

English

HP LaserJet 6L Printer User's Manual



Take a look at all HP Support has to offer!

Thank you for your purchase. Along with your product, you receive a variety of support services from Hewlett-Packard and our support partners designed to give you the results you need, quickly and professionally.



Online Services: for 24-hour access to information over your modem, we suggest these services.	World Wide Web URL—Printer drivers, updated HP printer software, and product and support information may be obtained from http://www.hp.com, or in Europe from http://www2.hp.com. In Japan printer drivers may be obtained from ftp://www.jpn.hp.com/drivers/. Korea: www.hp.co.kr. Taiwan: www.hp.com.tw, with a local driver website of www.dds.com.tw.						
	HP Bulletin Board Service—Our electronic download service provides convenient access to HP printer drivers, updated HP printer software, product information, and troubleshooting hints. Dial (208) 344-1691 (U.S. and Canada) and set your communication software to N,8,1. European Bulletin Board Service numbers are listed at http://www2.hp.com. Taiwan: (886-2) 923-3233. Korea: HITEL or CHOLIAN (Go HPK), Australia: (613) 9890 0276. New Zealand: (649) 356-3660.						
	America OnLine—(America OnLine/Bertelsmann available in France, Germany, and UK)—Printer drivers, updated HP printer software, and support documentation are available to help you answer your HP product questions. Use Keyword HP to start your tour.						
	CompuServe —Printer drivers, updated HP printer software, and interactive sharing of technical information with other members are available on CompuServe's HP User's forums (GO HP), or call (800) 524-3388 and ask for representative #51. (CompuServe is also available in the UK, France, Belgium, Switzerland, Germany, and Austria.)						
Obtaining Software Utilities and Electronic Information: U.S. and Canada	Phone: (970) 339-7009 Mail: Hewlett-Packard Fax: (970) 330-7655 P.O. Box 1754 Greeley, CO 80632 USA						
Asia-Pacific Countries/Regions	Fulfill Plus (65) 740-4477 (Singapore, Malaysia, Indonesia, Hong Kong SAR).						
Australia/New Zealand	Call (612) 565-6099.						
HP Direct Ordering for Accessories and Supplies	Call (800) 538-8787 (U.S.) or (800) 387-8164 (Canada).						
HP Support Assistant CD-ROM	This support tool offers a c technical and product inform in the U.S. or Canada, call Malaysia, Indonesia, Hong	omprehensive online informa mation on HP products. To su (800) 457-1762. Fulfill Plus, (Kong SAR).	tion system designed to provide ubscribe to this quarterly service (65) 740-4477 (Singapore,				
HP Service Information	To locate HP-authorized de	alers, call (800) 243-9816 (L	J.S.); (800) 387-3867 (Canada).				
HP Service Agreements	Call (800) 446-0522 (U.S.);	(800) 268-1221 (Canada).					
HP FIRST: HP FIRST Fax will di troubleshooting tips for your HP These documents will be sent to	eliver detailed troubleshootin product. Call from any touch- the fax of your choice.	g information on common so tone phone and request up t	ftware applications and o three documents per call.				
Australia(0Australia0Belgium (Dutch)0Belgium (French)0Canada(8China(8Denmark8English outside of UK(3Finland9France0Germany0Hong Kong SAR(8India(2Indonesia(2Italy1Japan(8	33) 9272-2627 660-8128 800-1-1906 800-1-7043 300) 333-1917 36 10) 6505 5280 00-10453 31 20) 681-5792 800-13134 5-905900 130-810061 152) 2506-2422 11) 622-6420 21) 352-2044 678-59020 31 3) 3335-8622	Korea Malaysia Netherlands New Zealand Norway Philippines Singapore Spain Sweden Switzerland (German) Switzerland (French) Taiwan Thailand United Kingdom United States	(02) 769-0543 (03) 298-2478 0800-22-2420 (09) 356 6642 800-11319 (65) 291-7951 (65) 275-7251 900-993123 020-795743 0800 55-1527 0800 55-1526 02-719-5589 (02) 661-3511 0800-960271 (800) 333-1917				



Customer Support Options Worldwide

In addition to the phone numbers listed below, appendix A, "Warranty and Support Information" contains worldwide sales and service addresses and phone numbers for countries/regions not listed here.

U.S. and Canada: Call (208) 323-2551 Mon-Fri 6 am to 10 pm and Saturday 9 am to 4 pm (Mountain Time) free of charge during the Warranty Period; however, your standard long-distant phone charges still apply. Please have your serial number ready when calling. Customer Support & Product Repair Assistance Phone charges still apply. Please have your serial number ready when calling.									
(Please refer t chapter of this additional pro information.)	o the warranty s manual for duct repair	Post-warranty telephone assistance is available to answer your product questions. Call (900) 555-1500 (\$2.50* per minute, U.S. only), or call (800) 999-1148 (\$25* per call, Visa or MasterCard, U.S. and Canada) Mon-Fri 7 am to 6 pm and Saturday from 9 am to 3 pm (Mountain Time). Charges begin only when you connect with a support technician. *Prices subject to change.							
European Customer Support Center Language and In-Country/RegionOptions Available Open Monday-Friday 8:30-18:00 CET									
HP provides a free telephone support service during the warranty period. By calling a telephone number listed below, you will be connected to a responsive team waiting to help you. If you require support after your warranty has expired, you can receive support for a fee through the same telephone number. The fee is charged on a per-incident basis. When calling HP please have the following information ready: • Product name and serial number Date of purchase Description of the problem									
Dutch	Belgium:	02 626 8806	Norwegian	Norway:	22 11 6299				
English	Ireland: (UK: (International:	020 606 8751 01 662 5525 0171 512 5202 44 171 512 52 02	Finnish Swedish Italian	Finland: Sweden:	3929 4099 0203 47288 08 619 2170 02 26410350				
French German	France: Belgium: Switzerland: Germany: Austria:	14 50 43 9853 02 626 8807 084 880 1111 0180 5 25 81 43 0660 6386	Spanish Portuguese	Spain: Portugal:	902 321 123 01 441 7199				
		In-Country/Reg	gionSupport Num	nbers					
If you require s listed below, pl	upport after your ease refer to the	warranty has expired or addit Worldwide Sales and Service	tional product re Offices in appe	epair services endix A.	s, of if your country/region is not				
Africa/Middle E Argentina Australia Brazil Canada China Czech Republi Greece Hong Kong SA Hungary India Indonesia Japan Korea	East (41 2 (54 1 (03)) (55 1 (208 (861) 6261 6261 6261 6261 (30 1 R 800- (36 1 (011) (21)) (31 2 (82 2 Seou	2) 780-7111) 781-4059/69 9272 8000 1) 709-1444) 323-2551 0) 6261-4174; 6261-4175; -4176; 6262-5666) 471 7321) 689 64 11 7729) 252 4505) 6472366 350-3408 (0) 581-3318 2) 3270-0700; outside II, call 080-999-0700	Malaysia Mexico D.F. Mexico Guadal Mexico Monter New Zealand Philippines Poland Portugal Russia Singapore Switzerland Taiwan Thailand Turkey	() ey () () () () () () () () () () () () ()	(603) 295-2566 (52 5) 326-4600 (52 3) 669 95 00 (52 83) 378 42 40 (64 9) 356-6640 (63 2) 894-1451 (48 22) 37-5065 (351 1) 301 7330 (7 095) 923-5001 (65) 272-5300 (41 1) 753 7111 (02) 717-9609 (662) 661-4011; 661-4012 (90 1) 224-5925				

HP LaserJet 6L Printer

User's Manual

Copyright Information

© 1997 Hewlett-Packard Company

All Rights Reserved. Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws.

Part number: C3990-90901 First Edition, May 1997

Documentation Warranty Statement

The information contained in this document is subject to change without notice.

Hewlett-Packard makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Hewlett-Packard shall not be liable for errors contained herein or for incidental or consequential damage in connection with the furnishing, performance, or use of this manual.

Trademark Credits

Microsoft®, Windows® and MS-DOS® are U.S. registered trademarks of Microsoft Corporation.

Material Safety Data Sheet (MSDS)

The Toner Material Safety Data Sheet (MSDS) can be obtained by calling HP First at (800) 333-1917 or (208) 344-4809. International customers should refer to "Hewlett-Packard Services Worldwide" at the front of this manual for appropriate numbers and information.

FCC Regulations

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

Reorient or relocate the receiving antenna.
Increase separation between equipment and receiver.
Connect equipment to an outlet on a circuit different from that to which the receiver is connected.

Consult your dealer or an experienced radio/TV technician.

Note: Any changes or modifications to the printer not expressly approved by HP could void the user's authority to operate this equipment.

Use of a shielded interface cable is required to comply with the Class B limits of Part 15 of FCC rules.

Canadian DOC Regulations

Complies with Canadian EMC Class B requirements.

<<Conforme á la classe B des normes canadiennes do compatibilité électromagnétiques. <<CEM>>.>>

CONTENTS

1 Set Up

	Introduction 1-7 Identifying Your Printer's Parts 1-7 Installing the HP LaserJet Toner Cartridge 1-7 Connecting Your Printer's Cable and Cord 1-7 Attaching the Label to the Printer 1-7 Loading Paper into the Printer 1-6 Printer Software Information 1-6 Installation Considerations 1-6 Installing Your Printer's Software 1-7 Standard Installation for Windows $3.1x$ 1-7 Standard Installation for Windows 95 1-7 Alternative Installation for Windows $3.1x$ 1-7 Standard Installation for Windows 95 1-7 Custom versus Typical Installation 1-8 Alternative Installation for Windows 95 1-7 Using Online Help 1-6 Installing Memory Cards (DRAM) 1-10
2	Printer Control Panel Using the Front Panel The Front Panel 2-2
3	Printing Selecting Print Media 3-7 Selecting Media Types 3-7 Selecting Media Sizes 3-7 Selecting the Output Paper Path 3-2 Using the Single-Sheet Input Slot 3-3 Printing on Letterhead and Envelopes 3-4 Printing Tasks 3-5 Printing on Both Sides (Duplexing) 3-5 Pausing Your Printer Between Pages 3-6 Resetting Your Printer 3-6 Stopping a Print Job 3-6 Printing on Special Media 3-7 Additional Tips for Custom Sizes 3-7 Additional Tips for Printing Labels 3-7 Managing HP LaserJet Toner Cartridges 3-6
4	Troubleshooting Solving Common Problems 4-1 Printing a Self-Test Page 4-1 Clearing Paper Jams 4-2 Paper Will Not Feed 4-3 Cleaning Your Printer 4-4

Solving Printer Problems	4-5
Solving Print Quality Problems	4-7
Solving Software Problems 4-	·12
Solving Hard-to-Resolve Problems	·13
Networks and Switchboxes	15
Out of Memory	15

A Warranty and Support Information

HP Limited 1-Year Warranty Statement						A-1
Hardware Service during the Warranty Period						A-2
Hardware Service after the Warranty Period						A-2
HP LaserJet Toner Cartridge Warranty						A-2
Accessories and Supplies Information						A-3
HP Software License Agreement						A-4
Worldwide Sales and Service Offices						A-5

B Printer Specifications

Printer Specifications											B-1
Regulatory Information											B-2
VCCI Statement (Japan)											B-2
Laser Statement for Finland											B-2
Environmental Product Stewardship											B-4
Laser Safety Statement			•			•	•	•	•		B-6

Set Up

Introduction

Congratulations on your purchase of the HP LaserJet 6L printer. The following items are required to set up your printer:

- HP LaserJet 6L Printer
- HP LaserJet Toner Cartridge
- IEEE-1284 Compliant Parallel Cable (not included)
- Power Cord
- Sheet of Printer Labels
- HP LaserJet 6L Printer Software Disks

Identifying Your Printer's Parts

Before using your printer, make sure you can identify the following parts:

Figure 1-1



- A = Front Output Slot
- B = Paper Path Lever
- C = Front Panel Button
- D = Indicator Lights
- E = Paper Output Bin
- F = Paper Output Support

- G = Paper Input Support
- H = Single-Sheet Input Slot
- I = Paper Input Bin
- J = Paper Guides
- K = Printer Door

Installing the HP LaserJet Toner Cartridge



It is recommended that you use HP LaserJet toner cartridges. HP has designed the printer, toner cartridges, and toner formula to work together to give you optimal image quality from your printer.

