5   Problem solving

Overview

This section will help you to troubleshoot and solve printer problems.

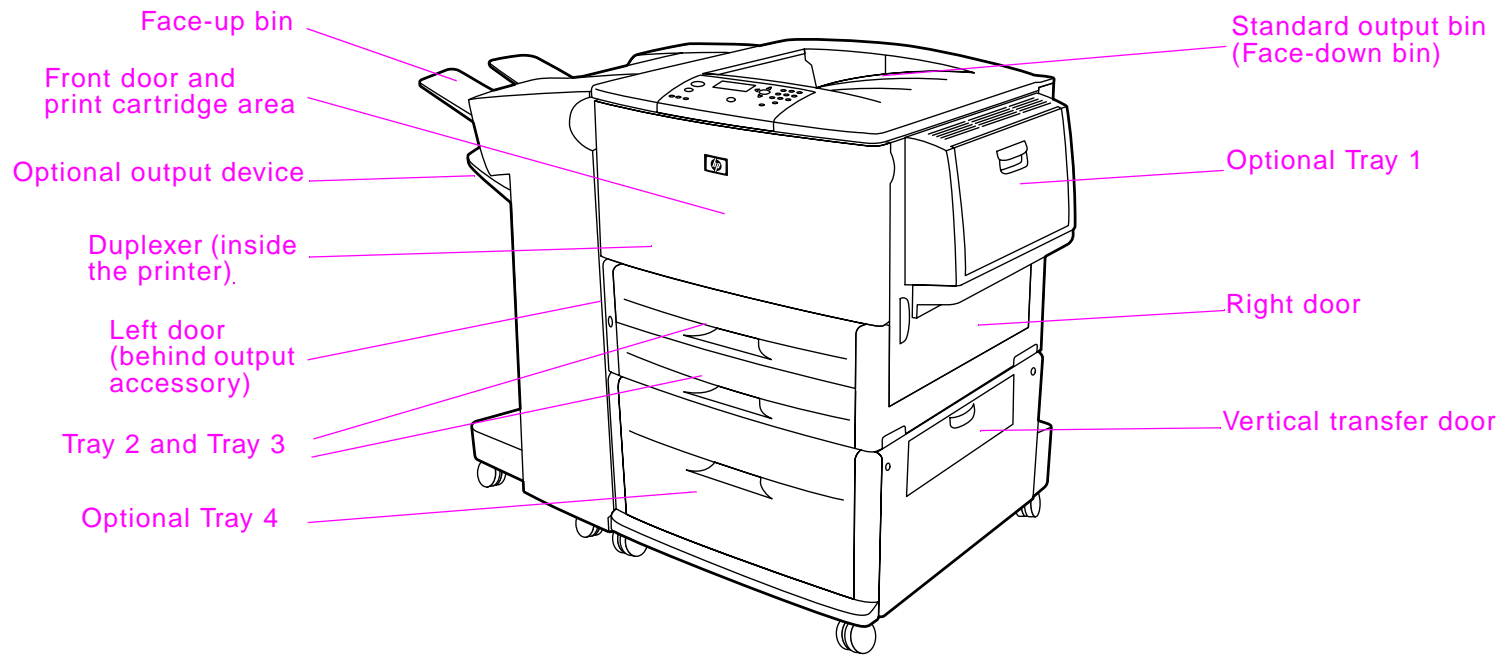|	
"Clearing jams" on page 83	Occasionally, paper can jam during printing. This section will help you to locate paper jams, properly clear them from the printer, and solve repeated jams.
"Understanding printer messages" on page 103	Many different messages can appear on the printer control panel display. Some messages tell the current printer status, such as INITIALIZING. Other messages require action, such as CLOSE FRONT DOOR. Most of these messages are self-explanatory. However, some messages indicate a problem with the printer, or require further action or description. This section lists these types of messages and tells you what to do if a message persists.
"Correcting output quality problems" on page 123	The printer should produce print jobs of the highest quality. If print jobs do not appear sharp and clear, if defects such as lines, specks, or smears appear on the page, or if paper is wrinkled or curled, use this section to troubleshoot and solve the print quality problem.
"Determining printer problems" on page 132	Before you can eliminate a printer problem, you must understand the location of the problem. Use the tables in this section to determine the printer problem, and then follow the corresponding troubleshooting suggestions.
"Checking the printer configuration" on page 153	From the printer, you can print information pages, which give details about the printer and its configuration.

Clearing jams

If the printer control panel displays a paper jam message, look for paper in the locations indicated in the following graphic. You might need to look for paper in locations other than indicated in the paper jam message. If the location of the paper jam is not obvious, look first in the front door area.

After looking at the graphic, you can go to the procedure for clearing the jam. When clearing jams, be very careful not to tear the paper. If a small piece of paper is left in the printer, it could cause additional jams. If jams are a recurring problem, see "Solving repeated paper jams" on page 102.

Note   Loose toner might remain in the printer after a paper jam and cause output quality problems. These should clear up within a few pages.

Jam locations

Face-up bin

Front door and
print cartridge area

Optional output device

Duplexer (inside
the printer).

Left door
(behind output
accessory)

Tray 2 and Tray 3

Optional Tray 4

Standard output bin
(Face-down bin)

Optional Tray 1

Right door

Vertical transfer door
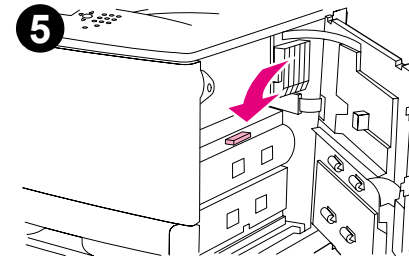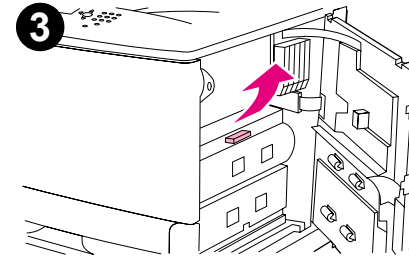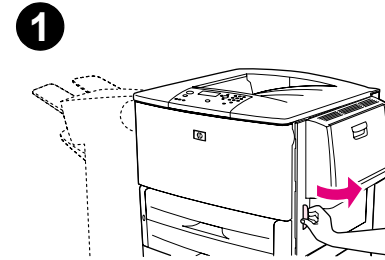
Clearing jams from the input tray areas

To clear jams in optional Tray 1

1   Check for paper in the optional Tray 1 area, and remove any paper from this area. Carefully check to be sure you have removed all pieces of torn paper.
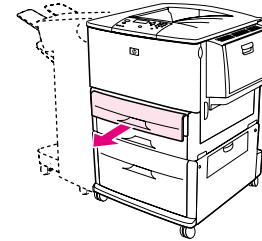
2   Open and close the right door to reset the printer.
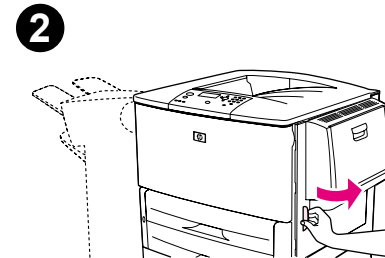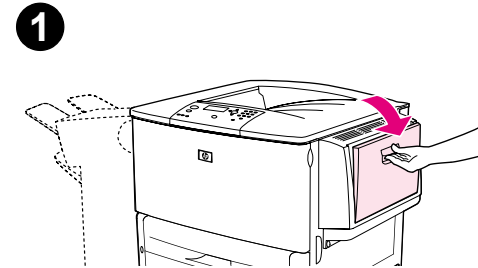
To clear jams inside the right door

1   Open the right door.

2   Check for paper in the right door area, and remove any paper from this area. Carefully check to be sure you have removed all pieces of torn paper.

3   Open the jam access cover. Pull out and lift the green tab.

4   Remove any paper from this area by pulling it out of the printer.

5   Push the green lever down to original position.

6   Close the right door.

To clear jams in Trays 2 and 3

1   Open the tray until it stops.

2   Check for paper in the tray area, and remove any paper from this area. Carefully check to be sure you have removed all pieces of torn paper.

3   Close the tray.

4   Open and close the right door to reset the printer.
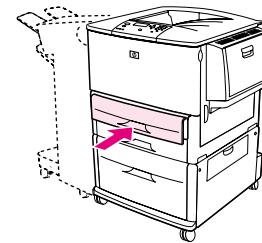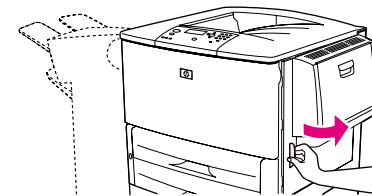
To clear jams in optional Tray 4

1   Open optional Tray 4.

2   Check for paper in the tray area, and remove any paper from this area. Carefully check to be sure you have removed all pieces of torn paper.

3   Close optional Tray 4.

4   Open and close the right door to reset the printer.
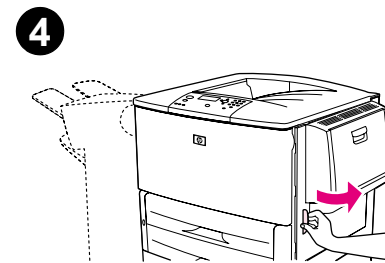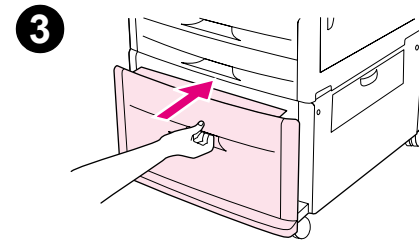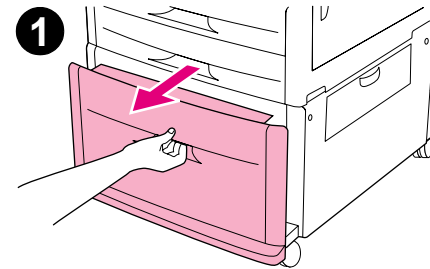
Clearing jams from the duplex printing accessory (duplexer)

To clear jams in the duplex printing accessory

1   If an optional output device is installed, slide it away from the printer to access the left door.

2   Open the left door and carefully pull out any paper from area.

WARNING!   Avoid touching the adjacent fusing area. It can be HOT.

3   Remove the duplex printing accessory by pressing the green lever and pulling the unit out until it stops.

4   Remove any paper by lifting the two green levers in the duplex printing accessory.

5   Open the front door.
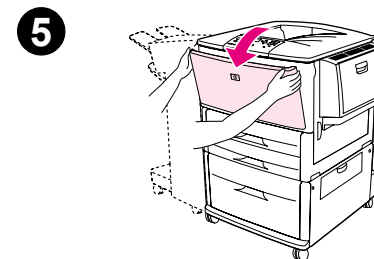
6   Check for paper in the duplex printing accessory area, and remove any paper by pulling it out of the printer. Be careful not to tear the paper.

7   Reinstall the duplex printing accessory by sliding it back into the slot until it locks into place.

8   Close all open doors. If an optional output device is installed, push it back into place.
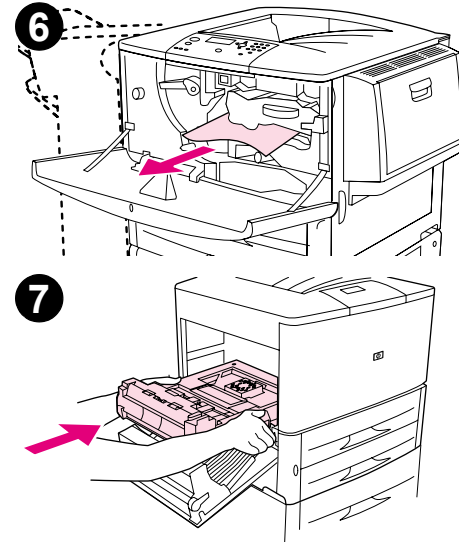
Clearing jams from the output areas

To clear jams in the standard output bin

1   If the jam extends into the output area, slowly and carefully pull
    the paper straight out of the printer so that it does not tear.

2   Open the left door and carefully pull out any paper from area. (If
    an optional output device is installed, first move it away from the
    printer to access the left door.)

