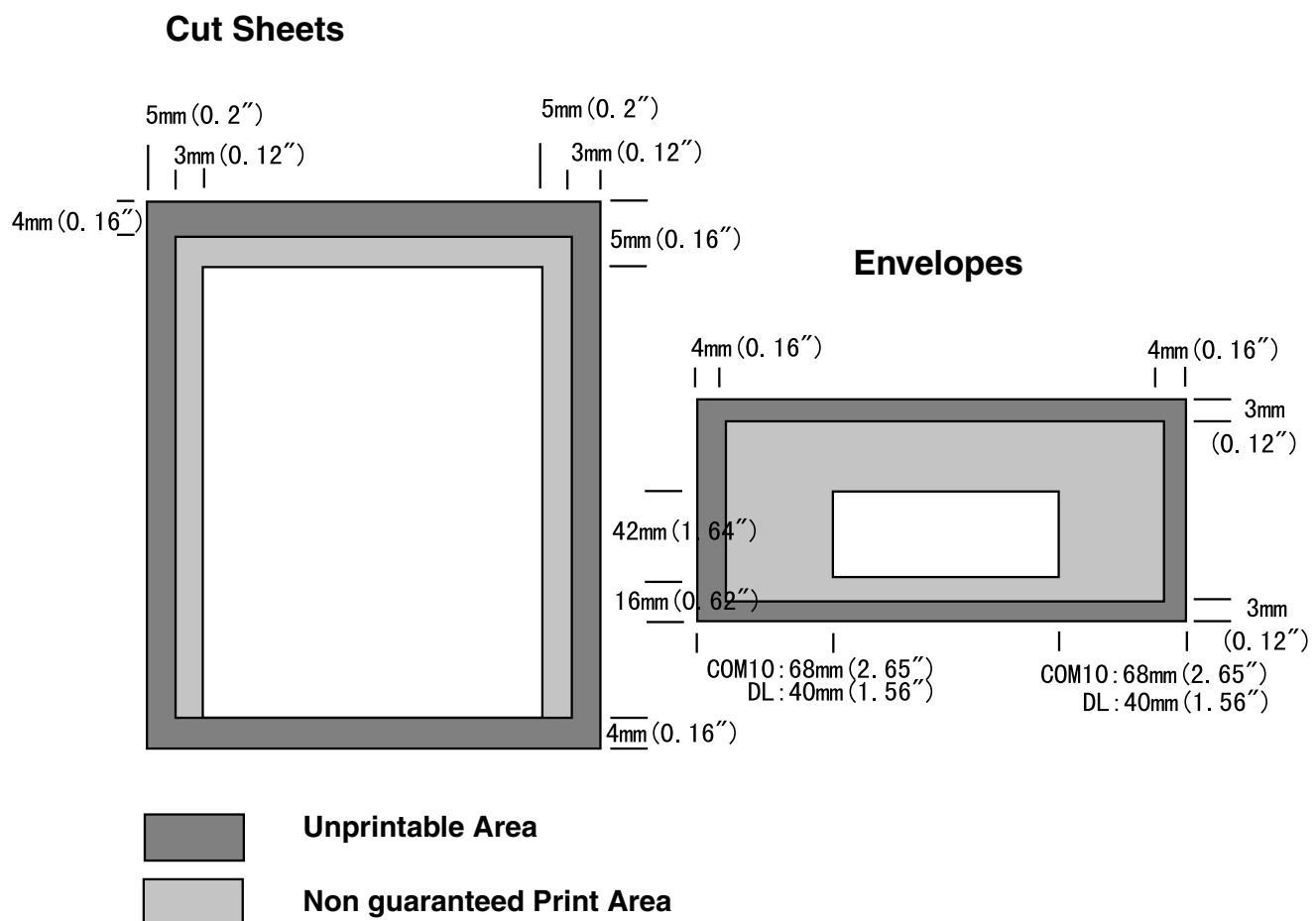
Fig. 3-1

Note

If you use paper that does not meet the specifications listed in this User's Guide, the life of the various consumables and parts may be reduced.

Envelopes

Avoid using envelopes with the following characteristics:
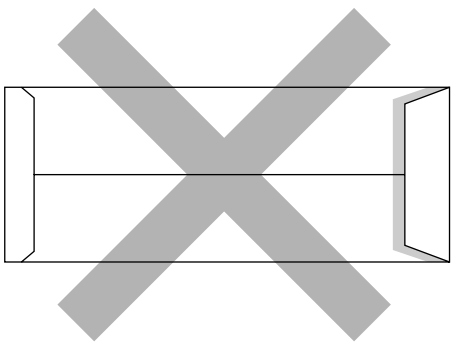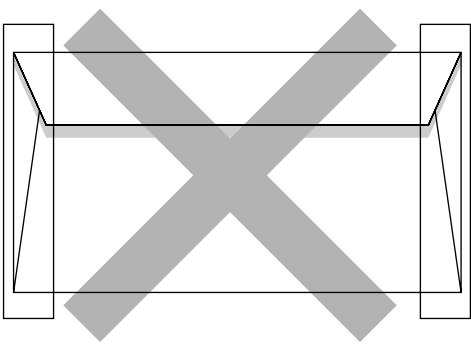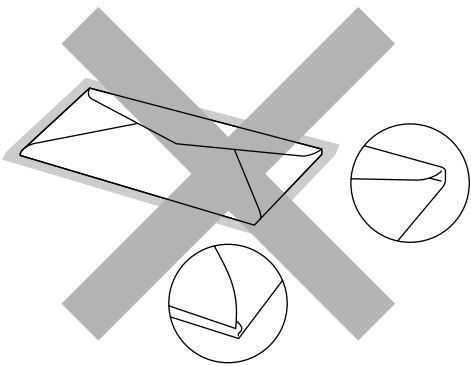
• Glossy or shiny surfaces • Protective cover on the envelopes' adhesive parts • Sealing flaps that have not been folded at purchase • Sealing flaps as shown below	
• Three or more layers of paper in the marked area	
• Each side folded as shown below	

Fig. 3-2

Before loading envelopes in the cassette, check the following:

• Envelopes should have a lengthwise sealing flap. • The sealing flaps should be folded crisply and correctly (irregularly cut or folded envelopes may cause paper jams). • Envelopes should consist of two layers of paper in the area circled.	 **Fig. 3-3** Feeding Direction
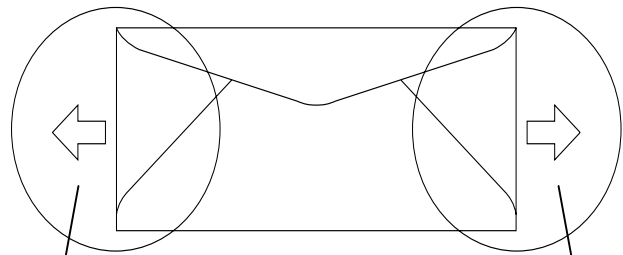
• Envelope joints that are sealed by the manufacturer should be secure.

• All sides should be properly folded without any wrinkles or creases.

• Print quality may vary among different styles of envelopes. Prior to purchasing large quantities, it is a good idea to test the envelopes you plan to use.

CASSETTE FEED

The printer can feed paper from the Paper Cassette, Optional Lower Paper Tray or Optional Legal Cassette.

Note

When you load paper into the Paper Cassette, note the following:

- If your application software supports paper size selection on the print menu, you can select it through the software. If your application software does not support it, you can set the paper size with the printer driver or by using the control panel.

- The paper size has been factory set to letter for 120V models or A4 for 220/240V models. If you want to use other sizes of paper or envelopes, change the paper size setting in PAGE FORMAT MODE, which is in FORMAT MODE by using the control panel. For paper size selection, see "PRINT MENU" in Chapter 4.

- If you use pre-printed paper in the cassettes, please note that the paper should be loaded with the printed side face up and the top edge of the paper at the back of the cassette.

The printer automatically detects the paper size you have loaded into the Paper Cassette. If you load a different size of paper into the paper cassette from the size that is selected, by using the control panel or in your application software you can change the paper size setting, the printer will prompt you to load the correct size of paper as follows:

```
SIZE MISMATCH
Paper mismatch between the Printer and the
Printer Driver setting.  Load Paper <size> size
into Tray <1/2>
```

MANUAL FEED

Since this printer does not have a manual feed or multi purpose tray, you cannot manually feed irregular sized paper. However, this printer has a special "Manual Feed" mode using Tray 1 (upper tray) to accommodate non-standard paper sizes. You can select this mode with the printer driver or the control panel.

See "PAPER" in Chapter 4 for more information on selecting this setting using the printer Control Panel.

1. When the manual feed command is selected, the printer waits until you load the paper in Tray 1.

```
MANUAL FEED
=ON
```

2. Pull out Tray 1 and load the paper you are going to use. It may be necessary to remove some or all of the paper stack first, depending on the size of paper in the tray and the size of the paper you wish to print on manually.

3. Re-install Tray 1 and press **Go**. The printer will then start printing.

Note

- Print quality may be affected by the type of paper you use and the print image.

- You may experience poor paper feeding during Duplex printing.

- This machine is not designed for continuous Duplex printing.

- During manual duplex printing, if you leave the printer for more than 5 minutes after the first side has been printed, the printer will reset the function automatically.

CHAPTER 4
CONTROL PANEL OPERATION

CONTROL PANEL

This printer has one liquid crystal display (LCD), eight buttons and four LEDs on the control panel. The display can show various messages with up to 16 characters in two rows. The LEDs light to indicate the current printer status.

Fig. 4-1

BUTTONS

You can control the basic printer operations and change various printer settings with the 8 buttons (**Go**, **Job Cancel**, **Secure Print**, **Reprint**, **+**, **-**, **Set**, **Back**).

Key		Function
Go		Exit from the control panel menu, Reprint settings and 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. (1-999)
Menu	**+**	Move forward through Menus.
		Move forward through selectable options.
	-	Move backward through Menus.
		Move backward through selectable options.
	Set	Select the control panel menu.
		Set the selected menus and settings.
	Back	Go back one level in the menu structure.

GO BUTTON

Panel indications can be changed from their current status (MENU, ERROR and REPRINT settings) by pressing **Go** once. For ERROR indications, the panel changes only after the error is cleared.

You can PAUSE printing by pressing **Go**. Pressing **Go** again will restart the print job and clear the PAUSE. During PAUSE, the printer is in the off-line state.

Notes

When the printer is in PAUSE, you can choose not to print the remaining data by pressing Job Cancel. Press Go to clear the PAUSE and return the printer to the "READY" state.

JOB CANCEL BUTTON

You can cancel the processing or printing of data with **Job Cancel**. The display shows "JOB CANCELING" until canceling is completed. After canceling the job, the printer returns to the "READY" state.

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

SECURE PRINT BUTTON

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 control 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 state.

1. Press Secure Print.

2. Select the user name, job, password and print copy quantity.

3. To start printing, press **Set** or **Secure Print**.

Notes

- The Secure Print function does not support off-line or paused printing.

- When there is no secure data and you press Secure Print, the LCD briefly shows "NO DATA STORED."

When you want to use the Secure Print function, refer to "Operations for printing SECURE data" in this chapter.

REPRINT BUTTON

If you want to reprint a document that has just been printed, you can reprint it by pressing **Reprint**. 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 MENU state.

When you want to print PROOF, PUBLIC or SECURE data, we recommend installing the optional HDD or CompactFlash card.

If you do not install an HDD or CompactFlash card.
(See "COMPACTFLASH CARD/ HDD CARD" in Chapter 5.), you can reprint from RAM. The reprint data in RAM will be deleted when the printer is turned off.

When you use RAM to reprint:

1. Press **Set** on the control panel to exit from the READY state, and then select RAMDISK SIZE in the SETUP mode.

2. The default RAM is 0MB. Press **+** to increase the reprint RAM size in increments of 1MB.

Notes

- When you increase the RAM size for secure printing, the work area of the printer is decreased and the printer performance is reduced. Ensure that you reset the RAMDISK SIZE to 0MB when you have finished using Secure Printing.

- When you store data in RAM, the data will be deleted when the printer power is turned off.

We also recommend adding additional RAM if you want to be able to print a large quantity of secured data. (See "RAM Expansion" in Chapter 5)

Reprinting the Last JOB

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

Notes

- When REPRINT is turned off on the panel and you press the Reprint key, the LCD briefly shows "NO DATA STORED."

- If you want to cancel Reprinting, press the Job Cancel key.

- If the printer does not have enough memory to spool the print job data, it will print only the last page of the data. We recommend that you expand the memory when you want to reprint a large amount of data. For more information on memory expansion, see "RAM EXPANSION" of Chapter 5.

- Pressing – or + decreases or increases the number of reprint copies. You can select between COPIES= 1 and COPIES=999.

- For more information about the settings in the printer driver, see "Job Spooling" in Chapter 2.

Reprint the last JOB 3 times

1. Use the control panel to turn the REPRINT function ON in SETUP mode.

Notes

If you are using the driver supplied with the printer, the settings for spooling jobs in the printer driver will take priority over the settings made using the control panel. For more information, see "Job spooling" in Chapter 2.

---

2. Press **Reprint**.

```
---REPRINT---
COPIES=          1
```
If you wait too long to continue the control panel operation, the display will exit the REPRINT menu automatically.

Press **+** twice.

```
---REPRINT---
COPIES=          3
```

Press **Set** or **Reprint.**

```
PRINTING
```

```
---REPRINT---
COPIES=          1
```

Notes

- If you press **Go**, the printer will exit from the Reprint menu.

- If you want to reprint the data and have pressed **Go**, the display will show "`PRESS SET TO PRINT`." Press **Set** to start reprinting, or press **Go** to cancel the reprint job.

Printing PROOF Data

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

When the area to spool data becomes full, the earliest data will be 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 printing SECURE data" in this chapter.

Notes

- If you have not installed the optional HDD or CompactFlash, the reprint data will be deleted when the printer is turned off.

- If there is data in the job information that cannot be displayed on the LCD, the display shows "?".

- For more information about the settings in the printer driver, see "Job Spooling" in Chapter 2.

Printing PUBLIC Data

You can use this function to reprint documents stored in a PUBLIC area of the printer memory. 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 print using the control panel of the printer or connect to the printer through a web browser.

Public data can be deleted using the control panel of the printer or from the web-based management software.

When you reprint PUBLIC data, refer also to "Operations for Printing SECURE Data" in this chapter.

Notes

- If there is data in the job information that cannot be displayed on the LCD, the display shows "?".

- For more information about the settings in the printer driver, see "Job Spooling" in Chapter 2.

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 print using the control panel of the printer (with password) or connect to the printer using a web browser.

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

Notes

- If there is data in the job information that cannot be displayed on the LCD, the display shows "?".

- For more information about the settings in the printer driver, see "Job Spooling" in Chapter 2.

Operations for Printing SECURE Data

Press **Reprint** ·····························▶ If there is no data.   `NO DATA STORED`

⬇

```
--REPRINT--
LAST JOB
```

⬇ Press **+** or **-**.

```
--REPRINT--
SECURE FILE
```

⬇ Press **Set**.

```
SECURE FILE
USER   XXXXXX
```

⬇ Press **+** or **–** to select the user name.
Press **Set** to set the user name.

```
USER XXXXXX
JOB  XXXXXX
```

⬇ Press **+** or **–** to select the job.
Press **Set** to set the job.

```
JOB XXXXXXX
PASS NO.=0000
```

⬇ Input your password.
Press **Set** to set the password

```
--REPRINT--
COPIES=      1
```
·····························▶ The printer will exit this menu after a time out period.

⬇ Press **Set** or **Reprint**.
If you press **Go**, the display shows "PRESS SET TO PRINT."

```
PRINTING
```

When there is no reprint data in memory

If the printer does not have reprint data in the buffer memory and you press **Reprint**, the LCD shows "NO DATA STORED."

To delete the job

Using the control panel, select the 'DELETE STORAGE' submenu under the SETUP menu. Select the user name and the job to delete (you will need to input the password to delete secure data).

To cancel the reprint job

Pressing **Job Cancel** allows you to cancel the current reprint job. **Job Cancel** also allows you to cancel a paused reprint job.

+, − BUTTONS

If you press **+** or **−** when the printer is in the on-line state (READY), it goes off-line and the LCD will display the menu.

To display menus in the current mode

If you press **+** or **−** when the printer is in 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 **+** or **−**. Pressing **+** or **−** allows you to scroll forward or backward through the menus and settings on the display. Press repeatedly until you access the desired item.

To set numbers

There are two ways to input numbers. You can press **+** or **−** to scroll up or down one number at a time, or you can hold down **+** or **−** to scroll faster. When you see the number you want, press **Set**.

SET BUTTON

If you press **Set** when the printer is in the on-line state, it goes off-line and the LCD goes to the menu.

Pressing **Set** allows you to set the selected menu or number. After changing the menu or number, an asterisk appears briefly on the right hand side of the message.

BACK BUTTON

If you press **Back** when the printer is in the on-line state, it goes off-line and the LCD goes to the menu.

Pressing **Back** allows you to return to the previous level from the current menu level.
Pressing **Back** also allows you to select the previous digit while inputting numbers.
When the leftmost digit is selected, **Back** allows you to go up one level in the menu.
When a menu or number without an asterisk (**Set** not pressed) is selected, **Back** allows you to return to the previous menu level with the original setting unchanged.

Notes

When you press **Set** to select a setting, an asterisk appears briefly at the end of the display. Since the asterisk indicates your selection, you can easily find the current settings as you scroll through the display.

LEDS

The lamp lights or blinks to indicate the current printer status.

READY LED

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

POWER LED

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

ALARM LED

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

DATA LED

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

LCD DISPLAY

The display shows the current printer status. When you use the control panel, the display will change.

If you take the printer off-line, the display changes to show the selected emulation.

If any problems occur, the display shows the corresponding error message, maintenance message, or call service message to prompt you to take an action. For more information about these messages, see "TROUBLESHOOTING," Chapter 6.

LCD MESSAGES

The message on the LCD display shows the current printer status during normal operation as shown below.

```
┌──────────────────────────────────────┐
│ READY                                │
│                                      │
│                    ■    ■    □    ■   │
│                                      │
└──────────────────────────────────────┘
                     K    C    M    Y
```
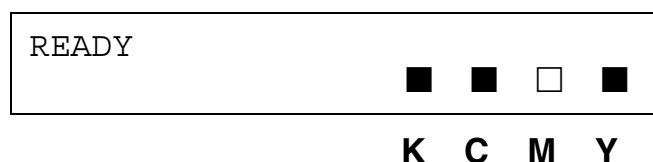
The ■ marks indicate the status of the toner in the Toner Cartridges (K: Black, C: Cyan, M: Magenta, Y: Yellow). When the ■ mark blinks (□), the indicated color toner is nearly empty. When toner becomes empty, the ■ indicator disappears completely.

When an error has occurred, the type of error is displayed on the first line of the LCD message as shown below.

The message on the second line shows information for clearing the error as shown below.

```
┌──────────────────────────────────────┐
│ COVER OPEN                           │
│ Close the Top Cover                  │
│                                      │
└──────────────────────────────────────┘
```

Printer Status messages

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

Printer Status Message	Meaning
READY	Ready to print.
PROCESSING	Busy processing data.
SLEEP	In sleep status
PRINTING	Printing.
PROGRAMING-WAIT	Accessing CompactFlash card or HDD.
SELF TEST	Performing self-diagnostics.
PAUSE	The printer has suspended feeding forms. Pressing **Go** resumes form feed.
NOW INITIALIZING	The printer is setting up.
WARMING UP	The printer is warming up.
RAM SIZE=xxMB	This printer has XX MB memory.
JOB CANCELLING	Cancelling the job.
RESOLUTION ADAPT	Printing with reduced resolution.
PRESS SET TO PRINT	Press **Set** to start printing.
RESET TO FACTORY SETTING	The printer setting returns to the factory setting.

HOW TO USE THE CONTROL PANEL

When you operate the **Menu** buttons (**+, –, Set** or **Back**), remember the following basic steps:

- If no control panel operations are performed for 30 seconds, the LCD automatically returns to READY.
- When you press **Set** to select a setting, an asterisk appears briefly at the end of the display. After that, the display returns to the previous menu level.
- After changing the status or a setting, pressing **Back** before you press **Set** will cause the display to return to the previous menu level with the original settings unchanged.
- There are two ways to input numbers. You can press **+** or **–** to scroll up or down one number at a time, or you can hold down **+** or **–** to scroll faster, the blinking digit is the changeable digit.

For example: When you want to change the 'SOURCE' setting to 'TRAY1'. Choose this setting to load paper always from the Tray 1.

```
READY
```

⬇ Press any of the **Menu** buttons (**+, -, Set** or **Back**) to turn the printer off-line.

```
--MENU--
INFORMATION
```

⬇ Press **+** or **−** to scroll forward or backward through the menus.

```
--MENU--
PAPER
```

⬇ Press **Set** to proceed to the next menu level.

```
PAPER
SOURCE
```

⬇ Press **Set**.

```
SOURCE
=AUTO            *
```

⬇ Press **+**.

```
SOURCE
=TRAY1
```

⬇ Press **Set**.
An asterisk ***** briefly appears at the end of the display.
The default setting is indicated by an "*****".

```
SOURCE
=TRAY1
```

PANEL SETUP MENU

Notes

The LCD panel descriptions for the paper trays are as follows.

- Upper paper tray: Tray 1

- Optional lower tray: Tray 2

- Optional duplex unit: DX

There are 8 modes. For more information about the selections available for each mode, refer to the pages listed below.