Caution

To prevent damage, do not expose the toner cartridge to light for more than a few minutes. For extended periods outside the printer, place the cartridge in a closed drawer, return it to the original packaging, or cover it completely with a cloth.

To install your HP LaserJet toner cartridge, you will need to first remove the toner cartridge from its packaging. (Save the packaging for possible cartridge storage and recycling.)

- 1 Open the Printer Door by pulling it toward you in a forward motion using both hands.
- 2 Roll the toner cartridge back and forth briskly to distribute the toner evenly inside the cartridge.
- **3** Grasp the end of the clear sealing tape on the side of the cartridge and pull firmly to remove the entire length of the tape. Once removed, the tape should measure twice the length of the toner cartridge or 490 mm (19.3 inches).
- 4 Hold the cartridge by the handle (so that the arrows are facing the printer) and slide it down and back into the printer. The ends of the cartridge slide into the black plastic grooves in the printer. Push it firmly into place and close the printer door.

Note

If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.

Connecting Your Printer's Cable and Cord









Note

For best results, it is imperative that you use a high-quality IEEE-1284 compliant parallel cable, such as the HP LaserJet cable, between the printer and computer. This cable supports all of your printer's advanced printing capabilities. If you experience problems with your computer not being recognized by your printer, you may have a faulty cable.

- 1 Connect a parallel cable to your printer. Be sure not to force the cable on upside down.
- 2 Secure the cable by snapping the two wire clips from the printer to the cable. A secure cable helps prevent communication problems between the computer and printer.
- 3 Connect the other end of the cable to a parallel port on your computer. Secure the cable by tightening the attached screws.

Caution

Be sure to connect the cable to a parallel port on your computer rather than a serial port. Connecting to the wrong port can cause damage to your printer. See your computer's documentation for more information about the computer's ports.

4 Connect the power cord between the printer and a grounded power strip or wall outlet.

Once the power is connected, the indicator lights on the printer's front panel will turn on and then blink in sequence. The Error (top) light will stay on if the Paper Input Bin is empty.

You will not find an on/off switch on your printer. After 15 minutes of inactivity, the printer will automatically shift to a powered-down state called SleepMode.

Attaching the Label to the Printer



A sheet of labels was shipped in the Paper Output Bin of your printer. You will need to attach the label titled "Remove Paper Before Reloading" to your printer.

- 1 Carefully remove the label from its backing sheet.
- 2 Attach the label to the printer's Paper Input Bin.

As the label indicates, always remove and realign all paper before reloading. By doing so, you can reduce multiple paper feeds or paper jams or both.

Loading Paper into the Printer



Before loading paper into the printer, you will want to raise the paper supports located behind the Paper Input Bin and the Paper Output Bin. Using paper supports can help prevent unwanted paper curl and paper jams. These supports can be extended for different lengths of paper.

- 1 Raise the supports on the Paper Input Bin and on the Paper Output Bin until they snap into place.
- 2 Insert up to 100 sheets of paper into the Paper Input Bin. Be careful not to overfill the bin. The Ready (bottom) light will come on.
- 3 Center the paper using the paper guides on the Paper Input Bin.

If you want to test your printer, you can print the self-test page. To do so, make sure the Ready (bottom) light is on and all other indicator lights are off. Press and release the Front Panel button. (If the printer is in SleepMode [all lights are off], you will need to press the Front Panel button twice.) The Data (middle) light will come on and the Ready (bottom) light will blink. The self-test page prints.

Note

When adding paper to an existing stack in the Paper Input Bin, always remove and realign all paper to avoid multiple paper feeds or paper jams or both.

Printer Software Information

Before you can use your printer with any software programs, you must first install the printer's software. Your printer's software includes two printer drivers that support both Windows® 3.1x and Windows 95. The printer's software will automatically select the optimal printer driver based on the requirements listed below.

Minimum System Requirements

PCL Driver

- 386 processor
- 4 MB RAM (Windows 3.1*x*) or 16 MB RAM (Windows 95)
- 5 MB free disk space

Host-Based Driver

- 486 processor
- 8 MB RAM (Windows 3.1*x*) or 16 MB RAM (Windows 95)
- 10 MB free disk space
- DOS 5.0
- Bidirectional communication

Installation Considerations

Some devices (such as a switchbox, zip drive, or software key) connected between the printer and the computer may prevent the printer from sending data back to the computer. If you are using one of these devices, some of your printer's features will not be available to you, such as the status window.

During installation, if you get the message "HP LaserJet 6L printer has not been found," check the following:

- Check the power cord connections and power source.
- Make sure you are using a high-quality IEEE-1284 compliant parallel cable.
- Ensure that any devices connected between the printer and the computer (such as a switch box or zip drive) have bidirectional capabilities.

If, after checking the items listed above, you still see the "HP LaserJet 6L printer has not been found" message, click **Continue** to proceed with the PCL driver installation.

If the installation could not be successfully completed, see the Alternative Installation instructions later in this chapter.

Installing Your Printer's Software

The following section lists several different methods of installation. Use the method that is appropriate for your computer system.

Standard Installation for Windows 3.1x

This setup installs the printer software for Windows 3.1x.

- 1 Connect your HP LaserJet 6L printer to your computer using a high-quality IEEE-1284 compliant parallel cable.
- 2 Ensure the power cord is connected to the printer.
- 3 Insert Disk 1 into Drive A: (or B:).
- 4 Select File from the Program Manager and choose Run.
- 5 Type A:SETUP (or B:SETUP) and click OK.
- 6 Follow the instructions on your screen to complete the installation.
- 7 Remove the disk when the installation is complete.

Standard Installation for Windows 95

This setup installs the printer software for Windows 95.

- 1 Click Start, select Shut Down, choose Shut Down the Computer, and click Yes.
- 2 Turn off your computer.
- **3** Connect your HP LaserJet 6L printer to your computer using a high-quality IEEE-1284 compliant parallel cable.
- 4 Ensure the power cord is connected to the printer.
- 5 Turn on your computer and restart Windows 95. The "New Hardware Found" screen appears.
- Note If your computer does not display the "New Hardware Found" screen, you will need to follow these instructions: 1) Insert disk 1 into Drive A: (or B:), 2) Select **Start**, then select **Run**, 3) Type A:SETUP (or B:SETUP) and click **OK**, then 4) Follow the instructions on your screen.
 - 6 Select "Driver from Disk Provided by Hardware Manufacturer."
 - 7 Click **OK**. The "Install From Disk" screen appears.
 - 8 Insert Disk 1 into Drive A: (or B:) and click **OK**.
 - 9 Follow the instructions on your screen to complete the installation.
 - 10 Remove the disk when the installation is complete.
- Note If after installing the software and restarting Windows 95 your computer displays the screen "New Hardware Detected" and lists the HP LaserJet 6L printer, you will want to select "Do not install a driver (Windows will not prompt you again)" and click **OK**.

Custom versus Typical Installation

During installation, you may see a dialog box asking if you prefer a Typical or a Custom installation. The Typical installation installs all of the HP recommended software.

If you choose to do a Custom installation, you will be asked whether you want to install the host-based driver or the PCL driver. (See the system requirements for the PCL driver and the host-based driver.) If you meet the system requirements and your printer is connected directly to your computer, select the host-based driver. If you meet the system requirements and you are going to access the printer across a network, select the PCL driver.

You will also need to select or clear the HP LaserJet 6L Help files. Select this option if you want to include online help files for your printing software. Finally, you will be asked to select or clear TrueType Fonts. Select this option if you want to install TrueType fonts.

Note By following the Alternative Installation instructions below, the PCL driver files and some help files will be installed. This setup will not install the status window.

Caution Make sure that you quit all software that is currently running, such as Microsoft® Office Manager, virus checkers, and fax utilities.

Alternative Installation for Windows 3.1x

- 1 Quit all software that is currently running.
- 2 From the Program Manager, open the Main group.
- 3 Open the Control Panel and Printers.
- 4 Click Add. A list of printers will appear on your screen with Install Unlisted or Updated Printer highlighted.
- 5 Click Install.
- 6 Insert Disk 2 and click OK.
- 7 Follow the instructions on your screen to complete the installation.
- 8 Remove the disk when the installation is complete.

Alternative Installation for Windows 95

- 1 Quit all software that is currently running.
- 2 Click Start, then select Settings/Printers.
- 3 Double-click on Add Printer.
- 4 Click Next until you come to the List of Printer Manufacturers.
- 5 Click Have Disk.
- 6 Insert Disk 2 and click OK. The name of the printer driver will appear.
- 7 Click Next. Then click Next again.
- 8 Remove the disk when the installation is complete.

Using Online Help

When you installed your printer software, you also installed online help.
Online help contains detailed procedures that guide you through any
task you want to perform with your printer. It provides information that is
specific to the current printing task. You can access online help by
selecting Help in your HP LaserJet 6L program group.

Online help is also a troubleshooting tool. When problems occur, the quickest way to find a solution is to access your online help.

Online help supports the following software topics:

- Installation—provides installation information.
- **Overview**—summarizes information about the printer driver, the status window, and accessing online help.
- **Driver Software**—describes options available for your printer, such as number of copies and paper size.
- **Status Window**—describes options and features of your printer and gives detailed descriptions of status window messages.
- Troubleshooting—leads you through a question and answer troubleshooting scenario to determine and resolve problems.
- How Do I—provides information on printing tasks.

Note Online help will not be available if you followed the Alternative Installation instructions.

Installing Memory Cards (DRAM)



Your HP LaserJet 6L printer is capable of accepting any 70ns or faster (such as a 50ns), 5V, DRAM memory card meeting JEIDA specifications.

Hewlett-Packard offers 1-, 2-, and 4-MB DRAM memory cards.

Note

Some printer drivers have an adjustable memory setting. After installing or removing a memory card, this setting may require an adjustment to reflect the new memory total.

- 1 Unplug the power cord from the printer.
- 2 Open the Printer Door, remove the toner cartridge, and close the Printer Door. Protect the toner cartridge from light while working on the printer.
- **3** Gently tip the printer onto its side so that the memory cover is on top.
- 4 Remove the Memory Expansion Cover by placing a finger through the hole and pulling away from the printer.
- 5 Align the memory card with the corner notch so it is positioned as shown. Push it firmly into the printer.

Replace the Memory Expansion Cover, set the printer upright, reinstall the toner cartridge, load the paper, and plug the power cord back into the printer.

Print a self-test page to ensure that the printer recognizes the additional memory you have added. Your Total Memory in the "Printer Configuration" section will show the new memory total.

Printer Control Panel

Using the Front Panel

The Front Panel consists of one button and three indicator lights.