3   Close all open doors. If an optional output device is installed,
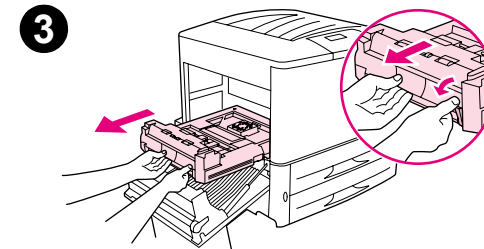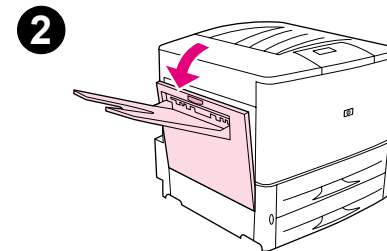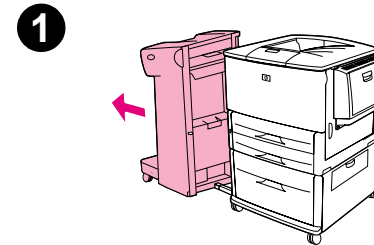   push it back into place.
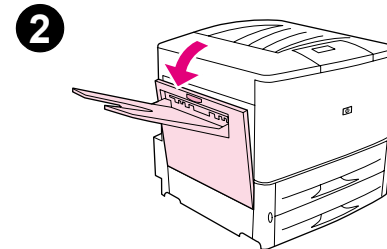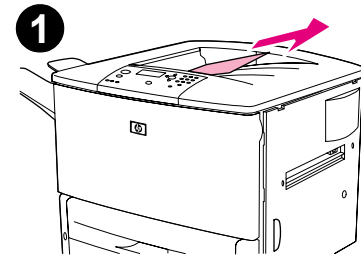
To clear jams in the left door (fuser area)

1   If an optional output device is installed, slide it away from the printer to access the left door.

2   Open the left door.

WARNING!
Avoid touching the adjacent fusing area. It can be HOT.

3   Remove any jammed or damaged paper from this area by pulling it out of the printer.

4   Press down on the green tab and carefully check for paper. Be sure to remove all pieces of torn paper.

5   Close the left door. If an optional output device is installed, push it back into place.
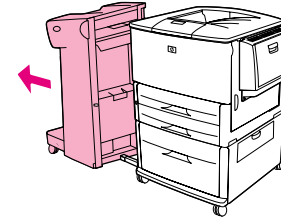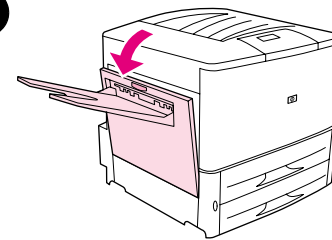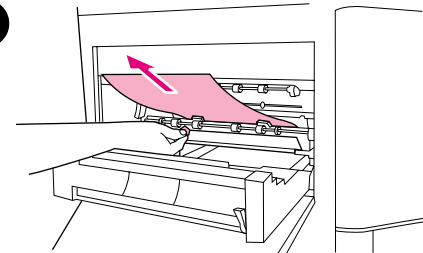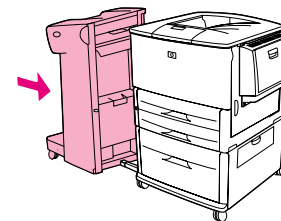
To clear jams in the multifunction finisher

1   Open the finisher cover.

2   Slowly and carefully pull the paper straight out of the finisher so that it does not tear.

3   Close the finisher cover.

4   Move the finisher away from the printer.
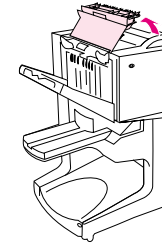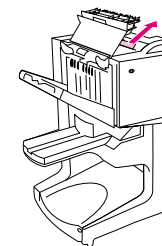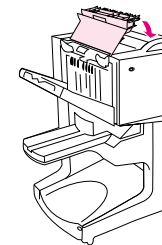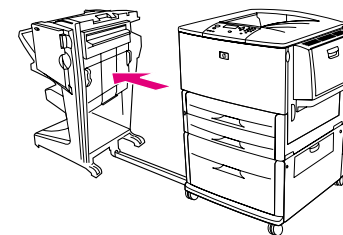
5   Carefully remove any paper from the printer output area.

6   Carefully remove any paper from the finisher input area.

7   Open the stapler-unit door.

8   To clear a booklet jam, turn the bottom green knob clockwise to remove the booklet.
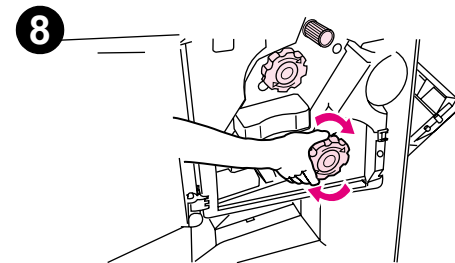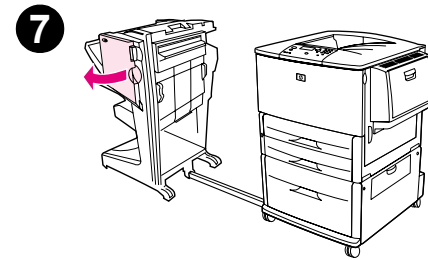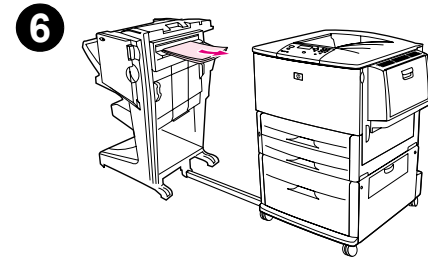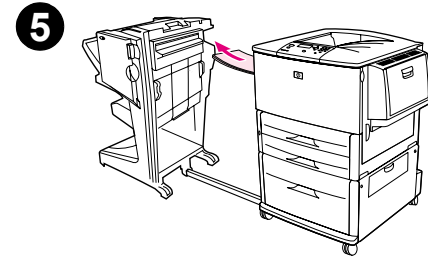
9   Close the stapler-unit door.

10   Reattach the finisher.
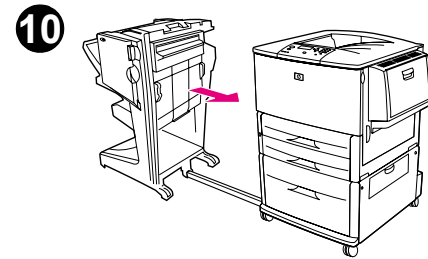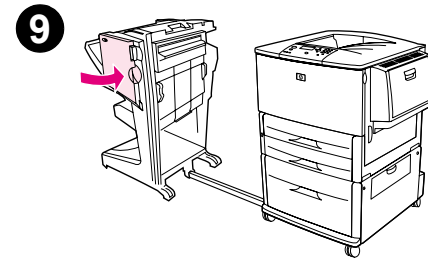
To clear a staple jam from the optional stapler/stacker

Note
The message JAM INSIDE STAPLER displays on the control panel.

1   Slide the stapler/stacker away from the printer.

2   Open the stapler unit door.

3   On the staple cartridge, squeeze the tabs together and pull the cartridge out.

4   Pull the cartridge lever up.
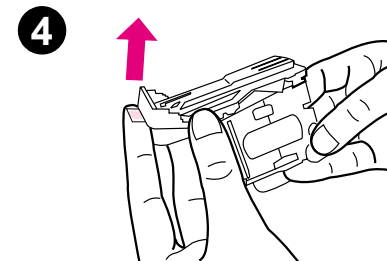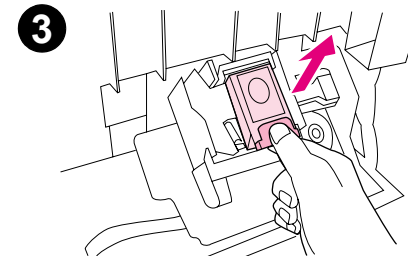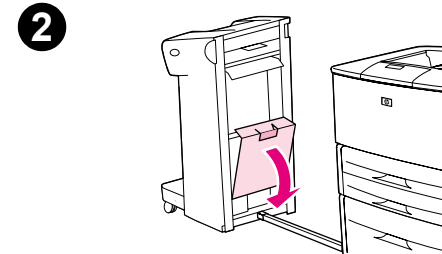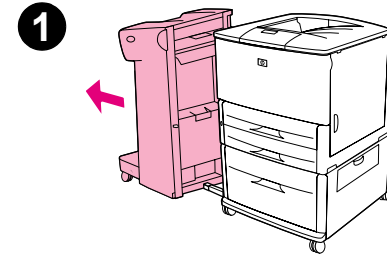
5   Remove the jammed staple.

6   Push the cartridge lever down.

7   Insert the staple cartridge so that it snaps into place.

8   Close the stapler unit door.

9   Reattach the stapler/stacker to the printer.

Note   The stapler needs to reload after clearing a staple jam, so the first few documents (no more than five) might not be stapled. If a print job is sent and the stapler is jammed or is out of staples, the job will still print as long as the path to the output bin is not blocked.
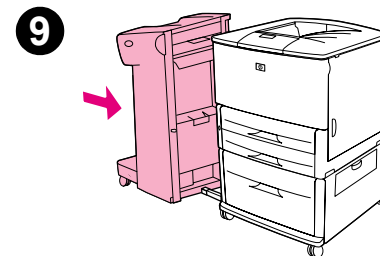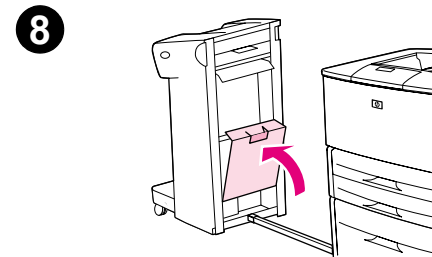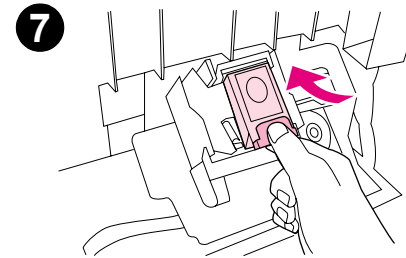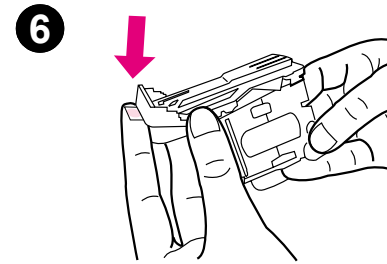
To clear a staple jam from the multifunction finisher

1   Open the stapler-unit door.

2   Slide the stapler-unit toward you.

3   Turn the large green knob until the blue dot appears in the window of the stapler unit.

4   Turn the small green knob at the top of the stapler unit counterclockwise until the staple cartridge moves to the left of the stapler unit.

CAUTION   The blue dot must appear in the window of the stapler unit before you remove the staple cartridge. If you try to remove the staple cartridge before the blue dot appears in the window, you could damage the finisher.
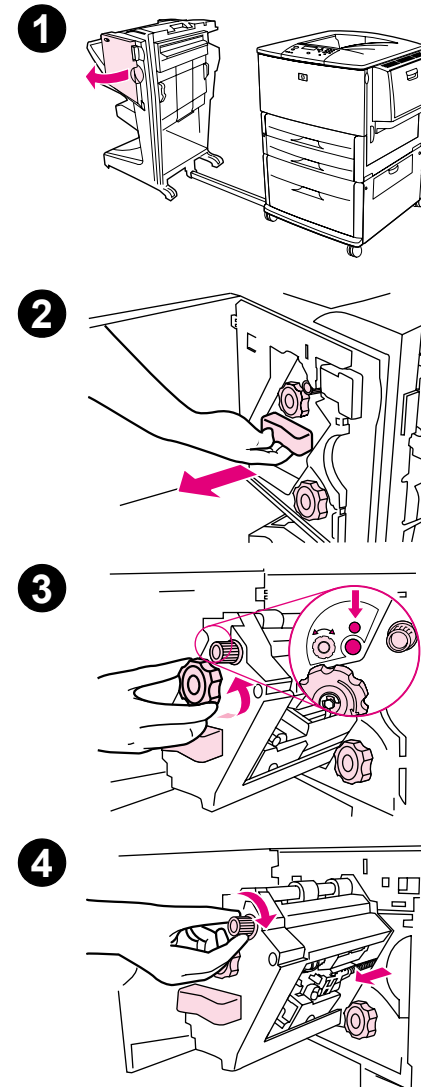
5   Remove the staple cartridge.

6   Pull up on the lever labeled with a green dot.

7   Remove the damaged staple.

8   Press down on the level labeled with a green dot.
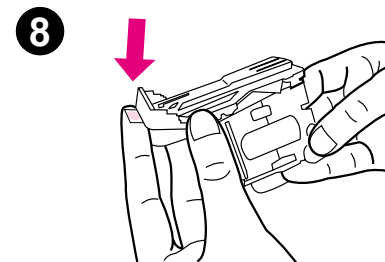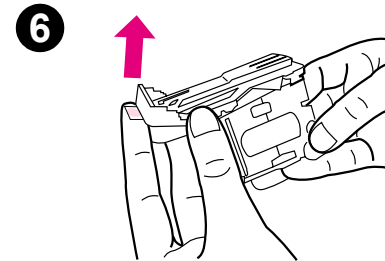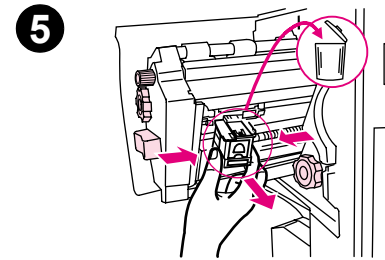
9   Reinstall the staple cartridge.