INFORMATION
For more information, see 4-22

PAPER
For more information, see 4-23

QUALITY
For more information, see 4-23

SETUP
For more information, see 4-24

PRINT MENU
For more information, see 4-26

NETWORK
For more information, see 4-31

INTERFACE
For more information, see 4-32

RESET MENU
For more information, see 4-33

INFORMATION

Display Shows	Description		
PRINT SETTINGS	Print the Configuration page.		
PRINT TEST	Print a test page.		
PRINT DEMO	Print the demonstration page.		
PRINT FILE LIST	Print the card list.		
PRINT FONTS	Print the fonts list and samples.		
VERSION	**Submenu**	**Description**	
	SER.NO=########	Printer serial number.	
	ROM VER=####	ROM firmware version	
	ROM DATE YY/MM/DD	ROM date	
	NET VER=####	Network firmware version (Network users only)	
	NET DATE YY/MM/DD	Network Build date (Network users only)	
	ENGINE VER=####	Engine Firmware version	
	RAM SIZE=###MB	The size of memory in this printer.	
MAINTENANCE	**PAGE COUNTER**	=######	The current total printed pages.
	IMAGE COUNTERS	C=#####, M=#####, Y=#####, K=#####, TOTAL=#####	The amount of images produced by an individual color and the combined Total of all 4 colors.
	REMAIN FC ROLLER	=######	This is the remaining life for the FC roller, OPC Belt, Fuser, 120K Kit, PF Kit1 and PF Kit2
	REMAIN OPC BELT	=######	
	REMAIN FUSER	=######	
	REMAIN 120K KIT	=######	
	REMAIN PF KIT1	=######	
	REMAIN PF KIT2	=######	

PAPER

Display Shows	Description
SOURCE	=AUTO/TRAY 1/TRAY 2
MANUAL FEED	=OFF/ON
TRAY1 SMALL SIZE	=B5/JIS B5/COM-10/DL/EXECUTIVE
TRAY2 SMALL SIZE	=B5/EXEC/JISB5
DUPLEX	=OFF/ON(LONG BIND)/ON(SHORT BIND)

QUALITY

Display Shows	Description
HRC	=MEDIUM/DARK/OFF/LIGHT HRC: High Resolution Control offers improved print quality of characters and graphics that conventional laser printers cannot attain.
TONER SAVE	=OFF/ON

SETUP

Display Shows	Description	
LANGUAGE	= ENGLISH/FRANÇAIS /…	
POWER SAVE	=ON/OFF	
POWER SAVE TIME	=1 MIN:99 MIN	
AUTO CONTINUE	=OFF/ON	
LOCK PANEL	=OFF/ON Turn the lock panel function ON/OFF.	
	PASS NO.=###	
REPRINT	=ON/OFF	
PAGE PROTECTION	=AUTO/OFF/LETTER/LEGAL/A4	
EMULATION	=AUTO(EPSON)/AUTO(IBM)/HP LASER JET/….	
KEEP PCL	=OFF/ON	
RAMDISK SIZE	=0/1/2/…MB	RESTART?

SETUP (Continued)

Display Shows	Description	
DELETE STORAGE	Delete the data on the CompactFlash card or HDD.	
	Submenu	**Description**
	SECURE FILE	Select the User name, Job name and password.
	PUBLIC FILE	Select the User name and Job name.
	PROOF FILE	Select the User name and Job name.
	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 hh:mm <u>*</u>	
DATE & TIME	**DISPLAY**	YYYY/MM/DD hh:mm
	YEAR	=YYYY
	MONTH	=MM
	DAY	=DD
	HOUR	=hh
	MINUTE	=mm

PRINT MENU

Display Shows	Description
MEDIA TYPE	=PLAIN PAPER/THICK PAPER/TRANSPARENCIES
COLOR PRINT	=ON/OFF
PAPER	Set cut sheet paper size to A4, EXECUTIVE, COM-10, DL, B5, JIS B5, LETTER, LEGAL
COPIES	You can check the total number of printed pages.
	Shows the number of printed pages. (1:999)
ORIENTATION	This printer can print pages in portrait or landscape orientation.
	PORTRAIT or LANDSCAPE

Display Shows	Description	
PRINT POSITION	This printer can be adjusted to align the page format.	
	Submenu	**Description**
	X OFFSET=0	=-500:+500 Move the print start position (at the upper left corner of pages) horizontally up to –500 (left) to +500 (right) dots in 300 dpi.
	Y OFFSET=0	=-500:+500 Move the print start position (at the upper left corner of pages) vertically up to –500 (up) to +500 (down) dots in 300 dpi.

Display Shows	Description	
AUTO FF TIME	=OFF/1:99 (sec) Prints the remaining data without pressing **Go**, after the desired time.	
FF SUPPRESS	=OFF/ON Turns the form feed suppress function ON/OFF.	
HP LASERJET	**FONT NO.**	=I0000:#####
	FONT PITCH	=###.##
	SYMBOL 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

PRINT MENU (Continued)

Display Shows	Description	
HP LASERJET	**AUTO CR**	=OFF/ON ON: LF→LF+CR, 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 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=0.5
	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(None-HP), 0.5(HP)
	LINES	=#### Set the number of lines per page from 5 to 128 lines.

PRINT MENU (Continued)

Display Shows	Description	
EPSON FX-850	FONT NO.	=I0000:#####
	FONT PITCH	=###.##
	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
	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
	LINES	Set the number of lines per page from 5 to 128 lines.

PRINT MENU (Continued)

Display Shows	Description	
IBM PROPRINTER	**FONT NO.**	`=I0000:#####`
	FONT PITCH	`=###.##`
	CHARACTER SET	PC-8/… Set the symbol set and 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
	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
	LINES	Set the number of lines per page from 5 to 128 lines.

PRINT MENU (Continued)

Display Shows	Description	
HP-GL	**CHAR SET(STD)**	=####
	CHAR SET(ALT)	=####
	PEN # SIZE	PEN 1 to 6 (Set size and gray percentage for the selected pen.)
	PEN # GRAY	PEN 1 to 6 15, 30, 45, 75, 90 or 100 % (# is the selected pen number)
BR-SCRIPT	**ERROR PRINT**	=OFF/ON
	CAPT	=OFF/ON CAPT: Color Advanced Photoscale Technology offers photographic fine grayscale on graphics. APT setting is available only at 600 dpi.

NETWORK (Network Users Only)

Display Shows	Description	
TCP/IP	**Submenu**	**Description**
	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

Display Shows	Description	
SELECT	=AUTO/USB/PARALLEL/NETWORK	
AUTO IF TIME	= 1:99 (sec) You need to set the time out period for the auto interface selection.	
INPUT BUFFER	= Level1:15 Increase or decrease the input buffer capacity.	RESTART PRINTER?
PARALLEL	When using the parallel interface	
	Submenu	**Description**
	HIGH SPEED	=ON/OFF Turns high-speed parallel communications ON/OFF.
	BI-DIR	=ON/OFF Turns bi-directional parallel communications ON/OFF.

RESET MENU

Display Shows	Description		
RESET PRINTER	Resets the printer and restores all printer settings – including command settings – to the settings you have previously made using the control panel.		
FACTORY RESET	Resets the printer and restores all printer default settings – including command settings. See "List of Factory Settings".		
PARTS LIFE	**Submenu**		**Description**
	FC ROLLER		Resets the Fuser Cleaner parts life.
	OPC BELT		Resets the OPC Belt parts life.
	FUSER UNIT		Resets the Fixing Unit parts life.
	120K KIT		Resets the 120K Kit parts life.
	PF KIT1		Resets the PF Kit1 parts life.
	PF KIT2		Resets the PF kit2 parts life.

Set Date and time

```
--MENU--
INFORMATION
```

Press **+** or **−** until "SETUP" mode appears.

```
--MENU--
SETUP
```

Press **Set**.

```
SETUP
DATE&TIME
```

Press **Set**.

```
DATE&TIME
YEAR
```

Press **Set**.

```
YEAR
=1999            *
```

Press **+**.

```
YEAR
=2000
```

Press **Set**.

```
YEAR
=2000            *
```

After a short time, the display changes.

```
DATE&TIME
YEAR
```

Press **Set**.

```
DATE&TIME
MONTH
```

```
DATE&TIME
2000/04/25 10:22
```
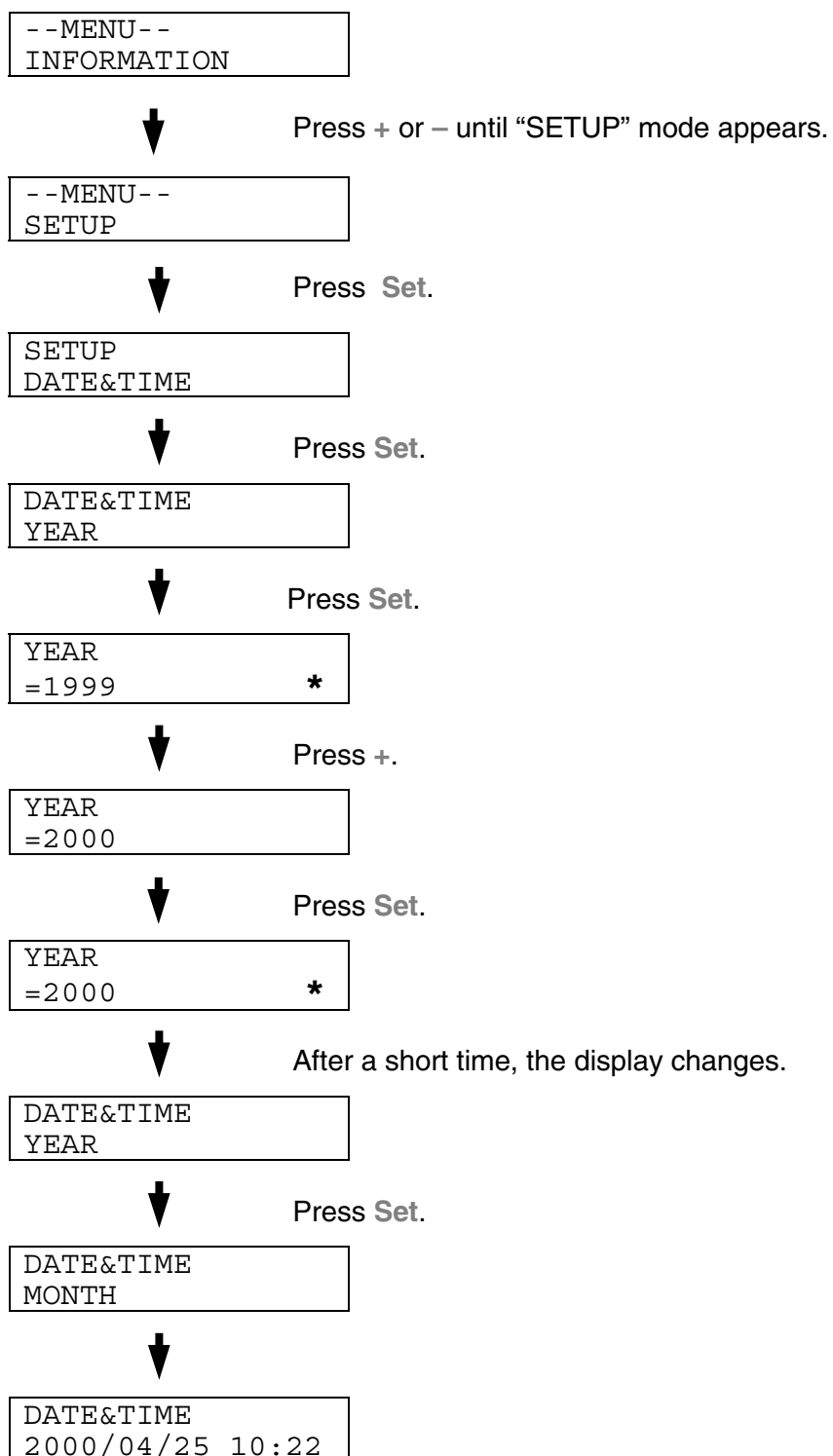
Set IP Address

```
--MENU--
INFORMATION
```

Press +.

```
--MENU--
NETWORK
```

Press **Set**.

```
NETWORK
TCP/IP
```

Press **Set**.

```
TCP/IP
TCP/IP ENABLE
```

Press +.

```
TCP/IP
IP ADDRESS=
```

Press **Set**.

```
IP ADDRESS=
192.0.0.192        *
```

The last digit in the first part of the number is blinking.
Press + or − to increase or decrease the number.
Press **Set** to go to the next digit.

```
IP ADDRESS=
123.0.0.192
```

Repeat this process until you have set your IP address.

```
IP ADDRESS=
123.45.67.89
```

Press **Set** to complete the IP address.

```
IP ADDRESS=
123.45.67.89       *
```
An asterisk appears at the end of the display.

About Emulation Modes

This printer has the following emulation modes:

HP LaserJet Mode

The HP LaserJet mode (or HP mode) is the emulation mode in which this printer emulates the Hewlett-Packard LaserJet laser printer. Many software applications support this type of laser printer. Using this mode will allow your printer to operate at its optimum performance with those applications.

BR-Script3 Mode

BR-Script is an original Brother page description language and a PostScript® language emulation interpreter. This printer supports level 3. The BR-Script interpreter of this printer enables full and satisfactory control of text and graphics on pages.

For 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 in which 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 those 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 initial factory default settings.

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 the NETWORK settings using the control panel. If you want to reset the print server to its default factory settings (resetting all information such as the password and IP address information), hold down the Network Test button on the Network board (NC-4100h) for more than 5 seconds.

MODE	MENU	Factory Setting
PAPER	SOURCE	=AUTO
	MANUAL FEED	=OFF
	DUPLEX	=OFF
QUALITY	HRC	=MEDIUM
	TONER SAVE	=OFF
SETUP	LANGUAGE	=ENGLISH
	POWER SAVE TIME	=30MIN
	AUTO CONTINUE	=OFF
	LOCK PANEL	=OFF
	REPRINT	=ON
	PAGE PROTECTION	=AUTO
	EMULATION	=AUTO(EPSON)
	KEEP PCL	=OFF
	RAMDISK SIZE	=#MB
	TIME STYLE	=YY/MM/DD hh:mm
PRINT MENU	MEDIA TYPE	=PLAIN PAPER
	PAPER	=A4/LETTER
	COPIES	=1
	ORIENTATION	=PORTRAIT
	PRINT POSITION	X OFFSET=0
		Y OFFSET=0
	AUTO FF TIME	=5
	FF SUPPRESS	=OFF

MODE	MENU	Factory Setting
PRINT MENU (Continued)	**HP LASERJET**	FONT NO.=59
		FONT PITCH/POINT=10.00/12.00
		SYMBOL/CHARACTER SET=PC8
		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.=59
		FONT PITCH/POINT=10.00/12.00
		SYMBOL/CHARACTER SET=US ASCIF
		AUTO LF=OFF
		AUTO MASK=OFF
		LEFT MARGIN=####
		RIGHT MARGIN=####
		TOP MARGIN=####
		BOTTOM MARGIN=####
		LINES=####

MODE	MENU	Factory Setting
PRINT MENU (Continued)	**IBM PROPRINTER**	FONT NO.=59
		FONT PITCH/POINT=10.00/12.00
		SYMBOL/CHARACTER SET=PC8
		AUTO LF=OFF
		AUTO CR=OFF
		LEFT MARGIN=####
		RIGHT MARGIN=####
		TOP MARGIN=####
		BOTTOM MARGIN=####
		LINES=####
	HP-GL	CHAR SET(STD)=####
		CHAR SET(ALT)=####
		PEN # SIZE
		PEN # GRAY
	BR-SCRIPT	ERROR PRINT=OFF
		CAPT=OFF
NETWORK	**TCP/IP**	TCP/IP ENABLE=ON
		IP METHOD=AUTO
		IP ADDRESS=192.0.0.192
		SUBNET MASK=0.0.0.0
		GATEWAY=0.0.0.0
		IP BOOT TRIES=3
		IP METHOD=AUTO

MODE	MENU	Factory Setting
NETWORK (Continued)	NETWARE	NETWARE ENABLE=ON
		NET FRAME=AUTO
	APPLETALK	=ON
	NETBEUI	=ON
	DLC/LLC	=ON
	BANYAN	=ON
	LAT	=ON
	NETBIOS/IP	=ON
	ENET	=AUTO
INTERFACE	SELECT	=AUTO
	AUTO IF TIME	=5
	INPUT BUFFER	=LEVEL 3
	PARALLEL	HIGH SPEED=ON
		BI-DIR=ON

CHAPTER 5
MAINTENANCE

REPLACING THE CONSUMABLES

Periodically, you will need to replace the following consumables. When the time comes to replace consumables, the following messages will appear on the LCD panel.

The printer will stop printing when the following Operator Call Messages are displayed:

LCD Operator Call Message	Consumable to Replace	Approximate Life	How to Replace	Order No.
TONER EMPTY X Replace the X toner cartridge	Toner Cartridge C = Cyan, M = Magenta, Y = Yellow, K = Black	12,000 pages (Black) 7,200 pages (Cyan, Magenta, Yellow) *1	See 5-5	TN-03BK TN-03C TN-03M TN-03Y
WASTE TONER Replace the waste toner pack	Waste Toner Pack	18,000 images *1 *4	See 5-16	WT-3CL
OIL EMPTY Replace the oil bottle	Oil Bottle	12,000 pages	See 5-9	FO-2CL
CHANGE FCR Replace the cleaning roller	Fuser Cleaner	12,000 pages *1	See 5-13	CR-3CL

The following are Maintenance Messages that appear on the LCD in the READY state. These messages provide advanced warnings to replace the consumables before they run out. To avoid any inconvenience, you may wish to purchase spare consumables before the printer stops printing.

LCD Operator Call Message	Consumable to Replace	Approximate Life	How to Replace	Order No.
READY □ ■ ■ ■ K C M Y	Toner Cartridge, Black	12,000 pages *1 *2	See 5-5	TN-03BK
READY ■ □ □ □ K C M Y	Toner Cartridge, Cyan / Magenta / Yellow	7,200 pages *1 *2	See 5-5	TN-03C TN-03M TN-03Y

The following are Maintenance Messages that appear alternatively with the "READY" message on the upper row of the LCD when the printer is in the READY state. These messages advise you that you will need to replace each of the consumables as soon as possible, since the consumable end of life has been reached. The printer will continue printing when any of these messages are displayed:

LCD Operator Call Message	Consumable to Replace	Approximate Life	How to Replace	Order No.
REPLACE FCR ←→ READY	Fuser Cleaner	12,000 pages *1	See 5-13	CR-3CL
REPLACE OPC BELT ←→ READY	OPC Belt Cartridge	60,000 images (Continuously printed) *4	See 5-18	OP-3CL
REPLACE FUSER ←→ READY	Fusing unit	60,000 pages *1	See 5-23	
REPLACE 120K KIT ←→ READY	Drum Cleaner, Paper Discharger, Transfer Roller, Paper Pick-up Roller Separator Pad, Transfer Drum	120,000 pages	See 5-27 *3	
NEAR WASTE TONER ←→ READY	Waste Toner Pack	18,000 Images	See 5-16	
FUSER OIL LOW ←→ READY	Oil Bottle	12,000 pages	See 5-9	FO-2CL

Note

The Ozone Filter does not have an LCD message indicator. However, you will need to replace it once a year.

*1 - at 5 % coverage print (A4-Letter size).

Note

The *starter* toner cartridges shipped with the printer contain only half the normal amount of toner. (6,000 pages (Black) and 3,600 pages (Cyan, Magenta and Yellow).

*2 - For example, if the Cyan and Magenta toner cartridges are almost empty, the indication will be "■ □ □ ■" (□ = blinking ■)
　　　　　　　　　　　　　　　K　C　M　Y

If the Cyan and Magenta toner cartridges are empty, the ■ indicator will have disappeared.

*3 - To replace the Paper Pick-up Roller, the Separator Pad and the Transfer Drum, consult your local dealer/retailer or Service provider.

*4 - Definition of pages: actual output page number.

Definition of images:
if the image on a page contains only one color of either Cyan, Magenta, Yellow or Black =>1 image, two colors => 2 images, three colors => 3 images, four colors => 4 images.

Note

- Discard the used consumables according to local regulations. If you are not sure of them, consult your local dealer/retailer. Be sure to re-seal the consumables tightly so that the material inside does not spill. Do not discard used consumables together with domestic waste.

- We recommend placing used consumables on a piece of paper or cloth to prevent accidentally spilling or scattering the material inside.

Note

- If you use paper that is not a direct equivalent for the specified paper, consumable and part life may be reduced.

- The Projected Life for each of the items listed is based on an average of 5% coverage of the printable area using any color toner cartridge. Frequency of replacement will vary depending on the complexity of printed pages, percentage of coverage and type of media used.

TONER CARTRIDGES

! Caution

We strongly recommend using genuine Brother toner cartridges. Using generic or refilled toner cartridges may void the warranty for this printer.

Toner Nearly Empty Message

Check printed pages, page counter, and display messages periodically. If the ■ indicator starts blinking (□), the printer has nearly run out of toner or the toner is not evenly distributed inside the cartridge.

```
┌──────────────────────────────────────┐
│ READY                                │
│                                      │
│                    ■  □  □  ■        │
└──────────────────────────────────────┘

                     K  C  M  Y
```
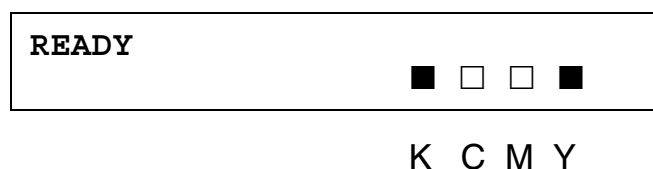
*K stands for Black, C stands for Cyan, M stands for Magenta and Y stands for Yellow.