• Error (Amber)



• Data (Green)



The lights will be in one of the following states:



Off



The Front Panel

Use the Front Panel to determine the status of your printer and to accomplish the following tasks:

Status	Condition	Cause	Action
ା କ ପ୍ର ପ୍ରାର୍ଥ	No lights are on or blinking.	Printer is in SleepMode or power has been disconnected.	If you wish to print, press and release the Front Panel button or send the job to print. If no response, check the power cord.
ା କ ା ସ ■ ପ	Ready light is on steadily.	Printer is ready to print.	No action is necessary. However, if you press and release the Front Panel button, a self-test page will print.
ା କ ଜୁ ସ	Data light is on steadily and the Ready light is blinking.	Printer is receiving or processing data.	No action is necessary.
ା କ କୁ ମୁ କୁ ପ	Data light and Ready light both remain on.	Unprinted data is in the printer.	Press and release the Front Panel button to print the remaining data.
□□ \ ₩ ❹ □□ U	Data light is blinking.	Printer is in Manual Feed mode.	Check that you have loaded the correct paper. Then, press and release the Front Panel button to print.
■ \ □ 2 □ U	Error light remains on.	Printer is out of paper. Printer has a paper jam. No toner cartridge. Printer door is open.	Load paper. Clear the paper path. Install the toner cartridge. Close the printer door.
☆ 5 ○ む ○ ひ	Error light is blinking.	Page may be too complex for the printer's memory capacity.	See Chapter 4, "Troubleshooting."
	All lights are on.	Printer is indicating an internal problem.	See Chapter 4, "Troubleshooting."
1000 日 1000 日 1000 日 1000 日 1000 日 1000 1000	All three lights are flashing simultaneously.	The memory card may be slower than 70 ns.	See Chapter 4, "Troubleshooting."

Printing

Selecting Print Media

The type of media you select will affect printer performance and print quality.

Selecting Media Types

If available in your area, it is recommended that you use HP LaserJet or HP Multipurpose paper (since it has been designed specifically for use with your printer) or paper meeting HP's specifications. You can also use recycled paper when the paper meets HP's requirements. To order HP paper or the HP LaserJet Printer Family Paper Specification Guide, see "Accessories and Supplies Information" in appendix A.

Selecting Media Sizes

The Paper Input Bin can hold up to 100 sheets of 75 g/m² (20 pound) print media. The Single-Sheet Input Slot is designed to hold one sheet. Both can be adjusted to hold media measuring from 76.2 x 127 mm (3 x 5 inches) to 215.9 x 355.6 mm (8.5 x 14 inches). This includes, but is not limited to, the following paper and envelope sizes:

- Letter (8.5 x 11 in)
- Legal (8.5 x 14 in)
- A4 (210 x 297 mm)
- C5 Envelopes (162 x 229 mm)
- COM10 Envelopes (4.125 x 9.5 in)
- B5 Envelopes (176 x 250 mm)
- Executive (7.25 x 10.5 in)
- DL Envelopes (110 x 220 mm)
- Monarch Envelopes (3.875 x 7.5 in)

- Other Custom-Sized Media
- Note Insert all media lengthwise (vertically) into the printer. If you want to print horizontally (landscape), make this selection through your software. Do not print on paper smaller than 76.2 x 127 mm (3 x 5 inches).

Selecting the Output Paper Path



Caution

To avoid paper jams, do not switch the Paper Path Lever once printing begins.

- 1 Set the Paper Path Lever to the **upper position** to use the Paper Output Bin. By doing so, the sheets will stack in the correct order.
- 2 Set the Paper Path Lever to the lower position to use the Front Output Slot. This straight-through path is the best output option to print postcards, transparencies, labels, envelopes, and heavy paper (100- to 157-g/m² [28- to 42-lb] bond weight).

Caution

Do not allow more than one transparency, 20 sheets of paper, or other media to stack up in front of the Front Output Slot. A paper jam could result.

Adding Paper

When adding paper to an existing stack in the Paper Input Bin, always remove and realign all paper before reloading to avoid multiple paper feeds.

Using the Single-Sheet Input Slot



You can print one sheet of print media at a time without unloading the Paper Input Bin. To do so, you will need to load one sheet into the Single-Sheet Input Slot. The printer will take from the Single-Sheet Input Slot before it takes from the Input Bin.

Note

The Single-Sheet Input Slot is helpful when the first page of your job is different from the rest. For example, you may want the first page of your print job on letterhead, or you may want to print an envelope first.

- 1 Center the paper guides to the approximate size of the sheet you are using.
- 2 Insert one sheet of print media, print side forward and top side down, into the Single-Sheet Input Slot.
- 3 Readjust the paper guides to center the sheet.

Printing on Letterhead and Envelopes



Letterhead

- If you are printing a sheet of letterhead followed by regular sheets of paper, place a sheet of letterhead into the (A) Single-Sheet Input Slot and regular sheets of paper into the (B) Paper Input Bin. If you are printing several sheets of letterhead in succession, fill the Paper Input Bin (B) with the letterhead.
- 2 Insert the letterhead with the print side forward and the top side down.

Note

If printing on embossed or pre-printed paper, make sure the paper meets HP's paper specifications. To order the HP LaserJet Printer Family Paper Specification Guide, see "Accessories and Supplies Information" in appendix A.

Envelopes

If you are printing one envelope followed by regular sheets of paper, place the envelope into the (A) Single-Sheet Input Slot and regular sheets of paper into the (B) Paper Input Bin.

If you are printing several envelopes in succession, fill the Paper Input Bin (B) with up to 10 envelopes, depending on envelope construction and operating environment. (In some cases, you may only be able to load up to 7 envelopes, such as if you live in an area with high humidity.)

If you are printing only one envelope, use the Single-Sheet Input Slot.

- 3 Insert the envelopes print side forward as shown.
- 4 Set the Paper Path Lever to the Lower position to reduce wrinkling and curling.

Printing Tasks

Your HP LaserJet 6L printer's capabilities include duplex printing, pausing between pages, and stopping a print job. You can also reset your printer if necessary.

Printing on Both Sides (Duplexing)

When you print on both sides of a sheet, you may notice a difference in the way the printer performs. When printing on the second side, you may experience some difficulties such as getting the sheet to feed into the printer, or multiple feeds. In addition, the print quality may be different on the second side of the sheet. To minimize these problems, you will want to use paper meeting HP's paper specifications. To order HP paper or the *HP LaserJet Printer Family Paper Specification Guide*, see "Accessories and Supplies Information" in appendix A.

- 1 Print the first side of the sheet as you normally would. Some software programs include options that are useful when duplex printing such as printing just the "odd pages" or the "even pages." Consult your software user's manual.
- 2 Allow the sheet to cool and flatten before printing on the second side to get the best possible print quality.
- 3 Print the second side by placing the sheet back into the Paper Input Bin or the Single-Sheet Input Slot. Make sure the side that has already been printed is facing the back of the printer and the top edge of the paper is down, as illustrated in Figure 3-1.

Figure 3-1

Tips for Duplex Printing

- To avoid paper curl, set the Paper Path Lever to the Lower position and use the Front Output Slot for a straight-through paper path.
- To print one page at a time, select the Manual Feed option in your software to pause the printer between pages.
- Make certain that the sheet's leading edge is not bent or curled.



Pausing Your Printer Between Pages

Occasionally, you may need the printer to pause so that you can load special media, such as letterhead. If you specify Manual Feed in your software, the printer will pause before the first page and between each page you print. This will give you time to load the special media. To resume printing, press and release the Front Panel button.

- 1 In your software's printer menu or bin/tray selection, select the **Manual Feed** mode.
- 2 From your software, print the document.
- **3** The Data light will blink when the page is ready to print, indicating that the printer is paused and waiting.
- 4 After inserting the correct medium, briefly press and release the Front Panel button to print the page. The printer will take media from the Single-Sheet Input Slot first. If it does not find media in the Single-Sheet Input Slot, it will take media from the Paper Input Bin.

Resetting Your Printer

Resetting the printer accomplishes the following:

- Clears all data from the printer's memory (including unprinted data, downloaded fonts, and macros).
- Finishes printing the current page.
- Removes some error conditions.
- Resets the printer to its factory default settings.

To Reset the Printer:

Press and hold the Front Panel button until the three indicator lights begin to blink in succession (about 5 seconds), then let go of the button. After resetting, the Ready light will remain lit if no printer errors are found.

Stopping a Print Job

If the file you send to the printer is only one or two pages long, you can stop the print job by resetting the printer as described above.

If you want to stop a large print job, follow the steps below:

- 1 Remove the media from the Paper Input Bin except for any sheet that is currently being fed into the printer.
- 2 Stop and delete the print job through your software.
- 3 Reset the printer.

Printing on Special Media

Your printer is designed to print on a variety of media, including transparencies, envelopes, and custom-made paper. It is recommended that you use HP media or media meeting HP's specifications. See appendix A, "Accessories and Supplies Information" to order HP's special media or the HP LaserJet Printer Family Paper Specification *Guide*.

- 1 Set the Paper Path Lever to the Lower position to use the Front Output Slot for a straight-through paper path. This is important when printing media such as postcards, transparencies, labels, envelopes, and heavy paper (100- to 157-g/m² [28- to 42-pound] bond weight).
- 2 Adjust the paper guides to the approximate size of media you are using.
- 3 Insert the media print side forward and top side down into the Single-Sheet Input Slot or the Paper Input Bin.
- 4 Readjust the paper guides to center the media.
- 5 Set the correct margins, paper size, and orientation in your software.
- 6 Choose Print in your software.

Additional Tips for Custom Sizes

- Do not print on media smaller than 76.2 mm (3 inches) wide or 127 mm (5 inches) tall.
- Set margins of at least 6.4 mm (.25 inches) in your software.
- Always insert media lengthwise (vertically) into the printer. If you want to print in landscape mode, make this selection through your software.

Additional Tips for Transparencies

To avoid transparency curl, remove the transparency as it comes out of the printer and set it on a flat surface to cool.

Additional Tips for Printing Labels

- Do not use labels that are separating from the backing sheet or that are wrinkled or damaged in any way.
- Do not use any sheet of labels that has spaces in it where some of the labels have been removed.
- Do not feed a sheet of labels through your printer more than once.

Managing HP LaserJet Toner Cartridges

It is recommended that you use HP LaserJet toner cartridges. HP has designed the printer, toner cartridge, and toner formula to work together to give you optimal image quality from your printer. To order an HP LaserJet toner cartridge, see "Accessories and Supplies Information" in appendix A.

You can expect a toner cartridge to print approximately 2500 pages when you are printing typical business letters with text covering about 5% of the page. A page containing graphics uses more toner and shortens the life of the cartridge.

Extending Toner Life through EconoMode

An excellent way to extend the life of your toner cartridge is by using EconoMode. EconoMode uses approximately 50% less toner than normal printing. The printed image is much lighter, but is adequate for printing drafts or proofs. You can set the EconoMode option through your software (refer to online help for more information).

Extending Toner Life by Redistributing Toner

Areas of faded print are often an indicator that the toner cartridge is near the end of its toner life. You can temporarily reestablish print quality by redistributing the remaining toner in the cartridge. (This is typically successful only one time.)

- 1 Open the Printer Door and remove the toner cartridge.
- 2 Hold the toner cartridge by the handle and pull it toward you so that it slides out of the plastic grooves. (Remember to protect the cartridge from light.)
- **3** Briskly roll the toner cartridge back and forth to redistribute the toner evenly inside the cartridge.
- 4 Reinsert the toner cartridge and close the door.