10 Slide the stapler unit into the finisher.

11 Close the stapler-unit door.
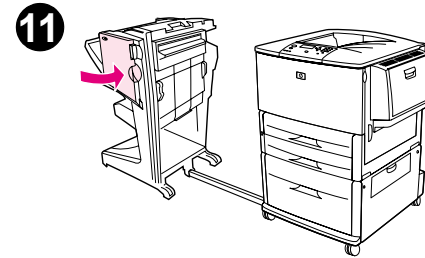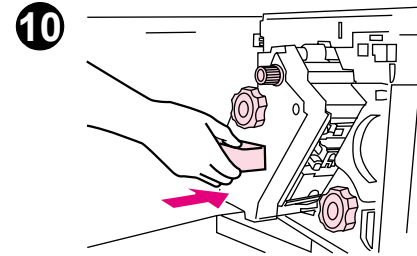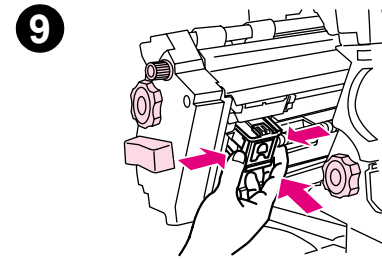
In rare instances, a staple jam might occur in the upper half of the stapler head.

1   Follow steps 1 through 4 for clearing a staple jam from the multifunction finisher (see page 98).

2   Locate the damaged staple at the back of the stapler unit, and then remove the staple.

3   Follow steps 10 through 11 for clearing a staple jam from the multifunction finisher (see page 98).
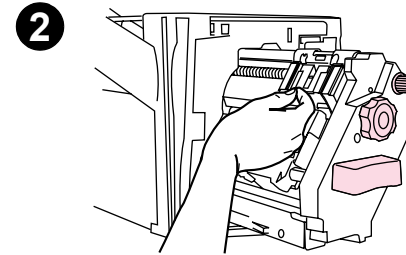
Solving repeated paper jams

Situation	Solution
General repeated paper jam problems	1. Check to see that paper is correctly loaded in the trays and that all width guides are correctly set (See "Printing tasks" on page 30).
	2. Make sure that the paper tray is set for the size of paper installed and that the tray is not overloaded with paper.
	3. Try turning over the stack of paper in the tray. If you are using prepunched or letterhead paper, try printing from optional Tray 1.
	4. Do not use previously printed paper or torn, worn, or irregular paper. For recommended paper and other paper for your printer, see the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.
	5. Check the paper specifications. (See the *introduce* guide on the product CD, or got to www.hp.com/cposupport/.) If paper is outside of the recommended specifications, problems can occur.
	6. Printer might be dirty. Clean the printer as described in the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.
	7. Check that all damaged or jammed paper is removed from printer.

Note   If paper jams continue, contact your HP-authorized service provider. (See the HP Customer Care section in the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Understanding printer messages

Printer messages appear on the printer control panel display to relay the normal status of the printer (such as `Processing Job`), or an error condition (such as `Close Front Door`) that needs attention. "Resolving control panel messages" on page 104 lists messages that require attention, or that might raise questions. Messages are listed in alphabetical order, with numeric messages at the end of the list. Not all messages are listed, because some (such as `Ready`) are self-explanatory.

Note

Some printer messages are affected by the `AUTO CONTINUE` and `CLEARABLE WARNINGS` settings in the `CONFIGURE DEVICE` menu, `System Setup` submenu, in the printer control panel (See "System setup submenu" on page 186).

Using the printer online help system

This printer features an online help system on the control panel that provides instructions for resolving most printer errors. Certain control panel messages alternate with instructions about accessing the online help system.

Whenever a ? appears in an error message or a message alternates with `FOR HELP PRESS ?`, press the **?** key to view the help and use ▲ and ▼ to scroll through the message.

To exit the online help system, press **?**.

If a message persists

- Some messages (e.g. requests to load a tray or a message that a previous print job is still in the printer memory) allow you to press ✔ to print, or to press CANCEL JOB to clear the job and eliminate the message.

- If a message persists after performing all of the recommended actions, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Resolving control panel messages

Message	Explanation or recommended action
ACCESS DENIED MENUS LOCKED	The printer control panel function you are trying to access has been locked to prevent unauthorized access. See your network administrator.
BAD DUPLEXER CONNECTION	The duplex printing accessory is not connected properly to the printer. Turn the printer off and reinstall the duplex printing accessory.
BAD TRAY 1 CONNECTION	Optional Tray 1 is not connected properly to the printer. Turn the printer off and reinstall optional Tray 1.
<BINNAME> FULL	The specified output bin is full. Empty the bin to continue printing.
CANCELLING... <JOBNAME>	The printer is cancelling a job. The message continues while the job is stopped, the paper path is flushed, and any remaining incoming data on the active data channel is received and discarded.
CARTRIDGE FAILURE	Cartridge is loaded and shipping protection strip cannot be fully removed. Return the cartridge for a new one. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Message	Explanation or recommended action
CARTRIDGE LOW - xxxx PAGES ESTIMATED To continue press ✓	The message first appears when about eight percent of toner is remaining in the cartridge (about 2,400 pages remaining for the 30,000-page cartridge at five percent coverage). Depending on how the printer is configured, it will either continue to print or it will stop. If the printer stops, you can resume printing by pressing ✓ for each job. You might want to have a replacement cartridge available. See "Print cartridge conditions" on page 79 for more information.
CARTRIDGE OUT REPLACE CARTRIDGE	Drum in print cartridge is zero. Order new authentic HP print cartridge (C8543X).
CHECKING PAPER PATH	The engine is rotating its rollers to check for possible paper jams.
CHECKING PRINTER	The engine is performing an internal test.
CHOSEN PERSONALITY NOT AVAILABLE alternates with READY	A print job requested a printer language (personality) that does is not available with this printer. The job will not print and will be cleared from memory. Print the job using a driver for a different printer language, or add the requested language to the printer (if available).
CLEARING PAPER FROM PRINTER	The printer jammed or was turned on and paper is detected in a wrong location. The printer is automatically attempting to eject the pages. If possible, use the progress bar at the bottom of the display.
CLOSE FRONT DOOR ON LEFT ACCESSORY	The stapler door on the multifunction finisher is open, or it is not closed properly. Close the stapler door properly.

Message	Explanation or recommended action
CLOSE TOP COVER ON LEFT ACCESSORY	The top cover on the multifunction finisher is open, or is not closed properly. Close the top cover properly.
CLOSE FRONT OR LEFT DOOR	The front or left doors are open and must be closed for printing to continue.
CLOSE RIGHT DOOR	The right door is open and must be closed for printing to continue.
DETECTABLE SIZE IN TRAY xx Move switch to standard	A tray is loaded with standard size paper, and the switch in the tray is set to custom. Move the switch to the "standard" position.
DIFFERENT PAPER SIZES IN JOB	Different paper sizes are used for a single job in the multifunction finisher. Verify that all pages in the job are configured for the same size paper.
DISK DEVICE FAILURE alternates with READY	The EIO hard disk had a critical failure and can no longer be used. Reseat the EIO hard disk. If the message continues, replace it with a new EIO hard disk.
DISK FILE OPERATION FAILED alternates with READY	The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a nonexistent directory.

Message	Explanation or recommended action
DISK FILE SYSTEM IS FULL alternates with READY	Delete files from the EIO hard disk and then try again. HP Web JetAdmin can be used to delete files and fonts.
DISK IS WRITE PROTECTED alternates with READY	The disk device is protected, and no new files can be written to it.
EIO DISK x NOT FUNCTIONAL	The EIO hard disk is not working correctly. Remove the EIO hard disk from the slot (a slot number will replace the X) indicated. Reseat the EIO hard disk. If the message continues, replace it with a new EIO hard disk.
EIO DISK x SPINNING UP	The EIO hard disk in slot x is spinning up its platter.
EVENT LOG EMPTY	The user is attempting to view an empty event log by selecting SHOW EVENT LOG from the control panel.
FLASH DEVICE FAILURE alternates with READY	The flash DIMM had a critical failure and can no longer be used. Remove the flash DIMM and replace it with a new one.

Message	Explanation or recommended action
FLASH FILE OPERATION FAILED alternates with READY	The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a non-existent directory.
FLASH FILE SYSTEM IS FULL alternates with READY	Delete files from the flash DIMM. Use HP LaserJet Resource Manager to download or delete files and fonts. (See the software help for more information.)
FLASH IS WRITE PROTECTED alternates with READY	The flash file is protected, and no new files can be written to it.
INCORRECT PIN	The wrong PIN is entered. Return to the previous screen and reenter the PIN.
INSERT OR CLOSE TRAY x	The specified tray must be inserted or closed for printing to continue.
INSTALL BOOKLET BIN	The booklet bin for the multifunction finisher is not installed properly. Install the booklet bin properly. See the *use guide* that came with the finisher for more information.

Message	Explanation or recommended action
INSTALL CARTRIDGE	The print cartridge has been removed or has been installed incorrectly. It must be replaced or reinstalled correctly for printing to continue.
INSTALL CONNECTION UNIT	Connection unit is not installed in the right access door of the printer to allow printing from the optional input device.
LOAD TRAY xx alternates with To use another tray press ✓.	A job is sent that requires a specific type and size that is not available. Load the requested paper into optional Tray 1. Press ✓ to use a type and size that is available in another tray.
MANUALLY FEED [TYPE] [SIZE] alternates with To continue press ✓.	Load the requested paper into optional Tray 1. To override the message, press ✓ if the desired paper is available in another tray. Press ✓ to use a type and size that is available in another tray.
MEMORY FULL STORED DATA LOST	There is no available memory in the printer. The current job might not print correctly, and some resources (such as downloaded fonts) might have been deleted. You might want to add more memory to the printer (See "Printer memory and expansion" on page 197).
MEMORY SETTINGS CHANGED	Indicates the resource saving or I/O buffering settings were changed by the printer because it did not have enough memory to use the previous settings. This usually occurs after removing memory from the printer, adding a duplex printing accessory, or adding a printer language. You might want to change memory settings for I/O buffering and resource saving (although default settings are usually best), or add more memory to the printer (See "Printer memory and expansion" on page 197).

Message	Explanation or recommended action
MEMORY SHORTAGE JOB CLEARED	The printer did not have enough free memory to print the entire job. The remainder of the job will not print and will be cleared from memory.
alternates with	Press ✓ to continue.
READY	Change the resource saving setting from the printer control panel (See "Control panel menus" on page 172) or add more memory to the printer (See "Printer memory and expansion" on page 197).
MEMORY SHORTAGE PAGE SIMPLIFIED	The printer had to compress the job in order to fit it in available memory. Some data loss might have occurred.
alternates with	Press ✓ to continue.
READY	The print quality of these pages might not be acceptable. Reduce the complexity of these pages and reprint them.
	You might want to add more memory to the printer (See "Printer memory and expansion" on page 197).
NO JOB TO CANCEL	The CANCEL JOB key was pressed, but there is no active job or buffered data to cancel.
	Message is displayed for approximately two seconds before the printer is returned to the READY state.
NON-HP CARTRIDGE DETECTED	The printer has detected that the cartridge is not a genuine HP cartridge, and the message is displayed for approximately 30 seconds before the printer is returned to the READY state. If you think you purchased an HP print cartridge, call the HP fraud hotline (1-877-219-3183, toll-free in North America). Any printer repair required as a result of using a non-HP print cartridge is not covered under the printer warranty.

Message	Explanation or recommended action
PERFORM PRINTER MAINTENANCE	The printer has passed its prescribed printed page threshold between maintenance procedures.
	To ensure optimum print quality, the printer prompts you to perform routine maintenance every 350,000 pages. To order a Printer Maintenance Kit, see the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.
RAM DISK DEVICE FAILURE alternates with READY	The RAM disk had a critical failure and can no longer be used. Turn the printer off, and then turn the printer on to clear the message.
RAM DISK FILE OPERATION FAILED alternates with READY	The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a non-existent directory.
RAM DISK FILE SYSTEM IS FULL alternates with READY	Delete files and then try again, or turn the printer off, and then turn the printer on to delete all files on the device. (Delete files using HP LaserJet Resource Manager or another software utility. See the software help for more information.) If the message persists, increase the size of the RAM disk. Change the RAM disk size from the **Configuration** menu in the printer control panel (See "System setup submenu" on page 186).
RAM DISK IS WRITE PROTECTED alternates with READY	The RAM disk is protected, and no new files can be written to it.
RESEND UPGRADE	There is an error in the printer firmware flash. Resend a valid firmware image.