Although you can print approximately 300 (Black) and 500 (Cyan, Magenta and Yellow) additional pages (at 5% coverage) after the toner low message first appears, be sure to replace the toner cartridge with a new one before it becomes completely empty. When this occurs, the ■ indicator on the LCD panel will disappear.

Toner Empty Message

When the following message appears on the LCD panel and the printer stops printing, you need to replace the Toner Cartridge(s):

```
┌──────────────────────────────────────┐
│ TONER EMPTY                          │
│                                      │
└──────────────────────────────────────┘
```

Replacing the Toner Cartridges

! Warning

Do not put the Toner Cartridge into a fire. It could explode.

! Caution

- When replacing the Toner Cartridges, handle them carefully so that toner does not spill.

- We strongly recommend using genuine Brother toner cartridges. Using generic or refilled toner cartridges may void the warranty for this printer.

Note

- To ensure optimum print quality, use genuine Brother toner cartridges. Third party toner cartridges may not work in your printer.

- To obtain genuine Brother supplies, consult the dealer where you purchased the printer.

To replace the toner cartridge(s), follow these steps:

1. Open the Front Cover of the printer.
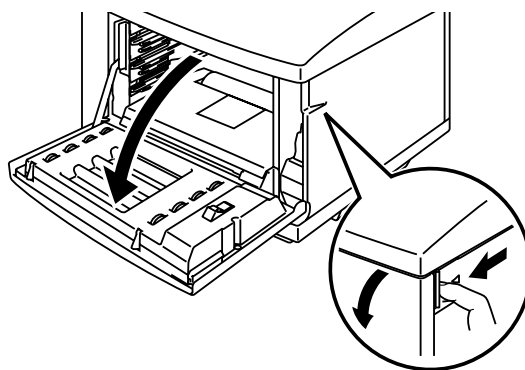
Fig. 5-1

2. Remove the used Toner Cartridge(s).

3. Take the new Toner Cartridge out of the box.

4. After rocking each new Toner Cartridge 3 to 4 times from side to side, remove the tape labeled 'REMOVE' and the orange protective cover from the new Toner Cartridge.
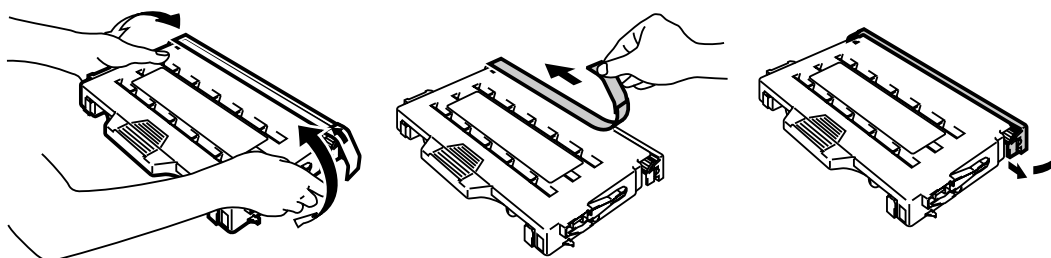
Fig. 5-2

5. Insert the new Toner Cartridge(s) by positioning it in the correct guide(s). Slide it gently into the printer. Do not try to lock or push the new Toner Cartridge(s) in; the new Toner Cartridge(s) must rest loosely in the guide rails, they will be correctly positioned when the front cover is closed. Note that each color cartridge is individually keyed to prevent improper installation. Match each cartridge color label to the corresponding label on the printer.
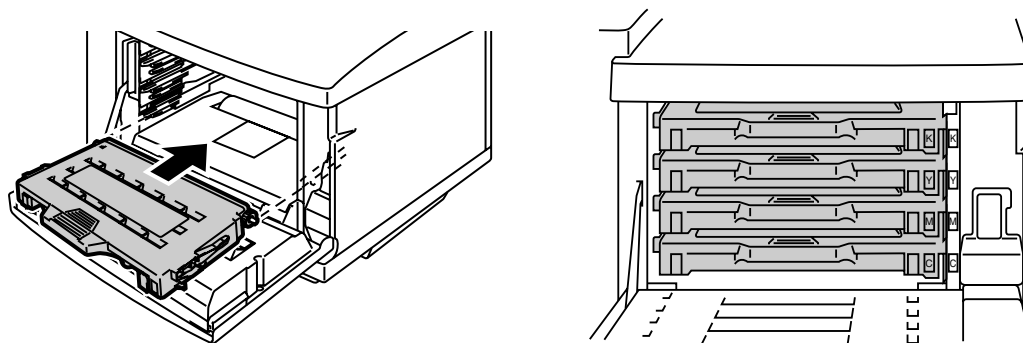
Fig. 5-3

6. Close the Front Cover.

! Caution

- Insert the toner cartridge(s) gently into the printer. Do not try to lock them into the printer by pushing them. They must stay loosely in the guide rails so they will be correctly positioned when the front cover is closed.

- The printer may be damaged or may not work correctly if you install consumables other than genuine Brother supplies or if you use refilled toner cartridges. This could void your warranty.

- Do not stand the toner cartridge on its end or turn it upside down.

- Install the toner cartridges immediately after you remove the protective cover. Do not touch the shaded area shown below:
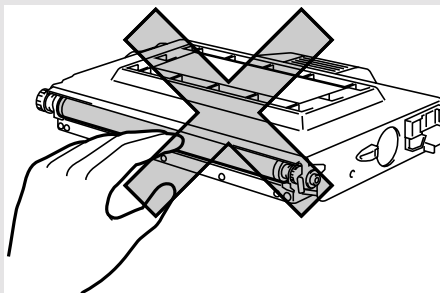
Fig. 5-4

OIL BOTTLE

Oil Bottle Low Message

When the Oil has almost run out, the following message appears on the
LCD panel. Prepare a new Oil Bottle to replace the nearly empty bottle.
After this message appears, you can print approximately 30 pages:

> **FUSER OIL LOW ⬅➡ READY**

Oil Bottle Empty Message

When the Oil completely runs out, the following message appears on the
LCD panel and the printer stops printing. When you see this message, you
must replace the Oil Bottle with a new one:

> **OIL EMPTY**
> Replace the oil bottle

! Warning

**The Fusing Unit and the parts around it are HOT! Be sure to wait until the Fusing Unit has cooled sufficiently before you replace the Oil Bottle.**

If you touch the HOT parts (shaded area shown below), you might get injured.
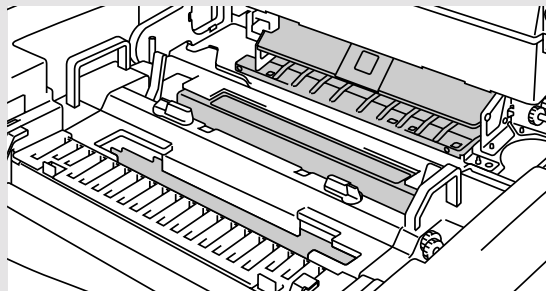
! Caution

- Be careful not to spill oil inside the printer. It might cause considerable damage and void your warranty. If you spill some oil, consult your dealer or Brother authorized service representative.

- Do not loose the Oil Bottle cap. It might cause the oil to leak.

Replacing the Oil Bottle

1. Press the **Power** button to turn off the printer, and then wait until it has cooled down sufficiently.

2. Open the Top Cover.

3. Release the Oil Bottle Lock Levers as shown:
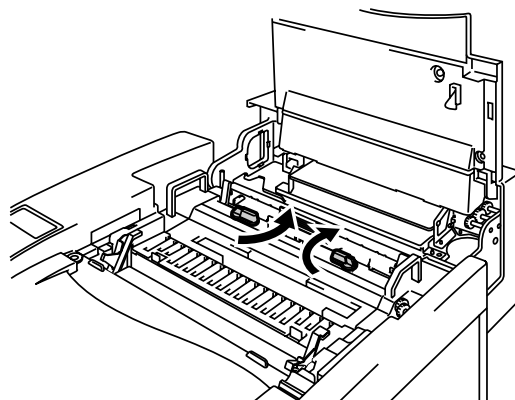
Fig. 5-5

4. Remove the empty Oil Bottle from the Fusing Unit. Hold a sheet of paper under the Oil Bottle and lift it out of the Fusing Unit. Move the bottle away from the printer to the right hand side. Be careful not to spill oil inside the printer. It could cause considerable damage to the printer.
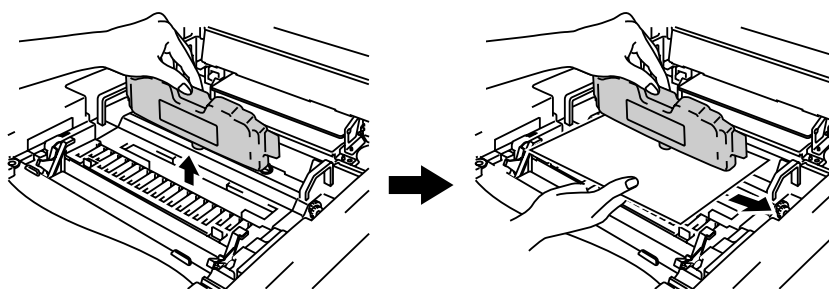
Fig. 5-6

5. Install the new Oil Bottle into the Fusing Unit with the label facing you. The Oil Bottle is keyed to prevent incorrect installation.
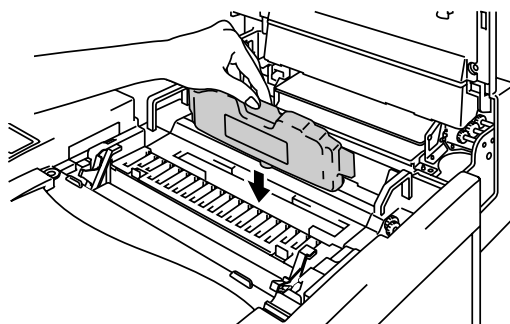
Fig. 5-7

6. Lock the Oil Bottle Lock Levers securely.

7. Close the Top Cover.

8. Press the **Power** button to turn the printer On.

CHAPTER 5 MAINTENANCE

FUSER CLEANER

Fuser Cleaner Message

When the following message appears on the LCD panel, you will need a replacement Fuser Cleaner Roller:

```
REPLACE FCR ←→ READY
```

Fuser Cleaner Change Message

When the following message appears on the LCD and the printer stops printing, you must replace the Fuser Cleaner:

```
CHANGE FCR
Replace the cleaning roller
```

Replacing the Fuser Cleaner

! **Warning**

The Fusing unit and the parts around it are HOT! Be sure to *wait* until the Fusing Unit has cooled sufficiently before replacing the Fuser Cleaner.

If you touch the HOT parts, you might get injured.

---
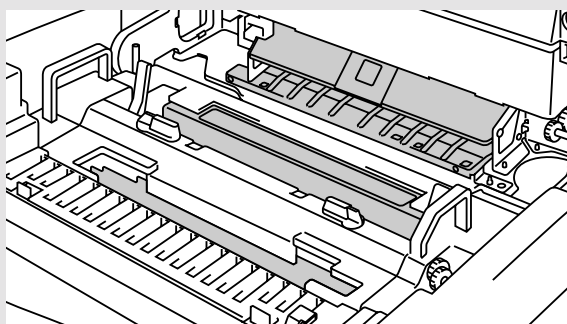
1. Press the **Power** button to turn the printer off, and then wait until it has cooled down sufficiently.

2. Open the Top Cover.

3. Release the Oil Bottle Lock Levers on both sides as shown:
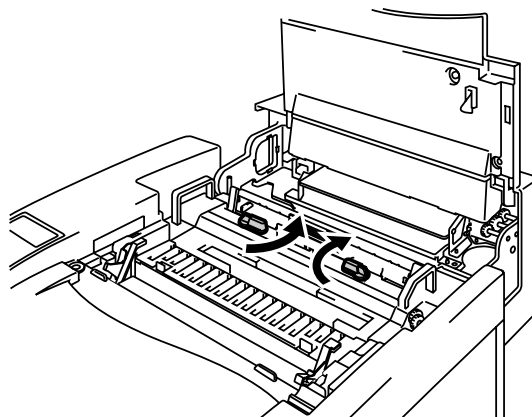
Fig. 5-8

4. Take the Fuser Cleaner out of the Fusing Unit by holding the handle of the Fuser Cleaner as shown:
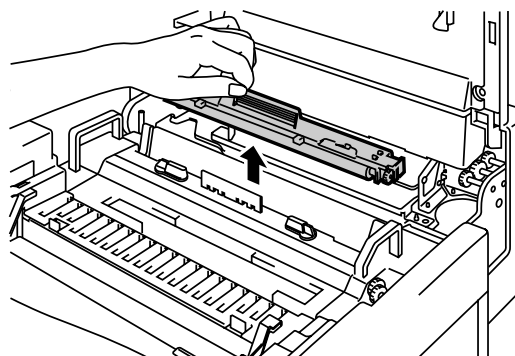
Fig. 5-9

5. Install the new Fuser Cleaner into the guide with the roller side facing you.
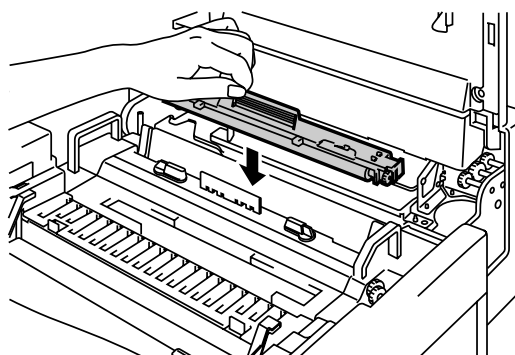
Fig. 5-10

6. Lock the Fuser Cleaner with the Oil Bottle Lock Levers.

7. Close the Top Cover.

8. Press the **Power** button to turn the printer On.

9. Press any of the **Menu** buttons (**+**, **–**, **Set** or **Back**) to take the printer Off Line.

10. Press **+** or **–** until "RESET MENU" appears.

11. Press **Set** to proceed to the next menu level, and then press **+** or **–** until "PARTS LIFE" appears.

12. Press **Set**, and then press **+**. "FC ROLLER" appears.

13. Press **Set**, and then press **Go**. The printer is now in the READY state.

WASTE TONER PACK

Approximately every 18,000 images you print at 5% coverage, you must change the Waste Toner Pack.

```
NEAR WASTE TONER ←→ READY
```

Waste Toner Pack Full Message

When the Waste Toner Pack is full, the following message appears on the LCD and the printer will stop printing. When you see this message, you must replace the Waste Toner Pack:

```
WASTE TONER
Replace the waste toner pack
```

! Warning

Do not re-use the Waste Toner Pack.

Replacing the Waste Toner Pack

! Warning

- **Do not put the Waste Toner Pack into a fire. It could explode.**

- **Be careful not to spill the toner. Do not inhale or allow it to get into your eyes.**

! Caution

Be careful when you handle the Waste Toner Pack so that toner will not spill on your hands or clothes.

1. Open the Front Cover.

2. Remove the Waste Toner Pack from the holder located at the lower right side of the printer. Be careful not to spill the toner.
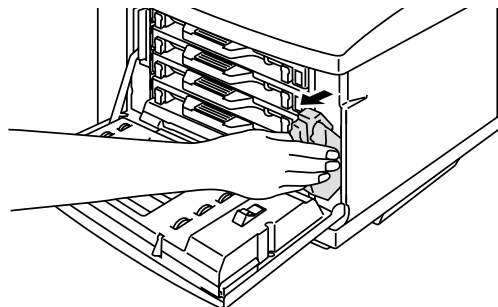
Fig. 5-11

3. Peel off the sealing sticker on the left side of the Waste Toner Pack. Seal the opening with the sealing sticker. See Fig. 5-12 for the correct placement of the sticker. When you dispose of the used Waste Toner Pack, place it in the plastic bag included with the replacement Waste Toner Pack. Please dispose of the Waste Toner Pack in accordance with local regulations.
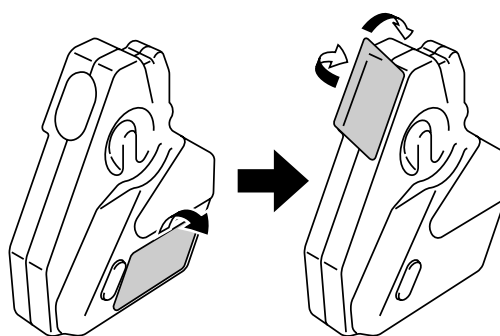
Fig. 5-12

4. Insert the new Waste Toner Pack into the Waste Toner Pack Holder.

5. Close the Front Cover.

OPC BELT CARTRIDGE

OPC Belt Cartridge Message

When the OPC Belt Cartridge runs out, the following message appears on the LCD. When you see this message, you must replace the OPC Belt Cartridge:

```
REPLACE OPC BELT ←→ READY
```

! Caution

- Do not touch the surface of the OPC Belt Cartridge. If you touch it, it could degrade print quality.

- Do not expose the OPC Belt Cartridge to light (more than 800 lux) for more than 2 minutes. This could degrade print quality. Be sure to open the printer Front Cover BEFORE you open the Top Cover to handle the OPC Belt Cartridge.

- Damage caused by improper handling of the OPC Belt Cartridge may void your warranty.

Replacing the OPC Belt Cartridge

1. Press the Power button and turn the printer Off.

2. Open the Front Cover and then open the Top cover.

3. To release the lock, pull the green Belt Cartridge Lock Levers on both sides toward you.
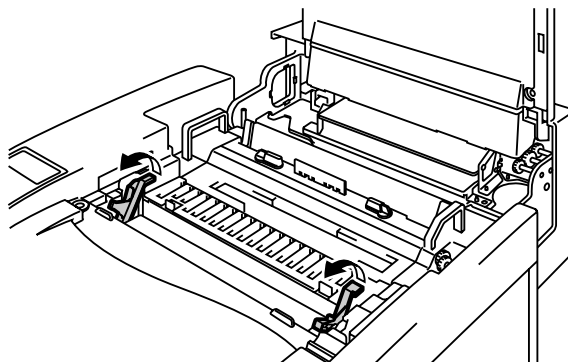
Fig. 5-13

4. Remove the OPC Belt Cartridge from the printer.
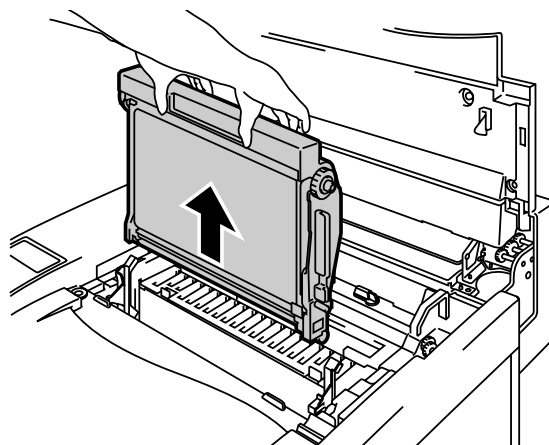
Fig. 5-14

5. Remove the Tension Release Pins from both sides of the new OPC Belt Cartridge.
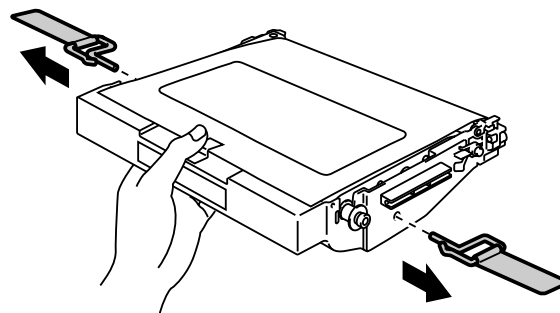
Fig. 5-15

Remove the protective sheet from the new OPC Belt Cartridge. Do not touch the green part of the OPC Belt Cartridge.
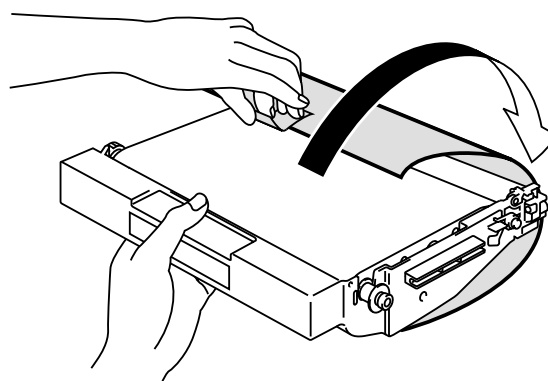
Fig. 5-16

6. Insert the new Belt Cartridge into the printer guides with the flat side facing you.
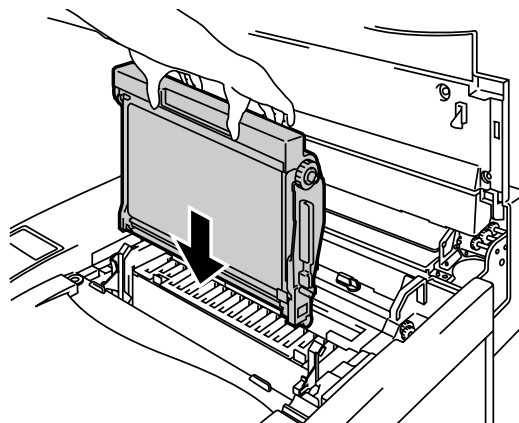
Fig. 5-17

7. To lock the cartridge into the printer, press the Belt Cartridge Lock Levers that are on both sides of the OPC Belt Cartridge to the rear.