Recycling Toner Cartridges

To reduce landfill waste, HP has adopted a recycling program for empty toner cartridges. A postage-paid shipping label can be found inside your HP LaserJet toner cartridge box. Up to 95% of each returned toner cartridge is recycled for use as raw materials in the manufacture of new cartridges and in other industries. To join this recycling effort, follow the instructions provided in the toner cartridge box.

Troubleshooting

Solving Common Problems

This chapter helps you solve common problems you may experience while using your printer. If you cannot resolve a problem, contact HP Customer Support for assistance. Phone numbers are listed on the support pages at the front of this manual.

Printing a Self-Test Page

A self-test page can be useful in identifying your printer's configuration and to ensure that your printer is working properly.

To print a self-test page:

- 1 Make sure that the Ready light is on and all other lights are off. If necessary, wake up the printer by briefly pressing and releasing the Front Panel button.
- 2 Now briefly press and release the Front Panel button again. The Data light will come on and the Ready light will blink. Please wait for a self-test page to print.

If the self-test page does not print, try the following:

- 1 Ensure that paper is loaded in the printer.
- 2 Check the printer indicator lights to determine the status of your printer (See "Solving Printer Problems" later in this chapter).
- **3** Contact Customer Support for assistance (refer to the support pages at the front of this manual for support options).

Clearing Paper Jams









Occasionally, paper can become jammed while printing. The following list shows some possible causes:

- The paper was loaded improperly.
- The Paper Path Lever was adjusted while a job was printing.
- The Printer Door was opened while a job was printing.
- The paper being used does not meet HP's specifications.
- The paper being used was smaller than 76.2 x 127 mm (3 x 5 inches).

To clear a paper jam:

Caution

Do not touch the black sponge roller inside your printer. Touching it may reduce the print quality on your media.

- 1 Open the Printer Door and remove the toner cartridge. Be sure to protect the toner cartridge from light while you work on the printer.
- 2 Press the Paper Release Lever.
- 3 If your paper jam is in the printer's input area, reach inside the printer and carefully pull the sheet toward you.
- 4 If your paper jam is in the printer's output area, grasp the sheet and carefully pull it upward.
- 5 After removing all sheets and fragments of paper, replace the toner cartridge and close the Printer Door.

The printer should return to a Ready state as soon as you reload the paper.

Paper Will Not Feed







If your print media does not feed into the printer, briefly press and release the Front Panel button. The printer will again attempt to feed the media. If this is unsuccessful, try the following procedure:

1 Remove the print medium from the Paper Input Bin, realign the media, and reload it into the printer.

Note

Be sure to center print media with the paper guides. Also, verify that the guides are not adjusted too tightly or too loosely against the media.

- 2 Open the Printer Door.
- **3** Remove the toner cartridge, making sure you protect it from light, and check for a paper jam.
- 4 Replace the toner cartridge and close the door.

The printer will automatically resume printing.

Cleaning Your Printer





To prevent excessive wear and preserve print quality, keep the printer free of excessive dust and debris.

Note

If you are noticing excessive amounts of toner inside your printer, your toner cartridge may be defective. It is recommended that you use HP LaserJet toner cartridges to insure high quality printing and to reduce incidents of excessive toner in your printer.

WARNING!

Before cleaning the printer, disconnect it from the power source.

Caution

Using ammonia-based cleaners on or around the printer can cause damage to the printer. Also, do not touch the black sponge roller inside the printer. By doing so, you can reduce the print quality of your media.

- 1 Clean the outside of the printer with a slightly damp cloth (use only water).
- 2 Clean the inside of the printer with a dry, lint-free cloth. Remove all dust, spilled toner, and particles of paper.

Note

If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into the fabric.

Solving Printer Problems

Use the following table to help pinpoint and solve printer problems.

Symptom	Possible Cause	Solution(s)
The printer isn't responding after "print" is selected in the software.	The printer may be paused.	Resume printing from the status window or Print Manager.
	The printer may be in Manual Feed mode (Data light blinking).	Press and release the Front Panel button.
	The parallel cable between the printer and the computer is not connected properly.	Disconnect and reconnect the parallel cable between the printer and the computer.
	The parallel cable is defective.	If possible, attach your cable to another system and print a job that you know works. You may also try using a different parallel cable (IEEE-1284).
	The wrong printer was selected in your software.	Check your software's printer selection menu to see if you selected the HP LaserJet 6L printer.
	The software for your printer is not configured for the correct printer port.	Check your software's printer selection menu to make sure it is accessing the correct printer port. If your computer has more than one parallel port, make sure the parallel cable is connected to the correct one.
	The power cord is not connected to the printer or the power source is not active.	Check the power cord connection and the power source. Try a different outlet.
	The printer is connected to a switchbox that is not set up correctly.	Check the switchbox setting. Try connecting the printer directly to the computer. The switchbox may be defective.
	The printer is malfunctioning.	If all the lights are on, the printer may be signaling a hardware error. See "All the printer's lights are on" on the following page.
The Error (top) light stays on.	The printer is out of print media.	Add paper or other print media.
	The printer door is open.	Close the door securely.
	The toner cartridge is not installed completely.	Open the door, reinstall the toner cartridge, then close the door securely.
	Paper is jammed in the printer.	See "Clearing Paper Jams" earlier in this chapter.
The Error (top) light is blinking.	The page is too complex for the printer's memory capacity or the printer may	Briefly press and release the Front Panel button to resume printing. Some data loss may occur.
	not be able to create the image fast enough to keep pace with the printing	See your printer driver Help for suggestions regarding printer memory usage.
	process.	Change your page to make it less complex by reducing resolution to 300 dpi, or add optional printer memory (see chapter 1).
Both the Data (middle) light and the Ready (bottom) light are on steadily (not blinking).	Unprinted data is in the printer. (Your software did not send an "end of job" or "form feed" command.)	Briefly press and release the Front Panel button to print the rest of the data.

Symptom	Possible Cause	Solution(s)
The Data (middle) light is blinking.	The printer is in Manual Feed mode.	Make sure the correct paper is loaded into the printer. Briefly press and release the Front Panel button to resume printing.
All the printer's lights are off and the printer does not	The printer is unplugged from the power source.	Check the power cord connections and power source. Try a different outlet.
wake it up.	The printer has malfunctioned.	Refer to the support pages on the inside front cover for support options.
All the printer's lights are on.	The printer has a hardware error.	Disconnect the printer from the power source for 10 seconds, then reconnect it. If the lights remain on, disconnect the printer from its power source again, this time reconnecting after a 15-minute wait. If all three lights come back on again, contact your HP authorized service representative.
		If you have added a memory card to your printer, remove it and check the indicator lights. See chapter 1 for adding and removing printer memory cards.
All three printer lights are flashing simultaneously.	An incompatible memory card has been installed.	Remove the incompatible memory card and replace it with a 1-, 2-, 4-, or 8-MB, 70ns or faster (such as 50ns) memory card. See chapter 1 for adding memory cards.
The printer is feeding multiple sheets or jams frequently.	Paper guides are not adjusted properly.	Remove the paper from the Paper Input Bin or the Single-Sheet Input Slot. Tap the sides of the paper stack together, then reinsert the stack. Or reinsert the single sheet into the slot. Slide the paper guides against the sides of the stack in the Paper Input Bin or against the single sheet in the Single-Sheet Input Slot to center the paper. Make sure the guides are not adjusted too tightly.
	The Paper Input Bin is too full.	Remove some of the sheets. The Paper Input Bin can hold up to 100 sheets of 75g/m ² (20-pound) bond weight paper (less for heavier paper) or up to 10 envelopes (no more than 7 envelopes for areas with climates having high humidity).
	More than one sheet was added into the Single-Sheet Input Slot.	Add only one sheet at a time into the Single-Sheet Input Slot. If printing more than one sheet of the same type of media, use the Paper Input Bin.
	The paper was poorly cut by the manufacturer and is sticking together.	"Break" the ream of paper by curving it into an upside-down u-shape; this may effectively decrease multi-feeds. You may also try turning the paper around to feed the opposite end first.
	The paper does not meet HP's specifications for print media.	Order HP's paper specification guide. To order, see appendix A, "Accessories and Supplies Information."
	The output capacity was exceeded in the Paper Output Bin or Front Output Slot.	Do not allow more than 100 sheets of 75g/m ² (20-pound) bond weight paper (less for heavier paper) to fill the Paper Output Bin. Do not allow more than one transparency or 20 sheets of other media to stack up in front of the Front Output Slot.

Solving Print Quality Problems

Use the following table to help pinpoint and solve print quality problems.

Problem	Cause	Solution(s)
Print is faded or you notice a block of	The toner cartridge may be getting low on toner.	See chapter 3, "Managing HP LaserJet Toner Cartridges."
vertically aligned white streaks.	The paper you are using may not meet HP's paper specifications (for example, it may be too moist or too rough).	Order HP's paper specification guide listed in "Accessories and Supplies Information" in appendix A.
ABC = 37 (KLM 9AB) I G IKLM 9AB I F I J K 89A 2 :F i J K 789, II € (HJK 785 E D = 3HJ 678 A 21 : GHI 567 ∪ C 1FGHI 567 ≤ B 2:FGH 4566 A 22 :FGH	Toner density setting may need to be adjusted.	Adjust the setting through your software or printer driver.
7 9, 3 00EF 3 % CDEF 8 % CDE 8 % CDE	EconoMode may be on.	Turn EconoMode off through your software or printer driver.
Stains or smudges appear as small, round, black dots on the	The paper you are using may not meet HP's paper specifications (for example, it may be too moist or too rough).	Order HP's paper specification guide listed in "Accessories and Supplies Information" in appendix A.
front or back of a page. Sometimes inconsistent stains appear.	You may be printing on the wrong side of the paper.	Remove the paper from the Paper Input Bin and turn it over. (The wrapper on many reams of paper has an arrow indicating the print side.)
an a	The printer may need cleaning.	See "Cleaning Your Printer" in this chapter.
	The toner cartridge may be damaged.	Replace it if maintenance procedures do not improve print quality. See chapter 3, "Managing HP LaserJet Toner Cartridges."
Vertically-aligned black streaks or smears appear on successive pages.	The toner cartridge may be damaged.	Replace it if maintenance procedures do not improve print quality. See chapter 3, "Managing HP LaserJet Toner Cartridges."
ABCDE [SH1] K M 9 ABCDE [GH1] K M 9 ABCDE [GH1] K 9 BACDE [GH1] K 7 8 ABCDE [GH1] K 7 8 ABCDE [GH1] 7 78 ABCDE [GH1] 5 6 7 8 96 COE [GH1] 5 6 7 8 96 COE [GH1] 5 6 7 8 96 COE [GH1] 8 6 7 8 96 COE [GH1] 9 ABCDE [GH1] 9 ABCDE [GH1] 9 ABCDE [GH1] K M 9 ABCDE [GH1] K M	The printer may need cleaning.	See "Cleaning Your Printer" in this chapter.