Message	Explanation or recommended action
ROM DISK DEVICE FAILURE alternates with READY	The ROM disk had a critical failure and can no longer be used. Turn the printer off, and then turn the printer on to clear the message.
ROM DISK FILE OPERATION FAILED alternates with READY	The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a non-existent directory.
ROM DISK FILE SYSTEM IS FULL alternates with READY	Delete files and then try again, or turn the printer off, and then turn the printer on to delete all files on the device. (Delete files using HP LaserJet Resource Manager or another software utility. See the software help for more information.) If the message persists, increase the size of the ROM disk. Change the ROM disk size from the **Configuration** menu in the printer control panel (See "System setup submenu" on page 186).
ROM DISK IS WRITE PROTECTED	The ROM disk is protected, and no new files can be written to it.
ROTATE PAPER IN TRAY xx alternates with	Tray xx is loaded with Letter or A4 paper in the portrait orientation, but the job that used the tray did not specify booklet making. Tray xx has letter (or A4) but needs to be rotated.
SIZE MISMATCH TRAY xx=[SIZE]	Tray xx is loaded with paper that is longer or shorter in the feed direction than the size configured for the tray.

Message	Explanation or recommended action
STAPLER LOW ON STAPLES	The stapler device is running out of staples and needs to be refilled.
STAPLER OUT OF STAPLES	The stapler device is out of staples and needs to be refilled.
TRAY xx CONTAINS UNKNOWN MEDIA	The printer cannot sense what type of media is in the specified tray (xx).
TRAY xx EMPTY alternates with READY	Load the empty tray (xx) to clear the message. If you do not load the specified tray, the printer will continue printing from the next available tray, and the message will continue to display.
TRAY xx OPEN alternates with READY	The specified tray is open or is not closed completely.
TRAY xx SIZE=*SELECTED SIZE alternates with To change, move switch in tray x	The custom switch is in the "standard" position, and a value from the menu is selected.
TYPE MISMATCH TRAY x=[TYPE]	The system detected an overhead transparency in the paper path coming from the tray (xx).

Message	Explanation or recommended action
UNABLE TO MOPY JOB	A mopy job cannot be mopied because of a memory, disk, or configuration problem. Only one copy will be produced. If job name is unknown, insert UNTITLED.
UNABLE TO STORE JOB	A job cannot be stored on the printer because of a memory, disk, or configuration problem. If job name is unknown, insert UNTITLED.
UNSUPPORTED SIZE IN TRAY xx	A sent job has a specified size that is not supported by the printer.
USE [TYPE] [SIZE] FROM TRAY N INSTEAD?	If the requested paper size or type is not available, the printer asks if it should use a different paper size or type. Select a size or type from a different tray.
WAIT FOR PRINTER TO REINITIALIZE	The RAM disk setting has been changed before the printer is automatically rebooted. This change will not take effect until the printer reinitializes. If you change the mode of the external device, turn the printer off, turn the printer on, and wait for the printer to reinitialize.
xx.y PRINTER ERROR To continue press ✓	A printer error which can be cleared by pressing ✓ in the printer control panel has occurred.

Message	Explanation or recommended action
13.xy.zz JAM IN [LOCATION]	Remove jammed paper from the specified location (See "Clearing jams" on page 83).
	Open and close the front door to clear the message.
	If the message persists after all jams have been cleared, a sensor might be stuck or broken. Contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
20 INSUFFICIENT MEMORY	The printer received more data than can fit in its available memory. You might have tried to transfer too many macros, soft fonts, or complex graphics.
To continue press ✓	Press ✓ to print the transferred data (some data might be lost), then simplify the print job or install additional memory (See "Printer memory and expansion" on page 197).
21 PAGE TOO COMPLEX	The page formatting process was not fast enough for the printer.
	Press ✓ to print the transferred data. (Some data might be lost.)
alternates with	The page protection item appears in the CONFIGURE DEVICE - DEFAULTS - EVENTS menu, and should be set to ON to print the page. When the page is successfully printed, PAGE PROTECT=ON, should be set back to AUTO (See "System setup submenu" on page 186).
To continue press ✓	If this message appears often, simplify the print job.
22 EIO x BUFFER OVERFLOW	Too much data was sent to the EIO card in the specified slot (x). An improper communications protocol might be in use.
	Press ✓ to print the transferred data. (Some data might be lost.)
	Check the host configuration. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Message	Explanation or recommended action
`22 PARALLEL I/O BUFFER OVERFLOW` alternates with `To continue press` ✓	Too much data was sent to the parallel port. Check for a loose cable connection, and be sure to use a high-quality cable. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) (Some non-HP parallel cables might be missing pin connections or might otherwise not conform to the IEEE-1284 specification.) This error can occur if the driver you are using is not IEEE-1284 compliant. For best results, use the HP driver that came with the printer (See "Printer drivers" on page 20). Press ✓ to clear the error message. (Data will be lost.) If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
`22 SERIAL I/O BUFFER OVERFLOW`	The printer serial buffer has overflowed during a busy state. Press ✓ to print the transferred data. (Some data might be lost.)
`40 BAD SERIAL TRANSMISSION`	A serial data error (parity, framing, or line overrun) occurred during the reception of data from the computer. Press ✓ to clear the error message and continue printing.
`40 EIO x BAD TRANSMISSION`	The connection between the printer and the EIO card in the specified slot has been broken. Press ✓ to clear the error message and continue printing.
`41.x PRINTER ERROR` alternates with `To continue press` ✓	A temporary printing error occurred. Turn the printer off, then turn the printer on. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Message	Explanation or recommended action

`41.3 UNEXPECTED SIZE TRAY xx`
 	
alternates with
 	
`To change size press`
✓
	A tray (`xx`) is loaded with paper that is longer or shorter in the feed direction than the size configured for the tray.
	
	Press ✓ to get to `TRAY xx SIZE=`. Reconfigure the size in a tray so the printer will use a tray with the size required for the print job.
	
	If the error does not clear, turn the printer off, then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`41.5 UNEXPECTED TYPE TRAY xx`
 	
alternates with
 	
`To change type press`
✓
	The tray (`xx`) is loaded with paper that is not the same type configured for the tray.
	
	Press ✓ to get to `TRAY xx TYPE=`. Reconfigure the type in a tray so the printer will use a tray with the type required for the print job.
	
	If the error does not clear, turn the printer off, then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`49.xxxxx`	A critical firmware error has occurred. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
`50.x FUSER ERROR`	A fuser error has occurred. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or www.hp.com/cposupport/.)

Message	Explanation or recommended action

`51.x`
`PRINTER ERROR`
 	
alternates with
 	
`To continue cycle`
`power`
	A temporary printing error occurred.
	
	Turn the printer off, then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or www.hp.com/cposupport/.)

`52.x`
`PRINTER ERROR`
 	
alternates with
 	
`To continue cycle`
`power`
	A temporary printing error occurred.
	
	Turn the printer off, then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or www.hp.com/cposupport/.)

`53.xy.zz` `PRINTER ERROR`	There is a problem with the printer memory. The DIMM that caused the error will not be used. Values of `x`, `y`, and `zz` are as follows: x = DIMM type 0 = ROM 1 = RAM y = Device location 0 = Internal memory (ROM or RAM) 1 to 4 = DIMM slots 1, 2, 3, or 4 zz = Error number You might need to reseat or replace the specified DIMM. Turn the printer off, and then replace the DIMM that caused the error. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Understanding printer messages

Message	Explanation or recommended action

`55.xx PRINTER ERROR`
 	
alternates with
 	
`To continue press ✓`
	A temporary printing error occurred.
	
	Press ✓.
	
	If the error does not clear, turn the printer off, then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`56.x PRINTER ERROR`
 	
alternates with
 	
`To continue cycle power`
	A temporary printing error occurred.
	
	Turn the printer off, then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`57.x PRINTER ERROR`	A temporary printing error occurred. Turn the printer off, then turn the printer on. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`58.x PRINTER ERROR`
 	
alternates with
 	
`To continue cycle power`
	A temporary printing error occurred.
	
	Turn the printer off, then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Message	Explanation or recommended action

`59.x`
`PRINTER ERROR`
 	
alternates with
 	
`To continue cycle power`
	A temporary printing error occurred.
	
	Turn the printer off, then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`60.x` `PRINTER ERROR`	An obstruction prevents the tray specified by `xx` from lifting paper properly for feeding. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
`62.x` `PRINTER ERROR`	There is a problem with the printer memory. The `x` value refers to the location of the problem: 0 = Internal memory 1 to 4 = DIMM slots 1, 2, 3, or 4 You might need to replace the specified DIMM. To continue press ✓. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`64`
`PRINTER ERROR`
 	
alternates with
 	
`To continue cycle power`
	A scan buffer error occurred.
	
	Turn the printer off, and then turn the printer on.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Message	Explanation or recommended action

`68.x PERMANENT STORAGE ERROR`
 	
alternates with
 	
`To continue press ✓`
	An error occurred in the printer nonvolatile memory (NVRAM), and one or more printer settings has been reset to its factory default.
	
	Printing can continue, but there might be some unexpected functions because an error occurred in permanent storage.
	
	Pressing ✓ should clear the message.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`68.x PERMANENT STORAGE FULL`
 	
alternates with
 	
`To continue press ✓`
	The printer NVRAM is full. Some settings saved in the NVRAM might have been reset to the factory defaults.
	
	Printing can continue, but there might be some unexpected functions because an error occurred in permanent storage.
	
	Pressing ✓ should clear the message.
	
	If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

`68.x PERMANENT STORAGE WRITE FAIL`	The printer NVRAM is failing to write. Printing can continue, but there might be some unexpected functions because an error occurred in permanent storage. Pressing ✓ should clear the message. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Message	Explanation or recommended action
`69.x` `PRINTER ERROR`	A temporary printing error occurred. Turn the printer off, reseat the duplex printing accessory, and then turn the printer on. If this message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
`79.xxxx` `PRINTER ERROR`	A critical hardware error occurred. Turn the printer off, and then turn the printer on. If the message persists, contact an HP-authorized service or support provider. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
`8x.yyyy`	The EIO accessory card in slot `x` has encountered a critical error as specified by `yyyy`.
`81 SERVICE (xxx)`	This message is used when errors occur while testing the printer at the manufacturing site.

Correcting output quality problems

Use the examples in the image defect table to determine which print quality problem you are experiencing, then see the corresponding reference pages to troubleshoot.

Note
The examples below depict letter-size paper that has passed through the printer long-edge first. (If the paper has passed through the printer short-edge first, lines and repeating defects will run vertically rather than horizontally.)

Image defect table
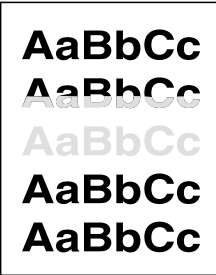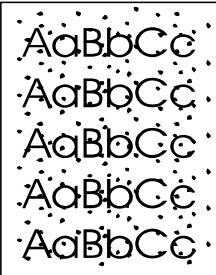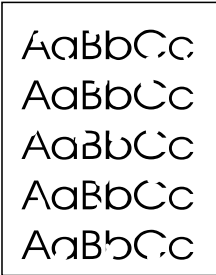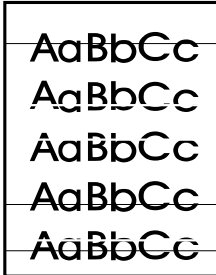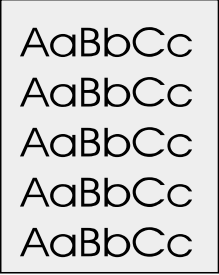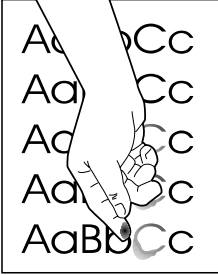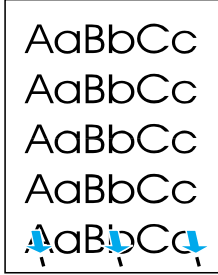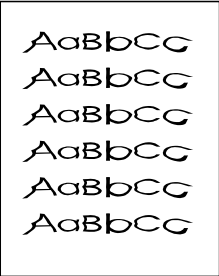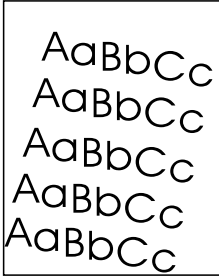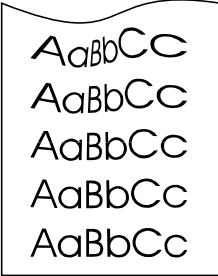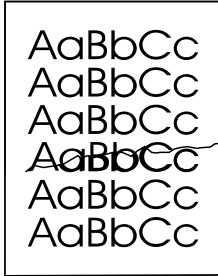
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc
See "Light print or fade" on page 125	See "Specks" on page 125	See "Dropouts" on page 125	See "Lines" on page 125

Image defect table

AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc
See "Gray background" on page 126	See "Toner smear" on page 126	See "Loose toner" on page 127	See "Repeating defects" on page 127
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc
See "Misformed characters" on page 127	See "Page skew" on page 128	See "Curl or wave" on page 128	See "Wrinkles or creases" on page 128

Light print or fade

● The print cartridge might be low. Replace the print cartridge.