8. Close the Front Cover and the Top Cover.

9. Press the **Power** button to turn the printer On.

10. Press any of the **Menu** buttons (**+**, **−**, **Set** or **Back**) to take the printer Off Line.

11. Press **+** or **−** until "RESET MENU" appears.

12. Press **Set** to proceed to the next menu level, and then press **+** or **−** until "PARTS LIFE" appears.

13. Press **Set**, and then press **+** until "OPC BELT" appears.

14. Press **Set**, and then press **Go**. The printer is now in the READY state.

OZONE FILTER

Ozone Filter

You will need to replace the Ozone Filter once a year to prevent ozone from coming out of the printer.

! Caution

You must replace the Ozone Filter once a year. If you do not, it might cause a noticeable odor of Ozone.

Replacing the Ozone Filter

1. Slide and remove the Rear Side Cover.
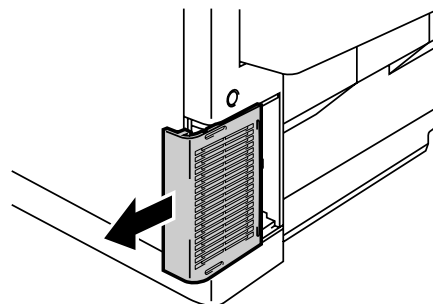
Fig. 5-18

2. Remove the Ozone Filter Case from the Rear Side Cover.
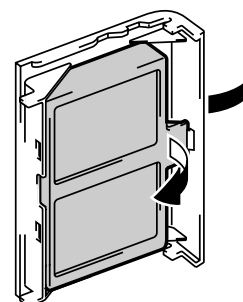
Fig. 5-19

3. Insert the new Ozone Filter Case into the Rear Side Cover.

4. Reinstall the Rear Side Cover by sliding it into place.

FUSING UNIT

Fusing Unit

When the following message appears on the LCD panel, you must replace the Fusing Unit:

```
REPLACE FUSER ←→ READY
```

! Warning

The Fusing Unit and the parts around it are HOT! Be sure to wait until the Fusing Unit has cooled down sufficiently before replacing the Fusing Unit.

If you touch the HOT parts, you might get injured.
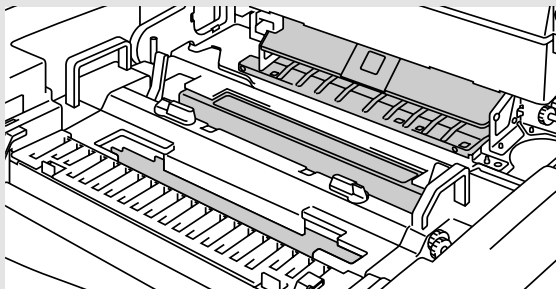
! Warning

After replacing the Fusing Unit, *wait* **for approximately 30 minutes before you print to allow the fusing oil to circulate.**

Replacing the Fusing Unit

1. Press the **Power** button to turn off the printer. Unplug the printer. To avoid injury, wait until the printer has cooled down sufficiently before you replace the Fusing Unit.

2. Open the Top Cover.

3. Unscrew the two long screws as shown to release the Fusing Unit from the printer.
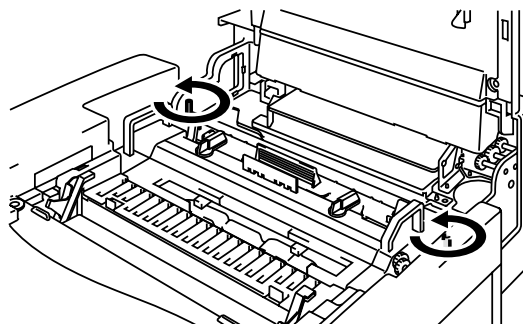
Fig. 5-20

Note

If you begin using a new Fusing Unit immediately, poor print quality may result. **Please wait for 30 minutes after installing a new Fusing Unit to allow the oil to circulate completely through to the Heat Roller.**

---

4. Hold the handles on both sides as you remove the Fusing Unit from the printer.
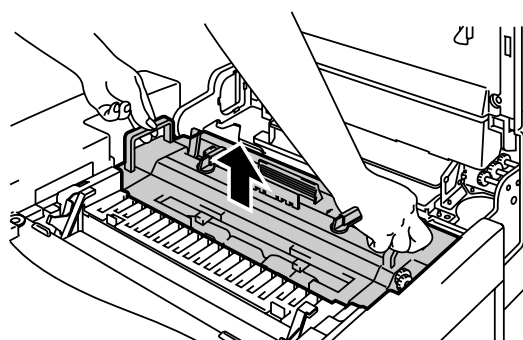
Fig. 5-21

! Caution

When removing the Fusing Unit from the printer, be sure to keep the Fusing Unit flat, so oil will not spill. Considerable damage can occur if oil is spilled inside the printer.

---

5. Remove the Oil Bottle and the Fuser Cleaner from the Fusing Unit.

6. Install the new Fusing Unit into the printer. Be sure to insert the Fusing Unit completely into the printer.
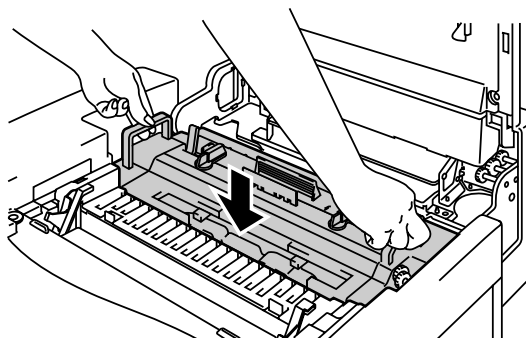
Fig. 5-22

7. Secure the Fusing Unit with the two long screws.
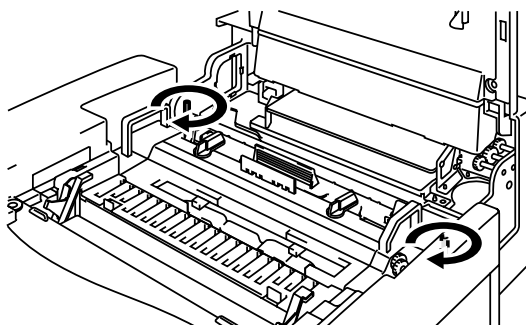
Fig. 5-23

8. Install the Fuser Cleaner and the Oil Bottle into the new Fusing Unit, and then lock the Oil Bottle Lock Levers. Be careful not to spill oil inside the printer. This could damage the printer.

9. Close the Top Cover.

10. Plug the printer into the AC outlet.

Note

If the condition of the Fuser Cleaner is poor, we recommend that you replace the Fuser Cleaner at the same time as the Fusing Unit. The life counter for the Fuser Cleaner will also need to be reset. Please refer to page 5-15 for instructions.

Partially used Oil Bottles can be reused with a new Fusing Unit.

Please wait for 30 minutes after installing a new Fusing Unit to allow the oil to circulate completely through to the Heat Roller.

---

11. Press the **Power** button to turn on the printer.

12. Press any of the **Menu** buttons (**+**, **–**, **Set** or **Back**) to take the printer Off Line.

13. Press **+** or **–** until "RESET MENU" appears.

14. Press **Set** to proceed to the next menu level, and then press **+** or **–** until "PARTS LIFE" appears.

15. Press **Set**, and then press **+** until "FUSER UNIT" appears.

16. Press **Set**, and then press **Go**. The printer is now in the READY state.

! Caution Warning

Please be careful when replacing the Fusing Unit. Do not put pressure on the Fusing Unit; it should fit in easily. If it does not, make sure the Fusing Unit connector is free to move.

Do not apply force! It could damage both the Fusing Unit and the printer.

120K KIT

120K Kit

When you see the following message on the LCD, you must replace the items located in the 120K Kit, which includes the Drum Cleaner, Paper Discharger, Transfer Roller, Paper Pick-up Roller, Separator Pad and Transfer Drum.

Note

- User replacement of some of the following 120K Kit parts *is not recommended*.

- For user replacement of the Drum Cleaner, Paper Discharger and Transfer Roller, please refer to the instructions found below.

- We recommend that you contact your local Brother Authorized Dealer or Service Center for replacing the Paper Feeding Roller, Separator Pad and Transfer Drum.

- We recommend that you contact your Service provider when you see the following message on the LCD panel:

```
REPLACE 120K KIT  ←→  READY
```

Drum Cleaner

! Caution

Both ends of the Drum Cleaner roller consist of metal bearings that connect the bias element to the power supply. These must be connected correctly when you install the Drum Cleaner. Be sure to check how to connect these correctly by referring to the old Drum Cleaner before you begin replacement.

Replacing the Drum Cleaner

1. Press the **Power** button to turn the printer Off.

2. Open the Top Cover.

3. Remove the Drum Cleaner Cover.
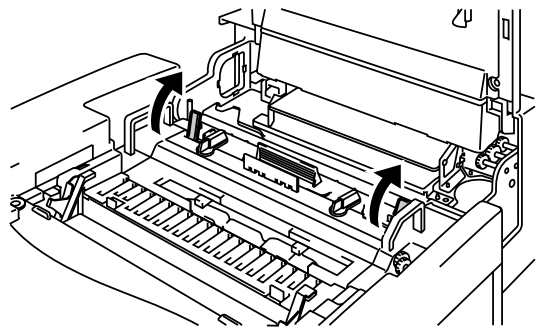
Fig. 5-24

4. Remove the Drum Cleaner by holding the left and right hand sides and lift it upwards.
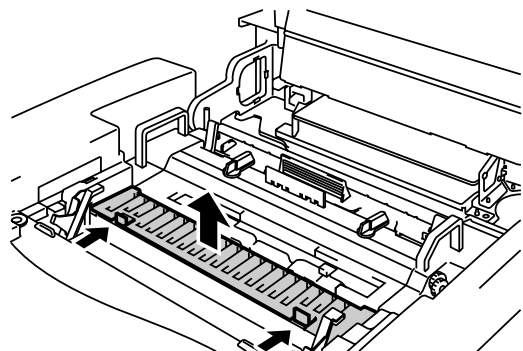
Fig. 5-25

5. Clean the area where the new Drum Cleaner is to be installed with a cotton cloth.
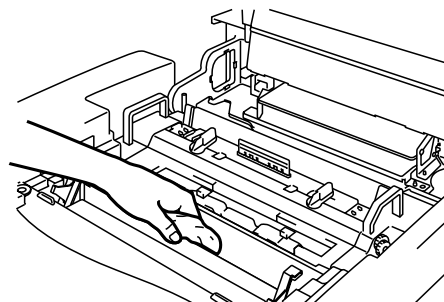
Fig. 5-26

6. Install the new Drum Cleaner into the printer by gently placing the brass bearings into the guides, and then pushing the handle down until the bearings click into place. Ensure that the Drum Cleaner is free to move slightly upwards (rotating slightly around the bearings) in the housing after you have installed it.
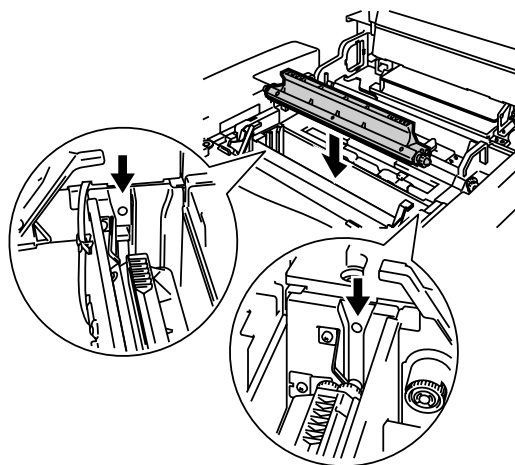
Fig. 5-27

7. Re-install the Drum Cleaner Cover, and then close the Top Cover.

8. Plug the printer into the AC outlet.

9. Press the **Power** button to turn on the printer.

10. Press any of the **Menu** buttons (**+**, **–**, **Set** or **Back**) to set the printer Off Line.

11. Press **+** or **–** until "RESET MENU" appears.

12. Press **Set** to proceed to the next menu level, and then press **+** or **–** until "PARTS LIFE" appears.

13. Press **Set**, and then press **+** until "120K KIT" appears.

14. Press **Set**, and then press **Go**. The printer is now in the READY state.

Paper Discharger

!   Caution

Do NOT touch the charging wire!
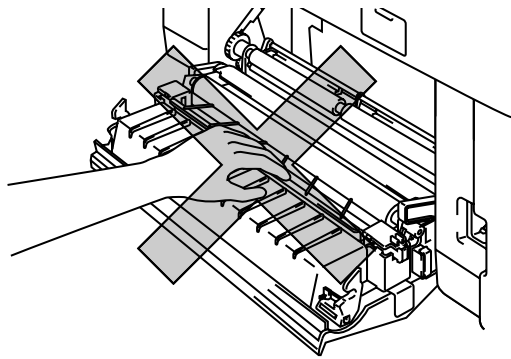
Fig. 5-28

Replacing the Paper Discharger

1.   Press the **Power** button to turn the printer Off.

2.   Open the Rear Access Cover.

3.   Remove the Paper Discharger from the Transfer Unit by lightly pressing it down and then sliding it to the right to release it from the catches. Hold the right handside of the Discharging Unit and lift it up to remove it.
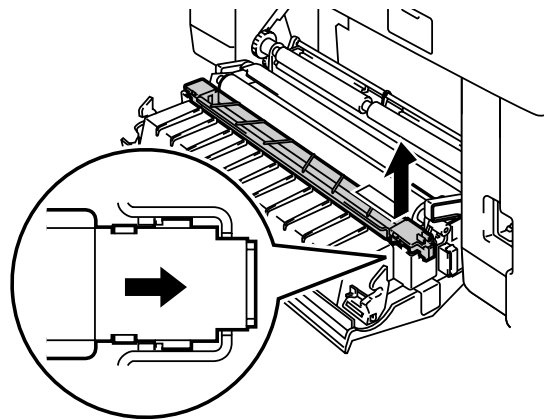
Fig. 5-29

4. Clean the area where the new Paper Discharger is to be installed with a cotton cloth.
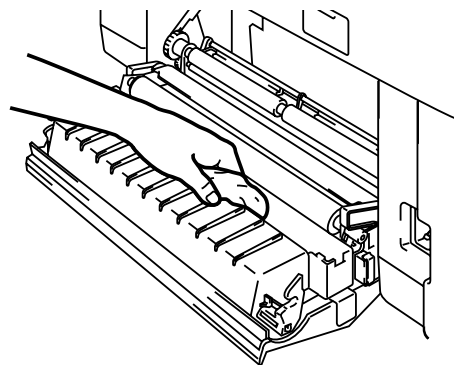
Fig. 5-30

5. Install the new Paper Discharger into the Transfer Unit in the reverse order that you removed it.
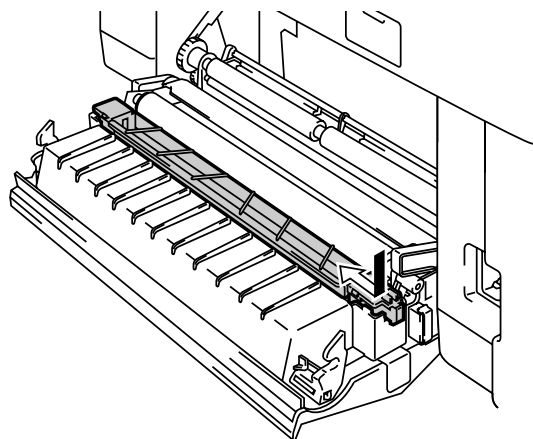
Fig. 5-31

6. Plug the printer into the AC outlet.

7. Press the **Power** button to turn on the printer.

8. Press any of the **Menu** button (**+**, **–**, **Set** or **Back**) to take the printer Off Line.

9. Press **+** or **–** until "RESET MENU" appears.

10. Press **Set** to proceed to the next menu level, and then press **+** or **–** until "PARTS LIFE" appears.

11. Press **Set**, and then press **+** until "120K KIT" appears.

12. Press **Set**, and then press **Go**. The printer is now in the READY state.

Replacing the Transfer Roller

1. Press the **Power** button to turn the printer Off.

2. Open the Rear Access Cover.

3. Release the Transfer Roller Lock Levers on the right and left hand sides, and then lift the Levers to release the Transfer Roller.
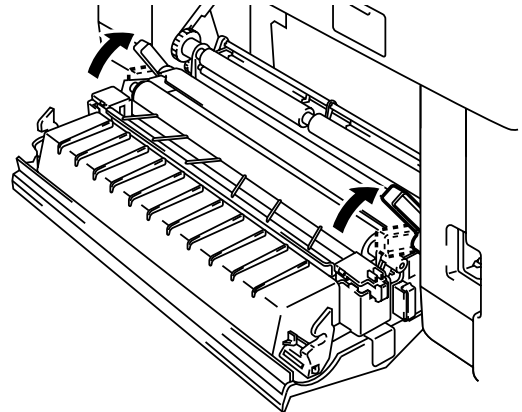
Fig. 5-32

4. Remove the Transfer Roller by gently pulling the right handside up. Slide the Transfer roller to the right to remove it.
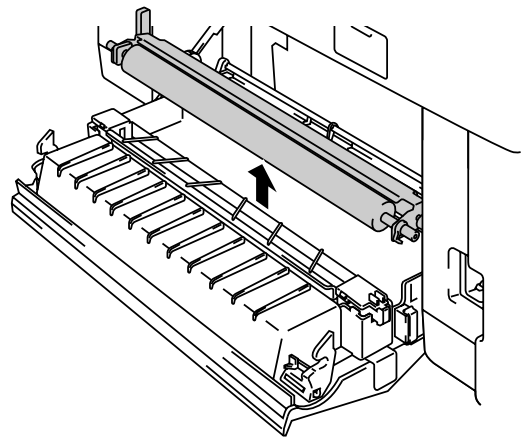
Fig. 5-33

5. Install the new Transfer Roller by holding the Lock Levers of the Transfer Roller and adjusting the angle of the Transfer Roller Lever shafts (both sides) to match the Transfer Unit groove. Set the Transfer Roller onto the shafts and place the Roller onto the springs as shown below:

Fig. 5-34

Lock Levers

Transfer Roller Shaft

Spring
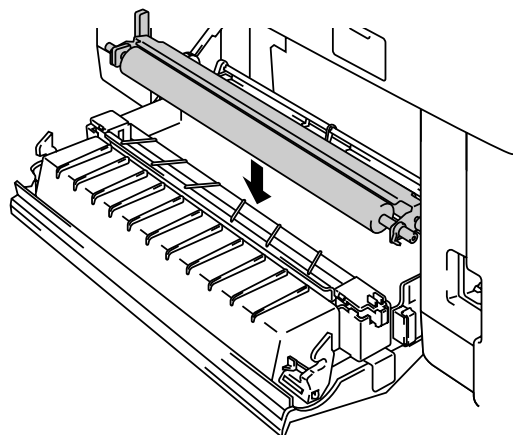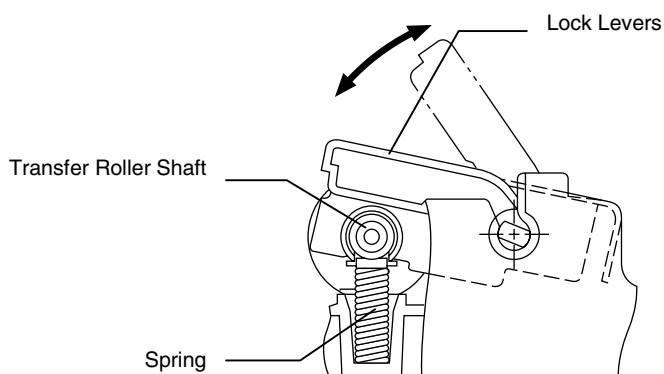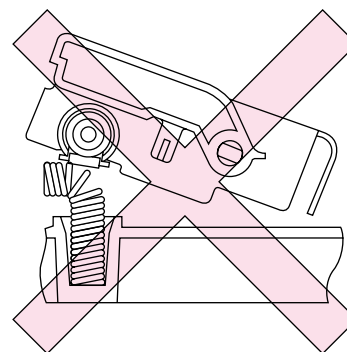
Fig. 5-35

Fig. 5-36

6. Push down the Lock Lever to lock the Transfer Roller into place.

7. Close the Rear Access Cover.

8. Plug the printer into the AC outlet.

9. Press the **Power** button to turn on the printer.

Note

- **User replacement of some of these parts is not recommended.**

- **For replacement of the Paper Pick-up Roller, Separator Pad and the Transfer Drum, consult your local dealer/retailer.**

- **Actions 10 to 14 should only be carried out by your dealer or Brother Authorized Service Center when they have replaced the Paper Pick-up Roller, Separator Pad and the Transfer Drum.**

- **Replacement of only the Paper Discharger and the Transfer Roller is not a full 120K service and the counter should not be reset until these additional parts are replaced.**

10. Press any of the **Menu** buttons (**+**, **–**, **Set** or **Back**) to take the printer Off Line.

11. Press **+** or **–** until "RESET MENU" appears.

12. Press **Set** to proceed to the next menu level, and then press **+** or **–** until "PARTS LIFE" appears.

13. Press **Set**, and then press **+** until "120K KIT" appears.

14. Press **Set**, and then press **Go**. The printer is now in the READY state.

CLEANING THE PRINTER

Periodically, clean the printer exterior and interior with a dry soft cloth. If printed pages are stained with toner, clean the printer interior with a dry soft cloth.

We recommend cleaning the Paper Guide, Registration Roller and Exit Roller every 20,000 printed pages or every 12 months.