Problem	Cause	Solution(s)
Horizontally aligned black streaks or smears appear.	The toner cartridge may not be installed properly.	Remove the cartridge and reinsert it. See chapter 1, "Installing the HP LaserJet Toner Cartridge" for installation information.
ABCDEFGHIJKLM 9ABCDEFGHIJKLM 13000EFGHIJKLM 799ABCDEFGHIJK 799ABCDEFGHIJK 799ABCDEFGHIJK 167789ABCDEFGHI 167789ABCDEFGHI 167789ABCDEFGHI	The toner cartridge may be defective and need replacing.	The toner cartridge may still be under warranty. See "HP LaserJet Toner Cartridge Warranty" in appendix A.
B9ABCDEF B9ABCDEF B789ABCDE 6789ABCD	Printer may need repair.	See the support pages at the front of this manual for support options.
Light character	The printer may need cleaning.	See "Cleaning Your Printer" in this chapter.
repetitive marks appear on the page.	If you are using transparencies, they may not meet HP's specifications.	For ordering information, see "Accessories and Supplies Information" in appendix A.
ABCDEFGHIJKLM 9ABCDEFGHIM 9ABCDEFGHIJK 789ABCDEFGHIJK 789ABCDEFGHIJK 789ABCDEFGHIJK 6789ABCDEFGHIJ	The paper's texture may be too coarse.	Try changing to a paper with a smoother finish.
56789ABCDEFGH 56789ABCDEFGH 456789ABCDEFFG 789ABCDE 789ABCDE 6789ABCDE 6789ABCD	The toner cartridge may be damaged, causing a repetitive black flaw on every printout.	Replace the toner cartridge. See "Accessories and Supplies Information" in appendix A.
	The toner cartridge's photosensitive drum may have been overexposed to bright light, causing repetitive defects (usually a fuzzy black area).	Replace the toner cartridge. See "Accessories and Supplies Information" in appendix A.
Vertical white stripes appear on the page. ABC DE 1 HIAH MA 9A GC 2 GHL K 99 GC 1 FGHL K 99 GC 1 FGHL K 98 GC 1 FGHL K <	The printer's internal mirror is contaminated.	Contact an authorized HP service representative to replace the printer's internal mirror. See the support pages at the front of this manual for support options.
Character voids appear (white areas within the parts of characters that should be solid	If you are using transparencies, they may not meet HP's specifications.	HP's LaserJet transparencies are designed to minimize character voids. For ordering information, see "Accessories and Supplies Information" in appendix A.
black).	You may be printing on the wrong surface of the paper.	Remove the paper and turn it around. (The wrapper on many reams of paper has an arrow indicating the print side.)
	The paper may not meet HP's specifications.	Order HP's paper specification guide listed in "Accessories and Supplies Information" in appendix A.

Problem	Cause	Solution(s)
Background scatter appears on a printed page.	Background scatter results from bits of toner distributed on the front or back of a printed page. Background scatter often is isolated to a specific area of the page.	Change the paper type, weight, or surface finish. To order HP's paper specification guide, see "Accessories and Supplies Information" in appendix A. If background scatter occurs on an envelope, try moving the text to an area with no seams. Printing on seams can cause this problem. If this problem occurs on the back of a printed page, it may be caused by spilled toner inside the printer. See "Cleaning Your Printer" in this chapter.
The page is completely black.	The toner cartridge may not be installed properly.	Remove the cartridge and reinstall it. See "Installing the HP LaserJet Toner Cartridge" in chapter 1.
	The toner cartridge may be defective and need replacing.	The toner cartridge may still be under warranty. See "HP LaserJet Toner Cartridge Warranty" in appendix A.
	The printer may need to be repaired if the problem continues after replacing the toner cartridge.	See the support pages at the front of this manual for support options.
Characters are	A single sheet of paper may be defective.	Try reprinting the job.
printed (also referred to as dropouts).	The print density may need adjusting.	Adjust the print density through your software or printer driver.
ABCDEFGHIKIM 9 ACDEFCHIK 80 A COFFHIK 80 ACOFFHIK 80 ACOFFHIK 10 70 APCCEFCHI 10 70 A	The moisture content of the paper may be inconsistent or the paper may have moist or wet spots on the surface.	Use paper from a fresh ream or a different source. To order HP's paper specification guide, see "Accessories and Supplies Information" in appendix A.
	The paper may have been damaged by inconsistent manufacturing processes.	Try using paper from a different source. To order HP's paper specification guide, see "Accessories and Supplies Information" in appendix A.

Problem	Cause	Solution(s)
The bottom of the page is blank or part of a	Your page may be too complex for the standard printer memory.	Set the resolution to 300 dpi through your software or printer driver.
graphic's image is cut off.		You may need to install additional memory. See chapter 1, "Installing Memory Cards (DRAM)."
BABCDEFOHIJK 9ABCDEFOHIJK 759ABCDEFOHIJK 759ABCDEFOHIJK 739ABCDEFOHIJK		Check your printer driver's online help for suggestions that are specific to your driver's settings.
Pages are coming out of the printer curled or wrinkled.	Paper is curled or wrinkled when using the Paper Output Bin.	Use the Front Output Slot by pushing the Paper Path Lever to the lower position. This provides the straightest paper path. See "Selecting the Output Paper Path" in chapter 3.
		Use the Paper Input Support located behind the Paper Input Bin. See "Loading the Paper into the Printer" in chapter 1.
	Paper may not be stored properly.	Whenever possible, store paper in its sealed ream at room temperature.
Blank Page (Occasional)	Page length and margins are not set correctly for the paper size.	If you are printing on small paper and your page is blank, try printing on larger paper to see where the image is printing. Adjust the margins accordingly.
	Some sharing devices or networks may generate a blank page as a separator (contact your Network Administrator).	If you are on a network, try connecting the printer directly to the computer.
	Your printer may be feeding two or more sheets of paper at a time because the paper is difficult to separate.	Remove the paper from the Paper Input Bin and align the edges of the paper. "Break" the ream of paper by curving it into an upside-down u-shape; this may effectively decrease multi-feeds. You may also try turning the paper around to feed the opposite end first.
	Your software application may be sending an extra page-eject command.	Check your software's printing configuration information. If you are using a word-processing program, check for a natural page break and a forced page break that are close to each other.

Problem	Cause	Solution(s)
Blank Pages (All Pages)	The toner cartridge may be improperly installed.	Make sure you removed the entire length of the sealing tape from the toner cartridge before you installed it. See "Installing the HP LaserJet Toner Cartridge" in chapter 1.
	The toner cartridge may be completely out of toner.	Replace the toner cartridge. See "Accessories and Supplies Information" in appendix A.
	The printer may need to be serviced.	Try printing a self-test page as described earlier in this chapter. If the page is still blank, the printer may need service. See the support pages at the front of this manual for support options.
Print is misaligned on	The Paper Input Bin may be too full.	Try removing some of the paper.
the page (Skewed pages).	The paper guides may not be adjusted properly.	Be sure to center the paper with the paper guides. Also, verify that the guides are not adjusted too tightly or too loosely against the paper.
	The paper's weight or surface finish may not meet HP's specifications.	To order HP's paper specification guide, see "Accessories and Supplies Information" in appendix A.

Solving Software Problems

If you are having installation problems, check the following table. Also, you can refer to online help by selecting Help on your menu bar.

Installation Tips		
Symptoms	Solution(s)	
Window message during installation reads: "File in Use."	Quit all software. Remove all software from the Startup group and then restart Windows. Reinstall the printer drivers.	
Cannot install the printer drivers.	Try the Alternative Installation as described in chapter 1.	
Bidirectional communication has not been established during installation.	The cable is not bidirectional. Use only a high-quality IEEE-1284 compliant parallel cable. The cable is loose, or not directly connected. In Windows 3.1 <i>x</i> open the Control Panel and Printers . Select HP LaserJet 6L and click Connect . Be sure that the correct port has been selected and that "Fast Printing Direct to Port" is checked. Note: If any of the above apply, choose skip and continue installation.	
Your computer cannot read the installation disks.	Check for the proper floppy drive (e.g., A: or B:). Check the disks for damage. Copy disks to the hard drive; then install from your hard drive.	

	Printing Tips		
Printer is printing too slowly (PCL driver only).	In your printer software, select the Print Quality tab, then select Manual Settings . Click Settings , then choose HPGL/2 under the Graphics mode. Select 300 DPI under the Print Quality tab in your printer software.		
Window message reads: "Out of memory, unable to print" (Host-based only).	Run HPWPRS.EXE in the directory C:\windows. Then, reboot.		
All Front Panel lights remain on when printing from spreadsheet software.	In your printer driver settings, select the Print Quality tab, then select Manual Settings . Click Settings , then choose HPGL/2 under the graphics mode (PCL driver only). Note: In your spreadsheet software this change must be made under "Page Setup."		
Printer is not responding; the system is locked up.	Free up disk space on your computer or defragment the drive. Enable "Print Manager in Windows 3.1x systems" on your PC. Run fewer software programs at the same time on your PC. Do not perform I/O or processor-intensive tasks on your PC while printing (e.g., sending a fax or playing a video).		
Window message reads: "No Toner or Door Open."	Check the toner cartridge for proper installation. Make sure the Printer Door is closed. Reset the printer by unplugging the power cord and then plugging it back into the outlet.		

Solving Hard-to-Resolve Problems

The following instructions will help you troubleshoot Windows printing problems using DOS.

Note Before troubleshooting from DOS, make sure your printer can print a self-test page. (See "Printing a Self-Test Page" earlier in this chapter.)

To establish basic communication to the printer, follow the steps below:

- 1 Exit Windows 3.1*x*. If in Windows 95, choose **Start**, **Shut Down**, and **Restart the computer in MS-DOS**® **mode**, respectively.
- 2 At the command prompt (for example, c:\), type: **Dir>PRN** and press **ENTER**. This will send a directory of your hard drive to the printer.
- 3 See the chart below for recommended solutions.

Printer Status	Response	Solution(s)
Both the Data light and the Ready light are on steadily (not blinking).	Command prompt (c:\) returned.	Press the Front Panel button. You will receive a printout of your hard drive's directory. Communication verified; return to Windows.
Data light comes on; Ready light flashes.	Command prompt (c:\) returned.	No action is needed. Communication has been verified; return to Windows.
Printer is not responding.	Flashing cursor; command prompt (c:\) not returned; keyboard locked up.	Verify that the Ready light is on. Hold down CTRL , then press and release Break to free the keyboard. Disconnect, then reconnect the cable at both ends. Reboot your computer. Ensure a direct connection to the printer. Try using a different parallel cable (IEEE-1284), parallel port, or both.
Printer is not responding.	DOS Message: "Write fault error writing device PRN."	Verify that the Ready light is on. Specify the port name when sending directory (for example, LPT1). Verify that the power cord and the parallel cable are plugged into the proper ports. Disconnect, then reconnect the cable at both ends. Ensure a direct connection to the printer. Try using a different parallel cable (IEEE-1284), parallel port, or both.
Printer is not responding.	Command prompt (c:\) returned.	Disconnect, then reconnect the parallel cable at both ends. Ensure a direct connection to the printer. Hold down CTRL , then press and release Break to free the keyboard. Try using a different parallel cable (IEEE-1284), parallel port, or both.

4 Troubleshooting

Printer Status	Response	Solution(s)
Data light comes on; Ready light flashes. Printed text is not legible, or random characters are occurring on the page.	Command prompt (c:\) returned.	Disconnect, then reconnect the parallel cable at both ends. Ensure a direct connection to the printer. Try using a different parallel cable (IEEE-1284), parallel port, or both.
Data light comes on; Ready light flashes. Only one line of text prints or all text is on one line.	Command prompt (c:\) returned.	Disconnect, then reconnect the parallel cable at both ends. Ensure a direct connection to the printer. Try using a different parallel cable (IEEE-1284), parallel port, or both.
Text files will print. Graphic files do not print or print garbage.	No error messages. All appears ok.	Disconnect, then reconnect the parallel cable at both ends. Ensure a direct connection to the printer. If copying a graphic file, type the following command at the command prompt: copy <i>filename</i> LPT1 where <i>filename</i> is the name of the graphic file. (Be sure to leave a space before and after the file name.) Try using a different parallel cable (IEEE-1284), parallel port, or both.