● Maintenance might be due. Check this by printing a copy of the supplies status page (see "Supplies status page" on page 156). If maintenance is due, order and install the printer maintenance kit. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

● The print cartridge might be almost empty. Replace the print cartridge.

Specks

Specks might appear on a page after a jam has been cleared.

● Print a few more pages to see if the problem corrects itself.

● If specks occur frequently, set your printer up to automatically run a cleaning page (see "Using the printer cleaning page" on page 80).

● Clean the inside of the printer (see the *introduce* guide on the product CD, or go to www.hp.com/cposupport/) and run a manual cleaning page to clean the fuser (see "Using the printer cleaning page" on page 80).

● Try using a different type of paper.

● Check for print cartridge leaks. If the print cartridge is leaking, replace it.

Dropouts

● Make sure that the environmental specifications for the printer are being met (see "Environmental product stewardship program" on page 218).

● If the paper is rough and the toner easily rubs off, either try changing the fuser mode to High 1 or High 2, or try using a smoother paper.

● Try using a different paper type.

Lines

● Print a few more pages to see if the problem corrects itself.

- Clean the inside of the printer (see the *introduce* guide on the product CD, or go to www.hp.com/cposupport/) and run a manual cleaning page to clean the fuser (see "Using the printer cleaning page" on page 80).

- Replace the print cartridge.

- Maintenance might be due. Check this by printing a copy of the supplies status page (see "Supplies status page" on page 156). If maintenance is due, order and install the printer maintenance kit. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Gray background

- Do not use paper that has already been run through the printer.

- Print a few more pages to see if the problem corrects itself.

- Turn over the stack of paper in the tray. Also, try rotating the paper 180°.

- At the printer control panel, use the **Print quality** menu to decrease the toner density setting (see "Print quality submenu" on page 184).

- Make sure that the environmental specifications for the printer are being met (see "Environmental product stewardship program" on page 218).

- Replace the print cartridge.

Toner smear

Also see "Loose toner" on page 127.

- Print a few more pages to see if the problem corrects itself.

- Try using a different type of paper.

- Make sure that the environmental specifications for the printer are being met (see "Environmental product stewardship program" on page 218).

- Clean the inside of the printer (see the *introduce* guide on the product CD, or go to www.hp.com/cposupport/) and run a manual cleaning page to clean the fuser (see "Using the printer cleaning page" on page 80).

- Maintenance might be due. Check this by printing a copy of the supplies status page (see "Supplies status page" on page 156). If maintenance is due, order and install the printer maintenance kit. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

●   Replace the print cartridge.

Loose toner

Loose toner, in this context, is defined as toner that can be rubbed off the page.

●   If paper is heavy or rough, try using a high fuser mode so that toner fuses more completely onto the paper. At the printer control panel, use CONFIGURE FUSER MODE MENU in the **Paper handling** menu (see "Paper handling menu" on page 176).

●   If you have observed a rougher texture on one side of your paper, try printing on the non-rough side.

●   Make sure that the environmental specifications for the printer are being met (see "Environmental product stewardship program" on page 218).

●   Make sure that paper type and quality meet HP specifications (see "Specifications" on page 164).

●   Maintenance might be due. Check this by printing a copy of the supplies status page (see "Supplies status page" on page 156). If maintenance is due, order and install the printer maintenance kit. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Repeating defects

●   Print a few more pages to see if the problem corrects itself.

●   If the distance between defects is 38 mm (1.5 in) or 94 mm (3.76 in), the print cartridge might need to be replaced.

●   Clean the inside of the printer (see the *introduce* guide on the product CD, or go to www.hp.com/cposupport/) and run a manual cleaning page to clean the fuser (see "Using the printer cleaning page" on page 80).

●   Maintenance might be due. Check this by printing a copy of the supplies status page (see "Supplies status page" on page 156). If maintenance is due, order and install the printer maintenance kit. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Misformed characters

●   Print a few more pages to see if the problem corrects itself.

●   Make sure that the environmental specifications for the printer are being met (see "Environmental product stewardship program" on page 218).

- Maintenance might be due. Check this by printing a copy of the supplies status page (see "Supplies status page" on page 156). If maintenance is due, order and install the printer maintenance kit. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)

Page skew

- Print a few more pages to see if the problem corrects itself.

- Verify that there are no torn pieces of paper inside the printer.

- Make sure that paper is loaded correctly, all adjustments have been made, and the paper is under the corner tabs (see "Orienting media" on page 31).

- Turn over the stack of paper in the tray. Also, try rotating the paper 180°.

- Make sure that paper type and quality meet HP specifications (see "Specifications" on page 164).

- Make sure that the environmental specifications for the printer are being met (see "Environmental product stewardship program" on page 218).

Curl or wave

- Turn over the stack of paper in the tray. Also, try rotating the paper 180°.

- Make sure that paper type and quality meet HP specifications (see "Specifications" on page 164).

- Make sure that the environmental specifications for the printer are being met (see "Environmental product stewardship program" on page 218).

- Try printing to a different output bin.

- If media is lightweight and smooth, try using a low fuser mode to reduce the heat in the fusing process. At the printer control panel, use CONFIGURE FUSER MODE MENU on the **Paper handling** menu to do this (see "Paper handling menu" on page 176).

Wrinkles or creases

- Print a few more pages to see if the problem corrects itself.

- Make sure that the environmental specifications for the printer are being met (see "Environmental product stewardship program" on page 218).

- Turn over the stack of paper in the tray. Also, try rotating the paper 180°.

- Make sure that paper is loaded correctly, all adjustments have been made, and the paper is under the corner tabs (see "Orienting media" on page 31).

- Make sure that paper type and quality meet HP specifications (see "Specifications" on page 164).

- If envelopes are creasing, try storing envelopes so that they lie flat.

Preventing wrinkles on envelopes

If envelopes are wrinkled when printed, first ensure that you are using supported types of envelopes. Then, use the following procedure to move the fuser levers to the higher position while printing the envelopes.

To prevent wrinkles on envelopes

1   Open the left door (If an optional output device is installed, first slide it away from the printer).

WARNING!
Avoid touching the adjacent fusing area. It can be HOT.

2   Locate and lift up the two blue levers.

3   Close the left door.

When finished printing the envelopes, return the fuser levers to the down position for standard paper types.

CAUTION
Failure to return levers in the down position for standard paper types might result in poor print quality.
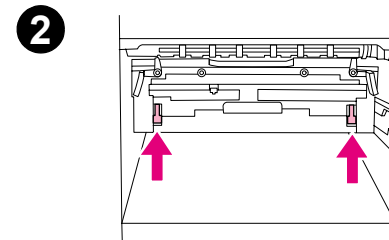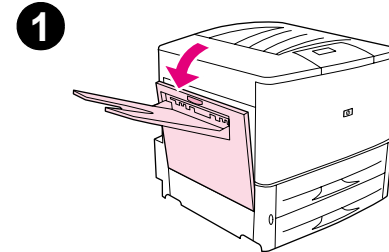
Detecting printer problems

Troubleshooting checklist

- Print job on custom paper does not fit correctly
- Problems with the stapler/stacker
- Problems with the multifunction finisher

Note   For more information about an optional HP output device, see the *use* guide that came with the device.

Determining printer problems

| Situation	Solution
A printer cover is open.	Firmly close the printer doors (left, front, and right).
Correct size of paper is not loaded.	Check paper trays to be sure the correct sizes are loaded as configured. Also, check that guides are set correctly.
Display is blank, and internal fans are not running.	Make sure that the printer power is on. Press all the keys to see if one is stuck; contact your HP-authorized service representative if this does not work.
Messages appear in the display.	See "Understanding printer messages" on page 103.
Paper is jammed in the printer.	Check for paper jams (See "Clearing jams" on page 83).
Paper tray is out of paper.	Load paper. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
Printer display is in the wrong language or displays unfamiliar characters.	Reconfigure the control panel display language. See the *start* guide, or press ✔ while simultaneously pushing the power switch ON. Hold ✔ until SELECT LANGUAGE appears, then release ✔. Use ▲ and ▼ to select the desired language. Press ✔ to save your selection. The control panel display will indicate the printer is ready to use. If the new language does not appear in the display, you might not have pressed ✔ to save your new selection.
Printer is not turned on.	Press the printer control button to turn the printer on (button in).
Printer is not working at all.	Plug the AC power cord firmly into the grounded power receptacle and into the printer. (Be sure the power source is energized.)

Situation	Solution
Printer is turned on, but internal fans are not running.	Make sure the line voltage is correct for the printer power configuration. (See the plate next to the power receptacle on the back of your printer for voltage requirements.) If you are using a power strip and its voltage is not within specification, plug the printer directly into the power receptacle.
Printer voltage is not correct.	Make sure line voltage is in the correct range. (See the product label next to the power receptacle on the back of the printer for voltage requirements.)

Software, computer, and printer interface problems

Situation	Solution
A page fails to print.	Set `PRINT PS ERRORS=ON`, and then send the job again to print a PS error page. If this does not identify the problem, try turning off **Resource Saving** and **I/O Buffering** or try installing more memory (See "PCL or PS font list" on page 159).
A page prints with clipped margins.	If the page margins are clipped, you might have to print the page at 300-dpi resolution or install more memory. Also try turning off **Resource Saving** and **I/O Buffering**.
A PS error page prints.	• Make sure the print job is a PS job. • Check to see whether your program expected you to send a setup or PS header file to the printer. • Check the printer setup in your software application to make sure that the printer is selected. • Check cable connections to ensure that they are secure. • Reduce the complexity of the graphic. • Add available memory by turning on Resource Saving.
A text listing of PS commands prints instead of your PS print job.	The control panel `PERSONALITY=AUTO` setting might have been confused by a nonstandard PS code. Check the `PERSONALITY` setting to see if it is set to `PS` or `PCL`. If it is set to `PCL`, set it to `PERSONALITY=AUTO`. If it is set to `AUTO`, set it to `PS` for this print job only. When the job has printed, return the setting to `AUTO`.
Attempted to use a disk-resident font, but the printer substituted a different font.	If you are using PCL, print the PCL Font Page, and verify that the font is on the disk. If you are using PS, print the PS Font Page and make sure that the font is on the disk. If the font is not on the disk, use the HP Resource Manager or the Macintosh-based HP LaserJet utility to download the font.

Situation	Solution
Auto setup did not automatically set up the printer.	● Set up the printer manually by selecting **Configure**. ● Select an alternate PPD (See "Selecting an alternate PPD" on page 149). ● The PPD might have been renamed. If so, select the renamed PPD (See "Selecting an alternate PPD" on page 149). ● A network queue might be present.
Blank pages print.	● Turn the printer off and then back on. ● Make sure the printer cartridge is installed properly.
Cannot access Tray 2 or 3, or optional Tray 4.	Make sure that the paper tray guides are adjusted correctly for the paper size you are using. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
Cannot clear `MANUALLY FEED [TYPE] [SIZE]` message.	● A previous print job might still be in the printer buffer. ● Make sure that optional Tray 1 has the correct paper size loaded. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
Computer software problem.	Check that your computer is working correctly by printing from a program you know works, or by printing a plain text file to see if the problem is with your program or with your printer driver. (For example, `C:\dir>LPTn` where `n` is the number of the computer port the printer is connected to, for example LPT1.) To print the page, you might have to send a form feed command from your computer.