Cleaning the Printer Exterior

Clean the printer exterior as follows:

1. Turn off the printer and unplug the power cord.

2. Remove the Paper Cassette from the printer.

3. Wipe the printer body with a soft cloth to remove dust. Dip the cloth in water and wring it out thoroughly for cleaning.

Note

Use water for cleaning. Cleaning with volatile liquids such as thinner or benzine will damage the surface of the printer.

Do not use cleaning materials that contain ammonia. They could damage the printer, particularly the toner cartridges
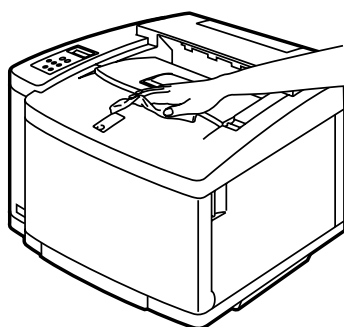
Fig. 5-37

4. Clean the Paper Guide with a dry soft cloth. If paper and foreign objects are stuck in the Paper Cassette, remove them.
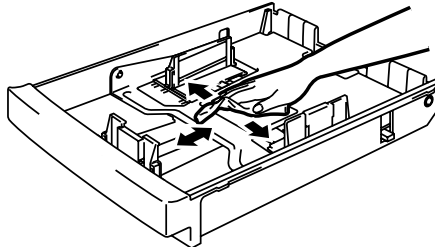
Fig. 5-38

5. Install the Paper Cassette into the printer.

6. Plug the power cord into the AC outlet, and then turn on the printer.

Periodic Printer Cleaning

> **Note**
>
> When you clean the printer interior, pay attention to the following:
>
> • If your clothes are smeared with toner, wipe off the toner with a dry cloth and immediately wash the clothes in cold water to avoid stains.
>
> • The Fusing Unit and the parts around it are HOT! Never touch the shaded areas shown below.
>
> • Never touch or clean the Transfer Roller because print quality may be adversely affected.
>
> • Be careful not to inhale the toner.
>
>
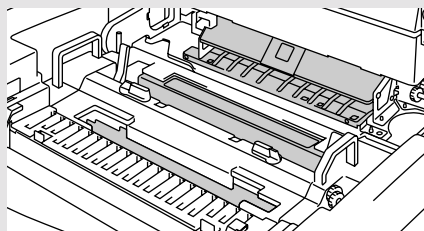
Clean the printer interior as follows:

1. Turn off the printer and unplug the power cord.

2. Open the Rear Access Cover.

3. Clean the Registration Roller and the Paper Pick-up Roller with a dry soft cloth to prevent paper jams.
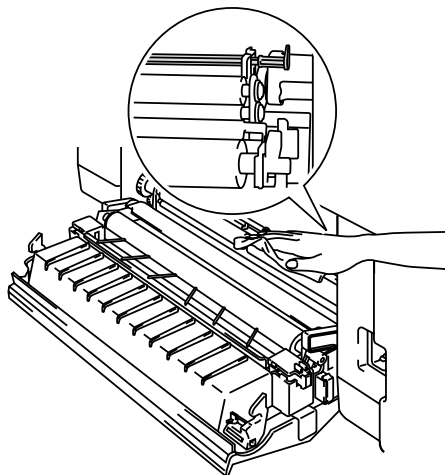
Fig. 5-39

! Caution

Be sure not to break the Actuator while cleaning the Paper Pick-up Roller.
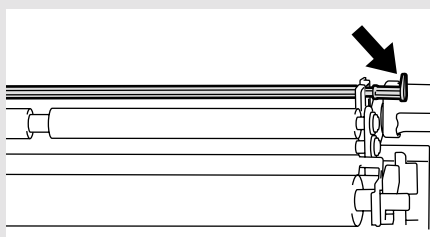
Fig. 5-40

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4. Remove the Paper Discharger from the Transfer Unit.
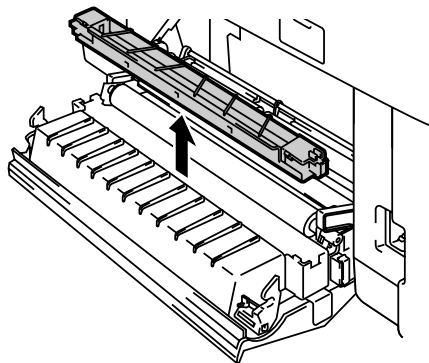
Fig. 5-41

5. Clean the Paper Discharger Case Housing with a dry cotton cloth. Clean the Corona Wire and the inside of the Paper Discharger Case with a dry cotton swab.
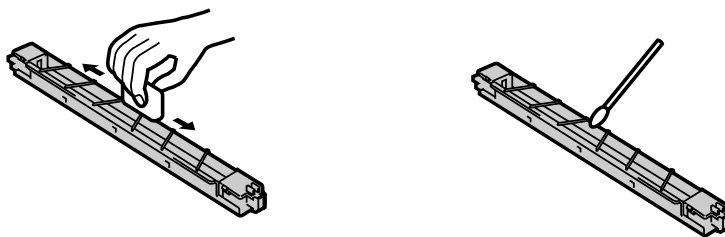
Fig. 5-42

6. Re-install the Paper Discharger into the Transfer Unit.

! Caution

- Do not break the vinyl string on top of the Paper Discharger Case while cleaning the Paper Discharger.

- Do not break the Corona Wire.

---

7. Close the Rear Access Cover.

8. Open the Top Cover slightly so you can clean the Exit Roller. This will help to prevent paper jams at the paper exit and dirt from appearing on your printouts.
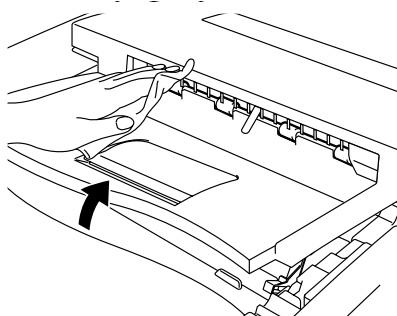
Fig. 5-43

9. Open the Front Cover, and then open the Top Cover.

10. To release the lock, pull the green Belt Cartridge Lock Levers on both sides toward you.
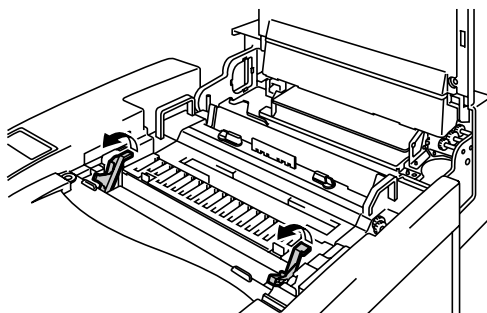
Fig. 5-44

11. Remove the OPC Belt Cartridge from the printer.
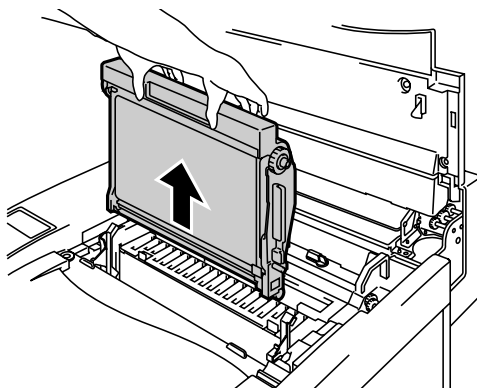
Fig. 5-45

! Caution

- Do not touch the OPC Belt surface with bare hands or gloves.

- If the Belt is exposed for more than two minutes to a light source of 800 lux, the Belt may be damaged.

---

12. Clean the OPC Belt Cartridge and the OPC Belt Cartridge Case with a dry cotton cloth.
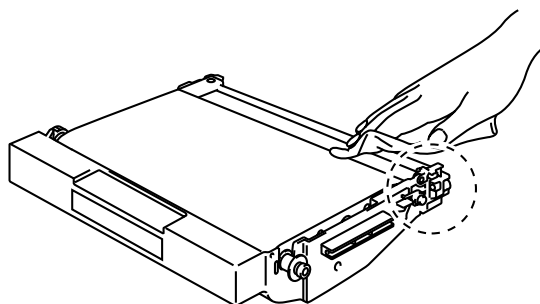
Fig. 5-46

13. Clean the Corona Wire. Remove any toner on the Corona Wire with the Corona Wire Cleaner supplied with the Corona Case by sliding the Corona Wire Cleaner gently from left to right.
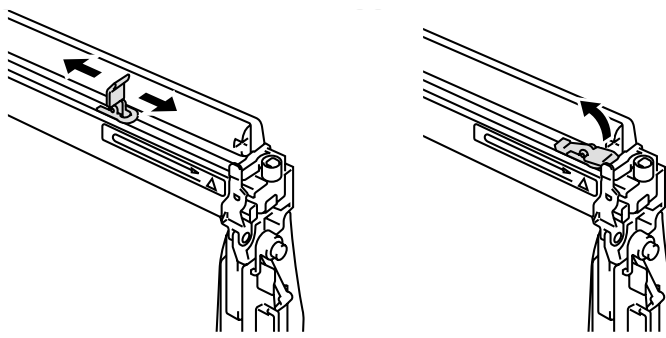
Fig. 5-47

! Caution

- Do not break the Corona Wire.

- Place the Corona Wire Cleaner back to the original position after cleaning the Corona Wire.

---

14. Remove all the Toner Cartridges from the printer.

15. Use the fingers of both hands to hold the two knobs on the Dustproof Glass, and then remove it from the Laser Unit by lifting it up.
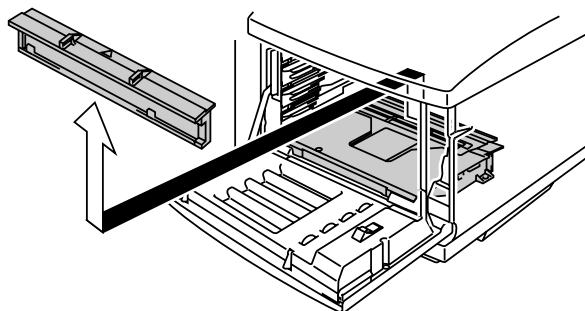
Fig. 5-48

16. Clean the surface of the Dustproof Glass with a dry cotton swab.
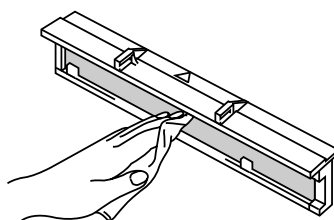
Fig. 5-49

17. Re-install the Dustproof Glass by aligning the ▲ marks on the Laser Unit and the Dustproof Glass; This will ensure that it is correctly in place and cannot move.
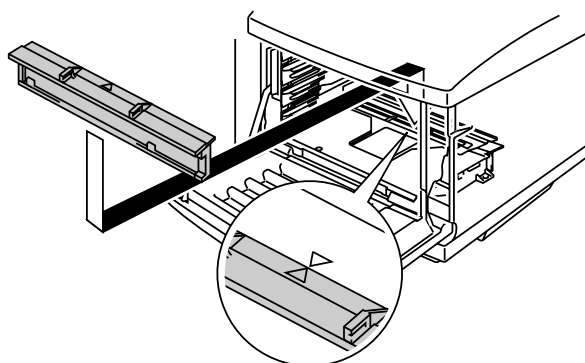
Fig. 5-50

18.   Re-install all the Toner Cartridges and the OPC Belt Cartridges.

19.   Close the Front Cover and the Top Cover.

! Caution

- NEVER use Alcohol or other similar solvents for cleaning the dustproof glass, otherwise it will be a cause of image failure.

REPACKING AND RELOCATING THE PRINTER

! Warning

- **Whenever you transport the printer ALWAYS use the packing materials that were provided with your printer. Follow the steps detailed below to re-pack the printer or the printer may be damaged. This will void the printer's warranty.**

- Before you ship or move the printer, be sure to take out the following items and place them in separate bags (do not place them in the printer carton):

    * Fusing Unit

    * Waste Toner Pack

    * Toner Cartridges

    * OPC Belt Cartridge

- Remove the Oil Bottle, and then use the syringe supplied with the printer to remove Oil from the Fusing Unit tray. Using a cloth, wipe up any remaining oil that cannot be removed with the syringe as shown in Fig. 5-51.

- Discard the oil according to local regulations.
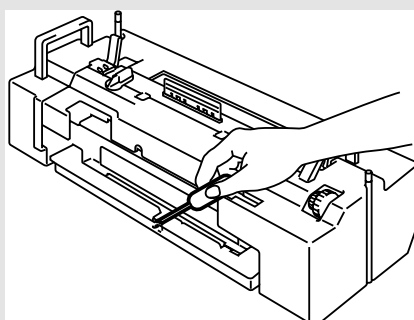
Fig. 5-51

How to Repack the Printer

1. Press the **Power** button to turn the printer off. Unplug the printer.

2. Remove the Waste Toner Pack, Toner Cartridges, Fusing Unit and OPC Belt Cartridge from the printer. Place them in their original packaging. **Do not place them together with the printer in the printer carton**.

3. Place the printer in its original packing material and in the original carton.

4. Close the carton and tape it securely.

OPTIONS

LOWER TRAY UNIT (LT-26CL)

Loading Paper from the Lower Paper Cassette

The lower tray unit is a device that functions as a second paper source. It can hold a maximum of 500 sheets of paper (75 g/m^2 or 20 lbs). To purchase the optional lower tray unit, please consult the dealer where you purchased the printer.

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

How to Install the Lower Tray Unit

! Warning

This printer is heavy and weighs approximately 39kg (86 lbs). To avoid injury when moving or lifting this printer, be sure to use at least two people.

When you lift the printer be sure to use the handholds located at the bottom four corners of the printer.

! Caution

When moving or lifting this printer, be sure to keep the printer flat. To avoid spills, you must first remove the Toner Cartridges, Waste Toner Pack, Oil Bottle and Fusing Unit.

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

2. Place the Lower Tray Unit on a flat table, and then remove the protective parts.
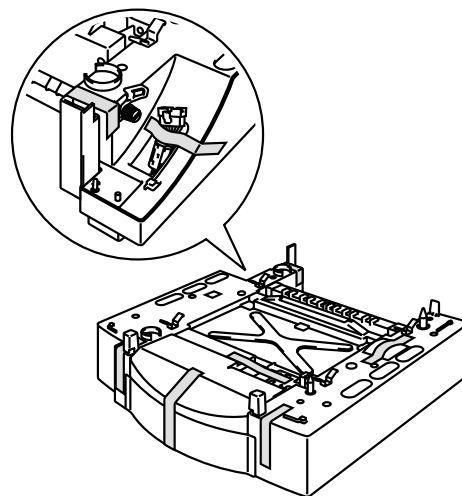
Fig. 5-52

3. Pull out the Paper Cassette from the Lower Tray Unit, and then remove the tapes and the protective parts inside of the Cassette.
Install the Paper Cassette into the Lower Tray Unit.
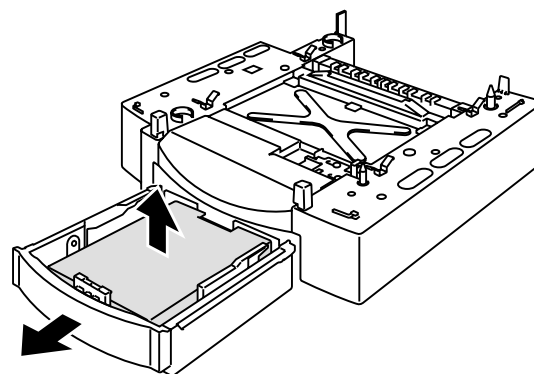
Fig. 5-53

4. Pull out the connection cable located at the left rear side of the Lower Tray Unit.
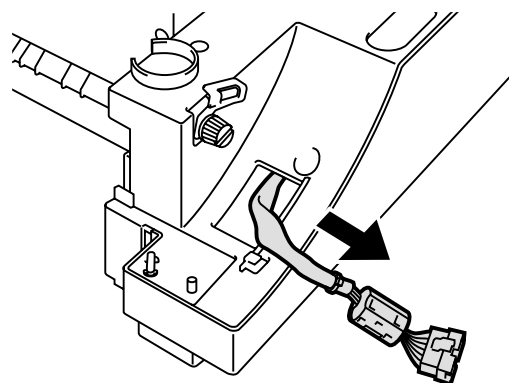
Fig. 5-54

5. Check the two alignment pins on the
Lower Tray Unit. Use two people to
lift the printer and place it onto the
Lower Tray Unit. Be sure to use the
handholds located at the bottom four
corners of the printer. Check to
ensure that the pins are correctly
aligned into the printer.
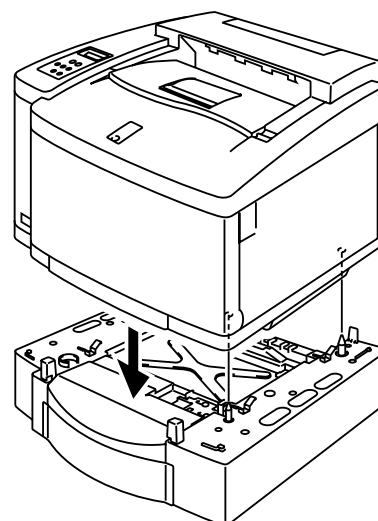
Fig. 5-55

6. Remove the connector cover from
the base cover at the left side of the
printer.
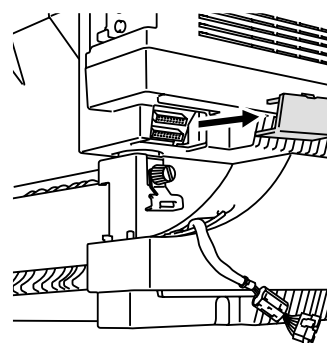
Fig. 5-56

7. Loosen the locking clip thumbscrew
on the left side of the Lower Tray Unit
by rotating it counterclockwise.
Rotate the locking clip and hook it
onto the printer so that it hangs
down, and then secure it with the
thumbscrew.
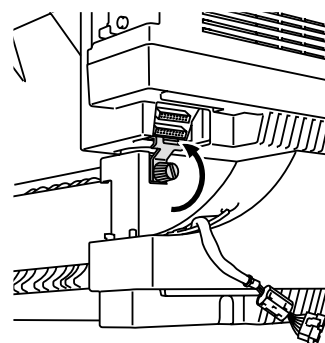
Fig. 5-57

8. Insert the connection cable into the printer's connector.
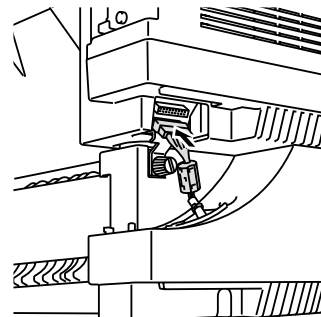
Fig. 5-58

9. Pull out the Upper Paper Cassette, and then connect the Lower Tray Unit with the printer by sliding the locking clip to the right on the top surface of the Lower Tray Unit.
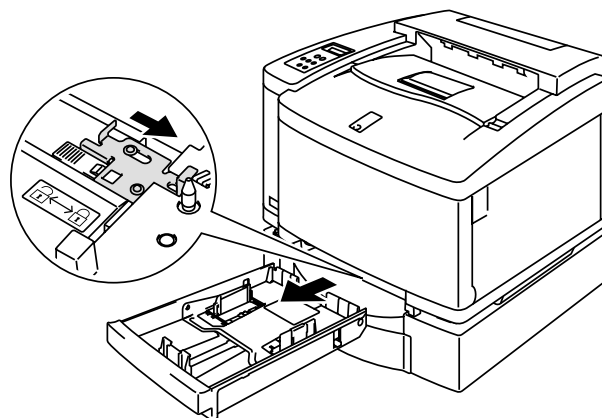
Fig. 5-59

10. Install the right hand side cover into the right side of the Lower Tray Unit by first fitting the hook at the front.

Install the left hand side cover by fitting the hole at the rear side of the side cover to the shaft of the Lower Tray Unit. Close the side cover by fitting the notch to the hook of the Lower Tray Unit.
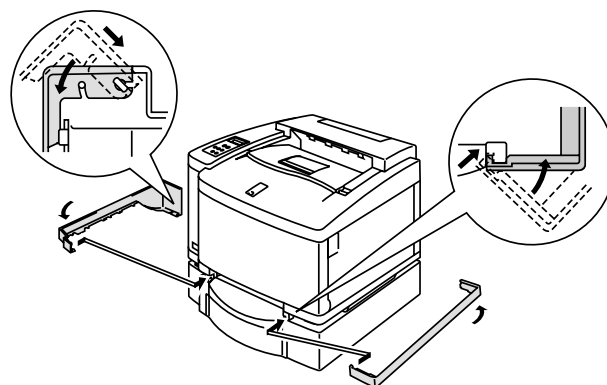
Fig. 5-60

11. To level the tray unit, adjust the Anchor Feet located at the front and rear on the right hand side at the bottom of the Lower Tray Unit. The Anchor Foot moves up and down as it is turned. It is correctly adjusted when the Anchor Foot touches the work surface and the tray unit is level. Turn the lock screw to secure the Anchor Foot.
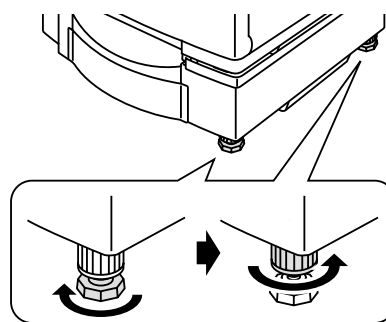
Fig. 5-61

Note

Do not load Transparencies, Labels and Envelopes in the cassette installed into the optional Lower Tray Unit. It may cause paper jams.