Networks and Switchboxes

The printer's status read-back feature requires a direct connection between the printer and the computer. Most devices connected between the printer and the host computer prevent the printer from sending data back to the computer.

If you use a mechanical switchbox, follow these guidelines:

- Do not switch while the printer is printing or receiving data (when the Ready light is blinking).
- Do not switch to a host computer that is OFF and then turn that computer ON. The Ready light on the printer will blink as if the computer is sending data. If the Error light is blinking, reset the printer. To do so, press and hold the Front Panel button for five seconds, then send the job again.
- Use a surge protector.

Out of Memory

If the Error light is blinking, the page may be too complex for the printer's memory capacity. To clear this error, briefly press and release the Front Panel button. Printing will resume; however, some data loss may occur. To avoid this error in the future:

- Reset the printer. To do so, press and hold the Front Panel button for five seconds.
- See your online help for more suggestions regarding printer memory usage.
- Reduce resolution to 300 dpi with your software.
- Install additional printer memory. See chapter 1, "Installing Memory Cards (DRAM)," for information on installing additional memory.

Warranty and Support Information

HP Limited 1-Year Warranty Statement

- 1 HP warrants to you the end-user customer, that HP hardware, accessories and supplies, will be free from defects in materials and workmanship after the date of purchase, for the period specified above. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective.
- 2 HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for the period specified above, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software media which does not execute its programming instructions due to such defects.
- **3** HP does not warrant that the operation of HP products will be uninterrupted or error free. HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, you will be entitled to a refund of the purchase price upon prompt return of the product.
- 4 Warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.
- 5 ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY SET FORTH ABOVE. Some states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This warranty gives you specific legal rights and you might also have other rights that vary from state to state, province to province, or country to country.
- 6 THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Hardware Service during the Warranty Period

If your hardware should fail during the warranty period, HP offers the following support options:

- Express Exchange (available in the U.S. and Canada only): HP provides a printer (remanufactured to like new condition) to you on the next working day.
- HP Authorized Service Provider: You can return your printer to a local authorized service dealer.
- HP Repair Services: You can return your printer to an HP repair office.

When sending equipment, we recommend insuring the equipment for shipment. Also include a copy of your proof of purchase.

Caution Shipping damage as a result of inadequate packaging is the customer's responsibility. Use the original packing materials whenever possible.

For technical support assistance regarding your printer within the one-year warranty period, see the support pages at the front of this manual.

Hardware Service after the Warranty Period

If your hardware fails after the warranty period, contact an authorized Hewlett-Packard Dealer Repair Center or a designated Hewlett-Packard Repair Center. If you have a Hewlett-Packard Maintenance Agreement, request service under your agreement.

HP LaserJet Toner Cartridge Warranty

HP LaserJet toner cartridges are warranted to be free from defects in materials and workmanship until the HP toner is depleted. You know your HP toner is depleted when you begin to see faded or light type on your printed page.

The warranty, extended for the life of the cartridge, covers any defects or malfunctions in your new Hewlett-Packard toner cartridge. HP will, at HP's option, either replace products which prove to be defective or refund your purchase price.

In the event the cartridge proves to be defective, attach a printout sample illustrating what the defective cartridge is printing and return to the place of purchase.

IN NO EVENT SHALL HEWLETT-PACKARD COMPANY BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES OR LOST PROFITS FROM ANY BREACH OF THIS WARRANTY OR OTHERWISE.

Accessories and Supplies Information

The following table lists items that are available from HP Direct Ordering and through your local authorized HP dealer.

- For most items, call HP Direct Ordering at (800) 538-8787 (U.S.). To order HP LaserJet paper, call (800) 471-4701.
- To find a dealer near you (or if your dealer is temporarily out of stock), call the HP Customer Information Center (800) 752-0900.
- For ordering information outside of the U.S., see "Worldwide Sales and Service Offices" in this appendix.

Option	Part Number
HP LaserJet Printer Family Paper Specification Guide	5002-1801
HP LaserJet toner cartridge	C3906A C3906F (Asia only)
HP LaserJet parallel printer cable (IEEE-1284) Two meter A to B: Three meter A to B:	C2950A C2951A
1 MB Memory Upgrade 2 MB Memory Upgrade 4 MB Memory Upgrade	C3939A HP Jeida Memory Card C3938A HP Jeida Memory Card C3148A HP Jeida Memory Card
Transparencies Letter A4	C2934A C2936A
Labels	92296A - H/J/K Various Sizes
HP MultiPurpose Paper HP LaserJet Paper	HPM 1120 - High bright, 20 lb., 8.5 x 11 inch HPJ 1124 - Extra bright, 24 lb., 8.5 x 11 inch

HP Software License Agreement

ATTENTION: USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS SET FORTH BELOW. USING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE LICENSE TERMS.

HP SOFTWARE LICENSE TERMS

The following License Terms govern your use of the accompanying Software unless you have a separate written agreement with HP.

License Grant. HP grants you a license to Use one copy of the Software. "Use" means storing, loading, installing, executing or displaying the Software. You may not modify the Software or disable any licensing or control features of the Software. If the Software is licensed for "concurrent use", you may not allow more than the maximum number of authorized users to Use the Software concurrently.

Ownership. The Software is owned and copyrighted by HP or its third party suppliers. Your license confers no title or ownership in the Software and is not a sale of any rights in the Software. HP's third party suppliers may protect their rights in the event of any violation of these License Terms.

Copies and Adaptations. You may only make copies or adaptations of the Software for archival purposes or when copying or adaptation is an essential step in the authorized Use of the Software. You must reproduce all copyright notices in the original Software on all copies or adaptations. You may not copy the Software onto any bulletin board or similar system.

No Disassembly or Decryption. You may not disassemble or decompile the Software unless HP's prior written consent is obtained. In some jurisdictions, HP's consent may not be required for disassembly or decompilation. Upon request, you will provide HP with reasonably detailed information regarding any disassembly or decompilation. You may not decrypt the Software unless decryption is a necessary part of the operation of the Software.

Transfer. Your license will automatically terminate upon any transfer of the Software. Upon transfer, you must deliver the Software, including any copies and related documentation, to the transferee. The transferee must accept these License Terms as a condition to the transfer.

Termination. HP may terminate your license upon notice for failure to comply with any of these License Terms. Upon termination, you must immediately destroy the Software, together with all copies, adaptations and merged portions in any form.

Export Requirements. You may not export or re-export the Software or any copy or adaptation in violation of any applicable laws or regulations.

U.S. Government Restricted Rights. The Software and documentation have been developed entirely at private expense and are provided as "Commercial Computer Software" or "restricted computer software." They are delivered and licensed as "commercial computer software" as defined in DFARS 252.227-7013 (Oct 1988), DFARS 252.211-7015 (May 1991) or DFARS 252.227-7014 (Jun 1995), as a "commercial item" as defined in FAR 2.101 (a), or as "Restricted computer software" as defined in FAR 52.227-19 (Jun 1987) (or any equivalent agency regulation or contract clause), whichever is applicable. You have only those rights provided for such Software and Documentation by the applicable FAR or DFARS clause or the HP standard software agreement for the product.

Worldwide Sales and Service Offices

Hewlett-Packard products are sold and supported worldwide through Hewlett-Packard Sales and Service Offices and through dealers. There are more than 240 Hewlett-Packard Sales and Service Offices worldwide.

Argentina: Hewlett-Packard Argentina Montañeses 2140/50/60 1428 Buenos Aires Phone: (54 1) 787-7100 Fax: (54 1) 787-7213	Australia: Hewlett-Packard Australia Ltd. 31-41 Joseph Street Blackburn, VIC 3130 Phone: (61 3) 272-2895 Fax: (61) 3/898-7831 Hardware Repair Center and Extended Warranty Support: 131047 Customer Information Center: 131347	Before calling an HP Sales and Service office, be sure to contact the appropriate Customer Support Center number listed in the front of your manual.
Austria: Hewlett-Packard GmbH PO Box 72 Lieblgasse 1 A-1222 Wien Phone: (43) 1-25 000-0 Fax: (43) 1-25 000-444	Belgium: Hewlett-Packard Belgium SANV Boulevard de la Woluwe 100 Woluwedal B-1200 Bruxelles Phone: (32 2) 761-31-11 Fax: (32 2) 763-06-13	Canada: Hewlett-Packard (Canada) Ltd. 17500 Trans Canada Highway South Service Road Kirkland, Québec H9J 2X8 Phone: (514) 697-4232 Fax: (514) 697-4232 Fax: (514) 697-6941 Hewlett-Packard (Canada) Ltd. 5150 Spectrum Way Mississauga, Ontario L4W 5G1 Phone: (905) 206-4725 Fax: (905) 206-4739
Brazil: Edisa Hewlett-Packard SA Av. Do Contorno, 6321 12° andar 30110-110—Belo Horizonte—MG Phone: (55 31) 221-8845 Fax: (55 31) 221-8836	China: China Hewlett-Packard Co. Ltd. Level 5, West Wing Office China World Trade Center No. 1, Jian Guo Men Wai Avenue Beijing 100004 Phone: (86 1) 505-3888, ext. 5450 Fax: (86 1) 505-1033 Hardware Repair Center and Extended Warranty Support: (8610) 6262-5666 ext. 6101/2 6261-4167	Czech Republic: Hewlett-Packard S.R.O. Novodvorská 82 CZ-14200 Praha 4 Phone: (42 2) 613 07 111 Fax: (42 2) 47 17 611
Denmark: Hewlett-Packard A/S Kongevejen 25 DK-3460 Birkerød Phone: (45 45) 99 10 00 Fax: (45 42) 81 58 10	Far East Region: Hewlett-Packard Asia Pacific Ltd. 17-21/F Shell Tower, Times Square 1 Matheson Street, Causeway Bay Hong Kong SAR Phone: (852) 2599-7777 Fax: (852) 2506-9244 Hardware Repair Center: (852) 2599-7000 Extended Warranty Support: (852) 2599-7000 Customer Information Center: (852) 2599-7066	Finland: Hewlett-Packard Oy Piispankalliontie 17 FIN-02200 Espoo Phone: (358 0) 887 21 Fax: (358 0) 887 2477
France: Hewlett-Packard France 42 Quai du Point du Jour F-92659 Boulogne Cedex Phone: (33) 146/10 17 00 Fax: (33) 146/10 17 05	Germany: Hewlett-Packard GmbH Herrenberger Strasse 130 71034 Böblingen Phone: 0180-5326222 0180-5258143 Fax: 0180 5316122	Greece: Hewlett-Packard Hellas 62, Kifissias Avenue GR-15125 Maroussi Phone: (30) (1) 68 96 411 Fax: (30 1) 68 96 508