Situation	Solution
Connection cannot be established or seems to take longer than usual.	• Use a device that is IRDA-compliant; look for an IRDA symbol on the device, or see the computer user guide for IRDA specifications. • Make sure that the operating system on your computer includes a FIR driver and that your program uses a compatible driver. (Note that complex pages take longer to print.) • Position the HP Fast InfraRed Receiver within the range of operation described in "Printing a job using FIR" on page 72, and make sure that no object is blocking the connection. (This object could be a hand, paper, books, or even bright light.) • Make sure that the two IR ports are clean (free from dirt and grease). • Make sure that no bright light is shining directly into either IR port. Bright light of any kind (sunlight, incandescent light, fluorescent light, or light from an infrared remote control, such as those used for TVs and VCRs) shining directly into one of the IR ports might cause interference. • Position the portable device closer to the FIR port on the printer.
Control panel settings, such as RESOLUTION or ORIENTATION, do not work or are ignored.	Software commands override control panel settings (See "Using control panel menus" on page 15 for information about how your program works with control panel settings).
Data from a previous print job is still in the printer buffer.	• Make sure that you are using the correct printer driver. • A complex print job might still be processing. • Make sure the printer is not paused. Make sure the control panel reads PROCESSING JOB. • Pull out the print cartridge and check for paper. Reseat the print cartridge. • Open Trays 2 and 3. Make sure that the appropriate paper is inserted. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) Close the trays.

Situation	Solution
Data is missing, but there are no printer messages.	• Check your software application to be sure the print file contains no errors. • Check your cable to make sure it is securely connected to both the printer and the computer. • Your parallel printer cable might be defective. Use a high-quality cable. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/ for an HP cable part number.) • Check your network connection.
Data light is flashing, but nothing prints.	• Make sure that you are using the correct printer driver. • A complex print job might still be processing. • Make sure the printer is not paused. Make sure the control panel reads `PROCESSING JOB`. • Pull out the print cartridge and check for paper. Reseat the print cartridge. • Open Trays 2 and 3. Make sure that the appropriate paper is loaded. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) Close the trays.

Disk failure
`EIO x DISK`
`NOT FUNCTIONING`
	Turn the printer off and make sure that the EIO hard disk is inserted correctly and is securely fastened. If the control panel message continues to be displayed, the EIO hard disk needs to be replaced.

Disk is not initialized
`DISK x NOT`
`INITIALIZED`
	Use the Windows-based HP Resource Manager or the Macintosh-based HP LaserJet Utility to initialize the disk.

Disk is write-protected
`DISK IS`
`WRITE PROTECTED`
	Fonts and forms cannot be stored on the disk when the disk is write-protected. Use the Windows-based HP Resource Manager or the Macintosh-based HP LaserJet Utility to remove the write protection from the disk.

Situation	Solution
Driver might not be set up to print on both sides of the paper.	Make sure that the option to print on both sides of the paper is properly configured in the driver.
Duplex printing accessory jams.	Make sure that you are using the supported paper weights and sizes. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
FIR port status indicator does not light up.	• Make sure that the printer is in READY mode and that the FIR port you are printing from is IRDA-compliant and within the range of operation described in "Printing a job using FIR" on page 72. • Make sure that the HP Fast InfraRed receiver is properly connected to the printer. • Run the printer Self Test. Make sure that FIR POD (IRDA Compliant) is printed under Installed Personalities and Options.
First page takes much longer to print than following pages.	• Make sure that the printer displays READY. • Set the **PowerSave** feature for a longer time period (See "Configuration page" on page 155). If a page takes longer to print due to complex formatting commands, changing the **PowerSave** setting might not improve print speed. You might want to simplify the page.
Garbled pages print, there are overprints, or only a portion of a page prints.	• Make sure that your program is configured for the correct printer. • Replace the printer interface (I/O) cable with a cable you know works to see if the cable is defective. • Your parallel printer cable might be defective. Use a high-quality cable. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/ for an HP cable part number.) • Set the PERSONALITY item in the Configuration menu to AUTO (See "PERSONALITY=AUTO" on page 186). The printer might have been set to PCL, and a PS job was sent to the printer, or vice versa. • Data sent to the printer might be corrupt. Try sending another file to see if it prints.

Situation	Solution
General operation problems.	For general paper operation information, see "Printing tasks" on page 30.
General repeated stapler jam problems.	● Check to see that the job to be stapled is less than five mm (.08 inch) thick. ● Stapler might have some trapped staple wires that are obstructing the magazine. Remove loose staples and paper dust from the inside of the stapler (See "To clear a staple jam from the optional stapler/stacker" on page 96).
Job has been properly sent, but the printer will not print.	If the connection is broken before the entire print job has been transmitted to the printer (printing has not yet started), the printer might not print any of the job. Press CANCEL JOB to clear the printer memory. Then, reposition the portable device within the range of operation described in "Printing a job using FIR" on page 72, and print the job again.
Job has incorrect fonts.	● If you are printing an .EPS file, try downloading the fonts contained in the .EPS file to the printer before printing. Use the HP LaserJet Utility (See "Software for Macintosh computers" on page 24). ● If the document is not printing with New York, Geneva, or Monaco fonts, go into the **Page Setup** dialog box, and select **Options** to deselect substituted fonts.
Job is not sent to the desired printer.	Another printer with the same or similar name might have received the print job. Make sure that the printer name matches the name selected in the **Chooser** (See "Selecting an alternate PPD" on page 149).

Situation	Solution
Job prints in Courier (the printer default font) instead of the font you requested.	• The requested typeface is not available in the printer or is not present on the disk. Use a font download utility to download the desired font. • Fonts downloaded to memory are lost when the printer is turned off. They are also lost if Resource Saving is not used, and a personality switch is performed to print a PCL job. Disk fonts are not affected by PCL jobs or by turning the printer off. • Print a PS Font Page to verify that the font is available. If a disk font appears to be missing, it might be because a software utility was used to delete the font, because the disk was re-initialized, or because the disk drive is not installed correctly. Print a configuration page to verify that the disk drive is installed and is functioning correctly. • Print a Disk Directory to help identify available fonts.
Job prints on the wrong side of the paper.	• Make sure you have loaded the paper correctly. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) • If you are printing one-sided copies, load paper into optional Tray 1 with the side to be printed facing up. Load paper in Trays 2, 3, and optional Tray 4 with the side to be printed facing down. • If you are printing two-sided copies, load paper into optional Tray 1 with the first side to be printed facing down. Load paper in Trays 2, 3, and optional Tray 4 with the first side to be printed facing up.
Job was not duplexed.	• Print a configuration page to ensure that the duplex printing accessory is installed properly (See "Configuration page" on page 155). • Make sure the duplex printing accessory has been configured in the printer driver. • Make sure that the software is not overriding the printer driver setting.

Situation	Solution
Job was not stapled.	Jobs sent to the stapler might not be stapled for one or more of the following reasons: ● One-page jobs will not be stapled. ● The stapler is out of staples and `AUTO CONTINUE` is set to `ON`. ● The wrong size or type of paper was used for the job. ● More than 50 pages were sent to the stapler, exceeding its capacity. ● The stapler has bent or broken staples in the stapler head. ● A staple jam was recently cleared (up to two sequential jobs might not be stapled). ● The job was sent to a bin other than the stapler bin because the wrong size or type of paper was used for the job. ● The interface cable to the stapler unit might be defective or not connected properly.
Job went to a different location than was expected.	The wrong size or type of paper was used for the job. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.)
Last page did not print and the Data light is on.	● Make sure that you are using the correct printer driver. ● Complex print job might still be processing. ● Printer might be waiting for the end of a file that did not come with the job. Press ✓ to send it. ● Make sure the printer is not paused. Make sure the control panel reads `PROCESSING JOB`. ● Pull out the print cartridge and check for paper. Reseat the print cartridge. ● Open Trays 2 and 3. Make sure that the appropriate paper is loaded. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) Close the trays.

Situation	Solution
`LOAD TRAY x` `[TYPE] [SIZE]` paper size message	Load the requested paper size, or press ✓ to print on a size already loaded. The printer has a job in the buffer and is waiting to print on the correct paper size. Set the paper type in the control panel (See "Control panel menus" on page 172).
Network or shared printer problems.	Check for network or shared printer problems by connecting your computer directly to the printer and printing from a program you know works. If you suspect network problems, check with your network administrator or consult the network documentation that came with your printer network cards.
Optional Tray 4 will not work.	The power cord is not firmly plugged in to both the printer and the power receptacle. Remove and reconnect the power cord.
Paper is loaded into optional Tray 1, and the control panel displays a load or manual feed message.	Load the correct paper in the tray. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) If the correct paper is already loaded, press ✓ .
Paper is not going to the correct output location.	• Verify that the correct output bin is selected in the printer driver. For more information about changing printer driver settings, see the online help. • The paper does not meet the specifications for the output bin (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/).
Paper jams and paper-feeding problems.	• See "To clear jams in Trays 2 and 3" on page 87 or "To clear jams in optional Tray 4" on page 88. • Ensure that paper specifications are within recommended range. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) • Make sure the paper guides are adjusted properly and are not skewed. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) • Perform preventive maintenance if requested by the printer.

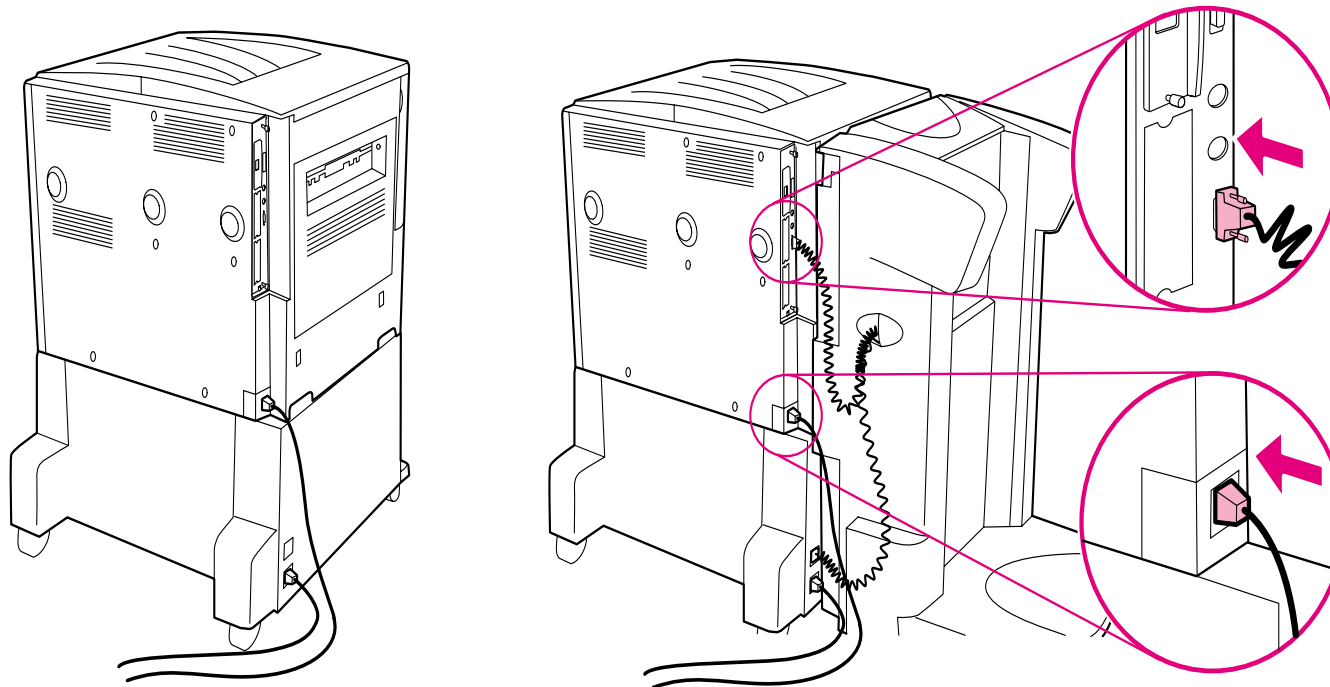| Situation	Solution
Paper size adjustment and installation.	See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.
Printer does not recognize the duplex printing accessory.	• Print a configuration page to ensure that the duplex printing accessory is installed properly (See "Configuration page" on page 155). • Turn the printer off. Remove and reinstall the unit. Turn the printer on. • Make sure that the duplex printing accessory has been configured in the printer driver.
Printer does not recognize the hard disk.	Turn the printer off and verify that the hard disk is inserted correctly and is securely fastened.
Printer does not recognize optional Tray 4.	• Make sure you selected optional Tray 4 in the printer driver (See "Helpful printer software for increased printing flexibility" on page 17). • Turn the printer off and then back on. • Make sure the power cord is plugged into optional Tray 4 (See "Cabling configurations" on page 148). • If the printer still does not recognize optional Tray 4, contact your dealer or authorized HP service provider.
Printer does not recognize stapler.	Check the cable to the stapler. Make sure it is properly connected at both ends (See "Cabling configurations" on page 148).