DUPLEX UNIT (DX-2600)

The following paper sizes can be used for the Duplex Unit:

A4, Letter, B5 (JIS/ISO), Legal, Executive

How to Install the DUPLEX Unit

! Warning

- **This printer is heavy and weighs approximately 39kg (86 lbs). To avoid injury when moving or lifting this printer, be sure to use at least two people.**

- **When you lift the printer be sure to use the handholds located at the bottom four corners of the printer.**

! Caution

When moving or lifting this printer, be sure to keep the printer flat. To avoid spills, you must first remove the Toner Cartridges, Waste Toner Pack, Oil Bottle and Fusing Unit.

Note

- The Lower Tray Unit must be connected before installing the Duplex Unit.

- When you do maintenance on the printer, first open the Duplex Top Cover Assembly.

- When you want to open the Rear Access Cover of the printer, open the Duplex Lower Cover and the inside unit.

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

2. Remove the Fuser Cover that is located at the rear top of the printer. Remove the Rear Caps (2 pieces) from the fuser unit. We recommend removing those caps with a coin or a screwdriver.
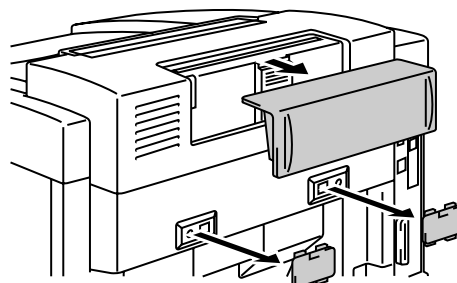
Fig. 5-62

3. Remove the left handside cover of the Lower Tray Unit.
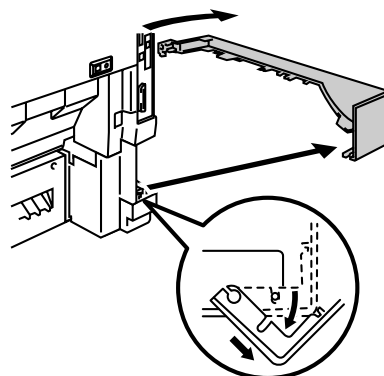
Fig. 5-63

4. Remove the Back caps (2 pieces) of the Lower Tray Unit. Push down lightly on the caps and then slide them to the rear of the printer to remove them.
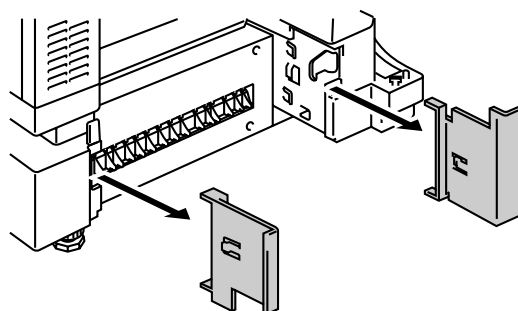
Fig. 5-64

5. Remove the Protective Parts as shown (do not remove ALL the Protective Parts of the Duplex Unit).
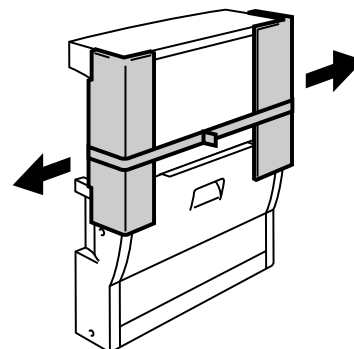
Fig. 5-65

6. Pull out the connection cable located at the bottom left hand side of the Duplex Unit.
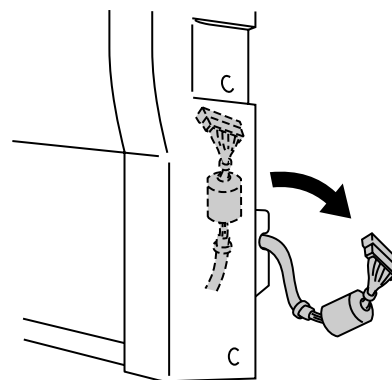
Fig. 5-66

7. Use the handholds of the Duplex Unit to lift it up.
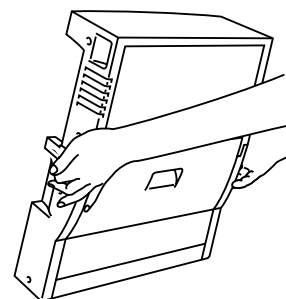
Fig. 5-67

Note

Ensure that the Duplex Cover Top Assembly is correctly aligned and latched with the lower part of the Duplex Unit

! Caution

When lifting up the Duplex Unit, be careful **NOT** to nip your fingers between the Duplex top assembly and the lower assembly.

8. Insert the fixing pins at both sides of the Duplex Unit into the installation grooves in the Lower Tray Unit.
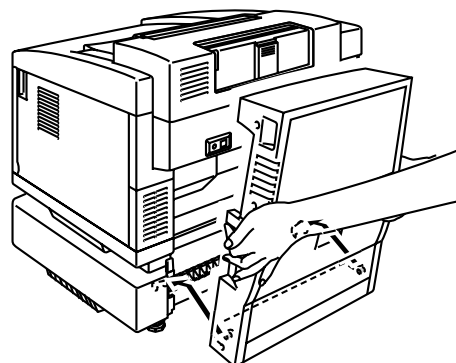
Fig. 5-68

Note

Make sure that the Rear Cover of the Lower Tray Unit is closed.

---

9. Secure the pawl of the Duplex Unit into the rectangular hole in the back of the printer.
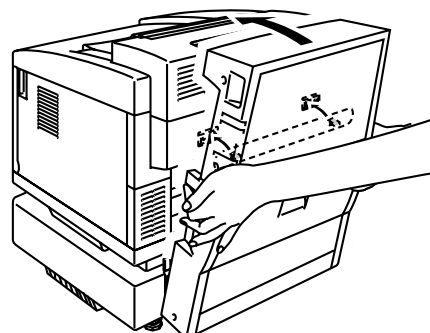
Fig. 5-69

10. Open the Duplex Lower Cover and remove the protective parts. Close the Duplex Lower Cover.
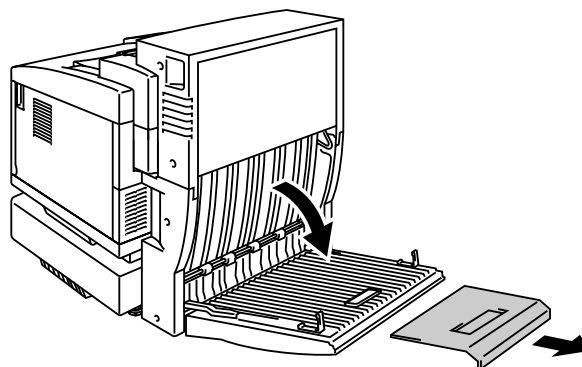
Fig. 5-70

11. Open the Inside Unit to remove the protective parts and close the Inside Unit.
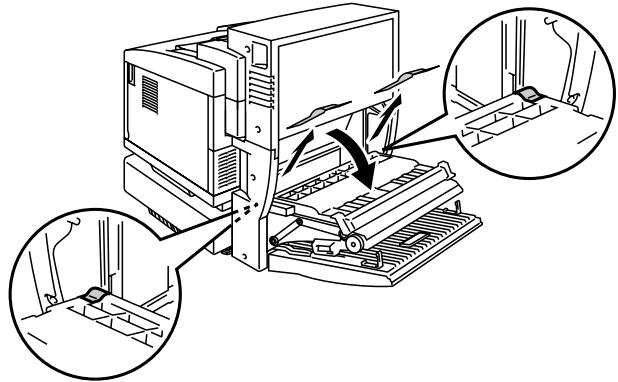
Fig. 5-71

12. Open the Duplex Cover Top Assembly and remove the protective parts from the Duplex Cover Top Assembly
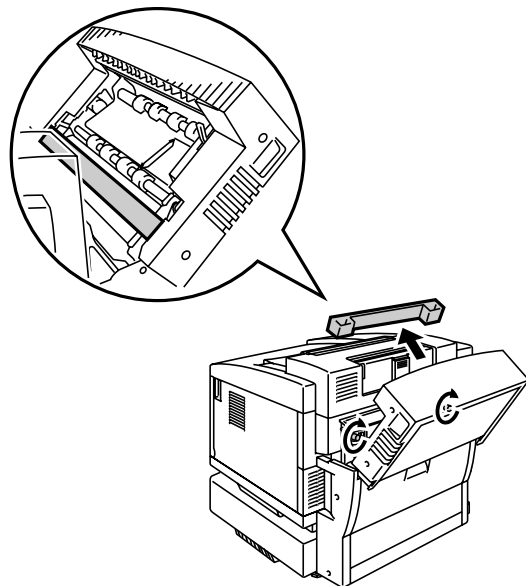
Fig. 5-72

13. Securely connect the Duplex Unit and the Printer with the thumbscrews (2 pieces).
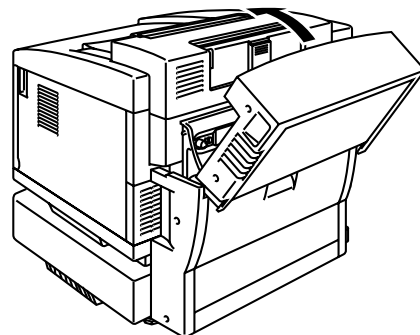
Fig. 5-73

14. Connect the connector cable to the upper connector on the printer.
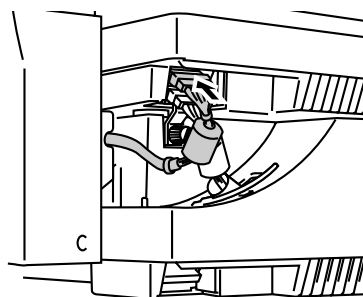
Fig. 5-74

15. Fit the left hand side cover of the Lower Tray Unit to the Lower Tray Unit.
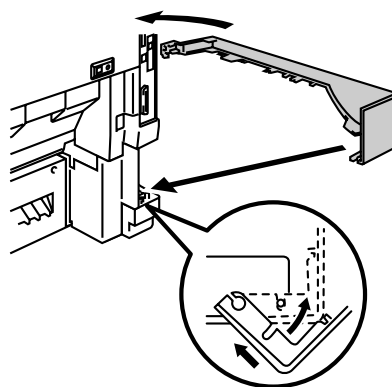
Fig. 5-75

16. Plug in the printer and turn the printer on.
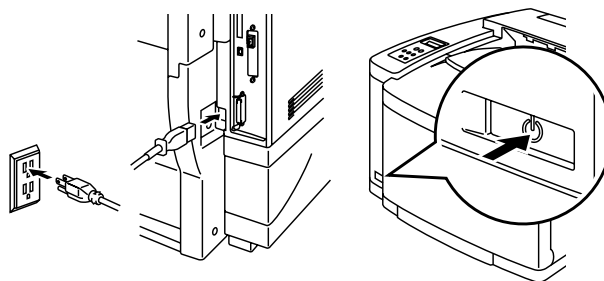
Fig. 5-76

COMPACTFLASH CARD / HDD CARD (HD-6G/HD-EX)

This printer has a slot for optional CompactFlash card. If you install an optional CompactFlash card or HDD card, you can save macros, print log and fonts on it, and also select your print job and reprint it through the network.   If you have installed an optional font card, you can use the fonts stored in it as well as the resident fonts. For optional font cards, consult the dealer where you purchased the printer.

Note

- Do not install or remove a card with the power on because you may lose all data and may seriously damage the card.

- For more information about these cards, consult the dealer where you purchased the printer.

- For the latest information: *http://solutions.brother.com*

Selecting the Optional Fonts

After you have installed the optional font card, you can select optional fonts using any of the following methods:

1. Through your application software

2. With a font selection command

3. With the Control Panel menu functions.

When you select fonts through your application software, follow the instructions specific to your software. Refer to your software manual if you need assistance. When you select fonts with a font selection command, embed the font selection command in your program. See the Technical Reference Manual, which is optionally available for this printer.

Note

When you select the fonts through your software or with a command, note the following:

- You do not need to be concerned about the Font control panel setting. The software or command overrides the printer setting.

- Be sure to install a font card that has your desired fonts. The printer automatically selects the font that has exactly the same or similar characteristics as those you have set through the software or with a command. If the installed font card does not happen to have a font of similar characteristics, the printer will print in an unexpected font.

To select fonts with the Control Panel setting menu, follow these basic steps:

1. Press any of the **Menu** buttons (**+**, **–**, **Set** or **Back**) to take the printer Off Line.

2. Press **+** or **–** until "INFORMATION" appears on the LCD display.

3. Press **Set** to proceed to the next menu level, and then press **+** or **–** until "PRINT FONTS" appears.

4. Press **Set** to print the list of optional fonts (Fig. 5-77).

5. Find the Font Number on the list.

Font Number

Fig. 5-77

6. Use **+** or **–** on the Control Panel to select "PRINT MENU." .

7. Press **Set** to proceed to the next menu level, and then press **+** or **–** to select: "HP LASERJET", "EPSON FX-850", or "IBM PROPRINTER" .

8. Press the **Set** key to select the Emulation for the fonts you want to select; "HP LASERJET", "EPSON FX-850", or "IBM PROPRINTER"

9. Use **+** or **–** key to select "FONT NO," , and then select the Font Number of the font you want.

Installing a CompactFlash Card

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

2. Insert a CompactFlash card into the slot with the label facing you. Make sure it is inserted correctly.
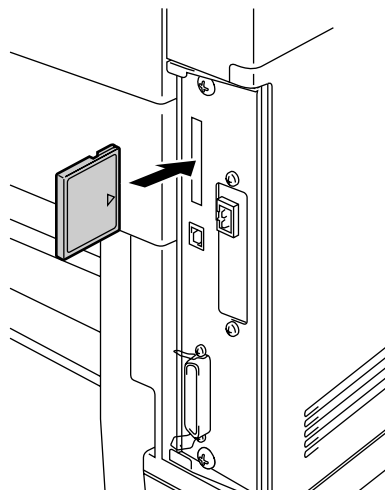
Fig. 5-78

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

Installing a HDD (Hard Disk Drive)

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

2. Unscrew the two screws securing the rear plate of the main controller board and pull out the main controller board.
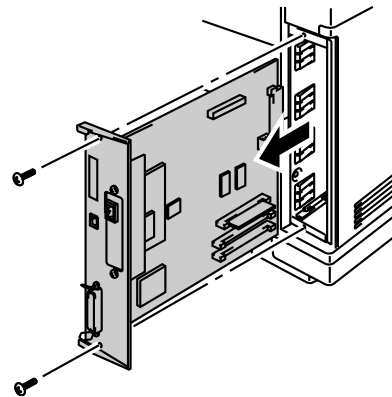
Fig. 5-79

3. Insert the 4 shoulder screws supplied with the HD-6G/HD-EX unit into the bottom of the HD-6G/HD-EX.
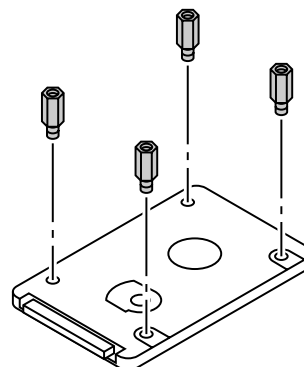
Fig. 5-80

4. Connect the shorter Hard disk cable to the HD-6G/HD-EX with the keyed side upwards, ensuring that it is correctly aligned.
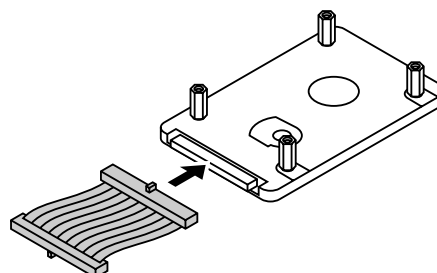
Fig. 5-81

5. Fit the 4 HD-6G/HD-EX shoulder screws into the 4 holes of the main controller board, and then secure the shoulder screws with the screws provided from the rear of the PCB.
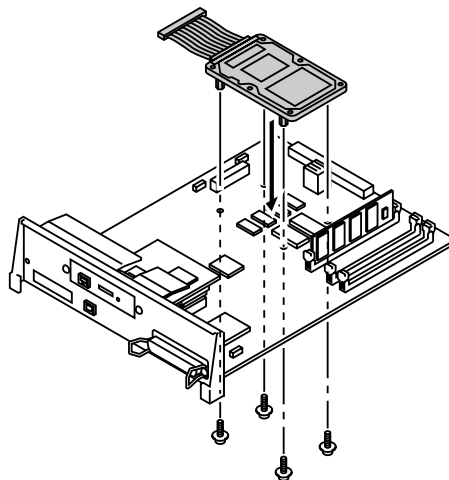
Fig. 5-82

6. Connect the flat cable to the main controller board.
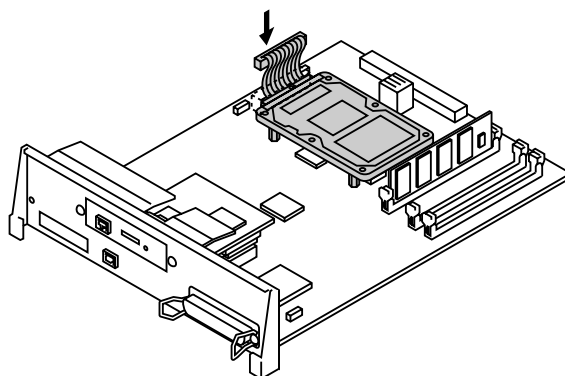
Fig. 5-83

7. Install the main controller board into the printer by sliding it into the guide rails.
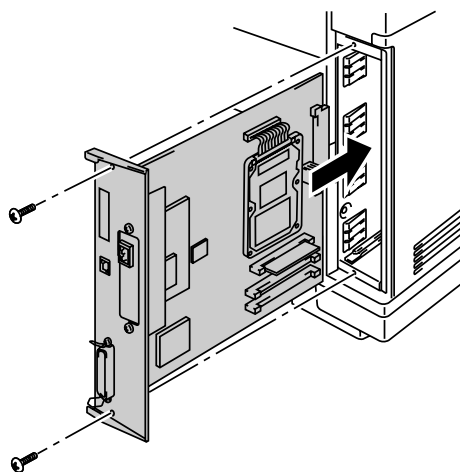
Fig. 5-84

8. Secure the main controller board with the 2 screws.

9. Reconnect the interface cable to the printer. Plug the power cord into the AC outlet, and then turn on the printer.

10. Format the HD-6G/HD-EX from the control panel. See Chapter 4 for details.

RAM EXPANSION

This printer has 64 Mbytes of standard memory and 3 slots for optional expansion memory. The memory can be expanded by 384 Mbytes by installing commercially available dual in-line memory modules (DIMMs). (The standard memory fitted can vary depending on the printer model and the country.)

This printer uses memory modules that are:-

100 pins, no-parity, SDRAM with 64Mbit or more.

This printer is not compatible with Extended Data Output (EDO) DIMM, or DIMM that uses 16Mbit SDRAM.

The following capacity of DIMM can be installed:

<Europe>
- 16 Mbyte   BUFFALO TECHNOLOGY 12323-0001
- 32 Mbyte   BUFFALO TECHNOLOGY 12324-0001
- 64 Mbyte   BUFFALO TECHNOLOGY 12325-0001
- 128 Mbyte BUFFALO TECHNOLOGY 12326-0001

<US>
- 16 Mbyte   TECHWORKS   12456-0001
- 32 Mbyte   TECHWORKS   12457-0001
- 64 Mbyte   TECHWORKS   12458-0001
- 128 Mbyte TECHWORKS   12459-0001

In general, the DIMM must have the following specifications:

Type:	100 pin and 32 bit output
CAS Latency:	2
Clock Frequency:	66Mhz or more
Capacity:	16,32,64 or 128 Mbyte
Height:	46mm (1.8 inches) or less
Parity:	NONE
Dram Type:	64 M bit SDRAM 4 Bank SDRAM can be used.

> **Note**
>
> - There might be some DIMMs that will not work with this printer.
>
> - For more information, consult the dealer where you purchased the printer.
>
> - For the latest information: ***http://solutions.brother.com***

To install 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. Unscrew the two screws securing the rear plate of the main controller board, and then pull out the main controller board.
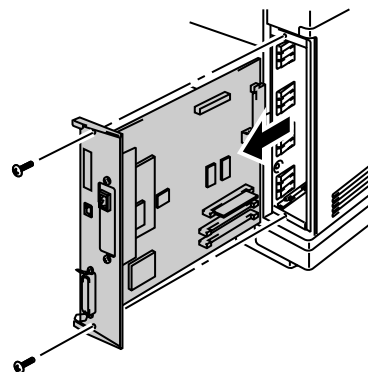
Fig. 5-85

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

> **! Caution**
>
> Do not touch the memory chips and the surface of the main controller board. If static electricity collects, it may damage these electrical parts.

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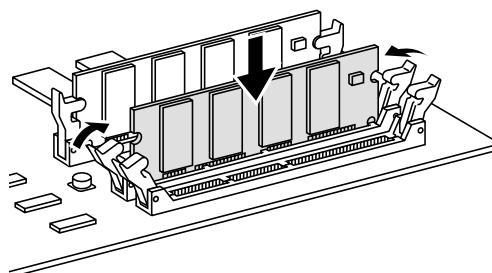

Fig. 5-86

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

Note

- When you install less than two DIMMs, be sure to install them in the order Slot 1, Slot 2 and then Slot 3.