Hungary: Hewlett-Packard Magyarorszag Erzsebet kiralyne utja 1/c H-1146 Budapest Phone: (36 1) 122-7411 (36 1) 252-4505 Fax: (36 1) 122-3692	India: Hewlett-Packard India Ltd. Paharpur Business Centre 21 Nehru Place New Delhi 110 019 Phone: (91 11) 6472311 Fax: (91 11) 6461117 Hardware Repair Center and Extended Warranty Support: (011) 6425073	Italy: Hewlett-Packard Italiana SpA Via Giuseppe di Vittorio, 9 Cernusco Sul Naviglio I-20063 (Milano) Phone: (39 2) 92 12 1 Fax (39 2) 921 044 73
Japan: Hewlett-Packard Japan, Ltd. 3-29-21 Takaido-higashi Suginami-ku, Tokyo 168 Phone: (81 3) 3331-6111 Fax: (81 3) 3335-1478 Hardware Repair Center: 0473-55-6660	Korea: Hewlett-Packard Korea 25-12, SHP House Yoido-dong, Youngdeungpo-ku Seoul 150-010 Phone: (82 2) 769-0114 Fax: (82 2) 784-7084 Hardware Repair Center: (02) 3270-0710 Extended Warranty Support: (82 2) 3770-0365, 3770-0359	Latin American Headquarters: 5200 Blue Lagoon Drive Suite 950 Miami, FL 33126 U.S.A. Phone: (305) 267-4220
México, D.F.: Hewlett-Packard de México, SA de CV Prolongación Reforma No. 700 Lomas de Santa Fe 01210 México, DF Phone: (52 5) 326-4600 Fax: (52 5) 326-4274	México, Guadalajara: Hewlett-Packard de México, SA de CV Monte Morelos No. 299 Fracc. Loma Bonita 45060 Guadalajara, Jal. Phone: (52 3) 669-9302 Fax: (52 3) 669-9560	México Monterrey: Hewlett-Packard de México, S.A. de C.V. Batallón de San Patricio 111 Piso 23-Torre Comercial América Colonia del Valle 66269 Garza Garcia, Nuevo León Phone: (52 8) 368-5100 Fax: (52 8) 356-7498
Middle East/Africa: ISB HP Response Center Hewlett-Packard SA Rue de Veyrot 39 P.O. Box 364 CH-1217 Meyrin - Geneva Switzerland Phone: (41) 22 780 41 11	Netherlands: Hewlett-Packard Nederland BV Startbaan 16 NL-1187 XR Amstelveen Postbox 667 NL-1180 AR Amstelveen Phone: (31 20) 547 69 11 Fax: (31 20) 547 77 55	New Zealand: Hewlett-Packard (NZ) Limited Ports of Auckland Building Princes Wharf, Quay Street PO Box 3860 Auckland Phone: (64 9) 356-6640 Fax: (64 9) 356-6620 Hardware Repair Center and Extended Warranty Support: 0800 733 547 Customer Information Center: 0800-651-651
Norway: Hewlett-Packard Norge A/S Postboks 60 Skøyen Drammensveien 169 N-0212 Oslo Phone: (47) 22 73 56 00 Fax: (47) 22 73 56 10	Poland: Hewlett-Packard Polska ul.Newelska 6 PK-01-447 Warszawa Phone: (48) 22 375065 Fax: (48) 22 374783	Portugal: Hewlett-Packard Portugal Rua Gregório Lopes Lote 1732B P-1400 Lisboa Phone (351 1) 3017330 Fax: (351 1) 3017345
Russia: AO Hewlett-Packard Business Complex Building #2 129223, Moskva, Prospekt Mira VVC Phone: (7 095) 928-6885 Fax: (7 095) 974-7829	Singapore: H-P Singapore (Pte), Ltd. 150 Beach Road #29-00 Gateway West Singapore 0718 Phone: (65) 291-9088 Fax: (65) 292-7089 Hardware Repair Center and Customer Information Center: (65) 272-5300 Extended Warranty Support Contact: (65) 3743173	Spain: Hewlett-Packard Española, SA Carretera de la Coruña km 16.500 E-28230 Las Rozas, Madrid Phone: (34 1) 626 16 00 Fax (34 1) 626 18 30

Sweden: Hewlett-Packard Sverige AB Skalholtsgatan 9, Box 19 S-164 93 Kista Phone: (46 8) 444-2000 Fax: (46 8) 444-7781	Switzerland: Hewlett-Packard (Schweiz) AG In der Luberzen 29 CH-8902 Urdorf/Zürich Phone: (41) 1/753 71 11 Fax: (41) 1/753 77 00	Taiwan: Hewlett-Packard Taiwan Ltd. 8th Floor 337, Fu-Hsing North Road Taipei, 10483 Phone: (886 2) 712-0404 Fax: (886 2) 715-3107 Hardware Repair Center: 02-717-9673 (North Taiwan) 04-327-0153 (Central Taiwan) 080-733-733 (South Taiwan) Extended Warranty Support Contact: 080 211-666
Thailand: Hewlett-Packard (Thailand) Ltd. 11th Floor Pacific Place 140 Sukhumvit Road Bangkok 10110 Phone: (66 2) 254-6720 Fax: (66 2) 254-6731 Hardware Repair Center: (66 2) 661-3900/1/2 ext 6001 ext 6002 Extended Warranty Support Contact: (66 2) 661-3900/1/2 ext 5125 Customer Information Center: (66 2) 661-3900/1/2 ext 3232	Turkey: Hewlett-Packard Company Bilgisayar Ve Ölçüm Sistemleri AS 19 Mayis Caddesi Nova Baran Plaza Kat: 12 80220 Sisli-Istanbul Phone: (90 212) 224 59 25 Fax: (90 212) 224 59 39	United Kingdom: Hewlett-Packard Ltd. Cain Road Bracknell Berkshire RG12 1HN Phone: 01 334 369222 Fax: 01 344 363344
Venezuela: Hewlett-Packard de Venezuela CA Los Ruices Norte 3A Transversal Edificio Segre Caracas 1071 Phone: (58 2) 239 42 44 Fax: (58 2) 239 30 80		

Printer Specifications

Printer Specifications

Environmental Specifications	
Operating Environment	(Printer plugged into an AC outlet): Temperature: 10 °C to 32.5 °C (50 °F to 90.5 ° F) Humidity: 20%-80% (no condensation)
Storage Environment	(Printer unplugged from the AC outlet): Temperature: 0 °C to 40 °C (32 °F to 104 °F) Humidity: 10%-80% (no condensation)
Noise Level	During printing: 5.5 Bels Sound Power Level (per ISO 9296) During Standby and SleepMode: silent
Electrical Specifications	
Power Requirements	100-120 v (+/-10%), 50/60 Hz (+/- 2); 127 v NOM, 6C 220 v (+/-10%), 50/60 Hz (+/- 2 Hz) 240 v (+/-10%), 50 Hz (+/- 2 Hz)
Power Consumption	During printing: 120 W (average) During standby or SleepMode: 5 W
Minimum Recommended Circuit Capacity	4.5 A @ 115 V, 2.0 A @ 230 V
Physical Specifications	
Dimensions: Width Depth Storage Height Operating Height (Letter Height)	335.2 mm (13.2 in) 312.4 mm (12.3 in) 228.6 mm (9.0 in) 370.8 mm (14.6 in)
Weight (Cartridge Installed)	7.0 kg (15.5 lb)
Print speed	6 pages per minute
Paper Input Bin capacity	Holds up to 100 sheets of regular weight paper or up to 10 envelopes
Paper Output Bin capacity	Holds up to 100 sheets
Front Output Slot capacity	Stack 1 transparency or up to 20 sheets of other media in front of the Front Output Slot
Minimum paper size	76.2 x 127 mm (3 x 5 in)
Maximum paper size	215.9 x 355.6 mm (8.5 x 14 in)
Base memory	2 MB of ROM and 1 MB of RAM
Upgradable Memory Expansion	One slot available for a 1-, 2-, 4-, or 8-MB, 70ns or faster, 5 V JEIDA card
Print Resolution	600 dots per inch (dpi)
Duty Cycle	6000 single-sided pages per month

Regulatory Information

VCCI Statement (Japan)

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準 に基づく第二種情報技術装置です。この装置は、家庭環境で使用することを 目的としていますが、この装置がラジオやテレビジョン受信機に近接して使 用されると、受信障害を引き起こすことがあります。 取り扱い説明書に従って正しい取り扱いをして下さい。

The VCCI statement, similar to the FCC regulations, is required in Japan.

Laser Statement for Finland

LASERTURVALLISUUS

LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

HP LaserJet XXXX -laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalissa käytössä kirjoittimen suojakotelointi estää lasersäteen pääsyn laitteen ulkopuolelle.

Laitteen turvallisuusluokka on määritetty standardin EN 60825 (1991) mukaisesti.

VAROITUS !

Laitteen käyttäminen muulla kuin käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING !

Om apparaten används på annat sätt än i bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

<u>HUOLTO</u>

HP LaserJet XXXX -kirjoittimen sisällä ei ole käyttäjän huollettavissa olevia kohteita. Laitteen saa avata ja huoltaa ainoastaan sen huoltamiseen koulutettu henkilö. Tällaiseksi huoltotoimenpiteeksi ei katsota väriainekasetin vaihtamista, paperiradan puhdistusta tai muita käyttäjän käsikirjassa lueteltuja, käyttäjän tehtäväksi tarkoitettuja ylläpitotoimia, jotka voidaan suorittaa ilman erikoistyökaluja.

VARO !

Mikäli kirjoittimen suojakotelo avataan, olet alttiina näkymättömälle lasersäteilylle laitteen ollessa toiminnassa. Älä katso säteeseen.

VARNING !

Om laserprinterns skyddshölje öppnas då apparaten är i funktion, utsättas användaren för osynlig laserstrålning. Betrakta ej strålen.

Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista:

Aallonpituus 770-795 nm

Teho 5 mW

Luokan 3B laser

Environmental Product Stewardship

Hewlett-Packard has created the Environmental Product Stewardship program on a corporate-wide level to ensure that HP products conform to national and worldwide environmental standards.

Protecting the Environment

Hewlett-Packard Company is committed to providing quality products in an environmentally-sound manner. This HP LaserJet printer has been designed with several attributes to minimize impacts on our environment.

This HP LaserJet printer design eliminates:

Ozone production

This HP LaserJet printer does not use high-voltage corona wires in the electrophotographic process. Instead, it uses charging rollers in the toner cartridge and in the print engine. Therefore, this printer does not generate appreciable ozone gas (O₃).

CFC usage

Ozone-depleting chemicals (Chloroflorocarbons, for example) have been eliminated from the manufacturing sites of this printer. CFCs are not used in the manufacturing of the packaging.

This HP LaserJet printer design reduces:

• Energy consumption

Energy usage drops from an average of 120W during printing to as little as 5W while in Standby/Sleep mode. Not only does this save natural resources, but it also saves money without affecting the high performance of this printer. This product qualifies for the United States Environmental Protection Agency's ENERGY STAR Program. ENERGY STAR is a voluntary program established to encourage the development of energy-efficient office products.

As an ENERGY STAR partner, Hewlett-Packard Company has determined that this product meets ENERGY STAR Guidelines for energy efficiency.

Toner consumption

EconoMode uses about 50% less toner thereby extending the life of the toner cartridge.

Paper use

This printer allows manual duplexing (two-sided printing) and this reduces paper usage and the resulting demands on natural resources.

Transportation fuel consumption and emissions

HP LaserJet printers are shipped from manufacturing sites to distribution centers in bulk packs. Because more printers can fit on each pallet, fuel consumption and emissions are reduced.

HP LaserJet Printer: Worldwide Recycling

Plastics

Major plastic parts have markings which enhance the ability to identify and recycle the materials at the end of the printer's life.

Manuals

The manuals are printed on recycled paper using vegetable-based inks without added heavy metals. Therefore, the manuals are recyclable.

Paper

This printer is suited for the use of recycled papers that meet the HP LaserJet Printer Family Paper Specification Guide. See Appendix A for part numbers and ordering information.

HP LaserJet Printer: U.S.A. Recycling

Toner cartridges

Each HP LaserJet Toner Cartridge box sold in the U.S. contains instructions and a shipping label for returning the cartridge to HP for recycling. HP pays the postage.