Situation	Solution
Printer draws paper from the wrong tray.	• Be sure your program is selecting the correct paper size or type. • Make sure that the driver for your program is correctly installed, configured, and capable of requesting the desired paper size and type. • The size of paper requested is not loaded in the tray selected. The printer draws paper from the next default tray that contains the correct size. Load the correct paper in the tray and make sure the tray is adjusted correctly. Load the tray with enough paper to complete the print job. • If you selected Tray 2, 3, or optional Tray 4 and did not turn the printer off when installing it, the printer does not recognize it and draws paper from the next default tray source. Turn the printer off, then back on, and the printer will recognize the tray.
Printer interface problems.	Print a configuration page from the printer control panel to verify that the interface configurations shown on the printout match those on the host computer (See "Configuration page" on page 155).
Printer is paused.	Press PAUSE/RESUME. The printer control panel should display READY and the Ready light should be lit. Resume printing.
Printer is off or not connected to an active power source.	Make sure that all power cables are firmly plugged in to both the printer components and an active power source. Make sure the printer is on.
Printer is ready, but not receiving data (the Data light does not blink).	• Check for loose I/O cable connections at the printer and computer or network port. • Try your I/O cable on a system that you know works. • Check that the correct interface cable was selected and is securely connected to both the printer and the computer. If the cable is not correctly configured, see the *start* guide for configuration information. • If connected to a network, print a Jetdirect configuration page to check for interface or network problems (See "Configuration page" on page 155).

Situation	Solution
Printer is usually slow to respond.	• Printer speed is highly dependent on how your software application is set up, which printer driver you are using, and how much traffic is on the network. See the *start* guide for configuration information. • You might need to add more memory (See "Installing memory" on page 200).
Printer port problem.	Check that your computer port is configured and working properly. One way to check this is to connect another printer to that port on your computer and print from a program you know works.
Printer prints only part of a page or document.	The connection has been broken during transmission. If you move the portable device during transmission, the connection can be broken. IRDA-compliant devices are designed to recover from temporary connection interruptions. You have up to 40 seconds to re-establish the connection (depending on the portable device being used).
Printer prints wrong fonts or formats.	• The font is not present in the printer and must be downloaded from your program, or the proper font DIMM must be installed. Check your program to make sure the correct printer driver has been installed and configured. To verify that the font you want is available, print a PS or PCL font list (See "Information menu" on page 175). • Your software selected a substitute font for one that is not available in the printer. (See your software program manual for more information about font selection.)

Situation	Solution
Printing stops in the middle of the job.	• Check the control panel display for an error message. • If you are on a network, make sure the computer is correctly configured and that there is not a network problem (see your network administrator). • Check the line voltage to make sure that it is steady and within printer specifications. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) Turn the printer off and then back on. • Check the time-out setting in your network application. You might need to increase it. • If you are trying to copy a file to the printer from the DOS prompt, use the copy command `COPY [filename] LPTn /B` printer port, such as LPT1 (where `n` is the port number). **Note** To output the page, you might have to send a form feed command from the computer.
PS print job will not print.	Check the configuration in the **PostScript** tab of Windows. Check that **Protocol** is set to AppleTalk and that **Binary Data** is not selected.
Software is selecting the wrong port.	Check your operating system port settings to be sure the print job is being sent to the correct port (for example, LPT1).
The control panel and driver are not set to the same paper size.	Make sure that the custom paper size defined from the control panel and the custom paper size defined in the driver are the same.
The file you are trying to print might not have the option to print on both sides of the paper turned on.	Make sure that the option to print on both sides of the paper is configured in the driver.

Situation	Solution
The FIR status indicator turns off during transmission.	The connection might have been broken. Press CANCEL JOB to clear the printer memory. Then, reposition the portable device within the range of operation described in "Printing a job using FIR" on page 72, and print the job again.
The Macintosh computer is not communicating with the printer.	• Make sure the printer control panel displays READY. • Make sure the correct printer driver is selected in the left half of the **Chooser.** Then make sure that the desired printer name is selected (highlighted) on the right half of the **Chooser**. There will be an icon next to the printer name after the driver has been set up and configured with the PPD. • If the printer resides on a network with multiple zones, make sure the correct zone is selected in the **AppleTalk Zones** box in the **Chooser**. • Make sure the correct printer has been selected in the **Chooser** by printing a configuration page (See "Configuration page" on page 155). Make sure the name of the printer displayed on the configuration page matches the printer in the **Chooser**. • Make sure **AppleTalk** is active. (Select this in the **Chooser** or in the AppleTalk control panel, whichever is applicable for your OS version.) • Make sure the computer and printer are on the same network. From **Control Panels** in the **Apple** menu, select the **Network** (or the AppleTalk) control panel and then choose the correct network (for example, LocalTalk or EtherTalk).
The printer driver icon does not appear in the **Chooser**.	Make sure the Apple LaserWriter 8 **Chooser** extension resides in the Extensions folder. If it is not present anywhere on your system, you can obtain the driver from your Macintosh OS system software CD, from Apple Computer, Inc., or see the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.
Type has been specified as labels, transparencies, or envelopes.	• Make sure that the media type can be printed on both sides. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) • Change the media type to the proper media type for printing on both sides.

Cabling configurations

Selecting an alternate PPD

This section, which only applies to Macintosh users, explains how to select an alternate PPD.

To select an alternate PPD

1   Open the **Chooser** from the **Apple** menu.

2   Click the LaserWriter 8 icon.

3   If you are on a network with multiple zones, select the zone in the **AppleTalk Zones** box where the printer is located.

4   Click the printer name you want to use in the **Select a PostScript Printer** box. (Double-clicking will immediately generate the next few steps.)

5   Click **Setup.** (This button might read **Create** for first-time setup.)

6   Click **Select PPD.**

7   Find the desired PPD in the list and click **Select**. If the desired PPD is not listed, choose one of the following options:

   ◆   Select a PPD for a printer with similar features.
   ◆   Select a PPD from another folder.
   ◆   Select the generic PPD by clicking **Use Generic**. The generic PPD allows you to print, but limits your access to printer features.

8   In the **Setup** dialog box, click **Select**, and then click **OK** to return to the **Chooser**.

Note   If you manually select a PPD, an icon might not appear next to the selected printer in the **Select a PostScript Printer** box. In the **Chooser**, click **Setup**, click **Printer Info**, and then click **Update Info** to bring up the icon.

9   Close the **Chooser**.

Renaming the printer

If you are going to rename the printer, do this before selecting the printer in the **Chooser**. If you rename the printer after selecting it in the **Chooser**, you will have to go back into the **Chooser** and reselect it.

Use the **Printer Name** feature in the **HP LaserJet Utility** settings to rename the printer.

Communicating with an optional HP Jetdirect print server

If the printer contains an optional HP Jetdirect internal print server, and you cannot communicate with the printer over the network, verify the operation of the print server. Check the Jetdirect Configuration Page for the message I/O CARD READY. (To print a configuration page, press 22 for five seconds while the printer is idle.) For troubleshooting information, see the HP Jetdirect administrator's guide.

HP Jetdirect 610N 10/100TX Print Server

If the printer contains an optional HP Jetdirect 10/100TX print server, check to see that the print server was able to link to the network. (If you have a different HP Jetdirect print server, see the guide that came with it.)

● Check the link-speed indicators (10 or 100) on the print server. If both are off, the printer server failed to link to the network.
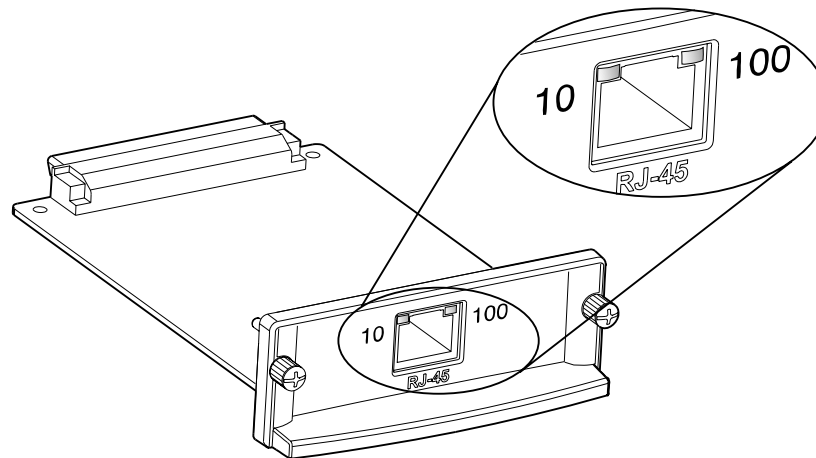
● Check the HP Jetdirect configuration page. The message LOSS OF CARRIER ERROR indicates that the print server failed to link to the network.

The HP Jetdirect 10/100TX print server might require up to 10 seconds to establish a link to the network. If the print server failed to link, verify that all cables are correctly connected. If all cables are correctly connected, but the print server still fails to link, follow the steps below to reconfigure the print server:

1   Use the **EIO** menu to manually set the link speed (10 or 100 Mbps) and communication mode (full or half-duplex) so that they match the network. (See "EIO submenu" on page 190). For example, if the port on the network switch is set for 100TX full-duplex operation, you must set the print server for 100TX full-duplex operation.

2   Turn the printer off and back on and check the print server operation. If the print server fails to link, try a different network cable.

Checking the printer configuration

From the printer control panel, you can print pages that give details about the printer and its current configuration. The following information pages are described here:

- Menu map
- Configuration page
- Supplies status page
- Usage page
- PCL or PS font list
- File directory page
- Jetdirect
- Event log
- Paper path test

Use this procedure to print these information pages. Then, see the specific sections below for more information about each page.

To print an information page

1   Press ✓.

2   Use ▲ or ▼ to scroll to `Information` and press ✓.

3   Use ▲ or ▼ to scroll to the information page you want and press ✓.

Note   To print a configuration page, press 22 on the numeric keypad. To print a menu map, press 21 on the numeric keypad.

Menu map

To see the current settings for the menus and items available in the control panel, print a control panel menu map. Many of these values can be overridden from the printer driver or program. You might want to store the menu map near the printer for reference.

The content of the menu map varies, depending on the options currently installed in the printer. For a complete list of control panel items and possible values, see "Control panel menus" on page 172. To change a control panel setting, see "Control panel menus" on page 172.

Configuration page

Use the configuration page to view current printer settings, to help troubleshoot printer problems, or to verify installation of optional accessories, such as memory (DIMMs), paper trays, and printer languages.

Note   If an HP Jetdirect print server is installed, an HP Jetdirect configuration page will print out as well.

The configuration page contains the following information:
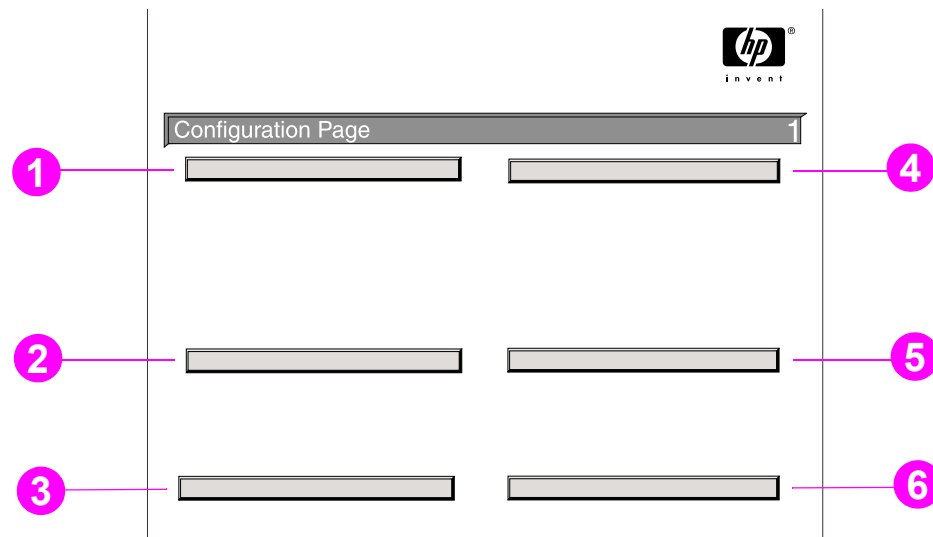
1   **Printer Information** lists the serial number, HP JetSend IP addresses, page counts, and other information for the printer.

2   **Event Log** lists the number of entries in the log, the maximum number of entries viewable, and the last three entries. The second page of the event log is the manufacturer's page. This page contains information that might assist HP Customer Care representatives in solving possible printer problems.

3   **Installed Personalities and Options** lists all printer languages that are installed (such as PCL and PS), and lists options that are installed in each DIMM slot and EIO slot.