- When you install different capacities of DIMMs, be sure to install the larger capacity DIMM in Slot 1 and the smaller capacity DIMM in Slot 2 and then Slot 3.

6. Refit the main controller board into the printer by sliding it into the guide rails.
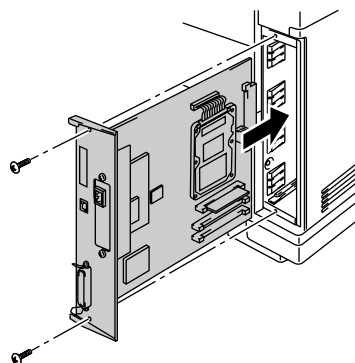
Fig. 5-87

7. Secure the main controller board with the two screws.

8. Reconnect the printer cable from your computer. Plug the power cord into the AC outlet and turn on the printer.

9. To check whether the DIMM has been installed correctly, you may perform a Test Print "Print Configuration" that will print the current memory size.

CHAPTER 6
TROUBLESHOOTING

TROUBLESHOOTING

If any problems occur, the printer automatically stops printing, diagnoses the problem, and displays the resulting message to alert you. Take the appropriate action, referring to the following tables. If you cannot clear the problem, consult the dealer where you purchased the printer. Inform the dealer of the message number for quick troubleshooting.

ERROR MESSAGES

When any one of the following messages appears, the printer will stop operating.

Error Message	*Remarks*
TONER EMPTY X Replace the X toner cartridge	X = C, M, Y, K,
NO TONER X Install the X toner cartridge	X = C, M, Y, K,
COVER OPEN Close the Front Cover	
COVER OPEN Close the Top Cover	
COVER OPEN Close the Rear Access Cover	
COVER OPEN Close the Lower Feeder Unit Cover	
COVER OPEN Close the Duplex Unit Cover	
JAM X Refer to the diagram, and check the location. Remove the jammed paper.	X = A1, A2, B, C, D, E1, or E2
NO PAPER T1/2 Load paper into Tray 1/2.	
WASTE TONER Replace the waste toner pack.	
OIL EMPTY Replace the oil bottle.	

Error Message	Remarks
CHANGE FCR Replace the cleaning roller.	
NO OPC BELT Install the OPC belt.	
NO FC ROLLER Install the cleaning roller.	
NO LFU Install the lower tray unit.	When the Duplex Unit is installed.
NO TR ROLLER Install the transfer roller.	
ILLEGAL TONER Use only Brother genuine toner cartridge.	
NO TRAY 1/2 The indicated paper tray was not detected. Install it, or ensure that it is inserted correctly.	
SIZE ERROR T1/2 Specify the correct paper size for the indicated tray.	
SIZE ERROR DX The duplex unit can print only in the sizes specified. Specify the correct paper size.	
STACKER FULL Remove the paper from the output tray.	
MEDIA MISMATCH Media mismatch between the Printer and the Printer Driver setting. Load XX into Tray <1/2>.	XX = Plain Paper, Transparencies, Thick Paper
SIZE MISMATCH Paper mismatch between the Printer and the Printer Driver setting. Load Paper <size> size into Tray <1/2>	
MANUAL FEED Load paper <size> into Tray1, and then press GO.	
MEDIATYPE ERROR Specify the correct media type: XX XX=T1, T2, or DX	XX = T1, T2 or DX
NO FUSING UNIT A fusing unit was not detected. Please install one.	
CARD ERROR An error occurred when accessing the Flash card. Check that the driver is formatted and not in Write Protect mode.	

Error Message	Remarks
HDD ERROR An error occurred when accessing the HDD. Power cycle the printer and check that it is formatted.	
DIMM ERROR Ensure that the DIMM is installed correctly.	
CARD REMOVAL The Flash card was removed while the printer was powered on. Power cycle the printer.	
BUFFER ERROR Check the cable connection between the computer and the printer.	
STORAGE FULL There is not enough space on the Hard Disk.	
STORAGE FULL The RAMDISK SIZE is set to 0MB or there is no more space to store jobs.	
STORAGE FULL There is no space in the CompactFlash.	
DOWNLOAD FULL The download buffer of the printer is full. Add more memory to the printer.	
MEMORY FULL The printer memory is full and the printer is unable to print the page. Add more memory.	
PRINT OVERRUN Select a lower resolution or set the page protection option in the driver to the correct size.	
MEMORY SHORTAGE Add memory.	Install additional DIMM memory so that the total memory size is 64MB or more.

MAINTENANCE MESSAGES

Error Message	Meaning	Action
■ ■ □ ■ (K C M Y)	When the ■ mark blinks (□), the indicated color toner is nearly empty. K: Black, C: Cyan, M: Magenta, Y: Yellow. When the toner becomes empty, the ■ indicator disappears completely.	Be ready to replace the Toner Cartridge(s) when the toner is nearly empty. Replace it when the toner becomes empty.
FUSER OIL LOW	The Oil in the Oil Bottle is almost empty.	Replace the Oil Bottle.
REPLACE FCR	It is time to replace the Cleaning Roller.	Replace the Cleaning Roller.
REPLACE OPC BELT	It is time to replace the OPC Belt Cartridge.	Replace the OPC Belt Cartridge.
REPLACE FUSER	It is time to replace the Fusing Unit.	Replace the Fusing Unit.
REPLACE 120K KIT	It is time to replace the Drum Cleaner, Paper Discharger, Transfer Roller, Separator Pad, Paper Pick-up Roller and Transfer Drum.	Replace the Drum Cleaner, Paper Discharger, Transfer Roller, Separator Pad, Paper Pick-up Roller and Transfer Drum.
REPLACE PF KIT1	It is time to replace the Paper Feeding Kit 1.	Consult your dealer for a replacement of the Paper Feeding Kit 1.
REPLACE PF KIT2	It is time to replace the Paper Feeding Kit 2.	Consult your dealer for a replacement of the Paper Feeding Kit 2.
NEAR WASTE TONER	The Waste Toner Pack is almost full.	Replace the Waste Toner Pack.

CALL SERVICE MESSAGES

When any of the following messages appear on the LCD, turn off the printer. Wait a few seconds, and then turn the printer on again. If this does not clear the problem, consult your dealer or Brother Authorized Service Representative.

Call Service Message	Meaning	Action
`ERROR EC3 WARNING`	NVRAM ERROR	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EC4 WARNING`	Engine controller hardware error.	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EC7 WARNING`	Process timing clock error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR ED1 WARNING`	Yellow switching clutch error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR ED2 WARNING`	Magenta switching clutch error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR ED3 WARNING`	Cyan switching clutch error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR ED4 WARNING`	Black switching clutch error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR ED5 WARNING`	YK switching solenoid error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR ED6 WARNING`	MC switching solenoid error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EE1 WARNING`	Developing motor error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EE2 WARNING`	Main motor error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EE3 WARNING`	Drum error	Turn off the printer. Wait a few seconds, and then turn it on again.

| Service Call Message	Meaning	Action
`ERROR EE4` `WARNING`	Toner empty sensor error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EE5` `WARNING`	Transfer roller solenoid error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EE6` `WARNING`	Drum cleaning solenoid error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EE7` `WARNING`	Drum cleaning clutch error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EE8` `WARNING`	Fuser unit clutch error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EE9` `WARNING`	Belt marker sensor error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EEL` `WARNING`	Erase LED error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EF0` `WARNING`	Cooling fan error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EF2` `WARNING`	Ozone fan error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EF4` `WARNING`	Fuser fan error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EF5` `WARNING`	Charger HV unit error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EH0` `WARNING`	Fuser thermistor error	Turn off the printer. Wait 15 minutes, and then turn it on again.
`ERROR EH2` `WARNING`	Fuser temperature 2 error	Turn off the printer. Wait 15 minutes, and then turn it on again.
`ERROR EH3` `WARNING`	Fuser temperature 3 error	Turn off the printer. Wait 15 minutes, and then turn it on again.

Service Call Message	Meaning	Action
`ERROR EH4` `WARNING`	Fuser temperature 4 error	Turn off the printer. Wait 15 minutes, and then turn it on again.
`ERROR EL1` `WARNING`	Beam detector error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EL2` `WARNING`	Scanner motor error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR ELL` `WARNING`	Laser power error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EP1` `WARNING`	Duplex controller hardware error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EP3` `WARNING`	Feeder pass select solenoid error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EP4` `WARNING`	Duplex motor error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EP5` `WARNING`	Outer pass select solenoid error	Turn off the printer. Wait a few seconds, and then turn it on again.
`ERROR EP6` `WARNING`	Optional fan error	Turn off the printer. Wait a few seconds, and then turn it on again.

PAPER JAMS

This printer has been designed to be trouble free. However, if a problem should occur, note the display message and take the appropriate action. This section describes the actions to be taken to avoid paper jams and unsatisfactory printouts.

Paper Jam

If paper jams inside the printer, it will stop printing and display the following message.

> **`JAM X*`**
> Refer to the diagram in the printer and check the location.
> Remove the jammed paper.
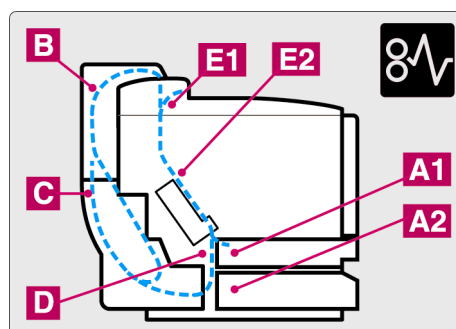
X (Display)	Meaning
JAM A1/A2	Paper jam occurred inside of the paper tray.
JAM B	Paper jam occurred in the Upper Assembly of the Duplex Unit.
JAM C	Paper jam occurred in the Lower Assembly of the Duplex Unit.
JAM D	Paper jam occurred at the Transfer Roller.
JAM E1	Paper jam occurred at the paper exit.
JAM E2	Paper jam occurred at the entrance to the Fusing Roller.

If more than two places appear in the LCD, clear one by one by following the steps in 'How to Clear a Paper Jam in the Printer'.

Note

Do not use the following paper:

- Bent paper
- Moist paper

- Paper that does not meet specifications

Paper may jam in the Paper Cassette, inside the printer, at the Rear Access Cover or at the paper exit. Locate the jam and follow the instructions below to remove the jammed paper.

After you have followed the instructions, the printer will resume printing automatically. However, the **Data** LED may come on and the following message may appear on the display:

```
PAUSE
```

After a paper jam has occurred, data usually remains in the printer memory. The message prompts you to execute a form feed and print the remaining data. Press **Go** to continue.

How to Clear a Paper Jam in the Printer

PAPER JAM AT PAPER EXIT

```
JAM E1
```

If paper has passed behind the Rear Access Cover and a paper jam has occurred at the paper exit, follow the steps below:

1. Open the Top Cover and release the Fusing unit Pressure Release Levers.
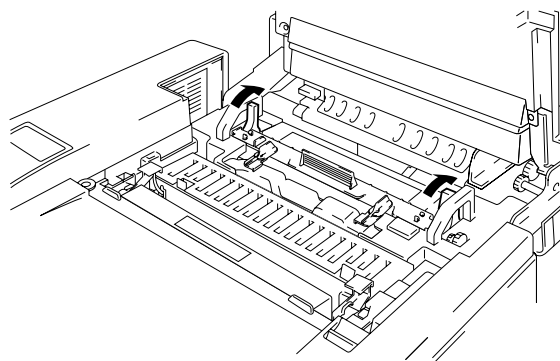
Fig. 6-1

2. Open the Rear Access Cover and remove the jammed paper by pulling it out slowly.
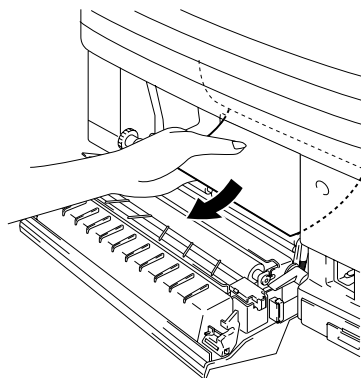
Fig. 6-2

3. Close the Rear Access Cover.

4. Reset the Fusing Unit Pressure Release Levers, and then close the Top Cover.

Note

When paper jams at the Rear Access Cover increase, replace the Paper Discharger.

PAPER JAM AT THE TRANSFER ROLLER OR THE FUSING ROLLER INSIDE THE PRINTER

```
JAM D
```

or

```
JAM E2
```

If a paper jam occurs at the Transfer roller or the Fusing Roller, follow the same steps to remove the jammed paper as for 'Paper Jam at Paper Exit'. Otherwise, follow the steps below:

! Warning

The Fusing Roller is extremely HOT during operation. Remove the paper carefully.

1. Open the Rear Access Cover.

2. Remove the jammed paper by holding it with both hands and pulling it slowly toward you.
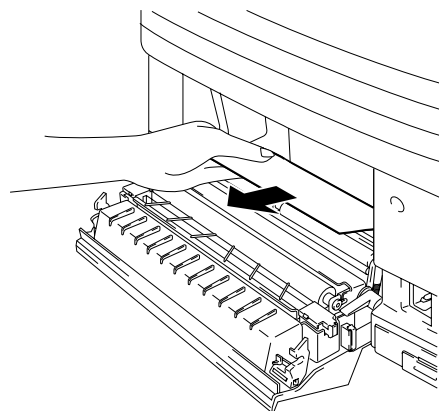
Fig. 6-3

3. If the paper is caught in the Registration roller, remove the jammed paper by holding it with both hands and pulling it slowly toward you.
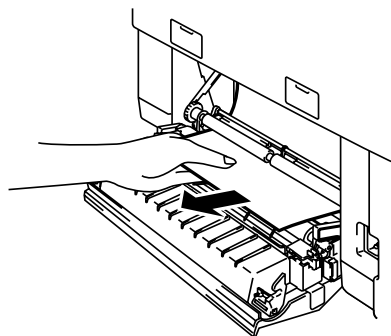
Fig. 6-4

If the paper is caught in the
Fusing
Roller, follow the steps below:

1) Open the Top Cover.

2) Release the Fusing Unit
Pressure Release Levers on
both sides.

Fig. 6-5

3) Remove the jammed paper
at the rear side of the printer
by holding it with both hands
and pulling it slowly toward
you.

4) Lock the Fusing Unit
Pressure Release Levers
and close the Top Cover.
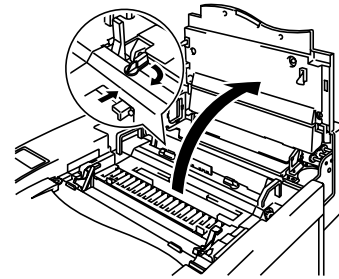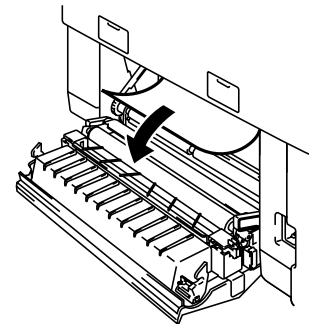
Fig. 6-6

4. Close the Rear Access Cover.

! Caution

- Do not touch the toner surface of the jammed paper. It might stain
  your hands or clothes.

- After removing the jammed paper and the next printed page is stained
  with toner, print several test pages before restarting your print job.

- Remove the jammed paper carefully to prevent spreading toner.

- Take care not to stain your hands and clothes. Wash toner stains
  immediately with cold water.

- Never touch the transfer roller.

- If the paper in the paper cassette is creased at the edges, paper jams
  can occur. To avoid this, please turn the paper over.

PAPER JAM IN THE PAPER CASSETTE

```
JAM A 1/2
```

If a paper jam occurs inside the Paper Cassette, follow these steps:

1. Pull out the Paper Cassette.

2. Remove the jammed paper.
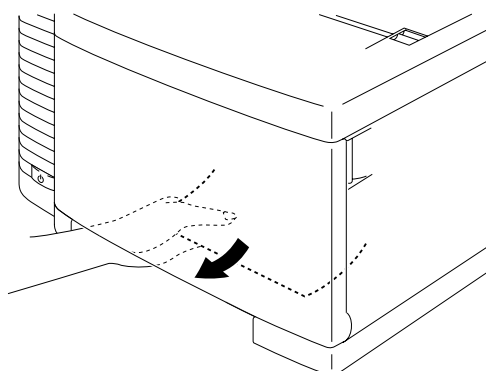
Fig. 6-7

3. Re-install the Paper Cassette.

4. Open the Rear Access Cover. If there is any jammed paper at the paper exit, remove it.

5. Close the Rear Access Cover.

How to Clear a Paper Jam in the Duplex Unit

PAPER JAM IN THE UPPER ASSEMBLY OF THE DUPLEX UNIT

```
JAM B
```

If a paper jam occurs in the Duplex Cover Top Assembly, follow these steps:

1. Open the Duplex Cover Top Assembly.
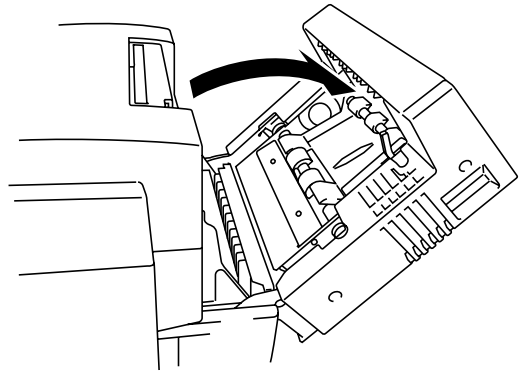
Fig. 6-8

2. If the paper is caught in the exit of the Duplex Cover Top Assembly, remove the jammed paper by pulling it slowly.
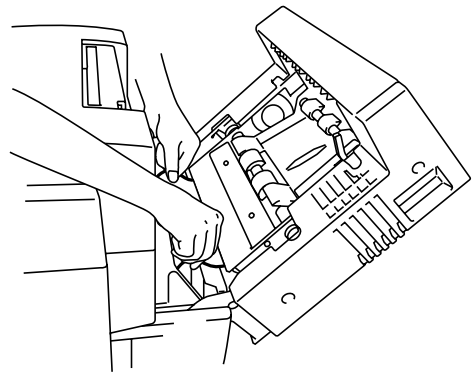
Fig. 6-9

3. If the jammed paper is inside the Duplex Cover Top Assembly, remove it by rotating the green pinch roller downwards to feed the paper out through the exit of the Assembly.
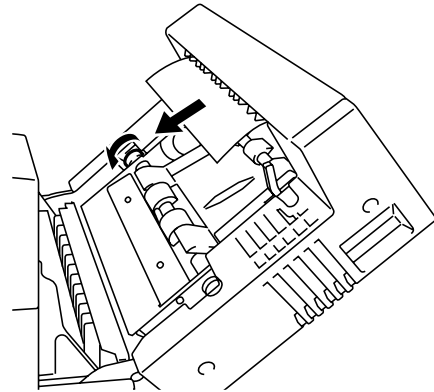
Fig. 6-10

4. If the jammed paper is caught inside the Duplex Cover Top Assembly, open the Paper Guide and remove the paper. Close the Paper Guide.
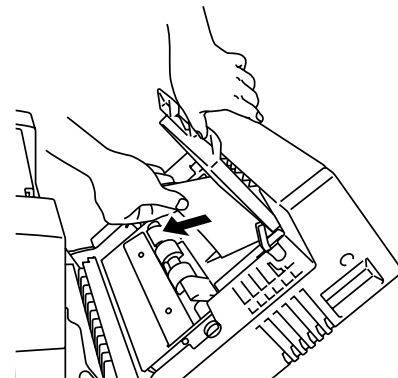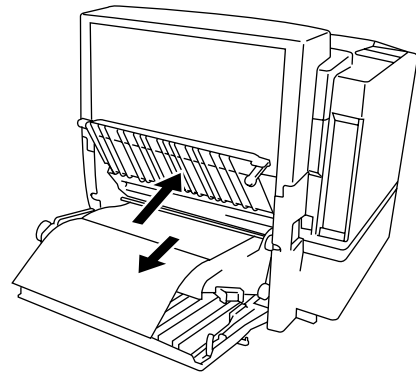

Fig. 6-11

5. Close the Duplex Cover Top Assembly.

PAPER JAM IN THE LOWER ASSEMBLY OF THE DUPLEX UNIT

```
JAM C
```

If a paper jam occurs in the Lower Assembly, follow these steps:

1. Open the Duplex Lower Cover. If you find a jammed piece of paper, pulling it slowly toward you.

2. If you cannot find the jammed paper, open the Inside Unit by holding the handles and pulling it toward the rear. If you find a jammed piece of paper, remove it.

Fig. 6-12

3. Close the Inside Unit and the Duplex Lower Cover.

4. When a piece of paper is stuck between the Upper Assembly and the Lower Assembly, you can not often open the Inside Unit. If this has occurred, open the Upper Assembly and remove the jammed paper by pulling it upwards slowly using both hands as shown.
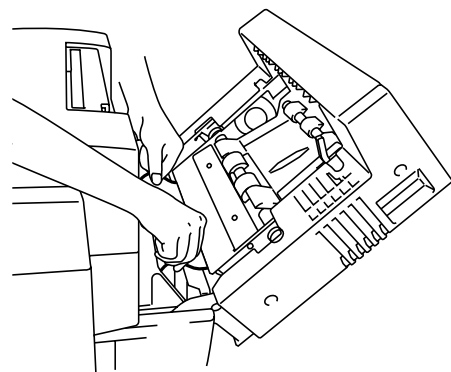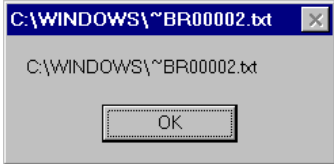

Fig. 6-13

Q & A

You may occasionally encounter a difficulty with your HL-2600CN printer. This section contains frequently asked questions and the answers. Find your question below, and then follow the recommended steps. You can correct most problems yourself.