Printer and parts

HP's Hardware Recycling Organization will take back this printer and other HP products when you have no further use for them. HP disposes of these products in an environmentally-sound manner. Many of the functional parts are recovered, tested, and reused as fully warranted service parts (used parts are not used in new product manufacturing). The remainder of the product parts are recycled if possible. Call (800) 535-7933 for this service

Laser Safety Statement

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration has implemented regulations for laser products manufactured since August 1, 1976. Compliance is mandatory for products marketed in the United States. This printer is certified as a "Class 1" 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. Since radiation emitted inside this printer is completely confined within protective housings and external covers, the laser beam cannot escape during any phase of normal user operation.

WARNING! Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

DECLARATION OF CONFORMITY according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name:	Hewlett-Packard Company
Manufacturer's Address:	11311 Chinden Boulevard Boise, Idaho 83714-1021, U.S.A.
declares that the product	
Product Name:	HP LaserJet 6Lprinter, Laser Printer
Model Number:	C3990A
Product Options:	All
conforms to the following Pro	oduct Specifications:
Safety:	IEC 950: 1991+A1+A2+A3/EN 60950: 1992+A1+A2+A3 IEC 825-1:1993/EN 60825:1994 Class 1 (Laser/LED)
EMC:	CISPR 22:1993+A1 / EN 55022:1994 Class B1

EN 50082-1:1992 IEC 801-2:1991 / prEN 55024-2:1992-IEC 801-3:1984 / prEN 55024-3:1991-IEC 801-4:1988 / prEN 55024-4:1992-0.5 kV Signal Lines 1.0 kV Power Lines

IEC 1000-3-2.1995 / EN61000-3-2.1995 IEC 1000-3-3:1994 / EN61000-3-3:1995 FCC Title 47 CFR, Part 15 Class B² / ECES-003, Issue 2/VCCI-2¹ AS/NZS 3548:1992/CISPR 22:1993 Class B¹

Supplementary Information:

The product herewith complies with the requirements of the following Directives and carries the CE-marking accordingly.

- the EMC Directive 89/336/EEC
- the Low Voltage Directive 73/23/EEC

The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.
 This Device complies with Part 15 of the FCC rules. Operation is subject to the following conditions:

 this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

December 1, 1996

For Compliance Information ONLY, contact:

Australia Contact:	Product Regulations Manager, Hewlett-Packard Australia Ltd., 31-41 Joseph
	Street, Blackburn, Victoria 3130, Australia
	(Phone: 61 3- 272-2895; Fax: 613-898-7831)
European Contact:	Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH,
	Department HQ-TRE/Standards Europe, Herrenberger Strabe 130,
	D-71034 Böblingen (FAX: 49-7031-14-6429)
USA Contact:	Product Regulations Manager, Hewlett-Packard Company,
	P.O. Box 15, MS 160, Boise, ID 83707-0015 (Phone: 208-396-6000)

INDEX

A

accessories, ordering A-3 adding paper 1-5, 3-2 adjusting paper guides 3-7 alternative installation 1-8 ammonia 4-4

В

blank pages 4-10, 4-11 buttons SEE control panel

С

cables SEE parallel cables canceling a print job 3-6 CFCs (Chloroflorocarbons) B-4 character shadows 4-8 Chloroflorocarbons (CFCs) B-4 cleaning printer 4-4 clearing data 3-6 clearing paper jams 4-2 clothing, removing toner 4-4 common problems SEE troubleshooting connecting parallel cable 1-3 power cord 1-3 control panel indicator lights 2-1 tasks 2-2 troubleshooting 4-5 using 2-1 curling envelopes 3-4 reducing 3-7, 4-10 transparencies 3-7 when duplexing 3-5 custom installation 1-8 custom sized media 3-1 custom sized paper, printing 3-7

D

data clearing 3-6 unprinted 4-5 data light SEE indicator lights status 2-1 Declaration of Conformity B-7 default settings 3-6 deleting print job 3-6 disk space requirements 1-6 double sided printing 3-5 SEE duplex printing DRAM SEE memory cards DRAM memory cards 1-10 dropouts 4-9 duplex printing 3-5 SEE duplexing duplexing 3-5 avoiding curls 3-5 multiple paper feeds 3-5 paper jams 3-5 tips 3-5

duty cycle B-1 EconoMode 3-8 energy consumption B-1, B-4 Energy Star compliance B-4 envelopes 3-1 output options 3-2 size 3-1 sizes 3-1 wrinkling 3-4 environment operating B-1 protecting B-4 storage B-1 Environmental Product Stewardship B-4 error conditions, removing 3-6 Error Light 2-1 SEE indicator lights stays on 1-3 error messages, windows 4-12 executive paper size 3-1 Express Exchange A-2

F

faded print 3-8 Front Output Slot capacity B-1 identifying 1-1 using 3-2 front panel *SEE* control panel Front Panel Button identifying 1-1, 2-2 testing 1-5 using 2-2

G

graphics, printing problems 4-10 guides, paper 1-5 н hardware error 4-5 hardware requirements SEE system requirements help SEE online help help files, selecting 1-8 HP Customer Information Center A-3 HP Direct Ordering A-3 HP LaserJet Paper, ordering A-3 HP LaserJet Printer Cable ordering A-3 HP LaserJet toner cartridge SEE toner cartridge HP media ordering A-3 using 3-7 HP Multipurpose Paper ordering A-3 HP paper specification guide A-3 HP Repair Services A-2 illegible text 4-14 image quality 1-2 indicator lights

blinking 2-2

SEE control panel DOS troubleshooting 4-13 identifying 1-1 status 2-2 troubleshooting 4-5, 4-12 installation considerations 1-6 installing printer 1-1 printer software 1-6 toner cartridge 1-2 internal mirror 4-8 interrupt print job 3-6

L

labels attaching to printer 1-4 for printer 1-1 printing 3-7 tips for printing 3-7 landscape SEE paper orientation laser safety statement B-6 Laser Statement for Finland B-2 legal sized paper 3-1 letter paper size 3-1 letterhead printing 3-4 printing on 3-4 license agreement A-4 lights SEE indicator lights loading paper input bin 1-5 single sheet input slot 3-3 loading paper 1-5 Μ manual feed mode 3-6

C @X

pause when printing 3-6 when duplexing 3-5 maximum paper size B-1 media minimum size 3-7 moisture content 3-4 ordering A-3 SEE ALSO paper special 3-7 media sizes 3-1 memory adjusting 1-10 capacity 4-15 expansion B-1 printer B-1 setting 1-10 memory cards DRAM installation 1-10 installing 1-10 ordering A-3 specifications 1-10 speed 2-2 Memory Expansion Cover 1-10 minimum paper size B-1 multiple paper feeds, frequent 4-6 N network information 4-15 noise level B-1 0 online help

Hine help How Do I 1-9 overview 1-9 status window 1-9 troubleshooting 1-9

using 1-9 operating environment B-1 orderina accessories A-3 information A-3 supplies A-3 output paper path 3-2 ozone emission B-4 paper adding 1-5, 3-2 centering 1-5 custom-sized 3-1 loading 1-5 ordering A-3 orientation 3-1 realigning 1-5 recycled 3-1, B-5 removing 1-5 sizes 3-1 paper guides adjusting 3-7, 4-3 centering 3-3 identifying 1-1 using 1-5 Paper Input Bin attaching label 1-4 capacity B-1 identifying 1-1 using 3-2 Paper Input Support identifying 1-1 paper jams causes 4-2 clearing 4-2 frequent 4-6 paper will not feed 4-3 Paper Output Bin capacity B-1 identifying 1-1 using 3-2 Paper Output Support identifying 1-1 Paper Path Lever identifying 1-1 lower position 3-2 position 3-2 upper position 3-2 paper specification guide A-3 paper supports 1-5 paper texture 4-7, 4-8 parallel cable connecting to printer 1-3 defective 4-5 parallel cables, connecting 1-3 parallel port 1-3 parts, ordering A-3 pausing 3-6 pausing printing 3-6 PCL driver, selecting 1-8 photosensitive drum 4-8 Poland, sales and service A-7 postcards, output options 3-2 power consumption B-1 power requirements B-1 preparing for printing 3-1 print density, adjusting 4-9 print job, deleting 3-6 print media 3-1 SEE envelopes SEE paper SEE transparencies

print quality media 3-1 preserving 4-4 problems 4-7 troubleshooting 4-7 print resolution B-1 print speed B-1 print, faded 3-8 printer dimensions B-1 parts, recycling B-5 problems 4-5 specifications B-1 printer cable, ordering A-3 Printer Door, identifying 1-1 printer drivers adjusting memory setting 1-10 printer software installing for Windows 1-7 not configured 4-5 troubleshooting 4-12 printing custom sizes 3-7 labels 3-7 letterhead 3-4 on both sides of paper 3-5 pausing 3-6 self-test page 4-1 special media 3-7 stopping 3-6 tasks 3-5 transparencies 3-7 problems SEE troubleshooting RAM (Random Access Memory) 1-6 Random Access Memory (RAM) 1-6 ready light SEE indicator lights recycling paper B-5 plastics B-5 U.S.A. B-5 worldwide B-5 redistributing toner 3-8 regulatory information B-2 removing error conditions 3-6 toner from clothing 1-2, 4-4 repairs A-1, A-2 requirements, disk space 1-6 resetting printer 3-6 resolution print B-1 reducing 4-5 resume printing 3-6 returning printer A-2 S sales offices, worldwide A-5 self-test page, printing 4-1 service information A-1

set up printer SEE installing settings, default 3-6 setup SEE installing Single-Sheet Input Slot for letterhead 3-4 identifying 1-1 using 3-1, 3-3 size paper 3-1 printer B-1 SleepMode 1-3 sliding paper guides 1-5 smudges in printing 4-7 software license agreement A-4 SEE printer software specifications electrical B-1 environmental B-1 printer B-1 standard installation 1-7 status indicator lights 2-2 status window 1-8 status window messages 1-9 stop printing 3-6 stopping a print job 3-6 storage environment B-1 streaks, in printing 4-7 supplies, ordering A-3 support, worldwide A-5 switchbox guidelines 4-15 troubleshooting 4-5 system requirements host-based driver 1-6 PCL driver 1-6 т tasks, printing 3-5 testing printer 1-5 toner cleaning spills 1-2 density 4-7 extending life 3-8 redistributing 3-8 removing from clothing 4-4 toner cartridge cleaning spills 1-2 defective 4-4 expected toner life 3-8 exposing to light 1-2 installing 1-2 life span 3-8 ordering A-3 recycling 3-8 removing sealing tape 1-2 returning A-2 storing 1-2 SEE toner life warranty A-2 toner spills 1-2 transparencies capacity 3-2 output options 3-2 printing 3-7 tips for printing 3-7 troubleshooting basic steps 4-5, 4-10 blank pages 4-10 SEE clearing paper jams common problems 4-1 control panel 4-5 print quality 4-7 printer 4-5 printer installation 4-12 SEE printer problems printer software 4-12 SEE self-test page

software installation 4-12 wrinkled pages 4-10 True Type fonts, selecting 1-8 two-sided printing 3-5 typical installation 1-8 v VCCI statement B-2 W wake up printer 4-1 warranty A-1, A-2 hardware service A-2 toner cartridge A-2 warranty period A-1 Windows 3.1x installation requirements 1-6 installing printer software 1-7 Windows 95 installation requirements 1-6 installing printer software 1-7 worldwide sales and service offices A-5



Copyright ©1997 Hewlett-Packard Co. Printed in Germany 5/97

Manual Part No. C3990-90901