4   **Memory** lists the printer memory information, PCL Driver Work Space (DWS), and I/O buffering and Resource Saving information.

5   **Security** lists the status of the printer control panel lock, control panel password, and disk drive.

6   **Paper Trays and Options** lists the size settings for all trays and lists optional paper-handling accessories that are installed.

Note   Numbers in the sample printout match the numbers in the printer messages. (See the *introduce* guide on the product CD, or go to www.hp.com/cposupport/.) The content of the configuration page varies, depending on the options currently installed in the printer.

Supplies status page

Use the supplies status page to obtain information about the toner cartridge installed in the printer, the amount of toner left in the toner cartridge, and the number of pages and jobs that have been processed. The page also lets you know when you should schedule the next preventative maintenance.

The supplies status page contains the following information:
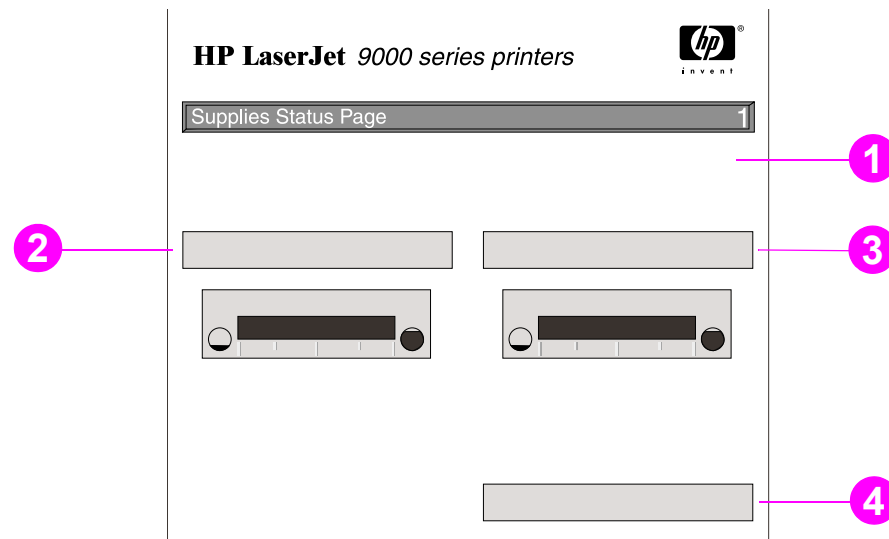
1   **Supplies website** is the local website for ordering supplies through the Internet.

2   **Cartridge Information** indicates the amount of toner available in the print cartridge, estimated pages
    remaining for the amount of toner left in the cartridge, total number of pages and jobs processed, print
    cartridge manufacture date and serial number, and how to recycle HP print cartridges.

3   **Other Supplies Information** indicates the percentage of the maintenance kit has been used and the HP
    part numbers.

4   **Printer Information** lists total printer page count, preventative maintenance interval, pages until next
    maintenance should be performed, and serial number of the printer.

Usage page

Use the usage page to obtain information about the page sizes and number of pages printed.

The usage page contains the following information:

HP LaserJet *9000 series printers*

Usage Page (S/N XXXXXXXXXX)
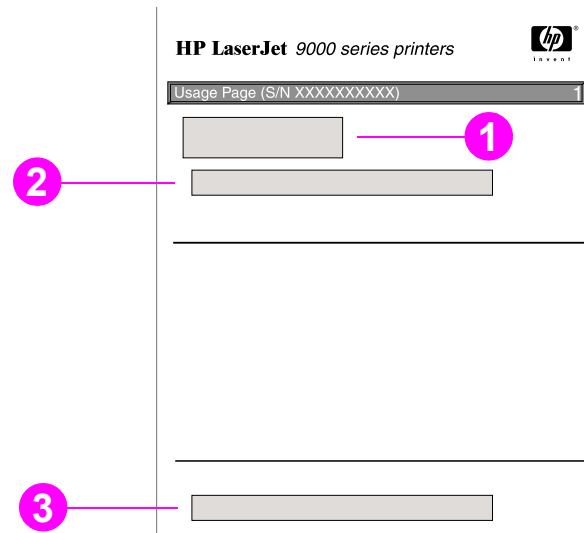
1   **Product Name** and **Printer Name** indicate the series of HP LaserJet printer in use.

2   **Usage Totals** indicates types of pages that have been printed, the number of single-sided pages printed, the number of duplexed pages printed, and the total number of pages printed.

3   **Coverage** indicates the amount of toner used on a page.

PCL or PS font list

Use the font lists to see which fonts are currently installed in the printer. (The font lists also show which fonts are resident on a hard disk or flash DIMM.)

The PS font list shows the PS fonts installed, and gives a sample of those fonts. The following describes the information that can be found on the PCL font list:

●   **Font** gives the font names and samples.

●   **Pitch/Point** indicates the pitch and point size of the font.

●   **Escape Sequence** (a PCL 5e programming command) is used to select the designated font. (See the legend at the bottom of the font list page.)

Note   For step-by-step instructions about using printer commands to select a font with MS-DOS programs, see "Common PCL 5e printer commands" on page 212.

●   **Font #** is the number used to select fonts from the printer control panel (not the software application). Do not confuse the font # with the font ID, described below. The number indicates the DIMM slot where the font is stored.

     ◆   SOFT: Downloaded fonts that stay resident in the printer until other fonts are downloaded to replace them or until the printer is turned off.

     ◆   INTERNAL: Fonts that permanently reside in the printer.

●   **Font ID** is the number you assign to soft fonts when you download them through software.

File directory page

The file directory page contains the following information:

HP LaserJet *9000 series printers*

File Directory Page   1
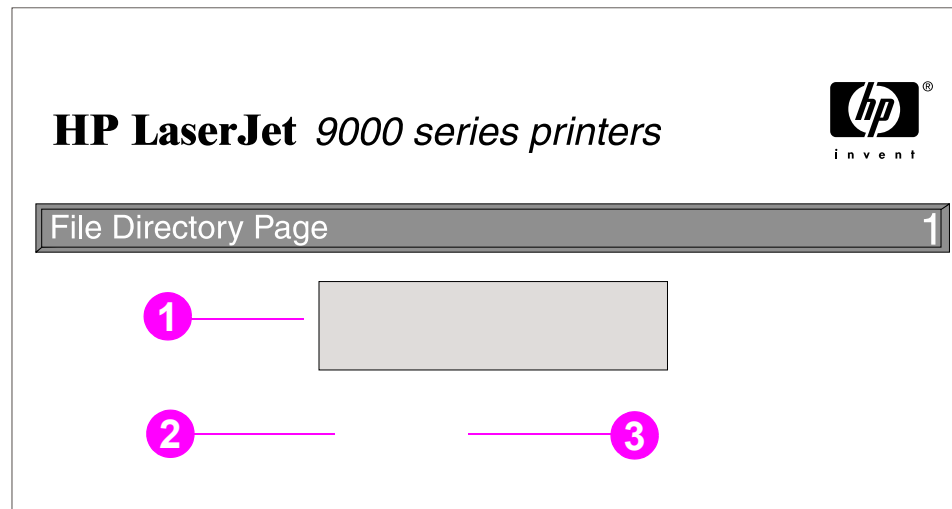
1   **Disk Information** indicates the disk model number, serial number, capacity, available free space, and whether you might write to the disk.

2   **File Size** column indicates the size of each file under the Directory/File Name column. If a directory is listed on the line, then Directory appears in this column, and its path is listed in the Directory/File Name column.

3   **Directory/File Name** indicates the name of the file. Files in a subdirectory are listed right after the directory line. The files are not necessarily listed in alphabetic order.

Jetdirect page

The Jetdirect page contains the following information:
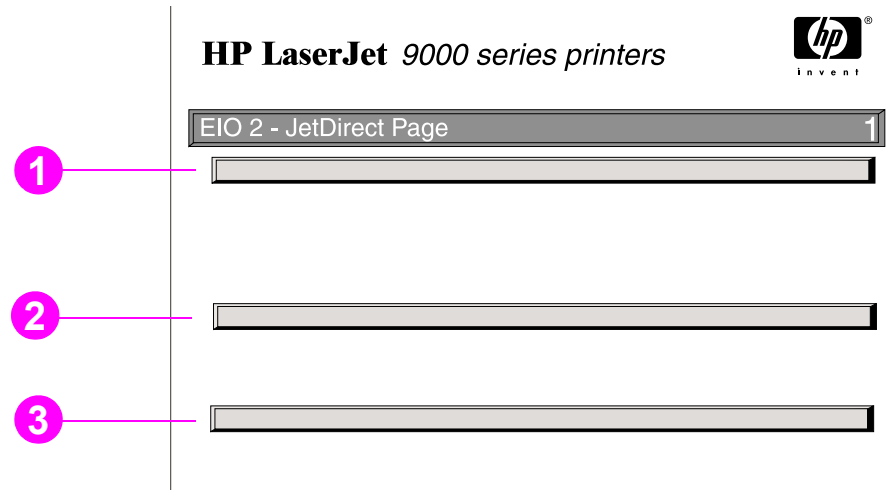
1   **HP Jetdirect Configuration** indicates the printer status, model number, hardware firmware version, port select, port configuration, auto negotiation, manufacturing identification, and manufactured date.

2   **Network Status** indicates the total packets received, unicast packets received, bad packets received, framing errors received, total packets transmitted, unsendable packets, transmit collisions, and transmit late collisions.

3   **Protocol Information** indicates the status for TCP/IP, IPX/SPX, Novell/NetWare, AppleTalk, and DLC/LLC.

Event log page

The first page of the event log contains the following information:

HP LaserJet *9000 series printers*

Event Log Page   1
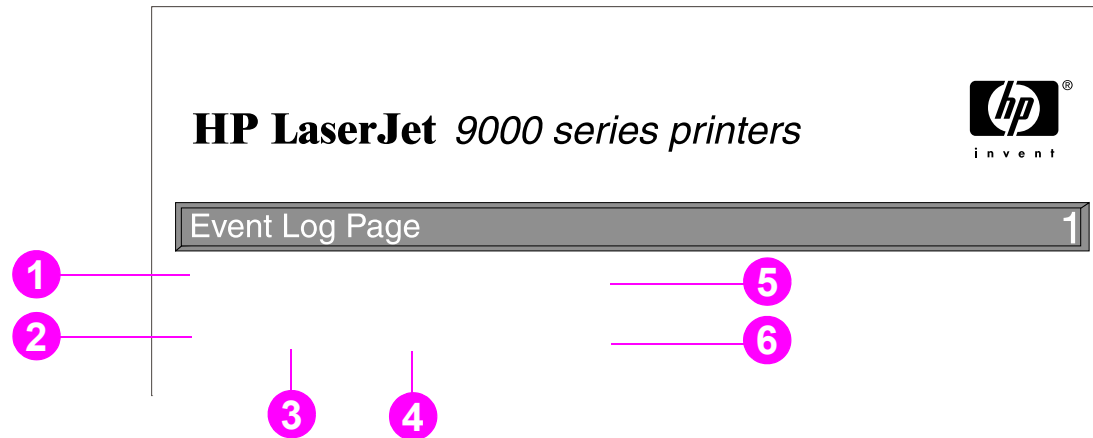
1   **Current Page Count** indicates the number of pages printed from the printer.

2   **Number** indicates the order in which the errors occurred. The last error to occur has the highest number.

3   **Error** indicates the internal error code for each error.

4   **Page Count** indicates the number of pages printed from the printer when the error occurred.

5   **Serial Number** indicates the serial number of the printer.

6   **Description or Personality** indicates whether the error occurred due to a problem within a printer personality or due to a printer jam.

The second page of the event log is the manufacturing page. This page contains information that might assist HP Customer Care representatives in solving possible printer problems.

To print an event log

1   Press ✓ .

2   Use ▲ or ▼ to scroll to `Configure Device` and press ✓ .

3   Use ▲ or ▼ to scroll to `Diagnostics` and press ✓ .

4   Use ▲ or ▼ to scroll to `Print Event Log` and press ✓ .

Printing a paper path test

The paper path test can be used to verify that various paper paths are working properly or to troubleshoot problems with tray configuration.

To print a paper path test

1   Press ✓ .

2   Use ▲ or ▼ to scroll to `Configure Device` and press ✓ .

3   Use ▲ or ▼ to scroll to `Diagnostics` and press ✓ .

4   Use ▲ or ▼ to scroll to `Set Paper Path Test` and press ✓ .

5   Use ▲ or ▼ to select the input tray you want to test, the output bin, the duplex printing accessory (if available), and number of copies, pressing ✓ after you set the value for each. After selecting the last option, the paper path test automatically starts.