SETTING UP THE PRINTER HARDWARE

Question	Recommendation
The printer does not come on.	Check to verify the following; The printer is securely plugged into the AC outlet. The power source is active. The Power button is on.
The printer does not print.	Check the following: The printer is turned On. The printer is Online. All of the protective parts have been removed. All the covers on the printer are closed. The toner cartridges are installed correctly. The 'toner empty' message is not displayed on the LCD. If one or more are on, replace the toner cartridges. The interface cable is securely connected between the printer and computer. The Alarm LED is blinking. If the LED is blinking, refer to the Error Messages section of this manual. The HL-2600CN printer is selected in the printer settings in your application. The host is configured correctly: check printer port, print manager, etc. (clear stored job or 'use print manager' is turned off) There is no jammed paper inside the printer. Paper is loaded in the Paper Cassette. An Error message is not displayed.

SETTING UP THE PRINTER

Question	Recommendation
I cannot print from my application software.	• Make sure that the supplied Windows printer driver is installed correctly and selected in your application software.
I cannot print the entire page.	• Check that the size of paper in the feeder is the same as the paper size you selected in your application or in the printer driver. • Check that the interface cable is connected to the printer and computer securely.
Computer indicates a device time-out.	• If the Alarm LED is blinking, clear it referring to the 'Alarm Indications at a Glance' section in this chapter, and then try to print again. • If the Alarm LED is off, wait a short while and then click the Retry button in the PC screen dialog box. • Check that the printer is On Line.
Computer indicates Paper Empty.	Paper is empty. Load paper in the Feeder, and then press **Go** to recover from the error status.
Computer indicates Off Line	Press **Go** to put the printer in the Ready state.
Computer indicates Power Off	Check that the printer is securely plugged into the AC outlet and that the **Power** button is On.
Computer indicates an error message other than above.	Check to verify the following; • The computer can work in bi-directional mode. • The printer port is correct. • Selection of the printer is correct. • Recommended interface cable is being used. (IEEE 1284 compliant) Or, select the 'Control' tag in the driver and set the 'Status Monitor' to off.
If you install the printer driver for your HL-2600CN using the Plug & Play installation, the installation may fail sometimes and display the error dialog box as shown: C:\WINDOWS\~BR00002.txt ☒ C:\WINDOWS\~BR00002.txt OK	Please reinstall the printer driver by clicking the 'Add Printer' icon on the Settings-Printer dialog box.

PAPER HANDLING

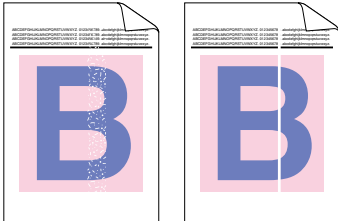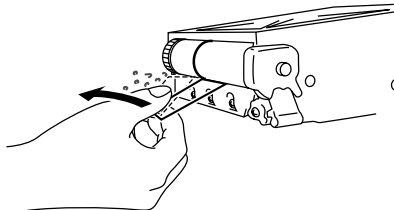| Question	Recommendation
The printer does not load paper.	• Check to see if the Alarm LED is on. If so, the Paper Cassette may be out of paper or not properly installed. If it is empty, load a new stack of paper into the Paper Cassette. • If there is paper in the Paper Cassette, make sure that it is straight. If the paper is curled, you should straighten it before printing. Sometimes it is helpful to remove the paper, turn the stack over, and then reload it in the paper tray. • Reduce the stack of paper in the Paper Cassette, and then try again.
How can I load envelopes?	You can load envelopes from the Paper Cassette (Tray 1). Make sure you adjust the paper guide. Your application software also must be set up correctly to print on the envelope size you are using. This is usually done in the page setup or document setup menu of your software. Refer to your applications manual for more information.
Which paper can I use?	See 'Paper Handling' in Chapter 3 for detailed paper specifications.
How can I clear paper jams?	See the "Paper Jams" section in this chapter.
The printer feeds more than one sheet at a time.	Check to verify the following: • The paper loaded is all the same type. • Paper that meets the specifications is loaded. • Paper stack was fanned before loading. • The stack of paper is not too high. • The side guide is not set too tight.
Paper skews while feeding.	Check to verify the following: • The side guide is adjusted correctly. • The amount of paper you loaded is correct. Refer to the 'PAPER SPECIFICATIONS' section in APPENDICES.
Sometimes mis-picking of paper from the paper tray or mis-feeding of paper from the paper exit occurs.	Clean the Paper Guide, the Registration Roller and the Exit Roller referring to 'Periodical Printer Cleaning' in Chapter 5.

PRINTING
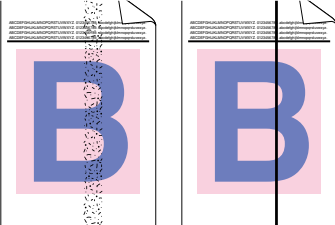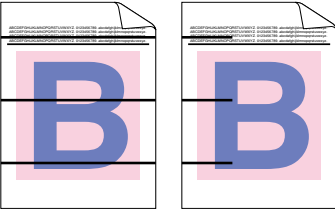
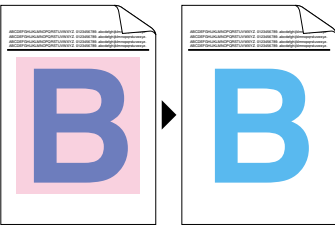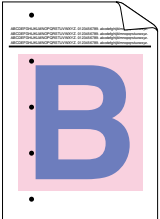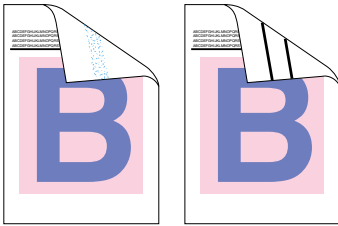| Question	Recommendation
The printer prints unexpectedly or it prints incorrect characters.	• Cancel the print job from your computer. Then, turn the printer off and on, or reset the printer and try your print job again. • Make sure your application software is correctly set up to use this printer. Check the printer driver settings or printer settings in your application software.
The computer hangs up when the printer starts printing, or an application error occurs.	Check to see that the system resources are enough (PC memory, etc). When you have many applications open, the system resources of your PC will not be enough and will cause your PC to hang up. Close applications you are not using and try again.
The headers or footers appear when I view my document on the screen but do not show up when I print them.	Most laser printers have a restricted area that cannot be printed. Adjust the top and bottom margins in your document to allow for this.
Printing takes too long.	• Color graphic images contain a large amount of data and the printer will take a relatively long time to complete printing. • When you print in Super Fine mode, the printer will take a relatively long time to finish printing. • When the Data LED is blinking, the printer is getting ready to print. Print speed depends on memory size or performance of your PC and memory size of the printer.
The printer doesn't print in color	• The printer may be set to monochrome mode. • Check that the color toner(s) have not run out.

PRINT QUALITY

Note
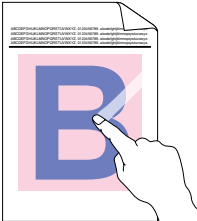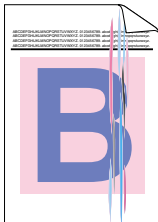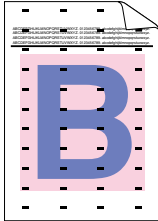
You can resolve a print quality problem by replacing a toner cartridge with a new one when the LCD indicates the 'toner low' or 'toner empty' message.

Question	Recommendation
White horizontal lines or bands or rubbing	1) Check that the printer is installed on a solid level surface. 2) Check that the rear access cover is closed correctly. 3) Check that the toner cartridges are installed correctly. 4) Shake the toner cartridges gently.
Colors are light or unclear on the whole page	1) Check that the specified paper was used. 2) Change the paper to freshly unpacked paper, and then check that the problem is solved. 3) Check that the rear access cover is closed correctly. 4) Shake the toner cartridges gently.
White vertical streaks or bands	Identify the missing color and replace that toner cartridge. *The toner has probably reached the end of its life. However, when you see a white vertical line on the toner roller, try the following procedure. 1. Cut a sheet approx. 50mm x 50mm out of a transparency film. 2. Insert the film about 10mm into the gap between the toner roller and the blade. 3. Slide the film and pull it out as shown below.

Question	*Recommendation*
Black vertical streaks or bands	1) Identify the missing color and replace that toner cartridge. 2) Replace the OPC belt cartridge.
Black (colored) horizontal lines	Identify the missing color and replace that toner cartridge.
White spots or hollow print	1) Change the paper to freshly unpacked paper, and then check that the problem was solved. 2) Check that the specified paper was used. 3) Check that the room temperature is higher than 10°C (50°F)
Completely blank or some colors are missing	1) Identify the missing color and that the toner cartridge is installed correctly. 2) Replace the toner cartridge 3) Replace the OPC belt cartridge
Black (colored) spots or Toner stain	Contact your dealer or Brother Authorized Service Representative.

Question	Recommendation
Toner scatter or Toner stain	1) Identify the color causing the problem and replace that toner cartridge. 2) Replace the OPC belt cartridge.
The color of your printouts are not what you expected	1) Initiate a test print from the control panel. 2) Check that the toner cartridges are installed correctly. 3) Check that the toner cartridges are not empty. 4) Adjust the color by using the custom setting in the driver. Colors the printer can display and colors you see on a monitor are different. The printer may not be able to reproduce the colors on your monitor. 5) Check to ensure the specified paper was used.
All one color	Replace the OPC belt cartridge
Dirt on back of paper	1) Replace the Oil Bottle. 2) Replace the Fuser Cleaning Roller.
Shade on the transparency	1) Change to the recommended type of transparency, and then check that the problem is solved. 2) Check that the media type mode is selected correctly
Color misregistration	1) Check that the OPC Belt Cartridge is installed correctly. 2) Replace the OPC Belt Cartridge.

Question	*Recommendation*
Uneven density appears periodically in the horizontal direction	1) Check that the toner cartridges are installed correctly. 2) Check that the OPC Belt Cartridge is installed correctly.
Missing image at edge	1) Replace the toner cartridge. 2) Replace the OPC Belt Cartridge.
Wrinkle	1) Change to a recommended type of paper, and then check that the problem is solved. 2) Check that the rear access cover is closed correctly. 3) Check that the paper discharger is installed correctly.
Mixed color image	1) Check that the front cover is closed correctly. 2) Check that the toner cartridges are installed correctly. 3) Replace the toner cartridges.
Insufficient Gloss	1) Check that the oil is not empty. 2) Replace the Fuser Cleaning Roller. 3) Check that the specified paper is being used.

Question	Recommendation
Off set image	1) Check that the specified paper is being used. 2) Check that the oil is not empty. 3) Replace the Fuser Cleaning Roller
Poor fixing	1) Check that the specified paper is used. 2) Check that the media type mode is selected correctly.
Poor fixing	Wait 15 to 30 minutes and try again.
Poor fixing when printed on thick paper	Set the printer to thick paper mode through the control panel or the printer driver.
Blurred vertical band and spots of color.	Clean the Charging Wire. For more information about the cleaning procedure, see "Periodic Printer Cleaning" in Chapter 5.
Dirt on the printed pages	Clean the Paper Guide, the Registration Roller and the Exit Roller referring to 'Periodic Printer Cleaning' in Chapter 5.

If the same problem re-occurs, contact your dealer or Brother Authorized Service Representative.

! 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.

APPENDIX

PRINTER SPECIFICATIONS

PRINTING

Print Method	Electrophotography by semiconductor laser beam scanning
Laser	Wavelength: 780 nm Output: 5mW max.
Resolution	600x600 dots per inch (Normal) 2400 dots per inch using CAPT and HRC (The resolution can be enhanced to 2400 dpi class by using Brother exclusive HRC (High Resolution Control) and CAPT (Color Advanced Photoscale Technology))
Print Speed	Standard: 24 pages per minute (A4/Letter size in monochrome) 6 pages per minute (A4/Letter size in full color) Duplex: 12 pages per minute (A4/Letter size in monochrome) 3 pages per minute (A4/Letter size in full color)
Warm Up	Max. 4 minutes at 20℃ (68℉)
First Print	Monochrome: 15 seconds or less Full Color: 22.5 seconds or less (A4/Letter size by face down print delivery from standard upper cassette feed)
Consumables	Toner in a single color single-component cartridge Life Expectancy: 12,000 (Black): 7,200 (Cyan, Magenta and Yellow) single-sided pages/cartridge (A4 or letter size paper with about 5% coverage).
Resident Printer Fonts	66 scalable fonts, 12 bitmapped fonts, 13 barcode fonts (PCL) 165 scalable fonts (BR-Script)

FUNCTIONS

CPU   MIPS TMPR4955 (266MHz)

Emulation Automatic emulation selection
- HP Color Printer (PCL5C) including HP LaserJet 4+ (PCL 5e) and HP LaserJet5 (PCL 6) monochrome mode
- BR-Script Level 3 (Adobe Postscript Level 3 compatible)
- HP-GL
- EPSON FX850
- IBM Proprinter XL

Interface   Automatic interface selection among IEEE 1284 Parallel, 10/100BaseTX Ethernet, USB1.1

RAM   64 Mbytes
(Expandable by 384Mbytes with DIMMs)
The standard memory fitted can vary depending on the printer model and country.

Storage Devices Hard Disk Drive (2.5 inch IDE HDD; HD-6G/HD-EX)
CompactFlash Type II

Control Panel   8 switches, 4 lamps and 16-column by 2-lines liquid crystal display

Diagnostics   Self-diagnostic program

ELECTRICAL AND MECHANICAL

Power Source	U.S.A. and Canada:	AC 120 V, 50/60 Hz
	Europe and Australia:	AC 220 to 240 V, 50/60 Hz
	Power Consumption Printing (Average):	600 W or less
	Stand-by:	260 W or less
	Stand-by in sleep mode:	30 W or less
Noise	Printing:	55 dB A or less
	Stand-by:	48 dB A or less
Temperature	Operating:	10 to 32.5°C (50°F to 90.5°F)
	Non-operational:	5 to 35°C (41°F to 95°F)
	Storage:	0 to 35°C (38°F to 95°F)
Humidity	Operating:	20 to 80% (without condensation)
	Storage:	10 to 90% (without condensation)
Dimensions (W x D x H)		500 x 520 x 410 mm (19.7 x 20.5 x 16.1 inches)
		500 x 520 x 555 mm (19.7 x 20.5 x 21.9 inches) with an optional lower tray unit fitted
		500 x 605 x 605 mm (19.7 x 23.8 x 23.8 inches) with installed optional lower tray unit and optional duplex unit
Weight		Approx. 39 kg (86 lbs.)
		Approx. 58.5 kg (130.2 lbs.) with Optional lower tray unit, optional duplex unit and toner cartridges installed.

PAPER SPECIFICATIONS

Paper Input   Paper Trays:

- Standard Upper Tray (Tray 1)
- Optional Lower Tray (Tray 2; LT-26CL)
- Optional Legal Cassette (Tray 1)
- Paper size
  - TRAY 1:   Standard Upper Tray:
    Letter, A4, B5 (JIS/ISO), Executive,
    COM10, DL, 104.8 – 215.9 mm wide, 220
    – 297 mm long
    Optional Legal Tray:
    Legal, 220 – 355.6mm long
  - TRAY 2:   Letter, A4, B5 (JIS/ISO), Executive,

    Duplex Unit:
           Letter, A4, B5 (JIS/ISO), Executive, Legal
- Max. stacking height in the cassette = 26 mm(1.02")
- Max. paper cassette capacity;
  - Tray 1: Approx. 250 sheets of 75g/m^2 (20 lbs)
  - Tray 2: Approx. 500 sheets of 75g/m^2 (20 lbs)

Printed Output   Face down print delivery

Paper Type   Standard upper tray (Tray 1):

- Plain paper of Letter, A4, B5 (JIS/ISO), Executive
  sizes,104.8 x 220 mm to 215.9 x 297 mm
  (4.1 x 8.7" to 8.5 x 11.7")
  [64 to 163 g/m^2 (18 to 43 lbs)]
- Envelopes of COM10 DL sizes
- Transparencies
- Label Stock

Optional Lower Tray (Tray 2; LT-26CL):

- Plain paper of letter, A4, B5 (JIS/ISO), Executive sizes
  [64 to 105 g/m^2 (18 to 28 lbs)]

Optional Legal Tray (Tray 1; LC-26LG):

- Plain paper of Letter, A4, B5 (JIS/ISO), Executive, Legal sizes
  104.8 x 220 mm to 215.9 x 355.6 mm
  (4.1 x 8.7" to 8.5 x 14")
  [64 to 163 g/m^2 (18 to 43 lbs)]
- Envelopes of COM10 DL sizes
- Transparencies
- Label Stock

Optional Duplex Unit (DX-2600):

- Plain paper of Letter, A4, B5 (JIS/ISO), Executive, Legal sizes
  104.8 x 220 mm to 215.9 x 355.6 mm
  (4.1 x 8.7" to 8.5 x 14")
  [64 to 105 g/m^2 (18 to 28 lbs)]

Test printing on paper, especially envelopes, is recommended before making a large purchase. The following types of envelopes are not recommended for use:

- Envelopes with thick and/or crooked edges
- Damaged, curled, wrinkled, or irregularly shaped envelopes
- Extremely shiny or highly textured envelopes
- Envelopes with clasps
- Envelopes of baggy construction
- Envelopes not sharply creased
- Embossed envelopes
- Envelopes already printed with a laser printer
- Envelopes that cannot be arranged uniformly when placed in a pile

Note

- An area 15mm (0.6") from the edges of the envelope will not be printed.

- Avoid feeding labels with the carrier sheet exposed because your printer will be damaged.

- When feeding Transparencies, the use of a recommended type for laser printers will ensure optimum printing. For detailed information on the specification or purchase, please contact your nearest Brother authorized sales representative or the place of purchase.

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 purchasing to ensure desirable performance. Some important guidelines when selecting paper are:

1. Supplier should be informed that the paper or envelopes will be used in a laser printer.

2. Preprinted paper must use inks that can withstand the temperature of the printer's fusing process. (200 degrees centigrade)

3. If you have selected a cotton bond paper, paper having a rough surface, such as cockle or laid finished paper or paper that is wrinkled or puckered, the paper may exhibit degraded 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 may 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 pre-folded paper.
5. Paper exceeding the recommend weight specification specified in the 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.

ENVELOPES

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 leading edge. The envelope should lie flat and not be of 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.

Envelope Types to Avoid

1. Envelopes constructed of paper with a weight that exceeds the paper weight specifications for the printer.
2. Poorly manufactured envelopes with edges that are not straight or consistently square.
3. Envelopes with "baggy" construction or folds that are not sharply creased.
4. Envelopes with transparent windows, holes, cutouts or perforations.
5. Envelopes made with smooth or shiny paper.
6. Envelopes that are rough, highly textured, or deeply embossed.
7. Envelopes that do not lie flat or that are curled, wrinkled, or irregularly shaped.
8. 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

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.

LABELS AND OVERHEAD 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 this User's Guide. Labels and transparencies exceeding this specification may not feed or print properly and may cause damage to your printer.

Labels can be fed from Tray 1 and Tray 2, and printed using the optional Duplex Unit. Transparencies can be fed from Tray 1 only and cannot be printed using the Duplex Unit.

The entire responsibility for the quality and performance of labels and transparencies lies with the customer.

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

SYMBOL/CHARACTER SETS

You can select the symbol and character sets with the Print Menu by using the Control Panel in the HP LaserJet, EPSON FX-850, IBM Proprinter XL, and HP-GL emulation modes. See "PRINT MENU" in Chapter 4.

OCR SYMBOL SETS

OCR-A
OCR-B

HP PCL MODE

Roman 8 (8U)
ISO Latin1 (0N)
ISO Latin2 (2N)
ISO Latin5 (5N)

PC-8 (10U)
PC-8 D/N (11U)
PC-850 (12U)
PC-852 (17U)

PC-8 Turkish (9T)
Windows Latin1 (19U)
Windows Latin2 (9E)
Windows Latin5 (5T)

Legal (1U)
Ventura Math (6M)
Ventura Intl (13J)
Ventura US (14J)

PS Math (5M)
PS Text (10J)
Math-8 (8M)
Pi Font (15U)

MS Publishing (6J)
Windows 3.0 (9U)
Desktop (7J)
MC Text (12J)

Symbol (19M)
Wingdings (579L)

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ISO 4 UK
ISO 6 ASCII
ISO10 SWE/FIN
ISO11 Swedish
ISO14 JISASCII
ISO15 Italian
ISO16 POR
ISO17 Spanish
ISO21 German
ISO25 French
ISO57 Chinese
ISO60 NOR v1
ISO61 NOR v2
ISO69 French
ISO84 POR
ISO85 Spanish
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HP Spanish

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UK ASCII I
French I
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PC-8 D/N
PC-850
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PC-860
PC-863
PC-865
PC-8 Turkish

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ANSI ASCII
9825 CHR. SET

FRENCH/GERMAN
SCANDINAVIAN
SPANISH/LATIN
JIS ASCII

ROMAN8 EXT.
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ISO SWEDISH
ISO SWEDISH:N

ISO NORWAY 1
ISO GERMAN
ISO FRENCH
ISO U.K.

ISO ITALIAN
ISO SPANISH
ISO PORTUGUESE
ISO NORWAY 2

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

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

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

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

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

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